

PROJECT DESCRIPTION FORM

CORE 2021 CALL

Project Acronym	FINCITY
Principal Investigator (PI)	Professor Markus Hesse
Host Institution	University of Luxembourg

PROJECT DESCRIPTION

1. Description of the Proposed Research Project

European Financial Centres in Transition (FINCITY) is a multidisciplinary research project that focusses on how major global events coincide with broader processes of economic restructuring and financialisation in Luxembourg, Dublin, and Frankfurt—three of Europe’s most significant financial centres. More specifically, it aims to understand how these cities and other major European financial centres have been restructured in response to Brexit—which has expelled a large number of financial services firms from the UK, and COVID-19—which has redistributed population away from major urban centres toward smaller agglomerations (McCarthy and Smith, 2020), and fundamentally altered the ‘labourscape’ in favour of telework (Belzunegui-Eraso & Erro-Garcés, 2020).

Our project is inspired by the dual nature of current conditions in continental European financial centres. On one hand, *Brexit acts as a centripetal force*, attracting many firms and employees to Luxembourg, Dublin, and Frankfurt (among other cities). To date, 7,600 financial sector jobs and €1.5 trillion in assets under management have relocated from London (Jones, 2021). According to *The Financial Times*, Luxembourg “has emerged as one of the biggest winners from the shift out of the UK: 72 companies, nearly all of them in financial services — with a few others including online holiday rentals specialist Airbnb and satellite telecoms company Inmarsat — announced plans to relocate their EU operations from London” (Stafford, 2020). Similar figures support the migration of firms and their employees to the Irish and German financial hubs.

On the other hand, *COVID-19 acts as a centrifugal force*, with strong evidence suggesting that the cumulative impacts of telecommuting, firm restructuring, long-distance commuting, and firm decentralisation are likely to cause de-agglomeration. A recent EU report found that while only 15% of employees in Europe had teleworked before the pandemic, 25% of jobs were ‘teleworkable’ (Fana et al., 2020). Of the EU member states, Luxembourg has the highest proportion of jobs fit for telework (Fana et al., 2020). Similar patterns have emerged in the United States, where cities such as Austin and Boise have absorbed a large number of Silicon Valley firms and workers, many of whom may never return to the office. In Europe, further decentralisation is possible if banks’ back-office staff are permanently dislocated from central offices, and where a more spatially diffused labour force telecommutes to firm headquarters in Luxembourg (e.g. Amazon, Microsoft), Dublin (Google, Facebook, Airbnb), and Frankfurt (Deutsche Bank, European Central Bank, Procter & Gamble).

To explore the socio-spatial impacts of the current state of affairs, this project first builds an updated profile of each financial centre by investigating how the corporate geography of banks and financial services firms has changed since the global financial crisis (GFC) of 2008. Firm-level data will be compiled from various proprietary databases with a view to understand how Brexit and COVID-19 have reoriented the character and composition of advanced producer services within each city.

Second, the reorientation of each city’s services agglomeration will be related to its spatial impact through a detailed investigation of local property markets as key indicators.

The nature of commercial property has changed considerably with a pivot to teleworking, larger floorplates (allowing for distancing), a shift away from skyscrapers (meaning less time in elevators) and the requirements of global firms whose footprint extends far beyond the walls of their offices. Combining both quantitative and qualitative methods, we interrogate which changes may play out in each market's property sector, and how these relate to both global and industry trends. We will carry out stakeholder interviews and focus groups, alongside network analysis of key actors in commercial property developments in each city.

Finally, given the importance of regulation, the project concludes by investigating how policymakers have responded to these multiple crises and their significance for sustainable urban policies. The final component provides a snapshot of the potential disruption caused by COVID-19, including how city-making may change in a post-pandemic world in which telework is increasingly the norm. FINCITY is dedicated to study precisely these interrelated problems and to contribute to the development of related strategies.

1.1. Introduction

Since the last global financial crisis (GFC) there has been an acute restructuring of urban economies in Europe. First, a new suite of big-tech firms has crowded out more traditional manufacturers and service providers. For example, the rise of Amazon has led the company to acquire a large footprint in Luxembourg. Google, Facebook, and Paypal all have a major presence in Dublin, meaning major employers are multinationals requiring globalised and tech savvy labour forces.

Second, the decision for the United Kingdom to leave the European Union (Brexit) in 2016 has led many firms to relocate from London, and to a lesser extent from Manchester, Edinburgh and beyond, to continental Europe. This is particularly relevant to financial industry firms, along with diverse producer services firms (e.g. consultancies, accountancies) whose core business models is reliant on the 'passporting rights' afforded by European Union (EU) membership (Lavery et al., 2018).

According to a recent EY-report, Dublin, Luxembourg, and Frankfurt have seen the biggest gains from Brexit (Bloomberg & Vaghella, 2020). Finance firms in particular favour these three cities. Large banks such as Bank of America, Standard Chartered, and Barclays are looking to Dublin, while Goldman Sachs and Citigroup look to Frankfurt (Joseph-Grant, 2017). According to Bloomberg, 36 financial services firms are considering moving their operations to Dublin, followed by 29 companies to Luxembourg, followed by Frankfurt, which has drawn 23. (Metcalfe 2021). In a recent survey, universal and investment banks show a preference for Frankfurt, while wealth and asset managers, and insurers and insurance brokers, named Dublin and Luxembourg as their first choice (EY, 2021).

The COVID-19 pandemic has also been influential in reorienting the urban economies of European financial centres. By most accounts, telecommuting (Guyott & Sawhill, 2020) has increased dramatically, exerting negative pressure on commercial real estate, and positive pressure on residential real estate, as cashed-up movers seek to gain a foothold near future jobs outside the United Kingdom. A recent PWC report (2021) has identified Dublin, Frankfurt and Luxembourg as three European 'Hot Spots' poised for rapid transformation, yet COVID-19 throws this into question. Interestingly, due to the cumulative impacts of telecommuting, long-distance commuting, outsourcing, decentralization, and other digitally mediated forms of work, there may be the strange scenario in which each city *gains jobs but not population*. In other words, both financial and non-financial firms relocate for agglomeration and tax benefits, yet their labourforce is more spatially dispersed than previously was.

Against this background, FINCITY aims to understand the diverse impacts of economic restructuring in three European financial centres since the most recent global financial crisis. To ground the study in the spatial environment, we look to understand how the built environment of each financial centre is shaped by the actors, capital flows, and mechanisms underlying commercial property markets. Understanding the transformation of Luxembourg's spatial economy vis-à-vis its peer cities (i.e. Dublin, Frankfurt) is critical to ensuring a smooth transition to a post-Brexit, post-COVID world.

A focus on commercial real estate serves as a way to ground the numerous social and economic changes occurring on the continent in the built environment. In theory, more firm activity requires more commercial real estate as new entrants seek a local foothold and existing firms expand their footprint. In reality, however, things look different. As a PwC report (2021) explains, COVID-19 has accelerated existing trends. One such trend is growth in logistics (e.g. due to online retail or medical equipment sourcing) and data centres, identified in the team's previous research as core to Luxembourg's future-looking strategy (Wong et al., 2021). Another such trend is that "the industry sees the merits of small and medium-sized cities, provided they are well connected – transport connectivity is overwhelmingly judged the most important factor in assessing cities." (PwC 2021, p. 3). The take-away from this is that firms are actively seeking cities beyond the traditional global cities of London and Paris for the activities, but that these activities may diversify beyond conventional office buildings toward configurations that reflect firm geographies of the 21st century. By the same token, the balance of 'core' activities requiring premium real estate in financial centres changes through a focus on data-driven analytics, tax-advantageous activities, and client-facing activities. Together, understanding such transformations will support the third component of this project, focussing on the policy and regulation of the property sector in each city. Developing a strong understanding of the economic geography of property markets speaks to the *National Research Priorities for Luxembourg in 2020 and Beyond*, which state that:

In view of increasing urbanisation, cities need to be planned differently in order to allow liveable systems and to provide resilience towards climate change. The various challenges that put pressure on the development require interdisciplinary, integrative approaches in research, involving the combination of a range of complementary expertise from different disciplines (p. 17).

The same can be said for Dublin and Frankfurt, which provide valuable comparative lenses from which to better understand the Grand Duchy's 'growing pains'. Moreover, FINCITY directly targets all four of the CORE program objectives, namely "high-quality research that generates internationally peer-reviewed publications; development of a strong research basis in Luxembourg that adds new local knowledge and develops capacity simultaneously; advancement of the University of Luxembourg in the view of international visibility, and the training of higher degree students" (p. 2). In the sections that follow, we describe our contribution to CORE's key objectives of developing knowledge and research capacity through research training, and high impact workshops and publications.

1.2. Relevant state-of-the art and your own contribution to it

This study looks to link changes in the financial and economic geographies of three cities to the commercial property markets, and the governance that supports key activities. The recent literature in financialisation has produced obvious links between these, notably a) that the 'new economy' is considerably reliant on finance, and b) that as new firms and new forms of production replace manufacturing and less sophisticated services, new geographies emerge, which can be understood by studying the built environments of the cities in which the 'new economy' thrives. New forms of capital investment support dynamic and nimble technology-based firms, leading to agglomerations of advanced urban services economies comprised of both financial and non-financial institutions (Mawdsley, 2018). Research on the financialisation of the city emerged with vigour after the GFC (Aalbers and Pollard, 2016; Christophers et al, 2017; Hall & Leyshon, 2013; Pike & Pollard, 2010), and this study picks up where others left off—also looking at the recent impacts of Brexit and COVID-19. Furthermore, the operations of technology-intensive firms such as Amazon and Google are increasingly less distinguishable from banks: both have high requirements for client-facing and managerial roles in global cities, both derive their revenues from a broad range of economic functions beyond retail activities, and are extremely 'lean' in that algorithms and industry-specific software perform much of the work once done by accountants, actuaries, salespeople, and clerical staff. In sum: Apple and Bank of America have a large presence in Ireland for almost the exact same reasons, with similar logic applying to those relocating elsewhere due to Brexit. We see this to form part of the new financial geography of European cities.

Research into the impacts of Brexit is just beginning to emerge. Though there have been various perspectives (Dörry, 2017; Lavery et al., 2021; Henry & Smith, 2021), its newness precludes any comprehensive analysis in terms of its effects on Europe's economic geography, with financial actors at the forefront of this transition. Likewise, COVID-19 is a current pandemic whose impacts are unlikely to be fully revealed for years to come. For this reason, there is scarce empirical evidence surrounding its impacts, particular on the built environment at an urban scale. We focus on commercial property markets, and their governance, as a vehicle by which to understand broader economic transformations, and how these have been grounded in the built environment. This focus will reveal the tension superimposed on European financial centres by the centripetal forces of Brexit, and the centrifugal forces of COVID-19, which exert opposing pressures on cities. In other words, European financial centres may well increase their firm activity but have fewer residents, as teleworking and other digitally mediated systems mean that the built environment is reworked for firms, but not employees. The study of property markets is not a straightforward endeavour, as property diverges from conventional assets in several ways (property is immobile; demand-inelastic; financed on long-term horizons). Clearly, the way property is planned and facilitated has a huge impact on cities, which we propose to study in the above contexts.

Though a variety of international consultancies and research centres conduct global property 'surveys' (Cox & Pavletich, 2010), their work can largely be viewed as *reportage* rather than research. In other words, the problem is well established but the true causes and solutions are not. This is partly explained by the fact that academic research has often treated property markets as local phenomena. This is valid, as the agents, tenants, residents, and indeed many of property owners and investors are located within metropolitan markets. However, increasingly, property markets are being influenced by outside influences (Langley, 2006; Lizieri, 2009). Given the dynamic nature of commercial property markets, large investments in commercial projects have become securitised as assets (Dörry, 2011). In other words, commercial projects are no longer simply built and financed by public or private actors. Instead, complex financial arrangements involve suites of rent-seeking investors motivated by portfolio depth and breadth. Thus, urban property markets are no longer self-contained, but involve global capital steered by often disconnected decision-making.

Financialization as a Critical Lens

This study takes into consideration the contemporary nature of urban property markets. To this end, the theoretical lens of 'financialization' is applied, which is defined as the increasing involvement of banks and other financial institutions in property markets in particular in the form of lending (e.g. mortgages), and the broader sophistication of financial products (Aalbers, 2019; Christophers, 2019; Dörry & Heeg, 2009). Financialization has been gaining rapid traction in the international literature, particularly with regard to real estate markets (Fields et al., 2016; Guironnet et al., 2016). The financialisation of real estate property derivatives (specifically mortgage-backed securities) has been widely associated with being a cause of the global financial crisis of 2008 (Lewis, 2010), which is our starting point.

The financialisation of real estate markets brings to light a number of novel considerations. First, global investors are channelling capital into particular property markets—especially those perceived to have strong growth potential and/or those with tax incentives. This is done both by individual and institutional investors. Pension funds, sovereign wealth funds, and real estate investment trusts (REITs) have exerted greater influence in the world's housing markets. Second, financial markets are increasingly globalised, meaning that debt incurred to finance real estate purchase and development is not tied to local interest rates or market forces, *per se*. And third, the integration of markets (e.g. the European Union) has allowed foreign nationals greater access to property, as restrictions have often been eased with regard to ownership and investment. These factors set the stage for an ambitious research project seeking to better understand the real estate value chain in selected cities.

The financialization lens is therefore useful in capturing the contemporary processes acting upon property markets. First of all, it explains why simple supply and demand is insufficient to explain property dynamics. Second, it provides specific pathways of research (Aal-

bers, 2020; Rydin, 2016) that may be fruitful for explaining property dynamics. Third, it represents the *avant-garde* of urban studies research at present. The risk of it being yet another buzzword is outweighed by its ostensible analytical power in explaining the mechanisms by which financial transactions are responsible for shaping the built environment. Thus, given the various international dimensions of property investment, this project will investigate the issue of transformation in real estate markets from a comparative, international perspective. Such an approach is necessary to provide a holistic platform from which to deploy sensible and appropriate policy mechanisms informed by evidence. The financialization approach of this project supports a systematic look at related financial mechanisms, drawing together commercial and residential property value chains, and domestic & international dimensions.

The PI, Dr Sigler and Dr Dörry as close collaborators have contributed substantially to knowledge generation in the domains named above. Moreover, FINCITY can be seen as a continuation of a successful research trajectory that has been established by the DGEO's Urban Studies Group, led by the PI (cf. Hesse 2016; Hesse & Wong, 2020; Wong et al. 2021). This trajectory includes projects funded by the CORE-Programme as follows:

1. SUSTAINLUX (2010-2012);
2. SUSTAIN_GOV (2013-2015);
3. GLOBAL (2016-2019).

These three projects were driven by the common interest in applying a multidisciplinary research approach to study “small-but-global” urbanisation under the conditions of socio-economic changes – processes that are specifically determined by politics and planning. Therefore, the integrated research outline corresponded very well with the urban, economic and planning background of the PI and his team of collaborators. While the trajectory started with studying spatial development in Luxembourg, subsequent projects added cases for international comparison, both as concerns territorial strategies (Zurich), and also with regard to the positionality of small but global services capitals in the system of world cities (Geneva and Singapore). FINCITY will add to that in specific ways, i) by exploring the impact of two recent events (Brexit, COVID-19), ii) by putting a specific emphasis on property and real estate, and iii) by selecting cases that are considered most useful for comparison (Dublin, Frankfurt). It will thus help situating Luxembourg properly in the range of services capitals and financial centres and discuss policy-relevant strategies for the future.

1.3 Hypotheses, Project Objectives and contribution to knowledge development in the research field

Hypotheses

The ‘land and finance’-orientation of this project, set against the twin processes of Brexit and the COVID-19 crisis, leads us to formulate four forward-looking hypotheses aiming to understand how European financial centres may emerge in a radically transformed state.

First, the existing grey literature suggests that there are changes in both the character and composition of urban economies due to the rise of advanced services firms – including both ‘tech giants’ and major banks – and the influence they exert. We therefore hypothesize that the economic geography of European financial centres has been transformed by new technology intensive service activities – both financial and non-financial – since the global financial crisis of 2008. We expect a stratification of firms to occur between Dublin, Frankfurt and Luxembourg based on cities’ respective agglomerations, as well as by economic function. Hence, we expect an uptick in headquartering, data, cybersecurity, and logistics functions while losses may occur in back-office processing and outside of core producer services. On the other hand, however, it is possible that cities will gain more jobs *without* gaining additional residents, and we will test this against the changing jobs-housing balance of each.

Second, we hypothesize that the financial geography of European financial centres has again been transformed by Brexit and COVID, leading each toward greater specialization within its existing areas of competency. In Luxembourg, this is investment fund and asset management, captive insurance, and corporate headquartering. In Dublin: funds management and family offices, given Ireland’s corporate tax structure, and in Frankfurt: invest-

ment banks, given the existing agglomeration and large pool of private and institutional investors in Europe's largest economy. As evidence suggests that the current (COVID) situation has only accelerated trends that were already in motion, we investigate the degree to which the transformation in the economic geography of firms has led to occupational shifts.

Third, we hypothesize that the built environment of each city has been profoundly shaped by the 'new economy' and that the mechanisms underlying this transformation are driven by financialization. In other words, banks, investment funds, insurance companies, and 'big tech' have demanded commercial real estate, which has been developed by global capital. Local governments are influential in sponsoring such developments, but ultimately commercial property development is tied to market conditions and anticipated returns.

Fourth and finally, we hypothesize that financial centres with coordinated and nimble governance structures are the most resilient. In particular, we focus on policy directed toward Brexit and COVID-19 responses. Evidence suggests that each city has strategies in place for attracting global firms. However, the mid-term consequences of the pandemic will demand city governance processes that are more cautious of crowding effects and aim to promote a more balanced pattern of urban and regional development – which we consider a requirement for sustainable development.

Project Objectives

RESEARCH OBJECTIVE 1

The first objective is to understand the new economic geography of European financial centres. The GFC set in motion a series of structural changes leading to even greater focus on professional services and technology intensive sectors. More recently, given the rapid and dramatic changes catalysed by Brexit, we seek to understand to what degree firm relocation has strengthened existing trends and patterns in each city. To date, there has been no comprehensive academic study of the impacts of Brexit on European financial centres. Related to this, we look to understand how remote working, accelerated by COVID-19, has interacted with transformations in European financial centres. More specifically, we look at firm geographies and their changes in the number of employees and occupational composition.

Contact-Intensive Sectors and Teleworkability

(Percent, latest available)

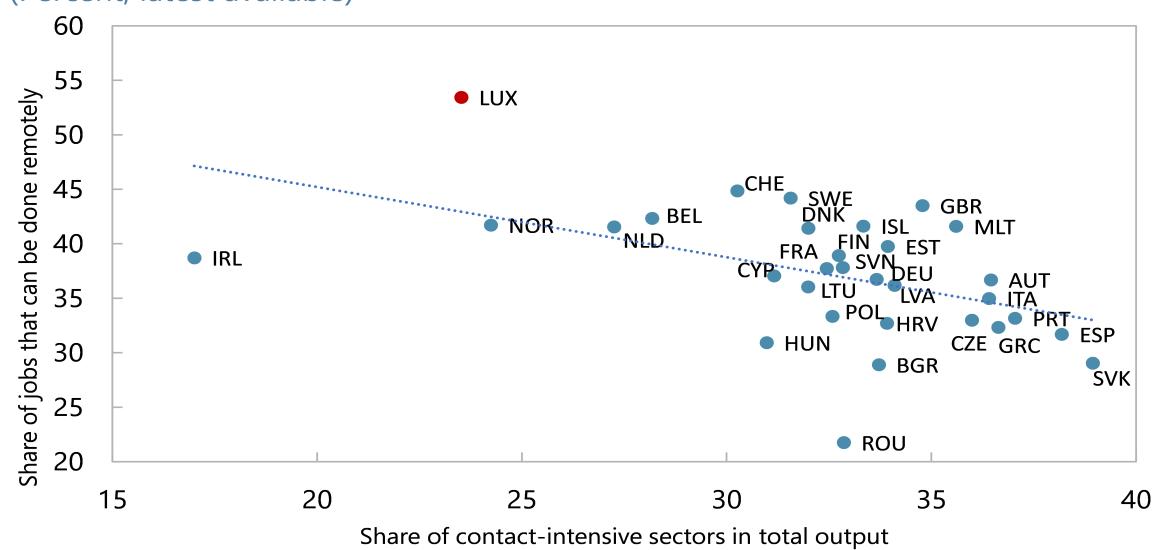


Figure 1: Teleworking by EU Member Country (Source: IMF, 2021)

As Figure 1 demonstrates, Ireland and Luxembourg have the least contact-intensive sectors in Europe. Furthermore, both have a large share of jobs that can be done remotely. The same is likely to be true for Frankfurt. Hence, we can expect economic transformations due to trade-offs between teleworking and office space: the cities may gain jobs but lose residents.

RESEARCH OBJECTIVE 2

The second objective of this project is to apply a financialization approach to real estate markets *from a comparative geographical perspective*, in order to link the analysis of various spatial scales and of the relevant actors involved. Property markets are, generally speaking, highly localised, as labour markets are largely contained within metropolitan boundaries. However, the supply and demand models applied within economics have the critical shortcoming of failing to account for processes (e.g. foreign investment) that are not geographically contained (Almeida et al, 2006; Aalbers 2009). Furthermore, policy is inherently localised, as zoning, development approvals, and land use planning are carried out on a metropolitan scale, though often guided by federal regulations (Chan & Yung, 2004).

The property markets of major metropolitan areas, particularly the new services capitals, are fundamentally globalised, as demand is derived from highly mobile global talent and supply is often dictated by extra-local (both domestic and overseas) investors. Moreover, institutional investors such as trusts or pension funds are global in scope, offering access to global property markets as part of their strategy (Crotty, 2009; Sassen, 2009; Walks & Clifford, 2015). Thus, a global lens on property markets is both timely and urgent (Buckley and Hanieh, 2014), and a more internationally focussed understanding of the processes underlying market mechanisms is necessary.

RESEARCH OBJECTIVE 3

The third objective is to elaborate research findings in a way that shapes future policy, in order to lay the ground for a sustainable spatial development. As urban governance is a complex arrangement between national (in the case of Luxembourg and Dublin), regional (in the case of Frankfurt) and local scales, nuanced recommendations are required to contribute to a more balanced and considered structure, particularly as pressing issues around housing and urban development transcend all three scales (e.g. cross-border relations).

Contribution to Knowledge Development

The sustainability and continued prosperity of European financial centres is contingent upon getting the balance between attracting global firms and addressing local needs. To this end, commercial property is both a means and an end. In other words, commercial real estate supports and enables firm activities. It is also an asset in and of itself—a broad commercial property portfolio makes cities more attractive to global corporations, and is a vector for local wealth creation, in terms of asset ownership, job creation and spillovers from local growth.

The project's contribution to knowledge development stems from its comprehensive and comparative lens on urban development over more than a decade. Policymakers often formulate policies without realising whether new processes and phenomena are linked to local, or global, trends. In this instance we look to bring together what are extremely global processes (e.g. economic restructuring, financialization, pandemic) with what appears to be a local phenomena (e.g. transformation to the built environment) which is guided by highly local actors (e.g. local regulators) and outcomes (e.g. affordability).

1.4 Methods and Approach

This project applies an innovative multi-stage mixed-methods approach to appropriately frame and understand the transition of European financial centres from a comparative context. We propose three interrelated stages of research, which correspond to a number of work packages. Methods are tailored to the requirements of each work package in accordance with the project team's expertise.

A) The first stage focusses on the economic geography of European financial centres in transition in response to Brexit and COVID-19. Specifically, it takes a firm-based view of the how the corporate geography of Dublin, Frankfurt and Luxembourg have changed since the GFC. Each case study is co-coordinated by the team including a relevant expert, including Dr Sabine Dörry (LISER, Luxembourg), Professor Susanne Heeg (Goethe-University of

Frankfurt am Main) and Dr Martin Sokol (Trinity College, Dublin). A variety of commercial databases exist for extracting firm-level data, including Orbis and Oritis. The project team holds historical data from these sources that can be compared against data from 2022-23 to understand how firm activity has changed over time, and which sectors and sub-sectors been been most affected.

Our three case study areas represent three cognate sites to study the transformation of European financial geography. Luxembourg is a logical choice, given the researchers' familiarity with the Grand Duchy, and its ascendant position as a leading financial centre. Dublin and Frankfurt are drawn into the study as parallel locations. This is part because of their easy comparability—both are significantly smaller than the largest European centres (e.g. London, Paris). The research team has extensive experience in each: Luxembourg (Hesse, Dörry, Sigler), Frankfurt (Heeg, Dörry), and Dublin (Sokol, Hesse). All three places have a strong profile of international firms and a long history of finance. Furthermore, each is a major beneficiary of Brexit-related firm activity (EY, 2021), and has enormous demand for property—both commercial and residential.

B) Second, the project team will perform advanced quantitative analysis to understand how Dublin, Frankfurt and Luxembourg have experienced property market changes, and which drivers were responsible. This will involve spatial econometrics including multivariate regression explaining sales prices and volumes, vacancy and occupancy, and commercial and retail investment in the built environment over time. At present, such studies are carried out primarily by commercial property consultancies (JLL, etc), particularly from a comparative angle. We seek to understand the drivers and outcomes of sectoral changes from part (a) vis-a-vis changes to the commercial property market in part (b).

Moving a step beyond explaining the drivers of change in commercial property, we also seek to understand the nexus of actors contributing to financialised investment in it. To ground our understanding of property markets, network analysis will be performed of the property ecosystem of each city. Dr Sigler is an expert in network analysis and will lead this component to understand the links between firms as tenants and investors, and projects at the nexus of investment and occupancy. In this case, we treat actors and projects equally as 'nodes' in the (two-mode) network and the relationships between them as 'ties', or edges. Community detection analysis is performed to identify clusters of related actors and projects, which informs other components of the project. Relevant actors will be drawn from commercial property occupants (e.g. large firms), owners and financiers (e.g. financial actors). Ultimately, network analysis leads to valuable insights regarding how investment and financialisation drive development in particular sectors. We perform this based on data collected on commercial property projects since 2008, segmented into three temporal periods: post-GFC, post-Brexit (vote), and post-COVID. This allows us to approach financialisation as an active process with distinct actors assuming centrality during each period.

C) Third, we analyse the regulatory and legal environment and the governance practices of each city, using data obtained from a series of in-depth stakeholder interviews, focus-group meetings and participant behavior analyses of main events. In this final stage of the research we synthesize (a) and (b) to understand novel balancing strategies of the cities' governance when confronted with the forces of concentration and de-agglomeration simultaneously. In terms of their urbanisation trajectories, we could consider developing alternative geography scenarios within which one would seek to create a new spatial equilibrium between internal territorial organisation and the external demands imposed by multinational institutions and corporations.

The basis for cross-comparison stems from different focus-group meetings: Two held in Luxembourg, and one each in Frankfurt and Dublin. The first of these (in Luxembourg) will focus primarily on an academic audience, aiming to better frame the current tension between Brexit (pushing firms to Luxembourg) and COVID-19 (pulling residents from Luxembourg). Three focus groups will follow the first, with a greater focus on integrating government, institutional (e.g. European Commission, regulators), business (e.g. banks, major 'tech giants', peak bodies), and academic experts around a common themes.

The first meeting will be organized as an academic focus group and will take place in Luxembourg shortly after the project commences (see WP1). The team will meet with international colleagues to refine methodology and share viewpoints about comparative dimensions, project goals and methods. Focus group-meetings 2-4 will take place in each of the case-study cities during field work, when interim findings of secondary research and interviews will be presented to a mixed audience. Participants will come from both the international research community and from local practitioners' institutions and networks. Results will be presented at a fifth focus-group meeting which will again be held in Luxembourg. It will serve as a platform for deliberation and dissemination of our findings to the international research community and to reflected practitioners that are situated at the science-policy interface.

1.5 Ethical Considerations

The PI has extensive experience with qualitative methods in social science and is familiar with the ethical implications of the research. The project will respect all relevant levels of regulation concerning the lawfulness of processing personal data, respecting the rights of research participants, maintaining confidentiality, security, scientific integrity, upholding informed consent, and thorough consideration of possible risk or harm. The Data Protection Officer (DPO) of the UL will advise the team regarding data protection and keep us informed of and updated on regulation regarding treatment of personal data and of any changes on the national and international level.

FINCITY will operate in full compliance with existing national legislation and the European Union's directives and rules on ethical issues relevant to the project. It will respect the UL's Policy on Ethics in Research. Before the project starts, ethics approval will be requested from the UL's Ethics Review Panel. With regards to the treatment and storage of personal data, the project will adhere to the European General Data Protection Regulation (GDPR) and its transposition into national law, the Luxembourg Data Protection Act of 1 August 2018.

Our methods include the collection and assessment of secondary sources and data derived from conversational interviews of research participants. Cadastral data will be sourced from publicly available records, and no personally identifiable information will be made available or reproduced. Property records will be spatially 'aggregated up' meaning that any trace of individual ownership or residence will be eliminated. The project thus involves human participants. Protecting identities is our priority, as some interviewees may feel a sense of vulnerability when discussing sensitive topics. To minimize risk, the following rules apply:

- In compliance with the GDPR, personal data (names of people that are collected in the first phases of the project for the purposes of scoping out potential interview partners) will be registered and securely stored via the ULUS (University of Luxembourg Unified Service desk), while all other project data will be separately stored in project folders on separate servers used by the project team.
- The list of potential interview partners will not be shared with anyone beyond the research team. Once interview partners are contacted and interviewed, conversational data collected from them will be depersonalised. Project data from individual people (i.e. interview transcripts) will be anonymised for further use in the project. A pseudonym key list will be kept securely locked in the premises of the UL.
- Access to all project data, including data temporarily stored on mobile devices (e.g. project notebook used during field work), will be password protected and only project collaborators will be granted login rights.
- Interviews are voluntary and will be conducted solely with individuals > 18 years old. interviewees will be accessed through Letters of Informed Consent in their native language. The Letters will detail (a) the names and contacts of all members of the research team; (b) the names of funding and supporting agencies; (c) the background, objective and duration of the project; (d) why the interview will be recorded; (e) how the interview data will be stored and protected; (f) the expected use of the research results; (g) how to exercise the right to withdraw from the study; (h) FINCITY's terms of confidentiality.

- Interviews will be recorded and transcribed, audio and textual data will be stored in locked cabinets, to which only the research team will have access. This cabinet further stands behind locked doors of offices at the DGEO of the FHSE, UL. Data collected from interviewees will not be revealed to anyone beyond the research team.
- The majority of photos taken within the context of the research project will be pictures of buildings, objects, and places. Should a photo be taken of a person, permission to publish the photo will first be sought via written authorization.
- As for publications, the identity of research participants / their institutions is removed and remains unidentifiable. The project ensures confidentiality, protecting the rights and interests of the interviewee, by acting according to professional researchers.
- Research undertaken in the context of FINCITY does not involve children, human bio-specimens or animals.

2. Project Plan

2.1 Brief description of Project Plan

FINCITY is a three-year research project, led by the PI in collaboration with a contracting partner from LISER and a collaborator as guest professor and member of DGEO. It consists of three major project stages, including the main topics of the project: Geographies of the financial centres; Real-estate markets & property development; Policy, planning & governmentality. These three stages are the basis for the research practice that is divided in eight work-packages (WPs). FINCITY will employ a six-person team, comprising PI and contracting partner, the collaborating professor, a post-doc, a PhD-student and a Master's student. The post-doc will be hired full-time on the project. The Master's student will assist in the project for 10 hours/week on average during WPs 2-7. The project will require no funding for the PI's time spent on the project. PI Prof Hesse a full professor of urban studies at DGEO since 2008 and has a proven track record in leading major research projects, among them three projects funded by the FNR-CORE scheme. In addition, the UL-team will be in part led by Dr Thomas Sigler, a Guest Professor of Geography who has been affiliated with DGEO since 2017 and will continue on a guest professorship in order to co-supervise project staff as above.

The project plan is set up to 1) ensure the training/orientation of staff; 2) provide forums of engagement for the study network (focus groups) and the researchers' presence at international conferences; 3) safeguard a structured outline of the research methodology; 4) prioritize contributions to state-of-the-art debates in urban studies literature (see below); and 5) foster information exchange with society across a specific science-policy interface (below).

Focus groups taking place in all three case-study locations provide the opportunity to bring together international urban studies scholars from abroad with local stakeholders, which is of particular interest and considered inspiring for either side.

Bibliography

Aalbers, M. B. (2020). Financial geography III: The financialization of the city. *Progress in Human Geography*, 44(3), 595-607.

Aalbers, M.B. (2009). The globalization and Europeanization of mortgage markets. *International Journal of Urban and Regional Research*, 33(2), 389-410.

Almeida, H., Campello, M., & Liu, C. (2006). The financial accelerator: evidence from international housing markets. *Review of Finance*, 10(3), 321-352.

Belzunegui-Eraso, A., & Erro-Garcés, A. (2020). Teleworking in the Context of the Covid-19 Crisis. *Sustainability*, 12(9), 3662.

Bloomberg & Vaghella, V. (2020). Banks are moving \$1.6 trillion in assets out of the U.K. ahead of Brexit cutoff. *Fortune*. Accessed 11 March 2021 from <https://fortune.com/2020/10/01/banks-trillions-jobs-brexit-move/>.

Buckley, M., & Hanieh, A. (2014). Diversification by Urbanization: Tracing the Property-Finance Nexus in Dubai and the Gulf. *International Journal of Urban and Regional Research*, 38(1), 155-175.

Chan, E. H., & Yung, E. H. (2004). Is the development control legal framework conducive to a sustainable dense urban development in Hong Kong?. *Habitat International*, 28(3), 409-426.

Christophers, B. (2016). For real: land as capital and commodity. *Transactions of the Institute of British Geographers*, 41(2), 134-48.

Cox, W., & Pavletich, H. (2010). 6th Annual Demographia International Housing Affordability Survey. *with an introduction by T. Recsei*, available at: <http://www.demographia.com/>

Crotty, J. (2009). Structural causes of the global financial crisis: a critical assessment of the 'new financial architecture'. *Cambridge Journal of Economics*, 33(4), 563-580.

Dörry, S. (2017). The geo-politics of Brexit, the euro and the City of London. *Geoforum*, 85, 1-4.

Dörry, S. (2015). Strategic nodes in investment fund global production networks: The example of the financial centre Luxembourg. *Journal of Economic Geography*, 15(4), 797-814.

Dörry, S. (2011). Financialised office markets and the cities. The example of Frankfurt am Main. LISER Working Paper, No. 51. Luxembourg.

Dörry, S., & Heeg, S. (2009). Intermediäre und Standards in der Immobilienwirtschaft. Zum Problem der Transparenz in Büromärkten von Finanzzentren. *Zeitschrift für Wirtschaftsgeographie*, 53, 172-190.

Engelen, E., & Glasmacher, A. (2013). Multiple financial modernities. International financial centres, urban boosters and the internet as the site of negotiations. *Regional Studies*, 47(6), 850-867.

EY (2021). *EY Financial Services Brexit Tracker*. Accessed 18 March from https://www.ey.com/en_uk/news/2021/03/ey-financial-services-brexit-tracker--uk-financial-services-firms-continue-to-incrementally-move-assets-and-relocate-jobs-to-the-eu-but-changes-since-the-brexit-deal-are-small.

Fana, M., Tolan, S., Torrejón, S., Brancati, C. U., & Fernández-Macías, E. (2020). *The COVID confinement measures and EU labour markets*. Luxembourg: Publications Office of the European Union.

Fields, D., & Uffer, S. (2014). The financialization of rental housing: A comparative analysis of New York City and Berlin. *Urban Studies*, 53(7), 1486-1502. DOI: 0042098014543704.

Glaeser, E. L., Gyourko, J., & Saiz, A. (2008). Housing supply and housing bubbles. *Journal of urban Economics*, 64(2), 198-217.

Glaeser, E. L., Gyourko, J., & Saks, R. (2005). Why is Manhattan so expensive? Regulation and the rise in housing prices. *The Journal of Law and Economics*, 48(2), 331-369.

Guironnet, A., Attuyer, K., & Halbert, L. (2016). Building cities on financial assets: The financialization of property markets and its implications for city governments in the Paris city-region. *Urban Studies*, 53(7), 1442-1464.

Guyott, K. & Sawhill, I. (2020). *Telecommuting will likely continue long after the pandemic*. Brookings Institute Report. <https://www.brookings.edu/blog/up-front/2020/04/06/telecommuting-will-likely-continue-long-after-the-pandemic/>. Accessed 11 March 2021

Henry, N., & Smith, A. (2021). Europe and/or the UK: Post-Brexit urban and regional development futures—A special issue.

Hesse, M. (2016). On Borrowed Size, Flawed Urbanization and Emerging Enclave Spaces: The Exceptional Urbanism of Luxembourg, Luxembourg. European Urban and Regional Studies, 23(4), 612-627. DOI: 10.1177/0969776414528723.

Hesse, M. & C. Wong (2020). Cities seen through a relational lens. Exploring niche-economic strategies and related urban development trajectories of Geneva (Switzerland), Luxembourg & Singapore. *Geographische Zeitschrift (GZ)*, 108(2), 74-98. DOI: 10.25162/gz-2019-0020

Hesse, M., & Rafferty, M. (2020). Relational Cities Disrupted: Reflections on the Particular Geographies of COVID-19 For Small But Global Urbanisation in Dublin, Ireland, and Luxembourg City, Luxembourg. *Tijdschrift voor economische en sociale geografie (TESG)*, 111(3), 451-464.

International Monetary Fund (IMF) (2021). Mission Concluding Statement. <https://www.imf.org/en/News/Articles/2021/03/12/mcs031521-luxembourg-staff-concluding-statement-of-the-2021-article-iv-mission> Accessed 17 March 2021.

Jones, H. (2021). Brexodus from City of London to EU Slows. Reuters Business News. Accessed 11 March from <https://www.reuters.com/article/britain-eu-finance/brexodus-from-city-of-london-to-the-eu-slows-idINL5N2KZ38X>

Joseph-Grant, H. (2017). Brexit: Dublin set to gain big time as banks relocate from UK, Will fintech be a winner or loser? <https://irishtechnews.ie/brexit-dublin-is-set-to-gain-big-time-as-banks-relocate-from-uk-will-fintech-be-a-winner-or-loser/>. Accessed 18 March 2021

Langley, P. (2006). Securitising suburbia: the transformation of Anglo-American mortgage finance. *Competition & Change*, 10(3), 283-299.

Lavery, S., McDaniel, S., & Schmid, D. (2018). New geographies of European financial competition? Frankfurt, Paris and the political economy of Brexit. *Geoforum*, 94, 72-81.

Lizieri, C. (2009). *Towers of Capital: Office Markets & International Financial Services*. London: Wiley-Blackwell.

Logan, J. R. & Molotch, H. L. (1987/2007). *Urban Fortunes: The Political Economy of Place*. Berkeley and Los Angeles, CA: University of California Press.

Martinus, K., & Sigler, T. J. (2018). Global city clusters: Theorizing spatial and non-spatial proximity in inter-urban firm networks. *Regional Studies*, 52(8), 1041-1052.

McCarthy, K. & Smith, D. (2020). Urban to Suburban: The Growing Shift to Suburbs as COVID-19 changes the way people live. The Edge Magazine. Cushman and Wakefield. <https://www.cushmanwakefield.com/en/insights/covid-19/the-edge-volume-4/urban-to-suburban-the-growing-shift-to-the-suburbs-as-covid-19-changes-the-way-people-live> Accessed 11 March 2020.

PwC (2021). Emerging Trends in Real Estate: An Uncertain Aspect. <https://www.pwc.com/gx/en/industries/financial-services/asset-management/emerging-trends-real-estate/europe-2021.html>. Accessed 11 March 2020

Rydin, Y. (2016). Sustainability and the financialisation of commercial property: Making prime and non-prime markets. *Environment and Planning D: Society and Space*, 34(4), 745-762.

Sassen, S. (2009). When local housing becomes an electronic instrument: the global circulation of mortgages—a research note. *International Journal of Urban and Regional Research*, 33(2), 411-426.

Sigler, T., Martinus, K., Iacopini, I., & Derudder, B. (2019). The role of tax havens and offshore financial centres in shaping corporate geographies: an industry sector perspective. *Regional Studies*.

Sigler, T. J. (2016). After the 'World City' has Globalised: Four Agendas Towards a More Nuanced Framework for Global Urban Research. *Geography Compass*, 10(9), 389-398.

Sigler, T. J. (2014). Monaco with bananas, a tropical Manhattan, or a Singapore for Central America? Explaining rapid urban growth in Panama City, Panama. *Singapore Journal of Tropical Geography*, 35(2), 261-278.

Sigler, T. J. (2013). Relational cities: Doha, Panama City, and Dubai as 21st century entrepôts. *Urban Geography*, 34(5), 612-633.

Sigler, T., Searle, G., Martinus, K., & Tonts, M. (2016). Metropolitan land-use patterns by economic function: a spatial analysis of firm headquarters and branch office locations in Australian cities. *Urban Geography*, 37(3), 416-435.

Sigler, T., & Wachsmuth, D. (2020). New directions in transnational gentrification: Tourism-led, state-led and lifestyle-led urban transformations. *Urban Studies*, 57(15), 3190-3201.

Sigler, T., & Wachsmuth, D. (2016). Transnational gentrification: Globalization and neighbourhood change in Panama's Casco Antiguo. *Urban Studies*, 53(4), 705-722.

Sokol, M. (2007). Space of flows, uneven regional development, and the geography of financial services in Ireland. *Growth and Change*, 38(2), 224-259.

Sokol, M., Van Egeraat, C., & Williams, B. (2008). Revisiting the 'informational city': space of flows, polycentricity and the geography of knowledge-intensive business services in the emerging global city-region of Dublin. *Regional Studies*, 42(8), 1133-1146.

Stafford, P. (2020). Luxembourg amongst biggest winners from Brexit. *The Financial Times*. Accessed 11 March 2021 from <https://www.ft.com/content/f6d3b979-89c9-4efa-9cce-996b47f08880>

Walks, A., & Clifford, B. (2015). The political economy of mortgage securitization and the neoliberalization of housing policy in Canada. *Environment and Planning A*, 47(8), 1624-1642.

Wong, C., Hesse, M., & Sigler, T. J. (2021). City-states in relational urbanization: the case of Luxembourg and Singapore. *Urban Geography*, 1-22. DOI: [10.1080/02723638.2021.1878331](https://doi.org/10.1080/02723638.2021.1878331)