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Airbnb in the real estate financial chain

Housing and policies in Southern European post-crisis territories

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Chiara Iacovone

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Summary

Platform economies are a capillary presence in today’s economic system. Through digital transmission and physical expansion, they represent a sprawling regeneration of capitalistic structures. Airbnb, as one of the primary peer-to-peer rental platform, also captures the most profitable assets that drive the global economy – the real estate market.

Considering the meaning behind the term infrastructure, with regards to the structural analysis of the urban economy, this research proposes a reflection both on the interpretation of Airbnb as a structural and infrastructural component of today's cities and as a fundamental link in the real estate financial chain.

The research seeks to understand the development of Airbnb, in the context of Southern European cities, as an infrastructural development that finds its roots in the austerity urbanism derived from the 2008 financial crisis.

The comparative analysis of Airbnb data correlated with local policies of liberalisation of real estate and the rental market, allow for a broader view on the development of Airbnb in relation to the global trend of financialisation of housing, thereby retracing the political consequence of platform urbanisation.

What emerges is a complex system of different kinds of infrastructures that merge and work together at different scales. The research aims to propose a zoomed-out and trans-scalar approach to platform economies, rather than a place-based analysis, and thus focus on the role of Airbnb as an economic, political and digital infrastructure to inscribe it in a politico–economic perspective to better understand its structure and performances as a global trend.

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To the Aphales bay

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Introduction

On Housing: the commodification of a right

Housing is an ambiguous concept that has been framed variously within the academic discourse, as a result of its variegated meanings, functions, and interpretations. Its interpretations swing between its materiality and symbolic values. The house as an object establishes its attributes in real estate as a financial asset, and also as a research object in formal architectural and technical experimentations on structure and space[1]. On the other hand, housing is the symbolic value of shelter and intimate space, an essential staple good and human right to fight for,[2] to the extent that the right to adequate housing was part of the Universal Declaration of Human Rights of 1948, and the International Covenant on Economic, Social and Cultural Rights of 1966 (UN-HABITAT, 2009).

Housing can be used as a sociotechnical vehicle for several urban dynamics: to spread urban transformation through development projects[3], design social change through the construction or dismantling of the social housing stock, enact demonstrations – like squats – as cultural, political and residential projects of

[1] That is, the experiments of the *existensminimum*, well inscribed in the cultural, political and economic context of modernity (CIAM, 1930).

[2] However, feminist literature stresses the role of private spatiality of the home as "a key site in the oppression of women" (Blunt and Dowling, 2006: 15; see also, Massey, 1994) and an unregulated work place.

[3] The counterparts of the designed city plans and developments projects are the *anti-renovation actions*. These are political tools to contrast the urban transformation heading towards gentrification processes. The inhabitants refuse to clean up (sometimes even tagging and spraying on walls) and contribute to adjustment works of the building to prevent the neighbourhood, and thus their houses, from becoming desirable for external buyers (Valisena and Norum, 2019).

contestations, trigger a political colonisation of a territory, such as the gated community enclaves or the Israeli colonies in Palestinian territories (Petti, 2007), and be the object of speculation in financial flows. As David Madden pointed out in a conference in 2017 titled, “What is Housing For?", hosted by the LSE, “housing is never only about housing, it is always about politics, power, class, identity, gender, citizenship and much else. The residential is always political, and removing the political dimension from housing is not feasible nor desirable" (Madden, 2017).

Within all the variegated meanings that housing embraces, in this research, the topic has been framed under a political economic approach, thus mostly analysed through an economic lens. Viewing housing through a political economic lens means to look at it as a contested and exploited object. Aalbers (2017) referred to the real estate financial complex to designate the variegated mechanisms of housing value exploitations. However, as Madden stated (2017), any interpretation of housing is inevitably connected with a variety of meanings, therefore adopting an economic lens does not mean excluding any of these other meanings, but rather addressing a prospective interpretation of its inextricably meaningful political role. The interpretation of housing as an economic good also inversely enhances its political character, as in how much housing has *lost* its political value and acquired a tradable one in the process of commodification of a basic need.

Housing commodification practices are variegated and multi-layered, and the link between housing and finance is not a contemporary relationship, and can be traced to the 1970s and 1980s, when the western world system progressively took a neoliberal turn (Crouch, 2009). The neoliberal turn meant the financialisation of the economy, and enhancing the influence of finance over every economic sector, the state apparatus and private daily life (Martin, 2002). This shift is also described by Harvey as the transition from modernity to postmodernity (Harvey, 2010a), a crucial watershed in several aspects of society, including the political economic transformation of capitalism from the Fordist mode of production towards the flexible accumulation that is the grassroots of finance. Nowadays, in many cases, finance logics overpower the “real economy” ones, dominating and regulating an alternative capitalistic mode of “production”.

This crucial passage also largely affected the housing sphere because, along with other sectors (such as infrastructures and urban planning), it became an integral part of the composition of the welfare state (Aalbers, 2017), and the neoliberalisation of it led to a dismantling of many social structures. The composition and the management of social housing among European countries vary in terms of stocks, policies, politics, cultural needs and demographic composition; however, a cross-countries trend saw a will to open up that market in different forms and times (Aalbers, 2017; Allen, 2006; Braga and Palvarini, 2013). The reiterated neoliberal attempts to speculate on the housing sphere led Samuel Stein to highlight the need to deal with a Real Estate State (2019), where capitalistic power and state control work together to exploit housing value.

The engagement of finance with the housing sphere has been gradual and indirect since the 2008 housing crisis, where the acknowledgement of the involvements and its repercussions have been clear and explosive (Lapavitsas, 2009). In the decade following the crisis, it was possible to understand the deep connection between housing and finance, with Aalbers (2017) stating that "[R]eal estate, and housing finance in particular, is not simply one of the many objects of financialisation: it is the key object of financialisation" (p. 545).

Today, the housing market is one of the most profitable fields of investments. The real estate market is worth about 217 trillion US dollars, almost "60 per cent of the value of all global assets, with residential real estate comprising 75 per cent of the total" (Farha, 2018: 3).

Platform economy or the making of an oligopoly

Within the variegated practices of housing speculation, the economic sector of the short-term rental market represents a profitable channel in which real estate financial fluxes can converge and join the market in an accessible and easily manageable way. In the last decade, the short-term rental market has seen staggering growth, thanks to the wide expansion of platform economy that, among other economic sectors, found a prolific terrain in accommodation. Platform economies are a capillary presence in today's economic system (Kenney and Zysman, 2016). Through digital transmission and physical expansion, they represent a sprawling regeneration of the capitalistic structure (Sadowski, 2020). According to a research conducted by AirDNA, from 2018 to 2019, the amount of properties in the Airbnb and HomeAway base increased by 24%.[4] The flip side is represented by the growth and evolution of the industry of tourism. The mass tourism trend is the counterpart of the evolution and consolidation of the short-term accommodation network. Prior to the COVID-19 pandemic, the World Tourism Organisation (UNWTO) published a document (UNWTO, 2020) that reported a global growth of 3.8% of international tourist arrivals in 2019, compared to 2018, and foresaw similar increases for 2020 (however, the real data reported a loss of 53%).

New forms of tourist accommodations that encourage renting out private properties rose, triggering a decrease of the traditional facilities and support for a new way of travel and experiencing tourism. Within a large panorama of accommodation platforms,

[4] https://www.ekathimerini.com/249621/article/ekathimerini/business/short-term-property-rental-market-saturated [17/08/2020]

Airbnb has maintained a leading position for many years. Competitors such as Booking.com, HomeAway, Vrbo have now gained relevant positions in the sector, but Airbnb remains the most studied and contested platform, because it is still able to dictate the rules with its business model (Guttentag, 2015).

Airbnb has captured the most profitable asset that drives the global economy, the real estate market, under the mantra of the sharing economy. The peer-to-peer sharing rhetoric (Schor, 2016) of Airbnb is built on the foundation that everyone can join the rent extractive market, encouraging single private users to utilise idle assets – such as an extra room or vacant house – to make extra money. However, from its launch in 2007, Airbnb has drastically changed its purpose to become a sustainable alternative in the accommodation sector, thereby an exclusive site of capital accumulation. In 2019, in the major European cities, it was recorded that more than 50% of the listings were managed by approximately 30% of the hosts (author analysis), meaning that few actors manage more than the half the economic capacity generated by the platform. Within the professional users, there is Oyo, which started out as an Indian hotel company and now is the owner of thousands of properties across Europe and worldwide; Skyes Holiday Cottage that owns approximately 17500 properties, and is completely funded by the private equity fund Vitruvian Partners, and the Greek Crucial Hospitality that provides consultancies from sales to rents through the Golden Visa programme for international buyers and investors. Today, Airbnb behaves as a channel for a variety of real estate firms that want to gain access to the flourishing STR market. The aim of this research is to disentangle the mechanisms through which the financial system is able to activate processes of housing exploitation in the field of the STR markets. By using Airbnb as a lens through which to look at these dynamics, the purpose is to study the composition of its users to better understand the dynamics of speculation and value extraction in the real estate sector. It is assumed that, on the one hand, big financial actors are involved and, on the other, medium and small actors also contribute to the processes of commodification of housing. Within the varieties of Airbnb users, both actors can be found, from those acting on a financial network level, profiting from the housing value generated by the positive rental activity, to those who manage a series of properties in a professional manner. For this reason, studying the panorama of the Airbnb users is a proxy to understand the new forms of housing financialisation.

The creative destruction of crises

The context that accompanied and facilitated the birth of these platforms can be found in the deregulated housing and rental market, and in the lack of regulations concerning the legislative framework in which the STR market companies have the possibility of expansion. It is worth noting that Airbnb, as well as Uber and other digital platforms, rose within a curious time coincidence.

In 2008, when the U.S. (and soon after the rest of the Western world) was struggling due to a huge economic crisis, the business model of the sharing economy was gaining support within an impoverished middle-class, proposing an alternative mode of exchange of goods and services. Together with the advancement of Airbnb, the great recession that started in the U.S. due to unsafe mortgages was leading to a pervasive housing crisis worldwide. Such crises landed in Europe in different forms, between 2009 and 2011, marking substantial varieties of deregulation measures being pursued by singular states, or pushed by international organisations, such as the European Commission or ECB (Knieling and Othengrafen, 2015). Housing and the rental market were two of the most stressed on fields in the economy of daily life that were deregulated due to their capability of unlocking a static economic condition through their easily accessible fixed capital.

The creative destruction force of the crises is another focal point in the argumentation of this research. The work is framed around the beginning of the 2008 economic crisis in the Southern European context. However, the discourse is broadly applicable to the meaning and consequences of any crisis. As Gentili (2019) highlighted, crises are commonly used as a governmental force to justify and legitimise political decisions. Based on Marxist theory and a political economic approach, a set of literature refers to crises as a natural phase in the process of regeneration of capitalism (see for e.g., Aalbers, 2009a; Harvey, 1978a, 1982; Krippner, 2011). Accounting for the dynamics of capital fluctuation as a fundamental process to keep it alive, the model "growth-crisis-growth-crisis" (Aalbers, 2013: 1088) is a consolidated model of perpetual birth from the ashes. Any crisis acts as the engine that wipes away forms of safeguard in the economy, moving towards an ever more deregulated system – from public cuts to the liberalisation of several market sectors. Crises can also be interpreted, as Harvey (2007, 2009) has argued, as a political manifestation to reconsolidating the class or corporate power on behalf of economic elites. They are an engine of disruption and regeneration – "neoliberalism was both conceived and born as a crisis theory" (Peck, 2012: 106). For this reason, the crisis of 2008 and, more broadly, any kind of crisis, as the one triggered by the COVID-19 pandemic suggests, represents a fundamental moment to frame the consolidation and transcendence of old and new economic paradigms.

The US mortgage crisis arrived in Europe as a financial crisis, potently hitting the southern countries, namely Portugal, Italy, Greece and Spain. The measures taken to rebalance public debt and finances were addressed to the restructuring of several economic sectors, and to an extended liberalisation of others. Portugal, pushed by the Troika in 2011, completely deregulated the subsidised rental market; Spain sold most of the social housing stock to private financial firms; Italy saw a deep employment crisis that flowed into the mortgage market; Greece, during the crisis, had issued a law that safeguarding residential houses from bank foreclosure. However, Greece is now dismantling that law, putting thousands who still cannot afford to pay their mortgages at-risk of eviction (Siatitsa, 2019). These policies led to the exposure of the yet unsaturated housing market, together with specific programmes of capital attraction, such as the subsidised tax regime for non-permanent residents or the "golden visa", made to increase capital fluctuations in the real estate market. Thanks to these actions, finance had the possibility to enter the formerly static housing market of Southern Europe.

Hadjimichalis (2017) affirmed that the crisis formed a fertile ground in Southern Europe because the entire region had been experiencing a long period of uneven development, carried out by the leading countries of the European Union (EU), starting approximately after the introduction of the single currency and by unfavourable trades agreements that drove these four countries to economic vulnerability. However, the mainstream narrative pursued by the dominant forces to condemn these financial failures has involved calling this part of Europe the "weakest", or attributing them to southern laziness and economic unaccountability. This has also been consolidated due to the image put forth by the Financial Times regarding the situation, in the article entitled "*PIGS in Muck*"[5] (where PIGS stands for: Portugal, Italy, Greece and Spain).

Such an image marked the recovery of an economic and geographical imagery that symbolised the revival of historical, cultural and social stereotypes, portraying differences between the Central-northern and Southern European cultures and taking back the southern society to being a subaltern other (Giaccaria and Minca, 2011a). Both Hadjimichalis (2017) and Leontidou (1996, 1993) read in these images an intention of Orientalising the Mediterranean region: "[T]he current rise of asymmetrical imaginations during the narrative of the crisis builds upon the longue durée of Mediterranean Orientalism" (Hadjimichalis, 2017: 83). Thus, Hadjimichalis called for a reformulation of "a New Southern Question", evoking the Gramscian analysis of the Italian Mezzogiorno, referring to how the last crisis in Southern Europe was ideologically framed by dominant European forces.

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[5] https://www.ft.com/content/5faf0b0a-778a-11dd-be24-0000779fd18c [20/04/2021]

Research statement

The objective of this research is to study the multiple and complex relationships between the real estate financial market and the STR one. The investigations are addressed to reconstruct the real estate financial chain (Sokol, 2017) with the aim to understand the various passages and levels of housing financialisation that, from international investments, passing through neoliberal policies, come to be part of the short-term accommodation market.

Airbnb is thus interpreted as a link in the chain, representing the channel where real estate speculations and investments can converge. Airbnb, as the lens through which the analyses are carried out, is used to unveil the infrastructural network of the financial flow through the examination of the users' professionalisation, and the role of investors, property managers and real estate firms within the platform.

The primary matter of the research relates to the role of housing in an increasingly financialised world. The progressive commodification of housing has led to a change in the paradigm of its perception and interpretation from a basic necessity to a mere economic one, thereby entering the fluid circuits of the financial market: from being a *home* to a *house* to a *commodity* (Blunt and Dowling, 2006). Such a change of paradigms also triggers a loss in the interpretation of housing as a basic need and a contested and political object. Politics in housing issues is losing its strength due to the multiple levels of commodification because it enforce the economic aspect over the social one. The role of housing as a key object of financialisation is thus also problematised in the wake of the de-politicisation of housing as a basic need.

In particular, some Southern European countries have been chosen to investigate these dynamics, to pursue the objective of the research – eight cities of South Europe (SE) (Athens, Thessaloniki, Lisbon, Porto, Madrid, Seville, Naples and Rome) have been chosen to document and analyse the trend and the performances of the STR and platform economy through the empirical analysis of Airbnb data. Furthermore, four of them (Athens, Lisbon, Madrid and Naples) have been chosen as case studies to analyse different experiences in the transition and management of the crisis, the dynamics of dealing with the commodification of housing, and the consequences of the mass tourism phenomenon.

Triggered by the crisis-led deregulation of the housing and rental market and the boom of low-cost tourism, Southern European cities represent a key site to investigate the relations between the financialisation of housing and the STR market. Exposed to the diktat of an economic recovery after the turbulent consequences of the 2008 crisis, the PIGS were politically oriented to an openness to the tourism industry, and liberalisation of many economic sectors. For STR platforms, these territories are a fertile ground to settle due to the low regulative framework and low costs. These dynamics demonstrate the structure and the links of the financial chain more than in others contexts. As a consequence, property managers, real estate firms and broadly, transnational landlords (Fields, 2019) took advantage of the extensiveness and the flexibility of the platform to enlarge their markets (Cocola-Gant and Gago, 2019).

The comparative analysis of Airbnb data, correlated with local policies of liberalisation of real estate and the rental market allow for a broader view of their development in relation to the global trend of financialisation of housing and retracing the political consequence of platform urbanisation. Thus, this research focusses on the analysis of this link – it proposes to study Airbnb prospectively, in order understand the geographies of housing financialisation. What emerges is a complex system of different kinds of infrastructures that merge and work together on different scales.

To pursue the wide research objective, the work aims to focus on the following research questions that move toward a re-interpretation of the issue, introduced with the aim of going beyond consolidated visions.

a) The first set of research questions relate to the interpretation of the crises. What dynamics were triggered by the crisis-as-*event*, and what other dynamics were caused by the crisis-as-*condition*? The investigations, further analysed by the analyses of the different cases, will focus on the dual interpretation that crises can be embraced as disruptive and de-regulative forces (Gentili, 2019) and a normalised aspect of urban life (Bayirbag et al., 2017). In both cases, the crisis can be used as an object of knowledge (Roitman, 2013).
b) Another set of questions is oriented toward the re-interpretation of Airbnb from its central and exclusive role in the STR market hierarchy, to a final link in a wider and more complex economic chain, and thus as a *channel* in which capital fluctuations can converge. The proposed approach is therefore to overstep the mainstream vision of Airbnb as a scapegoat for the massive speculation within the real estate and housing sector. In this wake, the questions that arise are as follows: Which are the main actors behind Airbnb? What kind of users perform better in the market generated by the platform? What kind of professional actors are they? How are they taking advantage of the infrastructure of Airbnb?
c) To understand what the role of Airbnb is as a channel in the contemporary circuit of real estate capital fluctuation, the discussion of three statements/hypotheses contributes to disentangle the questions posed in relation to the gateway role of Airbnb.
    - The first statement is that Airbnb is not acting as a peer-to-peer (P2P) platform anymore but rather behaves as a business-to-consumer (B2C) one.

It means that through its transitions, it links commercial activities with users rather than peers.

- The second statement is that to understand the branched nature of Airbnb, the way to analyse it should go further than the urban scale, and embrace a larger vision, taking into consideration its network capacity.
- The third is that Airbnb is part of the housing financial chain and thus, Airbnb could be a starting point to climb back into the chain.

d) The last set of questions, somehow summarising and gathering together the previous reflections, is oriented towards the investigation regarding the commodification of housing, and the resulting social and political repercussions. How does the STR market enable/accelerate the process of commodification of housing ? What are the types of commodification triggered by the STR market ? What are the political repercussions of this extended and multi-layered process of commodification ?

Structure

To deal with all of these tasks and research questions, the thesis has been organised to grant relevant space both to the theory and empirical parts. The three main theoretical chapters correspond to the three main pillars of complete research: the role of the crisis, the housing issue and the STR platform phenomenon. All of these macro-themes, in their relative chapters, are sounded out to frame, deepen and interrogate the issues and make them interact with the other. Indeed, the three theoretical parts represent the backbone of the research, each of them are on the same level, without a hierarchical relationship. Contextualising crisis theoretically is important to frame the continuous expansion and adaptation of the market of the platform economy and STR one; and to understand the roots of the deregulation practices in the field of housing, while relating housing to the STRs, is central to understanding the evolution of the rental market and the commodification of housing sphere. Each of them have a relationship with the other two, so that the three can be part of the same discourse.

Moreover, the three thematic chapters serve to conceptually frame the corresponding case studies linked to the theory, in several ways. Each box is divided in two subsections, the first one is to introduce the case study and is the part most connected to the theory treated in that section; for example, in the crisis chapter (Chapter 2), in the section where the various interpretation of crisis are analysed – whether it needs to be framed as an event or as a process – the case of Naples is presented that faced, almost fifteen years of a perpetual state of crisis (the waste emergency). The box of Athens refers to the legitimation of the crisis in the action of the states. In the housing chapter (Chapter 3), Lisbon is presented to describe a programmatic commodification of the housing stock, while Madrid demonstrates how finance can enter into the real estate market. These direct relationships between theoretical and empirical parts signify how relevant theories are to the grand frame, and how those are directly connected to political and interpretative consequences. The second section of the boxes is structured based on a set of literature that refers to the "Seeing like…" approach. This approach means problematising and dealing with the themes via several different perspectives: observing like the state, talking about the management of the 2008 financial crisis, both regarding an active presence or absence (Lisbon and Naples); observing like the city, reporting the role of the cities as part of inter-scalar networks (Athens); and observing like the market, investigating the global infrastructure of the financialisation of the real estate market (Madrid). Such an approach has been chosen in order to perpetuate the trans-scalar intent to structure the discourse of the research.

The third pillar, the platform economy chapter (Chapter 4) does not present boxes, but each case study is framed regarding the presence and relative problematics linked with Airbnb and the STR platforms. Here, the theory serves to frame the endemic presence of these kinds of platforms and to open up to the main relevant problematics.

The empirical chapter (Chapter 5) is specifically addressed to the analysis of the Airbnb data, but aims also to open up to other kinds of discussions, such as the connection between the STR market and the real estate one, and the challenges that crises could give rise to in an economic field (as COVID-19 crisis).

The manuscript is organised as follows:

Chapter 1, the methodological one, exposes the different kinds of approaches and decisions undertaken during the making of the research. A significant part of the Chapter is reserved to frame the Southern European context and to motivate the reasons of site choice. Another part is dedicated to frame the methodological approach of the research, and the empirical methods.

The following three chapters (2–4) are the pillars of the theoretical framework and contain the main argumentations of the research. They are structured with a literature review of the specific topic, supported by the empirical part, represented by a political and economic analysis of the case studies in Chapters 2 and 3, and the preliminary analysis of Airbnb data in Chapter 4. Each case study has a particular declination: they are presented in order to be the interpretative keys to support the specific research questions and objectives.

Chapter 2 is about the argumentations on crises. In order to problematise the issue of crises in a political economic approach, the theme is examined from a neo-Marxist perspective, and is supported by the cases of Athens, documenting the moment of the burst of the crisis and the consequences; and Naples that experienced a perpetual condition of crisis over 15 years.

Chapter 3 concerns the issue of housing. Here the processes of commodification and financialisation of housing are exposed, as well as the central issue of rents in the political economy of real estate. The two case studies are Lisbon and Madrid, which have experienced massive political interventions to dismantle the social housing stock and deregulate the rent contracts.

Chapter 4 focusses on the sharing economy and platform capitalism, and how Airbnb is located in between, providing a literature review in order to frame this relatively new economic reality. The empirical part presents the initial analysis of the Airbnb data, lending a dimension of the phenomenon in the eight cities.

The fifth Chapter aims to respond to the three statements/hypotheses presented above by presenting a quantitative analysis on the Airbnb data, oriented towards documenting the professionalisation of Airbnb users.

An additional brief Chapter 6 is dedicated to the analysis of 2020 Airbnb data, proposing a similar analysis made for the empirical part in Chapter 5 for a comparative purpose. This Chapter was added after the empirical analysis had already been concluded in order not to exclude such a catastrophic event.

Post scriptum: COVID-19

In January 2020, the epidemic of SARS-CoV-2 exploded in the Chinese region of Wuhan, and soon after arrived to Europe, with a particular intensity in Northern Italy, forcing several nations to a lockdown. The impact of such an unpredictable event has been enormous on several aspects of social and economic lives. Many of the consequences cannot be estimated today (April 2021), but some economic sectors have been hit harder than others, the tourism and the accommodation sectors surely being two of them. Since the borders of many countries were closed, holiday trips became unfeasible and undesirable. During spring 2020, Airbnb faced enormous losses in terms of revenues and refunds, fired 25% of their employees, delayed the entrance to Initial Public Offering (IPO) on the US Stock Exchange and suffered a drop in the expected share placement price.

The shock was hard but the responses were fast. Few weeks after the rise of the COVID-19 pandemic, Airbnb listed a guide for the host to prepare the house according to the safety practices, [6]and reformatted the offer. The new platform policies were oriented to promote new accommodation options, as alternative places 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 changing the website interface by adding the option of a "long stay". They also promoted a change in destination options, moving their strength focus from city centres to rural and suburban areas. On the website homepage, they proposed destinations reachable by car (a two- to five-hour drive from the location of the guest). The solid structure of such a system was demonstrated by the fact that at the end of 2020, Airbnb made its debut in the New York stock exchange, closing the first day by almost doubling the fixed IPO (managing for the company shares to be valued at $146 versus the expected $68). The re-assessment of the offer hides a possible transformation (or better, consolidation) of the ecology of the hosts.

To demand an accurate cleaning service, as the recommendations draft in the check list manual indicated, implied a substantial employment of time, energies and money; also, to prefer mid- or long-period renting automatically excludes those who use the service in a more flexible way, sharing their own house. These new requirements could eventually disadvantage small owners who rent out an extra room or house in a non-professional way; that is clearly to the advantage of the companies of property managers that are used to leaning on professional cleaning agencies or having empty houses in their portfolio that could be rented for longer periods. Both these responses to the crisis conducted by the company are adjustments that head towards a more elitist usage of the platform (by the hosts), and implicitly to opening up to new markets (the mid- and long-term).

[6] https://www.airbnb.it/resources/hosting-homes/a/getting-started-with-airbnbs-cleaning-protocol-186 [21/04/2021]

Chapter 1

Whys – Wheres – Hows

Research structure

This research aims to analyse the links between the STR market, and the processes of commodification of housing in Southern European countries. To structure such discourse, and discuss research questions mentioned in the introduction chapter, the work has been done using multiple approaches and methodologies. A zoomed-out and trans-scalar approach is proposed to look beyond the place-based analysis of the Airbnb phenomenon, and inscribing it within a political economic interpretation, to understand better its structure and performance as a global trend within the new mechanism of housing financialisation.

Two sets of approaches have been applied to respond to different issues posed by the research objectives, although similar methodologies connect both approaches.

On the one hand, the spatial context of this research required an analytical approach that could connect and let interact several different scales of inquiry. The analysis context is the southern European region: Portugal, Italy, Greece and Spain are the countries in focus. At stake are the power and economic relations activated due the international and supranational institutions, during and after the 2008 crisis. To report these multi-layered connections, a trans-scalar and assemblage analytics approaches have been employed (Fields, 2015; McFarlane, 2011) that consent to "jump" between different layers and melt several scales, policies and praxes. Each level of analysis is understood in its context and scale of action and interpreted as a dialogue between other levels and not in contrast, as in their classical dichotomies as local versus global.

On the other hand, the specific query posed by this research required leaning on other kinds of approaches. To investigate the role of the STR platform as a channel for the spreading of speculative mechanism within the housing and rental market, a centred approach seems to be the one elaborated by Sokol (2017), named the financial chain. Such an approach consists of deconstructing the complexity of the financial mechanism and geographies, isolating and spatialising any links that constitute the chain. This point is handy to understand the connections between the network of Airbnb and its link with the housing financial market.

Due to the heterogenic composition of the elements, the research is structured using both quantitative and qualitative methodologies. A consistent part of the empirical analysis is based on the data scape and elaborations of the Airbnb performances data. Such analyses made it possible to formulate the hypothesis and connect them with the research questions. Another consistent part of the research activity was made during the period of fieldwork, in which a series of interviews and colloquia with owners and property managers on one side and researchers and actors contextually involved in the discourse of each city on the other, respectively. Finally, through desk research, some of the results of the quantitative analysis has been investigated.

The following paragraphs will provide the reasons for choosing the specific region of southern Europe, the approaches and methodologies used, and how the thesis is articulated.

Southern Europe intersections: the (post)modern question on Mediterranean cities

This research focusses on four countries of the southern European region: Portugal, Italy, Greece and Spain, and eight cities within those countries: Lisbon, Porto, Rome, Naples, Athens, Thessaloniki, Madrid and Seville.[7] Such countries and cities are linked together through several aspects. Within its differences and similarities, and the different scales of analysis (from the urban scale to the international relations), this large region seems to be the ideal intersection between the three central theoretical cores that structure this research: crisis, housing and STR economy.

Before examining the three intersections, the relations between SE and the Mediterranean region should be considered. How much has Mediterranean imagery and culture influenced the interpretation of SE? What features have affected the

[7] The research is not an urban-based analysis, rather it focusses on the trans-scalarity of the different geographical layers (the urban, the regional and the inter-regional). For this reason, I will lay the reasons that made me choose the Southern European region as a whole more deeply, and then focus on urban cases decisions. However, at the end of this subchapter, I will shed light on some insights within the reasons of choosing the cities. An analytical description of the eight cities will be drafted in Chapter 6.

interpretation of such regions and the definition of SE? In what measure have the Mediterranean discourses influenced SE's development?

“The spatial" is not just an outcome, it is also part of "the explanation" (Massey et al., 1984: 4). Regarding the Mediterranean region, "the spatial" particularly matters because of its strict connection with its geographical context, cultural heritage, history, and imagery. The image of the Mediterranean is strongly present in popular culture through novels, poems, songs, sculptures and paintings. Through the centuries, the artistic and cultural European, Middle East, and North African production eventually had the Mediterranean as the protagonist, contributing to building up the cultural imaginary and specific images around this region. Such that, Iain Chambers, in his book *Mediterranean Crossing,* refers to the Mediterranean as “both a concept and a historical and cultural formation, is a reality that is imaginatively constructed: the political and poetical articulation of a shifting, desired object and a perpetually repressed realisation" (Chambers, 2008). Giaccaria and Minca assumed (2011b) that popular culture has had a strong influence on the academic production in Mediterranean studies, and that the two are inevitably connected. This has led to an impoverishment of the academic debate, often too influenced by commonplace poetic literature, as also Matvejevic pointed out,

> “Mediterranean discourse has suffered from Mediterranean discursiveness: sun and sea, scent and colour, sandy beaches and islands of fortune, girls maturing young and widows shrouded in black, ports and ships and invitations au voyage, journeys and wrecks and tales thereof, oranges and olives and myrtle, palms and pines and cypresses, pomp and poverty, reality and illusion, life and dreams. Such are the commonplaces plaguing the literature, all description and repetition. […] The Mediterranean is inseparable from its discourse" (Matvejevic, 1999: 12).

The Mediterranean region has been (and still is) an issue of interest for social scientists. The theoretical framework of such an area of study is referred to as the Mediterranean studies, in which anthropologists, geographers, political scientists, architects and urbanists try to describe, define and categorise this region. Within the academic debate, the different lines of research lie on different tools and approaches reading the Mediterranean region and its cities. Its historical and geographical heritage traced the path for traditional approaches, as the Braudel’s *longue durée* (Braudel, 1999), in which “historical continuity is viewed as the distinguishing feature of the Mediterranean urban model, referring to the reproduction of a historical legacy which gives rise to a shared identity“ (Cattedra et al., 2012: 40). Another lens looks at the Mediterranean region as a fragmented and contested space that physical nor cultural geographies cannot define. Following the work of Matvejevic (1999) as a supporter of this vision, the Mediterranean cannot be defined even by its borders, “its coasts are the confines of the sea, but not of the Mediterranean" (Matvejevic, 1999). This approach aims to redefine the categories by which the Mediterranean has been enclosed.

Several attempts have been made to categorise the Mediterranean city under common or non-common features (see: Leontidou, 1990); however, following what Clementi (1995) wrote in an article, included in the volume edited by Bellicini, “every urban system is unique, the Mediterranean cities do not exist, instead exist several European, Arabs, Turkish and Balkan cities that are also Mediterranean" (Clementi, 1995). In this 1995 volume, but still very extant, the Mediterranean urban is treated as a process, lending relevance to the urban transformations occurring in Mediterranean cities due to the economic and social developments.

Embracing such a vision, a relevant debate in the academic discourse that aims to frame the Mediterranean region is the *post-modern* issue. The processes that have lead Southern Europe to a condition of economic subordination are inscribed in a complex system of institutional and structural prejudices that gradually "left behind" some European countries in advancement of others. This is the central thesis of the studies of Costis Hadjimichalis that, with particular emphasis in his 2017’s book, *Crisis Spaces*, and also elsewhere (Hadjimichalis, 2005, 2005; Hadjimichalis and Hudson, 2014), argue that the crisis of 2008 was not geographically random but was a foreseeable effect of decades of uneven geographical development (Harvey, 2005), pursued by dominant European forces. Concerning this, Massey (2012) said,

> “[T]he crisis of the Eurozone has its roots in geography and in the inability to take geography seriously. The failure to construct a financial architecture that could adequately work with the pre-existing economic uneven development between countries led to a further deepening of that economic inequality."[8]

Both Hadjimichalis and Leontidou read in these images an intention to *Orientalise* the Mediterranean region, “The current rise of asymmetrical imaginations during the narrative of the crisis builds upon the longue durée of Mediterranean Orientalism" (Hadjimichalis, 2017: 83). This is why Hadjimichalis calls for a reformulation of "a New Southern Question", evoking the Gramscian analysis of the Italian Mezzogiorno. He refers to how dominant European forces have ideologically framed the last crisis in Southern Europe. Additionally, Leontidou recalls the Gramscian theory to propose an alternative vision of the dominant/hegemonic culture, “Gramsci’s alternative analysis is

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[8] https://radgeo.wordpress.com/κείμενα-άρθρα/ξενόγλωσσα/doreen-massey-ριζοσπαστική-χωρικότητα-και-δημοκ/ [27/04/2021]

based on sets of interrelated concepts for the construction (or deconstruction) of local narratives" (Leontidou, 1996: 181).

To understand the uneven geographical development roots, one must first understand the cultural passage from modernity to postmodernity theoretically.

David Harvey, in his 1989 book, *The Condition of Postmodernity*, exposes the cultural and economic transition from modernity and postmodernity. He ranges from the iconic book of Izenour, Scott Brown and Venturi, *Learning from Las Vegas* (1972), in which, through their discourses, they abandon modernist architectural ideals and embrace the study of the local landscape. On the field of urban planning, he exposes the transition from the massive urban development plan to the still central urban renewal practice, still a philosophical reading, leaning on the works of Foucault and Loyatard. He explains how postmodernity marked the end of all the metalanguages, metanarratives and metatheories formulated in the modern age and that try to relate and represent the world – in contrast, postmodernity engages the acceptance of fragmentation, the pluralism and otherness. Harvey (1989) also showed, through the promotion of the consumer culture, how postmodernity is a product of the late capitalism, and he explains the shift in the model of accumulation of capital from a Fordist mode of production to a flexible accumulation model. Therefore, he introduced the role of finance into the global market.

Postmodernity in this vision is seen as a temporal evolution to modernity. The argument of Lila Leontidou in her article *Postmodernism and the City: Mediterranean Version* (1993b) is a counter-evolutionist approach. During the 80s and 90s, Mediterranean cities has been referred to as pre-modern, pre-industrial or as having exceptional culture; what she argues is that they were (and are) more similar to post-modern societies, "post-modern alternative cultures may have pre-existed within modernism" (Leontidou, 1993b: 950). She refuses to use the prefix *post* as meaning *after*, thereby interpreting postmodernity as an evolution of modernity. In Mediterranean cities, this is particularly clear because "they are mirrored in the overall diversity of culture, the multi-dimensional intermingling and cross-fertilisation of tradition, modernity and postmodernity" (Leontidou, 1993b: 950). This argument is close to what Chackrabarti, in his book *Provincializing Europe,* means for "historicism" (2008), so that every culture and the urban system has an already traced path, and the dominant Eurocentric culture produces this historical path. This vision could eventually produce a representation of cities following history and others left behind: the *not-yet* cities. So, in this representation, Mediterranean cities are *not yet* entities waiting for modernity. As Cassano stated about the representation of Mediterranean, "[cities] exist only in terms of negative difference compared to Modernity, they are placed in the territory of the not-yet-there, in the eternal limbo of the transition to modernity" (2000: 10, cited by Giaccar ia and Minca, 2011b: 355).

Going back to Leontidou's (1993) article, to overcome this kind of representation, she assumes that Mediterranean cities are not post-modernists but a cultural alternative to modernism, it is not past nor future: it is reproduced and may carry oppositional overtones. She proposes us to overcome the grand narratives and adopt the local narratives instead; however, she makes us aware that with modernity, Eurocentric cultures have tried to produce *normality* "[M]odernism used to depict the 'normal' family and the white Western male caricatures, until feminism surfaced and, what is more, challenged modernity" (Leontidou, 1993: 963). This metaphor is not casual, it recalls our attention to the intrinsic link between the post-modern question of Mediterranean cities and postcolonial and minor theories.

The anthropologist Iain Chambers describes the Mediterranean as a postcolonial sea that, with its history and its roots, he said, "becomes a site of an ongoing and unfolding critique of the modernity and 'progress' that has sought to enframe and explain it over the last 400 years" (Chambers, 2004: 432). Franco Cassano calls to stop "thinking of the South in the light of modernity, but rather rethinking modernity in the light of the South" (2000: 10, cited by Giaccaria and Minca, 2011b: 355). Moreover, Minca and Giaccaria (2011b) called for a *Mediterranean Alternative,* debating their discourses from a postcolonial approach.

The reasons to refer to this theoretical framework are that many of SE's representation tend to Orientalise it, so as to, in the words of what Edward Said stated, construct a metaphorical East in Western representations (Said, 1999). Orientalising Southern Europe means to generate subaltern narratives that produce both imagined and real geographies.

However, it is essential to say that the process of European integration of the Mediterranean Northern shore is complete. Italy, Spain, Greece and Portugal are accepted as full members of the Western club, as Minca and Giaccaria (2011b)reinforced, "the shadow line of alterity and subalterity has clearly shifted toward the South, and increasingly marked by the (presumed) confrontation between the West and the Islamic world" (p. 352). As Cattedra et al. (2012) argued, what is being Orientalised from the Eurocentric view of the 19th century is the "irreducible specificity" of different societies, and therefore of their urban models. They refer, in particular to the Southern shore of the Mediterranean, and in general to the "born of the South", with the paradigm of the "the Third World city", "the city of underdevelopment", "the in-development city", or "the city of the South".

The 19th century was the stage to a resettling of the political and representation geographies of the Mediterranean through the birth of Southern European cities in opposition to Mediterranean ones" "The idea of an 'Euromediterranean' space can be interpreted as a genuine project of Europeanization" (Cattedra et al., 2012). However, this contrast has not been so radical that Southern European cities remain hybrid, semi-peripheral and still Orientalised spaces. Leontidou (1996) defined them as "geographical, socio-economic and cultural 'in-between spaces' which contest value-laden binary thinking as criticised in deconstruction" (p. 180). When they metaphorically joined the club of Western cities, these "in-between spaces" had to enact programs and policies to chase the post-Fordist run of the Northern European cities. Those are precisely the dynamics enacted from a representation of a not-yet city as a city seen in "delay".

As mentioned at the beginning of this subchapter, the intersection that links the southern European region with the central cores, are outlined as follows:

South Europe and crisis

The first link between the region of southern Europe and the structure of the research is the role of crisis. The crisis in focus is the financial crisis of 2008 that lead to a great recession within Europe in the following years.

The impact that the 2008 crisis had in those countries has been the object of several studies over the last decade (Ballas et al., 2017; Christopherson et al., 2015; Dijkstra et al., 2015; Hadjimichalis, 2017; Hal l and Massey, 2010; Knieling and Othengrafen, 2015; Lapavitsas, 2009, 2012; Mayer, 2013; Smith, 2013). The consequences after the crisis, and after years of austerity policies led to an increase of the unemployment rate. In the European territory, it rose "from 7% in 2008 to 11% in 2013, by when there was an estimated total of 32 million unemployed people" (Ballas et al., 2017: 181). However, the most harrowing consequences were found where austerity was applied more strictly, such as in Greece, Italy, Spain, and Portugal. The region of Andalusia represents the peak with 34.8% unemployment rates, while, right after following 30 regions, with rates of over 20%, were countries all part of South Europe (13% in Greece, 13% in Spain and 4% in Italy)[9] (Ballas et al., 2017).

However, several studies have showed that SE did not face the crisis as an unexpected event. During the 1980s, for continental Europe, and the 1990s in the semi-peripherals regions (including Southern Europe), finance made a grand entrance into

[9] Portugal shows relevant data in the unemployment rate when calculate in a range of time from 2008 – 2014 (between +5% - +10%).

the economic system and household habits (Lapavitsas, 2012; Rossi, 2012), although not all the countries in Europe were prepared for this sift.

> "[L]arge corporations have come to rely less on banks while becoming more engaged in financial markets. Households have become heavily involved in the financial system through assets (pension and insurance) and liabilities (mortgage and unsecured debt). Banks have been transformed, seeking profits through fees, commissions and trading, rebalancing their household activities rather than corporations. Financial profits have emerged as a large part of total profit" (Lapavitsas, 2012: 1–2).

Some studies affirm that there were structural disequilibria between central and peripheral Europe that proved a "pre-condition for a crisis in the financial sector" (Christopherson et al., 2015: 3); a series of political decisions lay the roots for the uneven development, in which southern Europe was the "victim" (Hadjimichalis, 2017, 2011, 2014). Moreover, the institutional mechanism in Europe substantially changed during those years, starting from the Maastricht Treaty, the Stability Growth Pact, to the Lisbon Strategy; those acts did not equally effect all the countries in Europe. Some of these aspects were the introduction of the euro currency, without any protectionist measures, the massive delocalisation of production, the changing in the demand of production (moving from the manufactory towards technology), the endogenous weakness in social reproduction, as the demographic decline and the cultural and social changes in the labour force (derivate from migrations), the decline of the tourist sector for the second housing-bubble, the liberalisation of agricultural markets and the successive decline of competitiveness, all of which contributed to the uneven development of the Southern European region. This is because, along with the formation of the Eurozone, the Southern and the Northern economies were put under the same marketplace, and the consequences highlighted the unequal access to the market (Hadjimichalis and Hudson, 2014).

The Euro crisis has deep geographical roots (Aalbers, 2009a; French et al., 2009; Smith, 2013) which collided with the spatial inequalities rooted in the European project (Christopherson et al., 2015); for this reason, "Euro crisis is more than a financial crisis; it is also a profound economic and political crisis" (Christopherson et al., 2015: 2). Southern Europe represents the spatiality where international economic and political projects failed, and where the directions of the years to follow were influenced by the wound of the crisis.

South Europe and housing

The theme of housing represents the second connection. Housing structure and policies are a relevant issue in the SE region, at least for two main reasons: the composition of the housing tenure and the recent policies regarding the dismantling of social housing and the liberalisation of affordable rents.

Many studies recollect the peculiar structure of housing tenure in Southern Europe (Allen, 2006; Allen et al., 2004; Arbaci, 2019; Castels and Ferrera, 1996; Matznetter and Mundt, 2012). Indeed, within the European context, an evident diversification characterises the central-north with the south and east concerning household habits. Excluding from our investigation the eastern countries[10], the southern ones show a housing tenure composition similar to the others: a high level of homeownership with a consequentially low rate of rented accommodations, and a deficient social housing provision.

The Housing Europe Observatory (2019), the Research branch of Housing Europe, presented its biennial report, *The State of Housing in the EU*, showing the housing tenure across Europe. Looking at Table 1 and at the corresponding Figure 1, a different pattern can easily be visualised in the distribution of housing tenure between southern and northern countries. The four Mediterranean countries presented a high percentage of homeowners with the maximum amount in Spain at 77%, and a minimum in Italy at 71.9%. Within those numbers, the percentage of owners with or without mortgages or loans were highly unbalanced for Greece and Italy (respectively, 14.3% and 12.9% for mortgage payer and 59.6% and 59% for the ownership without mortgage). Spain showed a deviation of 17.6% (29.7% with a mortgage and 47.3% without), and Portugal is almost in balance (36.1% and 37.9%). Looking at the exact statistics in other European countries, the total amount varied between 59.9% of The Netherlands, and 45.3% of Germany, and in the case of Denmark and The Netherlands, the percentage of mortgage payer was much higher than the no mortgage payer. To sum, Mediterranean countries have a high percentage of homeowners, and the majority of them are no mortgage payers, while central-northern countries have a low level of homeownership, and the ratio between household with or without mortgage balances, in some cases, is higher for the mortgage payer.

[10] Such countries should have a specific section, due to their particular housing tenure patterns. After the fall of the Berlin Wall, the socialist administration of social housing fell, and the result was a huge purchasing of housing by their inhabitants, so that eastern European countries showed a pattern of very high percentage of owners occupying without mortgages or loans – Lithuania 85.2%, Slovakia 83.2%, Romania 95.2% in 2008 (Eurostat) – and a relatively very low percentage of private or social rent.

On the other hand, the percentage of tenants is the opposite, low in southern countries and high in centre northern ones. Interestingly, in the ratio between social rents and market rents, for social rents, it has to be intended as the amount of social housing provided by the state. For Greece, this number corresponds to zero, there is no social housing programme only some temporary support for homeless people, temporary rental subsidy schemes, and due to the high impact that housing costs weighted on the population during the crisis, a subsidised heating and energy cost has been introduced for low-income households. In Italy, the percentage is still meagre at 3.7%. Since the competent authority passed from national to the regional level in the early 1990s, the housing policy started being managed by public/private partnership, mostly by foundations and cooperatives that mainly provide affordable housing rather than social rents. The amounts of social housing, the heritage of the previous IACP (Istituto Autonomo Case Popolari), became compromised by the low budget maintenance and right to buy policy. Portugal has 2% of social rents, private and public institutions cooperate with the state's financial support, providing affordable housing and social rents. In Spain, a national programme is established every four years. The current National Housing Plan 2018-2021 includes aspects of rental housing for people in need, building rehabilitation, and subsidies for younger and older people; however, the decision is then decentralised to local authorities to institute programmes of co-financing; the amount of social rent in Spain is 2.5% of the total.

	Owner			*Tenant*			*Others*
	With mortgage or loan	No outstanding mortgage or housing loan	Total	Rent at market price	Rent at reduced price or free	Total	
Greece	14.3	59.6	73.9	20.8	0	20.8	5.8
Italy	12.9	59.0	71.9	14.8	3.7	18.5	9.6
Portugal	36.1	37.9	74.0	17	2	19	7
Spain	29.7	47.3	77.0	13.8	2.5	16.3	6.5
Austria	24.9	29.1	54.0	18	24	42	4
Denmark	38.0	11.5	49.5	28.8	20.9	49.7	
France	28.3	29.6	57.9	23	16.8	39.8	2.4
Germany	22.6	22.7	45.3	50.7	3.9	54.6	
The Nederlands	52.7	7.2	59.9	10	30	40	

Table 1: Housing tenure data 2019 – source: The Housing Europe Observatory, elaboration by the author

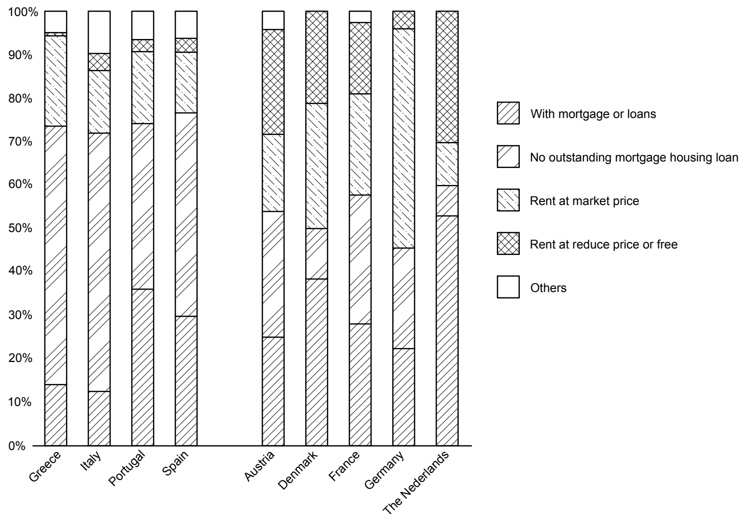

Figure 1: Housing tenure data 2019 – source: The Housing Europe Observatory, elaboration by the author

Such patterns in the housing tenure of South European countries has to be associated with several aspects, including social, cultural, economic and political matters. However, the purpose of this assumption is to understand the political choices that made this social structure possible.

“If we consider that in 1950 homeownership was less than 50% in three of the countries, some of the problems with the cultural argument become clear. It can equally well be argued that a culture of home ownership is the result of a generalised response to households in the context of housing policies and markets which offered no alternatives. A home ownership culture in these circumstances would be a consequence rather a cause of policy" (Allen et al., 2004: 20)

One of the approaches to understanding the housing tenure of Southern Europe is to look at it through the lens of policymaking in relation with the economic demand, thus see homeownership as the fuel to activate and support the economy of consumption at the base of the capitalistic structure of society. Such an approach is helpful to understand the weight (or rather the absence) of the welfare state, which highly supported the growth of homeownership in contrast with social rent schemes or production and distribution of social housing. This view sees homeownership as a consequence of the absence of affordable housing. Within the four countries, this attitude hides the state's passive behaviour, preferring no regulation supporting the market guidelines, or even encouraging the buying and selling of the social housing stock to tenants pursuing the policy of right to buy.

As Allen et al. (2004) noted, the common features of Southern European countries in the housing aspect does not extinguish others aspects of the tenure pattern still concerning the political line of the state, to take into consideration the role of secondary homes, the household cycles and access to housing, and the production of housing. The matter of secondary housing is the result of specific familiar economic dynamics to save money in fixed assets, and was a consequence of the urbanisation of leisure regions (the southern coasts of Spain and Italy, the Algarve in Portugal and the Greek islands) that mainly occurred in the thirty years from the 1960s to 1990s; second homes can be interpreted both as an investment and a commodity (Allen et al., 2004).

South Europe and short-term rental platform

The third connection is represented by the STR platforms' role in the southern European region. The four Mediterranean countries are relevant markets for Airbnb. The performance data of 2019[11] registered that both in the ranking of Annual Revenues and Number of Reservations, the four countries were in the top 10 of the 27 European countries, plus the United Kingdom. The 2019 Annual Revenues reported the total amount of money spent through the platform gained by the host[12], representing a part of the economic weight of the sector[13], and provided us with the first snapshot of the dimension of such an economy. Italy was at the third place with a total revenue of approximately 4 billion euros, followed by Spain at 3.6 billion, at sixth place Greece with a revenue of 1 billion, and seventh Portugal at 870 million euros.

Table 3 shows the Number of Reservations. It represents the number of unique reservations made through all the listings; this information can provide an idea of the section of the tourism weight that the countries could absorb. Italy is at second place with 13447259 reservations, Spain is at fourth with 9744965, then Portugal at sixth with 3027070, and Greece at eighth place with 2693651 reservations in a year.

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[11] The data are provided by the commercial firm AirDNA.

[12] Airbnb withholds a percentage of service costs that vary from 14% to 16% of the total.

[13] All the satellite services that help the functioning of the platform should be counted in the evaluation of the economic weight of the STR sector, such as luggage storage, cleaning services, key holder, reception service and other several additional jobs related to the functioning of the accommodation sector.

Country	*Revenues Airbnb 2019 (Euro)*
France	5.2 B
United Kingdom	4.4 B
Italy	**4 B**
Spain	**3.6 B**
Germany	143 M
Greece	**1 B**
Portugal	**875 M**
Croatia	847 M
Netherlands	731 M
Denmark	480 M

Table 2: Top 10 EU countries plus UK in Annual Revenues of 2019 — source: AirDNA.

Country	*Number of Reservations 2019*
France	15.7 M
Italy	**13.4 M**
United Kingdom	11.7 M
Spain	**9.7 M**
Germany	5.9 M
Portugal	**3 M**
Croatia	2.7 M
Greece	**2.6 M**
Netherlands	1.9 M
Poland	1.9 M

Table 3: Top 10 EU countries plus UK in Number of Reservation of 2019 — source: AirDNA.

The spreading market of STR accommodations has contributed, among others factors, to change the face of tourism in the last years. Behind the massive amounts of data from the Airbnb performances, is a new way to approach leisure travel. The contemporary tourist paradigm suggests a shorter, instant, ready-made kind of leisure travel, involving mostly urban destinations.

The so-called city break is a relatively new way to travel, significantly related to the explosion of the STR platform. It has been defined as “a short leisure trip to one city or town, with no overnight stay at any other destination during the trip" (Trew and Cockerell, 2002: 86), and has been highlighted as a distinctive feature of this specific type of holiday. Some others include the duration (often a weekend length), the distance (short aeroplane distance), discretionary nature (city breaks are not intended as the main holiday of the year but a short one), date flexibility (city break reveals a lack of seasonal bias), and destination travel party (most of the trips are made with a group of friends or couple without children)[14] (Dunne et al., 2010). This international leisure travel has increased four times from 2007 to 2017 (Bouchon and Rauscher, 2019), and “has helped to popularise and regenerate several European cities, breathing new life into many beleaguered post-industrial urban economies.“ (Dunne et al., 2010: 410).

Many scholars (Bouchon and Rauscher, 2019; Dunne et al., 2010; Sequera and Nofre, 2018; Urry and Larsen, 2011) have agreed with the fact that the motivations for this fashionable activity reside in two main factors: the first one is the decrease of the travel costs, the exponential growth of the low-cost airline company offers an ease of travel with minimum expenditure. Moreover, the airlines' routes between minor touristic cities increases the tourist flow, and other studies have been made on the opening of seasonal routes (Poulaki and Papatheodorou, 2010). The second factor is the increasing power of the internet used as a self-help online travel agency. The possibility of organising and managing a short trip, lower costs of packaged tours and a way to differentiate by choosing short holidays:

> “The internet makes possible a ‘networked economy’ where tourism suppliers can more easily operate on a global scale, are less reliant on traditional intermediaries such as travel agents, tour operators and check-in staff, and can make the tourism ‘product’ more individual and flexible" (Urry and Larsen, 2011: 57).

The contribution that Airbnb gave to this sector was to propose cheaper accommodation solutions, but especially to propose the experience of living in the city like a local, sleeping in a non-touristy neighbourhood and experience the resident’s habits, “[I]n this respect, city tourism is changing its nature from a mere passive sightseeing towards the search for new individual experiences by means of actively participating in an unfamiliar urban scenery" (Bouchon and Rauscher, 2019: 599). Ideally, this trend moves away from the standardised way of making and offering touristic facilities consolidated in the globalised taste of travel (Fainstein et al., 1999). One of the late services proposed by the platform was indeed the "Airbnb experience", in which locals offered any kind of activities related to the urban context or the way of living in that place (from walking tours to cooking schools). Pine and Gilmore (1999) were already hypothesising that service economies would increasingly become experience economies (Pine et al., 1999).

[14] Concerning this last point, some studies have highlighted the relationship between the young traveller and the revitalisation of the clubbing scene, in specific contexts (Iwanicki and Dlużewska, (2015). In Berlin, the international clubbers are ironically called the EasyJet ravers (Rapp, 2012).

To better understand the entity of such economies, and thus the economic power that retains the STR market, it is helpful to consult some recent reports on international tourism.

According to data reported by destinations, the World Tourism Organisation (UNWTO) published the January 2020 Tourism Barometer (UNWTO, 2020), reporting a growth of 3.8% in 2019 of international tourist arrival compared to 2018. It has been estimated that in 2019, the arrival destinations amounted to 1.5 billion, about 54 million more than in 2018. Europe saw an increase of 3.7%, and within the sub-regions, Southern Europe was in the top growth areas with an increase of 5.5%. The data published in the OECD Tourism Trend and Policies (2020) report confirm this positive trend in SE. Between 2017–2018, Greece had a growth of 9.7% in international tourist arrival from OECD and partners countries, Italy 5.7%, Portugal 7.5% and Spain was stable at 1.1%, but between 2014 to 2018, it increased to 6.2%. Two out of the four countries, Spain and Italy, are in the world's top five tourist destinations, together with France, the United States and China, all receiving more than a quarter of worldwide arrivals (OECD, 2020).

The UNWTO table (Table 4) describes the outlook of the international tourist arrivals from 2016 to 2019 (the document was issued in January 2020). In the last column, there is the 2020 projection that reports a positive trend worldwide with increases from 3% to 6%. What was not predictable was the shock of the global pandemic that devastated the sector. The actual numbers of the first half of 2020, until September 2020, reveal a decrease of 65% worldwide; Europe was the second in terms of the decline of tourist arrival with a -66%. The Americas lost 55%, the Middle East 57%, the Asia and the Pacific was the first-hardest hit of all global regions with a 72% fall in tourist arrival in the first half of 2020. North-East Asia (-83%) and Southern Europe (-72%) had the most significant loss at the sub-regional level.[15]

	Change				*Average a year*	*2020 Projection (issued in January)*	*2020*
	2016	2017	2018	2019	2009-2019	from	Feb-Sept
World	3.80%	7.20%	5.60%	3.80%	5.10%	3%-4%	-53%
Europe	2.50%	8.8.%	5.80%	3.70%	4.60%	3%-4%	-66%
Asia and the Pacific	7.70%	5.70%	7.30%	4.60%	7.10%	5%-6%	-72%
Americas	3.70%	4.70%	2.40%	2.00%	4.60%	2%-3%	-55%
Africa	7.80%	8.50%	8.50%	4.20%	4.40%	3%-5%	-57%
Middle East	-4.70%	4.10%	3.00%	7.60%	2.70%	4%-6%	-57%

Table 4: Outlook for International Tourist Arrivals. Source Wotld Tourism Organization (UNWTO)

[15] The data of the first half of 2020 has been published in an article of the UNWTO: https://www.unwto.org/news/international-tourist-numbers-down-65-in-first-half-of-2020-unwto-reports [27/04/2021]

Despite the recent events, the tourism sector is an essential part of the world economy: "[O]n average tourism directly contributes 4.4% of GDP, 6.9% of employment and 21.5% of service-related exports to OECD countries" (OECD, 2020: 18). Focussing on southern Europe, in 2019, Portugal and Spain collected the highest direct tourism-oriented contribution in the GDP of each 18% and 12%, as a percentage of total GDP, followed by Greece (7%) and Italy (6%). On the other hand, Spain reached the 13.5% of people employed in the tourism sector, followed by Portugal and Greece with 10% and Italy at 8% in 2020 (OECD, 2020).

Such numbers (both the pre- and post-pandemic) describe contexts where the tourism industry has a high economic role. In the Southern European region, tourism is an important economic sector. Sequera and Nofre(2018) offered three possible factors that could explain the consolidation of the touristic sector:

> "(i) the expansion of geopolitical instability over the past decade in tourist destination markets such as the Maghreb, Egypt and other Middle Eastern countries; (ii) the appearance of tourist and hotel real estate as a safe investment area in times of volatility in the financial markets; and (iii) the adoption of tourism, leisure and entertainment as central strategies for overcoming the numerous negative impacts of the Great Recession" (p. 843).

However, in the last three decades, the Mediterranean region has carried out a series of market-oriented urban policies to enter the competitive European and global market. These policies were mainly commerce, culture and tourism oriented, insisting on the format of a brandification of the Mediterranean imaginary:

> "[W]ith the emergence of mass tourism, the Mediterranean has been re-integrated within a global set of cultural, social and economic networks; however, the Mediterranean is still conceptualised as a bounded region that is subject of external forces producing impacts, a region that needs to be preserved from foreign invaders." (Obrador et al., 2009).

According to D'Alessandro (2018), two keywords that can sum the contemporary dynamics in urban regeneration policies are *authenticity* increasing attractiveness, and *hybridisation* of the urban landscape, which seek to merge the local features with urban policies centring competition, entrepreneurship and urban commodification (D'Alessandro, 2018).

The branding of Southern European cities insists on the Mediterranean image, and the Mediterranean way of life has been used as an evocative tool to promote the place: the narrative of the three S-s (sun, sea and sand) and the typological elements of

Mediterranean cities, such as the role of the piazza and the street life. These narratives engage in selling cultural and territorial products and produce a neo-liberal urban landscape that is locally globalised. Mass tourism "is a major medium through which millions of Europeans have been able to know, experience and imagine the vast and fluid space of the Mediterranean" (Obrador et al., 2009: 15).

One of the strategies adopted was the promotion of a different variety of events to trigger urban renovation processes:

> "Big and small events have become, perhaps especially in the cities of the Mediterranean, the 'engines' of urban transformation in which the neo-liberal logic is combined with the rhetoric of Mediterraneanity and European Union buzzwords. Internationalisation, competitiveness, participation, civil society, multiculturalism, public-private partnership, etc., become the key words that can 'push' urban transformation processes of many cities" (Cattedra et al., 2012: 50).

During the 90s to the present, there have been events that shape and address the angle of Southern European cities: the "Olympic Games, World Cups, World Fairs, G8, European Capitals of Culture, and so on, have become essential components of a new urban rhetoric" (*ibidem.*), through which the southern European cities can reach the global market through the Mediterranean imaginary, to attract tourists, investments and economic activities.

As a result of such policies and strategies, southern Europe has to deal with a phenomenon of so-called over-tourism. The term was first used on Twitter as #overtourism in 2012, and quickly became popular within media, politicians and academics (Goodwin, 2017). It can be defined as "the excessive growth of visitors leading to overcrowding in areas where residents suffer the consequences of temporary and seasonal tourism peaks, which have enforced permanent changes to their lifestyles, access to amenities and general well-being" (Milano et al., 2019). Over-tourism is mainly referred to the negative consequences that unregulated tourism brings to cities, "deteriorating privacy and tranquillity, overload of public transport systems, crowding out of day-to-day facilities and a speculative housing market" (Bouchon and Rauscher, 2019: 599). This phenomenon is often related to the STR platform explosion because of its unregulated nature and close link to housing capacity.[16]

[16] The concept of overtourism has been largely used among the media: https://www.theguardian.com/world/2020/jan/25/overtourism-in-europe-historic-cities-sparks-backlash [11/10/2020]

Intersections

The previous paragraph explained the connections between the three main pillars of the research and the southern European region. The issues are linked with each other and represent a broader discourse that aims to frame the current socio-economic condition in the southern European region.

Housing and STR platform

As outlined, the outbreak of the STR platform has had relevant consequences on the housing and rental market. The favourable possibility of STR is increasingly going to substitute long-term rent mainly because of two features: the flexibility of the type of rent, and the economic profitability (Cocola-Gant and Gago, 2019). One of the main points of strength of the STR platform is that it lends the possibility of managing housing according to the availability and the necessity of the hosts. The rented house, whether it is the primary residence, a second home or an investment, can be rented out or kept empty. The short-term option gives the owner the possibility to manage the property and redeem the house from a long-term contract, for long-term rental housing contracts secure the houses and freeze their price for several years.[17] Such a format, especially for houses in areas with rapid change, is not the best economical solution for homeowners. On the contrary, short-term rent is a source of more profitable income for owners due to the possibility of altering prices depending on weekdays, events, or bank holidays (Gibbs et al., 2018; Magno et al., 2018).

There have been many studies that describe the relationship between housing and the STR platform, where the primary and most contested question is whether the presence of Airbnb can influence the housing and rental prices. There have been several research outcomes with different conclusions[18] (Adamiak, 2018; Barron et al., 2018, 2020; Sans and Quaglieri, 2016; Schäfer and Braun, 2016; Wachsmuth et al., 2018; Wachsmuth and Weisler, 2018; Yrigoy, 2019).

Regulation is another common point that links the housing and rental platforms. Both platforms suffer from a lack of specific regulations that safeguard the housing stock from speculative actions. The lack of safeguard regulations in the rental market has made it easiest to convert houses from long- to short-term, and this is particularly relevant in Lisbon, where the abolitions of the social rent scheme now allows for the easiest conversions (Drago, 2017). The policies that liberalise the acquisition of social housing

[17] In Italy, the basic rental contract for residential use lasts four years, with the possibility of extending it to another four. In Spain, it lasts a minimum of five years (or seven in some cases). In Portugal, it can last from five to thirty years, while in Greece, it is no less than three years.

[18] Such conclusions will be discussed in Chapter 4.

in Spain, let international investors enter the Spanish real estate market (Janoschka et al., 2019). On the other side, the sector of rental platform is under-regulated in almost all countries (Crommelin et al., 2018). This has caused a hyper-exploitation of housing stock, even in places without habitability requisites (like the air/light proportion), as is the case of Naples and the high requests for *bassi* – the ground floor of the building – in the area of *Quartieri Spagnoli* which usually involves just a door on the street and a little window (Caputi and Fava, 2019).[19]

Housing and crisis

Harvey (2012), in his book *Rebel Cities*, clearly explains how housing and crises are connected. Retracing the crisis in recent history, he pointed out that a real estate boom preceded every burst. Most fascinating is the graph made by Goetzmann and Newman (2010) (Figure 2) that shows the skyscrapers built in New York from 1890 to 2012, where every peak is recognisable just before the crises of 1929, 1973, 1987 and 2000; the buildings in New York City are "more than an architectural movement; they were largely the manifestation of a widespread financial phenomenon" (Goetzmann and Newman, 2010 as cited by Harvey, 2012: 32). The 2016 ECB Working Paper confirmed a real estate bubble in many European countries, showing a residential property price boom right before the 2008 crisis (Hartmann, 2015).

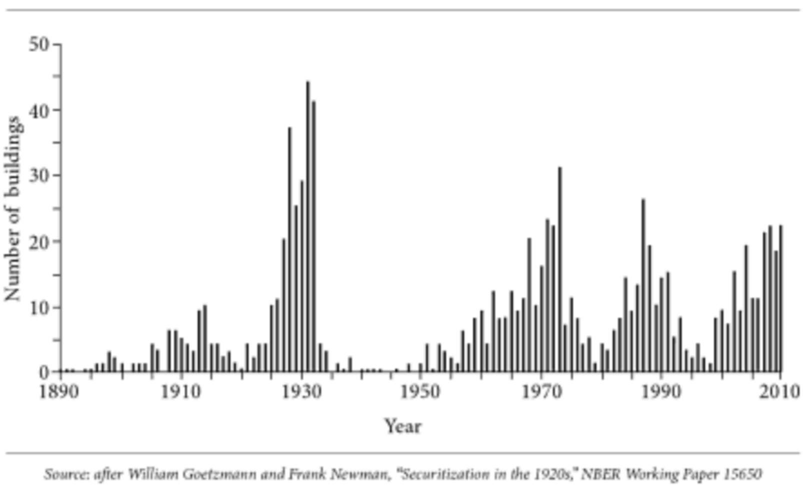

Figure 2: Building construction in New York from 1890 to 2010. Source: Goetzmann and Newman, 2010.

Another aspect that Harvey (2012) pointed out is the issue of rent in capital accumulation strategies, starting by assuming that land is not a commodity in the

[19] The issues of regulation and the effect of Airbnb in housing market will be better discussed in Chapter 4.

traditional Marxist meaning. When land is used to gain revenues and rents, and value is arbitrarily calculated, then the capital produced is fictitious. Such fluxes of fictitious capital convert “real estate into unreal estate" (Harvey, 2012: 40); however, eventually such flows can be involved in value creation, triggering processes of real estate speculations. Southern European countries are not outsiders from this discourse as Hadjimichalis (2017) pointed out, “SE economies participated, to varying degrees, in a major capitalist transformation characterised by a shift from productive to rent-seeking activities, from the primary to the secondary circuit of capital" (Hadjimichalis, 2017: 8).

Finally, most of the housing deregulation policies in SE that will be reviewed in this work result from the austerity policies imposed by the international institutions on most-affected crisis hit countries.

STR platform and crisis

Since the beginning, Airbnb's mantra was to propose a way to easily earn money by "sharing" an extra room or a vacant house. One of the several commercial slogans they have is “earn extra money to pay bills or a mortgage—share a home or room on Airbnb"[20]. The subtext of this vision proposes to the impoverished middle class with economic difficulties an alternative by adding to their monthly income by renting out a part of their home (Semi and Tonetta, 2020).

The boom of the sharing economy coincided with the burst of the crisis; the narrative of the sharing economy proposed a rethinking of the consumption-based economy towards a new system that could embrace sustainability, solidarity, and community values. In response to the US crisis dynamics, and the repercussion that saw finance enter housing of many North American citizens. The sharing economy promised a kind of economy close to the people’s needs and was managed by the connections that the power of an online platform network could bring:

> “[A]fter the 2009 recession, renting assets became more economically attractive“ (Schor, 2016: 3). Many of these platforms were born in those years – Airbnb (2008 in San Francisco) proposed to rent an extra room and share the experience with guests, Uber (2009, San Francisco) consented to share a car ride, and TaskRabbit (2008, Boston) connected freelancers to offers of a handyman service".

However, the “feel-good rhetoric" (Frenken and Schor, 2017: 3) of the sharing narrative soon revealed its economic interests:

[20] Airbnb.com

"[W]ithin this multiplicity of economic and organisational forms, the universally positive idea of sharing has, however, acted as a smokescreen for sharing-focused businesses to undertake various strategies of capital accumulation that impact negatively on their clients, workers and broader economic environments" (Ince and Hall, 2017: 3).

The development of Airbnb in the Southern European region is strictly connected to the consequences that the crisis exerted on the cities. To demonstrate the relation between the austerity policies, the liberalisation of the housing market and the entrance of economic investors into the Airbnb market is one of the aims of this research.

Eight cities for four case studies

Since now, the frame focusses on SE as a region, and some insights on the four countries of Greece, Italy, Portugal, and Spain. The research, however, has been developed to intersect different levels of analysis. At the country level, of interest are the national policies and political choices that singular countries have adopted concerning the above-mentioned arguments, and the state's role in defying a political strategy.

Another level of analysis is at the urban scale. For each country, two cities (the capital and a secondary) have been chosen: Lisbon, Porto, Madrid, Seville, Naples, Rome, Athens and Thessaloniki. In Greece and Portugal, the "secondary" cities represent the second biggest city in terms of inhabitants and surface (Thessaloniki and Porto, respectively). While in the cases of Italy and Spain, the secondary cities are not the second in demographic or extension terms (Milan and Barcelona, respectively), but two medium-big cities that are relevant for the issues treated. This choice has been made to gain a pretty homogeneous ecology of cases represented by the capital and secondary cities.[21]

This relatively extensive set of cities have been used in the empirical section to elaborate the quantitative analysis of Airbnb's performances. They have not been used for a comparative purpose but to map and describe the analytics and inherent dynamics of the presence of Airbnb, demonstrating the network that the platform generates.

Four out of the eight cities have been explored for more detailed research on policies, political strategies, and urban dynamics; they are Lisbon, Naples, Athens and Madrid. Each of them tells of a different dynamic in which crisis and austerity policies have modified housing and the varying degrees at which finance has entered the real estate market, revealing the connection with the presence of Airbnb. Each city brings to light specific episodes that aim to support and complete the theoretical debate. Indeed, the case studies' discussions follow in the chapters after the thesis core analysis.

[21] Further detailed descriptions of the quantitative features of all the cities are presented in Chapter 4.

Athens and Naples are discussed in Chapter 2, in which the issue of crisis is at stake. In Athens, due to a lack of public interventions and safeguard measures during the years of the crisis, many market sectors were opened up to international economic players, including the STR and housing sectors. After years of stagnation, a re-invention of the urban imaginary opened it to economic interests, mainly the urban fabric in Naples. Simultaneously, the housing sector remains blocked to international investments due to its highly unregulated structure, and local companies and privates mainly dominate the STR market.

Lisbon and Madrid are discussed concerning housing issues in Chapter 3. In Lisbon, the policies of liberalisation in the real estate sector, and the political strategies to attract international capital have been met with the STR market approach, allowing it to expand its sphere of action. In Madrid, after the policies that made the social housing stock purchasable, many international financial companies entered the Spanish real estate market, such that such financial players could enact housing value exploitations even through the vacation rental sector.

Thus, this work is not an urban based research. However, it aims to picture the complexity of the financialisation processes through Airbnb's functioning, by interrogating simultaneously the interactions that occur at different levels, holding together institutional directives, national politics, urban policies, and international investments. Furthermore, the methodological approaches are also oriented to frame the processes in such a manner. Each city's structuring and description have been presented in two sub-paragraphs: the first one aims to frame the context in which the city faced the 2008 crisis, while the second part is structured via the methodological lens of the "*Seeing like…"* approach (that will be discussed in the next paragraph).

Table 5 shows how the discussion of the case studies frame the structure of the work.

	Chapter 2		*Chapter 3*	
	Framing	Seeing like…	Framing	Seeing like…
Naples	Cisis as a process: the emergency of trashes as a structural urban governance	…a State: The absence of the state in the governance of renewal and branding		
Lisbon			State deregulation policy on rental market	…a State: State regulation policy on capital attraction (Golden Visa)
Athens	Legitimation crisis: the role of the state in the 2008 crisis	…a city: Global Network of investment and finance and privatisation (+red loan)		
Madrid			State liberalization of social housing	…a market: Financialization of the housing sphere (REITs)

Table 5: Structure of the case studies

Trans-scalar approaches

As mentioned in the previous paragraph, the layers of analysis are several, and they need to be connected to each other to comprehend the diverse causes and effects of the relative connections. A direct consequence of such necessity is adopting approaches that can link and swipe through several scales, actors and praxes.

The trans-scalar approach is used not to focus on a specific scale of inquiry but to keep together different context and scales. The studies that have employed this kind of approach, debate issues with a variegated geographical basin, involving multi-institutional actors. Hence, the line of investigation takes multiple directions, describing the complexity and the multiplicity of each. Alford (2016) and Smith (2015) used such approach to describe the global production network (GPN) and the interconnections with the nation state, providing "an analytical lens through which to conceptualise cross-cutting strands of trans-scalar governance regimes, involving complex networks of state, private and civil society actors operating at multiple scales" (Alford, 2016: 52). Also Majoor and Salet (2008) discussed the trans-scalar feature of urban policies, calling the inevitability of such a multi-scale vision in the contemporary globalised world of urbanity policies and global interconnections. Another relevant work is the one of Belotti and Arbaci (2020), who applied the trans-scalar methodology to the legislative-financial structures in the framework of commodification of housing. In all of these works, the trans-scalar approach links economic networks and institutional regulations. This highlights the necessity of a multi-scale comprehension of the dynamics between different parts.

If the trans-scalar approach is digging to interrogate several scales, the assemblage approach needs to reflect the several interconnections between different actors, praxes, and policies. Such an approach describes the socio-material transformations and the urban policy mobility as a productive co-presence in cities (McCann, 2011). As the trans-scalar, the assemblage is used in many fields and collects "heterogeneous elements that may be human and non-human, organic and inorganic, technical and natural" (Anderson and McFarlane, 2011: 124). Excavating the Deleuze and Guattari concept of assemblage (Deleuze and Guattari, 1975), many urban scholars used this approach to investigate the complexity of contemporaneity. Colin McFarlane gives this broad range definition:

> "Assemblage—whether as an idea, an analytic, a descriptive lens or an orientation— is increasingly used in social science research, generally to connote indeterminacy, emergence, becoming, processuality, turbulence and the sociomateriality of phenomena. In short, it is an attempt to describe relationalities of composition—relationalities of near/ far and social/material. Rather than focusing on cities as resultant formations, assemblage thinking is interested in emergence and process, and in multiple temporalities and possibilities." (McFarlane, 2011: 206)

The intentionality of focusing on processes rather than on 'resultant formations' is a crucial aspect of the corpus of this research that aims to connect different actors and institutions that are involved together in dynamic processes of exploitation of resources (land) and essential good (housing). Indeed, within various applications, such approach has been used to unveil the financial mechanism behind the real estate market. Of primary interest is Fields (2015) work that calls for a usage of the assemblage analytics to reconstruct the financialisation within the rental sector, tracing the varieties of actors, institutions, investments, and social parties involved in such mechanism.

The two central core of literature that I used to perpetuate the advantages of the trans-scalar and the assemblage approach are the "seeing like…" (Amin and Thrift, 2017; Coronil, 2001; Ferguson, 2005; Fourcade and Healy, 2016; Magnusson, 2008; Scott, 1998; Valverde, 2011) and the "financial chain" (Sokol, 2017). These two core tenets of the literature, described in the following paragraphs, have been used in different research practices and structural moments. The "seeing like…" method has been an useful perspective to look at different actors highlighting the different interests and positionalities within the case studies. On the other hand, the "financial chain" approach has been practical for a deeper deconstruction of the mechanisms that link the financial praxis with the real estate and SRT platforms.

"Seeing like…"

James Scott coined the term in 1998, writing the book *Seeing like a State,* a critique of how modern nation states have managed societies to maintain their political power. Scott (1998) focussed on the praxis of modern states to make society "legible" by using homogenising operations of control such as census or mapping, both in society and in nature; forest mapping to increase productivity and carry out control policies is a metaphor for society and the willingness of the state for its structural reorganisation through state planning. However, some critiques have been made to this conceptual framework. Coronil (2001) and Li (2005) have called out failed schemes in Scott's analysis, in terms of the simplification of the extensive scale of engineering of the state, the binary contraposition between state and society and on the sole role of the state in such mechanisms, without engaging other possible figures. Coronil focusses on the other actors involved, referring mainly to the role of the market, and recalls the simplification of the separation of state and market established by Scott as not including the historical connection between the two institutions:

> "[W]hile Weberian and Marxist discussions of the state have been premised on a separation between the state and society (or the economy), new approaches suggest the inseparability of the political and the social, particularly now that it is easier to see how the capitalist market has imposed its logic on society and become a 'political' force of its own" (Coronil, 2001: 124).

Ferguson (2005) shifted the focus onto the role that global corporations exert through power and homogenisation play, referring to the oil companies in Africa. He highlighted the global network in contraposition with the state grid, calling for a recognition of the "off the grid" scheme of global investments. Furthermore, Fourcade (2017) proposed shifting the focus and seeing *like a market*, adding to the global networking the weight that data have in the new economic and financial mechanism. As a critique of Scott's work, Magnusson (2013) called to better *see like a city* instead to read the political complexity:

> "[T]o envision the political through the state is to see it in terms of the practices of sovereignty and hence of law. To envision the political through the city is to see it in terms of complex practices of government and self-government, practices that always involve multiple authorities in different registers" (Magnusson, 2008: 112–113).

Finally, Amin and Thrift (2017), in their book *Seeing like a City,* proposed a comprehensive overview of the contemporary debates on the urban, describing contemporary cities as integral parts of international, inter-human, inter-scalar and infrastructural networks. Leaning on the assemblage theory, their scope was to frame "the coming together of overlapping sociotechnical system that gives cities their world-making power" (Amin and Thrift, 2017: 9). In their view, the city, or rather the urbanity, is the complex assemblage of processes and network; thus, seeing like a city is looking at the layered complexities of the contemporary.

All these examples of how the "seeing like…" approach has been used to conceptualise the different perspectives can frame different problems and questions. A similar scheme has been adopted to unpack the complexity of the theme in this work. As mentioned above, the *seeing like* perspective ihave been used to read the case studies.

- Seeing like a state: Describing two different cases where the state is and is not involved in policies-led development. The case of Lisbon, in which states have enacted policies of liberalisation of the rental market together with international agreements to attract capital for real estate investments. Additionally, the case of Naples, where, despite a policy state absence, the city was viewed first as being of international touristic interest, and then had to face overtourism.
- Seeing like a city: Considering the Amin and Thrift (2017) meaning, the case presented is Athens, in which, in the years after the crisis, the city gained increased international interest and became involved in several global networks, from the acquisition of the Pireous by the Chinese company to socio-political movements that debated the crisis.
- Seeing like a market: Used to analyse the housing tenure of Madrid, which predates international financial companies, and how the finance mechanism entered the real estate dynamic of the city.

"Financial chain"

In an article, Sokol (2017) developed a methodology strictly related to financial studies; he called it the "financial chain". This methodology proposes to investigate both the channel of value transfer of finance and the social relations that shape the socio-economic processes and economic geographies: "[T]he concept captures both the mechanisms (i.e., financial instruments, econometric models and legal forms) that transfer value across space and the networks of financial actors that shape economic geographies“ (Waldron, 2018: 208). It proposes to investigate the links in the chain of the financial mechanism, inscribing it in a space-time functioning:

> “[T]he ‘financial chain’ metaphor therefore has a double meaning: it connotes both the way in which actors are interconnected with financial linkages (which transfer values over space and time) and the way they are ‘chained’ to each other in a social relation, shaping each other’s actions in the processes" (Sokol, 2017: 6).

He called it a methodological challenge. Accenting the lack of the financial studies concerning space, financialisation is essentially a spatial process, however the “geographically-informed view of financialisation remains underdeveloped“(Sokol, 2017: 2). One prime example of financial chain that he explained are the “credit–debt relationships that criss-cross Europe and link households, financial institutions, enterprises, nation-states, supra-national structures and financial markets together, with significant implications for economic fortunes of localities, regions, and whole nations" (Sokol, 2017: 2). By using such a methodology, the aim is to unveil the different scales, actors and spaces chained together.

Mixed methodologies

A consistent part of the research has been conducted through desk research to frame the concept, study the literature, and exhibit the policies. The empirical analysis was mainly conducted with quantitative methodologies for the data analysis of the database of AirDNA, while qualitative methodologies have been used both to support the data analysis and the desk research.

Using mixed methodologies allow me to analyse the issues from different perspectives; although the quantitative methodologies are the most present, the others have played an essential part in the construction of the empirical section. The effort of keeping together different kinds of data, as the Airbnb performance, the interviews information, and the observations made during the fieldwork was challenging but necessary, to reflect a more complete possible picture of the overall phenomenon.

The empirical analysis has been developed mainly through quantitative methodologies. This is due to three factors: i) The platform companies act, by definition, on the digital space, and thus their data are collected and stored under the same database. This made it easier to gather the data and have uniform information on the whole (of a different nature would be hotel data, which is collected differently and stored in a different database). ii) The scale of this research required an extensive usage of data, Other researches on the effects of Airbnb have been conducted through qualitative methods of mapping and interview (Cocola-Gant and Gago, 2019; Gil and Sequera, 2018; Semi and Tonetta, 2020). However, such researches have based their empirical analyses on the neighbourhood scale and not on the trans-national one. iii) The database used includes all the Airbnb data at the European level, and consents to compare singular city performances with other cities across Europe.

The database used has been provided by the commercial data scraper company AirDNA, composing a series of detailed data scraped directly from the Airbnb website. All the information are public and visible on the website.[22] AirDNA collaborates with university and research centres, providing updated data as well as with private companies and Airbnb users to monitor and better their performances. However, it must be considered that the private firm AirDNA also provides data and high-quality analysis for Airbnb Hosts, Property Managers, Real Estate investors and the Tourism Board. The additional services that AirDNA provides for these actors include: Market Minder which is a service to retract historical trends of the property performances; Investment Explorer which discovers the best locations to invest in; the Rentalyzer which is the first automated valuation model for STRs. This is a contradiction that should be considered when using the data provided by AirDNA, although this does not affect the accuracy and reliability of the data provided.

The analysis made using the AirDNA database, which is descriptive, statistical, and spatial.[23] The descriptive analysis has been mainly done using Excel, reporting from the basic database information on the performances of each city and unpacking the information to unveil the magnitude of the multi-properties' hosts at urban, national and international levels. An additional investigation on multi-properties' hosts was made by building up a cluster analysis with the software SPSS Statistics. This statistical analysis has been used to classify the different professional behaviours of such hosts, interrogating their performances to show their commercial activitites. Finally, the spatial

[22] A full description of the database is developed in Chapter 4.

[23] The data elaboration has been made with the contribution of some members of the research team of FULL (Future Urban Legacy Lab). My personal lack of knowledge about the programming languages made me request consultancies on the pragmatic issues regarding the writing of the scripts to read the vast database of AirDNA, not otherwise consultable with software such as Excel.

The first script were made with Python to unpack and study the potentiality of the database, and were made by Marco Rapelli (PhD candidate in Electronic Engineer at FULL).

The latest scripts (also made with Python) to build up the database I used for the elaborations has been made by Francesco Luigi Milone, PhD candidate in Production Management and Design and member of FULL, who himself is working on the same Airbnb database. Francesco and I are part of a parallel research team that investigate Airbnb dimensions across Europe.

Another contribution for the statistical method analysis has been made by Roberta Taramino, PhD candidate in Urban and Regional Development at FULL.

analysis shows the presence of the listings in cities, where the mapping of Airbnb presence in cities has been made using the QGis software, while the network capacity analysis between cities across Europe has been made with the Tableau software.

The cities presents substantial differences in terms of extension, population, density and other geographical demographic parameters as it is described in the second part of Chapter 4. To avoid comparative mismatching in the statistical analysis, most of the data presented in Chapter 4 and 5 are percentages or are normalised under common parameters. For each analysis will be presented the relative methodology.

However, some qualitative analysis has also been used to reinforce and deepen the data results. During the three years of doctoral research I conducted four short periods of fieldwork in Athens, Lisbon, Madrid and Naples. These periods were spent contacting academics, associations, institutional actors involved in the issues of tourism and housing, or colleagues with similar research interests to arrange interviews or generally chatting regarding the urban dynamics of such issues. My research is built on the trans-scalarity of different layers, including four countries, eight cities and their international relations; the specific urban dynamics and the urban responses to such phenomenon are not deeply analysed. For these reasons, during the fieldwork, the interviews have been of great importance in my comprehension of the whole pictures.

The interviews were all recorded and have an open structure. The discourse is oriented to provide an overview of the urban condition in the field of tourism, and understanding the political actions regarding housing through policies and perspective on one side, and social reactions on the other, alongside interacting with people involved in social movements.[24]

Along with these interviews, attempts were made to arrange interviews with hosts. There were few positive responses, with most of the contacted hosts refusing even a

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[24] The interviews conducted were:

- Athens: Dimitris Balampanidis (Harokopion University), Thomas Maloutas (Harokopion University), Costas Hadjimichalis (Harokopion University, Emeritous), Dimitra Siatitsa (autonomous researcher-activist).
- Lisbon: Simone Tulumello (ICS, Universidade de Lisboa), Augustin Cocola-Gant (IGOT, Universidade de Lisboa), Luis Mendes (IGOT, Universidade de Lisboa), Joao Seixas (Universidade Nova de Lisboa), Jaime Jover (City University of New York).
- Madrid: Alvaro Arouda (Universidad Politécnica de Madrid).
- Naples: Rosario Sommella (Università di Napoli Orientale), Laura Lieto (Università degli Studi di Napoli Federico II), Riccardo Rosa (Napoli Monitor), Monica Buonanno (Councilor for social policies and work, Municipalities of Naples), ReteSET, Alfonso De Vito (Magnammoce o'pesone).

small interview. In this case, the interview is structured as a questionnaire, the interviews were made in face-to-face mode, so the answers remained open.[25]

Finally, a consistent part of the research advancement was made through desk research. Despite the essential work in literature reviews and concept framing, desk research was needed to investigate the national and international policies and study the profiles of the multi-property hosts' companies that operate inside and outside Airbnb. Scraping the websites of the companies provided much information about whether those companies act as property managers or are financial firms, or whether they are financed by equity funds or are start-ups and so on, things that otherwise could not have been acquired from the database.

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[25] The questionnaire is the following:

1) When did you start being an Airbnb host?
2) Is this your first job?
3) How active are you on Airbnb?
4) How many listings do you have on Airbnb?
5) Are you the owner of the house?
    a. Yes:
        i. When did you buy it?
        ii. Did you make restorations?
        iii. Did you buy it as an investment or with the purpose of it being your residential home?
        iv. Do you rent your personal spaces (including, if necessary, your bedroom)?
    b. No:
        i. Are you sub-renting your place? Is your landlord is aware of this?
        ii. Do you manage it for someone else (friends/private)?
        iii. Do you work for any real estate management company?
        iv. What's your role within the company?
6) Have you ever been in contact with any real estate management company to acquire/manage you apartment?
7) Have you made adjustment to the house/building (automatic door opening or other facilities)?
8) Do you work with any service provider/s (such as cleaning/laundry services, online or offline)?
9) Are you part of any kind of association of hosts?

Chapter 2

Crisis – crises

The aim of this chapter is to frame the variegated meaning of crisis. Moving beyond the theoretical interpretations to the historical connotations, the core of the chapter is to present and discuss the concept of crisis in the politico-economic framework, in particular, through the Marxist and neo-Marxist perspectives – the role that crises have in economic societies, both in terms of the classic theories of crisis and in the contemporary finance-framing interpretations. Recognising the cyclic nature of crisis as an inner feature in the capitalistic accumulation process, and a necessary step to keep the fluxes of capital in motion, the focus is on the consequences of crises and how it can be used as a technical component of politics. Thus, the primary agenda is to highlight the political power that crises can trigger as a legitimation tool in the policy-making and governance of the urban. The urban role of crises is indeed underscored by a deep relationship with the built environment as an intrinsic piece in the cycle of the crises.

Although emphasising on the politico-economic meaning of crises, the concept is also examined through other interpretations. The crisis triggered by the COVID-19 pandemic keeps open the interpretation of crisis as an event or process. To examine such a binary interpretation, the case of Naples is studied in light of the plurality of crises, while the case of Athens investigates another central aspect in the interpretation of crises – the state's role.

Conceptualizing crises

The term crisis has many connotations; the "semantic vagueness" (Gentili, 2019) of its meaning makes the concept range from engaging to disarticulate,

> "[C]risis is a polysemic word and a problematic concept and denotes multi-faceted phenomena that invite approaches from different entry-points and standpoints. The meaning of crisis depends on its articulation into a broader set of concepts (commensurable or not) and on the sort of meta-theoretical framework in which the concept is embedded (e.g. idealist, empiricist, actualist, realist)" (Jessop, 2015: 245).

Shank (2008) referred to the crisis as a historical category, while Roitman (2013) considered it an object of knowledge to reveal its intrinsic contradictions.

Crisis, in the contemporary vocabulary, is widely used in several fields: environment, energy, medical, social, relational, and broadly politics and economy. Whatever the context be, it is still unclear what precisely is the category of crisis. Such a concept can push the imaginary of a condition to emergence, risk, or a problematic change of paradigm: "'Crisis' conveys the image of a moment of transition from a previous condition to a new one – a transition which is necessary to growth, as a prelude to an improvement in a different status, a decisive step forward" (Bauman and Bordoni, 2014: 3). However, as Roitman (2013) pointed out, "[E]voking crisis entails reference to a norm because it requires a comparative state for judgment: crisis compared to what?" (p. 4). Recalling Canguilhem's (1966) enlightening debate about *norm* and *normality*, her statement aimed to open the discourse on crisis, i.e., who decides when and how to be in a crisis? Being in a crisis means entering a process of changing of paradigms, and is thus essential to disarticulate the components of such a process (actors involved, interests, stressed fields, consequences) to understand the role that crisis has contextually and the elements that define it; "we should *always* ask (but rarely do): a crisis of what and *for whom*?" (Christophers, 2015a: 210, original emphasis).

The debate on the conceptual logic of crisis is whether it is perceived as an event, a turning point, an inevitable passage, or a process, a condition, a state, a permanency. Considering crisis as a contingency, it is suggested to focus the attention on the "triggering event" (Forgues and Roux-Dufort, 1998: 5), while considering it a process addressing the attention to the consequences and dynamics. According to Roitman, "crises do not signified anymore a moment of decisive judgement (medical and juridical meaning) but more a condition" (2013: 16), but Forgues and Roux-Dufort (1998) highlighted how this distinction is ambiguous and thin due to the fluid connections between events and processes and causes and consequences.

As the current situation suggests, the events and the processes are connected and melded in what can be defined as the emergence of the pandemic by COVID-19. What defines the crisis which almost all of the world's population is passing through? Considering the contingency aspect, the triggering event can be traced to zoonosis, by which animals passed the virus to humans (even though this hypothesis has not entirely been proved yet), and an event that altered the healthy human body to a diseased one. On the other hand, considering the process, what defines the crisis can be said to be the collapse of public healthcare, and the static socio-economic conditions of specific labour categories; and this refers to a condition that persists over time (and space).

Box #1 presents the case of Naples and the complex framing in which the crisis took place as a process. The crisis is known as the waste crisis, and is discussed to analyse the multiplicity of the crisis process and origins and political consequences that are at the base of the contemporary developments of the city.

Box#1: Naples

Crisis as a process

One of the primary structural crises that the city of Naples (and the region of Campania) has faced over the last few years was the waste crisis, a longstanding emergency that from 1994 to 2008 (and even further), establishing its roots in the social, economic, political and urban fabric.[26]

During the 1990s, Naples saw a period that the media have dubbed *Rinascimento Napoletano* (Neapolitan Renaissance), after years of (mostly) illegal speculations on the built environment,[27] demographic decline and abandoning of the historic centre – a series of policies, events, and initiatives tried to relaunch the cultural and social life of Naples.

"[T]he 1990s were a substantial period in Naples recent developmental scene: new politicians, new technicians, a sense of rebirth based not only on external initiatives such as the International Meeting of the G7 in 1994, but, above all, a new attention to internal resources (cultural heritage, economic transformations, and the new urban plans)" (Mazzeo, 2009: 368).

However, the cultural turn of the city centre was paired with the unplanned process of the deindustrialisation of the periphery, and the enthusiasm ceased when in 1994, the Italian Prime Minister declared a state of emergency in the region due to the incapacity to dispose of the waste of the metropolitan area of Naples. The chronicles of the waste crisis are a complex mix of weak political class, strong criminal association,[28] international warning, domestic illicit activities, and media attacks. More than over 20 years, an entire region was marked by criminality and a lack of political response that

[26] The decision to focus on the waste crisis could seem a bit off-topic from the issues addressed in this work, however analysis of this theme emphasises three fundamental methodological aspects: (i) Even if a lot of focus is on posing the economic meaning of crisis (in particular, on the Marxist theory), one of the purposes of this chapter is to highlight the multiple variegation that crises can embrace, enlarging the conception of the idea beyond the strict economic meaning; (ii) following the first point, talking about such crises can make light of the undercurrent issues, disarticulating the multiplicity and complexity of what defines such a structural emergency (what crisis, and for whom?); (iii) the processual feature of crisis can highlight the push and pull of the political engagement and consequences.

[27] "By one estimate, 60,690 unauthorised buildings were built in Campania, between 1998 and 2007, with a total floor area of 9,103,434 m2, the great majority of these in the provinces of Naples and Caserta" (Mazzeo 2009, 367).

[28] Legambiente (Italian NGO) defined the criminal association linked with the waste crisis as the ecomafia. A 2008 report of the NGO quantified the illegal activities related to the waste business: 448 verified violations, 31 arrested persons, 422 legally suited persons, 175 sequestrated properties (Legambiente, 2008).

brought to it several crises. Indeed, the crises triggered by the waste emergency were of varying nature.

The reputational crisis spread by mainstream media discourses highlighted not only the political class, but largely the southern attitude, invoking that pre-modern imaginary and exacerbating the north-south divide.

> "[N]early all local and national news, bearing a strong ideology dating back to the second half of the nineteenth century, argued that the inefficiencies in the management of waste in Naples and environs were mainly due to the anthropological and sociological backwardness of Neapolitans and, in general, of the South, deemed incapable of tending to their own waste and of any form of self-government" (Capone, 2013: 48).

The images of Naples' streets full of waste were on the front pages of domestic and international newspapers for years, which were quickly associated with the rhetoric of the uncivilised south unable to resolve a practical crisis of management.

The environmental crisis was indeed one of the main issues raised in those years; scholars active on these matters attributed the crisis tp environmental justice and political ecology (Armiero and D'Alisa, 2012; Greyl et al., 2013). Another issue part of the environmental issue was Campania being mainly a primary sector industry producer,

> "A large and complex urban-rural system where more than 4 million inhabitants, agriculture, food production, industry, waste treatment and disposal activities coexist. Agriculture and food production industries play an important role in the economy of Campania, with more than half (54.80%) of the total regional surface under cultivation" (D'Alisa et al., 2010: 242).

The ecological disaster that waste the accumulation produced for the productive land was huge, with severe issues of air and soil contamination for the agro-food chain.

Not only was the production process was compromised by the contaminations but the pollution also triggered a health crisis. The whole area was named *terra dei fuochi* (land of fires) due to the illegal toxic fires resulting from burning waste, where high levels of dioxin were found in the air and aliments due to soil pollution (Greyl et al., 2013). An article issued in Lancet Oncology named an area outside Naples the "Triangle of Death",[29] demonstrating a correlation between the increase of cancer and landfill sites.

All these issues are related to an important social theme, which Iovino (2009) called a citizenship crisis,

[29] Senior, C. and Bianchi, F.(2004) Italian "Triangle of death" The Lancet Oncology, Volume 5

"[When] a citizen's basic rights are no longer guaranteed. They are not politically guaranteed, because the permeability between citizens and public institutions becomes unstable; they are not socially guaranteed, because lacking institutional protection the social fabric itself erodes under the pressure of an organised crime system; their health is not guaranteed and even their food supply is threatened since to lose control of the condition of their agricultural territories is for citizens to lose control of what they eat". (2009: 359).

The social involvement during the waste crisis was present in the form of protests and demonstrations. There was not any social participation in the decision-making processes, due to the fact that the state of emergency declared by the PM in 1994 centralised the power of decision-making to one special commission, the Extraordinary Commissary for Waste Emergency, excluding the civil part to the decision-making process. This power concentration helped streamline the bureaucratic machine and made it easier to deregulate some political practices and approve the discussed project of the incinerator. D'Alisia et al. (2010), in light of the lack of social participation, suggested that "the environmental struggles in the region should be analysed as a crisis of democracy rather than a case of waste emergency" (2010: 58).

All the crises listed above are highly political,

"[T]he effect of the state of emergency, however, has been quite the opposite of what authorities intended — that is, the depoliticisation of the issue and the imposition of a technocratic approach. Instead everything —science, technology, the market, spaces, and bodies—has become political" (Armiero and D'Alisa, 2012: 59).

Such crises have been political for the non-involvement of the civil part, and have been tools to deprive the local governments of their power. The crisis put the local authority under external administration. The deregulation procedures were being quickly approved, and the abeyance of the state of rights ran on for two decades until summer of 2008, when the Italian PM declared the end of the state of emergency because the waste was not visible anymore on the streets of Naples and its provinces. The suspension of the state of rights has been denounced by social movements as an attempt of the government to foster private interests using public money (Armiero and D'Alisa, 2012; Greyl et al., 2013),

"[T]he waste treatment strategy adopted by government has only addressed the symptoms of the crisis (the accumulation of ecoballs), rather than the roots of the crisis. These are to be found in: a lack of participative democracy, an absence of research, the need for behavioral change, necessary improvements to the judiciary and control efforts" (Greyl et al., 2013: 26).

Raffaele Paura, an old guard activist of the social movement, *Magnammece o' pesone,* talked about the crisis as an instrument of transformation and referred to the natural crises of Naples – the outbreak of cholera at the end of 1800, the earthquake of 1980, and the waste crisis – stated, "Napoli come tutto il sud è stato usato nella storia come strumento di repressione e sperimentazione sociale in momenti di cosiddette calamita naturali, che naturali non erano affatto..."[30] (Paura, 2019, interviewed by the author).

The experience of the waste emergency unveiled the complexity and the multiplicity of crises, the multi-stratigraphy of meanings, involvements, and players. After the end of the emergency was declared, it was seen that the image of the city had been compromised, and the local economies had suffered from a substantial decrease of touristic fluxes. In summer 2008, tourist overnight stays in Naples and the entire island had decreased by 18.4%, compared to 2007, and tourist arrivals had fallen by 16.5% (Pasotti, 2010). It is important to be aware of such crises that infested Naples for two decades when analysing the wave of touristic interest that occurred during the decade, which is discussed in the next paragraph.

Seeing like a state

Following the waste crisis, the recovery of the image of Naples has been slow and non-programmatic because, first, even with the emergency ending in 2008, the management of excess garbage was not re-established. Second, the local authorities did not activate programmes and policies to rehabilitate the image of the city. The inability of the public to support the recovery of the city was also because, in those years, a wave of austerity flooded the Italian administration, particularly the municipality of Naples, which was already in a default condition and had to face state cuts in the financing of local authorities, the imposition of a balanced budget and the strict supervision of state bodies regarding the policies adopted by the municipalities in the management of public property.

In those years, the general picture of Italy was that of a consistent occupational crisis caused by a crash of the global economy. Several laws were promulgated to stimulate the recovery of the economy, particularly the ones in the housing sphere which were focussed on the privatisation of social housing and the redevelopment of urban areas through public and private investments.[31] Moreover, the increase of property taxes

[30] Trans. "Naples, as all the South, has been used during history as an instrument of repression and social experimentation in moments of so-called natural disasters, although they were not natural at all…"

[31] National Law 133/2008; Regional Law 10/2011_Housing plan; National Plan for cities Decreto Crescita (dl 83/2012).

(IMU), and the mortgage limitation to those who earned less than 2000 euros per month, forced many people to sell their homes or being evicted. In 2012, 46.000 families were foreclosed by banks. (Di Noto, 2013). Additionally, in Italy, the liberalisation of rental housing markets played out during the second half of the 1990s (National Law 431/98). During those 10 years, rents increased by 130%, on average, in the Italian territory.

The state of pre-collapse of the municipality of Naples led them to activate processes of alienation of public property, not just social housing stocks but also historic estates for touristic purposes, such as *Napoli Sotterranea* (underground Naples) – a net of galleries and tunnels dating back to the ancient Greek times, first acquired from the state by the Naples local authority, and then rented out to an association managing the touristic flow and several other private ones for other purposes, like parking, deposits and commercial activities. These episodes of reconversions are also present within the Curia Estate. In Naples (as in other Italian cities, first of all, Rome), the Curia Estate represents a large part of the total urban real estate, particularly the historic centre. These real estate plots are under a subsidised regime in terms of the taxation for the reconversion to touristic structures, accommodation and services (for these estates are not included under the touristic taxes and IMU tax). These privatisations and reconversions also seem to not follow the generic guidelines of the 1995 annexation guidelines of all historical centres of UNESCO sites to safeguard the historical heritage from speculations and degradation.

Another important privatisation has been the assignment of the management of the airport of Naples to the British firm GESAC, that invested 209 million euros towards infrastructure, such as the construction of another terminal and other structural amplifications, in order to make the airport capable of containing the touristic flow,

> "[I]mprovements at Naples International Airport have also contributed to the city's economy. Since the British Airways Authority took over management in 1997 buildings have been refurbished, efficiency of land side services has improved and national and international flights have increased. At the end of 2007 passenger traffic counted 6.7 million passengers" (Mazzeo 2009, 373).

The airport opened to manage routes for short breaks. However, the media attention and other factors have contributed to Naples becoming the new centre for international tourism. In 2008, 820.000 arrivals and 1.8 million tourist presences were recorded in the city (D'Alessandro and Sommella, 2012). The (non) political choice of laissez-faire was characterised by a series of episodes that boosted the city's image at different stages, moving away from the garbage image of the city. The movie industry played a central role in this transition, focussing on the recovery of the city's image. In two years (2015–2017), there have been more than 400 cinematographic productions, TV commercials, TV series and so on set there (D'Alessandro et al., 2015).[32] In this wake, in 2017, the local authorities, together with the GESAC, produced a document for the strategic planning for tourism development (Piano Marketing Strategico per lo Sviluppo Turistico della Destinazione Napoli) called *Destinazione Napoli 2020* (Destination Naples 2020), in which the primary purpose was to encourage the rebranding of the city through the speculation on the "authenticity" of the city, recalling the caricatured imaginary of the Mediterranean city and the folklore of the tradition (D'Alessandro, 2018): *Napoletanità* (Neapolitanity). Under this statement, and extremely generic guidelines, the city's face was re-shaped in a touristic and parodic way, adopting vague European connotes of urban regeneration strategies (Dines, 2018; Rossi and Vanolo, 2013). The retail pattern of the historic centre changed its connotes from the traditional "alley economy" (*economia del vicolo)* to shops, street food, touristic services that faked that kind of an image. Lieto (2019), in an interview, defined the kind of faking as "lo staging della napoletanità" (Lieto, 2019, interviewed by the author).

The overcrowding of the historic centre by tourists and touristic services was pitted against its depopulation in the last decades. Indeed, Naples was facing a "crisis within the crisis" (De Rosa and Salvati, 2016), due to the depopulation of the historic centre. Between 1981 and 2001, Naples lost 17% of the population, although maintaining a high density (D'Alessandro and Sommella, 2012). The non-action of the public actors indirectly influenced the high decentralisation, "in the shadow of the local authorities who seem[ed] unable to define a plan to overcome the notable depopulation of the old town and to manage the impressive growth of some peripheral areas" (De Rosa and Salvati, 2016: 79). However, as opposed to other European cities that saw massive speculations in the housing sphere, and the touristification of the city, Naples avoided this process thanks to its peculiar housing condition. As it emerged in the interview with Laura Lieto, the real estate market in the historic centre of Naples is a relatively static market. Many homes are in a non-habitable state, and there is a widespread micro-abusivism that blocks the bureaucratic machine from making purchases and prevents large investors from actively entering the market. Any building has to be in good standing regarding annexation or modifications, before the purchase, and the fact that many houses are not "legal" under this aspect automatically blocks the possible acquisition, thereby avoiding massive speculations in the real estate market.

[32] The image promoted was variegated, from the cinematographic transposition of the international bestseller *L'amica geniale* by Elena Ferrante, recalling the life in a working-class district in the historic centre of Naples in the 1950s, the fashion campaign of Dolce and Gabbana that represented a folkloristic and caricatured image of the city to the television series *Gomorra*, that narrated the dynamics of organised crime in the peripheral areas of the city.

The genealogy of a concept

The concept and meaning of crisis has nowadays radicalised in the politico-economic sphere, tying together the conceptual meanings and the analytical theorisations. However, the economic intent of crisis is relatively recent; historically, the concept of crisis has been related to several matters. Thus, retracting the genealogy of its concept adds complexity to its meanings and correlations.

In ancient Greece, the term crisis, κρίσις, designated judgment, "a standard, from which to derive criterion, 'means for judging', but also 'ability to discern', and critical, 'suitable to judge', 'crucial', 'decisive' as well as pertaining to the art of judgement" (Bauman and Bordoni, 2014: 1). It was a term contextualised in the juridical vocabulary. Due to Plato, this concept entered the lexicon of the administration of the *polis.* He delimited the role of crisis at the juridical organisation and administration of the *polis,* including the management of the crisis as a servicer for political decisions (Gentili 2019). Although, while crisis acquired a technical value and meaning used for practical matters in managing urban life, this technical attribute has been used chiefly in the medical field. Thucydides reported this term while documenting the plague in Athens, and Hippocrates, in fourth century BC, reclaimed by Galen in the second century AD, referred to the notion of crisis in the empirical study of the disease as the disbalance between the healthy and diseased conditions (Shank, 2008). The crisis represented the acute phase of the disease, and was the expression of the struggle for the auto-conservation of the natural corporal order – the balance between life and death (Gentili 2019). Such medical attributes have been in use since modernity. In the Encyclopédie of Diderot and d'Alembert, crisis is still treated only as a medical term: "CRISE, s. f. (Medecine.) Galien nous apprend que ce mot crise est un terme du barreau que les Medecins ont adopté, & qu'il signifie, à proprement parler, un jugement" (Diderot and d'Alembert, 1777). However, in etymological-historical research, Shank (2008) documented the changing of the meaning of the term crisis in English, Italian, and French dictionaries, throughout the centuries. During 1600, a figurative usage of the word was in vogue, denoting a moment of disruption that preceded a transformation, contextualised in the discourse of collectivity, the public and the political. The transition from the technical use of the term to political discourse was consolidated during the French Revolution and the Enlightenment (Koselleck, 1988), when what was queried was the judgment health and disease of the political order of the state. Crisis then became political and related to the revolution, to condemn the old and diseased political order and affirm the new and healthy one.

Political economy of crises

By 1800, crisis was more often associated with the economy, commerce and industry. John Stuart Mill has been recognised as the first to have associated the concept of crisis with the economy, in his 1848 *Treatise on Political Economy* (Shank, 2008). However, Karl Marx is the mid-19th-century thinker associated with the concept and theory of crisis.

He marked, with his works, the relation of the term crisis to the economic meaning, retaining the medical concept of crisis as a symptom, or rather a step in the capitalistic cyclic structure and the revolutionary engine of the regeneration of a new systemic order. With Marxist and neo-Marxist analyses, the concept of crisis has been radicalised in the economic sphere.

In his work, *Limits to Capital,* Harvey (1982) elaborated on the crisis theory from Marx's political economic work. The vest that crisis embodies in the Marxist analysis is that of a tile in the capitalistic functioning. According to Harvey (1982), crises are intrinsic contradictions within the capitalistic mode of accumulation and necessary moments, by which the capital cyclically reproduces itself. Thus, crisis is not a permanent condition but an inherited and inevitable constant event. Shaik (1978) noticed that

> "[E]conomists who study the history of empirical phenomena are inevitably impressed not only with the frequency of crises but also with their apparent regularity. In the U.S., for example, Wesley Clair Mitchell counts fifteen 'crises' within the 110 years from 1810 to 1920, while Paul Samuelson lists seven 'recessions' in the thirty years from 1945 to 1975" (1978: 220).

While Arias et al. (2016) provided an analytical economic model to measure the business cycle of 50 of the largest U.S. metropolitan statistical areas from 1990, highlighting the boom-bust economic cycles within two decades.

Harvey called for three "cuts" in the theory of crisis; the first-cut refers to the law of falling profit. Here, the contradictions of commodity production and exchange are at the basis of the understanding of the crisis formation. In the falling rate of profit theory, the surplus value production generates an overproduction of capital, which in Marxian vocabulary is translated to overaccumulation. To stabilise the rate of profit, the amount of capital in circulation has to be in balance, so a portion of capital has to be neutralised. The process of eliminating the surplus capital in circulation is known as devaluation of capital. So, devaluation is the counterpart of overaccumulation, and herein lies the first contradiction. The devaluation is a crucial moment in the circulation of value, where "'value' is not a fixed metric for describing an unstable world, but an unstable, uncertain and ambivalent measure that reflects the inherent contradictions of capitalism“ (Harvey, 2018: 193). Marx's main statement is that capital is *value in motion,* so the cyclical movements are fundamental in order to keep it functioning, “[C]apital, in the course of its circulation, undergoes a series of ‘metamorphoses’ from money into material commodities into production processes into commodities, etc. Since capital is value in motion, value can remain value only by keeping in motion“ (ibid., 2018: 194). When devaluation makes its course, the overaccumulation of capital is eliminated, and accumulation processes can restart their course, founded on a new social and technological basis.

In the second-cut, Harvey approached the falling rate of profit from a credit-based system perspective. Although the concept of finance capital is mostly unanalysed in Marx's work, the “‘second-cut’ theory of crisis, whereby the contradictions in production, outlined in Marx’s writings on overaccumulation and devaluation, can be temporarily ‘switched’ through financial and monetary arrangements, or credit systems, that help to preserve capital for future, rather than present, use" (Jones and Ward, 2004: 500). The accumulation process in a credit-based perspective is analysed as a cyclical movement composed of five main steps. The first step is the *stagnation* in the wake of a crisis, characterised by a low rate of profits, depreciation, and widespread unemployment. This is followed by *recovery* in which the low interest rate makes conditions for extensive investments in fixed capitalisation with fictitious capital. The third step is the *credit-based expansion,* in which, after the recovery, the employment rises again together with wages and revenues. In this phase, the surplus productive capacity is entirely reabsorbed, so a new investment search is launched for new accumulation opportunities. The fourth phase is the *speculative fever* in which the credit-based expansion boots the accumulation of fictitious capital, the rise of prices and unemployed is at a shallow level; “the condition of labour, Marx observed, is always at best on the eve of a crisis“ (Harvey, 2018: 303). The final step is *the crash,* when the speculative bubble bursts and

> “[T]he devaluation of capital, and of the labourer, proceed apace. Capitalists seek to stay alive by cannibalising upon each other. The labourer is likewise sacrificed on the altar of the underlying irrationality of capitalism. Crisis, as the irrational rationaliser of the economic system, cuts a grim swathe across the economic landscape of capitalist society“ (ibid., 2018: 305).

Such a process, in the accumulation cycle, can help understand the relation between the financial mechanism and dynamics of production, for the creation of fictitious capital has a relevant role in the definition of values.

Finally, for the third-cut of the theory of crisis, Harvey gives a central role to space. He questions, "[I]s there, then, a 'spatial fix' to capital's problems? And if not, what role does geography play in the processes of crisis formation and resolution?" (ibid., 2018: 415). The third-cut theory considers (social) space as a "moment" in the accumulation process; it integrates the landscape of uneven geographical development as a spatial resolution of overaccumulation, "economic crises are 'switched' and the flows of capital and labour 'exported', through actively engaging a space economy that seeks out new spaces (for example, nations, regions, locales, or suburban expansions) within a 'spatial rhythm' of accumulation" (Jones and Ward, 2004: 500–1). Creating geographies of uneven development convert crisis tendencies into new configurations of cyclic accumulation and devaluation.

"[T]he continuous restructuring of spatial configurations through revolutions in value must again be seen, however, as a normal feature of capitalist development" (Harvey, 2018: 426). From the third-cut theory, imperialism appears as an inherited feature of capitalism, spatial alternative in which devaluation could be exported and overaccumulation could be absorbed, the geography of uneven development reflect the "time-specific image of capitalism" (Jones and Ward, 2004: 501).

Another critical thinker who explored the concept of crisis in its political economic meaning is Antonio Gramsci. Following Marx's theories, Gramsci introduced the biopolitical feature of the crisis in economic discourses, "[L]a crisi consiste appunto nel fatto che il vecchio muore e il nuovo non può nascere: in questo interregno si verificano i fenomeni morbosi più svariati" (Gramsci, 1975: 311). In his famous words, he shifted the interpretation of crisis from the economic perspective, the "wave of materialism", to the political perspective, arguing that the crisis is a hegemonic crisis of the ruling class which has lost consent, so it cannot maintaining its role of managing but solely its coercive role of leading. So, crises, in the Gramscian school of thought, are economic crises that create a favourable ground for the rise of political crises: crises of the institutions and the leading feature of the state apparatus.

This vision of the crisis as an engine that can influence politics is how crisis has been conceptualised in the neoliberal era, "il dispositivo della crisi economica diventa di per sé politico. O meglio: diventa arte di governo a tutti gli effetti" (Gentili, 2019: 75). The cyclical economic crisis legitimises the neoliberal state to enact an endless reformation of the economy, in order to overtake the social consequences that the crisis can cause. In the view of crisis as a political tool, the state's role is of primary relevance. However, the role of the state in the neoliberal government machinery is subdued to a mere reorganisation of the market to better functioning, liberalising, privatising, deregulating and internationalising public realm (Jessop, 2002). Boyer (2005) affirmed that “regulation and crisis are linked intimately as two sides of a coin“ (Boyer, 2005: 2), and Jones and Ward (2004) asked themselves whether institutional processes, practices and effects made by the state are set towards a need of accumulation. So, crises, in the neoliberal state, seem to become a form of government, via the offering of space to the market to reproduce power and decisions through policies. The significance of crisis is measured by “its potential impact on the simple or expanded reproduction of the relevant ‘order’ or ‘system’, including its typical modes of reproduction, its conditions of existence and its relative embedding in a wider social formation" (Jessop, 2015: 247).

What is missing from Harvey's reconstruction of the Marxist theory of crisis is actually the role of the state and politics (Jessop, 2004), and towards this lack, Jones and Ward (2004) called for a fourth-cut to the theory of crisis. They highlighted the “multiple contradictions [that] are planned and *managed* by the state as a consequence of its ongoing involvement in accumulation" (p. 506, original emphasis).

Such contradictions lead to the entry of political strategy into crisis management, thus, crises become an essential political link between the regulative and the economic systems. Crisis is a structural component of the political economic society that regulates and influences political behaviours. Therefore, crisis can really be an object of knowledge (Roitman, 2013) to disarticulate political and economic dynamics.

Box#2: Athens

Crisis and the state

The economic crisis that Athens and all of Greece faced in the 2010s was the most mediated and academically-analysed crisis within Europe, because of its severe social consequences.

The mainstream discourse that tried to find the roots of the crisis in the Greek political choices, located it in the decision to host the Olympic Games in 2004, the starting point of the decline of the Greek economic miracle (Alexandri and Janoschka, 2018; Bratsis, 2010) that the country experienced from the 1950s to the early 2000s, and radically transformed the society and economic structure from a mostly rural to a typically Western one. The decision to host the Olympic Games in 2004 was indeed symbolic and representative of that. The total expenditure was 8.9 billion euros (with only 2 billion from private investments), where 350 million was spent in the construction of the Olympic Village and 1.2 billion for security matters (the international attention to security was exceptionally high due to the attack on the Twin Towers and the Pentagon in 2001) (Angheloni, 2014). For the city, a new airport was built as well as an eight-kilometre subway extension, but the amount of money on the shoulders of the taxpayer was still hefty.

The high debt legacy of the Olympics, a capillary system of clientelism within the political class, and a passive fight for tax evasion (Bratsis, 2010) let down the economy, such that in mid-October 2010, a sovereign debt crisis was declared by the Minister of Economy, "[I]n April 2010 the deficit was estimated at 13.6 per cent of GDP and the debt at 115.1 per cent of GDP, while Eurostat gave final figures for 2009 in November 2011 (deficit: 15.4 per cent of GDP, debt: 126.8 per cent of GDP)" (Souliotis, 2013: 239).

However, a deeper analysis regarding the roots of the Greek crisis has been conducted by academics (Christopherson et al., 2015; Hadjimichalis, 2005, 2011, 2017; Souliotis, 2013), digging into the uneven development in the Eurozone and arguing that "[P]ublic debt is not the cause of the current crisis but one of its manifestation" (Hadjimichalis, 2011: 255). The main point is that the 2008 crisis was a result of years of uneven policies, especially against Southern European, countries that were forced to compete with structurally different economies, such as the Northern European ones. Moreover, the introduction of the common currency deprived the possibility of nation states to maintain sovereignty of the value of the currency. Several such aspects left Greece and other Southern European countries in a disadvantageous position in the European and global market.

"On the one hand, internal/endogenous economic and social restructuring in Greece and other SE countries, plus internal failures on the part of local elites and the state; on the other hand, important external/ exogenous factors determining unequal economic and political relations within the eurozone, which have played a major role in escalating the crisis" (Hadjimichalis, 2011: 264).

The first bailout program foresaw a borrowing of 110 billion euros from the IMF. The agreement imposed several austerity policies combined with the borrowing. Such policies included extensive privatisation of public assets and companies, financial and political support to the banking sector, an increase of 2–3% in sale taxes, 20–30% salary cuts in the public sector, freezing or reduction of pensions, 34% cuts in the areas of education, health and public expenditure, structural reform of the labour market and, in general, a restoration of the image of Greece for the international capital market. All such severe conditions were quite useless, such that, after a few years, Greece was still in a hard recession, and the government was forced to ask for a second bailout package of 130 billion euros for the period of 2012 to 2014. Again, with the borrowing, new austerity measures were added,

"[T]he agreement foresees increase of public revenues through a tax reform and a huge privatisation program of state assets (ports, airports, motorways, energy, real estate) that was initially anticipated to yield 50 billion euros in proceeds, a goal revised later to 10 billion" (Souliotis, 2013: 243).

During those years, social movements criticised the austerity conditions, with violent protests erupting in the streets of Athens, asking for better social solutions to deal with the crisis (Koutrolikou, 2016; Mayer, 2013). The detachment between social issues and economic recovery was also because of an increasing devolution of duties from central governments to external and supranational institutions, such as the European Union: "[The] recent initiatives by the EU to ensure long-term financial stability across the Eurozone and beyond suggest that the sovereign debt crisis has been used to assert the primacy of Brussels over national governments" (Christopherson et al., 2015: 6). Such a practice is known as rescaling, which is described as "the re-articulation of the spatial scope of state power" (Chorianopoulos and Tselepi, 2019: 80), fragmenting the central power between several other supra- or infra-national entities. Through rescaling, a decision-making delegate removes responsibility from the central power. In crisis-ridden Athens, the austerity period is represented "a loss of sovereign […] an upwards rescaling of the state in favour of the European Union, International Monetary Fund and European Central Bank (commonly known as 'the troika')" (Alexandri, 2018: 36). The progressive non-action of the state had local implications in the managing of the crisis, mostly against the social interests, and had severe consequences on the depowering of the welfare policies. “[I]n Athens, a financially and regulatorily deprivileged local authority is opening up to the influence of corporate and third sector organisations, adopting a partnership approach that is best understood as a form of ‘elite pluralism’" (Chorianopoulos and Tselepi, 2019: 81). The absence of the state in crisis management led to an institutional void (Hajer, 2003) that further compromised the crisis's escalation.

As Chorianopoulos and Tselepi (2019) assumed, all the praxis of rescaling occurred during the crisis and, in particular, during the austerity periods when the state was unable to manage it. Thus, from an economic crisis, it became a political crisis. In this direction, Gentili (2019) assumed that even the referendum for the exit of Greece from the European Union (known as Grexit) was not a "return of the state" but, on the contrary, it inscribes itself in the neoliberal crisis model. In the case of Greece, a legitimation crisis (Fraser, 2015; Jones and Ward, 2002, 2004) occurred, enlarging its action range “through a complex and contradictory process of state rescaling“ (Jones and Ward, 2002: 481). The managing of the Greek crisis relieved serious structural political issues regarding the role of a (neoliberal) state in a (neoliberal) crisis. Naming post-democracy as the kind of governance in which rescaled states and constellations of public and private supranational institutions can collaborate to fuel the global market, Crouch (2004) highlighted the issue of the contemporary democratic nation state. Fraser(2015) assumed that democratic crises are part of a longstanding process of capitalistic mutations towards a less political structure of the state – “present processes of de-democratisation indicate something rotten not only in capitalism’s current, financialised form but in capitalist society per se" (p. 159).

The legacy of the crisis in terms of state rescaling, manifested in Athens, through the interventions of external parts in the administration of the post-crisis city. The absence of the state and regulatory measures affected several aspects, such as real estate through the unregulated entrance of investors and speculators, generating a processes of gentrification (Alexandri, 2018) and speculation over the public realm –the management of infrastructural facilities, such as the port of Piraeus, by external players. In this sense, the crisis of the state in Greece played a focal role in how the crisis was managed and in the contemporary structure of the city.

Seeing like a city

The post-crisis dynamics that regulated the development of the city of Athens and Greece, were shaped by the austerity measures dictated by the Troika. The recapitalisation of banks with public funds, financialisation of loans and mortgages, wage and pensions cuts, massive estate and land privatisations, together with the absence of economic stimulations, led Greece to a condition of indebtedness and laid a fertile ground for foreign investments and speculations (Alexandri and Janoschka, 2018; Beswick et al., 2016).

In this section, "seeing like a city" is intended as Amin and Thrift (2017), mention in their book, as interpreting the contemporary city. They proposed a comprehensive overview of contemporary urban debates, describing contemporary cities as an integral part of international, inter-human, inter-scalar infrastructural networks. Leaning on the assemblage theory, their scope was to frame "the coming together of overlapping sociotechnical system that gives cities their world-making power" (Amin and Thrift, 2017: 9). In their view, the city, or rather the urbanity, is the complex assemblage of processes and networks; thus, seeing like a city is looking at the layered complexity of the contemporary.

Considering the increasing international interest in Athens after the crisis, as an exploitable terrain for speculative processes for a variegated presence of distress and devaluated assets, Athens entered a global multi-layered network of external actors that gave the city an unwilling "world-making power". Alexandri (2016) documented the rise of a specific set of financial actor specialised in distressed assets, referring to them as "vulture funds". They are specific private equity firms, hedge funds, real estate investment trust (REITs) that focus their investments on countries and companies in crisis, buying non-performing loans (as private equity) or shares of distressed buildings (as REITs).

Post-crisis Athens has been a fertile ground for such speculative processes because of the massive land privatisation allowed by the Troika and the Memorandum of Understanding (MOU), and because, since 2008, land and housing lost between 20% and 35% of their value, it activated processes of unregulated land grabbing and dispossession (Hadjimichalis, 2014). This kind of dynamics has been active since the 1990s, when land was evaluated mainly in terms of its exchange value and financial mechanism, regulated real estate, and urbanisation trade processes. Hadjimichalis (2014) highlighted why the Greek case has been particularly suited to phenomena of land dispossession: the geographical position (the bridge between Europe, Asia and Russia, and the central position in the Mediterranean) gives Greece a strategic centrality for logistics. Moreover, the privatisations of public infrastructure has been a resource for international investors. For instance, the acquisition of the Piraeus port by the Chinese company COSCO, the ownership of 14 regional airports by the German Fraport, and also the national railway that is under the scrutiny of German, Russian and French companies. The regulatory framework of the sales market aims to facilitate and accelerate the sales, stressing the fact that the state and the church own the majority of land; the authority employed out of the ownership is changing the balances of land use, altering the planning tool control. The presence of minerals and gas in the Greek underground has been made part of "traditional" extractivism, another target in land dispossession. Finally, the cultural and territorial value stressed for touristic purposes is another matter of land speculation. One emblematic example is the project of Hellinikon, situated in the former coastal airport of Athens; it represents a huge development plan that includes cultural and sports facilities, real estate development, a touristic port and a public park. For this project, Blackstone (one of the most prominent American financial firms) doubled the 20% investment in the Lamda Development Company, the real estate firm managing the project (Alexandri and Janoschka, 2018). The presence of financial firms in the Greek development plans are frequent – Oaktree Capital, Dolphin Capital and Goldman Sachs are active actors in the Greek real estate and land market (Beswick et al., 2016). Episodes of land dispossession are also frequent also in smaller scales.

> “[The] everyday grabbing that takes place at multiple scales of public land and public space, by domestic actors: from the large areas used for extraction and illegal quarries, tourist real estate with golf courses and the infringement of seashores, all the way to the illegal woodland clearing for cultivation, the thousands of illegal constructions for profit, the occupation of squares and pedestrian streets by restaurant and cafe ́ tables and chairs, or the extension of our garden wall at the neighbour’s expense" (Hadjimichalis, 2014: 507).

The Athenian neighbourhood of Kerameikos-Metaxourgeio has been affected by such *everyday grabbing* since the early 2000s. A progressive process of gentrification has generated several consequences from the exorbitant increase of housing prices (from 1997 to 2008, the price per square meter has risen from 600 euros to 2000 euros), a real estate investment project of luxury apartments by the real estate company GEK/Terna, and massive property buying, perpetuated mainly by the real estate firm KM Property (Avdikos, 2015).

Behind this prolific panorama of investments, another legacy of the crisis has been the generalised indebtment of the population. Since the crisis occurred, the level of non-performing loans (NPL) ran in parallel with the level of unemployment (Siatitsa, 2019). “In 2008, NPL were less than 5% of the GDP, by 2015 they reached a peak of 62.2% of the GDP. More precisely, NPL now exceeds €110 billion, with non-performing mortgages ascending to €30 billion" (Alexandri and Janoschka, 2018: 128). To contain the dramatic situation, the safeguard Katselis law was approved in 2010, regulating the protection of primary residency from eviction and foreclosures, and to avoid the collapse of the real estate market.

"[A]ccording to data from the Bank of Greece for the first half of 2018, 14.9% of borrowers with bad loans and 31.5% of those with bad housing loans applied under the terms of the insolvency law […] more than 200,000 borrowers, or €14 billion of non-performing loans, are under legal protection" (Siatitsa, 2019: 19).

However, since 2014, some of the protection measures have been removed and the government is still trying to abolish the protections completely. According to the statistics of July 2019, 40% of Greek housing loans are still NPL.[33] Additionally, the NPL had a relevant impact on the banks that saw a drastic reduction in their incomes, leading to a condition of bank indebtment that forced banks to sell out packs of red loans and mortgages at discount prices to hedge funds and international private investors (Hadjimichalis, 2019, interviewed by the author). Moreover, since 2012 a deep bank restructuring has been activated, in which international players became share-holders of national banks; for instance,

"The Canadian hedge fund Fairfax Capital has acquired a significant portion of the third biggest bank, Eurobank, as well as of its real estate branch […] the ownership of the major banks has passed to international investors and hedge funds, such as Credit Suisse, Goldman Sachs, HSBC and JP Morgan, Deutsche Bank, Barclays, and Morgan Stanley", meaning that "international investors and hedge funds own NPL related to mortgaged houses, garages, properties, businesses and rural lands, awaiting new legal amendments on the ability to abstain properties and primary residences" (Alexandri and Janoschka, 2018: 128).

In the case of the abolition of the primary residency protection law, the forecast is quite catastrophic. These private hedge funds could be the new owners of several thousands of expropriated estates, managing them without the social commitment of care for the many evicted peoples.

[33] https://www.statistics.gr [15703/2021]

The spatiality of crises

Harvey's (1982) efforts in *Limits to Capital,* and other works (1978a, 2001, 2002a, 2002b, 2011), have related the theory of crisis to the space-time dimension. Jessop (2015) agreed that “[C]risis is also an inherently temporal concept with spatial connotations“ (p. 246), and this is valid if we embrace the main Marxist statement on the nature of capitalism, that it is a process, a flux, a circulation, and “the continuity of the process (along with its speed and geographic adaptability and mobility) becomes a crucial feature for sustaining compounding growth. Any blockage in the flow of capital will produce a crisis. If our blood flow stops, we die.“ (Harvey, 2011: 6). The space-temporal dimension refers to the functioning of the perpetual movement that capital needs and is the escape strategy of the inner crisis tendencies. Marx's assumption of the "annihilation of space through time" refers to the technological and communicational development through which the production phase is accelerated and could overcome spatial barriers to avoid overproductions. The tiny link between space and capital fluxes is summarised as follows:

> “First, accumulation and expansion, together with the need to produce and absorb labour power and capital surpluses, build pressures within a region that spill outwards (for example, capital export) or pull inwards (for example, immigration). Secondly, revolutions in technology that liberate both production and consumption from spatial constraints, together with improved capacity to overcome spatial barriers and annihilate space with time, render the boundaries of a region highly porous and unstable. Territorial specialisation and interregional linkages grow with increased facility of spatial integration. Thirdly, class struggle within a territory may force capitalists or laborers to look elsewhere for conditions more conducive to their respective survival. Fourth, revolutions in capitalist forms of organisation (the rise of finance capital, multinational corporations, branch plant manufacturing and so on) permit greater command over progressively larger spaces by associated capitalists.“ (Harvey, 2002a: 329)

Such spatial (and temporal) "addiction" to geographical expansion and restructuring through the process of uneven geographical development are fundamental features of capital survival, and are explained in Harvey’s (1981, 2001, 2002a) notion of a spatial fix.

With a spatial fix, Harvey refers to two “analytically distinct but overlapping perspectives" (Jessop, 2006: 147) that could summarise in a durable inner fixation of capital in space, and an outer temporary solution based on spatial reorganisation, both intended as capitalistic dynamics to invert the crisis tendencies. The fixed capital tent to resolve the inner contradiction through internal transformation stresses the need for long-term investment in static and immobile facilities or assets,

> “[T]he “spatial fix“ (in the sense of geographical expansion to resolve problems of overaccumulation) is in part achieved through fixing investments spatially, embedding them in the

land, to create an entirely new landscape (of airports and cities, for example) for capital accumulation“ (Harvey, 2001: 28).

However, such spaces in which capital found new terrains eventually will enter the overaccumulation dynamics, and then capital and labour can no longer be reinvested, and the (metaphorical) destruction through devaluation is needed to permit the capital to restart another cycle. Such a spatial fix has a positive but temporal effect in resolving overaccumulation tendencies. The outer fixity refers to the temporal features as a critical moment in the accumulation processes, in particular, the necessity to null space by time can, in part, be compensated for by an emerging system of credit. The credit and financial system reorganise the geography of capital, overstep physical barriers and boundaries, create fictitious capital, which has an essential role in relocating capital across space and time.

> “[T]his occurs through the articulation of uneven development and differential turnover times, the stock market and securitisation, the pseudo-validation of long-term investment through private and/or state credit creation and, linked to the outer transformation of capitalism, the export of money capital, commodities or labour-power to compensate for their lack elsewhere" (Jessop, 2006: 151).

These two "overlapping perspectives" of spatial fix are critical when the spatiality in focus concerns the *urban* build environment. Looking at the urban process under the lens of the accumulation theory means to recognise the “material physical infrastructure for production, circulation, exchange and consumption" (Harvey, 1978: 117), which represents the capitalistic flux and serves as the resource system for the production of value and surplus value. Such fixed capital is subjected to the cyclical rhythms of the accumulation process:

> “On the one hand, fixed capital enhances the productivity of labour and thereby contributes to the accumulation of capital. But, on the other hand, it functions as a use value and requires the conversion of exchange values into a physical asset which has certain attributes. The exchange value locked up in this physical use value can be recouped only by keeping the use value fully employed over its life-time, which for simplicity's sake we will call its ‘amortisation time’. […] If new and more productive fixed capital comes into being before the old is amortised, then the exchange value still tied up in the old is devalued.“ (ibid., 1978a: 119)

So, from the Marxist point of view, the urban built environment (and generally the geographical landscape) is the result of the cyclical failures and regeneration of capitalist development that stratify its layers of accumulations and devaluations, “[C]apital represents itself in the form of a physical landscape created in its own image, created as use values to enhance the progressive accumulation of capital" (ibid., 1978a: 120).

Besides being a structural feature of capitalism, crisis becomes a political tool of legitimation for urban governance and urban policies,[34] when grounded in the urban scale. The crises constitute a need for governments to carry out reformations in the economic, political and social spheres. The relation between politics and crisis, namely state and economy, is central to understanding some crucial points in the mutating of the urban administrative structure. Weaver (2017), towards this direction, selected "specific historical junctures in which the 'urban crisis' moniker was deployed in certain geographical spaces as a way of constructing particular kinds of 'knowledge' about urban problems" (p. 2041).

Financial fluxes

The end of the post-War recovery governance signed into being the passage from the liberal to the neoliberal political attitude (Harvey, 2010a, 2012). This transition was consecrated by the governments of Thatcher in the U.K., Regan in the U.S., and, at the early stages, and as a form of experiment, also in the Chile of Pinochet (Harvey, 2007). It is largely believed that the crisis was used to legitimise such a passage. "The rhetorical sleight of hand involved in conceptualising the urban problems as 'crises' caused by government failure helped to lay the ideological and institutional foundation for a shift to neoliberal forms of governance" (Weaver, 2017: 2047), and THE "crisis might be considered to be a primary 'engine' of neoliberalism's transformation as a regulatory project" (Peck et al., 2010: 106).

The series of deregulations activated by the neoliberal governance between the 1970s and 1980s found a sphere of action also within the financial market, already active during the 1950s and 1960s, setting aside all the financial regulatory bodies made during the 1930s. The financial turn is indeed strictly related with the rise of neoliberalism, triggered by the crisis of the 1970s (Arrighi, 1994; Duménil and Lévy, 2011), in the context of a radical alteration of the monetary framework of capital accumulation after the dissolution of the Bretton Woods Agreement (Harvey, 2007; Lapavitsas, 2013). The process of financialisation was characterised by radical changes within the enterprise economic strategy, market structure, and new technologies. Lapavitsas (2013) highlighted three tendencies that shaped financialisation: first, the interest of non-

[34] See the Urban Studies Special Issue: Interrogating Urban Crisis: Governance, Contestation and Critique 54(9), (Weaver 2017; Bayirbag e Penpecioglu 2017; Bayirbag, Davies, e Muench 2017; Barbehön e Münch 2017).

financial firms to get involved in financial activity, though the progressive financialisation of industrial and commercial activities. As Krippner noticed, the "Ford Motor Company, the quintessential American manufacturing company, has in recent years generated its profits primarily by selling loans to purchase cars rather than through the sale of the cars themselves" (2011: 3–4). The second tendency refers to the opening up of banks towards financial trading, shifting their interests from classical borrowing and lending activities to speculate on household savings as a source of profit. Third, individuals and households becoming more dependent on finance; the financialisation of everyday life (Martin, 2002) is visible in how individuals economically deal with housing, education, health and so on.

In such a transition, Krippner (2011) is not wrong in highlighting the central role of the state in the process of financialisation: "Financialisation was not a deliberate outcome sought by policymakers but rather an inadvertent result of the state's attempts to solve other problems" (Krippner, 2011: 2). The problems she refers to are embedded in the Marxist analysis, which says that finance can (temporary) absorb the surplus value and absorb the crisis tendencies that overaccumulation produces. Within neo-Marxist scholars, the shift to finance is a stage of capitalism, so financialisation is a historical phase of capitalism in a world system dominated by globalisation. In the "systemic cycles of accumulation" Arrighi (1994) developed his "evolutionary approach", reading the history and dynamics of capitalism as a succession of hegemonies.[35] Two phases alternate the development of capitalism: "a phase of 'material expansion,' in which profits accrue through the normal channels of trade and commodity production, followed by a phase of 'financial expansion,' in which profit-making shifts from trade and commodity production to financial channels" (Krippner, 2011: 11). This alternation from material to financial expansion is still in the theory of Arrighi, exacerbated by the state's role as the first promotor of financial alternatives when crisis tendencies show up, as the state has the role of maintaining the public interests while strengthening private interests. The dependency between finance and state is corresponded, as the state needs finance to keep the economy in balance and finance needs the state to access to those (de)regulatory measure indispensable to survive.

"Financialisation has depended on the state to deregulate the financial system with regard to prices, quantities, functions and cross-border flows of capital. Equally, financialisation has depended on the state to regulate the adequacy of own capital, the management of risk, and the rules of competition among financial institutions. Even more decisively, financialisation has depended on the

[35] He highlights the cultural, commercial and power hegemonies of Genoa, The Netherlands, England through the centuries, and the current hegemony-led politics of the United States (Arrighi, 1994).

state to intervene periodically to underwrite the solvency of banks, to provide extraordinary liquidity and to guarantee the deposits of the public with banks" (Lapavitsas, 2013: 9).

Basically, finance represents the quintessence of circulation of capital; it absorbs the surplus through the redistribution flows of money and, above all, "[T]he traded object of finance is loanable money capital, the cornerstone of capitalist credit" (ibid., 2013: 10). However, finance reflects a growing asymmetry between production and circulation of capital, producing much more crises than in the past.

A recap of the 2008 financial crisis

The dynamics of the 2008 crisis have been widely analysed among economic geographers (see, among others, Aalbers, 2009a; Christophers, 2015a; Christopherson et al., 2015; Dijkstra et al., 2015; French et al., 2009; Gotham, 2009; Hadjimichalis, 2011, 2017; Hall and Massey, 2010; Lapavitsas, 2009, 2012). To briefly summarise, in the summer of 2007, some of the major capitalist economies entered a period of instability. The triggering reason for such instability originated from almost a decade of massive speculative mortgage lending by U.S. banks to the poorest North American individuals and households. The speculation consisted in the securitisation of such loans and trading of them in the global financial market. In doing so, a further insolvency crisis was perceived by banks worldwide. Then, 2008 signalled the economy's collapse in a financial breakdown, "international banks failed, credit disappeared, and money became almost impossible to obtain on a private basis." (Lapavitsas, 2013: 7). The consequences spread worldwide, and the year after, the world economy entered into a profound recession. To avoid an economic collapse, state intervention was necessary in bailing out banks and financial creditors with public resources (the same that was done in the U.S. to avoid complete collapse in 2008). These measures created a deep fiscal deficit in several countries that in 2010, led to a crisis of public debt, hitting Europe the hardest. Public debt in a state of crisis has had two main implications: the banks holding state bonds found themselves in trouble to meet their obligations, so there was a risk to move the crisis to the financial sphere once again. Then, the European Monetary Union was sacked by this crisis, and the risk faced was the collapse of the Euro currency (Lapavitsas, 2009, 2013).

However, both these risks did not occur, instead a severe condition of economic austerity settled in some of the European countries that were already suffering from public debt, so that "[I]n the course of just a few years, a financial crisis has been transformed into a state crisis, and now that state crisis is being transformed into an urban crisis" (Peck, 2012: 651). The so-called austerity urbanism (ibid., 2012) became the new urban condition. It delineated the policies of privatisation, deregulation and liberalisation that shaped the city from then ahead; "[austerity] is driving new waves of institutional transformation, governance reform and public-service restructuring—with long- run and potentially path-changing consequences for both its winners and its losers" (ibid., 2012: 647). It thus represented a new urban condition, always more detached from the actual resolution of the crisis. As Krugman (2012) stated, austerity "isn't really about debt and deficits at all; it's about using deficit panic as an excuse to dismantle social programs… [E]conomic recovery was never the point; the drive for austerity [is] about using the crisis, not solving it" (as cited by Peck, 2012: 628). As mentioned in Chapter 1, the austerity policies in SE were the hardest, recalling a condition of previous economic instability. In such light, "[T]he crisis has been a map of financial flows, of differential wealth effects, of areas hardest hit and of crises of actors of various kinds" (French et al., 2009: 299). Christophers (2015a) pointed out the spatial feature of the crisis, highlighting the geographical inequality and unevenness resulting from a long history of uneven geographical development (Hadjimichalis, 2005, 2011, also, 2017; Hadjimichalis and Hudson, 2014). While Gotham (2009) reconducted the financial process of securitisation to a process of spatial fixity that lad to geographic unevenness.

Need for space

The legacy that this crisis provided is the consolidation of finance as the engine of capital circulation, the capitalistic system was now "financialised" (Lapavitsas, 2013), and thus finance moves and regulates the cyclic nature of capitalism. Finance, as represented in the movement of capital, is spatially and temporally in search for a fixity to avoid the capitalistic tendencies of crises, so this made financialisation a spatial process (Aalbers, 2008). Following this argument, economic geographers made a call to include finance and financialisation in the geographic discourse. Sokol (2013) asked for "newer" economic geographers, whilw Pike and Pollard (2013) assumed that "economic geographies of financialisation generate both an analytical opportunity and an imperative to move finance […] into the heart of economic geographic analysis"(p. 31). Such calls exist because the geography of finance and financialisation did not have a relevant role in the fields, since the burst of the crisis and the consecration of finance as the new economic protagonist.

"We have argued that space and place are accorded only a passive role in many accounts of financialisation, so that geography is implicitly subordinated either to the status of mere empirical surface, or that of abstract, spatial container of socio-economic relations […] the body of work currently coalescing around the concept needs to be much more attentive to issues of space and place, and to recognise how many of the processes associated with financialisation are geographically uneven. Financialisation must be understood as a profoundly spatial phenomenon, holding out as it does the promise of a financial, spatial-temporal fix for the crisis tendencies of contemporary Anglo-American capitalism" (French et al., 2011: 814).

Discussion

This chapter retraces the variegated meaning of crisis, starting from framing the concept, its interpretations and its contradictions. The first highlight is about the interpretation of the concept of crisis, whether consider an event or a process. In this regard, the case of Naples is presented to frame the consequences of the interpretation of crisis as a process, and how the state of perpetual crisis can trigger political interventions and economic evolutions in the urban context. Here, after years of a state of emergency due to the waste crisis, the political decisions were oriented to re-establish a new image of the city. However, the political-administrative corpus was unable to reach this goal with a long-term vision programme of policies. On the contrary, what was enacted was a (non) political choice of laissez-faire together with a privatisation of public infrastructures (e.g., the Naples airport). The non-programmatic re-establishing of the urban image led to a pervasive commodification of the urban space, mainly in the retail patterns, and to an unregulated entry to touristic flow. The case of Naples is emblematic to frame the non-programmatic management of mass tourism and its impact on the urban space.

After framing the impacts that a crisis can generate, the chapter continues with a historical digression of the concept of crisis, from its initial meaning in the jurisdictional and medical fields to the contemporary political economic interpretation. This part recalls the neo-Marxist interpretation of crisis, mostly under Harvey's studies of *The Capital*. In the capitalistic functioning, crises are a fundamental step in the circulation and regeneration of capital and, paradoxically, the break point by which the capital keeps moving and regenerating. One focal point in this mechanism is to understand who are the actors involved, and whose are the missing ones. The state has a relevant role in the process of circulation of capital in terms of reformation of the economic order to keep the capital in motion. In this view, the crisis becomes a political tool in neoliberal governance. In the case of Athens, what happened during the 2012 crisis was a state rescaling, so the deregulated power that the crisis enabled was established by supranational entities such as the EU, IMF and ECB, that took charge over the deregulation measures to keep capital floating. The state rescaling led to a reallocation of the political power on other levels. The "unregulated deregulation" affected many economic fields, among which real estate, and thus, through a process of financialisation of the economic transactions, entered the market via international financial actors. This is one of the cases in which the crisis was re-absorbed in the space, the so-called spatial fix of crisis.

The financialisation of the economy that represents the quintessence of circulation of capital, and consequentially of crises, links the discourse of the crisis with the housing issue, because one of the main objects of interest in the financial market is represented by real estate. It is important to robustly frame the interpretation and the mechanism of crisis reproduction in a political economic perspective to provide the reasons for the hyper commodification of the housing sphere, and vice versa, to understand why housing, as the main component of the build environment and the privileged spatial fix destination, is involved in crisis discourses. Moreover, crises have both a destructive and generative force, and the movement of the capital fluxes have to be considered when analysing the advent of platform economies. Considering also the recent facts of the pandemic due to COVID-19, such crisis must be analysed as an engine of structural change.

Chapter 3

Housing as politic – housing as economic

The issue of housing has been framed within several fields of studies – sociological, geographical, anthropological, psychological, feminist studies, architectural studies, and broadly the social sciences, because “a multi-disciplinary approach is essential" (Somerville, 1997: 237) in the understanding of the meaning of home (Després, 1991). “[Housing] is connected to other important life domains: health, environmental conditions (air, soil, water, etc.) and general well-being; access to food, services, education, employment, transportation, and so on (location); and poverty and inequality“ (Aalbers, 2016b).

Despite the field of inquiry that approached the housing studies, the common background is that housing embodies the political matter in its variegated range of meanings (Clapham, 2002; Madden, 2017). The role of housing as an economic good also enhances its political character. Residence is a political matter because of its role in society's structure, class struggle and uneven polarisation.

However, due to the strong economic value, what is at stake is a process of *de-politicisation* of housing (Bengtsson, 2009). The variegated processes of housing commodification at different levels contribute to a deprivation of the political and social character that housing should embrace. Removing politics from housing discourses can be read as a control tool to allow a smooth running of capital fluctuation. Housing is not political when the economic value overcomes the social one, when homes are sold as products, and when housing serves as a base to build up additional financial speculative packages. This chapter describes the political economic role of housing, focussing on its feature of being a commodity and not a staple good for the citizens.

The commodification of housing is one of the contemporary phenomena inscribed into the deregulated, financialised and globalised system. Today's hyper-commodification (Marcuse and Madden, 2016) refers to housing as an instrument of financial accumulation, enhancing the detachment of its role from being residential.

The effects of hyper-commodification are palpable in major western cities, such as New York or London, where the scale of investments is such that the housing prices might be unaffordable for most urban populations (Minton, 2017; Stein, 2019). Hyper-commodification of housing unfolds in terms of social exclusion and depopulation. Plus, commodification penetrates the multi-layered urban fabric beyond the real estate market. As noted by Forrest and Williams (1980s),"in understanding the full implications of this commodification process, we must begin to comprehend the way these changes penetrate the very fabric of daily life" (p. 1178). Martin (2002) carried out a similar argument in his book *Financialisation of Daily Life,* in which he highlighted how the contemporary economic structure of self-entrepreneurship can modify the financial borders widely, letting them flood into the private sphere.

How did finance entered the real estate market? Here the financial tools used to subdue the housing market will be described, such as the securitisation of housing loans, predatory lending, rising mortgage debt and the entry of real estate firms into the social rental market, to describe a system of "regulated deregulation" (Aalbers, 2016b). As finance entered the housing market, real estate firms became a pervasive presence in cities, due to the flourishing value of housing investments. Samuel Stein called the contemporary political and economic power "the real estate state" (Stein, 2019), reiterating the role of the urban (and thus, the urban built environment) as a prime site of capital accumulation (Harvey, 1978b).

The Marxist work on crisis theory and capital fixity is strictly related to the housing issue. The two themes are inextricably linked together by their economic features, particularly by the role that finance and financialisation have in their contemporary understanding. The two issues, read by their common economic feature, are part of the same discourse regarding the global trend of housing commodification, triggered and fostered by a cyclical state of crisis that legitimises a hyper-exploitation of housing value as a form of economic speculation.

Framing housing in political economy

What Aalbers and Christophers (2014) noticed is that housing was never taken seriously in political economic studies and vice-versa. The necessity to frame housing in a political economic theoretical framework is fundamental because housing, as an object of studies, represents one of the possible material links to study the dynamics of capital fluxes in cities. Housing represents the spatial fixity that capital needs to avoid its internal contradiction. For this reason, housing became an essential element in the comprehension of the contemporary economic fluxes. Schwartz and Seabrooke (2009) attempted to delineate the "varieties of residential capital" by developing the four "ideal type" of residential capitalism, capturing the connections between owner occupancy and financial regimes.

In Marxist and neo-Marxist perspectives, the urban built environment is a fundamental component of the process of accumulation of capital and an essential element to avoid the internal contradictions of it, and “housing is pivotal to this process of circulation in numerous key respects“ (Aalbers and Christophers, 2014: 375).

However, in Marxian lexicon, it is ambiguous whether to refer to housing as a form of fixed capital. First of all,

> “[F]ixed capital is not a thing but a process of circulation of capital through the use of material objects, such as machines […] Only instruments of labour actually used to facilitate the production of surplus value are classified as fixed capital“ (Harvey, 1982: 205).

The features of the fixed capital have to be understood in their relationship with the usage value, exchange value and the object value, produced in the accumulation process of surplus production. In Harvey’s reconstruction of Marx's work, fixed and circulating capital are two different forms of existence of capital; however, as Harvey noticed, when we talk about the "built environment" things start to complicate.[36] He defined it as “a geographically ordered, complex, composite commodity“ (Harvey, 1982: 233). The immobility of the built environment reflects the fact that their value cannot physically circulate. “[F]or this reason, spatialised capital, unlike derivatives or corporate equities, has the unique (dis)advantage of having its value held hostage by the vagaries of

[36] He does not refer in particular on housing, but more broadly to any component of the ‘built environment’, including “a whole host of diverse elements: factories, dams, offices, shops, warehouses, roads, railways, docks, power stations, water supply and sewage disposal systems, schools, hospitals, parks, cinemas, restaurants - the list is endless […] At any one moment the built environment appears as a palimpsest of landscapes fashioned according to the dictates of different modes of production at different stages of their historical development. Under the social relations of capitalism, however, all elements assume a commodity form” (Harvey, 1982: 233)

proximity and its relationship to other properties“ (Weber, 2002: 521). But the formation of land value, property and the private rental market had a significant impact on other forms of capital circulation, so, “[T]he conception of capital circulating through the built environment implies, he wrote, that the mere 'technological conditions for the occurrence of the process (the site where the production process proceeds)' can in itself be considered a 'form of fixed capital'" (Harvey, 1982: 235). Thus, rents and land value are a fundamental part of the value extraction from the built environment, so they must be considered a forms of the capitalistic mode of production.

Housing represents a value store, it both creates value in the construction of the good itself and the ownership, basically because the land value is a longstanding value-keeper. Housing, indeed, acts both as a value-keeper and as an active engine of the circulation of capital. Such features in the political economic understanding classifies “the real estate sector as having an intrinsic quality or *sui generis* character that forms an independent sector of the economy“ (Gotham, 2009: 358–359). Gotham affirmed that the real estate sector, with its peculiarities, represent an independent economic sector inscribed in networks of different actors, institutions, policies and laws, and it is not only dominated by real estate agents but by a vast range of investors, such as “structure of banks, other financial conduits and diverse modes of agency, such as monopolistic and small real estate and financial firms, appraisers, public and private investors, and homeowners" (ibidem., 2009: 359). One of the peculiarities that helped this sector flourish and garner attention are the relation between use and exchange value, which is the difference at the basis of housing speculations. Aalbers and Christophers (2014) illustrated three kinds of speculators:

> “[F]irst, there is the homeowner who lives in a house but hopes to resell it for a higher price and trade-up in the market. Second, there is the pure speculator who buys and sells houses without even considering occupying them or renting them out. Third, there is the speculator who tries to buy in one market segment and sell in another“ (Aalbers and Christophers, 2014: 376).

Use value and exchange value in the real estate sector have been studied features of housing, such as the distinction between the primary and secondary circuits of capital (Harvey, 1978b). While the primary circuit refers to the capital circulation around industrial production, the secondary circuit refers to the investment in land, real estate, and the built environment. The capital switching (Harvey, 1985) from the primary to the secondary circuit is highly dependent on the state and financial institution intervention and the creation of an addiction "fictional capital" in which the reverse surplus value is derived from the primary circuit.

"[S]ince the production of money and credit are relatively autonomous processes, we have to conceive of the financial and state institutions controlling them as a kind of collective nerve centre governing and *mediating* the relations between the primary and secondary circuits of capital [through] a state willing to finance and guarantee long-term, large-scale projects with respect to the creation of the built environment" (Harvey, 1978b: 107).

Such a switch has also been documented as an escape hatch from overaccumulation crises, in which surplus value is funnelled into the housing sectors to switch to other market paradigms. This is possible because the ecology of the real estate market being deeply inhabited by the securities market, global private investors, and financial firms that "suggests a profound institutional transformation in which the real estate sector has come to resemble an economic sector composed of finance markets and instruments rather than a sector defined by producer markets" (Gotham, 2009: 357). It is indeed a peculiarity that the "switch" could be applied to an object such as housing as it reveals a contemporary contradiction:

"On the one hand, real estate is by definition illiquid, spatially fixed and immobile, relatively durable and costly, and defined by local particularities and idiosyncrasies. [...] On the other hand, capital is abstract, nomadic and placeless. As far as possible, capital seeks to eradicate local peculiarities and place distinctions that characterise the buying and selling of commodities and thereby eliminate the spatial barriers to the circulation of capital. It is this duality, or inherent contradiction, between immobile properties and mobile capital that defines modern capitalist urbanisation and uneven development." (Gotham, 2009: 359)

Housing as a commodity

Through such mechanisms, the built environment and, in particular, housing are subject to their values as liquid global assets (Marcuse and Madden, 2016). This role has left market-led housing at the centre of the commodification and financialisation processes.

The commodification of housing refers to the progressive growth of a large part of housing production and consumption aimed only at speculation, sometimes not even contemplating inhabitation. "[T]he phrase 'commodified housing' often refers to the ways in which the habitation function of the dwelling becomes secondary to the capital accumulation 'real estate' function of the dwelling" (Rogers et al., 2018: 435). The processes behind the commodification of housing is a complex network of different interests played by different actors, by several institutions in different scales. As Forrest and Williams (1984) pointed out that the "process of commodification is multifaceted and is neither a simple economic process (in the sense of 'commodified production of previously non commodified' goods or services) nor limited to the spatial expansion of capitalist markets" (p. 1164). Both Madden and Marcuse (2016), and Rogers et al.(2018) proposed to use the term "hyper-commodification" to describe the mechanism behind the processes of housing commodification.

> "[I]n hyper-commodified housing systems, the materiality of the buildings and the land, the human and mechanical labours that are used to produce and maintain dwellings (and land), and the policies and laws that regulate private property and tenancy management are all reconceived as processes that can be commodified" (Rogers et al., 2018: 435).

Under the "regime" of hyper-commodification, every part of the built environment can be commodified. In some places, real estate represents a market more profitable than industry. In a recent report of the UN Human Rights, it was stated that "[G]lobal real estate is now worth $217 trillion, thirty-six times the value of all the gold ever mined. It makes up 60 percent of the world's assets, and the vast majority of that wealth—roughly 75 percent—is in housing" (Farha, 2017, cited by Stein, 2019: 2).

The intricate network of hyper-commodification mechanisms both act at the local and global scales. The role of the regulatory nation state is central to the stage of opening up of commodification through privatisation and liberalisation policies. Stein (2019) called the fundamental role of the nation state in the process of commodification of housing as a Real Estate State, "a political formation in which real estate capital has inordinate influence over the shape of our cities, the parameters of our politics and the lives we lead" (p. 5). He added that the value and price of land represent a central political issue, because public policies are highly influenced by the potential extractive value of parts of the city. The state's role is to maintain a balance between the encouragements of private accumulation and managing the political repercussions (Weber, 2002). The three leading cause of housing commodification that Madden and Marcuse outline are related to state intervention, without which it would be more challenging for private markets to activate the "idle" value capacity of housing.

The first factor that they point out is the process of deregulation. This is the most direct and active relationship with the role of the state that gradually (or not) removed the safeguard regulatory framework around housing intended as a basic necessity good for people to preserve and defend from the private market. The deregulation activity could be identified in at least three dynamics. The privatisation of the public housing capacity, a phenomenon that, with more or less power, invested in most of the Western countries from the 1980s onwards. The most famous and cited deregulation act was the one in the U.K. under Thatcher known as the Right to Buy that established the possibility to buy the council housing from their tenants. Thanks to this policy scheme, nearly three million housing units were sold, almost exhausting the public housing capacity (Forrest and Williams, 1984). In Italy, a 1993 law allowed the purchase of residential units from IACP (Istituto Autonomo Case Popolari), so that in almost 20 years, 190.000 units were sold (Belotti and Arbaci, 2020). In the U.S., since the 1900s, around 260.000 public housing were sold or demolished for the private market (Crouch, 2009). However, the most significant privatisation of public housing was activated after 1989, in the post-socialist world (Matznetter and Mundt, 2012). Another kind of deregulation policy involves the sphere of rents, as the public housing, public and controlled rents were gradually dismissed to let the private rental market comes to the stage. Another U.K. regulation marked this trend, the Buy-to-Let scheme for mortgages, consisting of specific loans to incentivise both the purchase and the rental markets (Paccoud, 2017). The mortgage market represents a third example of deregulation, with banks competing to host the lending because mortgages are not just based on the revenues of the interest rates but they represent a financial tool that can be traded. This led to the second factor, financialisation.

The financialisation of housing refers to all the practices and tools that enable profit-making on the speculation on real estate. "[M]anagers, bankers, and *rentiers* produce profits from real estate through buying, selling, financing, owning, and speculating. […] They not ever see the actual physical buildings from which they make their fortunes" (Marcuse and Madden, 2016: 31–32). Financial practices tend to securitise immobile asset to create liquidity, in particular, the securitisation of mortgages or loans convert them into a marketable and tradeable asset to be inserted in financial market flows (Aalbers, 2008, 2012; García-Lamarca and Kaika, 2016; Gotham, 2009). The securitisation of mortgages was the primary cause of the 2008 crisis, a chain reaction that from the insolvency of several mortgage payers arrived to push down some of the most powerful financial firms (the collapse of the Lehman Brothers), to the European banks and the sovereign states. After 2008, however, such a mechanism did not change, and the financial speculation on real estate recovered and kept on running business-as-usual, adding and consolidating practices and tools to pursue its scope.

According to Madden and Marcuse, the third factor that can explain the commodification of housing is its globalisation. All of the three factors are related, so the globalisation of housing refers to the global network of investment and speculations behind the immobile object of the shelter, thus including the global financial market and the deregulation policies that made it possible for such a market to become global. The possibility accessing the global market to make profits has led the real estate market to open at the global scale and alienate the function of the residential to shift from houses, such that the North American financial firm, Blackstone, could become the primary owner of a Madrid housing capacity. On the other hand, Athenian real estate market is dominated by Chinese individuals and companies. However, the globalisation of housing has a sort of spatial selectivity that can manifest in many forms. Big capitals penetrate urban economies with specific and variegated connotes – a devaluated housing stock (see Madrid in the next paragraph), a deregulated market (see Lisbon in the next paragraph), a highly capitalised and attractive market (see London, Minton, 2017), and an emerging economy (as in the case of tourism economy in Seville, Jover and Díaz-Parra, 2019). So, housing is globalised, but under certain conditions.

How has housing been transformed into a commodity that can now influence the economy and financial market? The very origin of the commodification processes can be assigned to what Marx defined as "primitive accumulation", as the initial stage of land privatisation and the consequent extraction of value by renting, owning, trading, mining, and all the different forms of land extractivism. Roberts (2017), reviewing Marx's work, highlighted that the primitive accumulation is not a historical moment, instead is a contemporary repeated mechanism of capitalism to generate itself. He focussed on "the ongoing relationship between a capitalist interior or core and a non-capitalist frontier or periphery" (ibidem., 2017: 3). For example, during colonialism, intended not as a historical moment but a geographical expansion of capital towards new markets to absorb surplus capital, the primitive accumulation occurred in the form of accumulation via dispossession on the basis of uneven geographic development of territories, used as fixed specialities through which to absorb capital surpluses. Capital needs external agencies to activate primitive accumulation. "Primitive accumulation is an ongoing necessity internal to *capitalism*, but always anterior to the specific operations of *capital*" (Roberts, 2017: 15).

Box#3: Lisbon

Legacies of neoliberal attitude

Since the last decades of the XX century Portugal, and particularly Lisbon and Porto, have faced a substantial decrease of population. In 2008, Lisbon had less than a half-million inhabitants, similar to that of 1930 rates (Oliveira and Pinho, 2010). Such demographic changes have had consequences on the built environment and structure of the cities, and contribute to empty and leave the city centre in a condition of degradation. "It has been estimated that there are about 40,000 empty derelict homes which mean about 14% of the city's housing. [...] In 2001, 61% of the buildings in Lisbon needed repair work done on them and 5% were seriously rundown" (Mendes, 2013: 204).

The very low intervention of housing policies in shelter maintenance and renovation through the years has led Lisbon to a massive expansion of the suburban areas though the movement of upper and middle classes, almost completely abandoning the city centre where the most impoverished people continue to live in deteriorating conditions, safeguarded by the social rent scheme.

The state of abandonment in the centre of Lisbon was also due to the fact that from the 1940s, rents were almost frozen. Portugal had a strictly regulated rental market scheme that foresaw that long-term rent could not be increased, and that landlords continued the contracts as long as the tenants desired it. Even in the law adjustments during years, rents could only be set by national state rates (Kraehmer and Santangelo, 2018). A 1990 law introduced the first measures to unblock the rental market, making the standard contract of five years (renewable) and introducing some measures to slightly raise rents (ibidem., 2018). Despite such minor changes, Lisbon's poorer population took advantage of this situation to keep living in a deteriorating historic centre, while the wealthy population moved to the suburbs.

The political line pursued by the central government since the first decade of the XXI century was to opened to the neoliberal turn, with many of the laws by that period being addressed to liberalise the housing market. Policies were oriented to encourage home ownership through mortgage incentives, so that, "[I]n 2010, almost 40% of households were indebted, while around 25% of them had mortgages on their primary residence" (Silva, 2013: 49). In a couple of decades, Portugal became a country of (indebt) owners because of a series of respective advantages that Seixas, in an interview, described as the "unbeatable alliance". "[T]he people wanted houses that banks wanted to loan. The Congress civil constructors wanted to build, the architects wanted to design, and the politicians wanted to do that" (Seixas, 2019, interviewed by the author). These mortgage incentives reinforced the migration of a large part of the population towards suburban parts of the city, where the new urbanisation expansion was moving, leaving an empty city centre and letting grow the differences between the actual and potential ground rent in that area (the city centre of Lisbon has a high potential ground rent in terms of accessibility, strategic location, cultural values).

> "[I]n the city of Lisbon there were too available real estate and no plat to manage it, so this created an enormous rent gap in the inner city, that start with the suburbanisation from the 60s and 70s and simply, the real estate was getting older and older year after year and the prices were getting low, but those always had that position in the inner city." (Mendes, 2019, interviewed by the author).

Already in the 1990s, a three-plan set[37] was proposed to launch Lisbon as a peer of other European cities. The goal was "making Lisbon an attractive city to live in" (Oliveira and Pinho, 2010: 413), plus the common objectives were "'promoting the urban development and the territorial integration', 'promoting social and economic development', and 'promoting the identification between people and places'" (ibidem., 2010: 413). More recently, the City Council launched the *Carta Estratégica de Lisboa 2010–2024,* promoting six main issues: "demography; life in the city (safety and social inclusion); environmental sustainability and energy efficiency; innovation, creativity, and production of wealth and employment; identity; and, finally, alternative governance models" (ibidem., 2010: 413). None of these plans foresaw an actual housing strategy plan. In 2004, the Regime Jurídico Excepcional de Reabilitação Urbana de Zonas Históricas e de Áreas Críticas de Recuperação e Reconversão Urbanística (Exceptional Legal System for the Urban Rehabilitation of Historical Zones and Critical Urban Recovery and Re-conversion Areas) was set up. The regulatory framework allowed for decisions regarding, for example, the expropriations and the new licence issues. The actors involved activated a national rehabilitation market, gathering all stakeholders interested as residents, local governments, owners and investors (Mendes, 2013).

However, the housing market experienced its primary shock after the burst of the crisis, and the following Memorandum of Understanding signed with the Troika (IMF, ECB, EU) that imposed a complete revision of the rental regulation. From that moment on, Lisbon passed from being under a neoliberal regime to an austerity regime (Mendes, 2019, interviewed by the author). The New Urban Lease Law (NRAU – Novo Regime do Arrendamento Urbano) almost completely deregulated the rental market, enabled the cancellation of old contracts facilitated the measures to change existing contracts, allowed the rising of rents, reduced the standard contract duration from five to two

[37] The three plans were the *Plano Director Municipal* (PDM), approved in 1994, the Strategic Plan, and the Regional Plan for the Lisbon Metropolitan Area (PROT-AML), both approved in 1991.

years, and facilitated landlords in ending contracts and evicting tenants (Kraehmer and Santangelo, 2018; Silva, 2013). Consequentially, there was a massive wave of evictions to free up the city centre spaces and make them available to possible real estate investments and interventions, so that the new regulation of rents was called the "eviction law" (Lestegás et al., 2017), "[D]isplacement has been a hallmark of the new law on the urban rental, since it makes eviction easier if the landlord/owner claims to want the house for his own home or descendants, or if he wishes to make structural renovations" (Mendes, 2018: 25). The law made rents unaffordable for many tenants due to the possibility of increase, and the rise of the average price due to the renovation works that raised the value of the foundational land.

Seeing like a state

While in the case of Naples, the role of the state and political programmes was entirely absent, in Lisbon, the institutional player acted with awareness in defying the neoliberal regulative framework. The state engagement in the economy functioning has been largely studied by geographers and social scientists (see, among others, Ferguson and Gupta, 2002; Jessop, 2002; Poulantzas, 1969; Smith, 2015). Gotham (2009) highlighted the connection between the state and the processes of regulated financialisation as follows:

> "[T]he financial system and the financialisation process interconnect with the state through fiscal and regulatory policies that impact housing markets and try to promote liquidity within the residential, commercial and industrial real estate sectors" and also "[T]he state plays a key role in the dialectics of spatial fixity and liquidity through a variety of policies, legal-regulatory actions and infrastructural investment that can reinforce territorial coherence and promote flows between cities and regions" (Gotham, 2009: 360).

The case of Lisbon talks about the state's intervention in allowing a process of financialisation of housing. As already stated in the previous section, from the entry into the EEC in 1986, the state "encouraged mortgage-based homeownership through subsidies and tax breaks while failing to create a comprehensive public housing system, [and] encouraged private indebtedness, felled suburban expansion, and stimulated the construction and real estate sectors" (Lestegás et al., 2017: 1772). With such deregulation programmes, the Portuguese housing economy saw an increase in real estate investment funds (from 2005 to 2009, they rose from 66 million to 253 million), and an increase of asset value from 2.300 million to 11.000 million, between 1996 to 2016 (ibidem., 2017).

After the 2008 financial crisis occurred, together with the market liberalisations dictated by the Memorandum of Understanding, other sets of policies were introduced to attract private investors. Political programmes were set up to activate urban competitiveness.

"The rhetoric of urban marketing and neoliberal rationality, this neoconservative turn in city government aims to make Lisbon a more competitive city, attracting foreign investment, visitors, tourists, tying the flows of real estate capital to its built environment, in a frame of globalisation of competition between cities and places" (Mendes, 2018: 26).

Two central economic schemes were introduced to stimulate the economy with the entry of foreign investors: the tax regime for non-regular residents and the golden visa.

The regulatory framework that defined the tax regime for the non-regular residents (Decree-Law n. 249/20097) started in 2009, and it proposed a subsidised tax rate for those who moved their fiscal residence to Portugal. It was addressed to non-resident professionals qualified for activities with high added value intellectual or industrial propriety or know-how, as well as pensioners. The subsidy consisted a flat tax at 20%, independent from the amount of income, and the only clause was that the beneficiary haf to spend at least 183 days in Portugal, or own a home in the Portuguese territory. Such a law has been highly successful from a fiscal point of view.

"Incomes obtained abroad, pensions in specific, are generally tax exempt in Portugal: in theory, in fact, these might be taxed in the state of origin but, considering that most European states signed agreements to avoid double taxation and that such agreements are based on the idea that income is taxed in the state of residence, such incomes are finally tax exempt" (Kraehmer and Santangelo, 2018: 156).

The requests escalated from 2009 to 2016, from a hundred requests per year to a record number of 10.500 people living under this regime in 2016 (ibidem., 2018). JLL Research of 2017 noted that, "[t]he competitiveness of the Portuguese regime compared with similar regimes in other countries has resulted in important investments in the national real estate sector" (JLL Research, 2017, cited by Lestegás et al., 2018: 689).

The massive response to this law had an impact on the housing market, especially in Lisbon's historic centre, for two reasons: the arrival of people from countries with a higher income and pensions (mainly from France). "[I]n 2016, the monthly minimum wage was 618.33 euro in Portugal and 1,466.62 in France" (Lestegás et al., 2018: 689)) created a disbalance in the housing market and prices began to rise for the possibility of selling units to wealthier people. The second reason is because the houses were occupied only part of the year, the rests of time they remained empty and were rented out in other markets as short-term ones.

The other economic scheme was the so-called golden visa, issued in 2012, and then changed in 2015. It provided the possibility of receiving the visa for one year (removable for two), and initiating a process to gain permanent Portuguese residency after six years. The condition to obtain the visa was to invest in several assets,[38] particularly real estate, with a minimum investment of 350.000 euros for refurbished buildings, and 500.000 for new ones. The programme received a great response.

> "[A]ccording to official data, since its initiation in Portugal in 2012 to the end of June 2017, the Golden Visa programme has attracted over 5000 investors [...]This has generated investments of over 3 billion Euros, 90% of which has been invested in property accounting for 94% of the total Golden Visa residence permits issued" (Montezuma and McGarrigle, 2019: 220).

China has been a prime beneficiary of the scheme, with almost 4.000 permanent visas awarded to Chinese citizens. The purchase of real estate was the underlying motivation for 95% of the requests. Furthermore, Brazilians benefited from this programme by the clause of family reunification. The main reason for this success was the possibility to obtain a visa in the Schengen area, entering a free commercial zone. In fact,

> "[I]n the aftershock of the global economic crisis in 2008, less wealthy E.U. countries struggling to plug the fiscal gap and stimulate the housing market, used Schengen membership as a way to attract capital in exchange for fast-track citizenship and intra- E.U. mobility" (Montezuma and McGarrigle, 2019: 217).

The result of both the programmes of the tax regime for non-regular residents and the golden visa was an incredible increase of foreign investments; "76% of the property transactions they carried out in the centre of Lisbon over the past 2 years were by foreigners, of these foreigners, on average, around a quarter were Non-habitual Residents and 36% Golden Visa holders" (Montezuma and McGarrigle, 2019: 221). Moreover, this had an impact on the housing market of Lisbon, and this was one of the reasons that led to a record increased interest in housing prices.

> "[B]etween 2012 and 2015, the number of housing sale/purchase contracts increased 22.3% in Portugal and 105.9% in Lisbon. The average value of the traded dwellings was 26% higher in 2015 than in 2011 in Lisbon and 18.2% higher in Portugal as a whole", and also, "[I]n Lisbon's historical centre, the average housing price increased 22.3% only in 2015. A total of 2,199 sales worth 709

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[38] The investment that could be made were "capital transfer for at least 1 Million €; creation of at least 10 jobs; investment in arts, culture, and national heritage for at least 250.000€; investment in research for at least 350.000€; investment in small and medium enterprises for at least 500.000€" (Law 63, 2015, cited by Kraehmer and Santangelo, 2018: 156).

million Euro were registered that year in that urban area – 11% and 37% more, respectively, than in 2014“ (Lestegás et al., 2018: 690).

The other variable that shook the real estate market of Lisbon was the boom of the city as a primary touristic destination. "[A]nd so, the city marketing of Lisbon was a success. And suddenly the world discovered Lisbon. And then came the low-cost travelling. And then came and Airbnb. This all together in 2010-11-12" (Seixas, 2019, interviewed by the author). The massive wave of arrivals at a 65% growth in 10 years (Barata-Salgueiro et al., 2017; Lestegás, 2019), together with the entrance into the Airbnb and the short-term accommodation markets, caused tourism-led gentrification in Lisbon's city centre that saw rents skyrocket, multiple evictions, and closures of historic shops (Mendes, 2018).

"The politics of foreign residential investment in Lisbon lie at the intersection of immigration, fiscal and housing policy underlining the role that the state has to play in supporting the current growth in investment" (Montezuma and McGarrigle, 2019: 229), and the resulting responsibilities.

Housing as politics?

The commodification of housing plays a crucial role against the reproduction of the social and political features that housing as shelter should bring. It undermines the political and social power that housing carries; "[T]he – literally – vital imperative of housing to social reproduction helps explain, in large part, the persistence and power of the discourse of a "right“ to housing, as opposed, pointedly, to the "right“ to buy and sell it“ (Aalbers e Christophers, 2014, 381). Madden and Marcuse (2016) also highlighted this duality and remarked on the conflict between home and real estate, "housing as lived, social space and housing as an instrument for profit-making“ (p. 4). They identified housing playing an inevitable political role in contemporary society. Similarly, Bengtsson (2009) affirmed that

> "Housing issues are (still) political, and the central concepts of political science are definitely of relevance to housing [...] A stronger involvement of political scientists in housing studies could link the discussion and application within the field of political concepts like power, citizenship and social justice more firmly to the broad discourse in the discipline" (Bengtsson, 2009: 21).

The involvement of the political action in housing has been obstructed by the predominant role of the economy, and the fundamental role that the built environment plays in absorbing capital surpluses (Harvey, 2012). The accumulation by dispossession as a form of capitalisation of the built environment is inevitably a form of loss of rights and a loss of spatiality as a common (Harvey, 2007).

> "Urbanisation through the rise of the secondary circuit of the built environment at the planetary scale brings with it a vast centralisation of power in the credit system, and a massive concentration of wealth in political and economic elites [...] Thus, the city, idealised by Western philosophy as the space of democratic politics, becomes an apparatus constructed to neutralise political resistance" (Moreno and Shin, 2018: 79).

Thus, cities have become places of capital circulation rather than of social reproduction, but as Aalbers (2016b) pointed out, "housing is necessary for social and physical reproduction: a house is a place to raise children and from a capitalist perspective a house is a necessary condition for the reproduction of labour" (Aalbers, 2016b). So, the necessity of bringing housing studies into the political economy realm does not just serve an academic purpose but also is relevant in terms of policies and politics.

Fueling housing with finance

The processes of financialisation are complex networks of different actors and scales that involve specific markets, somehow detached from the physical asset.

> "[T]he idea of commodified housing is focused on the dwelling as a repository for storing and growing capital, while the financialisation of housing has a slightly different emphasis, focusing on actors (bankers, financiers, mortgage brokers, rentiers) and organisations (financial institutions, banks, institutional landlords) as mechanisms for capital accumulation, rather than on dwellings per se" (Rogers et al., 2018: 435).

Financialisation can be defined as "the increasing dominance of financial actors, markets, practices, measurements and narratives, at various scales, resulting in a structural transformation of economies, firms (including financial institutions), states and households" (Aalbers, 2016a). Financialisation can take several shapes and affect different fields; Aalbers (2017) listed four scenarios in which financialisation can occur. The financialisation of non-financial firms deals with the transition of traditionally non-financial firms into narratives, schemes and mechanisms of the financial world. Many fields have seen a progressive financial turn in the last few decades, like the car industry, retail, pharmaceutical, and real estate. The financialisation within non-financial firms refers to the turn of non-financial companies to change the profit-making strategies from industrial production to financial tools and schemes (such as lending, insurance or mortgages). The financialisation of the state and semi-public sector refers to the fact that the state and the public are actively involved in financialisation processes. “[S[tate bodies and semi-public institutions are increasingly dependent on financial markets and are also evaluated in similar ways to firms“ (Aalbers, 2017: 548). Finally, the financialisation of the household refers to the degree to which finance is entered into the daily lives of individuals (Martin, 2002).

As Aalbers (2017) has pointed out, “[R]eal estate, and housing finance in particular, is not simply one of the many objects of financialisation: it is the key object of financialisation“ (Aalbers, 2017: 545). The interdependence of housing and finance is embedded in a post-Fordist neoliberal regime of accumulation (Aalbers, 2016b, 2017). The financialisation of housing is related to the already discussed "switch" from the primary to the secondary circuit of capital, because “[R]eal estate by its very nature is local as it is spatially fixed“ (Aalbers, 2009b: 34); and to understand the scale-up from being a local to a global market, it needs to focus on the processes of extracting liquidity from fixity (Gotham, 2009; Moreno and Shin, 2018).

The financial mechanisms active in the real estate market, in order to create liquidity out of immobility, are variegated. The securitisation is at the central stage (Gotham, 2006, 2009) but with a range of possibilities: the securitisation of housing loan, the subprime market, the predatory lending, the rising of mortgage debt for household, the entry of real estate firms in subsidised rental markets are just few of the many financial mechanisms. The tools used in real estate finance are plenty as well: adjustable-rate mortgages (ARMs), mortgage-backed securities (MBS), real estate investment trusts (REITs), among others, are very frequently used in dealing with the contemporary housing market. “MBS, like REITs, are financial instruments that have de-linked real estate and place by making the intrinsically local and fixed nature of real estate into something liquid and therefore tradable on global financial markets" (Aalbers, 2017: 546).

In particular, the REIT has been deeply studied in relation to both the causes and consequences of crises (particularly in Spain and Ireland) (Waldron, 2018). The U.S. Congress created REITs in 1960 to give all individuals the opportunity to benefit from investing in income-producing real estate. REITs allow anyone to own or finance properties the same way they invest in other industries – through the purchase of stock. Just as shareholders benefit by owning stocks in other corporations, the stockholders of an REIT earn a share of the income produced through real estate investment without actually having to go out and buy or finance property: “REITs transform property into a tradeable income-yielding asset by connecting hyper-mobile, investment capital to immobile, local property markets” (Waldron, 2018: 207). The so-called accumulation by repossession (Whiteside, 2012), which has its theoretical roots in Harvey's accumulation by dispossession (2007), refers to the investment in devaluated properties to regenerate accumulation cycles. Such a dynamic is "marked by the aggressive entry of private equity and other institutional investors into distressed property markets who often acquire devalued assets at 'fire-sale' prices [...] private equity funds are acquiring vast quantities of distressed property assets" (Waldron, 2018: 208).

With such a complex panorama of actors and networks based on profit-making through liquidity, a central player is often excluded from mainstream discourse: the state. The main reason is that the state is the moderator of welfare policies and economic functioning, and housing is a central matter in welfare state and policy.

> In most—if not all—contemporary political economies, current housing policy reflects housing not only as a pillar of the welfare state but also as a pillar of the capitalist economy, especially important for growth in terms of GDP, employment, finance, and so on, as well as a pillar of the ideology of private property (Aalbers, 2016b).

The state has the double role of creating a regulatory framework for housing while dismissing the same framework through deregulations: "[T]he state plays a key role in the dialectics of spatial fixity and liquidity through a variety of policies, legal-regulatory actions and infrastructural investment that can reinforce territorial coherence and promote flows between cities and regions" (Gotham, 2006: 360). The state's role is fundamental in creating programs and policies that are able to liberalise the housing market, such as those that encourage homeownership combined with the privatisation of the mortgage market (Aalbers, 2008) or privatisations that enhance liquidity in the immobile real estate sector. Privatisation and financialisation are in a complicated relationship: privatisation is a direct consequence of financialisation, i.e. privatisation itself is financialisation, but financialisation is an indirect consequence of privatisation (Aalbers, 2016b).

> The State can actively intervene in markets through privatisation practices to create the conditions for financialisation to occur (e.g. the sale of social housing units to tenants which leads to greater levels of mortgage borrowing). In other cases, the privatisation process itself can become financialised, where entire portfolios of publically owned land, housing and infrastructural assets are sold enbloc to private equity investors, in a process termed 'financialised privatisation' (Waldron, 2018: 207).

Finally, the state plays a crucial role in resolving the crisis condition of economic stress through programmes of fiscal austerity and encouraging the entry of private players to rehabilitate the economy through real estate deregulation.

Associating housing with finance and welfare issues to form an interconnected fluid system is what made the U.S. mortgage crisis of 2008 become a global one (Lapavitsas, 2009). Financialisation involves scaling-up processes from the local housing market to the global real estate financial one.

The link between housing and finance, and the tentacular shape of such a relationship is visible in the analysis of the 2008 U.S. crisis: The financial speculation of mortgages led to the creation of an enormous bubble of toxic mortgages, and their insolvency of triggered a housing crisis that then, through the financialised and the globalised channels, became a worldwide bank crisis. "[I]n the 'primary' mortgage market, borrowers obtain loans from mortgage originators. In the 'secondary' mortgage market, investment banks, financial institutions […] repackage mortgages as securities to sell to institutional investors in national and global capital markets" (Gotham, 2006: 360).

The nature of the 2008 crisis revealed the inevitable interconnection of different systems in profit-making matters. Several analyses (Aalbers, 2009b; Christophers, 2015b; Christopherson et al., 2015; Harvey, 2011) agreed that "the crisis is rooted in the increasingly global nature of real estate investment and the empowerment of finance capital which has stimulated asset bubbles in the property market by switching capital from investments in the productive economy into speculative investments in the built environment" (Waldron, 2018: 206)

Box#4: Madrid

Housing crisis announced

Despite the will to categorise the Southern European countries as traditionally homeownership-based (Allen et al., 2004), the consolidated structure of homeownership in Spain is the result of years of policies oriented towards investments in the real estate sector (Uceda et al., 2018). During the Franco dictatorship, outreach programmes and economic incentives were established to encourage the purchase of post-war social housing and newly built working-class housing units (Alexandri and Janoschka, 2018). Before the dictatorship, the level of homeownership was about 10% in the major cities; at the end of it, homeownership accounted for 60% of the population (García-Lamarca and Kaika, 2016).

After the dictatorship, state policies continue to incentivise private ownership through mortgage tax breaks for primary and secondary homes, drastically reducing social housing production. The boosting of private ownership was combined with the liberalisation of rents, which led to a significant increase in private rent prices; the 1985 Boyer Decree removes the rent control and institutional protection of tenants in terms of end contracts and against the increase of prices (García-Lamarca and Kaika, 2016). Thus, the incentives on mortgages and increase of rents resulted in the purchase of housing being the better, cheaper option for the Spanish population.

Further critical steps in the Spanish real estate rise were the Land Act of 1990 and the National Land Law of 1998. Both measures were oriented towards land liberalisation and real estate development; these laws changed the urbanistic land use and converted almost all the Spanish territory into potential development zones (Alexandri and Janoschka, 2018). This led to a capillary construction fever all over the country often without urban plans and development agendas: "[B]etween 1997 and 2007, the provision of new housing stock rose to over 6 million, while house prices skyrocketed to over 200 per cent of their value in previous years" (García-Lamarca and Kaika, 2016: 318). Further, the construction industry saw exponential growth during those years, acquiring 11–12% of the market share, such that "economic growth and urban growth became practically synonymous" (García, 2010: 969).

All of these new rules and public policies concerning housing, rents and land use liberalisation to encourage families to buy houses instead of renting them. The tax reductions on homeownership, support for selling social housing to tenants and relatively low mortgage prices drastically changed the housing structure in Spanish society, such that Spain had the highest homeownership rate in the Eurozone, at 85%, in 2001.

However, the Spanish liberalisation turn has to be inscribed into the broad European trend of market deregulation. From its entry into the European Union (EEC) in 1986 and later in European Monetary Union (EMU) in 1994, the Spanish economy began a process of euroisation directed towards the adaptation of other European economies (García, 2010). The adoption of the euro in 1999 led a decrease in the interest rates (3% in 2004), which, in turn, contributed to the increased interest of international investors in the Spanish market. The financialisation of the real estate sector and a broader restructuring of the banking sector resulted from the international market deregulations (Alexandri and Janoschka, 2018; Martí-Costa and Tomàs, 2017). Foreign investment in the real estate field rose by 102% between 1998 and 2006 (García, 2010). This was also due to the fact that the securitisation of the mortgages permitted the trading of a property title as a financial asset (Palomera, 2014), due to which a secondary circuit of capital was activated; consequently, in 2007, 36% of mortgages were securitised (García-Lamarca and Kaika, 2016). The mortgage market assumed a relevant position in the Spanish economic market, the promotion of mortgages became tailor-made and suitable for any needs: "the young mortgage; the easy mortgage; the free mortgage; the open mortgage; the serene mortgage; the global mortgage; the paid off mortgage; the wild mortgage; the super mortgage; the revolution mortgage" (Colau and Alemany 2012: 66–7, cited by García-Lamarca and Kaika, 2016: 319). The mortgage market doubled in the early 2000s, from 600,000 before 2000 to over 1.3 million in 2006 (García-Lamarca and Kaika, 2016). The securitisation of household mortgages led to a condition of economic vulnerability among the indebt population (Prada-Trigo, 2018); mortgages were subject to fluctuations in both the local real estate market and international financial complex, and household indebtment was linked to national and international banks and other financial institutions.

This indebtedness was associated with a decrease in wages and an increase in unemployment. As many of the mortgages issued in those years were for a vulnerable part of the population and through a system of collaterals and incentives, the result was that a large part of the indebted population was no longer able to pay the banks. The internal insolvency along with the financial connection to the U.S. banks led to the economic and social crisis of 2008.

On the one hand, banks were proposing loans at 10% of interests as an alternative to foreclose, and any household or individual who refused to accord the deal saw their salary and other goods confiscated after eviction, until their debt was repaid. Indeed, the mortgage legislation in Spain dictates that the debt must eventually be paid off even if the household has already been evicted because of an inability to pay it.

The role of mortgages as a disciplinary tool was exposed in a dramatic manner when, as many mortgage holders became unable to service their debt, an increasing number of homes were foreclosed – 570 000 between 2008 and 2014 inclusive, according to Spain's General Council of Judicial Powers – and hundreds of thousands of families were forcefully evicted from their mortgaged homes. It is estimated that at least 250 000 mortgaged families were evicted between 2008 and 2014 (García-Lamarca and Kaika, 2016: 322).

On the other hand, the European Central Bank requested the Spanish (and other European) banks to prove their solvency. Therefore, Spanish banks started to sell mortgage packages; in 2014, a set of 1120000 residential mortgages with a value of 6.4 billion Euro was sold at nearly half price to the North American financial firm Blackstone (García-Lamarca and Kaika, 2016). Further, the bad bank SAREB (Sociedad de Gestión de Activos procedentes de la Reestructuración Bancaria) was created in 2012 with the aim of clean up the toxic real estate financial assets:

> [G]iven the size of the Spanish bank restructuring, SAREB has not only become one of the most important real estate actors in Europe […] It has additionally achieved the role of a "market maker" that generates the wider conditions for liquidity and the institutional environment to encourage real estate transactions (Alexandri and Janoschka, 2018: 125).

The consequences were economically and socially devastating for Madrid and all of Spain; they were well visible and subsequently documented by Burriel (2016), who focused on the ghost town and urbanised desert that the housing bubble generated. The crisis "also had effects on territorial vulnerability, especially in cities such as Madrid where there was a hypertrophy of the real estate sector, a dependence on foreign investment, a significant growth in real estate services, a weakening of the metropolitan productive sector and a strong labour precariousness" (Prada-Trigo, 2018: 55).

Seeing like a market

The central feature that goes with all the narratives of the pre- and post- economic crisis scenario in Spain, particularly in Madrid, is the role of the market. As mentioned above, much of the political choices were made following the market diktat, and the conditions during the crisis allowed for continuity in financial speculation after the crisis.

Coronil (2001), delineating a critique of Scott's central vision of the state (1998), questions how a non-state actor (a.k.a. the market) could be involved in the design making of the city, taking into consideration their mutual historical connection and valuating "new approaches [that] suggest the inseparability of the political and the social, particularly now that it is easier to see how the capitalist market has imposed its logic on society and become a 'political' force of its own" (Coronil, 2001: 124). Analysing the pre- and post-Spanish crisis conditions, Coq-Huelva (2013) described the progressive rescaling of the state that in the last decades signified a decentralisation of the central power. Such a rescaling has impacted the financialisation of the real estate market due to the laissez-faire politics that made economic interests prevail over social ones.

To present an overview of the process of financialisation of housing in Spain, it is essential to recall three central policy schemes addressed to the re-articulation of the real estate market towards the definition of an easier collaboration between banks, public administrations and transnational investors (Alexandri and Janoschka, 2018; Janoschka et al., 2019).

The first scheme was the regulation of the Real Estate Investment Trusts (REITs), mostly centred on allowing more flexibility and zero taxation policies if focusing on rental properties.

> "The number of REITs listed at the National Stock Exchange in Spain expanded from three to 58 in only five years, and it has been estimated that REITs are controlling now approximately half of all residential and 80% of commercial property market transactions" (Janoschka et al., 2019: 6).

REITs have been used as the pivotal key to the re-financialisation of the Spanish rental market.

The second scheme was the introduction of the so-called *servicers*. These financial companies were first established to manage distressed assets and debt from banks and then to "constitute ventures of bank subsidiaries with hedge funds that manage real estate assets without owning them" (Alexandri and Janoschka, 2018: 125), such as the value recovery form Non Performing Loans (NPL) and the relative properties. The role of servicers became relevant during years in the real estate management and re-financialisation:

> [T]he volume of repossessed homes and distressed mortgages consolidated under the ownership of banks and asset management companies (AMCs) represents a new canvas for institutional actors to capture financial rents, for example, by issuing rent-backed financial instruments or repackaging distressed loans into bonds. The result is the centralisation of housing ownership under the control of global investment companies, who are tying residents into capital markets even after the mortgage relation has been severed (Beswick et al., 2016: 324).

The third scheme was the restructuring of the Urban Rent Law centred on the deregulation of rents to increase international attractiveness. The restructured law foresaw the change in contract duration (from five to three years); it facilitated the re-adjustment of the contract after the first expired time or eventually the termination of it; it allowed an increase in rent of up to 20% in case of building restoration of any kind, and it eliminated the pre-emption purchase right for tenants, which has benefited the sales to institutional players the most (Janoschka et al., 2019).

The general attitude was to open up the market to the international investors to re-activate the real estate market, and such a program had a strong response:

> "[I]n 2012, some of the world's largest real estate private equity firms, including Blackstone and Colony Capital, followed early entrants like Way- point into the market. They rapidly accumulated large property portfolios: Blackstone's rental subsidiary Invitation Homes controls about 50,000 rentals, followed by American Homes 4 Rent's 38,000 homes and Colony Starwood Homes' 30,000" (Beswick et al., 2016: 324).

The leading company that invested most in the Spanish (and in particular in the Madrid) housing market was Blackstone:

> [I]n only five years since 2013, the private equity firm Blackstone has created a real estate empire in Spain, consisting of more than 120,000 assets that include rental flats, mortgages, offices, hotels and land ready for real estate development. With an overall investment of about €23 billion, Blackstone has now become the most important single actor in the Spanish real estate market, surpassing the value of assets still managed by SAREB (Janoschka et al., 2019: 6).

In their detailed reconstruction, Janoschka et al. (2019) listed the phases of the escalation of Blackstone in the Spanish real estate market: (1) Blackstone first entered the housing market participating in a public sale of almost 5000 social housing units, sharing the spoils with the competitor Goldman Sachs. This purchase was the springboard for the launch of the Blackstone REIT Fidere, which was then listed at the National Stock Exchange. (2) After the first set of purchases, Blackstone moved directly towards the SAREB portfolio, and it "acquired the Dorian portfolio, consisting of 620 socially protected housing units8 along with 1200 garages and storage facilities (€43.7 million) [plus] it bought the Aneto portfolio, consisting of 39 NPLs valued at €237 million, backed by 29 property developments and land ready for construction, located mainly in Madrid" (2019: 7). (3) Another critical step was to purchase assets from state-rescued saving banks, particularly the NPL portfolio of the failed bank Catalunya Ban. The final deal constituted in the acquisition of more than 40.000 NPL at a discount rate of 40%. (4) To take advantage of the tax exoneration, Blackstone created several new REITs in addition to the first one, Fidere. (5) During the acquisition of Banco Popular by Banco Santander, Blackstone entered the negotiation, managing to get 51% of the real estate portfolio of the former Banco Popular (including housing, commercials, land and mortgages package). (6) This last huge acquisition additionally included a large part of a new market field: hotels. The package comprised 14 big hotels located in Madrid and some touristic seaside locations. (7) Thus, Blackstone decided to expand its portfolio by purchasing logistics real estate, industrial warehouses and land for development.

Reconstructing the investment history of Blackstone in Spain could give a picture of the highly financialised real estate panorama in Spain. What was established during the crisis does not represent a sustainable and long-term formula for the inhabitants.

> [T]he political and economic restructuring of the homeownership society has in turn reconstructed the housing market in Spain. Real estate companies, international investors, and hedge funds appear to be the winners of a market oxygenation that transformed private debt deriving from real estate speculation into public debt, while further dispossessing citizens from access to housing (Alexandri and Janoschka, 2018: 130).

However, if the mechanism that regulates the secondary circuit of capital in the real estate market has been explicated, grounding these investments and retraining general economic behaviour in the primary circuit would be quite challenging. These facts should be contextualised in the post-crisis urban economic development that saw a boom in the touristic industry together with a revolution in the short-term accommodations as well as by the fact that "since government policies were heavily boosting the lease of properties, most assets have now become part of the rental market, with the market share of renting having nearly doubled within a decade" (Janoschka et al., 2019: 9). If it is true that "[M]arkets not only have smells, they are also apparently able to smell" (Coronil, 2001: 119), we might see like a market to retrace how the financial investments landed on the Spanish ground, among others.

Rents

In political economic theorisation, the issue of rent is inevitably linked with the concept of land. Murray Li (2014) described her ethnography in an Indonesian island and recalled an incident where the indigenous highlanders planted a crop of cacao for the first time and started to treat land not as an environmental entity but rather as a potential source for revenues, profits and investments. They did not have a word for such a new concept; therefore, they used the term *lokasi*, a transliteration of the English word "location": "[*L*]*okasi* named a new resource assemblage – a plot of land that was detached from neighbouring plots, and detached from the sweat of the person who first cleared the *do'at* [the primary forest] and transformed its status" (Li, 2014: 590). This example is emblematic in the understanding of what land is and the mechanisms that define it. These dynamics can be associated with the theorisation of primitive accumulation (or, in this case, of primitive *awareness of possible* accumulation) in which the essence of land changes from being a static part of the environment to a vehicle of profit dynamics. However, the ecology of land legitimation is still vast, and

> "land can be source of food, fuel and fodder; a place to build a house; a home for spirits; a place to protect a forest, harvest water or supply 'environmental services'; ground to mine for minerals; or a source of profit through use or speculation" (Li, 2014: 591).

As Christophers pointed out, with feudalism, land was central in the pre-capitalist Western society as a fundamental mode of production and accumulation (2016). Land should be understood as an integral part of political economy: "[T]he theoretical reason for taking seriously land's implication in capitalist political economy is that on many accounts 'land' is itself a political-economic creation, which is to say that it does not exist as a concept outside of political economy" (Christophers, 2016: 135). The classical economic concept of ground rent and land value constitute a spatial transposition of the political economic principles: "rent and land value are the theoretical categories whereby political economy integrates geography, space and the relation to nature into the understanding of capitalism" (Harvey, 2010b). This is why Harvey referred to land as a financial asset (Harvey, 1982) and Christophers considered the notion of land as the not real but *fictitious* capital (2016), referring to the variations of value on land so that "the fact remains that land is successfully commoditised – relentlessly and increasingly universally – and it does widely serve as a successful conduit of capital accumulation" (Christophers, 2016: 137).

Upon separating the value of land from the side-specific monopoly rent, as could be the case of the agriculture industry described by Murray Li (2014), other land/value dynamics are present in another complex spatial industry, the urban machine.

Land value manifests in cities through several forms, including "resource extraction, property development, construction, real estate brokerage, rental" (Christophers, 2016: 135). These land exploitations are not directly measurable from the physical production of goods but are related to other forms of extractivism (Mezzadra and Neilson, 2017). The value of land in the urban fabric is dependent on the formation of fictitious capital that "is essential to the whole dynamic, and how much or which of that is extraneous can be determined only after the crisis has done its work of rationalisation. The surface of speculation, it turns out, is just as essential to the dynamics of accumulation as price movements are to the formation of values" (Harvey, 1982: 326). The fictitious capital production is related to the financial dynamics in the rent theory and the definition of ground rents in cities; "[T]he appropriation of rents may not be central to all forms of financialisation; nevertheless, an analysis of rents is crucial when seeking to understand how revenue streams can be securitised and sold on as interest bearing capital through landed and institutional barriers of private monopoly over resources" (Purcell et al., 2020: 15). Further, "it is not only that land and assets are treated as pure financial assets but, and perhaps more importantly, that *rent*, extracted from various forms of private monopoly, has increasingly been pursued by fictitious capital" (ibidem., 2020: 11, original emphasis). The financial involvement in the urban process of accumulation is well described by a simple concept agreed upon by both Harvey (1982) and Lapavitsas (2013) of realising value and profiting from it without producing it: "the financial system working within the production of built environments could find ways to extract profits from the income circulating through, and wealth incorporated in, social space" (Moreno, 2014: 247).

Aalbers and Wijburg (2018) discerned two stages of rental financialisation; the first stage is characterised by short-term investments strategies, the "buy low and sell high" business strategy, while the second stage represents long-time investments in private funds. The two stages are not separate but mostly a continuation of a similar mechanism with different strategies. Financialisation 1.0 is exemplified in private equity and hedge funds, and they "operate in a financial web of multiple actors, loans and securitisations, which makes it difficult to conceptualise who really is the landlord and to whom tenants should address their grievances" (Wijburg et al., 2018: 1099). Meanwhile, financialisation 2.0 is exemplified by REITs because they "adopt a long-term investment strategy to create stable cash flows for their shareholders [...] They seek to create a 'rentier structure' to optimise cash flows, rental incomes and capital gains through the sale of individual housing units" (Wijburg et al., 2018: 1099). The business strategy of REITs is also to provide urban stimulus to activate processes of gentrification and modernisation to raise the real estate value; however, the long-term investment is still focused on the short-term revenues: "the long-term investment focus of these funds enables a short-term investment focus by buying and selling shares in these funds on the stock exchange" (Wijburg et al., 2018: 1100). In this light, the *buy-to-let* model (Paccoud, 2017) has to be upgraded in some sort of *buy the shares-to-let* strategy. These mechanisms describe the multi-layer stratigraphy of rental accumulations and clarify the switch between the primary and secondary circuits of capital accumulation. Such practices have become mainstream, as Fields pointed out:

> "[B]y opening real estate investment to actors (such as sovereign wealth funds and pension funds) without knowledge of local market conditions, these developments transform the political economy of housing: institutional investors can take advantage of real estate investment

opportunities at a global scale, capitalising on advantageous market conditions wherever they may exist" (Fields, 2017: 590).

Most of the real estate speculations happened to be focused mainly on the single-family home as the 2008 crisis revealed (in the U.S. as well as in Spain) (Fields, 2015; Kemp, 2020; Saegert et al., 2009), speculating on mortgages and loans (Fields, 2014).

With the worldwide expansion of these mechanisms, international investors and financial funds are referred to as corporate landlords: "[T]hese landlords sell and hold properties selectively, depending on their location, rental potential and sale potential as well as the government policies and subsidies it can incorporate in its business model" (Wijburg et al., 2018: 1114). Notably, the global network of real estate investments is not a new phenomenon, as Slater highlighted in his paper on the planetary adaptation of Smith's rent gap theory:

> "Smith would often (in person rather than in print) give the example of the 1995 construction of a luxury apartment building in the Lower East Side of New York City which involved an Israeli developer, investment capital from a European-American import bank, a Bangladeshi landlord, and a Long Island architect (and built using non-union labour, which was a first in New York City at the time)." (Slater, 2017: 127)

However, contemporary corporate landlords function on different levels using financial tools to enlarge their market portfolio through the acquisition of securitised mortgages, as mentioned above, or real estate shares for long-term financial revenues.

Despite the financial tools, corporate landlords themselves could embody several forms; as many scholars have highlighted, digital platforms are "a dominant form of rentier in contemporary capitalism" (Sadowski, 2020: 575). Referring to platform real estate (PRE), Shaw highlighted two observations. The first is that the market structure in which digital platforms act in the real estate field is quite aligned with the traditional one, comprising four main clusters: financial investment activity, residential market, commercial market and building management. The power of platforms is to connect different users "from home buyers to homeowners, the wall of capital […] to the big investment or asset managers, tenants to estate agents, shopping mall owners to the analysis of shopper footfalls, and so on" (Shaw, 2018: 13). The second observation is precisely about the connection potential of such a tool; "what is new is the connection of users in a manner that is reliant upon digital technology and dependent upon the accumulation, storage and processing of digital information in a manner that is previously unprecedented either in scale or in its application to (and around, and through) the real estate market" (Shaw, 2018: 14). Fields (2019) defined "automated landlords" in the post-2008 crisis scenario of digital technology-driven trends and practices to create and manage new financial assets through digital tools and technology. Additionally, (2016) highlighted this trend of platformisation of the real estate market, adding as one of the several consequences that “the rise of Web 2.0-style real estate technologies, and the buying and selling of real estate tech companies, has made real estate data itself a sought after and tradable commodity” (Rogers, 2016: 36), which raises the problem of big data regulation.

In the next chapter, this trend is scrutinised from the Airbnb perspective, and the academic debate on the digital platform and sharing economy is broadly described as the other side of the coin of the same ongoing trend.

Discussion

This chapter is focused on the complex process of commodification of housing. The discourse continued from the content of Chapter 2 on the interpretation of housing as part of the built environment (in the Marxian meaning) and, thus, on being an integral part of the capital accumulation process and the physical manifestation of the fixed capital. In particular, housing is described as a value store as it creates value both in the construction of the good itself and the ownership, primarily because the land value is a longstanding value-keeper. The accumulation processes in which the real estate sector is engaged are the so-called second circuit of capital, the one regulated by finance. This causes housing to be treated as a liquid global asset and an object to derive income from. Further, the role of the state in this narration is primary in terms of its regulative and de-regulative power. The case of Lisbon relates a series of policies oriented to a liberalisation of the real estate market as the total dismantling of the regulatory rent scheme and others to favour the entrance of foreign investors in the market, in the form of the new tax regime for non-regular residents and the golden visa. Such a behaviour tells the importance of the real estate market as a source of reactivation of the capital accumulation process.

On the other hand, the case of Madrid reveals the involvement of banks and financial institutes in the housing market, first in creating an indebt class of home owners through mortgages and loans and second, after an enormous wave of evictions and foreclose, in making transnational financial firms the main owners of the Spanish real estate stock. As Madrid, most of the real estate market worldwide is dominated by finance and regulated by financial tools. Together with mortgages and bank loans, other kinds of tools include those who produce profit out of the value of the building, such as the REITs. The way to keep estate values flexible and capable of growth is to manage the estate by renting it.

The so-called transnational corporate landlords manage properties through rents and profit from them through financial tools as well. To increase the value flexibility, and thus the market variations, the short-term rental market result is of particular interest to the investors because of its ductility and resilience.

By this means, the issue of commodification and particularly the financialization of housing meet the short-term rental discourse. The short-term rental field needs to be investigated by these terms to reveal the relationship with the global real estate market and explore the financial and investment chains behind Airbnb and other kinds of accommodation platforms. The empirical analysis of this research is specifically investigating such matters (see Chapter 5).

Chapter 4

Platformed cities

The advent of the tourism industry is related to the wide Western economic transition in which cities experienced a change from being the place of production to being the place of consumption (Featherstone, 1991). The consolidation of leisure time as a new field for capitalisation led several authors (Britton, 1991; Fainstein et al., 1999; Ioannides and Debbage, 1997; Urry and Larsen, 2011) to reflect on the meaning of the new industry of culture in recognising a central role of tourism in the capitalist accumulation mechanism. Its feature "in creating materiality and social meaning of places" (Britton, 1991: 452) led this sector to have an intrinsic link with space and urban issues.

In recent years, scholars have paid much attention to tourism studies; "a current review of Leisuretourism.com using the generic term Urban Tourism generates over 800 pieces of literature and Scopus over 1300 references as a sign of its intellectual health" (Ashworth and Page, 2011: 1). Urban scholars have to deal with the consequences of tourism in cities as well as the political economic meaning that tourism has in (post) modern societies. In particular, the industrialisation of leisure and the democratisation of tourism has led to what is known as mass tourism, which is "the translation of Fordist principles of accumulation to tourism, including the large replication of standardised products, the reduction of cost and the promotion of mass consumption and the spatial and temporal concentrations" (Obrador et al., 2009: 2). From cheap travel packages to organised trips, the travel experience in the accommodation sector has evolved to include selling activities that enhance the value of living an authentic and real experience in a city.

Apart from this trend, the digitalisation of services and technology-oriented transition of many fields of economy give another turn to the touristic industry. The sharing economy principles and platform capitalism monopoly have revolutionised the touristic accommodation sector. In this sense, Airbnb arranged itself in a privileged position, combining the rhetoric of authenticity with the potential of the digital mean as an additional "democratisation" of the service.

The chapter is organised into two parts. The first part is a literature review aimed to frame and problematise the sharing economy as a promoter of an "equal" distribution of wealth and highlight the role of Airbnb as one of the main protagonists of the tourism industry and housing-related issues. The second part presents the initial empirical analysis of the cities. First, some descriptive quantitative measures about cities are presented, followed by the state of the art of Airbnb in the 2017–2019 time window.

PART I: Framing

From sharing economy to platform capitalism

Over a decade ago, a new kind of economic model arose that was apparently unrelated to the finance world and capitalistic speculations and was close to community needs, embracing the vision of an economy that could be sharable and sustainable. The sharing economy popped up from the technology-oriented revolution with its "feel-good rhetoric" (Frenken and Schor, 2017: 3; Murillo et al., 2017): it presented itself as economically efficient, environmentally respectful and socially just (Schor, 2016; Staglianò, 2017). The sharing rhetoric narrates itself as the most sustainable form to exchange goods and services because it offers the possibility to monetise on personal assets (as houses, cars or bikes). In the sharing economy's mechanism, companies make profits by financialising everyday life activities or jobs formerly protected by corporations. Uber Eats monetised cycling, and carpooling apps such as CarToGo converted motorists into taxi drivers, and TaskRabbit can now sell housekeeping services without any professional or insurance coverage. This marketplace also includes the domestic sphere, as companies of furniture design, property management and renting complete the full spectrum of commodified aspects of domestic daily life.

The academic debate around sharing economies is highly ambiguous and fragmented due to its flexible and wide range field of application. Acquier et al. referred to them as "essentially contested concepts" (2017: 2), a notion that Gallie used to indicate highly complex concepts that "inevitably involve endless disputes about their proper uses on the part of [their] users" (Gallie, 1956, cited by Acquier et al., 2017: 2).

A prime misunderstanding moves around the fact that sharing praxes are not a novelty (Frenken and Schor, 2017). There is no innovative formula in sharing goods, information, advice, experiences, services and personal commodities. It is a cultural and social worldwide pre-modern tradition that lies behind the behaviour of exchange without reciprocity (Belk, 2010; Schor, 2016). Grassmuck (2012) added that the human is the only animal that can say "we" and, thus, has an embedded inclination to cooperate and share.

The innovative aspect relies on its digitally based feature. Sharing economies found their success in abolishing intermediates through digital platforms that enable a peer-to-peer (P2P) exchange of services and commodities. The technology and the philosophy of sharing economies emerged as a result of the digital turn, from the open source movement to the active engagement in online contents, and "[t]his explains why file sharing, open source software, distributed computing, crowdfunding, p2p lending, bitcoin, and sometimes even social media, are quite often put under the umbrella term of the sharing economy" (Frenken and Schor, 2017: 4).

As mentioned above, a clear definition of sharing economy is difficult, if not impossible, to give. The "umbrella construct" (Acquier et al., 2017) of sharing economy offers a variety of epithets, such as collaborative consumption (Botsman and Rogers, 2011), on-demand economy, the mesh (Gansky, 2010), gig economy, common-based peer production (Benkler, 2004), DIY economy and crowd-based capitalism (Sundararajan, 2016), in a variety of disciplines, such as marketing, geography (Richardson, 2015), anthropology (Belk, 2010), sociology (Schor, 2016) and law (Pasquale, 2016), leading to general "semantic confusion" (Belk, 2014) around the concept.

The ambiguity of these concepts is because of the presence of economic interest behind sharing values: "[i]t is argued that some of the different phenomena now flying under the banner of sharing are not sharing at all, but merely appropriations of this socially desirable term" (Belk, 2014: 7). Sharing economies are grounded in a mechanism of monetary exchange through the digital transition; the digital platforms "are not based on 'sharing'; rather they monetise human effort and consumers assets" (Kenney and Zysman, 2016: 62). The relevance of this feature is such that Murillo et al. (2017) defined sharing economies as neoliberalism on steroids.

Its economic feature is thus central in positioning the concept in a range of possible definitions regarding both the social and economic actors involved. For this purpose, Schor (2016), Codagnone and Martins (2016) used a taxonomic approach to classify the several records. The two-dimensional matrix shown in Figure 3 describes the market orientation as for-profit (FP) or non-profit (NP) and the market structure, as peer-to-peer (P2P) or business-to-consumer (B2C). Both FP and NP platforms can be found in the wide range of the sharing economies; as Sundararajan (2016: 38) underlines, "sharing economy spans the market-to-gift spectrum". Many of the FP platforms are supported by venture capitalists and start-up projects and are generally “highly integrated into existing economic interests” (Schor, 2016: 4); the NP platform is a narrow segment that includes the time-banking platform, which was formed in the 80s in the U.S. and U.K. as a community-based model that involves the exchange of services and skills without any monetary exchange. Meanwhile, P2P and B2C refer to the actor involved in the transition. P2P defines the exchange between the consumers and the providers; “peers” underline the horizontal feature of this exchange, namely a connection of two actors (ideally private person) through a platform. B2C refers to more traditional forms of exchange, where companies interact with consumers with the platform medium. The first quadrant of the matrix groups P2P and NP, which include the features that define the “true sharing” platform (Codagnone and Martens, 2016: 12) and facilitate exchange through the platform without monetary exchange; this is also how Belk (2014) diversified the sharing and the pseudo-sharing platforms. In the latter, which could be inscribed in the quadrant P2P-FP, four types are identified: long-term renting and leasing, short-rent renting, online sites' sharing of data and online facilitated barter economies. The third quadrant of B2C-FP refers to all the commercial platform that head to a company, of the most debated case is Zipcar, a car rental agency owned by Avis (Sundararajan, 2013). The last quadrant, P2P-NP, as Codagnone and Martens suggest, is still an empty set.

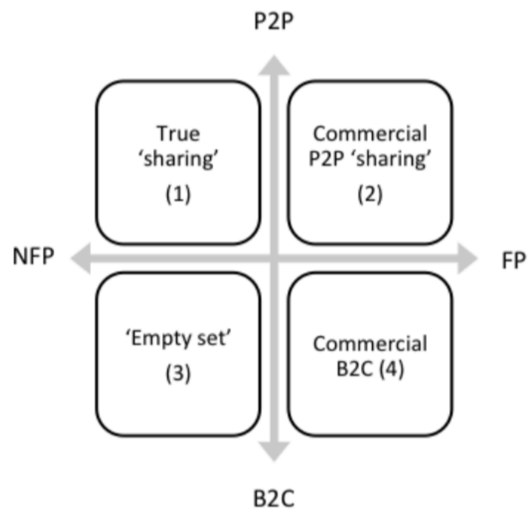

Figure 3: Sharing economy quadrant. Source: Codagnone and Martens, 2016

Others have attempted to define sharing economy, such as Acquier et al. (2017) that proposed positioning the sharing economy as an intersection between three main cores: access economy, platform economy and community-based economy. The first one refers to the accessibility to the “idle capacity” (Schor and Attwood-Charles, 2017), namely, the “set of initiatives sharing underutilised assets (material resources or skills) to optimise their use" (Acquier et al., 2017: 4). Platform economies are the initiatives behind the P2P exchange through digital platforms; and the community-based economies are those defined as "non-contractual, non-hierarchical or non-monetised forms of interaction" (Acquier et al., 2017: 5). The intersection of these forms of economy ideally defines the sharing economy. Meanwhile, Frenken and Schor, with a similar approach, inscribed the sharing economy in the intersection of the on-demand economy as "P2P service delivery"; second-hand economy as "consumers selling goods to each other"; and product-service economy as "renting good from a company instead of from another consumer" (2017: 6). Frenken, in the analysis of the political economy of sharing economies, defined it as the praxis of "consumers granting each other temporary access to their under-utilised physical assets ("idle capacity"), possibly for money" (2017: 3). Again, the interpretation map that emerges in deconstructing this definition presents an intersection between consumer-to-consumer interactions (P2P economy), access rather than ownership (access economy) and the better use of under-utilised physical assets (circular economy). Meanwhile, other interpretations focus on the behaviour and evolution of the platform in time and space. Richardson (2015) proposed an interpretation related to the capacity of performing between the ideal values of "sharing" and its grounded applications. How a sharing economy performs in a grounded context is a central point to describe its evolution and development. For this purpose, Frenken (2017) proposed three future scenarios for the sharing economy evolution: platform capitalism, platform redistribution and platform cooperativism. The last two refer to the policy regulation and citizen political control of the platform and the sharing values. This paper focuses more on the first scenario, namely platform capitalism.

What Frenken described as a scenario is not the description of a distant future. Platform economy (Gillespie, 2010; Langley and Leyshon, 2016; Srnicek, 2017) is the contemporary digital and capitalised evolution of the sharing economy: the integrated interactions between platforms, the change from the P2P model to a more likely P2B2P (peers to business to peers) model and the increased professionalisation of the peers, which Frenken discusses, are all becoming features of contemporary platforms (2017). Digital platforms constitute the software that facilitates the digital-mediated act of sharing, thus representing an essential part in the circulation of such mechanisms:

> [T]hese platforms see themselves as simply service providers. Uber isn't a taxi company; it's a platform that offers transportation-as-a-service. WeWork doesn't lease offices and meeting rooms; it's a platform that offers 'space-as-a-service'. Jeff Bezos even called Amazon Mechanical Turk, the micro-work platform started by his company, 'humans-as-a-service' (Sadowski, 2020: 567).

For these reasons, the digital platform always acquired more economical and regulative power in their fields of application. As Olma pointed out,

> "[T]he platform is a generic 'ecosystem' able to link potential customers to anything and anyone, from private individuals to multinational corporations […] this is miles away from sharing but instead represents an interesting mutation of the economic system due to the application of digital technology" (2014).

Regarding the concept of sharing, these platforms have different territories of applications as Gillespie pointed out: "terms and ideas [that] are specific enough to mean something, and vague enough to work across multiple venues for multiple audiences" (2010: 3). He highlighted four semantic applications taken from the Oxford English Dictionary: computational, as digitally embedded structure; architectural, as the infrastructural environment; figurative, as the concept of a tentacular and grounded status; and political, as the spreading of a vision. These interpretations could build up how theoretically and practically we refer to the platform economy today. For Srnicek (2017), platforms have four essential features: they facilitate group interaction; generate value through network effects; cross-subsidise some services with rates on others; and govern possibilities for interaction through their core architecture. Concurrently, Kenney and Zysman recognised in platform capitalism "an essential part of what has been called the 'third globalisation', [that] reconfigure globalisation itself" (2016: 61). Sadowsky (2020) and Srnicek (2017) agreed to classify the platforms into five types: advertising platforms that sell ads based on the users' data, such as Facebook and Google; cloud platforms that provide hardware and software product for the cloud storage, such as Amazon Web Service (AWS); industrial platforms that combine and transform industrial manufacturing goods into services; product platforms with a fee function to "rent" a product that the platform owns, such as Spotify; and finally, the lean platforms "that generate profit by minimising their ownership of assets and overhead costs, while providing a service built on the users' assets" (Sadowski, 2020: 565), such as Airbnb and Uber.

Among all the possible categorisations, "we aim to place 'the platform' at the centre of critical understanding of digital economic circulation" (Langley and Leyshon, 2016: 5), because it represents a form of tech-mediated capitalism, "defined by a particular combination of socio-technical and capitalist business practices" (ibidem. 2016: 6). The generative force of platforms in digital economic circulation turns depends on the practice of intermediation and the processes of capitalisation.

> "[O]n one side of the market, the platform 'contracts' the service with the customers. On the other side, independent service providers deliver the service using their own assets. Frequently, the

platform simply acts as an intermediary and does not directly employ the service providers nor has any ownership or control of the assets that are used to provide the service. Without the need to invest in physical assets or maintain a large internal workforce, many of the sharing-economy platforms scale up quickly" (Li et al., 2016: 2).

With such mechanisms, the platforms grow without basically doing anything and at the same time spread the vision of a market that is accessible to everyone:

"[T]he platform is a generic 'ecosystem' able to link potential customers to anything and anyone, from private individuals to multinational corporations […] this is miles away from sharing but instead represents an interesting mutation of the economic system due to the application of digital technology" (Olma, 2014).

However, the cut of intermediates and the free accessibility represent just one side of the coin of the mechanism of capitalism beyond the platforms. The innovative digital and socio-technical features hide the accumulation mechanisms of the platform that act as the Über-middleman (ibidem., 2014), establishing monopolies of newly created market field, almost entirely unregulated with an unemployed workforce that keeps the mechanism on. It is important to note that Airbnb was not even conceived as a service for payment in its early days, following the example of websites such as Craigslist or Couchsurfing, which base their profits on indirect revenue from advertisements and external funding. This highlights how the platform economy is even less attached to the value generated from its products instead of the mass of data it generates. This reading shared by Nick Srnicek in his book Platform Capitalism (2017) defines a taxonomy of the different typologies of platforms that currently exist. Airbnb falls in the "lean platform" category, as it generates revenue from housing rents without actually owning any of its listings.

'The sharing economy poster child'

Airbnb – the major short-term rental platform currently available – has revolutionised the hospitality and housing market since its inception in 2009. As with all the Silicon Valley tech companies, the funding and evaluation system of venture capital defines Airbnb's performance. Nevertheless, disregarding the market's downturns, Airbnb introduced a concept that potentially enables the global commodification of any single housing unit around the world – including tree houses and houseboats.

The origins of Airbnb have been entered in history as a sort of fairy tale due to its spontaneity, timing and alacrity (Botsman and Rogers, 2011; Gallagher, 2017; Guttentag, 2015). In 2007, during an international design conference held in San Francisco, Brian

Chesky and his flatmate Joe Gebbia decided to rent out three airbeds in their living room along with a breakfast service because they were facing difficulties in paying the monthly rent. From that point, they realised the potentiality of such a business and opened a simple blog with photos and locations. Soon, other individuals, including their former flatmate Nathan Blecharczyk, showed up and decided to help formalise the website. In 2009, they got their first actual funding from Paul Graham, founder of the American start-up accelerator Y Combinator;[39] however, their business did not witness significant growth. They realised that the photos on the website were not captivating enough; therefore, they physically went to New York and took professional photos of every property. Just one week later, the revenues doubled from $200 to $400 per week. Their business continued to grow and be popular among people. In 2019, they raised $600.000 from seed capital through Sequoia, another important start-up accelerator. Between 2010 and 2011, they raised from $7.2 million to $112 million among several investors, and in 2014, the company was evaluated at $10 billion. In 2019 the company is present in 81 thousand cities with six million listings.

The winning concept that they used was (and is) to propose an alternative offer in the accommodation sector. They differentiated the offer from the traditional one and proposed another way to travel and discover cities through the eyes of locals. Their life motive is mirrored in the brand evolution: in 2007, the platform was launched as "AirBed & Breakfast – Forget hotel", which changed in 2008 to "AirBed & Breakfast – Book rooms with locals, rather than hotels: 2008" and in 2009 to "Airbnb – Travel like a human"; and in 2013–14, it consolidated the motto as "Airbnb – Belong anywhere".

Airbnb found itself entirely in line with the values of sharing economy. It reinforced and helped build its image such that Baum defined Airbnb as the "poster-child of the sharing economy" (2017: 40). The CEO Brian Chesky posted something similar to a manifesto on Medium titled "Shared city" (2014), which was as follows:

> Imagine if you could build a city that is shared. Where people become micro-entrepreneurs, and local mom and pops flourish once again. Imagine a city that fosters community, where space isn't wasted, but shared with others. A city that produces more, but without more waste. While this may seem radical, it's not a new idea. Cities are the original sharing platforms. They formed at ancient crossroads of trade, and grew through collaboration and sharing resources. But over time, they began to feel mass produced. We lived closer together, but drifted further apart. But sharing in cities is back, and we want to help build this future.
>
> We are committed to helping make cities stronger socially, economically, and environmentally. We are committed to enriching the neighbourhoods we serve. We celebrate the cultural heritage of

[39] Y Combinator is one of the main start-up accelerators. It is known to have launched Reddit, Dropbox and Twitch, some of the current largest (tech) companies in the world.

cities. We are committed to being good neighbours. We are committed to supporting local small businesses. We are committed to working with cities to share with those in need. We are committed to fostering and strengthening community. We believe in bringing back the idea of cities as villages. We are committed to illuminating the diversity, arts, and character of cities. We believe cities thrive best with micro-entrepreneurs. We are committed to the safety of neighbourhoods and their homes.

To honour these commitments, and to realise a more enriched city, today we are announcing Shared City.

Such an image remained in the rhetoric and core of the Airbnb marketing strategy. However, over the years, the mission and the goals of the platform turned less idealistic, revealing their capitalising strategies as a primary concern (but always under the light of the sharing values).

A relevant example is the beta project launched in 2019 called Host Capital in collaboration with the financial lending platform company Kabbage. The project consisted of the micro-financing of houses' renovation. It provided a maximum loan of $50.000 with a flat interest rate of 3% that could be repaid from the revenues of the rents of the Airbnb listings. It was proposed to a limited number of selected hosts and included structural renovations to purchase furniture and appliances. The project ended on 31 December 2019, while in the catastrophic year of 2020 during the COVID-19 pandemic, Airbnb decided against all expectations to make an initial public offering (IPO) and made its debut in the stock market in December 2020: "[T]he stock began trading at $146 on the Nasdaq Stock Market, higher than its initial-public-offering price of $68 a share" (Rana et al., 2020). During 2020, Airbnb demonstrated that the platform was able to survive even when the platform bookings went down by 80% in UE and even when its estimated value decreased by $13 billion (from $31 of 2017 to the $18 of 2020); this was possible due to the chameleonic strategy that at the end of the year consented the CEO to bet with an IPO. According to the WSJ, the three main strategies that Airbnb had were as follows: secure its funding investing into loans of $2 billion; cut out costs – the company dismissed a quarter of the total employees; and adapt the service to the pandemic; accordingly, the whole offer was redesigned, giving more space to medium and long stays against the classic short ones, and the listings were prioritised outside the cities and mainly in suburban areas.[40] These strategies ensure that Airbnb maintains the leading position in the sector and opens up for the sector's future evolution strategies.

The worldwide expansion of Airbnb raised quite important issues in several environments including urban, housing, economy, law and social justice. Most of the academic articles published on the P2P accommodation sector, including Airbnb, appear in journals related to tourism and hospitality, and some other appear in

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[40] https://www.wsj.com/articles/how-airbnb-pulled-back-from-the-brink-11602520846 [23/08/2021]

publications related to business and management, urban studies and information technology (Guttentag, 2019). The academic attention on this field was the highest during the 2017–2019 period: "In total, 109 journals were contributed in publishing articles on P2P accommodation and 491 authors and 260 universities from 48 countries have been contributed in the knowledge development on P2P accommodation" (Kuhzady et al., 2020: 6). The methodology used in such studies was mainly quantitative (Guttentag, 2019).[41]

Both media and scholars highlight the (often negative) implications of the non-regulated expansion of Airbnb in cities. The following paragraphs present the main fields of debate.

Airbnb vs hotels

One of the primary debates around the consequences of the spread of Airbnb is the impact on the traditional accommodation sector. In spite of whether Airbnb affects the hotel industry or not, several discourses have affirmed that Airbnb acts as an unfair competitor because of the entirely different regulatory framework of the two. First, the tax regulation is completely different between the two because the listings on Airbnb are not even recognised as touristic accommodation; and the same is the case with the security measures of the spaces and the hygienic standards that the hotels must follow. These basic differences are frequently underlined by hotel associations that request more similar regulations.[42]

Several studies have investigated the effects of Airbnb both on the traditional tourism hospitality system and on the performance of the real estate market, showing the role of Airbnb in redefining the relationships between residential and tourist housing. Some scholars identified a negative impact of Airbnb on the hotel industry in terms of occupancy rates and pricing (Zervas et al., 2017; Mhlanga, 2019), while others highlighted the positive effect of Airbnb on the hospitality and tourism industry as a whole in bringing about an increase in employment in the hotel sector (Dogru et al.,

[41] In his literature review, he analysed the papers published in 2017–2018 and noticed the following: "The majority of Airbnb research has employed quantitative methods (61.5 per cent), and the remainder consists of qualitative studies (18.5 per cent); theoretical, conceptual, or review articles (11.5 per cent); and mixed methods studies (8.5 per cent)" and "most Airbnb research was conducted by researchers in Europe (42.4 per cent) or the USA/Canada (33.3 per cent), with the remainder conducted by researchers in Asia (13.6 per cent), Australia/New Zealand (9.1 per cent) and Africa (1.5 per cent)" (Guttentag, 2019: 5).

42 The Italian association of hoteliers, Federalberghi, often manifested the unfair competition with Airbnb publishing reports and attracting the attention of the media and institution to give relevance to the problem (Federalberghi, 2018).

2020) and relaxing capacity constraints on hotels in the short term (Farronato and Fradkin, 2018). Finally, other scholars revealed a somewhat neutral effect of Airbnb on traditional hospitality industries due to the different services and facilities offered and the different users that choose between Airbnb and hotels (Goree, 2016).

Some studies have compared the travel characteristics of the hotel and Airbnb guests. Volgger et al. (2018), in a study conducted in West Australia, noticed that Airbnb guests are more likely to act as leisure travellers, sightseeing and not travelling alone, while hotel guests are often more work travellers. In such a vision, Henten and Windekilde (2016) affirmed that the entrance of Airbnb in the accommodation market brought changes in the fields that benefit both parts and differentiate the market.

Over-tourism / gentrification

Over-tourism (Celata and Romano, 2020; Goodwin, 2017) is a new urban issue related to the dynamics activated by the extensive tourist flow. Cities are facing changes in their commercial and social patterns due to the high demand for tourists. The term "touristification" or "tourism gentrification" (Gotham, 2005) refers to the processes of gentrification made by tourists and tourist demands, "highlighting how the combination of capital flowing towards real estate and a boost in urban tourism might become a major gentrification driver" (Yrigoy, 2019: 2711). Kraehmer referred to these kinds of processes as gentrification without gentry (2017), highlighting the different figures that generate these dynamics, who are not the "regular" gentrifiers but the tourists.

Airbnb has been recognised as a vehicle for such dynamics; by both scattering and concentrating tourist accommodations, it triggers a mechanism that induces or accelerates economic touristic-oriented dynamics, increasing the tourist facilities and provoking a modification of commercial and social patterns.[43] Freytag and Bauder (2018) analysed the touristification related to Airbnb in Paris and noted that with Airbnb, the touristic concentration, as the traditional tourist "bubble", was dispersed and news area of the city were affected by the process of over-tourism which changed their face from residential neighbourhoods to commercial ones. Caputi and Fava (2019) reported the risks of the tourist economic monoculture in the city of Naples that in a relatively short time changed the traditional commercial patterns of the historic centre, and they noted that these risks would have high social and environmental costs and would provoke the progressive expulsion of the inhabitants from the historic centre, that is, they would enable processes of privatisation of public spaces and the commodification of cultural heritage.

[43] Such arguments have been also described in Chapter 1.

These dynamics seem to lead to gentrification processes, social displacement or spatial inequalities (Balampanidis et al., 2019; Cocola-Gant and Gago, 2019; Colomb and Novy, 2016; Wachsmuth and Weisler, 2018). Cocola-Gant (2016), referring to Marcuse's (1989) distinctions of the typology of displacement linked with gentrification, highlighted three cases: the direct displacement, in which inhabitants are directly evicted or asked to leave from the landlord; exclusionary displacement, which refers to the difficulty in finding out affordable accommodation in areas where gentrification is on; and displacement pressure, which refers to the social and commercial transformation in the gentrified area. All these dynamics have been related to the presence of Airbnb in specific areas of the cities: "[T]he process is fuelled by investors, tourist companies and individual landlords for whom the conversion of residential buildings into accommodation for visitors is a new business opportunity" (Cocola-Gant, 2016: 7). Indeed, what Airbnb triggers is a double process of transformation; on the one hand, it encourages the touristification of city areas, and on the other, it undermines the accommodation capacity.

Airbnb and rent-housing market

Housing and rental markets are equally affected by the dynamics triggered by the platform: the large numbers of houses listed on Airbnb can increase the average price in the rental market (Barron et al., 2018, 2020; Guttentag, 2015, 2019; Sheppard et al., 2016) because part of the accommodation capacity could be removed from the traditional rental market owing to the higher profitability of short-term rental in comparison with traditional ones and the high flexibility of Airbnb listings (Cocola-Gant and Gago, 2019). Some studies have attempted to find a correlation between the high presence of Airbnb in cities and the increase in price rents; Horn and Merante (2017) found that in Boston, for every 75.8 Airbnb listing in the market, 4.5 long-term traditional rent are removed from it. While in New York, Wachsmuth and Weisler (2018) studied the rent gap (Smith, 1987) generated by Airbnb; the high economic potential of the short-term market led landlords to choose this way to increase their rental revenues via immediate evictions and indirect displacement, generating "a reduction of housing stock available for long-term residents, and [an] increased rents and housing prices" (Wachsmuth and Weisler, 2018: 16).

The theory of the rent gap has often been used to read these processes, In a study on Palma de Mallorca, Yrigoy stated as follows: "[T]he potential shift from a residential to a touristic use of housing opens up a rent gap between the actual ground rent coming from a residential use and a potential ground rent that could come from a touristic use" (2019: 2710).

The problem of rents and displacement brings up another issue, how the presence of Airbnb has shaped people's daily life and redefined the meaning of "home", commodifying the personal space in a sort of economic extortion to be admitted in the Airbnb community (O'Regan and Choe, 2017; Roelofsen, 2018; Roelofsen and Minca, 2018)

Short-term rental regulation

The final argument regards the issue of regulations. All the discourses mentioned above are related to it due to the unregulated framework in which such a market sector is inscribed and sometimes take advantages to this lack of a normative framework: "[E]xisting regulatory frameworks were not prepared for the rapid rise of a technology-driven peer-to-peer short-term rental platform like Airbnb, and the regulatory battles that have ensued have often been highly contentious affairs" (Guttentag, 2019: 17). Ferreri and Sanyal claimed that the "multiple geographically specific manifestations [of Airbnb]" (2018: 6) could not allow a common regulation because of its specificity in each different context. The problem was also highlighted by Guttentag (2019) and Tham (2016), who noted that a non-universal regulation of the platform is also impeded by the different levels of jurisdiction by which the regulations are made (urban, national or regional level). This generates a fragmented and localised response to a broader problem (Smigiel, 2020). However, some common measures could be retraced in the local authorities' laws that are mainly devoted to limit the speculative behaviour of the hosts and/or fight tax evasion (in the corresponding footnote, the specific regulations of some emblematic cities summarised in Table 6 are provided),[44] the work made by von Briel

[44] **Amsterdam (2014–2019)**

Three categories:

- private holidays rental (primary residence, night limit): only the registered, main occupant (excluding tenants) of a dwelling may rent out a property; the dwelling must not be rented for more than 60 days a year in total (from 2019 up to 30 days a year); no more than four people can rent a property at a time
- bed and breakfast (primary residence, no night limit)
- professional operator (not primary residency, not night limits)

For all the categories: Tourist tax to the city; Fire safety standards

Barcelona (2014–2018)

Homes used for tourist stays of less than 30 days are required to be registered at the Catalan Tourist Office (the registration number must be displayed when advertising the home). Short-term rentals must be licensed but no new licenses are being issued since 2018.

In 2016, Airbnb was hit with a (still unpaid and contested) €600.000 fine for listing unlicensed apartments

London (2015)

Prohibited use of a property for "temporary sleeping accommodation" for less than 90 days a year without planning permission, or face a possible fine of up to £20,000 for each "offense" of failing to secure and Dolnicar (2020) provide a comparative analysis of the different regulative frameworks in several cities around the world. The evolution of Airbnb regulation-An international longitudinal investigation 2008-2020. The main measures adopted have been the limits in the number of rentable nights, the registration to local authorities (for taxes purpose), the primary residence bond and the shelter condition. In some extreme cases, the regulations were harder; in Berlin, from 2016 to 2018, Airbnb was declared illegal for the unregulated and uncontrolled spreading. Similarly, Barcelona have declared to have reached the maximum capacity of touristic accommodations, so from 2019, no new listing can enter the already saturated market.

Regarding the taxation, there is an extensive debate around how Airbnb listings should be considered, whether as a part of the hotel industry or as single users. Bivens assumed that "Airbnb should have to play by the same rules as other lodging providers" (2019: 19); however, the differentiation is the crucial point, because both cases exist within the large universe of Airbnb. The next section shows the issue of multi-property hosts.

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planning permission (if the property is outside the boarders of Greater London the limit is of 140 days a year).

Berlin (2016–2018)

In 2016, the municipality made Airbnb and such platforms illegal with fines up to 100.000 euros. In 2018, hosts could request a permit to rent their primary residence with no night limit (if is not the primary residence, the limit is 90 days a year).

The fine amounts to more than 600.000 euros for illegals

Paris (2014)

For "primary residence", the rental of a property is allowed without asking permission from local city agencies with a restriction of 120 days a year. For residential properties where the property owner does not permanently live, it is illegal to rent out the property for less than one year at a time unless it is registered as a commercial property with the city.(City officials estimate that around half of properties advertised on Airbnb are not primary residences and that only a tiny fraction of owners bother to register them as commercial properties. Those caught renting out unlicensed secondary apartments or renting out their primary residences for more than four months face fines of up to 25.000 euros or under the "rule of compensation" are required to acquire a commercial property and turn it into a residential one)

Denmark (2018)

New regulation pro-sharing (accurate calculation of income tax): Raises tax-free income limits for primary and holiday homes that work with the government to support accurate payment of income tax. For hosts who rent through platforms that work with the government to support accurate payment of income tax, they will be able to share their home for at least 70 nights a year. (Municipalities may increase this number up to 100 nights per year). Hoteliers who rent through platforms that do not share data with the government on income tax will only be able to share their home for 30 nights a year.

San Francisco (2015)

Permanent Residents (owners and tenants) must place their residential unit on the Planning Department's Short-Term Residential Rental Registry. If the resident is present, there are no limits to the number of nights per year a unit can be rented. If the resident is not present, the unit may not be rented more than 90 nights per year. From 2018 everyone must be registered ($250) and get the permit.

	Nights limits	*License limits*	*Max people*	*Shelter condition*	*Tax regime*	*Primary residence*	*Registration*
Amsterdam	x		x	x		x	x
Athens	x			x	x		x
Barcelona	x	x					x
Berlin	x					x	x
Copenhagen	x				x		x
Lisbon		x			x		x
Madrid				x			x
Naples					x		x
Palermo					x		x
Paris	x					x	x
Porto							x
Seville			x	x			x
Thessaloniki	x			x	x		x
London	x						x

Table 6: Regulatory features of major European cities (elaboration by the author).

PART II: Scraping

To present an overview of the dimensions of Airbnb in each city, this first section provides some insights for a time window of three years, from 2017 to 2019, in terms of performances and demographic quantities. The research questions that drive the section address the legitimation of using the tools of Airbnb to quantify the presence of the short-term rental market in the cities, showing the relevant numbers of the platform spreading.

Why is Airbnb the right tool to investigate the STR phenomenon? How strong is its presence in cities? How is it growing? How is it relevant in terms of market potential?

The AirDNA database

All the analysis that supports this research has been elaborated from the database provided by AirDNA, a commercial firm that collects data from the websites of two leading online travel agencies (OTA), namely Airbnb and HomeAway/VRBO. While AirDNA is the most famous and used one, there is a vast ecology of commercial firms and non-commercial organisations that provide similar products. The main competitor of AirDNA is Transparent, a Spanish company who in addition to collecting data from Airbnb has also added scraped data from HomeAway/VRBO, TripAdvisor and Booking. AllTheRooms is a North American firm that scrapes from Airbnb and HomeAway/VRBO and also works as a short-term rental platform. Other North American companies such as Key Data, Real Page and Mashvisor mostly work comparing properties and acting as real estate consultants. QueXopa based in Panama and Datainfinity in the U.S. are wide-range data scrapers that besides property data include business, real estate, demographic and mobile location data as well.

Regarding the non-commercial organisations, there are two significant contributions. The first one comes from the work of an independent researcher, Tom Slee, who published the well-known book "*What's yours is mine: against the sharing economy*" (2015), and to support the activist battle, he developed and made public a code to scrape the Airbnb data autonomously.[45] The other one, Murray Cox, is an artist-activist and technologist who created Inside Airbnb,[46] where a large list of data from cities around the world is available for download. Both the non-commercial portals that propose databases are not deeply detailed. The code by Tom Slee has a time limitation, and it cannot recover past performances; it collects data only from the starting of the

[45] https://github.com/tomslee/airbnb-data-collection

[46] http://insideairbnb.com

scraping. On the other hand, the database built from the code of Inside Airbnb presents a considerable amount of missing information; however, it can be helpful for the general visualisation of the dimension in cities.

Within the abovementioned, AirDNA and Transparent are the best structured databases in commerce. As these rental platforms represent a fast and growing phenomenon, and since at the time of the current research Airbnb began monopolising this sector, AirDNA was chosen instead of Transparent because Booking and VRBO did not have a relevant impact in the European market. Further, AirDNA is the most used database within academia. Its "clients" include the following: McGill University, Princeton, University of New South Wales, Vrije Universiteit of Brussel and Harvard Business School. Moreover, the most relevant studies on Airbnb were made from the AirDNA database from the city-based research analyses (Deboosere et al., 2019; Wachsmuth and Weisler, 2018) to the wide range mapping of the distribution (Adamiak, 2018; 2019). Thus, these were the reasons for going through with the purchase of the AirDNA database to obtain information regarding Airbnb performances.

The database was updated on 31 December 2019[47] and includes all the listings within Europe[48] from 2015 to 2019.[49] The data are organised into three different databases: Property, Monthly and Daily. The Property database includes the description of the single listing and the annual performances both for Airbnb and HomeAway/VRBO; here, the information regarding Airbnb is illustrated. The information could be divided into the description of the listing and performances. The descriptive information includes the following:

Property ID: Unique ID for each listing assigned by Airbnb

Host ID: Unique ID for each host assigned by Airbnb

Listing Title: Title of the listing on Airbnb website

Property type: Kind of accommodation (apartment, condominium, house, boat, castle, tree houses etc.)

Listing Type: Type of accommodation: Entire apartment, private room, shared room

Created date: First date the listing appears on the platform

[47] The last release will include also the entire year of 2020

[48] The scraped countries include the following: Albania, Andorra, Austria, Belarus, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Faroe Island, Finland, France, Germany, Gibraltar, Greece, Guernsey, Hungary, Iceland, Ireland, Isle of man, Italy, Jersey, Kosovo, Latvia, Lichtenstein, Lithuania, Luxemburg, Republic of Macedonia, Malta, Moldova, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russia, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine and United Kingdom.

[49] The Property database also includes the listings created in 2014 or later, but the Monthly and Daily performances have been collected uniformly from 2015.

Last scraped date: Last day AirDNA scrapers found the listing on the Airbnb website (the scrapes are made every three days)

Country: Country where the listing is located

Latitude: Latitude where the listing is located

Longitude: Longitude where the listing is located[50]

State: State where the listing is located

City: City where the listing is located

Zipcode: Zipcode where the listing is located (only for US listings)

Neighbourhood: Neighbourhood where the listing is located (not every city has this information)

Metropolitan Statistical Area: MSA where the listing is located (only for US listings)

Currency (native): Currency chosen by the host

Bedroom: Number of bedrooms

Bathroom: Number of bathrooms

Max Guest: Maximum number of guests accommodable in a property

Airbnb Listing URL: Link of the listing on Airbnb website

Airbnb Listing Main Image URL: Link of the listing images on Airbnb website

The information on performances includes the following:

Average Daily Rate: Average daily rate (ADR) of the booked nights in last twelve months (LTM) or a monthly window (in Monthly Performances Database)

ADR = Revenues (LTM or Monthly) / Booked Nights (LTM or Monthly)

Annual Revenue LTM: LTM or monthly total revenue (it includes the cleaning fees but not others)

Occupancy Rate LTM: A 0:1 index that indicates the occupancy performances. It excludes listings with blocked days and those not booked for over a month

OccR = Count of Reservation Days/ (Count of Reservation Days + Count of Available Days)

Number of Reservation LTM: Number of unique reservations in LTM

Count Reservation Days LTM: Calendar days that the listing was classified as reserved in LTM Last.

Count Available Days LTM: Calendar days that the listing was classified as available for booking but not reserved in LTM

Count Blocked Days LTM: Calendar days that the listing was classified as blocked for reservations in LTM.

Calendar Last Updated: The last time the host update the listing calendar

Response Rate: Percentage of responses by the host within 24 hours (inquiries and reservation requests)

[50] Latitude and Longitude do not indicate the exact location of the listing. Due to the Airbnb privacy policy, the exact location is obscured; instead, a buffer zone with a diameter of 150 meters in which the listing could be is shown. The scraping coordinates report the centre of the buffer zone.

Airbnb Superhost: True or False, if the host is classified as Superhost
Cancellation Policy: Cancellation policies of the listing (strict, flexible, moderate)
Securit Deposit: Security deposit additional fee
Cleaning Fee: Cleaning additional fee
Extra People Fee: Extra people additional fee
Published Nightly Rate: Default nightly rate
Published Monthly Rate: Monthly price set by the host
Published Weekly Rate: Default weekly rate
Check-in Time: Time for check-in
Check-out Time: Time for check-out
Minimum Stay: Number of minimum nights to stay in the listing
Number of Reviews: Reviews present in the Airbnb listing page
Number of Photos: Number of photos in the Airbnb listing page
Instantbook Enabled: True or Fales, if the listing can be booked directly without any host-guest communication.
Overall Rating: Guest rating of the listing (1 to 5)

The Monthly database is composed of fewer information about the listing (Property ID, host ID, property type, listing type, bedrooms, country, state, city, zip code, neighbourhood, metropolitan statistical area, latitude, longitude), and the performances are calculated on the average of each month from 2015 to 2019; it includes the following: occupancy rate, revenues, average daily rate, number of reservations, reservation days, available days and blocked days.

The Daily dataset indicates the performances of each day from 2015 to 2019, it includes property ID, host ID, status (it could be A: available; R: reserved; and B: blocked), booked date, price and reservation ID.

From this amount of information, selected data was chosen to build up two different databases specific for the current investigation. To assemble them, information was taken from the two mentioned databases with scripts written in Python language. The scraping was extracted from eight different databases corresponding to the eight cities under analysis (Athens, Lisbon, Madrid, Naples, Porto, Rome, Seville and Thessaloniki) utilising for the specific query the column of "City" of the Property and Monthly databases. Hence, the results collected the listings in the administrative border of the city, and the metropolitan areas were not included.

The Property database comprises some basic information from the Property file: property ID, host ID, listing type, created date, country, latitude, longitude, state, city, bedroom, bathroom, max guest, Airbnb Superhost, number of reviews, number of photos, overall rating and Airbnb listing URL. The columns that follow were elaborated by merging information from the Monthly database, and the scraped performances were collected for three years, namely 2017, 2018, and 2019. The first database comprises the following information (every information is replicated for each year):

Active properties: the listing is considered active during the year if classified as either available, reserved or blocked in the Monthly scraping.

Revenues: The sum of all months' revenues per year

Reserved Days (RD): The sum of all reserved days monthly collected per year

Available Days (AD): The sum of all available days monthly collected per year

Blocked Days (BD): The sum of all blocked days monthly collected per year

Average Daily Rate (ADR): ADR = Revenues / Reserved Days

Average Daily Price per Max Guest: ADR(MG) = ADR / Max Guest

Occupancy Rate (OccR): 0:1 index that indicates the occupancy performances. OccR = RD/(RD + AD)

Area code and name: Neighbourhood. This information was extracted from a Spatial Join Analysis with ArchMap software. *

* The *Neighbourhood* information in the original dataset was neither complete nor exhaustive for the cities in question. Therefore, the shapefile of the city neighbourhoods and the geo-localised data of properties were merged in a Spatial Join Analysis made with ArchMap to match the exact geographical position for all the listings.

The second database collected information about hosts regarding the number of properties owned in and outside the city in question and the performances made by the single host. The *Number of Properties* was determined by counting all the properties owned by the same host. The next step was to search all the city hosts in the *European Property Database* to check if the hosts of a specific city managed properties outside that city. The results were organised as *Number of Properties in Country* and *Number of Properties in Europe* to differentiate where the host's properties are located. Accordingly, another column was generated from this query: *Total Number of Properties* sums the totality of properties owned by a host in all Europe. This information was added to quantify the "weight" of the hosts. Other additions to the Host database are discussed in Chapter 5 as an attempt to answer specific research questions. (approximation of ADR and OccR).

The database described, as mentioned earlier, was extracted from the European database with a series of Phyton scripts. The next step was the cleaning of the extracted files. The database included cells referring to HomeAway properties that were deleted; and cells with major missing information were deleted as well. Particularly, in this first step of cleaning, properties that resulted as not active in either year (2017/2018/2019) were cancelled. This could be ascribed to erroneous data scraped from the AirDNA database. Table 7 below shows the percentage of eliminated cells in every city.

	Total (from extraction)	Home Away Properties	Non-active Properties	Total	Percentage deleted
Athens	27169	3110	618	23441	13.7%
Lisbon	47266	7472	1631	38163	19.2%
Madrid	75752	7366	4792	63594	16.1%
Naples	21305	3528	557	17220	19.1%
Porto	19963	2772	496	16695	16.3%
Rome	89265	17732	6375	65158	27.1%
Seville	20537	3532	869	16136	21.4%
Thessaloniki	5700	303	107	5290	7.1%

Table 7: Database cleaning

The percentage of eliminated cells are on the same average, except for Rome with 27.1% and Thessaloniki with 7.1%. This could be attributed to the size of the number of properties. Rome has a significantly higher number of HomeAway Properties (17732) compared to the others. Thessaloniki, on the other hand, has the smallest number of HomeAway and Non-Active Properties.

As mentioned previously, other databases were used for the analytics as well. To obtain a coherent and equal source for each city, regarding the demographic information, *2011 Housing-Population Census*[51] was consulted.

Framing the cities

The eight cities have different characteristics in terms of demographic dimensions, surfaces and density. The data analysed were from the Population and Housing Census that every National Institute of Statistics conducted in 2011. The 2011 Census was chosen to ensure a comparable homogeneity within the data. The areas refer to the administrative borders of the cities and do not include the metropolitan areas. Therefore, a city such as Athens does not include the area of the Greater Athens. This choice was made to ensure uniformity with the Airbnb data listed by city and not larger administrative divisions.

[51] Greece: Hellenic Statistical Autority https://www.statistics.gr
Italy: ISTAT – Istituto Nazionale di Statistica https://www.istat.it
Portugal: INE - Instituto National de Estatistca https://www.ine.pt
Spain: INE - Instituto National de Estadistica https://www.ine.es

Table 8 shows some demographic and physical information to contextualise the cities. The cities in question could be divided into three groups based on the size:, small (Thessaloniki, Athens and Porto), medium (Lisbon, Naples and Seville) and large (Madrid and Rome). The number of inhabitants does not always follow the size of the cities, generating different population density measures. Indeed, higher density could be found in the smallest cities, Athens, Thessaloniki and Naples, while Rome revealed a very low population density. Meanwhile, the residential building density revealed a quite low rate in every city. With the dimensions of the residential units, additional information such as the composition of the buildings could be extracted. Athens and Thessaloniki had a higher rate of residential unit density but a medium rate of absolute number, whereas Madrid and Rome had the higher absolute number of residential units but a medium or low (Rome) rate in density. This could mean that the building's composition is less dense in a vertical and horizontal expansion. However, this information could be led astray in the perspective of understanding the city's pattern. As historical layered cities, their pattern and density are not homogeneous nor linear; however, this information is not relevant for the research; thus, additional materials in this direction are not needed.

The cities in the analysis have different characteristics in terms of dimension, surface and densities, and the aim of the research is not to confront similar cities but to have different "episodes" to study the behaviour and dynamics of the short-term rental market in different city forms.

City	*Area (Km2)*	*Pop.*	*Pop. Density*	*Residential Buildings*	*Residential Buildings Density*	*Residential Units*	*Residential Units density*
Athens	38.96	664046	17042.55	49305	1265.41	295832	759244
Lisbon	100.05	547733	5474.59	52496	524.70	323076	322915
Madrid	605.8	3198645	5280.03	131726	217.44	1615548	266680
Naples	117.27	985450	8403.26	40755	347.53	347470	296299
Porto	41.66	237591	5703.10	44324	1063.95	137371	329743
Rome	1287	2617175	2033.55	137021	106.47	1259649	97875
Seville	141.31	688711	4873.76	57946	410.06	354212	250663
Thessaloniki	19	316241	16644.26	24563	1292.77	147376	775663

Table 8: Demographic data. Source: Greece: Hellenic Statistical Autority; Italy: ISTAT – Istituto Nazionale di Statistica; Portugal: INE - Instituto National de Estatistca; Spain: INE - Instituto National de Estadistica

CITY DIMENSIONS

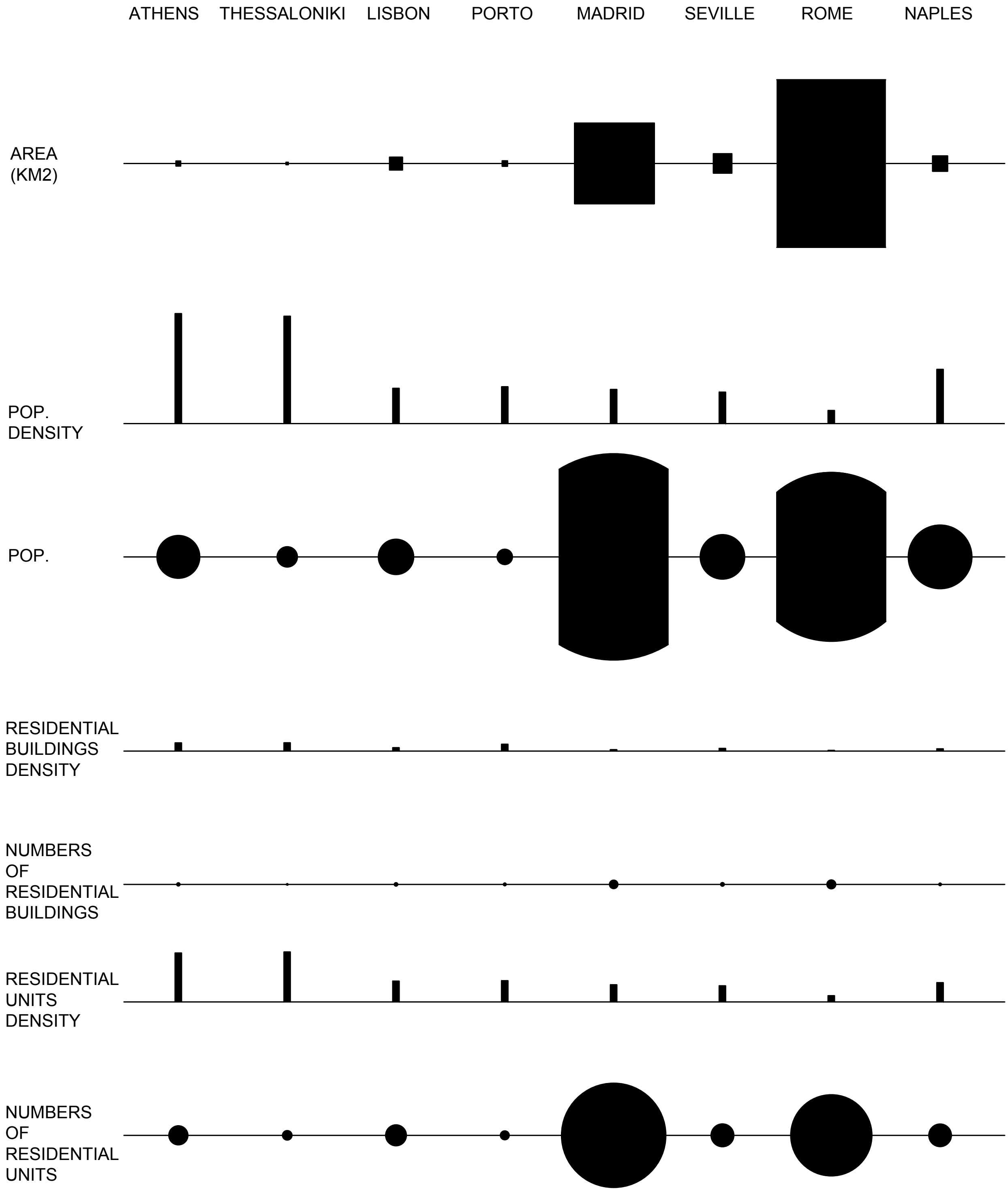

Figure 4: Graphical representation of dimension and densities of cities. Elaboration by the author.

Airbnb dimensions

This section reviews the dimension of Airbnb in the three-year period from 2017 to2019 in the eight cities to monitor the increase or decrease of the values.

Regarding absolute number, capital cities had more properties due to their magnitude in terms of the surface area and population. Rome was found to have the highest number of properties followed by Madrid, Lisbon, Athens, Naples, Porto Seville and Thessaloniki in either of the three studied years. While analysing the density of properties distributed on the cities' territory, the ratio shift was noted to be highest in Athens and followed by Lisbon, Porto, Thessaloniki, Naples, Seville, Madrid and Rome at the end of the list. Another relevant dimension is the ratio with the numbers of residential units; in this classification, Porto and Lisbon reached the highest values, followed by Athens and others with similar values. Comparing the absolute and relative numbers that describe the amount of properties in the cities, the following was found:

- Lisbon and Porto, despite not having a significantly high percentage of density or residential units shortage, had a higher concentration of properties.
- Athens had a high presence of residential units in its expansion; therefore, the number of properties followed that density with a relatively high number.
- Madrid and Rome properties when normalising with the residential units was noted to be on the average with the smallest cities; this is due to their significantly large surface of expansion, and accordingly, their property density was the lowest.
- Naples and Seville maintained low rates both in absolute number and density ratio. In the residential units, normalisation retained the same value of Rome and Madrid, which means that there are less properties in a dense city pattern.
- Thessaloniki had a similar behaviour, but its property density was highly accentuated compared to the absolute numbers.

The variations within the three years were calculated by counting the active properties year by year; accordingly, a property was considered active if it was registered as reserved, available or blocked at least one day during that year; this elaboration was made by mining the Monthly database of AirDNA. Thus, the variation from 2017 to 2019 in terms of properties added in the market of Airbnb shows an increase of 10%–20% for Rome, Lisbon, Seville, Madrid and Porto (in the ascending order) and an increase of 30%–40% for Naples, Athens and Thessaloniki that in three years almost doubled the number of properties with a 45.1% increase.

Regarding the host that owns the properties, the ratio shows that in all the cities, one host owned almost two properties, with a minimum rate of 1.5 for Thessaloniki and a maximum of 2.5 for Lisbon in 2019. This ratio is examined in depth in Chapter 6, focusing on the multi-property host. However, the increase of hosts from 2017 to 2019 shows some relevant features to introduce multi-property hosts. In cities such as Lisbon and Seville, the increase of hosts is quite low compared with the increase of properties: +3.3% of hosts versus +12.7% of properties in Lisbon and +2.4% of hosts versus 14.8% of properties in Seville. This means that the new hosts that join the market of Airbnb entered with more than one property or that the hosts already present added more properties in their profile.

The analysis of the Herfindahl Index (HHI), an index that shows the concentration of the market, follows the same direction, where the results are evaluated in the range of 0–1. The calculation of the Herfindahl Index was made on the hosts and the relative number of properties owned in either of the three years. The absolute numbers of each cities did not show a high concentration (i.e., in Naples, the HHI was at 0.00092 and in Seville at 0.0014 in 2019); however, the relevant result was found when looking at the variation of the HHI across the three years. Some cities, such as Rome, Lisbon and Athens, did not have a relevant variation; Madrid noted a decrease from 2018 to 2019, while Naples had a high increase in the same years; Porto and Athens had a linear increase through the three years; and Thessaloniki stood out from the others and revealed a higher angle of linear increase.

	Property			*Host*			*Property density (Prop/Km2)*			*Percentage of properties on residential units*		
	2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019
Athens	11273	16092	19453	6971	9348	10525	289.32	413	499.26	3.8%	5.4%	6.6%
Lisbon	24632	27806	28210	11018	11926	11398	246.20	277.92	281.96	7.6%	8.6%	8.7%
Madrid	35509	41390	45886	19747	21848	24035	58.62	68.32	75.74	2.2%	2.6%	2.8%
Naples	8910	12194	14371	4989	6601	7585	75.98	103.98	122.55	2.6%	3.5%	4.1%
Porto	9993	12265	12987	4539	5349	5473	239.87	294.41	311.74	7.3%	8.9%	9.5%
Rome	44111	46895	49808	22021	23148	23935	34.27	36.44	38.70	3.5%	3.7%	4.0%
Seville	9926	11176	11651	5371	5736	5505	70.24	79.09	82.45	2.8%	3.2%	3.3%
Thessaloniki	2389	3524	4349	1654	2396	2784	125.74	185.47	228.89	1.6%	2.4%	3.0%

Table 9: Absolute quantity of properties and hosts; territorial density

	Average of properties owned by host			Increase Property 2017-19	Increase Host 2017-19	Herfindahl Index			Variation HHI 2017-19
	2017	2018	2019			2017	2018	2019	
Athens	1.62	1.72	1.85	42.1%	33.8%	0.0006562	0.0006163	0.0007068	7.2%
Lisbon	2.24	2.33	2.47	12.7%	3.3%	0.0006071	0.0006199	0.0007536	19.4%
Madrid	1.80	1.89	1.91	22.6%	17.8%	0.0005407	0.0006557	0.0005375	-0.6%
Naples	1.79	1.85	1.89	38.0%	34.2%	0.0004245	0.0004245	0.0009236	54.0%
Porto	2.20	2.29	2.37	23.1%	17.1%	0.0006824	0.0010986	0.0013052	47.7%
Rome	2.00	2.03	2.08	11.4%	8.0%	0.0004097	0.0003829	0.0003699	-10.8%
Seville	1.85	1.95	2.12	14.8%	2.4%	0.0006784	0.0010420	0.0014910	54.5%
Thessaloniki	1.44	1.47	1.56	45.1%	40.6%	0.0014628	0.0023264	0.0035258	58.5%

Table 10: Increase Property-Host 2017-2019; Herfindahl Index

The geographical composition of Airbnb spreading into the eight cities is presented in the next pages. Each sheet is composed by the satellite map of the city (the cities have been scaled on the format of the paper, a metric scale is provided), the borough subdivisions and the listings represented by tiny dots.

The main observation is that the listings are highly concentrated in the city centres. The cities where there are more than 50% of all the listings in the city centre are the following: Athens (52.8%), Porto (63.7%), Rome (52.2%) and Seville (64.1%), while Madrid is just below with 44.3%. Meanwhile in Naples, Lisbon and Thessaloniki the concentration is distributed in 3–4 central communicating boroughs.

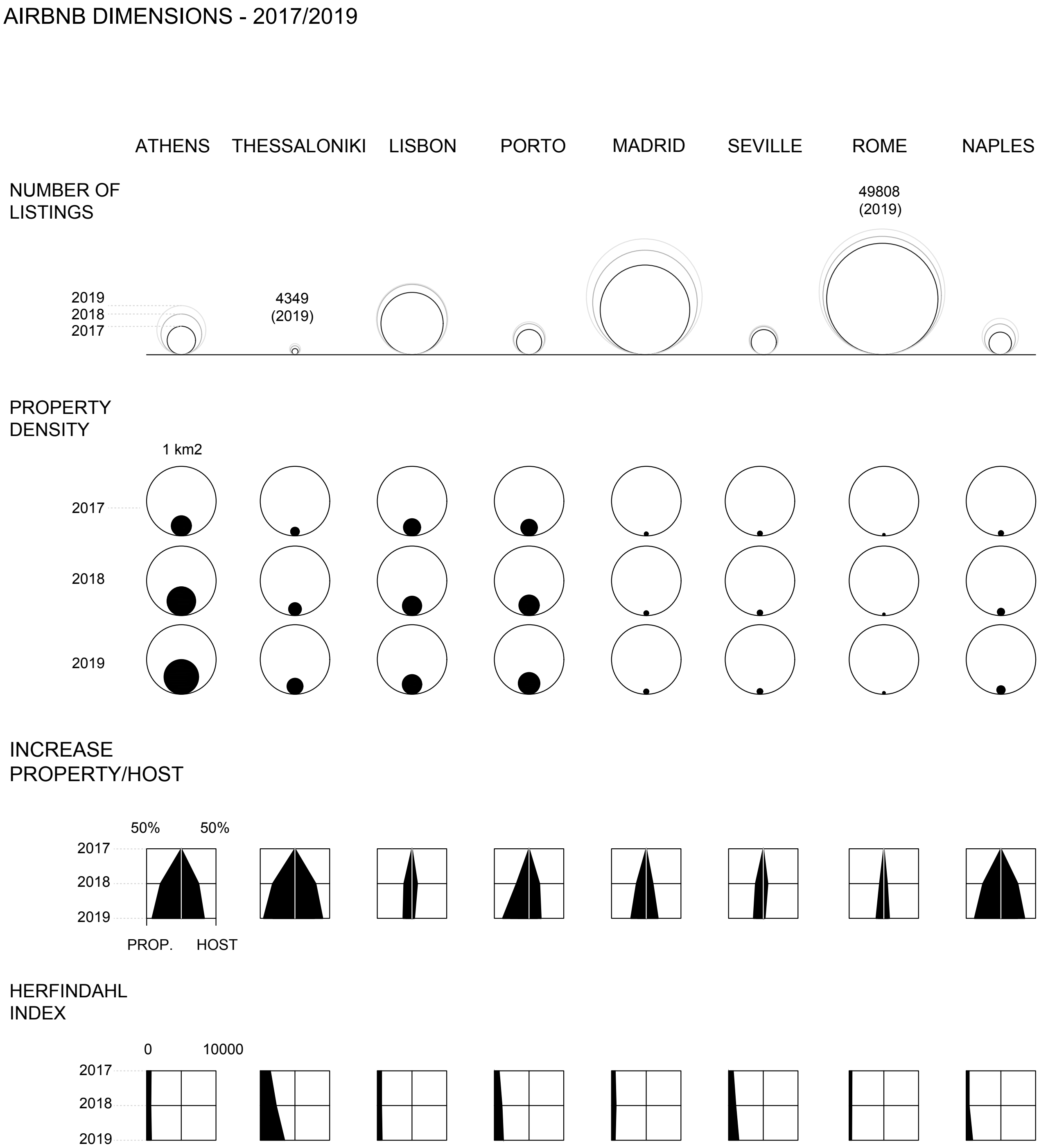

Figure 5: Graphical representation of Airbnb dimensions (2017-2019). Elaboration by the author.


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Athens

The severe economic condition in which Athens found itself after the 2008 crisis and the stagnation of the real estate market led some players to welcome the entrance of Airbnb in the touristic and housing market of Athens. Airbnb was seen as an opportunity to cover the high tax costs and mortgage debts of households, as a source of extra income and as a stimulus for complementary local activities and new business opportunities (mostly in the field of commerce, catering and recreation). It rebooted the stagnated real estate market; and it reintroduced a relevant number of vacant apartments in the market, activated the renovation of old buildings and set in motion the upgrading of the building stock (Amore et al., 2020; Balampanidis et al., 2019).

However, the other side of the coin reveals the criticism of the massive presence of Airbnb in Athens. It resulted in the decrease of long-term traditional rents and the displacement processes that had already been activated; the commercial pattern of central neighbourhoods was transformed into tourist-oriented monofunctional one, and the socio-demographic pattern was flattened, activating a massive displacement of migrants and lower-income households from their affordable housing that was substituted by touristic ones (Balampanidis et al., 2019).

Even if the touristification process faced by Athens was less aggressive than other European cities, the processes of gentrification and social expulsions are frequent and ongoing, as for the emblematic area of Metaxourgio (Alexandri, 2018; Avdikos, 2015) and Exarcheia (Gourzis et al., 2019) where international capitals are investing and speculating and Airbnb is proliferating (in Exarcheia, within the Airbnb experience, there is the "sweet anarchy tour"). The increase of Airbnb listings in the 2015–2018 period was above 300% (Gourzis et al., 2019) letting Athens change its touristic face "from a one-summer-day stopover to a year-round city break destination" (Balampanidis et al., 2019: 6).

The regulation on the short-term touristic accommodation was first introduced in 2016 and then revised in 2017. It limits the days per year of rent to 90 and lists the basic hygienic-sanitarian requirements; accordingly, the accommodation facility must be larger than 9 m2, with natural lighting, ventilation and heating and must be fully furnished and rented out without the provision of any service except for bed linen. The listing must be registered and taxed based on the revenues (15% for the annual revenue of 12.000 euros; 35% for 12.000–35.000 euros; and 45% for more than 35.000 euros).

Figure 6: Athens – Neighborhoods division and Airbnb presence (2019).


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Lisbon

In recent years, Lisbon has faced a deep transformation in its economy. Luis Mendes defined it as a Panacea (2018) in which global events such as the Global Financial Crisis and national laws radically changed the face of Lisbon into a touristic city (Lestegás et al., 2018). Airbnb has a central role in this transformation, such that Cocola-Gant and Gago pointed out that "[A] central question is to note the role of the state and political decisions in advancing Airbnb and tourism-driven gentrification. The proliferation of Airbnb and tourism growth has been facilitated by the deregulation of the real estate sector; the opening of the local market" (2019: 28). In their study on the central neighbourhood of Alfama, they tried to correlate the presence of Airbnb with the processes of financialisation of housing, recalling the intervention of international players: "78% of Airbnb landlords are individual and corporate investors and, in this regard, […] Airbnb is an integral part of the current fifth wave gentrification in which the arrival of global real estate capital into certain neighbourhoods increasingly drives the process" (ibidem., 2019: 26). Sequera and Nofre (2019) have a similar point of view as well that also focuses on the area of Alfama, in which they highlight different forms of gentrification, such as the touristification, the studentification and the Airbnbsation. The concentration in central areas was highlighted by Lestegás (2019) who noticed how the distribution of Airbnb is geographically uneven and related with an increase of the real estate values in those areas: "67.8% of the Airbnb listings are concentrated in only five civil parishes that represent 10.8% of the municipal area and experienced house price increases ranging from 28.5% to 78.8% between the first quarter of 2016 and the fourth quarter of 2017" (ibidem., 2019: 11).

Sequera and Nofre (2018) described the social movements involved in the battle on the regulation and on the denunciation of the touristic speculations. *Travar o Alojamento Local,* started in 2017, asked for an increase of taxation for touristic apartments, established a regulation that limited the days of rent, reformulated the procedure to transform residential housing into touristic accommodations and arranged municipal properties and public housing. Similarly, *Mora rem Lisboa*, a manifesto signed by 31 social associations and 42 social science scholars, asked for better housing conditions.

The regulation of Airbnb in Lisbon consists of the registration in the Alojamento Local and obtaining a licence. The registration consists in the declaration of the kind of activity and the means to adhere to a simplified tax regime (up till 200,000 euros in annual gross revenue) or an organized tax regime that accounts the registration as a professional operator. The taxation was introduced in 2014 as an addition of the accommodation sector tax regime. The short-term rental profits are taxed at 20%–15% within the 15% of the traditional accommodation tax.

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Madrid

Several studies on Airbnb in Madrid have highlighted the problem that the platform's presence generates and intensifies the rent gap, producing a housing affordability problem. Ardura Urquiaga et al. (2020) found in the issue of transnational gentrification (Sigler and Wachsmuth, 2015, 2020) and planetary rent gap (Slater, 2017), triggered by the massive presence of Airbnb in Madrid city centre, the roots of the housing inequalities and highlighted the presence of international players in the Madrid housing market that exacerbate such processes. Gil and Sequera (2018, 2020) stressed on this issue as well, reporting the increasing professionalisation of Airbnb users and denouncing the non-compatibility with the sharing economy principles. Based on a quantitative analysis of Airbnb patterns in Madrid, they highlighted four main points: the majority of listings in the central district consist of an "entire apartment"; the Madrid hosting model is a commercial one, far from sharing economy principles; the market is mainly controlled by multi-property hosts (in the central district they control 68.85% of the market); and a very small group of professional actors manage a large number of listings; thus, "[I]t can therefore be established that a very small group of hosts, highly professionalised in the business of short-term rentals, control a considerable share of the Airbnb market in Madrid" (Gil and Sequera, 2020: 14).

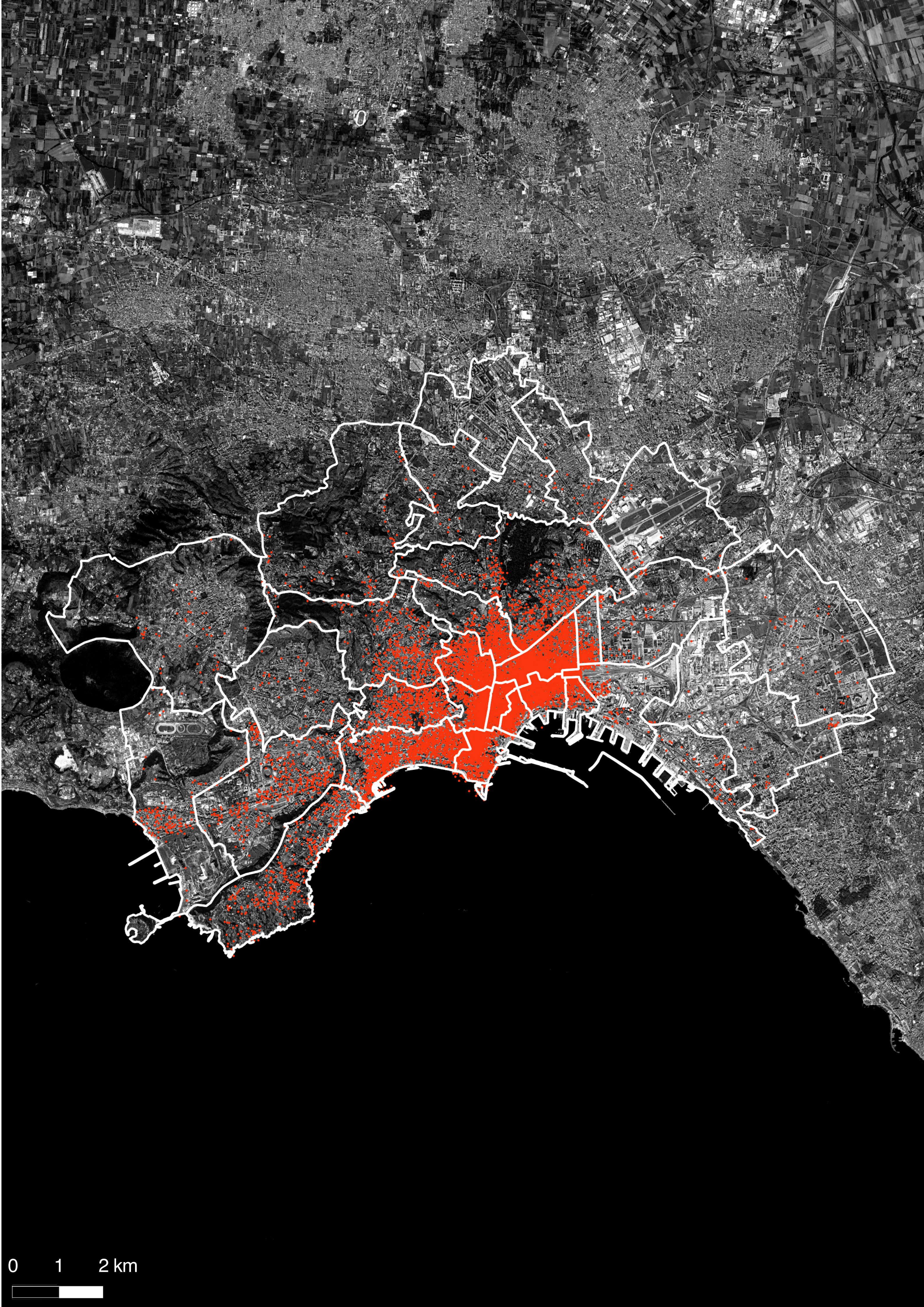
Generally, Airbnb does not follow the positional patterns of the hotels, as Gracia-Ayllon pointed out: "[T]his new tourist model territorially concentrates its impact in the centre of the cities" (2018: 16); and this is valid for the city of Madrid as well; plus he analysed how the seasonality of the service does not impact Madrid.

Finally, Sequera and Nofre (2019) focused on the social activism that stands for the right to housing and anti-gentrification movement. In Madrid, the neighbourhood of Lavapiés is at the centre of a long gentrification process, and the campaign called *Lavapiés donde vas* established a network of discussion, activism and information to stop such a process.

The regional government of Madrid defined the regulation for tourist accommodation.

Tourist accommodation is defined as "flats, apartments, or homes that are furnished and equipped for immediate use, are sold and promoted through touristic offering channels, for their use in their entirety by third parties for tourist accommodation purposes and in exchange for a price" (Airbnb.com). Any touristic accommodation must be registered at the Register of Tourism Enterprise and be taxed as the law requires.

Figure 7: Madrid - Neighborhoods division and Airbnb presence (2019).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Naples

Naples has seen a drastic change in its economy in recent years. It has been boosted with a series of interventions that relaunched the city after years of bad reputation due to the trash crisis. The entertainment industry boosts the city's image through films, tv series and sports, activating a film-induced tourism (D'Alessandro et al., 2015). The branding of the city of Naples through the promotion of its "authenticity" are at the centre of the touristic campaign (Caputi and Fava, 2019); however, "the 'authenticity' (Zukin 2010) of this urban space in terms of social structure and the forms of everyday life has been historically emphasised by local and external observers, being portrayed by some as a source of structural disadvantage and social vulnerability and by others as a source of fascination" (Rossi and Vanolo, 2013: 6). The role of Airbnb has been crucial in the understanding of the change in the commercial patterns of the Naples city centre mostly oriented towards touristic facilities, store chain street food, laundry facilities and luggage keepers.

Naples is one of the main nodes of the SET Net (Sud Europa di fronte alla Turistificazione), an international network that documents and promotes alternative practices on the problem of the touristification, involving the right to housing and the safeguarding of public heritage. It fosters "[U]na strategia politica per il recupero e la tutela del patrimonio che eviti dismissioni, gestioni privatistiche, speculazioni immobiliari o incentivi alla gentrificazione non è possibile, infatti, senza che essa sia accompagnata da politiche abitative mirate alla tutela del tessuto sociale in città" (Caputi and Fava, 2019).

The short-term rental regulation is a national law. It includes the registration to the local austerities of the listing, the guests' details for any booking and the tourist tax payment. For those who rent less than 30 days a year, there is a 21% flat tax (cedolare secca) retained by Airbnb and deposited to the Italian tax authorities.

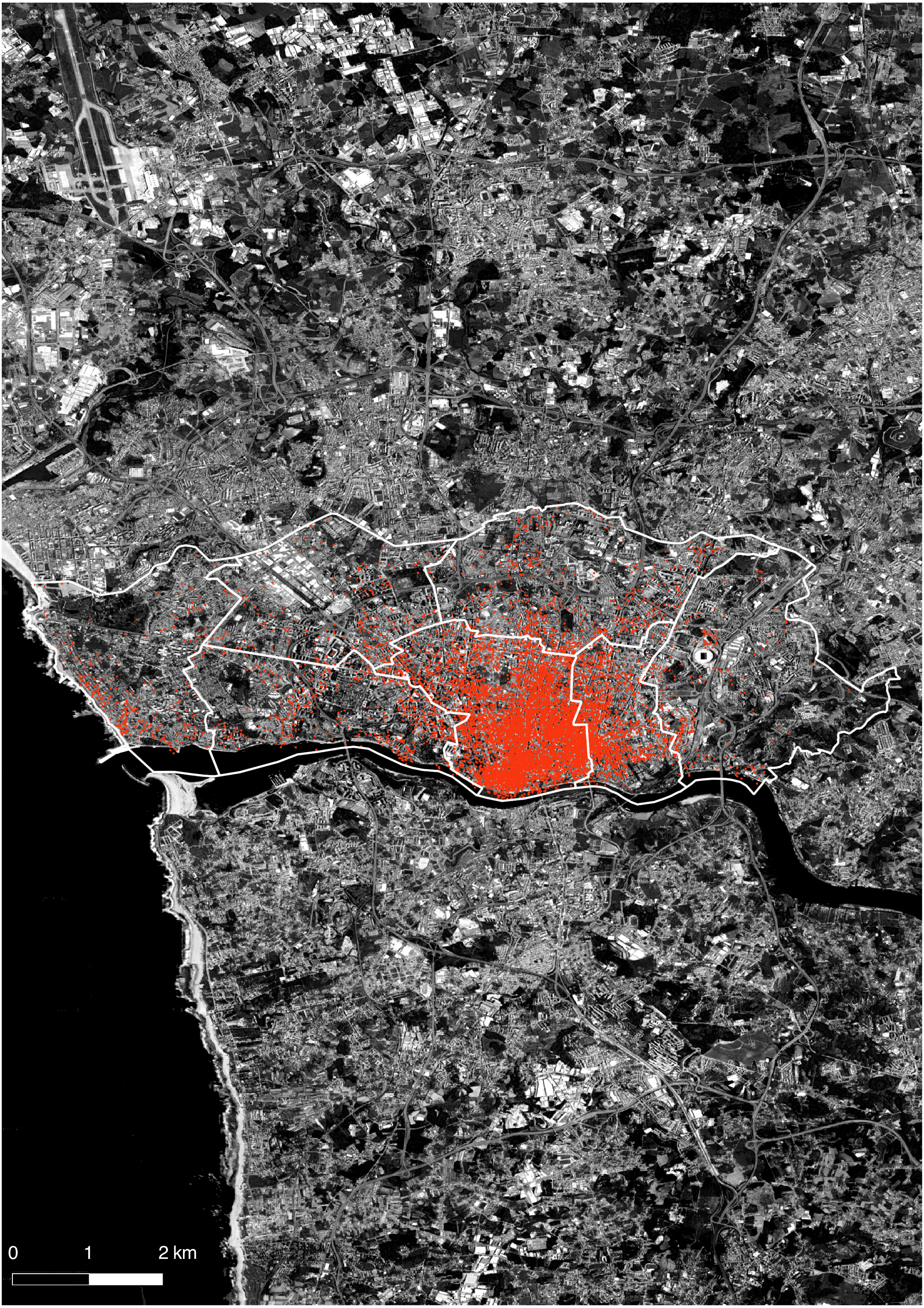
Figure 12: Naples - Neighborhoods division and Airbnb presence (2019).

Figure 11: Porto - Neighborhoods division and Airbnb presence (2019).

Figure 10: Rome - Neighborhoods division and Airbnb presence (2019).

Figure 9: Seville - Neighborhoods division and Airbnb presence (2019).

Figure 8: Thessaloniki - Neighborhoods division and Airbnb presence (2019).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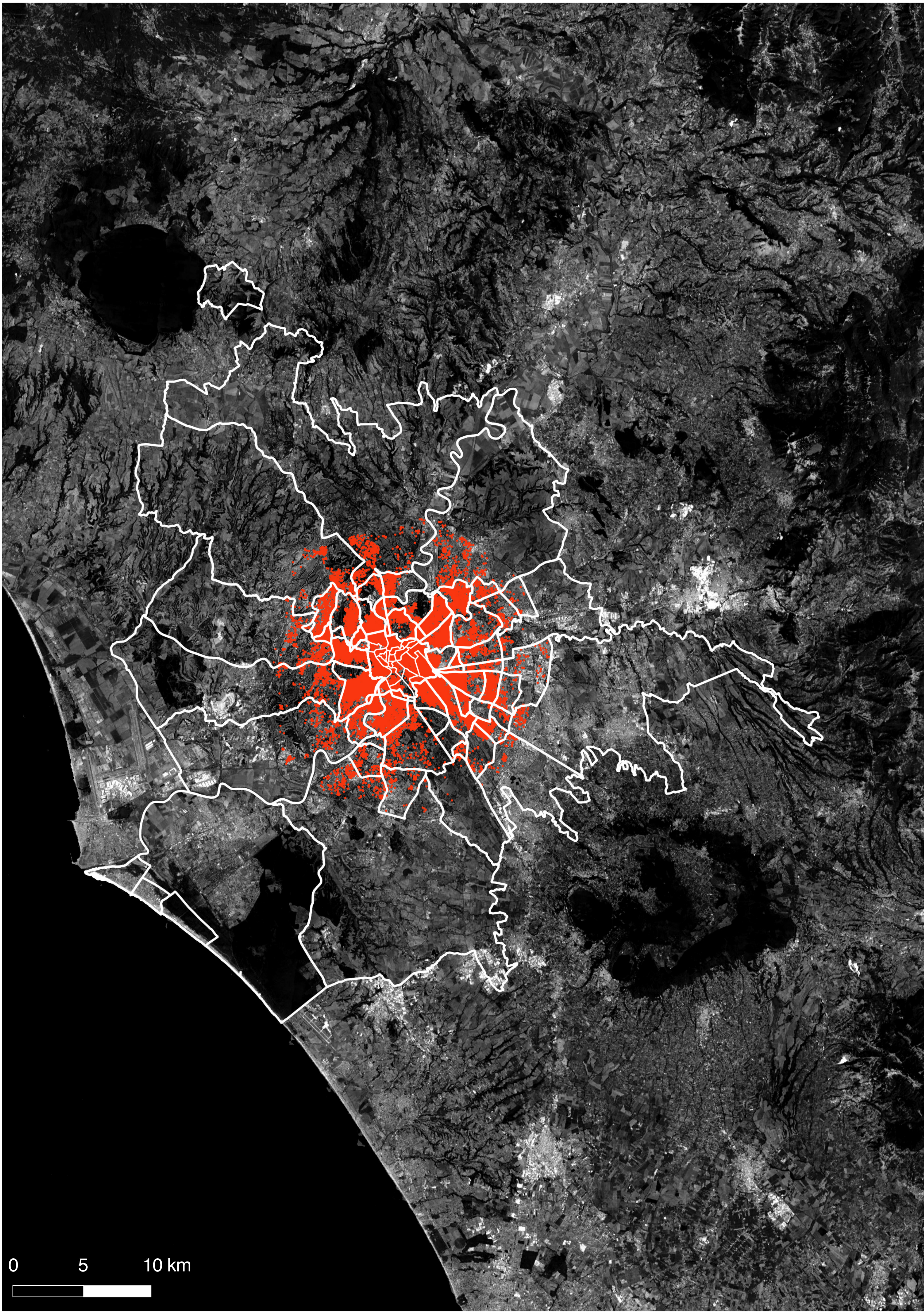
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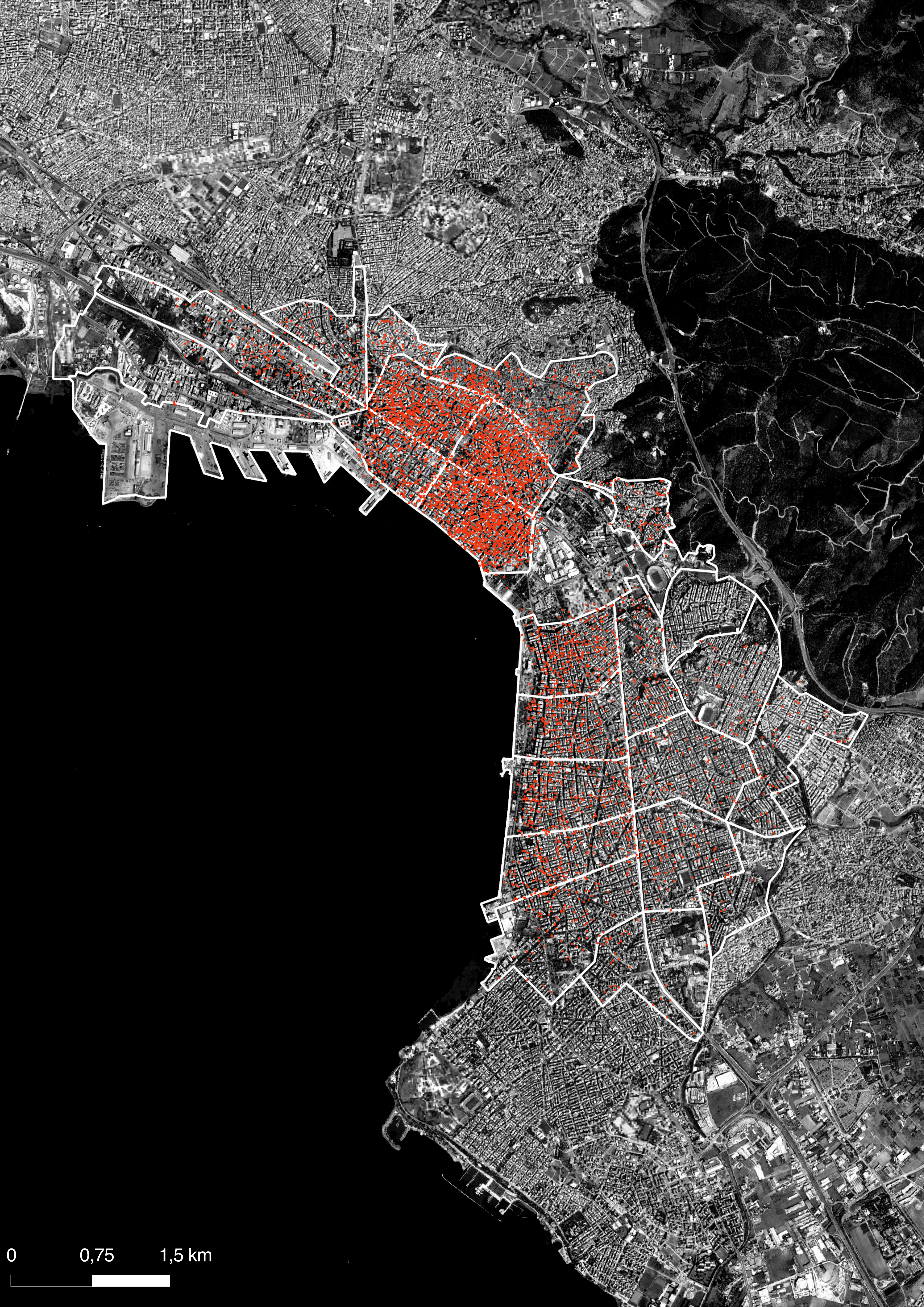
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Airbnb performances

The Airbnb performances refer to the analysis of the listing activity, the revenues and price variations, the presence on the platform and the occupancy. Additionally, the performances were calculated from 2017 to 2019.

The average revenues per property in 2019 were noted to be the maximum in Rome with 10234 euros and the minimum in Thessaloniki with 3477 euros. The variations through the years revealed an increase from 20% to 30% in Athens, Naples, Thessaloniki, Madrid Porto and Rome (in the ascending order), while Seville noted a 42.4% increase in revenues from 2017 to 2019 Lisbon is the only case that showed a small decrease, that is, -0.2%; this is because there was a decrease of revenues of -20.8% in 2018, and in 2019 the returns increased again to the level of 2017. A comparison with the other data presented could not be entirely matched. The revenues in the Property database were calculated by multiplying reserved days and average daily price, while a more detailed count of the revenues calculated from the Monthly database by adding all the monthly revenues for each property is reported here. The daily prices presented here were also calculated from the Monthly database; however, those are an average of all monthly prices and do not consider the daily variables in the Daily database. Therefore, the explanation of the Lisbon decrease–increase could be not explained solely by numbers. However, looking at the ADR, this information was confirmed by a decrease of 6.3% from 2017 to 2018, while the ADR remained static in 2019 and the Reserved Day (RD) was found to increase; this could signify a high variation in the prices during the year due to a different usage of the platform and based on the seasonality, events, bank holidays and so on. The ADR had the highest value in Rome, which was 104.3 euros per listing in 2019, followed by Madrid at 97.1 euros, Seville at 96.8 euros and Lisbon at 86.8 euro; the others were in a range of 70–60 euro except for Thessaloniki that had a very low price per listing in comparison with the others at 49.5 euros. The variation between 2017 to 2019 shows that Thessaloniki, Athens, Rome, Porto and Naples had a positive increase in the ADR in the range of 2%–10%. Seville marked the highest increase with 17.6%, while Lisbon and Madrid showed a decrease. Such information, however, contains some characteristics of the listings as well; the prices could vary in relation with the house quality, position and size. To partially "clean" this data, Table 12 shows the ADR normalised by the number of guests, thus providing the average price per person. The lower prices were present in Athens and Thessaloniki, between 10 and 20 euros per person; Lisbon, Naples, Porto, Rome, and Seville ranged from 20 to 30 euros per person; while Madrid stayed at 31 euros per person in 2019. This could also reveal the average number of guests that the listings in the cities could host. In all the cities, excluding

Madrid, the number of persons per listing ranged from three to four. In the Spanish capital, the range varied from two to three.

	Revenues			*Increase Revenues 2017-19*	*Average Daily Rate*			*Increase ADR 2017-19*
	2017	2018	2019		2017	2018	2019	
Athens	3972.87	4377.86	5003.43	20.6%	59.84	61.62	64.06	6.6%
Lisbon	9905.34	8196.46	9886.92	-0.2%	92.32	86.26	86.86	-6.3%
Madrid	4696.74	5027.87	6010.19	21.9%	99.51	81.07	97.09	-2.5%
Naples	4344.05	4435.91	5497.27	21.0%	70.54	69.08	72.3	2.4%
Porto	6127.74	6709.43	8595.3	28.7%	66.62	72.41	73.6	9.5%
Rome	7277.69	8684.24	10234	28.9%	98.84	100.72	104.36	5.3%
Seville	5606.18	7262.11	9726.03	42.4%	79.79	91.38	96.8	17.6%
Thessaloniki	2720.47	2904.45	3477.88	21.8%	46.52	47.1	49.52	6.1%

Table 11: Revenues and ADR 2017-19 and relative increase

	Average Daily Rate / Guest			*Average Guests*
	2017	2018	2019	
Athens	16.68	16.87	17.52	3.63
Lisbon	24.15	24.2	24.27	3.66
Madrid	36.21	25.92	31.83	2.96
Naples	21.24	20.54	21.41	3.35
Porto	19.72	21.45	21.67	3.38
Rome	28.2	28.68	28.88	3.54
Seville	23.13	25.87	25.77	3.58
Thessaloniki	14.27	13.87	14.33	3.37

Table 12: Average daily rate (ADR) per Guest 2017-19

Looking at the performances regarding the year-long activity of listings, Table 13 shows the average number of days in which the listings were reserved, available or blocked.

During the three years there is a general increase of the average number of reserved days. The higher increase is represented by Seville with a +29 days of average in 2019 compared to 2017, followed by Lisbon (+24 days) and Rome (+23 days), a very low increase is represented by Madrid (+6 days). Porto saw a decrease of -6 days in the reservation, but together with Lisbon, these were the two cities with the highest reservation days in each year. While analysing the blocked days, Madrid is at the lead with almost four months (116.5 days in 2019). This fact could reveal that while blocked on Airbnb, the listings are active in other short-term rental platforms. Several online management services work on different platforms, automatically "freezing" the listing when it is booked somewhere else.[52]

Such data are in relation with the values of the occupancy rate, which is defined as follows :

OccR = Count of Reservation Days/ (Count of Reservation Days + Count of Available Days)

Indeed, the highest occupancy rates were noted in Porto and Lisbon (as seen above as the cities with the highest reserved days); however, the percentage-wise increase from 2017 to 2019 was highest in Seville (32.3%) and Rome (28.3%). Meanwhile in Naples, the occupancy rate was at 0.28 in 2017, which increased by 20.6% to 0.35 in 2019; however, it still had the lowest rates in terms of occupancy.

	Reserve Days (0-365)			*Available Days (0-365)*			*Blocked Days (0-365)*		
	2017	2018	2019	2017	2018	2019	2017	2018	2019
Athens	67.9	72.7	80.8	140.5	124.6	116.24	66.13	76.5	84.1
Lisbon	91.06	98.68	115.08	111.96	98.49	93.37	80.9	85.36	91.94
Madrid	60.69	62.69	66.73	113.43	99.81	81.19	90.98	109.69	116.55
Naples	65.2	68.01	81.18	158.31	156.29	143.44	47.09	55.51	62.58
Porto	123.45	119.74	117.5	102.45	114.68	101.26	57.01	65.93	73.85
Rome	75.58	86.88	98.83	153.8	136.72	116.94	65.09	74.33	77.2
Seville	72.36	85.16	101.03	133.72	117.28	94.15	71.11	84.25	76.62
Thessaloniki	64.91	67.4	76.87	125.36	115.27	103.29	75.81	86.32	96.11

Table 13: Airbnb RD; AD; BD 2017-19

	Occupancy Rate			*Increase Occupancy Rate 2017-19*
	2017	2018	2019	
Athens	0.31	0.35	0.40	22.3%
Lisbon	0.41	0.46	0.51	20.2%
Madrid	0.32	0.36	0.41	21.8%
Naples	0.28	0.29	0.35	20.6%
Porto	0.40	0.43	0.50	19.0%
Rome	0.31	0.37	0.43	28.3%
Seville	0.32	0.39	0.47	32.3%
Thessaloniki	0.33	0.37	0.41	19.8%

Table 14: Airbnb occupancy rate 2017-19

[52] i.e. Guesty (https://www.guesty.com); Tokeet (https://www.tokeet.com); myVR (https://myvr.com); Your orter (https://yourporter.com).

Discussion

The third main pillar of this research refers to the platform capitalism issue and in particular to the accommodation platform of Airbnb and the short-term rental market. As pointed out in Chapter 3, the short-term rental market is an extremely profitable market in which the financial interests converge. To frame this aspect, the current chapter began by documenting the passage from sharing economy to platform capitalism. The sharing economy was promoted during the U.S. financial crisis, and soon, most of the platforms that embraced the concept of sharing values changed their orientation towards a more profitable one.

Through the accommodation sector, Airbnb is one of the major platforms that joined the sharing values. The success of Airbnb could be found in several aspects, such as the advent of the mass tourism, the proposition of an alternative offer in the accommodation experience and the overall spread of the platforms technology. However, the mass spreading of Airbnb generated several debates around the excessive presence of the platform in cities and related to topics such as the unfair competition with the traditional hospitality sector, the gentrification-led processes triggered by the over-tourism, the impact on the traditional rent system and the issue of regulation.

After discussing the problematic aspects and the issues surrounding Airbnb and the platform economy, the chapter presented first part of the empirical analysis. This preliminary analysis framed the presence of Airbnb into the case studies together with the quantitative description of the cities. These general dimensions tell that the eight cities are highly different from each other not only in terms of density, population and extensions but also regarding the presence of Airbnb in terms of absolute quantities of properties and their density and performances.

This preliminary data served to present the cases studies and also highlight the fact that the eight cities were not chosen for a comparative purpose but as single case studies that have a particular background that consented the spread of the short-term rental market.

Chapter 5

The channel

This chapter focuses on the dynamics behind the sustainable façade of Airbnb, the actors involved and the network of action of such a market. The investigations deal with the professionalisation of Airbnb hosts and the involvement of real estate companies and financial firms in the short-term rental market. Today, the market of Airbnb is in the hands of the so-called multi-property hosts – hosts that manage multiple properties – and these can be real societies, property managers, other short-term rental platforms, real estate companies and even construction firms. These societies propose several additional services to the guests and to the house owners (sometimes these societies are the owners themselves), aimed mostly towards a professional management of the property to be as profitable and performative as possible.

Across the globe, these companies manage houses to make them profitable assets, letting them flow into the vacation rental market. Similar to Homm (which owns around 200 properties in Greece), some of them propose architectural adjustments as well, from the renovation of the apartment to "use only product of top quality and high-end product brands"[53] to the complete construction of apartments or buildings from scratch and owning two condo buildings in central Athens. They also propose advisories to the resident permit program Golden Visa.[54] Societies such as Homm in Athens or Tamea International in Lisbon propose a full package from the purchase to the management of properties in cases in which the owners may want a return in the investment by renting out the property, possibly in the short-term rental market to the benefit of the flexibility and a maximum profit; in these cases, the houses sold are already fully furnished and

[53] https://www.homm.gr/en/about/ [29/03/2021]

[54] See Chapter 3.

staged commodities ready to enter the rental market. Altido (based in London with around 2000 properties in Europe) in its blog[55] recommends how to decorate a small flat to meet the demands of clients and extract as much value as possible from small spaces. Meanwhile, the new real estate unicorn Sonder (based in San Francisco with around 8500 properties across the globe) found its fortune in renting out fashionable designer apartments; the practice of home staging for this company was not a possibility as much as it was a requirement. A recent article in their blog presented a series of staged house images made by Sonder interior designers downloadable to be used as Zoom backgrounds.[56]

The performances and the dimensions of multi-property hosts are presented in the further sections. This chapter is organised in three parts that act as three hypotheses on the platform's functioning and the behind mechanisms. The first part shows the dimensions of the phenomenon in the eight cities, revealing the massive presence of the multi-property hosts. The second part focuses on the fact that to understand the trend, the view must be extended outside the borders of the cities and framed in a wider network. The third part retraces the chain from the financial real estate investments to the short-term rental market.

From P2P to B2C

The first hypothesis is based on the simple assumption that Airbnb is not a P2P platform anymore but rather should be considered B2C platform. This means that it links commercial activities with users rather than peers. In the functioning of the sharing economy there are three main subjects: two peers who exchange something (services or goods) and the platform that regulates this exchange managing the demand, the supply and the economic exchange. Airbnb follows this pattern in its basic mechanism, and based on the fact that this exchange is between peers, Airbnb has made its strength its own so that everyone can access the market, acting once as a host and once as a guest. However, although this mechanism has remained the same, the actors that join the platform have radically changed, precisely from individuals to professional players.

Their role mutates the scope declared by Airbnb while launching the platform in the circuits of real estate global trades. No study so far has provided an analytical definition of multi-property hosts; within them there is a variety of different users: property

[55] https://stayaltido.com/blog/stylingyourvacationrental [29/03/2021]

[56] https://blog.sonder.com/design/introducing-sonder-backgrounds-for-your-next-zoom-meeting/ [29/03/2021]

manager companies (firms or associations that manage private properties of a third party collecting a percentage on the revenues), real estate firms, construction enterprises and financial companies. The case that Gil and Sequera highlight is emblematic:

> A good example of this is 'Claudia', who does not have a single listing on Airbnb in Madrid. She has 211 listings, 138 of which are in the city centre. Claudia is neither a real name (she was Rachel in a former life) nor an owner who puts a room or her main home at the service of the collaborative economy. Claudia is the pseudonym used by the company Friendly Rentals Madrid, which manages short-rental apartments in different European cities, and is owned by Wyndham Worldwide, one of the biggest international hotel chains. Owning over 8,000 hotels all over the world under 15 names in 153 countries (Gil & Sequera, 2018), it has financial assets estimated at more than $10 billion.2 Neither is Claudia an isolated case. We also have Juan, Mike, Alex and Maria. All pseudonyms of multi-listing hosts, which manage huge numbers of Airbnb listings (2020: 2).

One of their main arguments is that Madrid is facing a process of "airbnbisation" by professional actors, and it was found out that the Madrid short-term rental market is controlled mostly by these actors (59.8%). Li et al. (2016) studied this phenomenon in Chicago from 2012 to 2013, when it was not that prominent (multi-property hosts represented just 18% of the market), however, what they found was that "a property managed by a professional host earns 16.9% higher average daily revenue, and has a 15.5% higher occupancy rate, despite being offered for the same number of days per week at similar average price" (ibidem., 2016: 3). Dogru et al. (2020) analysed the weight of the activity of multi-property hosts in 50 U.S. states and confirmed that they dominated the platform, absorbing 69% of the overall revenues. Similarly, in New York, Deboosere et al. (2019) noticed that hosts with between two and 10 listings had almost the same price per night of the single-hosts but their monthly revenue was higher than 6.6% (this was achieved by increasing the occupancy rate). Meanwhile, hosts with more than 10 listings had a lower price per night than single hosts (-9.2%) and an increase of 8.9% in the monthly revenue; "these facts suggest that hosts who treat their listings as de facto hotels rather than opportunities for part-time 'home sharing' are considerably more successful in the Airbnb marketplace" (ibidem., 2019: 153). Through this differentiation, they tried to attempt a primary classification of multi-property hosts. There are no substantial studies that analyse the differences in the behaviour of hosts who own two listings and those who own +100; in most studies, they come under the same umbrella of multi-property hosts.

Why did such economic fields become of such interest for real estate actors?

The theme of multi property owners is not only one that involves the short-term rental market; as Kemp pointed out, "[I]n many of the advanced economies there has been a notable growth of investment in residential properties by private individual owners and corporate landlords since the Global Financial Crisis" (2020: 151). The global trend to speculate on real estate market has already been described in Chapter 3; the linkage with the short-term rental market has to be found in the opportunity of a high profitability in the investments, in the structural flexibility of the short-term lease (Cocola-Gant and Gago, 2019) and in the fact that rents represent a form of liquidity in the highly volatile nature of the housing market (Kemp, 2020). The so-called buy-to-let practice[57] is an extremely common procedure to enter the short-term rental market as a form of pure investment, especially made by big real estate companies and financial and equity firms that invest in real estate as a financial asset, and to hyper speculate on it (increase the value and create liquidity), they enter the platform rental market. A similar practice is known as *rental arbitrage*, which could also be called let-to-let practice: "[I]n short, rental arbitrage entails signing long-term leases for properties, then listing them on short-term rental sites like Airbnb and HomeAway. The revenue potential for arbitrage is highly dependent on the difference between long-term and short-term rental prices in your market" (Saldana, 2019). The simple formula to calculate the rental arbitrage[58] made it possible to easily determine which area or the city was more profitable to invest in.

The features of the global real estate market, namely global real estate investors, the ease to enter the short-term rental market and the high profitability potential, attracted the worldwide interest. Transnational landlords (Janoschka et al., 2019) contributed to transform the market from a local P2P activity to a global network of international investments. Behind many of the multi-property hosts there are international real estate corporations that own hundreds, and sometimes thousands, of properties that are on the Airbnb market that act as professional actors and absorb most of the money flow of the platform, removing the single-property users' capacity of revenue.

Such a process has been described as transnational gentrification (Sigler and Wachsmuth, 2015), in which international "gentry" take advantages of the global mobility to find new investment opportunities worldwide, and it represents "a product of a new global residential imaginary coupled with enhanced possibilities for transnational mobility facilitated by digital platforms and state-led efforts to extract new

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[57] The buy-to-let (BTL) mortgage was launched in 1996 in U.K. as a form of incentive to let buy estate and put them in the private rental market. Paccoud (2017) noted that, together with the 1988 Housing Act, the BTL mortgages highly influenced the U.K. real estate market, encouraging gentrification processes as a driving force to renovations programs.

[58] Monthly Rent – Average Monthly RevPAR (from the Last Twelve Months) = Monthly Arbitrage Potential.

Average Monthly RevPAR = Revenue Per Available Rental and is calculated by dividing the total revenue earned by the number of available listings.

forms of rent from particular neighbourhoods" (Sigler and Wachsmuth, 2020: 3190). It has indeed often been correlated with the spreading of the platform-regulated short-term rental activity (Alexandri and Janoschka, 2020; Hayes and Zaban, 2020; Jover and Díaz-Parra, 2019; Sequera and Nofre, 2019) due to the abovementioned high potential of profitability.

Multi-property host dimension

As mentioned above, a comprehensive definition of a multi-property host is not present in the current literature. To further explore this theme, this section aims to provide a dimension of the phenomenon in the eight cities.

The analysis was conducted by classifying the properties and the hosts in seven categories depending on how many properties are owned by a host. The categories are listed in alphabetical order: A = 1 (hosts that own one property); B = 2; C = 3–5; D = 6–10; E = 11–20; F = 21–50 and G > 50.

Table 15 indicates the real number of properties per host divided in the seven categories. For all the cities, the majority of properties are owned by single-property hosts; however, it varies in some cities; for example, in Lisbon, 1415 hosts own between three and five properties with a total amount of 5191, which is just 2000 less than the amount of the single properties (7563). In Madrid, only 40 hosts own almost 4000 properties, and in Rome, 238 hosts own between 11 and 20 listings.

Figure 3 shows the graphics of these numbers; however, such a representation could be misleading because the multi-property hosts are listed in a fragmented manner. Hypothetically, declaring single hosts as those who own between one and two properties (A–B) and multi hosts as those who own more than three properties (C–G), the results could present a better picture of the phenomenon. In Lisbon, Porto, Rome and Seville, more that the half of all the properties are owned by multi-property hosts. In Athens, Madrid and Naples, the proportion is slightly less than half, while in Thessaloniki, only 35% of the properties are owned by multi-property hosts. Another relevant aspect that emerges from these dimensions is the ratio between the percentage of properties and hosts; in Seville, 14% of the hosts own 53% of the properties. Such a relation reveals the weight of this trend. A low number of hosts manage a big quantity of the overall listings and thus the relative amount of revenues. The performances of single- and multi-property hosts are shown in the next section.

Figure 14 and Figure 15 show, on the left side, the concentration of property in the district of the cities, while the right side shows the percentage of the properties owned by multi-property hosts (C–G) in each district. These were divided based on whether more or less than half of the properties in the district were multi-property listings. In all the eight cities, the highest concentrations were found in the central districts; particularly, Athens (52.8%), Porto (63.7%), Rome (52.5%) and Seville (64.1%) had more than the half of the whole listing capacity in one central district; while Lisbon, Madrid and Thessaloniki had a more distributed pattern but still with a high central propensity.

Except for Thessaloniki, most of the districts in all the cities contain a majority of multi-property listings; particularly, Santa Maria Major in Lisbon had 78% of multi-property listings, and the central district of Madrid had 68.3%. In Porto and Seville, all the neighbourhoods had a majority of multi-property listings.

		A(1)	*B(2)*	*C(3;5)*	*D(6;10)*	*E(11;20)*	*F(21;50)*	*G(>50)*	*Total*
ATHENS	PROPERTY	7742	2530	2982	1911	1345	1159	1784	19453
	HOST	7742	1403	915	289	109	46	21	10525
LISBON	PROPERTY	7563	3066	5191	3880	3410	2636	2464	28210
	HOST	7563	1533	1415	527	244	92	24	11398
MADRID	PROPERTY	17883	6730	6746	3813	3005	3717	3991	45885
	HOST	17883	3365	1911	508	209	119	40	24035
NAPLES	PROPERTY	4920	2304	4424	1619	548	287	269	14371
	HOST	4920	1152	1228	231	40	10	4	7585
PORTO	PROPERTY	3473	1560	2874	2385	1152	998	545	12987
	HOST	3473	780	773	326	82	32	7	5473
ROME	PROPERTY	16009	6892	11920	6515	3444	2554	1746	49080
	HOST	16009	3446	3250	885	238	86	21	23935
SEVILLE	PROPERTY	3896	1584	1906	1224	907	1216	918	11651
	HOST	3896	792	532	167	64	41	13	5505
THESSALONIKI	PROPERTY	2220	616	642	398	237	236		4349
	HOST	2220	308	178	54	16	8		2784

Table 15: Property and host per number of properties own by host, 2019.

		SINGLE (A-B)	*MULTI (C-G)*
ATHENS	PROPERTY	52.8%	47.2%
	HOST	86.9%	13.1%
LISBON	PROPERTY	37.7%	62.3%
	HOST	79.8%	20.2%
MADRID	PROPERTY	53.6%	46.4%
	HOST	88.4%	11.6%
NAPLES	PROPERTY	50.3%	49.7%
	HOST	80.1%	19.9%
PORTO	PROPERTY	38.8%	61.2%
	HOST	77.7%	22.3%
ROME	PROPERTY	46.7%	53.3%
	HOST	81.3%	18.7%
SEVILLE	PROPERTY	47.0%	53.0%
	HOST	85.2%	14.8%
THESSALONIKI	PROPERTY	65.2%	34.8%
	HOST	90.8%	9.2%

Table 16: Hypothetic division of single- and multi-property hosts.

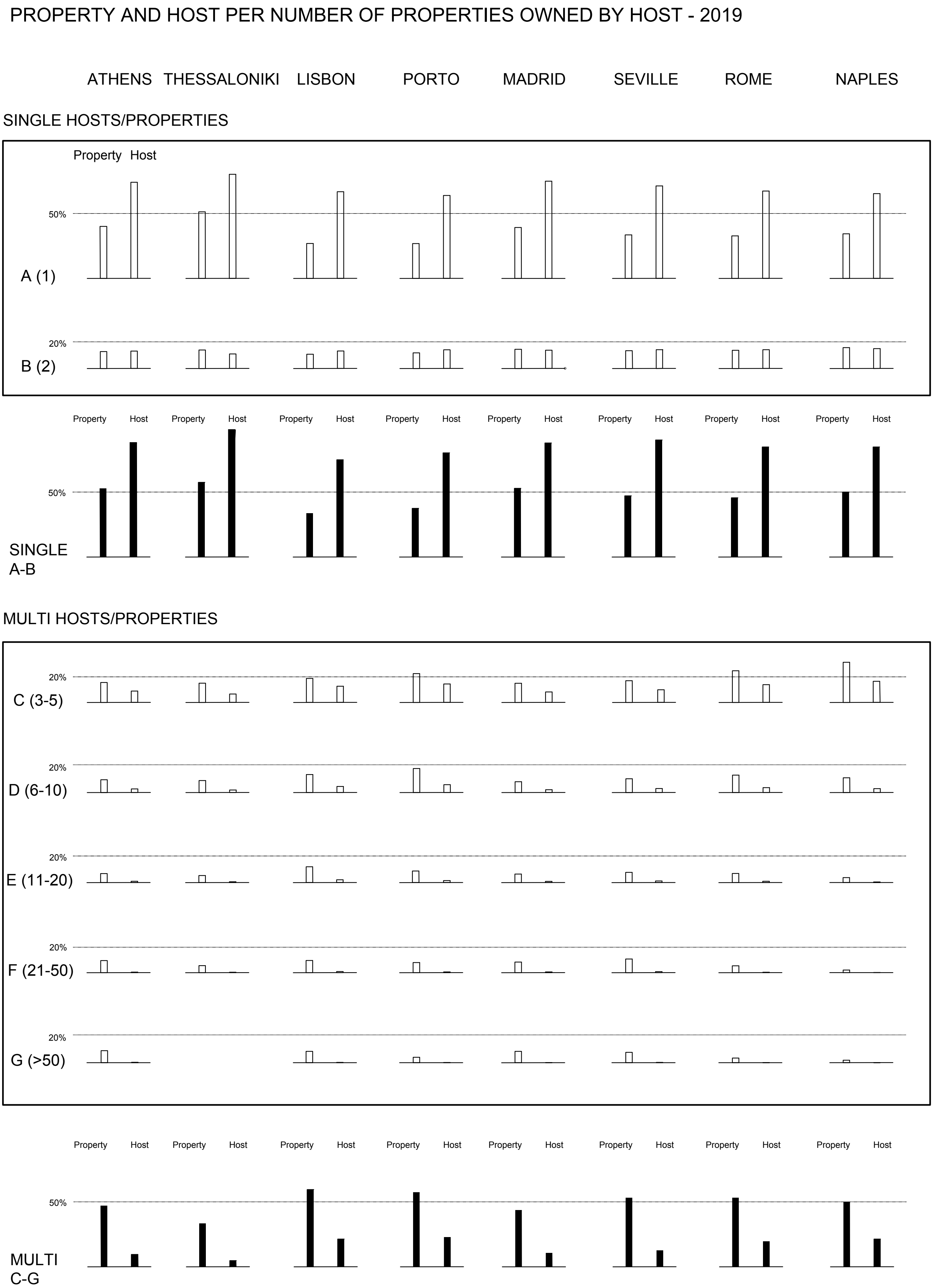


Figure 13: Property and host per number of properties own by host, 2019

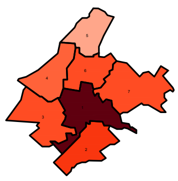
PERCENTAGE OF PROPERTIES
PER NEIGHBORHOOD - 2019

MULTI PROPERTIES PRESENCE
IN NEIGHBORHOOD - 2019

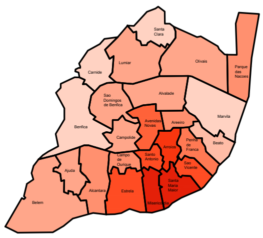
ATHENS

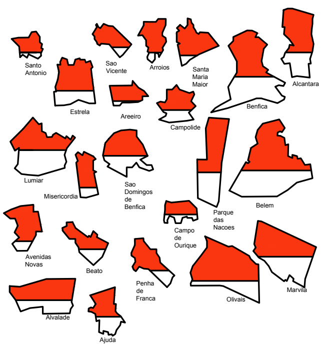
>50

<50

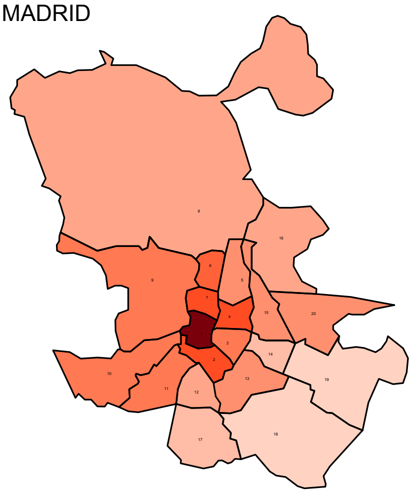


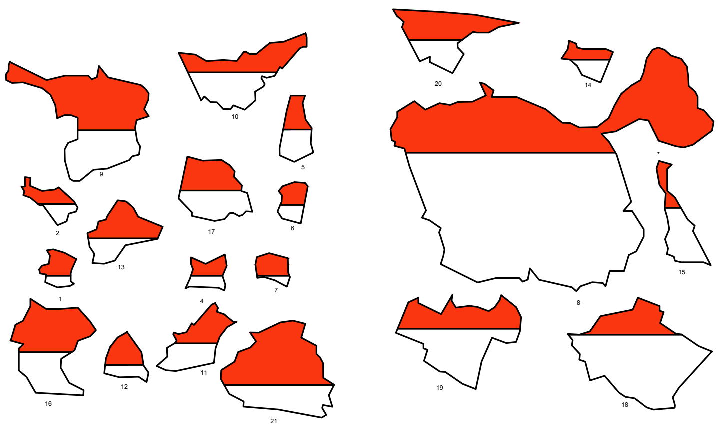
LISBON



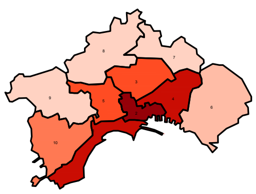


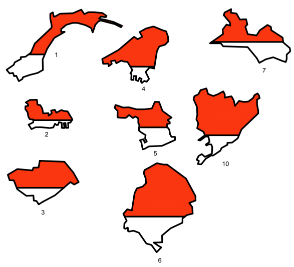
MADRID

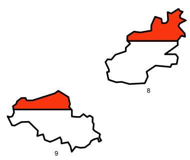




NAPLES







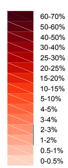


Figure 14: Cities percentage of properties and borough percentage of host's property >3 (2019)

PERCENTAGE OF PROPERTIES
PER NEIGHBORHOOD - 2019

MULTI PROPERTIES PRESENCE
IN NEIGHBORHOOD - 2019

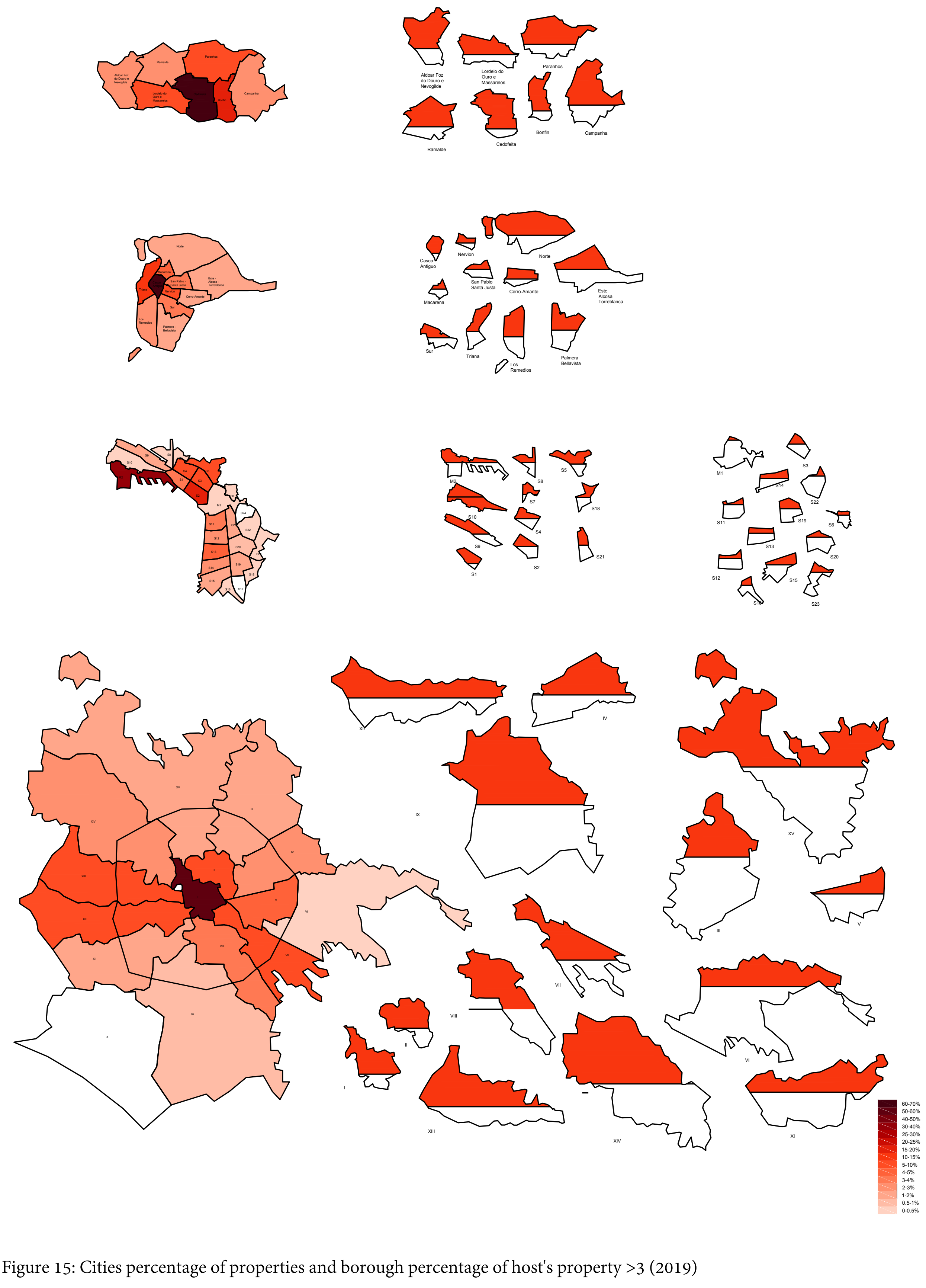


Figure 15: Cities percentage of properties and borough percentage of host's property >3 (2019)

Multi-property host performances

Based on the dimensions of the multi-property hosts phenomenon described previously, this section demonstrates their performances in terms of annual revenues, average daily price, occupancy rate and average reserved, available and blocked days. All the data refer to 2019 and maintain the alphabetical classification mentioned in the previous section.

Regarding the annual revenues, Table 22 (in the appendix) shows the incomes for the seven categories that distinguish the revenues per single property and per single host, and Figure 16 and Figure 17 show the graphical representation of the data. The lower revenues both per property and per host were noted in Thessaloniki and Naples. The profits derived from one property were found to be almost the same whether it was a single-property or a multi-property listing. In Athens and Madrid as well, the profitability of the properties did not vary much within the different categories; a slight variation could be seen in categories D, E, F and G in which the revenues per property rose a bit (i.e., in Athens, the revenues varied from €6.700 for category D to €7.100 for category G). The revenues per host were progressive because they were based on how many properties are owned by hosts. Lisbon had the same trend but with higher numbers; the annual revenues per property went from €9.700 (D) to €14.000 (G) with an average of revenues per host that owned more than 50 properties (G) of €1.400.000. Although, the hosts with the higher profit for their properties were those who owned more than 50 listings in Rome with an average of annual revenues of €1.680.000 per single host. Indeed, Rome together with Porto had the highest profits per property in the category G, with €20.000 and €16.000, respectively, while Seville performed better with categories E and F.

These high annual revenues depend on the average daily price (ADR) and the occupancy rate. The ADR was calculated by dividing the average price with the number of beds in the property; in doing so, the value was scaled to the net price per bed and not per apartment (that could vary for its dimension). Porto Rome and Seville had a high deviation between single properties (A) and the last category of the multi properties (G). In Porto, property A cost on average €19 per bed and property G €26, and in Rome property A cost €27 and property G €43; for the other cities, the variation was minimal. Even in Madrid, single-property beds (€35) cost more than beds in categories C (€29), D (€28) and E (€29). Regarding the occupancy rate, the properties that performed better in Lisbon, Porto, Rome, Naples and Thessaloniki were the ones in category G (except for Thessaloniki which did not have hosts with more than 50 properties, so the highest category was F, with hosts owning between 21 and 50 properties). In Madrid and Seville, properties in categories A and G performed similarly, similarly, and the least occupancy rates were noted in categories D and E. Athens had a gradual increase of the occupancy from properties A to G but without a relevant difference.

A detailed analysis of the occupancy rate involved observing the average annual reserved, available, and blocked days per single property. As seen in Figure 16 and Figure 17 a trend could be recognised for each city. For Athens, Thessaloniki, Naples and Rome, in 2019, all the property categories were noted to be more available than blocked (except for Rome in which properties in category G were reserved more than the others by 119 days). Lisbon, Porto and Seville noted the highest number of reservations with properties in categories D, E, F and G being reserved more than blocked or available on average. Concurrently, a reverse trend was observed in Madrid, where the properties in all the categories were more blocked than reserved or available on the platform (except for properties in categories D and E that showed an average rate in the number of reserved, available and blocked days).

These data show that although the number of multi-property hosts and the relative properties do not always indicate a prominent presence in the cities, they actually have the highest performances and can absorb much of the financial flow generated by the presence of Airbnb in the cities. Such performances describe the progressive professionalisation of Airbnb users that with codified rules and experiences in the hospitality sector call off the competitions with the smaller and amateur users.

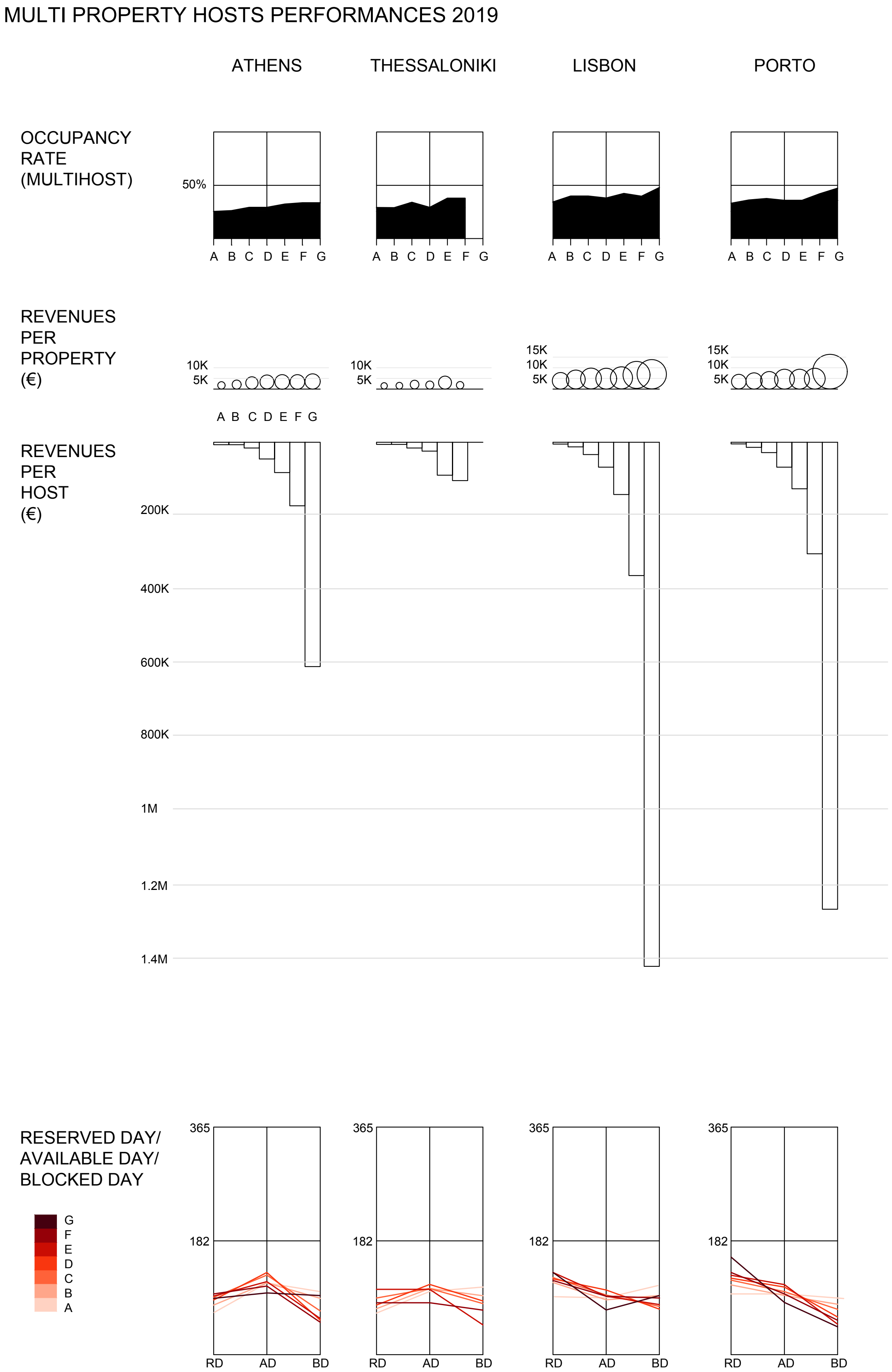


Figure 16: Multi-property performances 2019

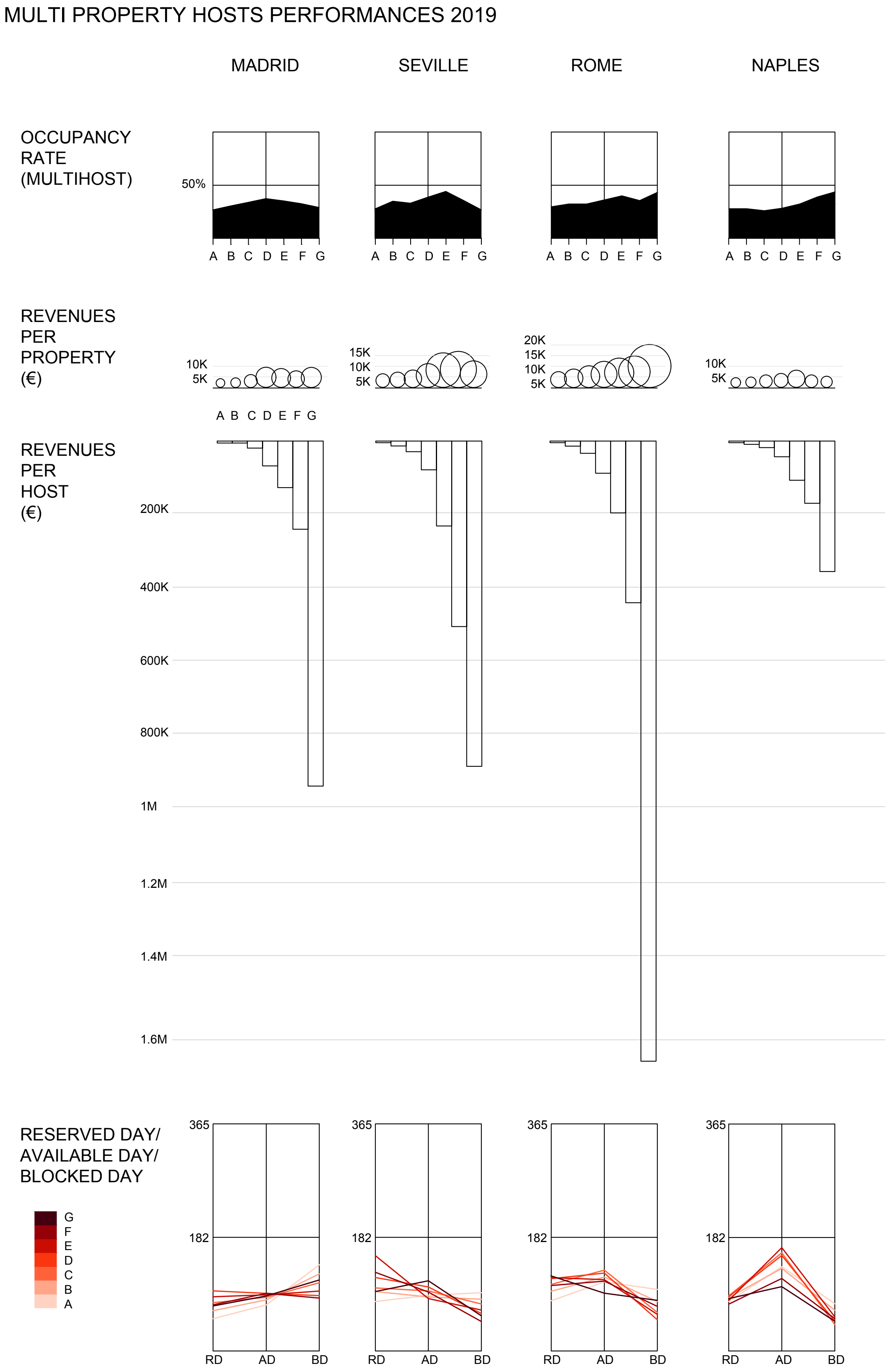


Figure 17: Multi-property performances 2019

Beyond the urban scale

The second hypothesis that structured the analysis on the professionalisation of the Airbnb users is that to better understand the complexity of the phenomenon, it is not enough to look at it within the urban limits. Airbnb should be seen as not only an urban phenomenon; its network capacity should be considered as well, looking at it beyond the urban scale. While analyses on larger scales have been conducted to frame the size of the presence of Airbnb in regional and national territories (Adamiak, 2018, 2019), the current analysis aimed to propose another way to look at Airbnb, suggesting a different representation that could help understand the intricate network of the "platformisation" of the real estate market. Changing the perspective means to move forward the sole representation of the dimensions and performances and rather study the links in and outside the city of the professional hosts. The goal was to demonstrate that the properties of multi-property hosts constitute a transnational network of real estate properties.

To achieve this purpose, further elaborations were made by interrogating the whole AirDNA European dataset. Starting from the hosts present in the eight cities, the same hosts were searched within all Europe. In doing so, it was possible to determine all the properties that one host owned internationally. This awareness brought out a primary issue: the hosts could not be easily localised; a host could manage five properties in Naples and have other 20 in Rome.

Indeed, the first issue that emerged is that in each city there was a certain percentage of single hosts (host A, that own one property) that were "fake". This means that even if they are considered as single-property hosts in one city, when looking at a larger scale, they are multi-property hosts. An extreme case is that of a user called E-Domizil who in Athens had only one property and but had 1446 listings in the rest of Europe has. Figure 18 shows the percentage of such fake single hosts in the eight cities; this analysis was made only among the single hosts to highlight which one has effectively only one property. The results showed that around 10% and 20% of all the hosts with properties in the city were "fake" with a maximum of 18.8% in Thessaloniki and a minimum of 8.7% in Madrid. This means that single- and multi-property hosts prefer mostly to concentrate the investments in the city in Madrid, while those in Thessaloniki are more likely to be part of a wider network of vacation rental accommodation.

	ATHENS		LISBON		MADRID		NAPLES	
	N_Properties	%	N_Properties	%	N_Properties	%	N_Properties	%
URBAN	19861	52.9%	28146	66.2%	44348	71.5%	13911	40.0%
COUNTRY	12095	32.2%	7389	17.4%	11837	19.1%	12452	35.8%
UE	5612	14.9%	6973	16.4%	5863	9.4%	8438	24.2%
		increase		increase		increase		increase
Tot.	37568	47.1%	42508	33.6%	62048	28.5%	34801	60.0%

	PORTO		ROME		SEVILLE		THESSALONIKI	
	N_Properties	%	N_Properties	%	N_Properties	%	N_Properties	%
URBAN	12688	58.8%	46989	50.6%	11330	50.6%	3944	52.8%
COUNTRY	4783	22.1%	30974	33.4%	9671	43.2%	3253	43.6%
UE	4124	19.1%	14857	16.0%	1380	6.2%	271	3.6%
		increase		increase		increase		increase
Tot.	21595	41.2%	92820	49.4%	22381	49.4%	7468	47.2%

Table 17: Properties network: dimension inside and outside the 'origin' city.

Deepening the research to reconstruct the property network, Figure 19 schematises the network's dimension. Following the discourse of the "fake multi host", the same analysis was expanded to all the hosts of the cities; accordingly, the hosts were searched for within all the relevant European databases to see if there were properties managed under the same host ID. The results confirmed that a percentage (10%–20%) of them worked within a network, thus owning properties outside the city of analysis. Together with the hosts' scraping, the properties were also contained in the relative international network. The bar graph shows an extended capacity of properties also considering the "outside properties" managed by hosts that operate in the cities of analysis. Considering this property network, Porto moved from having 12987 properties to 21595, an increase of 41.2%, of which 22.1% of them were located in Portugal and 19.1% across Europe. Looking at Naples, 88.2% of hosts owned properties only within the cities that, with the extended network, represented 39.9% of the property capacity, while only 11.8% of the hosts owned property also outside the city. This 11.8%, however, increased the property capacity of Naples by 58.8% (35.7% in Italy and 24.2% across Europe). In Madrid and Lisbon, the increase of property network was lower than that of the other cities; in Madrid, 10.1% of the hosts owned extra-urban properties that amount to 26.2% of the overall properties. In Lisbon, 17.6% of hosts owned 33.8% of extra-urban properties.

FAKE SINGLE PROPERTY HOSTS

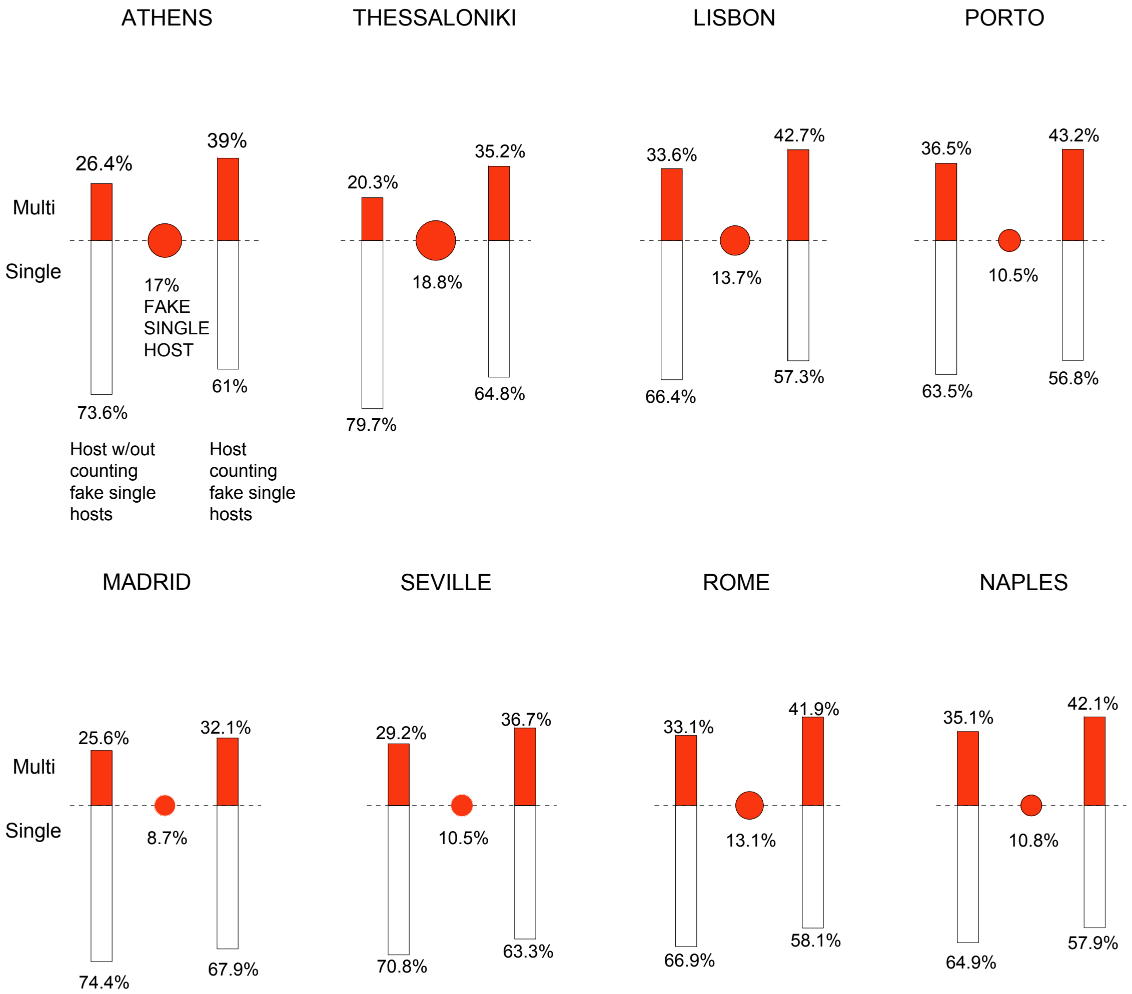


Figure 18: Fake single host 2019

MULTY PROPERTY HOST INSIDE/OUTSIDE CITY

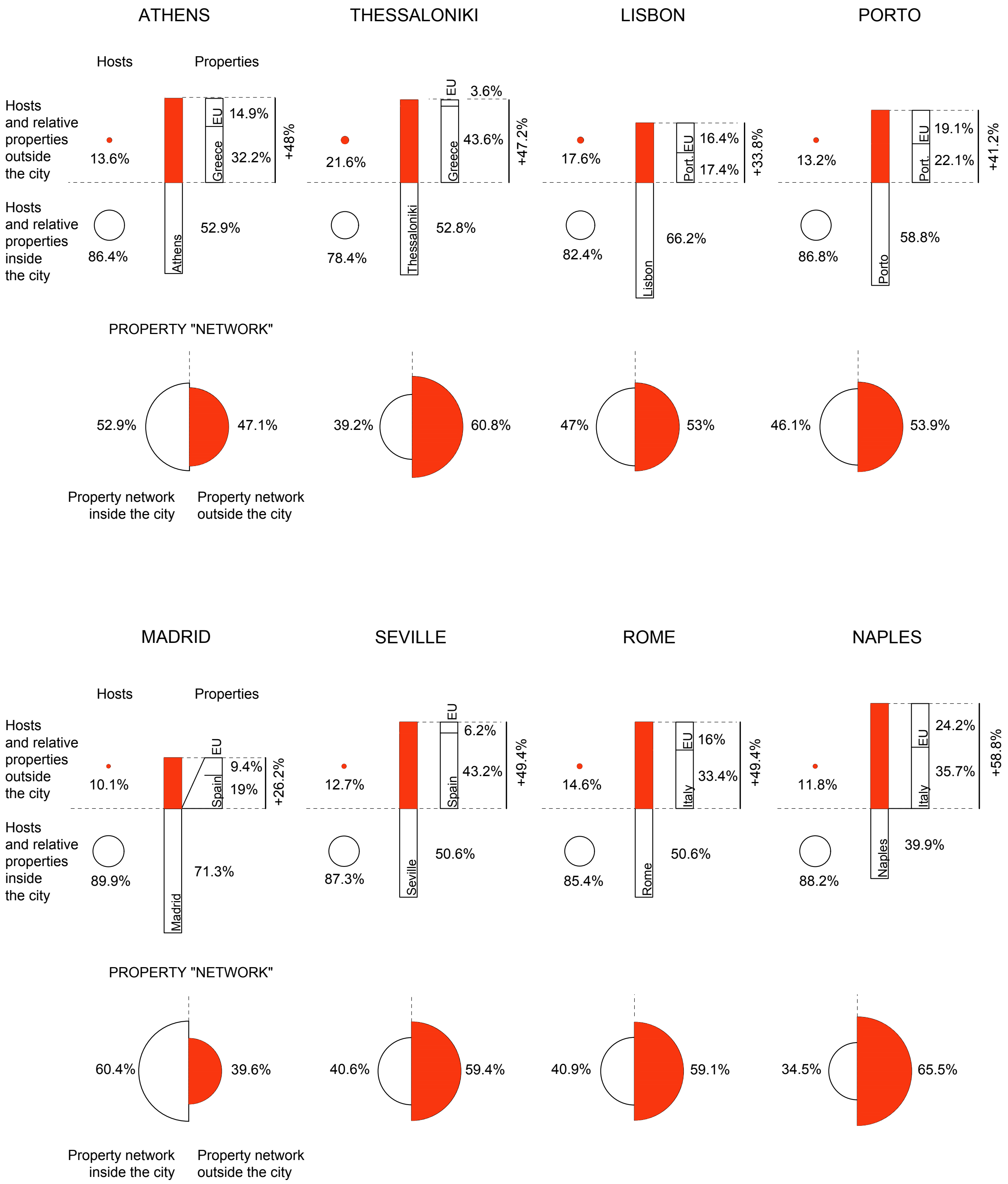


Figure 19: Multi-property host in/out

Summarising this information, the semi-circle in Figure 19 shows the percentage of properties that are in a network of only inner-urban properties or in an international network (the properties present in the city if they were owned by a host that managed properties in multiple cities were also calculated in this dimension). Thessaloniki (60.8%), Seville (59.4%), Rome (59.1%) and Naples (65.5%) had an inclination toward the outside; therefore, they were included in an international network. This could be explained because of the proximity of other holiday destinations, such as Naples for the Amalfi coast and the Gulf islands and Thessaloniki with the seaside and island destinations. Madrid mostly had an internal market on the country, although it had 39.6% of an outside property network.

What does all of this mean spatially?

Figure 20 represents the geographical transposition of the data analysed previously. It is a representation of the network generated from the properties of the multi-property hosts outside the city where the hosts were recorded to be active. As shown by the graphs in Figure 20 as well, the networks of Seville and Thessaloniki were found to be mainly linked to a national market (43.2% in Spain and 43.6% in Greece). Meanwhile, Naples (24.2%), Porto (19.1%) and Rome (16%) were included in the international market.[59]

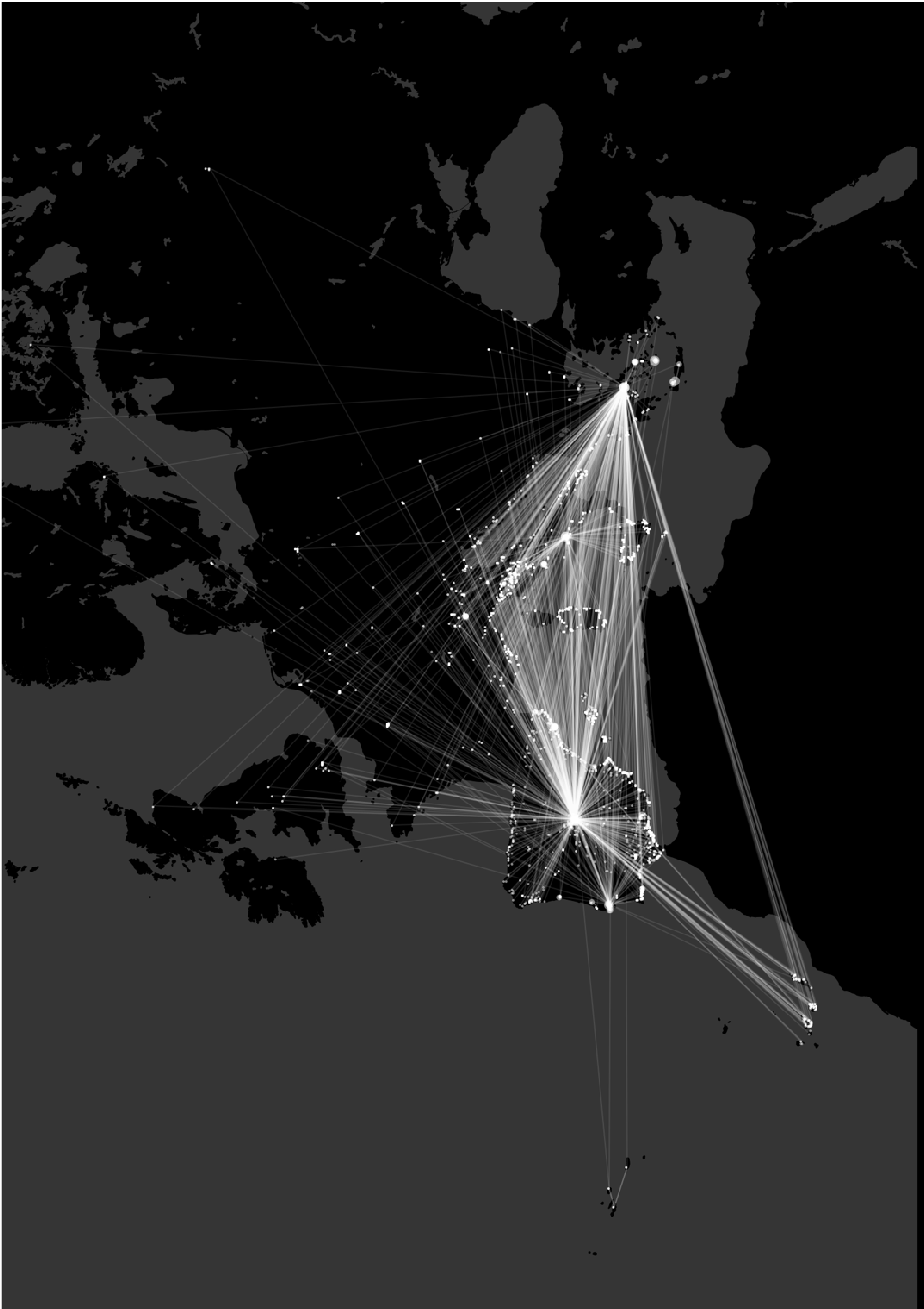
This representation remains erratic because the hosts' location could not be estimated when they had multiple properties across several countries. Although it shows a plausible depiction of the distribution of the properties within a network of international investments, it also offers the possibility of looking at the spread of Airbnb from another perspective; it shows its tentacular network and reveals that the geography drawn by Airbnb goes much beyond the urban scale connecting cities and establishing financial relations within regions. Indeed, the map also reveals a geography of capital fluctuations. Each of the connection lines represents a house managed by a real estate company, a property manager firm and other actors involved in the housing market. Thus, it draws an infrastructure of economic fluxes and physical assets branched out under the umbrella of Airbnb. Such a picture makes clearer the role of Airbnb has in the market, which is that of a tool or a form of infrastructure from which real estate investors could profit, speculating on the short-term rental market.

The next section describes who these multi-property hosts actually are.

Figure 20: Property network

[59] Due to a lack of data on the global scale, the query was made only at the European level. It is not excluded that the network represented could be expanded at a global scale. Some punctual manual analysis made randomly on the database confirmed that such economic network had a global expansion, i.e., Portugal had several connections with Brazil, and there were hosts such as Warm Rental with their headquarters in Hong Kong.


ATHENS
THESSALONIKI
LISBON
PORTO
MADRID
SEVILLE
NEPLES
ROME



Retracing the financial chain

This section expands on the third hypothesis, which investigates the role of Airbnb as a possible link in the financial chain of the real estate market, and uses it as a lens to retrace the geographies of real estate financial flows. The aim was to study Airbnb prospectively to obtain information out its structure as a platform to have an overview on the vast panorama of the actors that have joined the platform's advantages. The purpose is to contribute in the complex and branched debate on the geographies of housing financialisation by using Airbnb as a proxy. With this aim, the infrastructures that emerge are dual: a physical infrastructure that involves the real estate assets around the world that lay on and benefit from the widespread extension of the platform and a financial infrastructure that links a network of actors, praxes, investment, public programs, incentives and policies that constitute the financial chain that manifests itself in the short-term rental market.

Airbnb has to be framed as – the leader, but – one of the many platforms that work within the short-term rental market. Since its wide success, various similar short-term rental platforms have come up, or existing others were made uniform with the Airbnb model. Some of the platforms compete actively with Airbnb, and some smaller others use Airbnb as a supplementary platform to post their listings. The main competitors are listed below:

- HomeAway and VRBO, both owned by Expedia Group, were merged under the sole name of VRBO in 2020. It is possibly one of the main competitors of Airbnb; basically, it has the same options and features of Airbnb, from the dynamic pricing tool to the review system. It collects listings from across 190 different countries.
- Booking.com was founded in 1996 and is an OTA that has more than 28 million listings. It is mostly known for booking traditional hotel rooms; however, it has also started to accept home, guest house and apartment listings and broaden its market capacity in recent years.
- Google Travel is the "elephant in the room" because it gathers all the possible accommodations listed in different platforms. This is indeed a new service provided by the internet search engine that saw the potentiality of joining such a digital service.
- Flipkey is an OTA own by TripAdvisor, and their objective is to mix the search with the other services provided by TripAdvisor such as reviews of places, restaurants, and flights.
- Hotels.com offers the option to search for rooms in the traditional accommodation facilities, but lately, it has begun accepting apartment or house room listings as well in the platform.

- OYO is an online booking platform and a hotel company from India founded in 2013 that initially based its business on cheap hotels and hostels. After its huge success in Asia (it is among the top five hotel groups by number of rooms), last year, it decided to attain the European and U.S. markets as well by acquiring physical hotels and rooms, thereby acting as a hotel company.

There are plenty of minor platforms specialised in listing short-term accommodations, such as Homestay.com, Atraveo, OneFineStay, Interhome, 9flats, HometoGo, House Trip, Onefinestay, Vacasa, Wimdu, Stayz, Guesty and many others. Behind this huge variety of rental platforms lies an as much big interest in joining the market. The actors involved in such business are attracted by the way this field of economy is profitable.

The international interest of the real estate investors has to be inscribed in the larger picture of the restructuring of the real estate market. The technology-oriented revolution invested in the real estate market as well; the name of platform real estate (Fields, 2019; Fields and Rogers, 2019; Rogers, 2016; Shaw, 2018) refers to the digital evolution of the real estate market:

> "Going much further than property listings, real estate technology companies are rolling out an array of digital platforms – primarily encountered as apps on smartphones and tablet computers or as websites – including construction management, home insurance, home sales, property valuation, and property management" (Fields and Rogers, 2019: 2).

The real estate economic relations and balances were revisited by introducing the medium of the platform that moves the weight of the economic transactions to the provision of services provision more than on the ownership status.

> [I]nstead of commanding payment from the use of landed property, these new rentiers capture revenue from the use of digital platforms. Instead of capitalising on real estate and controlling access to buildings, these new rentiers are gatekeepers to the Internet and owners of software applications. Instead of relying solely on money as a stand-in for value, these new rentiers also treat data as a source of value. (Sadowski, 2020: 567).

Such "automated landlords" (Fields, 2019) and the whole restructuring of the real estate market as a digitally embedded system let rise the role of platforms as an essential node into the global financial network (Haberly et al., 2019). They currently represent an additional tool to facilitate the speculation on real estate as a financial asset by the exploitation of housing value in several ways and forms.

This mutation is inevitably related to the explosion of the short-term rental platform and of the wide proliferation of the platform involved. Airbnb, in this panorama, is just one of the several platforms that keep the market in motion. The main protagonist is the speculation over real estate, and the several platforms act as precisely as platforms. During the Vacation Rental World Summit in 2019, one of the annual meetings of hosts, including property managers and professionals of any levels in the vacation rental sector, the main goal and argument of the sessions was to increase the productivity and improve the capitalisation of the real estate portfolio. Short-term rental platforms were at the centre of the discussion but without any particular relevance: the platforms were called "channels " by property managers and real estate investors who referred to them just as the tool to let the profits out. Airbnb, in this view, is just one of the several channels, and its wide presence is probably due to the fact that it was the first one of the kind and captured a substantial part of the market field; however, as seen above, other competitors copied and sometimes even improved the Airbnb business model, downgrading the monopoly of Airbnb. It is important to highlight this aspect to rebalance both the weights of this work and several other studies. Airbnb surely represents a significant sample to analyse this specific market section but is not the sole platform to act in this way; it is merely one of the possible channels. What is really at stake are the real estate mechanisms that ended to fill the channel and the financial infrastructure that made it possible for Airbnb to become this big. Airbnb is just the lens through which one can look at the real estate (digital) financial complex.

This section explains who are actually the international actors that invested in the short-term rental market, first listing the higher multi-property hosts of each city and then focusing on four of them to analyse their performances and structure.

The analysis was conducted by listing two rankings of each city's top-15 multi owners. The first one lists the top multi-property hosts that own the majority of properties in the city, and the second one lists the hosts present in the city but own the majority of the properties aboard, competing in the international market. To gather information regarding the multi-property hosts, manual desk research was conducted for each host. The database contains the host ID code to identify the host. The same code is linked to the description page of the host in the website of Airbnb;[60] using this correspondence, it was possible to check every host's name and the relative description. In the cases where the host name referred directly to the name of the company, it was possible to obtain some other information on the company's type and services. All these information was gathered in the tables, which are composed as follows:

[60] https://www.airbnb.it/users/show/######

- *Name* of the host or the company. In some cases, the name of the user was a personal name, but through the description of the host's page or the user image, it was possible to link it with a company; otherwise, it was reported as the person's name.
- *Number of properties.* It indicates the number of properties that the user owns in the city.
- *Number properties in the database.* It indicates the number of properties that the user owns outside the city.
- *Legal entity.* It specifies whether the user is a company, a listed company, a start-up or a private user.
- *Type* indicates what kind of company it is or what kind of service the user provides (property managers, short-term rental platform, real estate company, construction firm or an OTA)
- *Others* furnishes additional information on the services provided by the users, such as architectural consultancy (home staging), financial consultancy or other kind of touristic services as well as information on the user itself (if the company is part of other groups or if it is a hotel company).
- *Group* indicates if the company is part of a larger firm, associated with other firms or the main investors.
- *Headquarter* indicates the location of the registered office of the company.

The tables (34 to 49 in the appendix) have been divided as such (top multi-property hosts in and outside the city) to highlight the fact that international players are present in the cities even if with a lower capacity of properties, such as *Bookiply* based in Munich with only one property in Lisbon but with other 251 listings across Europe. In doing so, these multinational companies could be visible across the cities. *HomeRez* is present in all the eight cities, sometimes under pseudonyms and with multiple host IDs Similarly, *E-Domizil* and *Your Rental* are present in every city excluding Seville and Thessaloniki. Those three users are the largest in terms of number of properties and in powerful partnership. *E-Domizil* is a listed company based in Zurich that collaborates with *OYO Vacation Homes,* and it is one of the channels through which the Indian company is attaining the European market. *HomeRez* is another listed company based in Paris that works as an online properties manager, and it boosts the listing on several platforms including Airbnb, Tripadvisor, Booking.com, HomeAway and E-Domizil. Meanwhile, *Your Rental* is a SaaS (software as a service) both for owners and managers, and it provides digital services to improve the management and the profit of the listings.

The following Table 18 gathers together all the hosts analysed in this scraping.

NAME	N_PROP	N_PROP_DB	LEGAL ENTITY	TYPE	OTHERS	GROUP	HQ
77case	66	68	Company	Property manager			Rome
AB apartment Barcelona	4	353	Company	OTA		Come2BCN	Barcelona
Alberto	175	175	Private user	Property manager			Madrid
Alexandra	22	25	Private user	Property manager			Thessaloniki
Allure Villas	1	466	Company	OTA			Lisbon
Altido	273	277	Company	OTA			London
Apartamentos Reservaloen	50	51	Company	STR platform / Property manager			Seville
Apartelius	3	408	Company	OTA			Cadiz
Aristotelis	7	32	Private user	Property manager			Thessaloniki
Be Tal Servicios Empresariales Sl.	99	129	Company	Construction company			Madrid
Be Vital patrimonios	103	133	Company	STR platform / Property manager	Mid-term rental		Madrid
Bea	161	166	Private user	Property manager			Madrid
Belvilla	3	207	Company	Property manager		OYO Vacantion Homes	Zurich / New Delhi
BmyGuest	63	145	Company	STR platform / Property manager	Financing; Real estate investment		Lisbon
BmyGuest	44	146	Company	STR platform / Property manager	Financing; Real estate investment		Lisbon
BnBird	70	114	Company	STR platform / Property manager			lisbon
Bokiko	101	104	Company	OTA			Athens
Booking Host	2	238	Company	Property manager	Architecture renovation (home staging)		Warsaw
Bookiply	1	251	Company	Property manager			Munich
Bouganvillia Homes & Villas	9	131	Company	OTA			Athens
Boundless Housing	52	52	Listed company	Property manager			Naples
Boutique Athens	94	96	Company	STR platform / Property manager			Athens
Cadiz4Rentals	1	181	Company	OTA			Cadiz
Carlos	8	162	Private user	Property manager			Lisbon
Christos	7	40	Private user	Property manager			Thessaloniki
Citybreak	45	45	Company	OTA			Porto
CleanBnB	9	218	Company	OTA			Milan
Cloud Key	55	56	Company	OTA			Athens
Cogroups	23	28	Company	Property manager			Thessaloniki
Cristiana	47	51	Private user	Property manager			Porto
Dario	24	24	Private user	Property manager			Naples
Departure	22	22	Company	Property manager	Hotel company		Naples
Deuschehaus, SL	1	311	Company	Real estate company			Malaga
Dmorra Hospitality	82	94	Company	STR platform / Property manager	Architecture renovation (home staging)		Naples
E-domizil	1	1444	Listed company	OTA		Partnership with OYO	Zurich
Erasmus	37	38	Private user	Property manager			Thessaloniki

Erasmus Rooms Athens	128	128	Company	STR platform	mid-term		Athens
Eva Reccomends	61	81	Private user	Property manager			Seville
FeelsLikeHome	381	743	Listed company	OTA	Financing; Real estate investment		Lisbon
Filipe	77	77	Private user	Property manager			Lisbon
FlatMe Inn	13	18	Company	STR platform / Property manager			Thessaloniki
Francisco	93	93	Private user	Property manager			Lisbon
Friendly Rentals Madrid	311	729	Company	STR platform / Property manager	Hotel company	Awaze Group	London
George	16	16	Private user	Property manager			Thessaloniki
Golden Home	55	325	Company	STR platform / Real estate company	Architecture renovation; Financing; Golden Visa; Real estate investment		Athens
Greece Luxury Properties Rentals	156	394	Company	STR platform	Architecture renovation		Athens
Green Apartments	56	56	Company	STR platform / Property manager			Seville
Guesteasy	3	338	Company	STR platform / Property manager			Athens
HalkidikiVillas	4	207	Listed company	Property manager			Thessaloniki
Halldis	19	1690	Company	Property manager			Milan
Halu!	19	28	Company	Property manager	Hotel company		Thessaloniki
Helias	14	14	Private user	Property manager			Thessaloniki
Help Husing	110	110	Company	STR platform / Property manager	Mid-term rental		Madrid
Holi-Rent	71	91	Company	STR platform / Property manager			Seville
Holidayngo	25	56	Company	STR platform / Property manager			London
Home At Homes	69	106	Company	STR platform / Property manager			Madrid
Home Club	193	243	Company	STR platform / Property manager			Madrid
Home Me	44	46	Company	Property manager			Porto
Home rentality	102	233	Company	OTA			Athens
HomeRez	11	263	Listed company	Property manager			Paris
Homing	251	272	Company	OTA			Lisbon
Homm	201	323	Company	STR platform / Real estate company	Architecture renovation; Financing; Golden Visa; Real estate investment		Athens
Horizone	9	43	Company	STR platform / Property manager			Thessaloniki
Host Wise	68	82	Company	STR platform / Property manager			Porto
House	55	85	Private user	Property manager			Naples
HouseLoft	15	36	Company	STR platform / Property manager			Thessaloniki
I-Wish	41	42	Listed company	STR platform / Property manager	Commercial, Financial, Legal, Credit intermediation, Property		Porto

					Management, Architecture, Decoration / Design, Marketing / Communication areas. Properties and bank estate	
iFlat	132	146	Company	STR platform / Property manager	Tourism services; Architecture renovation (home staging)	Rome
InCityBnB	19	19	Company	STR platform / Property manager		Thessaloniki
INNOVA Relocation	148	157	Company	STR platform / Property manager	Mid-term rental	Madrid
Interhome	4	147	Company	STR platform / Property manager		Swizzerland
Italianway	28	28	Company	STR platform / Property manager		Milan
Javier, Sevilla En Movimiento	142	172	Company	STR platform / Property manager	Tourism services; Architecture renovation (home staging)	Seville
JJ Hospitality	80	189	Listed company	OTA	Architecture renovation (home staging)	Athens
Juan	114	115	Private user	Property manager		Madrid
Juanmi Y Laura	49	49	Private user	Property manager		Seville
Konnie	22	204	Private user	Property manager		London
Liiiving	96	132	Company	STR platform / Real estate company	Financing; Golden Visa; Real estate investment; Mid-term rental	Porto
Lisbon Breaks Apartment	70	78	Company	STR platform / Property manager	Architecture renovation (home staging)	lisbon
Lisbon Five Star	89	89	Company	STR platform / Property manager	Real estate investment	Lisbon
Lorenzo	100	105	Private user	Property manager		Rome
Losvelys	152	152	Private user	Property manager		Madrid
Lux hosting	34	45	Company	Property manager		Naples
LuxLikeHome	18	56	Company	STR platform / Property manager		Thessaloniki
Luxury Rental Madrid	159	161	Company	STR platform / Property manager		Madrid
LxWay	131	136	Company	STR platform / Property manager	Real estate investment	Lisbon
M.E.H	67	68	Company	Property manager		Rome
Maeva	4	343	Listed company	OTA		Paris
Marco	38	38	Private user	Property manager		Naples
Mint	190	349	Company	Property manager		Athens
My Rental Home	11	812	Company	STR platform / Property manager		Naples
My Vacation	71	95	Company	OTA	Tourism services	London
Nacho	76	76	Private user	Property manager		Seville
Napo	22	22	Private user	Property manager		Naples

Nick	20	24	Private user	Property manager			Thessaloniki
Nilie	13	14	Company	STR platform / Property manager			Thessaloniki
Novasol	2	444	Listed company	STR platform / Property manager		Awaze Group	Copenhagen
Olala Homes	46	174	Company	OTA	Mid-term rental		Barcelona
Olga	121	121	Private user	Property manager			Madrid
One Fine Stay	75	943	Listed company	OTA	Hotel company	Accor Group	Paris
Oporto City Flats	59	59	Company	OTA			Porto
Oporto Guest	40	44	Company	Property manager			Porto
Ottavia	78	78	Private user	Property manager			Rome
Paolo	26	34	Private user	Property manager			Naples
Pepe Y Maru	59	59	Private user	Property manager			Seville
Peter	104	107	Private user	Property manager			Rome
Porto 365	44	44	Company	STR platform / Property manager	Tourism services		Porto
Porto City Hosts	80	83	Company	OTA	Tourism services; Mid-term rental		Porto
Red Awning	11	197	Company	OTA		Investors: Silversmith Capital Partners, Elephant, Alpine Pacific Capital	California
Room mate Group	118	510	Company	OTA			Madrid
Room To Rent	65	65	Company	STR platform / Property manager			Madrid
Rooming	199	199	Company	Property manager			Netherland
Rosalia	52	53	Private user	Property manager			Seville
Rui	58	74	Company	OTA	Tourism services; Mid-term rental		Porto
Salvatore	80	89	Private user	Property manager			Naples
Sebastian Y Ricardo	65	65	Private user	Property manager			Seville
sharingXchange	34	713	Company	Property manager			Austin (Texas)
Short Stay Flat	73	82	Company	STR platform / Property manager			LIsbon
Skgbnb	15	22	Company	STR platform / Property manager			Thessaloniki
Sonder	108	108	Company	STR platform / Real estate company	Partnership: Institutional owners, Hotel owners, Private user, Equity funds, REITs/property companies, Entrepreneurs developers		San Francisco
Square break	2	706	Listed company	OTA	Hotel company	Accor Group	paris
Stefan	93	112	Private user	Property manager			Lisbon
Suites & Apartments	64	65	Company	Property manager	Architecture renovation (home staging)		Rome
Summer in Italy	4	1586	Company	Property manager			Naples
Sweet Inn	82	82	Company	STR platform / Property manager			London

The Porto	45	45	Company	OTA			Porto
Tia and Mike	57	62	Private user	Property manager			Athens
Toni	70	76	Private user	Property manager			Athens
TopHouzzing	96	146	Company	STR platform / Real estate company	Real estate investment		Athens
Travel Nest	1	436	Company	Property manager			Edimburgo
Travelling to Lisbon	86	86	Company	STR platform / Property manager			Lisbon
Veoapartment	61	61	Company	STR platform / Property manager			Seville
Warm Rental	95	144	Company	Property manager	Golden vista		Hong Kong
WonderWhereToStay	131	155	Company	STR platform / Property manager	Tourism services		Rome
Wornerful Italy	23	543	Start-up	STR platform / Property manager	Tourism services	Financed by investment fund: Oltre Venture	Milan
Your rentals	8	1537	Start-up	Property manager			Sweden - Vietnam
YourOpo	87	91	Company	OTA			Porto

Table 18: List of the top multi-property hosts in the eight cities

The majority of users effectively turned out to be companies; out of the total 137 users scraped, 89 were private companies, 11 were listed companies, two were start-ups and 35 were private users (of these private users, some had pseudonyms due to which the affiliation could not be retraced). Within them, the majority were registered as short-term rental platforms and property managers (103), OTAs (27), and a minority part included real estate and construction companies managers part of bigger hotel companies, as was the case of *One Fine Stay* (Rome) and *Square break* (Lisbon) that are part of *Accor Group,* a France hotel that listed companies with more than 5000 structures in 110 countries, managing 30 brands and 80 partnerships; or *Belvilla* (present in Lisbon, Rome and Seville) which is part of the multinational *OYO Vacation Homes* (described in the first part of this section). Other companies affiliated with bigger ones were the following: *Friendly Rental Madrid* (Rome, Seville and Madrid) which is part of *Awaze Group* that is one of the main European vacation rental providers with over 110.000 listings across 36 countries; it is the owner of *Cottages.com, Hoseasons, James Villas, Landal* and *Novasol* (present in Naples and Seville); and *Interhome* (Rome and Seville) that is part of the multinational *Migros Group*, the largest retail company of Switzerland.

Some of these companies propose an advisory service for the housing renewal, from architecture adjustments to decoration consultancy, to increase the market appeal. The website of *Dimorra Hospitality*, a Napolitan property manager society, says the following: "*we turn your normal home into a safe source of income*".[61] This practice is called *home staging*, and it is used to carry out projects of modernisation or renovation

[61] https://www.dimorra.it. [15/05/2020]

of housing units to reap higher profits both in the sale or rental aspects. From its denomination, the willingness to set up a stage for commercial purposes is evident. The practice of home staging is not just house renewal but also more emulation of new aesthetic standards and formal rules conformed to the taste of the global market.[62]

Other kinds of services are related to real estate financing and investment as well. *Feels Like Home Group* (based in Lisbon but also in Porto and Thessaloniki) also includes a branch specialising in real estate management (FLH Sellers and HomeSolution), which proposes homes for sale. *I-Wish* (Porto) called itself a real estate broker and proposes a series of advisory services in commercial, financial, legal and credit intermediation; in its portfolio, it also manages bank estate. *Sonder*, a company from San Francisco (present in Rome) has partnership with equity funds, REITs, property companies and entrepreneurs' developers. These services also include advisory and support services to get the access to Golden Visa, from the legal advisory to the real estate purchase and then to the management of the property in rental platform; these companies are present in Greece (*Golden Home* and *Homm*) and Portugal (*Liiiving* and *Warm Rental* that is active in Portugal but has the legal office in Hong Kong). The Greek *Homm* is an emblematic case – it owns the 70% of its real estate capacity, and it has a real estate construction section and an advisory board for the Golden Visa as an investment.

The fact that real estate companies lie behind several users of Airbnb clears the connection between these two market spheres. The infrastructural structure of the platform gave more space of action and profitability to the real estate sector that eventually adjusted itself to join the market.

The space of profiting provided by the platform and the transformation of the real estate market in a more financialised, digitalised and malleable sector made the houses in the STR market to be extremely commodified and treated as an asset, sometimes owned through shares by private funds, and completely extrapolated from their role of being shelters.

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[62] According to an Italian association of home stagers (APHSI), with a home staging renewal, the selling times decrease to about 2/3, and the selling price has a reduction of just 4% compared with the 14% of the traditional selling. The costs of this service, still according to APHSI, is around 1000 euro for an 80 square meters apartment with minor interventions (painting, tidying, photoshoot, and advertisement)[https://www.ilsole24ore.com/art/home-staging-cosi-casa-si--vende-piu-fretta-e-senza-sconti-AEKdp5eF 26/03/2021]

HEADQUARTERS LOCATION OF THE TOP MULTI-PROPERTY HOST

Figure 21: Headquarters location of the top multi-property hosts

Cluster analysis

The professionalisation of Airbnb users is a widespread phenomenon that has several consequences in the functioning of the inside platform market and in the outside real estate financial dynamics. This imbalance has not been sufficiently regulated nor defined yet. The first reason is that there is not a clear definition of the multi-property hosts. As shown previously, referring just to the quantity of the listings, multi-property hosts could equally be those with two properties and those with 30 properties. However, there are similar behaviours that could help define a professional attitude within the hosts. A precise definition of multi-property hosts might be useful for regulative purposes, both in terms of restabilising a balance in the short-term economic market of a city to avoid speculations in the housing system and in terms of taxation, for the abolition of the flat tax (already present in countries such as Italy) and the introduction of a progressive mode of taxation.

This section attempts to better define multi-property hosts. Through a cluster analysis, group hosts with similar behaviours in their performances and in the composition of their properties were analysed. The cluster analysis considered four variables: the ADR per bed, the occupancy rate, the number of properties (within the entire database) and the percentage of properties inside or outside the city.[63] From these variables, the analysis generated four clusters with similar characteristics.

The analysis was carried out using the software SPSS Statistic and consisted of two steps. It was based on the hierarchical clustering method, and it was chosen for its ability to handle large databases. Before launching the cluster analysis, the database of each city was prepared in two steps: first, the ADR and the occupancy rate were geographically normalised; second, it was verified whether the same two variables could be approximate.

The geographical normalisation was done to highlight the differences in prices between the city's districts based on the geographical average. From the shapefile of the district, each property was matched to the belonging neighbourhood. From each neighbourhood, the average value of ADR and occupancy rate was extracted. Then, each property was confronted with the average value[64] to obtain a classification of positive and negative values. A positive value means that a property is upon the geographical average, and on the other hand, a negative value refers to properties under the geographical

[63] The annual revenues were excluded from the analysis because the information within this variable are already contained in the ADR and occupancy rate (Revenues = ADR*RD), and it would have been a repetition.

[64] GeoNormalised ADR per Bed = (ADR per Bed / average ADR per Bed)-1

GeoNormalised Occupancy Rate = (OCC / average OCC)-1 average. This was carried out to bring out the features of the properties despite their geographical location (expensive or cheap properties and high- or low-performatives one) and to avoid the fact that an expensive property in a non-central district could be classified as a cheap property in the city centre.

The second step to prepare the database was to verify whether the variables ADR and OCC (geographically normalised) could be effectively clustered (if there is a similar approach in the management of the properties) and whether the model was reliable. Accordingly, it was calculated how many properties were included in the range of the standard deviation of the Gaussian bell (regarding the variables of ADR and OCC). To start, all the hosts of each city were listed and matched with the relative average of ADR and OCC; then the standard deviation and the minimum and maximum values were calculated.[65] The minimum and maximum values were reassigned to each host's relative properties so that each property was matched with the average host value. If the ADR and OCC value of the single property was between the minimum and maximum standard deviation value (Min < ADR; OCC > Max), then the ADR and OCC of that property was contained in the deviation of the normal distribution average. The next step was to check how many properties fell into the Gaussian curve (i.e., how many properties behaved similarly); if the properties were more than 50%, then the variable was considered as able to be approximated and the model reliable.

Figure 22 and Figure 23 show the normal distribution of ADR and OCC in Athens; the standard deviation range contains 95.2% of the properties for ADR and 94.3% of properties for the occupancy rate values. Table 19 lists the percentages for each city.

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[65] Standard Deviation Min = Average ADR(or)OCC – Standard Dev.
Standard Deviation Max = Average ADR(or)OCC + Standard Dev.

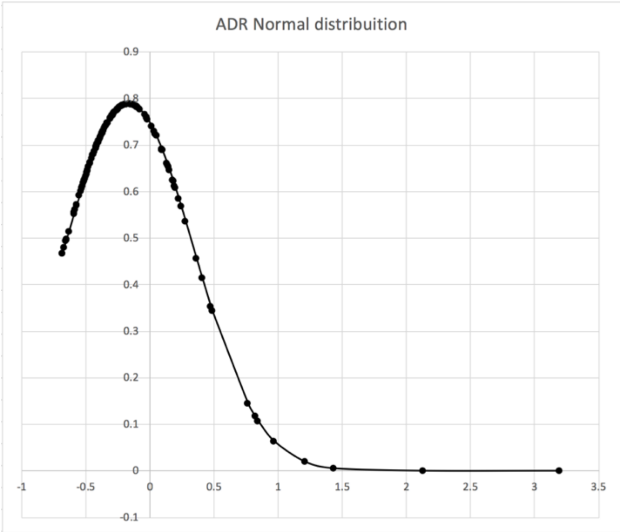

Figure 22: ADR Normal distribuition in Athens

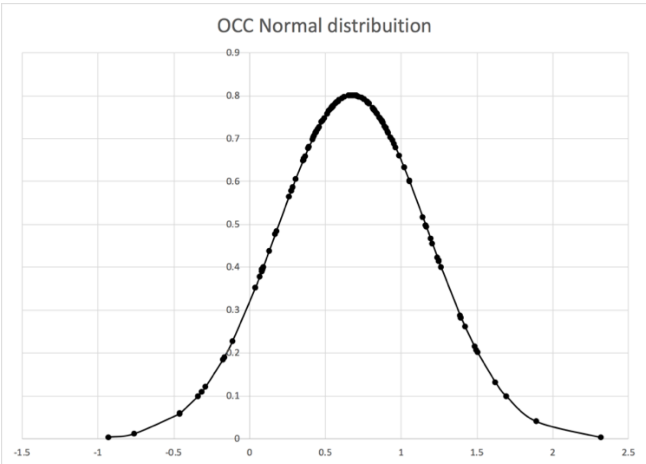

Figure 23: Occupancy Rate normal distribuition in Athens

	ADR	*OCC*
AHENS	95.2%	94.3%
LISBON	96.0%	96.2%
MADRID	99.3%	99.3%
NAPLES	98.6%	98.4%
PORTO	98.0%	98.3%
ROME	98.3%	98.5%
SEVILLE	99.0%	99.2%
THESSALONIKI	96.5%	80.4%

Table 19: Quantity of properties contained in the peak of the Gaussian curve.

After the database adjustments, the cluster analysis was launched. The hosts were classified based on the information in the database. The four variables are an average of the host performance and are as follows:

- Host's average daily rate per bed (ADR / bed) spatially normalised
- Host's occupancy rate (OCC = RD / (RD + AD)) spatially normalized
- Number of properties per host calculated on the whole database (including properties inside the city and those outside associated to the same host)
- Variable that indicate if the majority of the host's properties are inside the city (IN) or outside the city (OUT)

Mixing these four variables, the software SPSS Statistics was able to cluster hosts with similar characteristics and similar performances, processing one city at a time. The software generated four clusters for each city, and it turned out that every city had similar characteristics. Table 20 summarises the features of each cluster. Cluster I gathered hosts that owned less than 10 properties, mainly inside the city with an average daily price under the geographic average and an occupancy rate upon the average. Cluster II had similar characteristics, but the properties were mainly outside the city. Hosts from Cluster III had less than 10 properties and were mainly in an urban market but had negative values both in the ADR and occupancy rates. Finally, Cluster IV gathered hosts with more than 10 properties both inside and outside the city with a high ADR and a low occupancy rate.

	PROPERTY	*ADR*	*OCCUPANCY*	*IN/OUT*
Cluster I	<10	–	+	IN
Cluster II	<10	–	+	OUT*
Cluster III	<10	–	–	IN**
Cluster IV	>10	+	–	%

Table 20: Clusters features

*Except from Naples
**Except from Athens and Thessaloniki

The graphs (Figure 24 and Figure 25) in the next pages show in detail the composition of the clusters. To keep all the information in the same visualisation, the four clusters were inserted in a dual axis graph where the abscissa represents the occupancy rate and the ordinate the ADR, the size of the dots indicate the number of properties per host, and whether they are filled or not indicates if they represent a majority of inside properties (empty) or outside ones (filled). Each dot represents a cluster with its position (ADR/OCC), size (number of properties) and colour (IN/OUT);

the offset of the dots and the little axes that depart from it indicate the length of the 25th and the 75th quartiles while the centre is the median. The dotted axes represent the relative 0 while the bigger axes represent the absolute 0. The tables in the appendix (50 to 57) show the detailed quantitative results of the cluster analysis.

Upon analysing the eight cities, the trend of the clusters is clearly visible. Hosts in Clusters I and II have similar behaviour in terms of ADR and OCC, and both manage their properties with low daily prices and high occupancy rates; these hosts have a median of four properties and quartiles of two and six properties both inside and outside the city. These two types of hosts represent the majority of all the hosts – on average, they form 60% of the hosts' capacity. Another significant part of the total hosts (30% on average) was found to behave as shown by Cluster III, with low daily prices and low occupancy rates. This cluster contained hosts that owned a median of four properties and quartiles of two and seven properties, and in most of the cities, the properties were located in the city itself (except for Athens and Thessaloniki where these types of hosts acted mostly outside the city). The hosts in Cluster IV, representing on average 10% of the hosts' capacity, work by setting higher daily processes and maintaining lower levels of occupancy. These hosts own a large number of properties – in the case of Porto, the quartiles are between 221 and 838, mostly outside the city.

Looking at all the cities together, the majority of the hosts were found to have the approach of maintaining lower prices to have better occupancy performances; accordingly, they focused on the quantity of reservation at low prices. On the contrary, a minority of hosts focused mostly on quality, having higher prices and lower occupancy (Cluster IV). There was also a part of hosts that did not perform well even with lower prices (Cluster III).

This experiment represents an attempt to gather similar behaviours to get closer to a definition of multi-property hosts, delineating the economic model that could define it better. The cluster analysis allowed multiple possibilities to investigate the same. This small attempt already defined three different economic behaviours that could document better the general attitude that moves the hosts. Defining categories of professional and non-professional users could help differentiate the variegated panorama of Airbnb users and avoid the performance gaps and establish a regime of balanced competition.

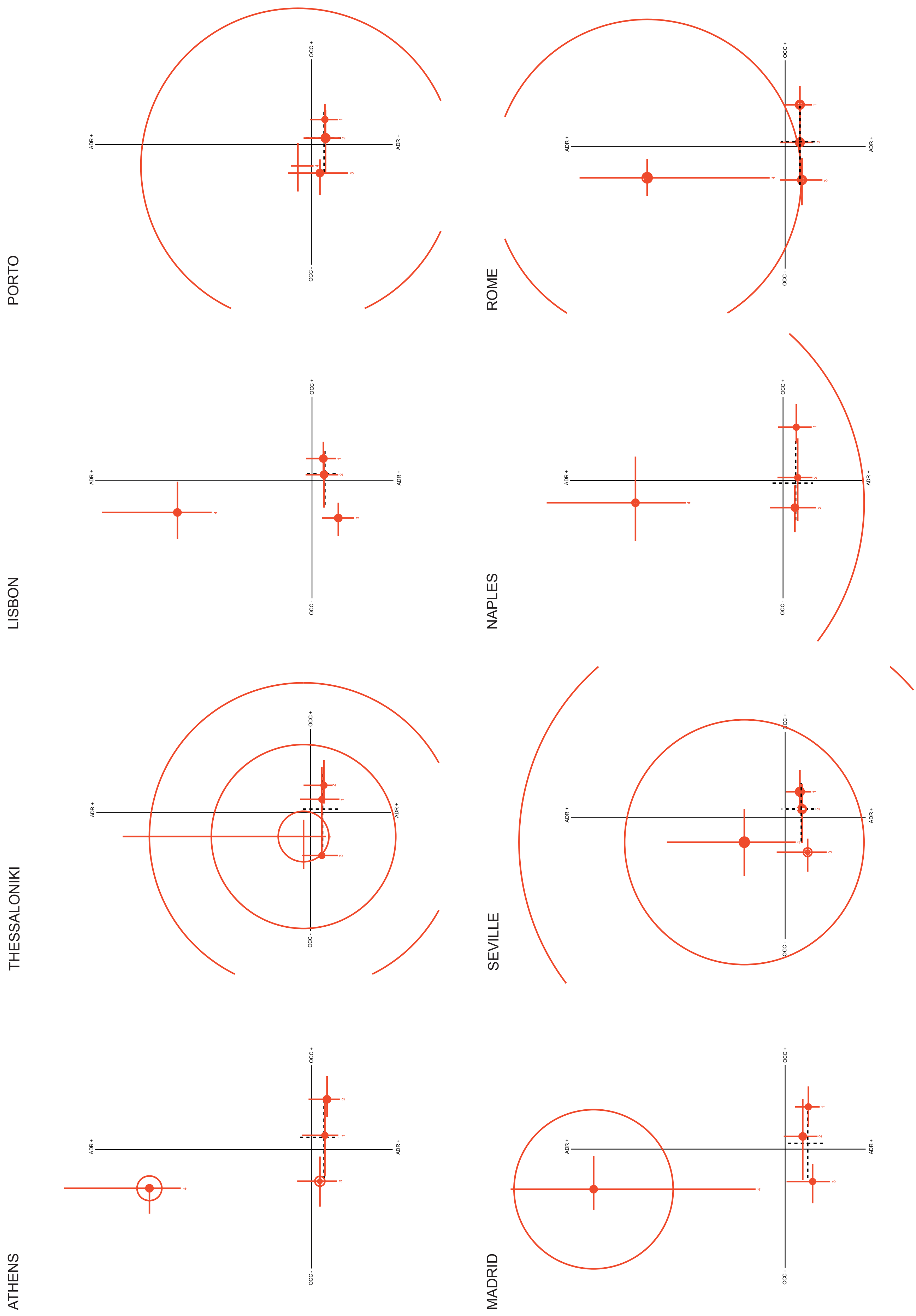

Figure 24: Graphic result of cluster analysis

CLUSTER ANALYSIS

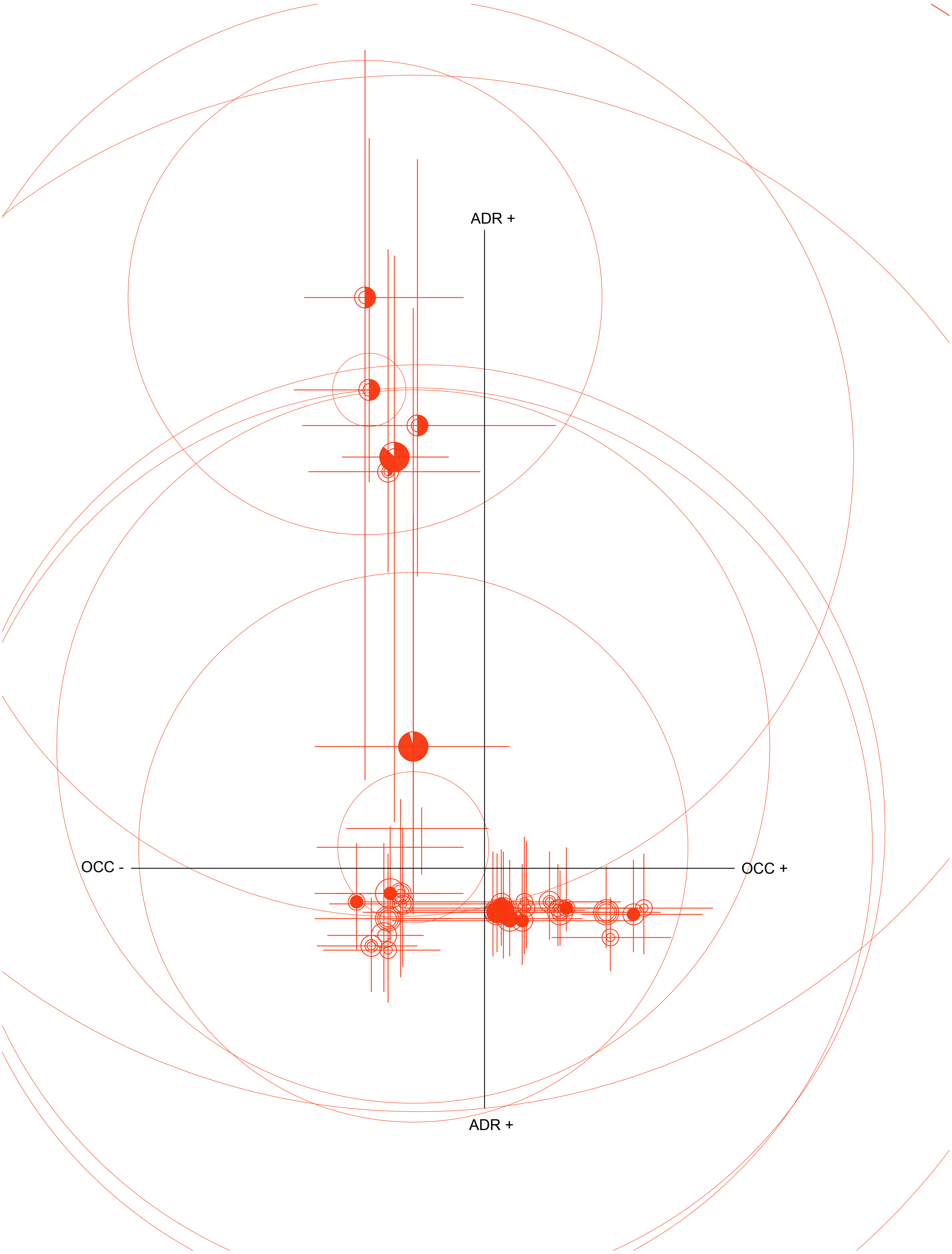

Figure 25: Graphic result of cluster analysis all cities

Discussion

This chapter is structured on three main hypotheses to investigate the global real estate market concealed behind the Airbnb platform. Accordingly, the main actor that was identified to follow up and investigate was the multi-property host. These hosts are active actors in the global real estate market, and they could be companies that perpetuate the financialisation of the real estate market, or they could be smaller investors that trigger process of housing commodification or gentrification dynamics in the urban space. Their importance in this research is double; on the one hand, they represent one of the main actors involved in real estate investment processes and therefore are central in understanding the contemporary and platform-related dynamics of commodification of the housing sphere (such as the buy-to-let or the let-to-let practices). On the other hand, they mark a shift in the structure of Airbnb; the professionalisation of the services provided by the platform and the competitive behaviours would consolidate a systematic stress in the housing sphere and on the urban space. Multi-property hosts have contributed to transform the market from a local P2P activity to a global network of international investments.

Due to data accessibility aspects, the three hypotheses were based on the internal features of Airbnb. The first hypothesis was that Airbnb is not a P2P platform anymore but that it became, thanks to the professionalisation of the hosts, a B2C) platform. Although the dimensions showed that the properties owned by multi-property hosts represent on average 50% of the total, the performances that those properties experience were found to be absorbed almost entirely by multi-property hosts and were exponentially bigger. The second hypothesis consisted of a scale up of the Airbnb dynamics, it proposed to move the discourse to a global scale to actually see the network of the actors and properties involved. Finally, the third hypothesis linked Airbnb in the real estate financial chain and define it as a channel through which the investment fluxes could converge. The empirical part showed a list of the most active multi-property hosts and the features of the companies. In this way, multi-property hosts act as the empirical element that link the internal dynamics of the platform and the external transnational market.

For this reason, it is important to be able to identify such actors within the platform in terms of regulation as well. The cluster analysis helped gather similar behaviours of the properties' performances to try to define a way to identify them and differentiate them from the non-professional actors.

Post scriptum

Covid-19 and the 'crisis-as-usual'

During my third year of PhD, while I was approaching the writing process of this paper, a global event shook and radically changed people's lives around the world. The firsts news of an epidemic arrived in January 2020 from the Chinese region of Hubei. At the end of February, the first case of a man infected by COVID-19 was found in Northern Italy. After A few weeks, Italy, followed by most European countries, entered into a regime of lockdown in which all economic, social and other daily activities were suddenly reduced. Such an unexpected change of paradigms triggered a series of distributed crises in several sectors and at different levels, from public health to the education system. Generally, the arrest of many economic sectors caused extended distress among the population worldwide.

Among several of the economic fields damaged by the pandemic, 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.

Such awareness stresses the theme of this research. The flourishing time of global mobility and mass tourism described here is now undergoing a radical change. The core of my research focuses mainly on the branched network of housing speculations and real estate financialisation in the specific sector of the short-term rental market, of which tourism has indeed been the main pushing force. However, as revealed in Chapter 6, the network was (before the pandemic occurred) a matured, entrenched and solid system able to compete and thrive within a variety of levels (from the quotations on the stock exchange, the profiting through the financial investments, the connection with the real estate investment programs as the golden visa, and so on). The dynamics of speculations in the real estate market would probably see a slowdown and eventually some adjustments; however, it is unlikely to expect a system collapse.

Airbnb itself, faced with a sudden drop of profits that led to the dismissal of one-third of the total employees, rapidly tried to reorganise the structure and the offer thanks to its highly flexible nature. Based on the new platform policies, Airbnb started to promote the accommodation options in its portfolio as alternative places to spend quarantine periods or settle down for remote working. They encouraged hosts to move from the short- to the mid- and long-term offers, rapidly changing the website interface by adding the option of "long stay". They also promoted a change in destination options, moving their strength focus from city centres to the rural and suburban areas. On the website homepage, they proposed destinations reachable by car (ranging from two to five hours' driving distance from the guest's location). According to the Wall Street Journal, by August 2020, in the U.S., more than half of the bookings were made under 300 miles from guests' locations, and due to that, the third quarter of 2020 was unexpectedly profitable.[66] The solid structure of such a system was also demonstrated by the fact that at the end of 2020, Airbnb made its debut in the New York stock exchange, closing the first day by almost doubling the fixed IPO (arriving to have the shares of the company at $146 versus the expected $68).

Regarding the European data of Airbnb's performance in 2020, the 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. Greece faced a decrease of 58% and Portugal of -53% regarding the annual revenues. In Denmark, 31% of the properties were removed from the platform, and similarly the United Kingdom lost 29% of the listing capacity.

London lost 81% of reservation days within capital cities compared to 2019, Lisbon faced a -48% decrease in annual revenues, while Moscow lost 47% of the property capacity. Cities such as Rome and Madrid saw a decrease in revenues of -74% and -70% each in the fourth quarter of 2020 compared to 2019, and a decrease in the occupancy rate of -57% in Rome and -61% in Madrid was noted in the same quarter.

Table 21 shows the dimensions and Airbnb performances comparing 2019 to 2020.[67] The delta of the properties is positive for Athens (13.8%), Lisbon (24.7%), Porto (27.2%), Rome (1.6%) and Seville (8.7%), which indicates that there was an increase of

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[66] https://www.wsj.com/articles/how-airbnb-pulled-back-from-the-brink-11602520846 [31/03/2021]

[67] The analysis was conducted throughout the year, from 1 January to 31 December 2020, which means that these data include the first two months of 2020 as well when the epidemic had not yet arrived in Europe and the two summer months (July and August) when the restrictions were less rigid across Europe.

properties in these cities during 2020. However, all the reserved days (RD) delta are negative; Lisbon, Porto and Rome performed the worst; and all of them lost more than 40% of the reserved days compared to 2019. Meanwhile, all the available day (AD) delta was significantly high, with a maximum value of Seville that performed an average of available days of 101% compared to 2019. The revenue per properties had a decrease in all the cities, particularly in Lisbon (48.1%), Porto (44.4%) and Rome (46.2%). On the other hand, the revenues per host noted a decline, and Athens even had an increase of 22.7%.

	ATHENS	*LISBON*	*MADRID*	*NAPLES*	*PORTO*	*ROME*	*SEVILLE*	*THESSALONIKI*
Delta Property	13.8%	24.7%	-16.2%	-9.6%	27.2%	1.6%	8.7%	-9.2%
Delta Host	-30.0%	-26.3%	-31.8%	-24.4%	-24.4%	-25.2%	-37.0%	-31.1%
Delta Revenues per Property	-24.2%	-48.1%	-25.6%	-35.2%	-44.4%	-46.2%	-25.2%	-17.3%
Delta Revenues per Host	22.7%	-12.7%	-9.9%	-9.9%	-7.0%	-27.3%	-28.3%	-8.0%
Delta ADR per bed	33.7%	-9.4%	-9.9%	-6.8%	-8.1%	-8.7%	5.0%	-1.0%
Delta Occupancy	-21.3%	-43.4%	-36.3%	-37.5%	-41.9%	-43.1%	-41.9%	-31.3%
Delta RD	-24.3%	-44.8%	-29.4%	-38.6%	-41.8%	-44.7%	-34.5%	-18.5%
Delta AD	44.4%	82.1%	74.0%	31.3%	71.6%	56.1%	101.0%	55.2%
Delta BD	37.5%	27.4%	23.1%	59.9%	37.0%	40.9%	12.0%	18.6%

Table 21: Dimensions and performances of Airbnb comparing 2019-2020

Such changes, however, differ considerably depending on the "type" of hosts. Hosts that own one or two properties act differently from those who own a dozen or more; this was true before the pandemic (as described in Chapter 6) and was confirmed by the 2020 performances.

Figure 26 and Figure 27 put together the performances of multi-property hosts from 2019 and 2020, implementing the same figure (Figure 16 and Figure 17) presented in Chapter 6 (the data in this section are in the appendix).

The first remarkable thing to report is that in Thessaloniki, during 2020, two hosts of category G (with more than 50 properties) joined the market and had high performances in occupancy (0.42) and annual revenues (€6150 per property and €47600 per host), actually higher than all the performances of 2019. Regarding the occupancy rate, Athens performed similar to 2019, while Lisbon, Porto and Rome reported a uniform decrease of 10% for all the host categories. In Madrid and Seville, the categories F and G had an occupancy rate similar to that of 2019. The revenues per property (the tiny dots in the figure) showed a uniform decrease in Lisbon and Porto, while in Naples, hosts F and G gained more than that of 2019 per property; moreover, in Madrid, hosts from category G gained the same occupancy rates of 2019. The revenues per host reflect this condition as well. The hosts from category G in Athens, Madrid, Seville and Naples gained a higher income than 2019. The graphics that relate the RD, AD and BD show a similar tendency for all the cities (except for Porto, Seville and Naples) that saw the hosts from category A with the RD very low and almost same higher values of AD and BD, and in Madrid, the blocked days formed the majority (195 days). The trend shows a predominance of available days with low levels of blocked days and lower levels of reserved days in the other host categories. In all the cities, the hosts from categories F and G had the higher reserved days (although it was a low level).

This confirms that the multi-property hosts were able to continue the activity even though with reduced levels, while single-property hosts faced a drastic reduction of the performances.

These primary analyses confirm a situation that was already ongoing before the onset of the pandemic: the professionalisation of hosts in the short-term rental market significantly favours the performances and activities of professionals at the expense of the non-professionals. The shock of the pandemic was more significantly damaging for smaller hosts who struggled to compete with property owners who could adapt to the demand fluctuations in the market. In other words, the crisis in the tourism sector cut off the non-professional sector, the one that Airbnb, the "poster-child of the sharing economy" (Baum, 2017: 40), declared to be in service of, creating room for an oligopoly of real estate investors who speculate on rental activities.

While crises are often thought of in relation to radical change, an economic crisis such as this one was once again nothing more than a consolidation of corporate power (Harvey, 2009). The economic crisis generated by the pandemic came out to be a "crisis-as-usual", where the remodelling of the market creates advantages for already-advantaged bigger players and excludes the smaller ones.

The downturn that smaller actors in the short-term rental sector face is opening new economic spatialities in which bigger players could increase and restart processes of real estate accumulation.

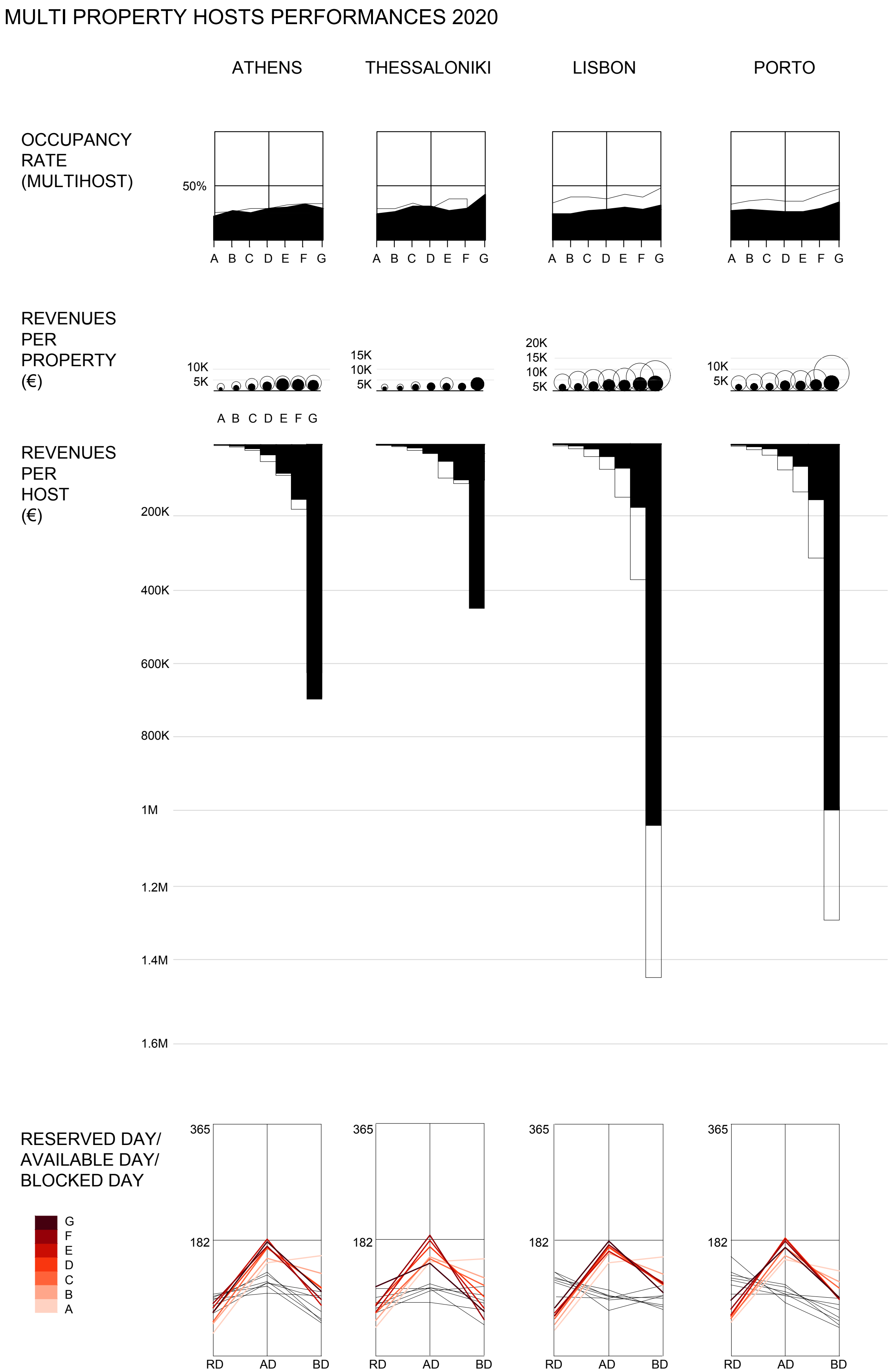

Figure 26: Graphical representation of Airbnb performances 2020

MULTI PROPERTY HOSTS PERFORMANCES 2020

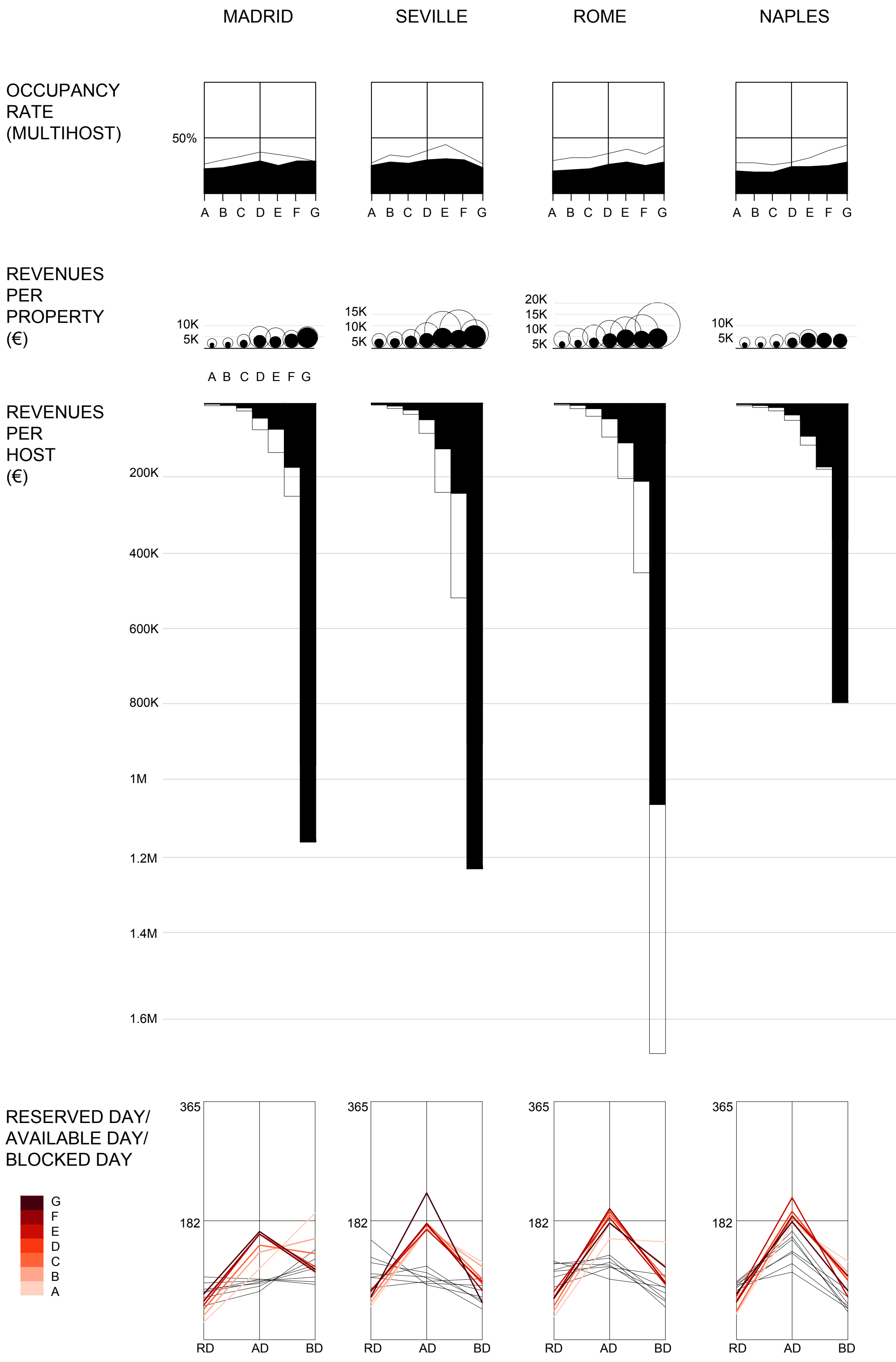

Figure 27: Graphical representation of Airbnb performances 2020

Conclusion(s)

The purpose of this research was to unfold the intricate network of economic and political relationships that contributed to modify the real estate speculative dynamics. To investigate this evolution, the issue was framed by looking at the growing market segment of short-term rental platforms, supported by the advent of digital platforms, the consolidation of mass tourism, the need for an economic recovery after the 2008 crisis (although the crisis triggered by the COVID-19 pandemic also offered more insights) and the ongoing financialisation of housing operations. All these linked dynamics were studied in the context of Southern Europe because of its condition of being a fertile ground for these mechanisms: being the hardest hit amidst the crisis led these countries to be more likely to open up their economy to newly profitable markets, and a mixture of public and private policies insisted to bet on the real estate market capacity along with the growing mass tourism market.

The need to examine, describe and disentangle these dynamics lies in several facts that are embraced in the theoretical and empirical reasons of this work. First of all, the commodification and financialisation practices put in place by the growing investments in the short-term rental market trigger and consolidate processes of de-politicisation of housing on many levels and in various forms. This is a fundamental reflection to be aware of that is not always emphasised enough in the discourses on such themes. Second, the spreading effects of short-term rental platforms and mass tourism dynamics are already visible in cities in terms of influencing rents and housing prices (Amore et al., 2020; Barron et al., 2020) and in terms of modification of the urban commercial and social pattern (Lestegás et al., 2019; Caputi e Fava, 2019). The manifestation of these consequences requires an in-depth analysis to stem an ongoing urban distress. And third, both in the media and in academic discourse, there is a lack of investigations regarding a deep analysis of the actors that move such dynamics. Focusing on the network of investments and the speculations in the real estate environment is necessary to differentiate the varieties of professional and non-professional actors that join the market. The awareness of the variegated panorama of the real estate players redefines the perspective by which this problem is usually scrutinised, which is to criticise Airbnb as the sole "enemy" to fight against.

The dynamics described in this research saw a period of consolidation that had its development between 2008 and 2020. In 2020, the COVID-19 pandemic suddenly interrupted processes of accumulation and exploitation in this and several other sectors. However, as briefly described in the last chapter, accommodation platforms had a prompt response in terms of promoting new kinds of services, and through the scraping of the AirDNA data, multi-property hosts were almost the only ones who were able to maintain revenues during 2020, as demonstrated by the cases of Madrid, Seville, Naples, Athens and Thessaloniki. Thus, all these processes were not completely interrupted, but they were slowed down, and presumably, they will reassess themselves with new dynamics: "tourism will take new forms, new needs and new gentrified markets will be created to sustain leisure-oriented mobilities. In this regard, social mobilities may be restricted and become highly privileged and more selective" (Alexandri e Janoschka, 2020: 3211). In the wake of this crisis, the issue pointed out by Christophers is still extant: "we should *always* ask (but rarely do): a crisis of what and *for whom*?" (2015: 210, original emphasis). The economic crisis activated after the outbreak of the pandemic is once again nothing more than a consolidation of corporate power as with many other neoliberal crises. The disadvantages triggered by the crisis seem to strengthen once again the bigger player as opposed to the smaller ones. Harvey made this reflection in an article published soon after the onset of the global financial crisis of 2008, in which he argued whether it would have *really* been the end of neoliberalism (2009). The same question could be posed today, and the answer would be the same.

What is happening today during the pandemic could help understand the otherwise slower processes of consolidation of power triggered by a crisis. I started this research with the aim of understanding the long-term consequences of the 2008 crisis, and today, I am looking at those same consequences in a very short period of time. Upon reflecting on these themes, a famous Italian book comes to mind, *Il Gattopardo* by Tomasi di Lampedusa (1958). It narrates the story of a noble Sicilian family during the Italian unification, who were worried about the possibility of losing power under a unified kingdom. The most famous statement that symbolises the book is as follows: "everything must be changed in order not to change anything". The consolidation of power of multi-property hosts during the pandemic and the introduction of the new platform economy market segment have been the effects of crises that have reiterated the power relations but that for the most part have been devastating – a change of paradigms that resulted in ensuring a stronger and more stable place for the corporate powers.

Due to this, crisis has been interpreted as an object of knowledge (Roitman, 2013; Koselleck, 1988) to uncover the meaning of how the crisis-as-event and the crisis-as-condition factors could influence the management of complex situations. The case of Naples and the controversial longstanding condition of the waste emergency could signify the notion of crisis as a perpetual condition that influenced specific political behaviours and addressed targeted policies and practices. Studying that kind of crisis which is apparently not related to the issues of this work contributed to frame the following actions and trends that the city put in place to rehabilitate its image surrendering to the international mass tourism demand. On the other hand, the way in which Athens experienced the crisis reflects the conceptualisation of a crisis in a Neo-Marxist perspective, namely as a fundamental moment in the regeneration of capital. The way in which the crisis landed in the Greek territory was one of the most challenging in Europe. The consequences that the crisis caused in the Greek market were an exemplification of the "perfect storm" in which capital could flow and find new spaces to expand and radicalise through a mechanism of "creative destruction" (Schumpeter, 1954), activating liberalisation policies that enabled the entrance of international investors in several Athenian market sectors.

In both these contexts, crisis could really be an object of knowledge in the identification of new paradigms of capitalist development and the recognition of the hierarchy of the actors involved.

> But crisis narratives are not "false" nor are they mere representations [...] the aim is not to invalidate or to critique the term as inaccurate or merely symbolic. There is no reason to claim that there are no "real" crises. Rather, the point is to observe crisis as a blind spot, and hence to apprehend the ways in which it regulates narrative constructions, the ways in which it allows certain questions to be asked while others are foreclosed. (Roitman, 2013: 94)

The political feature of a crisis reflects its comprehension in a political economic understanding, meaning that a crisis represents an intrinsic contradiction in the capitalistic mode of accumulation and thus should be interpreted not as a single event or a permanent condition but rather a constant and cyclical event. Due to its dual role of being an inevitable moment in the capitalistic cycle and at the same time a moment to avoid for its potential to create various levels of distress within society, it has been discussed in the political discourses. In the neoliberal state, a crisis is to all effects a political tool, as it is used to legitimise regulative (and de-regulative) measures to avoid it always enlarging the space-time aspects of capital fluctuations. On the contrary, as the case of Athens demonstrates, the absence of the state in the crisis management went against the institutional power, activating processes of rescaling (Brenner, 1999) and a consequent de-powering of it.

However, the state is a fundamental part in the mechanism of creating fixity and encouraging accumulation to keep the capital in motion. The passage from liberalism to neoliberalism and the financialisation of the economy have been state responses to crises (whether the public interventions occurred or not). The dependency between finance and state occurs since the state needs finance to keep the economy balanced, and finance needs the state to access to those (de)regulatory measures indispensable for it to survive. This relation has been made stronger by another infrastructure that absorbed the overaccumulation tendencies, which is part of the same mechanism of instable balance: the built environment: "[C]apital represents itself in the form of a physical landscape created in its own image, created as use values to enhance the progressive accumulation of capital" (Harvey, 1978: 120).

In this matter, housing, as a consistent part of the built environment, represents one possible material link to study the capital fluctuations. Housing acts both as a value-keeper due to its spatial fixer feature and as an active engine of capital circulation because it "hides" a variegated network of investments, fluctuations and speculations.

The mediation of the state in the functioning of the circulation of capital in the built environment also regulates the capital switch, which is the transfer of surplus capital from the primary to the secondary circuit. In the housing sphere, this switch manifests itself in the transition of where the profit arrives – from the production and consumption of the commodity (the construction and the selling phases) to the financial trade (i.e. the securitisation of housing mortgages and the predatory lending).

Processes of speculation and commodification of housing are quite evident in some cases, such as that of Lisbon where at the beginning of the 2000s an encouraging homeownership campaign was used to finance banks through mortgages, and during the crisis, the Troika imposed a complete revision of the rental regulation with the aim of liberalising the market. The role of the state was central in the increasing openness of the economy and in the promotion of programmes to incentivise and attract foreign investments mostly in the real estate sector. In Madrid as well, the high homeownership was a result of years of policies oriented towards the investments in the real estate market both in terms of incentives on mortgages and liberalisation acts on land. This led to a widespread financialisation of housing where Spanish mortgages were traded in national and international markets. The blending of housing with finance and welfare issues into an interconnected fluid system is what made the U.S. mortgage crisis of 2008 become global (Lapavitsas, 2009), causing serious consequences in the Spanish real estate market as well.

In this financialised and commodified panorama, rents embody the political economic instrument that creates profit without producing nothing (Harvey, 1982; Lapavitsas, 2013). The consolidated buy-to-let strategy adapted itself to market demands in a sort of let-to-let business model in which the properties are not single-owned but are divided within several investors, traded as assets and made productive by joining the most profitable rental market, the short-term one.

The short-term rental market has experienced exponential growth with the support of the sharing economy rhetoric and the technology of digital platforms. The sharing economy represents that kind of new paradigm that laid the foundations for new capital accumulations, providing new spaces of fluctuations opening up to the unregulated market through the channel of digital space. Greene and Joseph (2015) argued that the digital space is to all effects a space of capital and thus a possible space of fixity: "[D]igital spaces are experimental venues for new accumulation regimes, where fixes attempted elsewhere are refashioned, redeveloped, and redeployed" (2015: 240). The accumulation in this case depends on the medium that acts as guarantor for the profit making, but then, as Greene and Joseph noticed, the digital space is constituted by physical space, which consists of workers, warehouses, services and goods traded. In the case of accommodation platforms, the networks of accumulation and fixity lay on another main pillar of the accumulation cycles, the real estate market. The digital fix insists to the spatial fix, which is constituted by the rentable build environment, so that this double fixity ensures a safe storage and circulation of capital.

In the wake of this it is important to acknowledge the role that accommodation platforms have in the accumulation process; they guarantee a preferential channel within the market segment for real estate investors. Accommodation platforms act at the same time as a mere tool to get access to the market and as an essential part of the engine to keep the market in motion.

Airbnb (and other accommodation platforms) could be interpreted as a channel, an essential infrastructure that carries out a balancing role. From the launching of Airbnb, the first short-term rental platform, in 2008 till today (or till the shock of the pandemic), this market field has gained worldwide expansion with the result of being the most profitable way to rent out properties, depending on the phenomenon of mass tourism and embracing the contentious philosophy of the sharing economy. The main argument of the sharing economy is based indeed on a substantial contradiction: the exchange of services and goods is regulated by a monetary transition. Here lies the simple contradiction: the sharing action in the case of Airbnb actually means the renting out of properties. The fortunate combination of events (the explosion of the tourism industry, the will of recovering from the crisis, the prolific housing market, high international mobility) led Airbnb to have a mass development, which most of the time was an unregulated and disruptive one. The urban, social and economic consequences have been many, from the unfair competition with the traditional hospitality sector and the gentrification and touristification-led practices to the rise of rents and housing prices. In the case of Lisbon, this practice has been intercepted by foreign investors attracted by the favourable programmes of the Golden Visa; in Madrid, the financial actors are a constant and cumbersome presence in the real estate market since the recovery from the crisis; the same applies for Athens that saw a continuative process of land grabbing from foreign companies – especially in infrastructures and real estate and for Naples as well, where mass tourism radically changed the social and commercial pattern of the city centre. All these situations are connected to the lucrative potential of the short-term rental market, and for these reasons and a lack of regulative framework, the necessity to analyse this issue in depth is of primary importance.

The three statements illustrated in Chapter 5 attempt to report this trend from the inside of the Airbnb data:

a) *From P2P to B2C* documents the fact that the overall market is controlled by few hosts that own the majority of properties that are managed in a professional manner. These users have overall better performances, both in terms of occupancy and revenues; therefore, they absorb most of the fluctuation of capital produced by this industry.
b) *Beyond the urban scale* assumes that to better understand the size of this phenomenon, it is not enough to study it in the urban boundaries but the transnational network that link cities and international investors must be revealed as well.
c) *Retracing housing financial chain.* Here the major professional users are analysed; what emerges is a variegated panorama of real estate companies, online property managers firms, investment funds, hotel companies and even construction firms.

The whole reconstruction, from the performances to the geographies and the economic status, reflects a solid and organised structure of the corporate landlords (Beswick et al., 2016; Fields, 2014; Wijburg et al., 2018) who are able to best exploit the potential of the market.

The processes of accumulation activated by the short-term rental market could be interpreted in two separate levels that work in separate circuits. The internal circulation is the one generated and supported by the digital infrastructure, the revenues generated by the mechanism of P2P or B2C platforms typical for the platform economy exchanges. This circulation is the one produced by the direct source of profit from rents and is collected by both the host and the platform. The external circulation represents the second level, which is the one generated by the macro-market dynamics. This process of accumulation is the one that runs in the financialised housing market. It is activated by the professional users present in the platform, who use their multiple properties to activate financial mechanisms trading them as assets, betting on them and finding alternative practices to extract revenues from the physical object of a room or a house. This external circulation is regulated by financial trades and financial methods of speculation, such as the REITs, and equity and hedge funds. The Portuguese i-Wish, active in Airbnb with 42 properties in 2019, offers investment management services in the real estate sector and provides consultancies in commercial, financial and credit intermediation. The American Sonder, active in Europe with 108 properties (2019), is financed by institutional owners, hotel owners, equity funds, REITs/property companies and developers.

For these reasons, Airbnb could be interpreted as a link in the real estate financial chain, taking advantage of the high profitability of this extended real estate market in which rent-based accumulation has overcome the property-based one. Considering all of the above, Airbnb is part of a bigger and more complex network of circulation of capital, which has been partially described in the empirical analysis of this work. The aim of those analyses (the dimensions, the performances, the network and the actors involved) was to highlight the pivotal role that Airbnb has in the broad mechanism of housing speculation and commodification and to point out the central role of the transnational and corporate landlords.

If, on the surface, Airbnb is still presented as the "poster-child of the sharing economy" (Baum, 2017: 40), a deeper analysis of its detailed infrastructure reveals that it creates a safe channel for an oligopoly of real estate investors that speculate on how rental activities increment the processes for the commodification of housing.

The financialisation process involves scaling up from the local housing market to the global financial real estate segment. The transition from the primary to the secondary circuit of capital is accomplished through the usage of several financial tools, such as the ones mentioned above: housing loan securitization, the subprime market, predatory lending, increased household mortgage debt, and the entry of real estate firms in subsidized rental markets. In Madrid, the introduction of the REIT regulation "transform[ed] property into a tradeable income-yielding asset by connecting hyper-mobile, investment capital to immobile, local property markets" (Waldron, 2018: 207) and gave finance a primary position in the Spanish housing market.

The multiple levels of commodification, which range from the financial engagements in the housing sphere to the massive income production of the housing capacity, are also expressed through minor practices that contribute to the perception of looking at housing as a commodity. Home staging is a practice – at first glance, a harmless one – that particularly involves the refurnishing or renovating of the apartment to rent. Home staging first appeared in the United States during the 1970s, aiming to reduce sales times and avoid future discounts on the final price of real estate. This practice, even at the time, involved nothing more than a small renovation, but the way in which it was promoted and structured marked another notch in the ecology of housing commodification, reproducing and simplifying existing practices.

Today, this practice is present in the sales as well as rental market. In particular, this service's popularity quickly expanded to the short-term rental sector due to the possibility of facilitating profit maximization with minimal effort.

Indeed, the recognizable fortune of the home staging practice has been noted by Airbnb. A typical style for the same is recognizable within Airbnb listings, as highlighted by a research project by AMO presented at the Architecture Triennale of Oslo in 2016: a series of examples from Airbnb listings around the globe were collected, revealing a particularly evident style. With a series of iconic photographs, Airbnb build a taxonomy in which the living elements (parquet, wooden tables, white light, and designer furnishings) became the standardized components of staged commodities. However, the revolutionary concept introduced by Airbnb is that the main value of its product profits from the lack of standardisation, as each listing is related to the identity of its host. Nevertheless, as the Airbnb market was set in terms of mass consumption, some standards started to emerge globally. Striking similarities between average two-bedroom flat listings arose from Moscow to New York. Home staging found a mainstream "genre" for its plays. *Hyggelig* is the Danish word describing the kind of aesthetic standard pursued by most of Airbnb listings. The term refers simultaneously to the quality of a domestic space of being *nice*, *pleasant*, *cosy*, and *comfortable*. It's interesting to note how a word that initially referred to an atmosphere and experiential features was later attached to physical objects, constructing an imagery built upon marketability and profitability.

In response to the demand of an authentic experience, as promoted by Airbnb – *Belong anywhere*™, the practice of home staging provided the tools to combine standardized comfort with touches of personalization. Viewed as a whole, the images of the staged listings appear to have the twofold characteristic of being generic and unique at the same time. The hyggelig of the white box with wooden minimal furniture unit is marked by signs of local culture. Accordingly, in the well-renovated apartments of Athens a plastic bust of a Greek statue can be found, in Naples a painting of *Pulcinella* and in Lisbon a poster of *Fado* singers, reiterating a mass imagery that accompanies the commercial feeling of *belonging anywhere*. In this symbolic moment, housing has been extrapolated from its function and has become an object for investors and consumers who consider accommodation as another experience.

All the macro- and micro-commodification practices contribute to an increasing de-politicization of housing, constructing narrative paradigms in which housing takes the sole role of being a profitable object. Extracting value from housing has become easier, more accessible and affordable. Platforms such as Airbnb contribute to universalising housing exploitation with a range of possible profit-making approaches that are differentiated on the basis of several levels of speculation. As an object, a home can be traded in the Stock Exchange, valued by financial instruments, rented as a facility, and staged for a showcase. In all of these commodification actions, the result involves the construction of a de-politicised object, wherein the role of housing as a dwelling is not even considered and is overcome by neoliberal mantras.

However, housing is far before becoming a source of unlimited revenues and still constitutes one of the primary and basic needs of any human being. The neoliberal process of making housing an external political matter is in constant opposition with the variegated worldwide movements that reclaim housing rights. In the wake of this, as Lancione (2020) highlights, housing is acting as a gateway for radical politics. Housing activists, "are united, in their difference, by their effort to use housing as a gateway to challenge wider structural forms of violence, including patriarchy, racism, class exploitation, and, of course, deprivation of shelter" (Lancione, 2020: 275).

The de-politicisation processes triggered by the financial dynamics that aim to commodify housing, thereby pushing away its social feature, are perhaps the same factors that motivate activists to use housing as a gateway for radical politics. For this reason, I postulate that a political economic view on macro- and micro-economic dynamics is fundamental for discourses that involve local and global needs. The dynamics discussed in this work are directly connected with the variegated struggles derived from housing issues and the growing interest of finance in real estate; the funnelling of that interest in the short-term rental channel has been documented as correlating with urban issues, such as the change in the commercial patterns of Naples and the reconversion of Lisbon into a primary tourist destination.

The experiences of the groups and associations of the activists I encountered during the fieldwork for the present research represent valid examples of how the awareness of housing de-politicization could become a form of radical politics. From the very local Morar Em Lisboa and Habita active in Lisbon and Lavapiés Dónde Vas in Madrid to the associations structured as a network such as the SET Net[68] and the European Action

[68] SET Net (South Europe against the Touristification) is a network of activists that cooperate from different cities across South Europe with the aim of contrasting the processes of gentrification and

Coalition for the Right to Housing and the City, activism is structured upon a political economic awareness of relating their fights with wider, global distress and acting both locally and transnationally. Discussing and acknowledging experiences through these channels was fundamental for the present research due to its wide scope. The importance and meaning of their work lay in the political, economic and social grounding of international dynamics to constantly and critically re-connect macro-economic dynamics with people's basic needs, with the aim of denouncing people's struggles and re-thinking alternatives. A combination of theoretical and empirical actions delivered through different approaches should be seen as an opportunity to be taken advantage of, and to internalize certain dynamics to use it reversibly.

To look at the financialization of housing, however, requires taking into consideration a variety of other connections and dynamics that arise from the consequences and events of the mechanism – triggered by the fact that housing is not considered a basic need. A series of systems, relations and connections intersect on different scales and in different geographies to form a wide and complex network. The oligopoly of corporate landlords, the trans-scalar system of national and international policies of deregulation and capital attraction, the financial links of investments, the groups of housing activists, the very structure of Airbnb as a platform and the trans-national connections of properties all represent an interconnected system for understanding the contemporary housing condition. The issues encountered during the present research opened a Pandora's box of complex infrastructure in which real estate speculations, financial dynamics, public policies, touristic flows, digital spaces, housing needs and social movements are linked through relationships of strength and weakness. Looking at these from different angles allowed for determining the pieces involved (although never enough to provide the whole picture); reading the cities under different perspectives helped broaden the discourses; and surfing different scales of analysis enabled the gathering of insights on relations and interests.

Referring to the methodological literature used in this work, the interpretative key to deal with such a complex picture should be to *see like a network*. Acknowledging the fact that the various perspectives and layers only work if assembled together, all the network nodes should be resolved, scrutinized and collected to reconstruct the network in reverse and thereby disentangle the complexity. Network rebuilding is the method applied in the present study to reconstruct the housing financial chain, starting from the case studies and the scraping of the Airbnb data, following by structuring out the

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commodification of cities activated by the mass tourism industry. The cities involved are Venice, Valencia, Seville, Palma, Pamplona, Lisbon, Malta, Malaga, Madrid, Girona, San Sebastian, Canary Islands, Camp de Tarragona and Barcelona.

multiple relations and connections that constitute the infrastructure. The network that emerges has several spaces, times, levels and actors involved; looking at them as a whole both responds to and opens up new questions on whether the awareness of these connections could motivate new scenarios and trigger alternatives.

Seeing like a network means embracing a relational vision instead of a territorial one, thus focusing on the connections that structure the discourse rather than the contextual specificity, inscribing cities into the network and moving them away from the territorial contextuality. In 1996, Castells referred to the network society as the social structure of the Information Age (1996), re-defining the production/consumption and power relations within the network. Such relations must be re-defined constantly as signifiers of the network itself.

Seeing like a network contributes to empirically and theoretically framing the exclusive interpretation of this work in light of other studies on similar topics: Regardless of Airbnb's nature as a network, the majority of the studies on short-term rental platforms focus on singular urban cases or comparisons between cities rather than a study regarding its infrastructural features. Therefore, the present work fills the existing gap by seeing Airbnb as a network and thus reports a relational geography that overcomes the power of the context and emphasises the link between different realities. Studying Airbnb beyond the urban scales requires an awareness of the user composition and an understanding of the economic interests that drive such networking. Accordingly, seeing like a network highlights another theoretical/methodological achievement of this research: to relate the global real estate financial market with the dynamics of the short-term rental one. So far, the two economic systems have been studied separately; researching the links between them means to add another level of awareness in the understanding of the dynamics generated in both the spheres. The urban case studies also form a relational structure, as all the cities are included in a network of relations that signify their specificity. Lisbon has been interpreted through its relation with the institutional power, first the international European power (the Troika), then its internal one, while Naples has been perceived through its *non*-relations with the institutional power. Based on its global multi-layered network of external actors, Athens is viewed as a city signified by an unwilling 'world-making power'. Further, Madrid is highlighted by the dynamics between bank institutions and investment funds.

Seeing like a network highlights all these links and forms a complex structure that lays out the increasing consequences of and reasoning behind the loss of politics in the housing discourse.

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Appendix

Chapter 5

From P2P to B2C

Multi property host performances

		A(1)	B(2)	C(3;5)	D(6;10)	E(11;20)	F(21;50)	G(>50)
ATHENS	REV per PROP	3457	4264	5712	6686	6869	6851	7163
	REV per HOST	3457	7690	18615	44214	84760	172630	608539
LISBON	REV per PROP	7791	8930	9847	9793	10495	12724	13862
	REV per HOST	7791	17861	36125	72101	146675	364595	1423193
MADRID	REV per PROP	4162	4558	6075	9541	8903	7807	9403
	REV per HOST	4162	9116	21446	71615	128007	243856	938247
NAPLES	REV per PROP	4656	4923	5972	6605	8148	5982	5383
	REV per HOST	4656	9847	21515	46293	111638	171669	362039
PORTO	REV per PROP	6987	7691	8239	9366	9306	9746	16321
	REV per HOST	6987	15382	30632	68524	130746	303963	1270732
ROME	REV per PROP	7404	8796	10206	12369	13803	14849	20281
	REV per HOST	7404	17592	37433	91060	199748	440984	1686258
SEVILLE	REV per PROP	6462	7286	8258	11233	16326	17091	12544
	REV per HOST	6462	14573	29588	82336	231370	506907	885850
THESSALONIKI	REV per PROP	3044	3123	4198	3730	6042	3519	
	REV per HOST	3044	6246	15141	27494	89511	103822	

Table 22: Revenues 2019 per Property and per Host

	A(1)	B(2)	C(3;5)	D(6;10)	E(11;20)	F(21;50)	G(>50)
ATHENS	10.05	11.1	15.55	17.06	16.25	14.06	12.46
LISBON	24.07	23.41	24.21	24.81	23.8	24.18	25.81
MADRID	35.19	30.58	29.21	28.93	29.37	27.67	34.81
NAPLES	19.26	20.11	23.05	22.48	28.27	22.85	19.95
PORTO	19.18	19.86	21.33	23.88	23.6	22.12	26.67
ROME	27.79	27.23	29.83	31.88	29.87	34.17	43.66
SEVILLE	23.24	23.52	24.81	26.88	27.08	29.9	29.63
THESSALONIKI	13.7	14.67	14.764	16.46	16.64	11.42	

Tab le 23: Average daily rate (ADR) per property 2019

	1(1)	2(2)	3(3;5)	4(6;10)	5(11;20)	6(21;50)	7(>50)
ATHENS	0.31	0.34	0.36	0.36	0.4	0.42	0.42
LISBON	0.46	0.51	0.51	0.51	0.53	0.52	0.6
MADRID	0.37	0.41	0.44	0.46	0.45	0.43	0.4
NAPLES	0.34	0.31	0.33	0.34	0.36	0.4	0.47
PORTO	0.46	0.49	0.5	0.49	0.49	0.53	0.62
ROME	0.39	0.42	0.42	0.45	0.47	0.43	0.51
SEVILLE	0.41	0.47	0.46	0.5	0.58	0.54	0.42
THESSALONIKI	0.39	0.39	0.45	0.40	0.51	0.46	

Table 24: Occupancy rate 2019

		1(1)	2(2)	3(3;5)	4(6;10)	5(11;20)	6(21;50)	7(>50)
ATHENS	RD	68.3	79.4	92	88.4	94.1	96.2	89.9
	AD	113.7	114.3	127.4	130.2	116.3	111.3	98.7
	BD	100.9	90.7	70	56.2	58	54.6	94.3
LISBON	RD	93.4	115	122.9	121.4	129.9	119.2	130
	AD	92	90.2	96.9	103.6	94.7	95.2	73.9
	BD	112.1	95.4	78.8	75.4	79.9	92	95.5
MADRID	RD	51.3	64.6	77.2	95.1	87.1	73.6	72.3
	AD	72.7	80.2	85.8	91.2	89.8	90.9	87.4
	BD	135.1	121.8	108.1	86.8	94.8	86	111.6
NAPLES	RD	77	81.3	85	84.9	78.3	74.3	82
	AD	135	133.8	155.9	153.4	163.9	114.2	102
	BD	76.3	68.8	49.9	51.6	57.9	51.9	53
PORTO	RD	98.7	113	120.7	123.4	127.6	132.6	157.2
	AD	96	96.9	101.8	109.1	112.3	99.2	89.3
	BD	91.7	82.9	74.1	63.9	53	57.6	49.2
ROME	RD	81	96.4	105.7	114.9	117.4	104.5	119
	AD	110.1	116.4	127	125.1	114.4	111.1	95.1
	BD	98.8	80	62.8	55.2	64.4	71.4	80.6
SEVILLE	RD	79.1	94.9	100.9	117.4	152.8	127.5	96.3
	AD	89.4	88.1	96.4	102.8	87.2	96.7	111.4
	BD	91.5	84.2	76.4	63.9	66.6	50.8	61.5
THESSALONIKI	RD	68.4	74.7	92.3	80.2	107	84.1	
	AD	101.9	106.4	106.2	111.8	104.8	83.9	
	BD	107.9	96.5	84.8	87.5	51.2	73.5	

Table 25: Reserved days, Available days, Blocked days 2019

1. FAKE SINGLE		
	HOST W/ FAKE SINGLE	%
SINGLE	7742	73.6%
MULTI	2783	26.4%
TOT	10525	
FAKE SINGLE	17.1%	
	host W/OUT FAKE SINGLE	%
single	6415	61.0%
multi	4110	39.0%
tot	10525	
2. IN/OUT		
	HOST	%
IN	9089	86.4%
OUT	1436	13.6%
TOTAL	10525	
3. DOVE		
	N_PROP_DB	%
ATHENS	19861	52.9%
GREECE	12095	32.2%
UE	5612	14.9%
Totale complessivo	37568	
4. INCREASE		
PROPERTY DB	37568	
INCREASE PROPERTIES	17707	47.1%
5. NETWORK		
	PROP	
IN	19861	52.9%
OUT	17707	47.1%
TOTAL	37568	

Table 26: Athens - Property network

1. FAKE SINGLE		
	HOST W/ FAKE SINGLE	
SINGLE	7563	66.4%
MULTI	3835	33.6%
TOT	11398	
FAKE SINGLE	13.70%	1036
	host W/OUT FAKE SINGLE	
single	6527	57.3%
multi	4871	42.7%
tot	11398	
2. IN/OUT		
	HOST	
IN	9396	82.4%
OUT	2002	17.6%
TOTAL	11398	
3. DOVE		
	N_PROP_DB	
LISBON	28146	66.2%
PORTUGAL	7389	17.4%
UE	6973	16.4%
(vuoto)		
Totale complessivo	42508	
4. INCREASE		
PROPERTY DB	42508	
INCREASE PROPERTIES	14298	33.6%
5. NETWORK		
	PROP	
IN	19975	47.0%
OUT	22533	53.0%
TOTAL	42508	

Table 27: Lisbon - Property network

1. FAKE SINGLE		
	HOST W/ FAKE SINGLE	
SINGLE	17883	74.4%
MULTI	6152	25.6%
TOT	24035	
FAKE SINGLE	8.7%	1553

	host W/OUT FAKE SINGLE	
single	16330	67.9%
multi	7705	32.1%
tot	24035	
2. IN/OUT		
	HOST	
IN	21619	89.9%
OUT	2416	10.1%
TOTAL	24035	
3. DOVE		
	N_PROP_DB	
MADRID	44348	71.5%
SPAIN	11837	19.1%
UE	5863	9.4%
Totale complessivo	62048	
4. INCREASE		
PROPERTY DB	62048	
INCREASE PROPERTIES	17700	28.5%
5. NETWORK		
	PROP	
IN	37586	60.4%
OUT	24632	39.6%
TOTAL	62218	

Table 28: Madrid - Property network

1. FAKE SINGLE

	HOST W/ FAKE SINGLE	
SINGLE	4920	64.9%
MULTI	2665	35.1%
TOT	7585	
FAKE SINGLE	10.8%	529
	host W/OUT FAKE SINGLE	
single	4391	57.9%
multi	3194	42.1%
tot	7585	
2. IN/OUT		
	HOST	
IN	6690	8

		8.2%
OUT	895	1 1.8%
TOTAL	7585	
3. DOVE		
	N_PROP_DB	
NAPLES	13911	4 0.0%
ITALY	12452	3 5.8%
UE	8438	2 4.2%
Totale complessivo	34801	
4. INCREASE		
PROPERTY DB	34801	
INCREASE PROPERTIES	20890	6 0.0%
5. NETWORK		
	PROP	
IN	12040	3 4.5%
OUT	22822	6 5.5%
TOTAL	34862	

Table 29: Naples - Property network

1. FAKE SINGLE		
	HOST W/ FAKE SINGLE	
SINGLE	3473	6 3.5%
MULTI	2000	3 6.5%
TOT	5473	
FAKE SINGLE	10.5%	3 64
	host W/OUT FAKE SINGLE	
single	3109	5 6.8%
multi	2364	4 3.2%
tot	5473	
2. IN/OUT		
	HOST	
IN	4751	8 6.8%
OUT	722	1 3.2%
TOTAL	5473	
3. DOVE		
	N_PROP_DB	
PORTO	12688	5

		8.8%
PORTUGAL	4783	22.1%
UE	4124	19.1%
Totale complessivo	21595	
4. INCREASE		
PROPERTY DB	21595	
INCREASE PROPERTIES	8907	41.2%
5. NETWORK		
	PROP	
IN	9989	46.1%
OUT	11685	53.9%
TOTAL	21674	

Table 30: Proto - Property network

1. FAKE SINGLE		
	HOST W/ FAKE SINGLE	
SINGLE	16009	66.9%
MULTI	7926	33.1%
TOT	23935	
FAKE SINGLE	13.1%	2095
	host W/OUT FAKE SINGLE	
single	13914	58.1%
multi	10021	41.9%
tot	23935	
2. IN/OUT	(FILTRO IN / OUT)	
	HOST	
IN	20432	85.4%
OUT	3503	14.6%
TOTAL	23935	
3. DOVE		
	N_PROP_DB	
ROME	46989	50.6%
ITALY	30974	33.4%
UE	14857	16.0%
Totale complessivo	92820	
4. INCREASE		

PROPERTY DB	92820	
INCREASE PROPERTIES	45831	49.4%
5. NETWORK		
	PROP	
IN	38184	40.9%
OUT	55108	59.1%
TOTAL	93292	

Table 31: Rome - Property network

1. FAKE SINGLE		
	HOST W/ FAKE SINGLE	
SINGLE	3896	70.8%
MULTI	1609	29.2%
TOT	5505	
FAKE SINGLE	0.105492813	411
	host W/OUT FAKE SINGLE	
single	3485	63.3%
multi	2020	36.7%
tot	5505	
2. IN/OUT		
	HOST	
IN	4805	87.3%
OUT	700	12.7%
TOTAL	5505	
3. DOVE		
	N_PROP_DB	
SEVILLE	11330	50.6%
SPAIN	9671	43.2%
UE	1380	6.2%
Totale complessivo	22381	
4. INCREASE		
PROPERTY DB	22381	
INCREASE PROPERTIES	11051	49.4%
5. NETWORK		
	PROP	

IN	9104	40.6%
OUT	13303	59.4%
TOTAL	22407	

Table 32: Seville - Property network

1. FAKE SINGLE		
	HOST W/ FAKE SINGLE	%
SINGLE	2220	79.7%
MULTI	564	20.3%
TOT	2784	
FAKE SINGLE	18.8%	417
	host W/OUT FAKE SINGLE	
single	1803	64.8%
multi	981	35.2%
tot	2784	
2. IN/OUT		
	HOST	
IN	2183	78.4%
OUT	601	21.6%
TOTAL	2784	
3. DOVE		
	N_PROP_DB	
THESSALONIKI	3944	52.8%
GREECE	3253	43.6%
UE	271	3.6%
Totale complessivo	7468	
4. INCREASE		
PROPERTY DB	7468	
INCREASE PROPERTIES	3524	47.2%
5. NETWORK		
	PROP	
IN	2957	39.2%
OUT	4580	60.8%
TOTAL	7537	

Table 33: Thessaloniki - Property network

Retrace housing financial chain

Athens

NAME	N_PROP	N_PROP_DB	LEGAL ENTITY	TYPE	OTHERS	GROUP	HEADQUARTER
Homm	201	323	Company	STR platform / Real estate company	Architecture renovation; Financing; Golden Visa; Real estate investment		Athens
Mint	190	349	Company	Property manager			Athens
Greece Luxury Properties Rentals	156	394	Company	STR platform	Architecture renovation		Athens
Erasmus Rooms Athens	128	128	Company	STR platform	mid-term		Athens
Home rentality	102	233	Company	OTA			Athens
Bokiko	101	104	Company	OTA			Athens
TopHouzzing	96	146	Company	STR platform / Real estate company	Real estate investment		Athens
Boutique Athens	94	96	Company	STR platform / Property manager			Athens
JJ Hospitality	80	189	Listed company	OTA	Architecture renovation (home staging)		Athens
My Vacation	71	95	Company	OTA	Tourism services		U.K.
Homm	70	92	Company	STR platform / Real estate company	Architecture renovation; Financing; Golden Visa; Real estate investment		Athens
Toni	70	76	Private user	Property manager			Athens
Tia and Mike	57	62	Private user	Property manager			Athens
Golden Home	55	325	Company	STR platform / Real estate company	Architecture renovation; Financing; Golden Visa; Real estate investment		Athens
Cloud Key	55	56	Company	OTA			Athens

Table 34: Athens - Top host urban

NAME	N_PROP	N_PROP_DB	LEGAL ENTITY	TYPE	OTHERS	GROUP	HEADQUARTER
Your rentals	8	1537	Start-up	Property manager			Sweden - Vietnam
E-domizil	1	1444	Listed company	OTA			Zurich
sharingXchange	34	713	Company	Property manager			Austin (Texas)
Travel Nest	1	436	Company	Property manager			Edimburgo
Greece Luxury Properties Rentals	156	394	Company	OTA	Architecture renovation		Athens
Mint	190	349	Company	Property manager			Athens
Golden Home	55	325	Company	STR platform /	Architecture renovation;		Athens

				Real estate company	Financing; Golden Visa; Real estate investment		
Homm	201	323	Company	STR platform / Real estate company	Architecture renovation; Financing; Golden Visa; Real estate investment		Athens
Your rentals	4	283	Start-up	Property manager			Sweden - Vietnam
HomeRez	11	263	Listed company	Property manager			Parigi
Home rentality	102	233	Company	OTA			Athens
Red Awning	11	197	Company	OTA		Investors: Silversmith Capital Partners, Elephant, Alpine Pacific Capital	California
JJ Hospitality	80	189	Listed company	OTA	Architecture renovation (home staging)		Athens
Olala Homes	46	174	Company	OTA	Mid-term rental		Barcelona
TopHouzzing	96	146	Company	STR platform / Real estate company	Real estate investment		Athens

Table 35: Athens - Top hosts database

Lisbon

NAME	*N_PROP*	*N_PROP_DB*	*LEGAL ENTITY*	*TYPE*	*OTHERS*	*GROUP*	*HEADQUARTER*
Feels Like Home	381	743	Listed company	OTA	Financing; Real estate investment		Lisbon
Altido	273	277	Company	OTA			London
Homing	251	272	Company	OTA			Lisbon
LxWay	131	136	Company	STR platform / Property manager	Real estate investment		Lisbon
Warm Rental	95	144	Company	Property manager	Golden vista		Hong Kong
Stefan	93	112	Private user	Property manager			Lisbon
Francisco	93	93	Private user	Property manager			Lisbon
Lisbon Five Star	89	89	Company	STR platform / Property manager	Real estate investment		Lisbon
Travelling to Lisbon	86	86	Company	STR platform / Property manager			Lisbon
Sweet Inn	82	82	Company	STR platform / Property manager			London
Filipe	77	77	Private	Property			Lisbon

			user	manager			
Short Stay Flat	73	82	Company	STR platform / Property manager			LIsbon
BnBird	70	114	Company	STR platform / Property manager			lisbon
Lisbon Breaks Apartment	70	78	Company	STR platform / Property manager	Architecture renovation (home staging)		lisbon
BMy Guest	63	145	Company	STR platform / Property manager	Financing; Real estate investment		Lisbon

Table 36: Lisbon - Top host urban

NAME	*N_PROP*	*N_PROP_DB*	*LEGAL ENTITY*	*TYPE*	*OTHERS*	*GROUP*	*HEADQUARTER*
E-domizil	2	1654	Listed company	OTA			Zurich
HomeRez	2	1071	Listed company	Property manager			Parigi
HomeRez	33	852	Listed company	Property manager			Parigi
Feels Like Home	381	743	Listed company	OTA	Financing; Real estate investment		Lisbon
Square break	2	706	Listed company	OTA	Hotel company	Accor Group	paris
E-domizil	1	502	Listed company	OTA			Zurich
Allure Villas	1	466	Company	OTA			Lisbon
Altido	273	277	Company	OTA			London
Homing	251	272	Company	OTA			Lisbon
Bookiply	1	251	Company	Property manager			Munich
Booking Host	2	238	Company	Property manager	Architecture renovation (home staging)		Warsaw
Belvilla	3	207	Company	Property manager		OYO Vacantion Homes	Zurich / New Delhi
Carlos	8	162	Private user	Property manager			
Interhome	4	147	Company	STR platform / Property manager			Swizzerland
BMy Guest	63	145	Company	STR platform / Property manager	Financing; Real estate investment		Lisbon

Table 37: Lisbon - Top hosts database

Madrid

NAME	*N_PROP*	*N_PROP_DB*	*LEGAL ENTITY*	*TYPE*	*OTHERS*	*GROUP*	*HEADQUARTER*
Friendly Rentals Madrid	311	729	Company	STR platform / Property manager	Hotel company	Awaze Group	London
Rooming	199	199	Company	Property manager			Netherland
Home Club	193	243	Company	STR platform / Property manager			Madrid
Alberto	175	175	Private user	Property manager			Madrid
Bea	161	166	Private user	Property manager			Madrid
Luxury Rental Madrid	159	161	Company	STR platform / Property manager			Madrid
Losvelys	152	152	Private user	Property manager			Madrid
INNOVA Relocation	148	157	Company	STR platform / Property manager	Mid-term rental		Madrid
Olga	121	121	Private user	Property manager			Madrid
Room mate Group	118	510	Company	OTA			Madrid
Home Club	117	187	Company	STR platform / Property manager			Madrid
Juan	114	115	Private user	Property manager			Madrid
Help Husing	110	110	Company	STR platform / Property manager	Mid-term rental		Madrid
Be Vital patrimonios	103	133	Company	STR platform / Property manager	Mid-term rental		Madrid
Be Tal Servicios Empresariales Sl.	99	129	Company	Construction company			Madrid

Table 38: Madrid - Top host urban

NAME	*N_PROP*	*N_PROP_DB*	*LEGAL ENTITY*	*TYPE*	*OTHERS*	*GROUP*	*HEADQUARTER*
Your rentals	7	1534	Start-up	Property manager			Sweden - Vietnam
HomeRez	7	1076	Listed company	Property manager			Parigi
HomeRez	4	1014	Listed company	Property manager			Parigi
Friendly Rentals	311	729	Company	STR platform / Property manager	Hotel company	Awaze Group	London

NAME	N_PROP	N_PROP_DB	LEGAL ENTITY	TYPE	OTHERS	GROUP	HEADQUARTER
Madrid							
Room mate Group	118	510	Company	OTA			Madrid
E-domizil	1	502	Listed company	OTA			Zurich
Your rentals	13	376	Start-up	Property manager			Sweden - Vietnam
AB apartment Barcelona	4	353	Company	OTA		Come2BCN	Barcelona
Maeva	4	343	Listed company	OTA			Paris
HomeRez	31	328	Listed company	Property manager			Parigi
Carlos	2	267	Private user	Property manager			Gran Canaria
Home Club	193	243	Company	STR platform / Property manager			Madrid
Konnie	22	204	Private user	Property manager			London
Rooming	199	199	Company	Property manager			Netherland
AB Apartment Barcelona	1	197	Company	STR platform / Property manager	Mid-term rental. Property of : Come2bcn, S.L.		Barcelona - San Francisco - Costa Rica

Table 39: Madrid - Top hosts database

Naples

NAME	*N_PROP*	*N_PROP_DB*	*LEGAL ENTITY*	*TYPE*	*OTHERS*	*GROUP*	*HEADQUARTER*
Dmorra Hospitality	82	94	Company	STR platform / Property manager	Architecture renovation (home staging)		Naples
Salvatore	80	89	Private user	Property manager			Naples
House	55	85	Private user	Property manager			Naples
Boundless Housing	52	52	Listed company	Property manager			Naples
Boundless Housing	45	51	Listed company	Property manager			Naples
Marco	38	38	Private user	Property manager			Naples
Lux hosting	34	45	Company	Property manager			Naples
Italianway	28	28	Company	STR platform / Property manager			Milano
Paolo	26	34	Private user	Property manager			Naples
Holidayngo	25	56	Company	STR platform / Property manager			London
Dario	24	24	Private user	Property manager			Naples

Wornerful Italy	23	543	Start-up	STR platform / Property manager	Tourism services	Financed by investment fund: Oltre Venture	Milan
Napo	22	22	Private user	Property manager			Naples
Departure	22	22	Company	Property manager	Hostel		Naples
HomeRez	19	1715	Listed company	Property manager			Parigi

Table 40: Naples - Top host urban

NAME	*N_PROP*	*N_PROP_DB*	*LEGAL ENTITY*	*TYPE*	*OTHERS*	*GROUP*	*HEADQUARTER*
HomeRez	19	1715	Listed company	Property manager			Parigi
Halldis	19	1690	Company	Property manager			Milan
E-domizil	1	1654	Listed company	OTA			Zurich
Summer in Italy	4	1586	Company	Property manager			Naples
Your rentals	2	1536	Start-up	Property manager			Sweden - Vietnam
E-domizil	1	1444	Listed company	OTA			Zurich
E-domizil	2	1111	Listed company	OTA			Zurich
E-domizil	3	1048	Listed company	OTA			Zurich
My Rental Home	11	812	Company	STR platform / Property manager			Naples
Your rentals	11	782	Start-up	Property manager			Sweden - Vietnam
Wornerful Italy	23	543	Start-up	STR platform / Property manager	Tourism services	Financed by investment fund: Oltre Venture	Milan
Novasol	2	444	Listed company	STR platform / Property manager		Awaze Group	Denmark
Novasol	1	331	Listed company	STR platform / Property manager		Awaze Group	Denmark
CleanBnB	9	218	Company	OTA			Milan
Novasol	1	216	Listed company	STR platform / Property manager		Awaze Group	Denmark

Table 41: Naples - Top hosts database

Porto

NAME	N_PROP	N_PROP_DB	LEGAL ENTITY	TYPE	OTHERS	GROUP	HEADQUARTER
Feels Like Home	97	836	Listed company	OTA	Financing; Real estate investment		Lisbon
Liiiving	96	132	Company	STR platform / Real estate company	Financing; Golden Visa; Real estate investment; Mid-term rental		Porto
YourOpo	87	91	Company	OTA			Porto
Porto City Hosts	80	83	Company	OTA	Tourism services; Mid-term rental		Porto
Host Wise	68	82	Company	STR platform / Property manager			Porto
Oporto City Flats	59	59	Company	OTA			Porto
Rui	58	74	Company	OTA	Tourism services; Mid-term rental		Porto
Cristiana	47	51	Private user	Property manager			Porto
Citybreak	45	45	Company	OTA			Porto
The Porto	45	45	Company	OTA			Porto
BmyGuest	44	146	Company	STR platform / Property manager	Financing; Real estate investment		Lisbon
Home Me	44	46	Company	Property manager			porto
Porto 365	44	44	Company	STR platform / Property manager	Tourism services		Porto
I-Wish	41	42	Listed company	STR platform / Property manager	Commercial, Financial, Legal, Credit intermediation, Property Management, Architecture, Decoration / Design, Marketing / Communication areas. Properties and bank estate		Porto
Oporto Guest	40	44	Company	Property manager			porto

Table 42: Porto - Top host urban

NAME	N_PROP	N_PROP_DB	LEGAL ENTITY	TYPE	OTHERS	GROUP	HEADQUARTER
Your Rentals	4	1536	Start-up	Property manager			Sweden - Vietnam
HomeRez	8	1076	Listed company	Property manager			Parigi
HomeRez	26	854	Listed company	Property manager			Parigi
Feels Like Home	97	836	Listed company	OTA	Financing; Real estate investment		Lisbon
E-Domizil	1	502	Listed company	OTA			Zurich
Allure Villas	1	466	Company	OTA			Lisbon

Loic, Estelle & Co	1	456	Listed company	Property manager			Parigi
Homing	3	309	Company	OTA			Lisbon
Warm Rental	4	229	Company	Property manager	Golden vista		Hong Kong
Warm Rental	10	188	Company	Property manager	Golden vista		Hong Kong
BmyGuest	44	146	Company	STR platform / Property manager	Financing; Real estate investment		Lisbon
Liiiving	96	132	Company	STR platform / Real estate company	Financing; Golden Visa; Real estate investment; Mid-term rental		Porto
BnBird Homes	19	115	Company	Property manager			Lisbon
YourOpo	87	91	Company	OTA			Porto
Porto City Hosts	80	83	Company	OTA	Tourism services; Mid-term rental		Porto

Table 43: Porto - Top hosts database

Rome

NAME	*N_PROP*	*N_PROP_DB*	*LEGAL ENTITY*	*TYPE*	*OTHERS*	*GROUP*	*HEADQUARTER*
Halldis Apartments & Villas	184	1616	Company	Property manager			Milan
iFlat	132	146	Company	STR platform / Property manager	Tourism services; Architecture renovation (home staging)		Rome
WonderWhereToStay	131	155	Company	STR platform / Property manager	Tourism services		Rome
Sonder	108	108	Company	STR platform / Real estate company	Partnership: Institutional owners, Hotel owners, Private user, Equity funds, REITs/property companies, Entrepreneurs developers		San Francisco
Peter	104	107	Private user	Property manager			Rome
CleanBnB	101	206	Company	OTA			Milan
Lorenzo	100	105	Private user	Property manager			Rome
Ottavia	78	78	Private user	Property manager			Rome
One Fine Stay	75	943	Listed company	OTA	Hotel company	Accor Group	Paris
Olga	70	139	Private user	Property manager			Rome
M.E.H	67	68	Company	Property manager			Rome
Interhome	66	186	Company	STR platform / Property manager	Large distribution chain company	Migros Group	Zurich

77case	66	68	Company	Property manager			Rome
Suites & Apartments	64	65	Company	Property manager	Architecture renovation (home staging)		Rome
Sweet Inn	62	62	Company	STR platform / Property manager			London

Table 44: Rome - Top host urban

NAME	*N_PROP*	*N_PROP_DB*	*LEGAL ENTITY*	*TYPE*	*OTHERS*	*GROUP*	*HEADQUARTER*
Belvilla	23	2174	Company	OTA	Hotel company	OYO Vacation Homes	Zurich / New Delhi
HomeRez	39	1713	Listed company	Property manager			Parigi
Halldis Apartments & Villas	184	1616	Company	Property manager			Milan
Summer in Italy	16	1587	Company	Property manager			Naples
Your Rentals	29	1527	Start-up	Property manager			Sweden - Vietnam
E-Domizil	3	1444	Listed company	OTA			Zurich
E-Domizil	3	1111	Listed company	OTA			Zurich
Belvilla	4	1081	Company	OTA	Hotel company	OYO Vacation Homes	Zurich / New Delhi
HomeRez	4	1073	Listed company	Property manager			Parigi
One Fine Stay	75	943	Listed company	OTA	Hotel company	Accor Group	Paris
My Rental Homes	30	814	Company	STR platform / Property manager			Naples
Your Rentals	23	781	Start-up	Property manager			Sweden - Vietnam
E-Domizil	13	753	Listed company	OTA			Zurich
Friendly Rentals Madrid	35	744	Company	STR platform / Property manager	Hotel company	Awaze Group	London
SharingXchange	5	711	Company	Property manager			Austin (Texas)

Table 45: Rome - Top hosts database

Seville

NAME	*N_PROP*	*N_PROP_DB*	*LEGAL ENTITY*	*TYPE*	*OTHERS*	*GROUP*	*HEADQUARTER*
Javier, Sevilla En Movimiento	142	172	Company	STR platform / Property manager	Tourism services; Architecture renovation (home staging)		Seville
Nacho	76	76	Private user	Property manager			Seville
Holi-Rent	71	91	Company	STR platform / Property manager			Seville
Home At Homes	69	106	Company	STR platform / Property manager			Madrid
Sebastian Y Ricardo	65	65	Private user	Property manager			Seville
Room To Rent	65	65	Company	STR platform / Property manager			Madrid
Eva Reccomends	61	81	Private user	Property manager			Seville
Veoapartment	61	61	Company	STR platform / Property manager			Seville
Pepe Y Maru	59	59	Private user	Property manager			Seville
Green Apartments	56	56	Company	STR platform / Property manager			Seville
Rosalia	52	53	Private user	Property manager			Seville
Apartamentos Reservaloen	50	51	Company	STR platform / Property manager			Seville
Juanmi Y Laura	49	49	Private user	Property manager			Seville
Friendly Rentals Madrid	45	745	Company	STR platform / Property manager	Hotel company	Awaze Group	London
Veoapartment	42	42	Company	STR platform / Property manager			Seville

Table 46: Seville - Top host urban

NAME	*N_PROP*	*N_PROP_DB*	*LEGAL ENTITY*	*TYPE*	*OTHERS*	*GROUP*	*HEADQUARTER*
HomeRez	2	1073	Listed company	Property manager			Parigi
HomeRez	2	1019	Listed company	Property manager			Parigi
Friendly Rentals Madrid	45	745	Company	STR platform / Property manager	Hotel company	Awaze Group	London

HomeRez	1	456	Listed company	Property manager			Parigi
Belvilla	2	443	Company	OTA	Hotel company	OYO Vacation Homes	Zurich / New Delhi
Novasol	2	424	Listed company	Property manager			Copenhagen
Apartelius	3	408	Company	OTA			Cadiz
Novasol	1	343	Listed company	Property manager			Copenhagen
HomeRez	1	333	Listed company	Property manager			Parigi
Deuschehaus, SL	1	311	Company	Real estate company			Malaga
Bookiply	1	284	Company	Property manager			Munich
Home Club	21	249	Company	STR platform / Property manager			Madrid
Home Club	20	220	Company	STR platform / Property manager			Madrid
Cadiz4Rentals	1	181	Company	OTA			Cadiz
Interhome	1	179	Company	STR platform / Property manager	Large distribution chain company	Migros Group	Zurich

Table 47: Seville - Top hosts database

Thessaloniki

NAME	*N_PROP*	*N_PROP_DB*	*LEGAL ENTITY*	*TYPE*	*OTHERS*	*GROUP*	*HEADQUARTER*
Mint	46	66	Company	Property manager			Athens
Erasmus	37	38	Private user	Property manager			Thessaloniki
Cogroups	23	28	Company	Property manager			Thessaloniki
Alexandra	22	25	Private user	Property manager			Thessaloniki
Nick	20	24	Private user	Property manager			Thessaloniki
Halu!	19	28	Company	Property manager	Hotel company		Thessaloniki
InCityBnB	19	19	Company	STR platform / Property manager			Thessaloniki
LuxLikeHome	18	56	Company	STR platform / Property manager			Thessaloniki
George	16	16	Private user	Property manager			Thessaloniki
HouseLoft	15	36	Company	STR platform / Property manager			Thessaloniki
Skgbnb	15	22	Company	STR platform / Property manager			Thessaloniki
Skgbnb	15	19	Company	STR platform / Property manager			Thessaloniki
Helias	14	14	Private user	Property manager			Thessaloniki

FlatMe Inn	13	18	Company	STR platform / Property manager			Thessaloniki
Nilie	13	14	Company	STR platform / Property manager			Thessaloniki

Table 48: Thessaloniki - Top host urban

NAME	*N_PROP*	*N_PROP_DB*	*LEGAL ENTITY*	*TYPE*	*OTHERS*	*GROUP*	*HEADQUARTER*
Guesteasy	3	338	Company	STR platform / Property manager			Athens
HomeRez	2	263	Listed company	Property manager			Parigi
Home rentality	1	232	Company	OTA			Athens
HalkidikiVillas	4	207	Listed company	Property manager			Thessaloniki
JJ Hospitality	1	189	Listed company	OTA	Architecture renovation (home staging)		Athens
Bouganvillia Homes & Villas	9	131	Company	OTA			Athens
FeelsLikeHome	12	114	Listed company	OTA	Financing; Real estate investment		Lisbon
Mint	46	66	Company	Property manager			Athens
LuxLikeHome	18	56	Company	STR platform / Property manager			Thessaloniki
Horizone	9	43	Company	STR platform / Property manager			Thessaloniki
Christos	7	40	Private user	Property manager			Thessaloniki
Erasmus	37	38	Private user	Property manager			Thessaloniki
HouseLoft	15	36	Company	STR platform / Property manager			Thessaloniki
Aristotelis	7	32	Private user	Property manager			Thessaloniki
Cogroups	23	28	Company	Property manager			Thessaloniki

Table 49: Thessaloniki - ***Top hosts database***

Cluster Analysis

	PROPERTY	ADR	OCCUPANCY	IN/OUT
Cluster I				
quart25	2	-0.38	-0.38	
mediana	2	-0.19	0.20	
quart75	4	0.13	0.73	
				IN
Cluster II				
quart25	2	-0.41	0.46	
mediana	3	-0.22	0.71	
quart75	5	0.03	1.04	
				OUT
Cluster III				
quart25	2	-0.36	-0.81	
mediana	3	-0.12	-0.45	
quart75	7	0.19	-0.10	
				OUT
Cluster IV				
quart25	3	1.85	-0.91	
mediana	5	2.28	-0.55	
quart75	18	3.48	-0.91	
				IN=52%
				OUT=48%

Table 50: Athens - Cluster analysis result

	PROPERTY	ADR	OCCUPANCY	IN/OUT
Cluster I				
quart25	2	-0.34	0.09	
mediana	3	-0.16	0.31	
quart75	5	0.08	0.55	
				IN
Cluster II				
quart25	2	-0.37	-0.39	
mediana	3	-0.17	0.07	
quart75	6	0.08	0.41	
				OUT
Cluster III				
quart25	2	-0.59	-0.8	
mediana	3	-0.37	-0.54	
quart75	5	-0.13	-0.32	
				IN
Cluster IV				
quart25	2	1.41	-0.84	
mediana	3	1.89	-0.46	
quart75	5	2.95	-0.02	
				IN=53%
				OUT=47%

Table 51: Lisbon - Cluster analysis result

	PROPERTY	ADR	OCCUPANCY	IN/OUT
Cluster I				
quart25	2	-0.49	0.32	
mediana	2	-0.33	0.59	
quart75	4	-0.14	0.89	
				IN
Cluster II				
quart25	2	-0.46	-0.43	
mediana	3	-0.25	0.18	
quart75	5	0.019	0.71	
				OUT
Cluster III				
quart25	2	-0.63	-0.76	
mediana	2	-0.38	-0.45	
quart75	4	-0.02	-0.20	
				IN
Cluster IV				
quart25	3	0.42	-0.86	
mediana	5	2.72	-0.57	
quart75	113	3.9	-0.1	
				IN=42%
				OUT=57%

Table 52: Madrid - Cluster analysis result

	PROPERTY	ADR	OCCUPANCY	IN/OUT
Cluster I				
quart25	2	-0.41	0.53	
mediana	4	-0.19	0.76	
quart75	4	0.07	1.09	
				IN
Cluster II				
quart25	2	-0.42	-0.58	
mediana	4	-0.21	0.04	
quart75	4	0.08	0.6	
				IN
Cluster III				
quart25	2	-0.47	-0.74	
mediana	4	-0.17	-0.39	
quart75	5	0.19	-0.07	
				IN
Cluster IV				
quart25	3	1.39	-0.87	
mediana	5	2.11	-0.32	
quart75	327	3.38	0.34	
				IN=35%
				OUT=65%

Table 53: Naples - Cluster analysis result

	PROPERTY	ADR	OCCUPANCY	IN/OUT
Cluster I				
quart25	2	-0.37	0.15	
mediana	4	-0.19	0.35	
quart75	4	0.02	0.57	
				IN
Cluster II				
quart25	3	-0.43	-0.39	
mediana	5	-0.2	0.09	
quart75	6	0.08	0.48	
				OUT
Cluster III				
quart25	2	-0.52	-0.71	
mediana	4	-0.12	-0.4	
quart75	5	0.33	-0.21	
				IN
Cluster IV				
quart25	221	-0.03	-0.66	
mediana	462	0.19	-0.3	
quart75	838	0.29	0.02	
				OUT

Table 54: Porto - Cluster analysis result

	PROPERTY	ADR	OCCUPANCY	IN/OUT
Cluster I				
quart25	4	-0.38	0.33	
mediana	5	-0.21	0.58	
quart75	6	0.01	0.84	
				IN
Cluster II				
quart25	4	-0.4	-0.53	
mediana	5	-0.21	0.06	
quart75	6	0.07	0.56	
				OUT
Cluster III				
quart25	4	-0.53	-0.81	
mediana	5	-0.24	-0.46	
quart75	6	0.07	-0.16	
				IN
Cluster IV				
quart25	4	0.22	-0.8	
mediana	7	1.96	-0.43	
quart75	219	2.92	0.06	
				IN=28%
				OUT=72%

Table 55: Rome - Cluster analysis result

	PROPERTY	ADR	OCCUPANCY	IN/OUT
Cluster I				
quart25	3	-0.37	0.13	
mediana	4	-0.21	0.36	
quart75	6	-0.01	0.66	
				IN
Cluster II				
quart25	3	-0.42	-0.35	
mediana	4	-0.24	0.12	
quart75	6	0.04	0.47	
				OUT
Cluster III				
quart25	3	-0.59	-0.75	
mediana	3	-0.32	-0.48	
quart75	6	0.12	-0.29	
				IN
Cluster IV				
quart25	7	-0.15	-0.81	
mediana	170	0.58	-0.34	
quart75	320	1.68	0.12	
				IN=9%
				OUT=91%

Table 56: Seville - Cluster analysis result

	PROPERTY	ADR	OCCUPANCY	IN/OUT
Cluster I				
quart25	2	-0.41	-0.37	
mediana	2	-0.16	0.19	
quart75	4	0.15	0.65	
				IN
Cluster II				
quart25	2	-0.3	0.13	
mediana	3	-0.19	0.39	
quart75	4	0.1	0.75	
				OUT
Cluster III				
quart25	2	-0.39	0.88	
mediana	3	-0.16	-0.61	
quart75	4	0.12	-0.39	
				OUT
Cluster IV				
quart25	36	-0.22	-0.8	
mediana	131	0.1	-0.34	
quart75	219	2.67	-0.1	
				IN=10%
				OUT=90%

Table 57: Thessaloniki - Cluster analysis result

Chapter 6

	Property	Host	Revenues per Property	Revenues per Host	ADR per Bed	Occupancy	RD	AD	BD
A	5219	5219	1582.5	1574.6	14.8	0.2	36.1	147.1	158.9
B	1482	741	2521.8	5026.6	15.4	0.3	51.6	154.1	130.1
C	2255	606	3270.2	12136.5	19.0	0.3	55.0	170.3	108.6
D	3911	542	4136.3	29778.2	17.0	0.3	69.5	171.6	107.7
E	2047	142	5666.7	81648.9	18.8	0.3	76.8	184.6	80.8
F	2453	84	5323.4	154568.4	18.7	0.3	83.5	173.7	89.1
G	4764	33	4986.7	715359.1	16.1	0.3	69.4	180.6	102.5
Tot.	22131	7367	3794.1	11350.8	16.9	0.3	61.2	167.9	115.7

Table 58: Athens - Airbnb dimension and performances 2020

	Property	Host	Revenues per Property	Revenues per Host	ADR per Bed	Occupancy	RD	AD	BD
A	4831	4831	2932.1	2913.3	22.2	0.2	41.8	147.2	156.3
B	2170	1085	3262.0	6442.8	21.2	0.2	50.0	162.4	129.9
C	4552	1213	4068.3	15176.5	22.0	0.3	59.1	171.0	112.5
D	5708	786	5199.3	37625.6	23.2	0.3	63.1	172.1	113.8
E	4418	309	4970.8	70878.5	20.6	0.3	69.0	165.2	116.4
F	3675	120	6058.8	184895.9	22.9	0.3	64.7	175.0	114.4
G	9832	60	6782.4	1107564.1	21.7	0.3	76.6	181.5	100.6
Tot.	35186	8404	5127.9	21369.6	22.0	0.3	63.6	170.0	117.1

Table 59: Lisbon - Airbnb dimension and performances 2020

	Property	Host	Revenues per Property	Revenues per Host	ADR per Bed	Occupancy	RD	AD	BD
A	12015	12015	1936.4	1918.5	30.0	0.2	27.2	109.5	194.8
B	4152	2076	2333.7	4615.7	25.8	0.2	37.5	134.1	155.8
C	4850	1355	3516.8	12413.9	25.2	0.3	47.2	146.0	132.0
D	4281	581	5679.1	41610.8	24.9	0.3	61.1	162.1	112.5
E	2774	196	5198.5	72726.5	26.4	0.3	53.9	162.9	105.4
F	3593	122	6266.8	180811.4	25.5	0.3	59.6	162.5	104.2
G	6806	48	9033.1	1239413.1	35.9	0.3	70.7	166.2	108.2
Tot.	38471	16393	4470.8	10335.8	28.7	0.3	47.1	141.3	143.5

Table 60: Madrid - Airbnb dimension and performances 2020

	Property	Host	Revenues per Property	Revenues per Host	ADR per Bed	Occupancy	RD	AD	BD
A	3581	3581	2376.0	2364.0	17.8	0.2	40.6	177.7	120.6
B	1558	779	2493.2	4941.6	19.5	0.2	43.0	189.7	103.5
C	3529	972	2992.4	10818.3	21.7	0.2	44.9	188.2	96.3
D	2307	325	4467.5	31657.2	19.8	0.2	60.5	197.1	91.5
E	699	50	6609.8	92140.5	20.7	0.2	67.8	218.1	65.3
F	498	18	6689.3	178382.5	22.0	0.3	63.6	190.7	98.5
G	813	6	6280.1	844676.2	20.5	0.3	71.4	182.0	75.2
Tot.	12985	5731	3564.1	8027.4	20.0	0.2	49.9	188.4	100.1

Table 61: Naples - Airbnb dimension and performances 2020

	Property	Host	Revenues per Property	Revenues per Host	ADR per Bed	Occupancy	RD	AD	BD
A	2320	2320	3086.3	3071.6	17.6	0.3	53.3	152.6	134.7
B	1078	539	3446.3	6835.0	17.9	0.3	62.9	158.2	117.2
C	2446	643	3552.7	13459.5	19.7	0.3	59.8	171.7	107.2
D	2972	401	4637.9	34142.4	20.8	0.3	63.1	186.0	91.4
E	2020	144	4580.2	64090.8	19.9	0.3	65.5	185.7	89.0
F	2050	66	5221.0	160824.1	20.6	0.3	74.2	181.9	90.2
G	3632	24	7051.0	1061472.4	20.8	0.4	88.1	171.9	92.1
Tot.	16518	4137	4777.2	18969.0	19.9	0.3	68.4	173.7	101.2

Table 62: Naples - Airbnb dimension and performances 2020

	Property	Host	Revenues per Property	Revenues per Host	ADR per Bed	Occupancy	RD	AD	BD
A	11154	11154	2885.3	2867.5	24.6	0.2	35.1	155.9	150.9
B	4570	2285	3469.9	6885.2	25.4	0.2	44.5	178.5	113.7
C	9895	2683	4462.3	16360.7	27.2	0.2	52.1	192.7	95.1
D	9367	1288	6401.8	46428.2	26.2	0.3	65.4	197.4	88.6
E	4433	310	8197.5	116272.2	27.8	0.3	74.5	187.6	85.7
F	3905	128	7526.8	229096.7	28.5	0.3	63.1	201.1	87.4
G	6544	48	8632.0	1174131.1	32.6	0.3	64.6	180.0	111.8
Tot.	49868	17896	5504.7	15262.6	27.3	0.2	54.6	182.6	108.8

Table 63: Rome - Airbnb dimension and performances 2020

	Property	Host	Revenues per Property	Revenues per Host	ADR per Bed	Occupancy	RD	AD	BD
A	2153	2153	4021.4	3993.4	22.8	0.3	51.9	169.7	119.2
B	1014	507	4201.1	8360.7	22.5	0.3	57.6	171.5	112.6
C	1609	439	5398.1	19637.1	24.2	0.3	64.4	179.1	93.5
D	1520	209	6547.4	47179.2	23.7	0.3	75.6	176.2	86.9
E	1267	86	8809.1	129370.2	27.2	0.3	76.4	169.6	89.3
F	1398	43	7928.2	254808.3	26.6	0.3	74.8	178.3	76.4
G	3707	29	10329.4	1316102.3	33.0	0.2	67.0	225.9	57.8
Tot.	12668	3466	7273.0	26418.7	27.1	0.3	66.2	189.2	85.8

Table 64: Seville - Airbnb dimension and performances 2020

	Property	Host	Revenues per Property	Revenues per Host	ADR per Bed	Occupancy	RD	AD	BD
A	1436	1436	1895.4	1884.9	13.4	0.2	44.1	147.9	152.2
B	396	198	2296.0	4545.6	15.5	0.3	55.7	155.5	122.9
C	514	143	3095.7	10932.4	14.3	0.3	67.7	152.6	110.4
D	698	96	3628.5	26231.0	14.8	0.3	80.9	171.6	92.6
E	443	32	3578.6	49206.1	14.9	0.3	68.1	181.3	74.8
F	306	10	3459.6	103442.7	13.4	0.3	78.3	189.5	56.3
G	155	2	6150.0	476625.5	13.9	0.4	108.4	145.5	69.7
Tot.	3948	1917	2875.2	5868.8	14.2	0.3	62.7	160.3	114.0

Table 65: Thessaloniki - Airbnb dimension and performances 2020