Financial centre primacy around the world: International analysis based on mergers and acquisitions data

Abstract

We analyse mergers and acquisitions (M&As) in the financial sector between 2000-17 to explore the domestic hierarchies of financial centres. Across a sample of 16 countries, we reveal different levels of financial centre primacy and explain how these levels change over time. These findings are analysed through a theoretical framework which integrates the literatures on urban primacy, global and world cities (GaWCs) and comparative political economy (CPE). Situating our findings at the intersection of these literatures allows us to remain sensitive to geography, history and institutions in our analysis of financial centre primacy. Overall, our results show uneven levels of financial centre primacy around the world and that primate financial centres do not universally increase their dominance over time.

Keywords: Financial centres; mergers and acquisitions; urban primacy; global and world cities; comparative political economy.

JEL: (G00), (G34)

Introduction

As part of exploring the relational ties which bind financial centres together, geographers have become increasingly concerned with examining the hierarchical order of international financial centres (Grote, 2008). Pertinent studies focus on different forms of spatial organisation, specialization and power geometries, which emerge as financial centres become more closely interconnected as part of global financial networks (Coe et al., 2014). While this research is global in scope, it can often be forgotten that “only a handful of centres perform a truly global role” (Cassis, 2018, 2), with much less attention being devoted to examining the domestic hierarchies, which shape relationships between financial centres within countries. Acknowledging that even the most global financial centres are inescapably nested within their home countries, considering the variegated political economic, institutional, and historical conditions which shape these cities becomes integral to understanding the relational geographies of financial centres (Hall, 2017; Verdier, 2002).

Operating under the global leaders, or “capitals of capital” (Cassis, 2010), are hundreds of smaller financial centres which have emerged as a result of financial activities becoming increasingly unbundled and geographically distributed through globalization and the pursuit of comparative advantage. These secondary financial centres cater to regional markets and provide different levels of complementarity, cooperation, and competition with primate centres (Cassis, 2018). However, with less attention being devoted to domestic hierarchies, several key questions remain unanswered. How dominant are primate centres in their home countries? Does inertia characterize the landscape of domestic hierarchies, as argued by Cassis (2018)? Should we “expect slow change” when it comes to how these hierarchies evolve over time (Wójcik & Macdonald-Korth, 2015, 1039)?

The analysis of domestic and cross-border mergers and acquisitions (M&As) provides an opportunity to answer these questions by examining spatial concentration in the financial sector. M&As play a key role in the development of financial centres (Contel & Wójcik, 2019) as all deals involve some degree of power shifting from financial centres hosting the headquarters of target companies to those hosting the headquarters of acquiring companies (Zademach & Rodríguez-Pose, 2009). The relative functions of financial centres change as part of this process, as firms access new knowledge, acquire new assets, and establish new inter-city connections. Rather than relying on a proxy, M&As therefore allow us to observe the actual firm-based flows between cities, which play a central role in the formation and evolution of financial networks (Coe et al., 2014; Taylor and Derudder, 2016).

The principal aim of this article is to explore uneven levels of financial centre primacy around the world. Drawing from a sample of 16 countries most active in financial sector M&As, we reveal the primate, second-place, and other centres in each domestic hierarchy, and compare different levels of unipolarity, bipolarity and multipolarity of financial systems across the sample. While the core focus is on exploring financial centre primacy through M&A activity, we also aim to show how the domestic hierarchies of financial centres have changed over time. We examine whether primate financial centres have become increasingly dominant in their countries and what impact the 2008 financial crisis has had on trends of spatial concentration, dispersion and continuity.

These findings are analysed through a hybrid theoretical framework which combines the ontological framings and empirical insights from urban primacy, global and world cities (GaWCs), and comparative political economy (CPE) literatures. While all three of these literatures provide observations into the landscape of financial centres, the methods and data used to generate these insights vary greatly from study to study. M&A data therefore provide a standardized measure to not only generate fresh empirical findings but also harmonize, scrutinize and compare the different explanations of financial centre change put forward by these three literatures.

Our results reveal high levels of primacy in some countries (Japan, Malaysia, Korea, Australia, South Africa, Brazil, Canada, Russia, France, UK) and low levels in others (China, India, Germany, Italy, Spain, US), but throughout our sample the picture is mixed. Far from growing primacy being an inevitability, and in contrast to the high degree of "spatial stickiness" of financial power at the international level (Faulconbridge et al., 2007, 281), we identify several forces likely to be shaping uneven patterns of concentration and dispersion. These include but are not limited to political instability in primate centres (on display e.g. in China); the impacts of the financial crisis (Italy, France); the growing importance of technology (US); and specialization in a particular subset of financial services (Germany). In terms of how these domestic hierarchies evolve, our results reveal both change and inertia. Despite what we might assume based on a winner-takes-all idea of path dependency in finance (Porteous, 1999), where a financial centre that establishes a small advantage within a country tends to grow this advantage over time, there is no universal pattern of growing dominance of primate financial centres. Overall, our comparative, historical, and institutional analysis of M&A data provides an empirical contribution, through revealing an uneven landscape of financial centre primacy, and a theoretical and conceptual contribution, whereby our hybrid framework enables us to capture the intersecting global forces and local conditions which shape the evolution of the domestic hierarchies of financial centres.

The rest of this article is structured as follows. Section two provides a critical appraisal of the literatures on urban primacy, GaWCs and CPE to develop our theoretical framework. Section 3 outlines the research design and methodology, providing a detailed explanation of the use of M&As as an analytical tool. Section 4 addresses the first research aim by identifying the levels of financial centre primacy and the domestic hierarchies of financial centres. Section 5 addresses the second research aim by explaining how these hierarchies have evolved over time. Conclusions are reached in section 6, which underscore the interplay of change and inertia in the domestic hierarchies of financial centres.

Theorising financial centre primacy

Economic geographers have a longstanding interest in financial centres, developing explanations of what financial centres are, why they exist and how they develop (Grote, 2008; Pan et al., 2020; Wójcik et al., 2018). Reflecting the relational turn in economic geography, researchers are interested in understanding how hierarchical structures emerge and evolve as financial centres compete, collaborate, and specialize (Faulconbridge et al., 2007). Most of these studies have been situated at the international scale, with a focus on understanding the roles and functions of financial centres as part of global financial networks (Coe et al., 2014) and world city networks (Derudder et al., 2012). However, very few studies have investigated the domestic hierarchies of financial centres, with none having done so through the combined lenses of urban primacy, GaWCs and CPE.

Urban primacy refers to the spatial concentration of a country's population within its largest city. Conceived by Jefferson (1939), primate cities were originally seen as those with the highest population in their country, however this has since been extended to consider the emergence of economic and political primacy, as researchers have deployed a variety of measures to investigate the uneven concentration of power within national urban hierarchies (Galiani and Kim, 2008). Economic geographers' interest in urban primacy speaks to wider issues concerning the spatial structures of cities and the economic and social outcomes attributed to uneven power geometries (Short and Pinet-Peralta, 2009).

Beyond measuring urban primacy and comparing differences between countries, researchers are increasingly concerned with explaining its causality, with most studies distinguishing between economic and political factors (Galiani and Kim, 2008). Studies investigating the economic factors behind urban primacy reveal a complex picture (Ioannou and Wójcik, 2021). Ades and Glaeser (1995) found a negative relationship between trade openness and urban primacy, however their findings highlighted that the relationship works reciprocally. Brülhart (2011) underscores this indeterminacy, with trade liberalization resulting in a mixture of both growing spatial concentration and dispersion across a range of countries. Aside from trade, Moomaw and Alwosabi (2004) found that countries with larger economies and higher GDP per capita have lower levels of primacy.

In the realm of political factors, Ades and Glaeser (1995) demonstrate that urban primacy is positively associated with centralized political power, arguing that spatial proximity to power increases levels of urban concentration. This is important to our analysis when considering co-location of the capital city of a country with its leading financial centre. In one of the most comprehensive studies, Davis and Henderson (2003) show that urban primacy is negatively associated with higher levels of democracy and ethnolinguistic fractionalization, with federal and centrally planned states also exhibiting lower rates of urban primacy. These findings are supported by Anthony (2014), highlighting that both democratization and a communist history reduce urban primacy through more regional representation.

Very few studies have explicitly analysed the relationships between finance and urban primacy. While it has been shown that financial liberalization and the concentration of capital markets can increase urban primacy (Sjöberg and Sjöholm, 2004), very little is known on how the size, structure and nature of financial activity shapes patterns of urban, economic and political concentration. Addressing this deficiency, Ioannou and Wójcik (2021) analyse data from 131 countries in 2000-14, revealing a positive relationship between urban primacy and the size of financial activity in a country. Primate cities tend to be the leading financial centres in their countries, which accelerates concentration through agglomeration economies enhanced with greater access to capital and closer relationships between lenders and borrowers (*Ibid*).

While urban and financial centre primacy are not entirely synonymous, findings from the urban primacy literature can help us identify factors which shape the distribution of financial centres (Cassis, 2010). However, our analysis, based on a relatively small sample of countries, emphasizes geographical and historical factors to account for the place-based and contingent nature of M&As. This is where GaWCs and CPE can provide analytical tools and empirical insights to embed our analysis within specific spatiotemporal contexts.

GaWCs[1] advances a relational geography which focuses on analysing the internal and external relations shaping the economic, social and urban characteristics of world cities (Derudder et al., 2012). Extending and enriching the work of Sassen (1991), GaWCs highlights the role of advanced producer firms and their cross-border activities in establishing interlocking networks of cities (Derudder and Taylor, 2005). These cities and networks are analysed in terms of their varied functions, roles and positions as part of wider processes of globalization.

While GaWCs is global in scope, its general approach helps us conceptualise the formation and evolution of financial centre hierarchies at the subnational scale. This largely depends on acknowledging the network (economy), nodal (cities) and sub-nodal (firms) levels of interactions, where the activities of transnational firms reshape the functions and attributes of cities (Derudder and Taylor, 2005). In the context of finance, this requires remaining sensitive to the role of financial and advanced business services (FABS) in bridging the connections between different cities through M&As (Haberly and Wójcik, 2022).

[1] While we use the same acronym as the globalization and world cities research network, we intend it to mean a broad set of literature on global cities and/or world cities, whether associated with GaWC as a network or not.

CPE is principally concerned with comparing political economic structures across advanced capitalist economies (Baccaro and Pontusson, 2018). Out of its many strands, most relevant to our analysis is the Varieties of Capitalism (VoC) framework focused on analysing the typologies of global capitalism (Hall & Soskice, 2001). Central to VoC is the distinction between liberal market economies (LMEs) and coordinated market economies (CMEs). LMEs are characterised by the core principles of neoliberalism and financialization, with institutions aligned to prioritise open markets, free trade, shareholder primacy and short-term profit maximisation (Dixon, 2011). In contrast, CMEs are characterised by an interventionist state, dense regulatory frameworks, stakeholder modes of governance and patient capital, which supports long-term planning horizons and organic economic growth (Hall and Soskice, 2001; Peck & Theodore, 2007).

Remaining sensitive to the critiques of VoC (Brenner et al., 2010), our intention is to draw from the empirical findings of VoC research, and the underlying rationales of CPE, to demonstrate how political economic conditions can play causal roles in the uneven geographies of financial centre primacy. CPE shows that institutional and regulatory frameworks play important roles in shaping spatial concentration in the financial sector (Engelen & Grote, 2009). Several empirical studies have demonstrated how country-specific conditions influence the spatial manifestations of financial activity at national, regional and local levels (Engelen and Grote, 2009; Grote, 2008; Wójcik and Macdonald-Korth, 2015).

Most relevant here is Contel and Wójcik's (2019) use of M&A data to explain the spatial concentration of Brazil's financial centre hierarchy, showing M&As to be a key mechanism through which São Paulo consolidates its role as Brazil's primate financial centre (Contel & Wójcik, 2019). Aside from this study, little to no research has used M&As to analyse financial centres and their hierarchical structures. M&As allow financial firms to enter new markets, consolidate corporate control, capture financial synergies and access new knowledge and technology (Focarelli & Pozzolo, 2008). This can lead to changes in both the acquirer and target city in terms of where physical assets are located, where decisions are made, and which functions they perform as part of wider financial networks (Coe et al., 2014). In this way, M&As provide an insightful way of exploring financial centre primacy and the spatial concentration of decision-making power in the financial sector (Zademach & Rodríguez-Pose, 2009).

Urban primacy literature in combination with GaWCs and CPE provide the foundations to explore financial centre primacy. Combining the ontological framings and empirical insights of these literatures allows us to meaningfully interpret M&A data while remaining sensitive to political economic, institutional, and cultural conditions. In saying this there are several conceptual limitations attributed to primacy which need to be addressed.

First, isolating causation in explanations of primacy is inherently challenging (Mutlu, 1989). This is because there are no universal forces driving primacy (Short and Pinet-Peralta, 2009, 1246). With so many combinatory processes co-constituting different levels of financial centre primacy around the world, it is difficult to accurately ascertain how and why primacy emerges and evolves in the way it does. Given these difficulties and building on the work of Short and Pinet-Peralta (2009, 1254), our explanations of financial centre primacy should be viewed as suggestive rather than conclusive.

Second, there are questions around geographical scale in terms of measuring and interpreting primacy. With an implicit focus on cities and urban areas, critics argue that primacy research blindly falls into methodological nationalism by ignoring the multiscalar roles and interactions of cities which extend beyond national boundaries (Parnreiter, 2019). In the case of financial centre primacy, we must therefore recognise the different financial functions of cities which are simultaneously local and global (Lavery et al., 2019). Our dual global (M&As) and national (primacy) approach to measuring primacy remains sensitive to this by unravelling the subnational relationships between cities in domestic hierarchies, while also integrating cross-border M&A activity to highlight their international interactions.

Finally and building on these two concerns it could be argued that primacy is a chaotic concept. This is principally because there is no universal definition of primacy (Frick and Rodríguez-Pose, 2018) and no objective or standardized criteria exist to determine what constitutes significantly high or low levels of primacy (Moomaw and Alwosabi, 2004). While this could be deemed as problematic, this level of openness does provide the flexibility in applying primacy in new and exciting ways. Our definition and application of financial centre primacy through M&A data, which is outlined in the Research Design section, presents a novel way of analysing the relational geographies of financial centres across scales, while also remaining sensitive to these conceptual shortcomings.

In terms of our findings we expect to see a mixture of results, with high levels of primacy in some countries and low levels in others. This is because centripetal and centrifugal forces combine to unevenly shape the development and spatial concentration of financial centres (Gehrig, 2000). Centripetal forces accelerate spatial concentration and emerge through agglomeration economies, proximity to clients, labour market thickness, and tacit knowledge (Contel & Wójcik, 2019). Centrifugal forces accelerate spatial fragmentation and result from information asymmetries and diseconomies of scale and agglomeration (McCann, 2001). Considering our hybrid theoretical framework, all three sets of literature suggest different yet intersecting centripetal and centrifugal forces which influence financial centre development. These forces are outlined in Table 1 and form the basis of suggestive explanations threaded throughout our analysis sections.

[INSERT TABLE 1 HERE]

Measuring and explaining primacy is therefore challenging but doing so in terms of changes over time is even more so. Given this complexity we put forward a simple hypothesis that even the financial crisis of 2008-09 will have had little impact on levels of financial centre primacy across our sample. This reflects insights generated from longitudinal research from GaWCs and CPE which testify to a high degree of inertia in the landscape of financial centres (Wójcik & Macdonald-Korth, 2015). Put simply, we expect to see slow change in the evolution of financial centre primacy and contrary to a winner-takes-all idea of path dependency in finance (Porteous, 1999), we do not expect to see any universal trends in terms of primate centres inevitably increasing their dominance over time.

Research Design

We analyse the domestic hierarchies of financial centres in 16 countries. These countries were selected on the basis of being most active in M&A deals, each having a minimum of 100 transactions throughout the period. This sample covers developed and emerging markets across 6 continents, which helps to alleviate a tendency in geographical research to focus on Western financial centres (Gal, 2015).

We sample all domestic and cross-border M&As valued at or above $10m[2] (in 2010 prices) among financial services and insurance firms (North American Industry Classification System 52) during the period 2000-17. This classification includes banks, brokers, asset managers and insurance firms but excludes real estate. We collected M&A data from Dealogic, a leading

[2] We only include deals valued over $10m to make the task of collecting location data for acquirers and targets, most of which had to be hand collected from corporate websites, feasible.

financial markets platform and proprietary source of M&A data. We complement this data with addresses of headquarters of acquirers and targets sourced from the Bureau van Dijk's Orbis database and corporate websites to assign companies to cities. Due to data constraints and the time-consuming process of manual geocoding our sample misses smaller deals valued under US$10m.

We calculate financial centre primacy using data on M&A values. We develop a % score for every financial centre in each country based on averaging their shares of domestic and cross-border acquisition and target values. Averaging these four measures allows us to develop a multidimensional definition of primacy which means that we are able to identify the primate centre in each country, defined as the city with the highest % score, but also explore the relational dynamics of each domestic hierarchy and analyse the scale of unipolarity, bipolarity and multipolarity. In contrast to some of the earliest and most widely cited definitions of urban primacy which were calculated through population density and only focused on the ratios and relationships between the largest and second, third or fourth largest cities (Jefferson, 1939; Linsky, 1965; Mehta, 1964), our definition is based on the desire to show the relative distribution of all M&A activity across the entire country (Frick and Rodríguez-Pose, 2018).

Importantly, there is no fixed or best way of measuring urban or financial centre primacy (Mutlu, 1989). Our definition of primacy through M&A value reflects our principal interests in the shifting geographies of decision-making power and uneven spatial concentration of corporate control in global financial networks (Haberly and Wójcik, 2022). While we measure primacy based on deal values, in some cases we also analyse deal volume (e.g. Figure 2) to complement the analysis and develop a fuller geographical picture. Differences between the number and value of deals are inevitable but the stories these variables tell are consistent. While other types of data could be used to measure financial centre primacy (e.g., employment, revenue, value added) M&A data is standardized, comparable across and within countries, and its transactional character reflects the relational interactions of cities across spatial scales (Short and Pinet-Peralta, 2009). In this sense we acknowledge that M&As are only one of many types of transactions that take place between financial centres (Wójcik et al., 2018) but nevertheless present a novel way of analysing the relational spatiality of financial centres (Faulconbridge et al., 2007).

Our analysis covers 2000-17 but uses the 2008-09 financial crisis - by far the most important financial event during the period - as a midway point to explore its geographically uneven impacts on trends of spatial concentration and dispersion in the financial sector (Derudder et al., 2011). As shown by Figure 1, of a total 13,160 deals, 7,803 were domestic (with a total value of $3,345bn) and 5,357 cross-border ($2,226bn), giving an average deal value of over $400m in both domestic and cross-border deals. The number of deals is almost identical between the two periods (6,535 and 6,625), though the number of domestic deals increased by over 10% (from 3,689 to 4,114) and cross-border deals declined by over 10% (from 2,846 to 2,511). The deal value halved in both domestic and cross-border markets, resulting in much smaller average deals, down from approx. $550m in 2000-8 to $285m in 2009-17.

[INSERT FIGURE 1 HERE]

Domestic hierarchies and financial centre primacy

We begin by analysing primate financial centres and their share of domestic and cross-border M&A deal value and volume. This is shown in Figure 2 and supported by additional data in Appendix A. Interestingly, in some cases our primate financial centres vary from GFCI rankings[3]. For Figure 2, the greater the dark area in the middle of each graph, the more dominant the position of the primate centre in a given country. The axes have also been arranged to show how dominant primate centres are across different types of M&A transactions, with greater coverage in the top right of each graph suggesting more prominence in domestic acquisitions, in the bottom right in domestic targets, in the bottom left in cross-border targets, and in the top left in cross-border acquisitions.

[INSERT FIGURE 2 HERE]

Figure 2 reveals unevenness in financial centre primacy. When considering both deal value and volume the centres with the highest levels of primacy are Kuala Lumpur, Paris, Seoul and Tokyo. Primacy is the highest in Malaysia reflecting the relatively small size of its financial sector along with the position of Kuala Lumpur as a leading international centre in Islamic banking and finance (Poon et al., 2017). The primacy of Paris reflects its long-term development as one the world's leading international financial centres, combined with a high degree of centralization of the French financial system (Cassis & Bussière, 2005). Seoul is dominant across all measures, which is related to state centralization and the historical role of government in banking and finance (Choi, 2017). High levels of primacy in Tokyo, which is striking given the size of Japan's financial sector, is partly a result of it being Asia's leading centre in investment banking (Wójcik et al., 2019). These primate centres also have the largest

[3] In some cases our primate financial centres are different to the GFCI. This is because the latter are based on a range of qualitative and quantitative metrics. Four discrepancies emerge. Whereas, based on M&A deals, we identify Beijing, Mumbai, Moscow and Toronto as primate centres in their countries, the GFCI ranks them as second most competitive centres in their countries, after Hong Kong, New Delhi, St Petersburg and Montreal respectively.

share of intra-city deals. Malaysia and South Korea provide the most pertinent examples, with over 80% of domestic deals occurring within their primate centres.

Following these cases we find a group of centres with high levels of primacy that do not completely dominate their domestic hierarchies. These include São Paulo, Johannesburg, Moscow, Toronto, Sydney and London. Financial sectors of their host economies are large enough to include other centres with sizeable shares of activity. In most cases there is a strong second-place centre, such as Cape Town in South Africa, St Petersburg in Russia, Melbourne in Australia and Montreal in Canada. Most notable here however is London. While the UK is often described as the classic case of a spatially concentrated financial system (Verdier, 2002), its relative position here suggests that London is hardly exceptional in this respect.

Finally, we have centres exhibiting relatively lower levels of primacy which include Mumbai, Madrid, Milan, Frankfurt, Hong Kong and New York. These countries have multipolar financial system structures. Low primacy in India reflects the size and structure of the economy, with Mumbai dominant in terms of domestic acquisitions but other centres (with New Delhi and Bengaluru in the lead) more important in terms of cross-border activity. While Milan is the primate centre in Italy, low levels of primacy are maintained by a large group of financial centres outside of the top five. This wide breadth of financial centre activity reflects the regionalization and relative importance of SMEs to the Italian economy (Alessandrini et al., 2005). Germany's low primacy emanates from its federal political structure and status as a coordinated market economy (Grote, 2008). Decentralised political power alongside the relocation of financial institutions away from Berlin during the second world war has kept concentration low, with financial centres specializing in different markets (e.g. insurance in Munich) (Wójcik & Macdonald-Korth, 2015). Contrary to Meyer (2015) who positions Hong Kong as Asia's leading financial centre, M&A data suggests otherwise, with Beijing as the primate centre. The rapid growth of the Chinese financial sector, alongside state-led interventions aimed at internationalizing Beijing, Shanghai, and Shenzhen, has reduced the historical dominance of Hong Kong and accelerated patterns of spatial dispersion (Lai, 2012). In the US, New York's relatively lower level of primacy is a reflection of the size of the financial sector and the fact that it is by far the world's largest market for financial sector M&As.

Central to assessing the roles of primate centres is analysing their share of domestic and cross-border deals. This allows us to understand whether a centre plays a more domestic or international role. Figure 3 presents the % share of domestic and cross-border deal value for primate (full circles) and second-place centres (empty circles). While the correlation between cross-border and domestic activity is strong for primate centres, it is significantly weaker for second-place centres. This supports Taylor and Derudder (2016) in their argument that well connected global cities maintain strong connections with other global cities over time.

[INSERT FIGURE 3 HERE]

Perhaps most striking here are the positions of Beijing and Hong Kong, with Beijing leading in the value of both domestic and cross-border deals. While Hong Kong may still be China's major gateway to global capital markets (Meyer 2020, 259), the influence of Beijing as an international financial centre is rising. State-led support for Beijing-based financial institutions, alongside political instability in Hong Kong, has narrowed the gap between these two centres and seems to have reversed decades of spatial concentration in Hong Kong (Pan et al., 2020). As will be shown in following sections, this is a key finding consistent across a range of measures.

Similarly, we see an interesting relationship between Munich and Frankfurt, with Munich retaining a greater share of cross-border deal value and Frankfurt leading in domestic deals. This finding highlights the role of specialization in shaping financial centres. While Frankfurt leads domestically, Munich has grown its share of cross-border deal value by successfully specialising in insurance and private equity markets (Zademach & Musil, 2014). Frankfurt's position may be explained by processes of European (dis)integration and the leading role of London in the region. The case of Munich exemplifies the ability of firms to internationalize and develop strong positions in global markets without necessarily playing a leading role domestically (Wójcik & Macdonald-Korth, 2015). While Figure 3 suggest that this is uncommon, it nonetheless highlights the potential for second-place and other financial centres to act as gateway cities for international firms wanting to enter domestic markets without necessarily locating in primate centres (Sigler, 2013).

To complement the analysis of the primate financial centres of each country, we examine national levels of market concentration through the Herfindahl-Hirschman index (HHI). Calculated by summing the squares of the % average value score for every financial centre in each country, Figure 4 reveals different levels of M&A market concentration across the sample. While not a perfect measure, this allows us to look beyond the primate centre and examine each domestic hierarchy as a whole.

[INSERT FIGURE 4 HERE]

In general, levels of market concentration vary significantly across countries. We see that countries with high levels of primacy are more concentrated, such as Malaysia, France, South Korea and Japan, and countries with lower levels of primacy are less concentrated, such as the

US, Italy, Spain, Germany and China. The scale of differentiation is perhaps most striking. Considering that our sample contains countries most active in financial sector M&A deals, we see significant disparities in concentration across the sample. This level of diversity not only highlights the value of an international comparison but underscores the breadth of unevenness in the spatial composition of financial systems at subnational level.

In summary, data from this section reveals highly uneven levels of financial centre primacy around the world. However, and importantly, insights from CPE and GaWCs research suggest that this unevenness is being driven by mutually intersecting global forces (globalization, financialization) and local conditions (political economic, regulatory and institutional). Put simply, the factors increasing or decreasing primacy are just as geographically uneven as the primacy itself. While globalization and financialization continue to reconfigure global financial networks, they have so far not created universal outcomes in levels of financial centre primacy.

Change and Inertia

Having shown different levels of financial centre primacy across the full period, we now analyse whether and how much these levels changed following the 2008-09 financial crisis. Figure 5 reveals the average % score in the pre- and post-crisis eras for the top 5 financial centres in each country, alongside a combined category for all other centres (where data exists). Given the difficulties in measuring primacy and the multidimensional nature of our M&A definition, it is hard to state what counts as increasing or decreasing concentration when considering each domestic hierarchy as a whole (Short and Pinet-Peralta, 2009). Acknowledging that there are no objective criteria for measuring primacy, it is also difficult to confidently state whether a change is large or small (Moomaw and Alwosabi, 2004). For example, and as shown in Figure 5, the US market could be seen as becoming more dispersed due to a decline in New York's share but at the same time more concentrated through an increase in the share of the top 5 financial centres and a decline in the Other category. As a result of this complexity we focus more on the changing position of the primate financial centre. We identify whether primate centres have become more dominant while then also providing suggestive explanations for the wider trends exhibited by each domestic hierarchy.

[INSERT FIGURE 5 HERE]

Before analysing changes over time, it is important to reflect on how Figure 5 allows us to generate a picture of each domestic hierarchy as a whole. Perhaps most striking is how this data makes all systems look unipolar, with the exceptions of Germany, which looks bipolar; China, which contrary to recent studies looks more multi- rather than bipolar (Lai, 2012); and the US, which somewhat surprisingly appears to be the most multipolar of all systems. This may suggest that M&A data exaggerates primacy in relation to other measures of financial activity.

A number of trends emerge when analysing this data regionally. In Europe, we see a trend of growing primacy. London, Paris, Frankfurt and Moscow all increased their share of deal value over time. While Milan maintained its share, Madrid was the only European centre to see its share decline, mainly the result of growing cross-border activity in Barcelona. This is an interesting outcome considering the impacts of the global financial and Eurozone crises on the region. Growing primacy is both a reflection of the resilience of primate centres and the vulnerabilities of smaller ones. This is illustrated by the case of the UK, where London's average share increased from 60% to 72% and Edinburgh's share, in second place, fell from 21% to 7%. While London's recovery from the financial crisis was supported by the breadth, richness and diversity of its financial sector (Hendrikse et al., 2020; Wójcik, 2013), Edinburgh's decline was largely a result of its dependence on the Royal Bank of Scotland, which downsized its activities in the aftermath of the crisis, and the takeover of HBOS by London-based Lloyds in 2009 (Marshall, 2013). Increased primacy in the UK therefore reflects the strong recovery of London following the financial crisis (Wójcik & Macdonald-Korth, 2015) and supports predictions that Brexit could accelerate spatial concentration as regional centres struggle to remain competitive (Heneghan & Hall, 2020).

In South Africa, Johannesburg increased its share of deal value from 78% to 83% and Cape Town maintained its share at 17%. The dominance of these two centres reflects the modest size of the national financial sector, the underlying economic structure of the country and the relatively limited amount of financial activity across the continent, reflecting a low level of financial integration. In support of Wall (2011), Johannesburg's increased primacy is likely to be underpinned by its historical and colonial ties with New York and London.

In the Americas, levels of primacy fell in Brazil, Canada and the US. Contrary to the findings of Contel and Wójcik (2019), in Brazil we see a reduction in the primacy of São Paulo, with growth in Rio, Brasilia and other smaller financial centres. Similarly, Canada witnessed a small reduction in the primacy of Toronto, with Montreal growing its shares in second place. In the US, New York's share of value fell from 31% to 29% and San Francisco more than tripled its share from 3% to 10%, consolidating its position in second place. This can be explained by the continued rise of Silicon Valley and its interactions with the financial sector through and beyond FinTech. Growth in these sectors clearly acts as a magnet for financial firms, subsequently reshaping the financial geography in the US and reducing the role of New York as the gateway city to the rest of the US (Hendrikse et al., 2020; Wójcik, 2011). While New York still holds a dominant position, this finding speaks to the financial-cum-technological axis developing between New York and San Francisco, with the closer integration of financial and technological industries central to shifting patterns of spatial concentration and dispersion.

Changes in Asia-Pacific were uneven. Malaysia experienced a slight increase in primacy, with Kuala Lumpur growing its average share from 93% to 94%. In Australia, the level of primacy remained stable, with findings supporting the long-term dominance of Sydney and Melbourne in financial services (O'Neill et al., 2018). In South Korea, Seoul's share fell from 96% to 88%, with small growth across other financial centres. This is likely to be the result of government attempts to develop Jeonju as a financial centre and reflected by the relocation of South Korea's National Pension Service headquarters to the city (Kang, 2019). Primacy in Japan fell, with a growing role for Osaka due mainly to cross-border deals. This is a slight reversal of a long process of financial services concentration in Tokyo and away from Osaka, which dates back to the mid-20th century (Fohlin, 2016).

In India, the primacy of Mumbai declined. While New Delhi's share of value increased from 6% to 10%, important here is the rise of Bengaluru, which increased its share from 2% to 11%, subsequently challenging New Delhi for second place. This supports findings from Aranya et al (2011) who highlight the rise of Bengaluru as part of the GaWCs network following the financial crisis. Bengaluru experienced growth in its status as a cross-border target, mainly due to the development of IT and knowledge-intensive activities in the city (Nisbett, 2009). As the majority of growth was underpinned by cross-border activity, this provides a pertinent example of regional and international gateway functions developing in smaller centres which subsequently reshape wider patterns of domestic concentration (Sigler, 2013). It is notable that India's financial centre hierarchy does not follow its urban hierarchy. The strong position of Bengaluru, which underscores the power of technology, disrupts India's post-colonial phase of urbanization based on economic development concentrated in the "four metros" of New Delhi, Mumbai, Chennai and Kolkata (Aranya, 2011, 218). The agglomeration of IT functions has enhanced its position as a gateway city for financial firms entering India, and echoing findings from the US, underscores the importance of FinTech in shaping the emerging geographies of finance (Hendrikse et al., 2020).

Consistent with earlier findings, Hong Kong may be the primate centre when measured through the number of deals but in China we see Beijing lead in terms of value throughout the entire period. While Beijing's share of value fell from 46% to 42%, Hong Kong's fell from 35% to 19%. Aside from illustrating growth in Shanghai, Shenzhen and other Chinese financial centres, this finding brings into question the perceived primacy of Hong Kong as Asia's leading financial centre (Meyer, 2015). Supporting earlier research by Pan et al (2020), Beijing's municipal government has successfully promoted the city as an international financial centre, helping to grow the city's share of cross-border activity. At the same time, political instability and uncertainty has damaged the attractiveness of Hong Kong for financial firms (Lui et al., 2020). On top of this, the collaborative and competitive interdependencies between leading financial centres in mainland China, which specialize in different financial services and markets, have accelerated their mutual growth and propelled them to assume a greater share of financial activity at the expense of Hong Kong (Lai, 2012). These transformations are part of much broader economic processes, with new inter-city connections and urban networks emerging as part of Chinese-led globalization (Ni et al., 2011). This trend in M&As is consistent with findings from recent studies and points to further dispersion over time as China's financial sector continues to grow (Lai et al., 2020; Pan et al., 2020).

These findings, particularly in relation to China and the US, can help us reflect on the assumed multipolarity of different national financial systems. Existing literature suggests that China has a decidedly more multipolar financial system than the US. Everyone knows New York is the undisputed financial capital of the US, while asked the same question of China, students of financial geography are likely to list Hong Kong, Shanghai, Beijing (and sometimes Shenzhen), not being sure about the order. Our results, while confirming the primacy of New York, show the US to have by far the most dispersed system of financial centres, where cities outside the top 5 command a combined share of close to 50% of major financial M&As, nearly twice the share of New York. In relation to China these results are a reminder of the (still) much smaller size of the financial sector in China compared to the US. With the falling shares of Beijing and particularly Hong Kong and the growing shares of other centres (particularly those outside the top 5), we also see that as its financial sector keeps growing, China may be moving in the direction of the US in terms of its spatial financial structure, with more geographically dispersed activity.

Overall, findings from this section highlight the unevenness of change across the domestic hierarchies of financial centres. We expected the financial crisis of 2008-09 to have little impact on levels of financial centre primacy across our sample and this is found to be largely accurate. Perhaps most importantly, we find no evidence to support a hypothesis that primate centres inevitably increase their dominance over time. This is a key finding, and far from a universal winner takes all understanding of spatial concentration in finance (Porteous, 1999), it supports a more nuanced and complex picture of place-based evolution.

Conclusions

The aims of this article were to explore the levels of financial centre primacy around the world and explain how these levels change over time. Analysing financial sector M&A deals across a sample of 16 countries, we identified the primate and other major financial centres in each country, highlighting different degrees of concentration in the spatial structure of corporate control. Findings revealed a mixture of unipolar, bipolar and multipolar structures, with financial centres varying in their shares of domestic and cross-border M&A deals in terms of both number and value. With regard to how these hierarchies developed over time, our results revealed both change and inertia. The impacts of the 2008 financial crisis were shown to be uneven across countries, increasing primacy in some cases (UK, Malaysia, South Africa, Russia, Germany, Spain) and reducing it in others (US, India, Australia, France, Brazil, Japan, Italy, Canada, South Korea, China).

Within this wider picture of unevenness, several key findings emerged. First, and supporting the most recent research (Lai et al., 2020; Pan et al., 2020), findings revealed the shrinking domestic and international influence of Hong Kong. The decline of Hong Kong has been offset by growth in Beijing, Shanghai and Shenzhen, with contrasting political economic and regulatory conditions across these centres accelerating spatial dispersion in corporate control. Second, and evidenced by the rising average shares of San Francisco and Bengaluru, our analysis captured the growing importance of FinTech, and technology in general, in accelerating the development of financial centres. This is a finding which calls for further research to examine the role of technology in shaping the emerging geographies of finance. Finally, our results show that primate financial centres do not universally increase their levels of dominance over time. This challenges linear and deterministic approaches to financial centre development based on an assumption that the winner takes it all (Porteous, 1999). While there is no evidence to suggest that primate centres inevitably increase their share of corporate control, there is equally no evidence to suggest that they inevitably lose their share over time.

More accurately, what we see is a mixture of changing levels of primacy driven by a combination of global and local political economic, regulatory and institutional forces. In relation to CPE, we found no discernible relationship between political economic structures and levels of financial centre primacy. Unevenness in financial centre primacy transcends different types of national capitalisms and political economic structures, and while place-based factors are important, so too is social agency. This finding underscores a core element of the

GaWCs research which emphasizes the growing power of transnational firms in shaping the geographical manifestations of globalized economic activity (Taylor and Derudder, 2016). In the context of finance, this points to a critical role for FABS firms in transcending national political economic and institutional architectures and shaping the spatial structure of finance as part of global financial networks (Haberly and Wójcik, 2022). While place-based and country-specific conditions inevitably influence the decisions of FABS firms, they do not result in homogenous outcomes over space.

These findings generate two original contributions. Empirically, our systematic analysis of M&A data presents a comprehensive and nuanced picture of the domestic hierarchies of financial centres. Theoretically and conceptually, applying M&A data as a standardized measure allowed us to integrate the literatures on urban primacy, GaWCs and CPE. While our remit was not to conduct a statistical analysis of relationships between factors of urban primacy and financial centre development, we show that any given factor of urban primacy can be significant in one country but not so throughout the wider cross-section. This contribution was made possible through harmonizing, scrutinizing and comparing the insights of urban primacy, GaWCs and CPE in financial centre development. Put together, observations from these literatures helped us ground and contextualize financial centre primacy and capture the intersecting global and local conditions shaping its evolution. This demonstrates the value of of cross-disciplinary approaches in providing novel accounts of financial centre development.

While this article has developed a clearer picture of the domestic hierarchies of financial centres, several areas of inquiry remain underdeveloped. Most importantly, little is still known about the subnational geographies of finance. A prioritisation of global networks and international financial centres has resulted in patchy and imprecise understandings of how financial centres emerge, interrelate and evolve within countries. Relatedly, and while in-depth comparisons of a smaller number of financial centres generate valuable insights, studies must begin to include larger samples of countries in order to fully capture and accurately represent the wider relational geographies of finance. Our article has made progress in this respect, but future studies must broaden samples, include a wider range of traditionally overlooked financial centres and address the limited spatial focus linked to eurocentrism in financial geography.

References

Aalbers, M. (2009) Geographies of the financial crisis, *Area*, 41(1): 34-42.

Ades, A., Glaeser, E. (1995) Trade and circuses: Explaining urban giants, *Quarterly Journal of Economics*, 110(1): 195-227.

Alessandrini, P., Croci, M., Zazzaro, A. (2005) The geography of banking power: the role of functional distance, *Banca Nazionale del Lavoro Quarterly Review*, 58(235): 129-167.

Anthony, R. (2014) Bringing up the past: Political experience and the distribution of urban populations, *Cities*, 37: 33-46.

Aranya, R., Ni, P., Zhang, Y., Huang, J. (2011) Indian Cities, In Taylor, P., Ni, P., Derudder, B., Hoyler, M., Huang, J., Witlox, F. (eds) *Global Urban Analysis: A Survey of Cities in Globalization*, pp. 218-223, London: Earthscan.

Baccaro, L., Pontusson, J. (2018) Comparative political economy and varieties of macroeconomics. Discussion Paper 18/10, Max Planck Institute for the Study of Societies, Cologne.

Brenner, N., Peck, J., Theodore, N. (2010) Variegated neoliberalization: geographies, modalities, pathways, *Global Networks*, 10(2): 182-222.

Brülhart, M. (2011) The spatial effects of trade openness: A survey, *Review of World Economics*, 147(1): 59-83.

Cassis, Y. (2018) Introduction, In Cassis, Y., Wójcik, D. (eds) *International Financial Centres after the Global Financial Crisis and Brexit*, pp. 1-15, Oxford: Oxford University Press.

Cassis, Y. (2010) *Capitals of capital: The rise and fall of international financial centres, 1780-2009*. Cambridge: Cambridge University Press.

Cassis, Y., Bussière, E. (2005) *London and Paris as International Financial Centres in the Twentieth Century*. Oxford: Oxford University Press.

Choi, J. (2017) Korean Democracy in a Hyper-Centralized State, In Mosler, H., Lee, E. J., & Kim, H. J. (eds) *The Quality of Democracy in Korea*, pp. 27-49, Camden: Palgrave Macmillan.

Coe., N., Lai, K., Wójcik, D. (2014) Integrating Finance into Global Production Networks, *Regional Studies*, 48(50): 761-777.

Contel, F., Wójcik, D. (2019) Brazil's Financial Centers in the Twenty-first Century: Hierarchy, Specialization, and Concentration, *The Professional Geographer*, 71(4): 681-691.

Crawford, T., Renner, C. (2016) Stronger Together: The Strengths of Canada's Four Global Financial Centres. Ottawa: The Conference Board of Canada.

Davis, J., Henderson, V. (2003) Evidence on the political economy of the urbanization process, *Journal of Urban Economics*, 53(1): 98-125.

Derudder, B., Taylor, P. (2005) The cliquishness of world cities, *Global Networks*, 5(1): 71-91.

Derudder, B., Hoyler, M., Taylor, P. (2011) Goodbye Reykjavik: international banking centres and the global financial crisis, *Area*, 43(2): 173-182.

Derudder, B., Hoyler, M., Taylor, P., Wiltox, F. (2012) Introduction: a relational urban studies, In Derudder, B., Hoyler, M., Taylor, P., Wiltox, F. (eds) *International Handbook of Globalization and World Cities*, pp. 1-8, Cheltenham: Edward Elgar.

Dixon, A. (2011) Variegated capitalism and the geography of finance: Towards a common agenda, *Progress in Human Geography*, 35(2): 193-210.

Ebner, A. (2016) Editorial: exploring regional varieties of capitalism, *Regional Studies*, 50(1): 3-6.

Engelen, E., Grote, M. (2009) Stock exchange virtualisation and the decline of second-tier financial centres – the cases of Amsterdam and Frankfurt, *Journal of Economic Geography*, 9(5): 679-696.

Faulconbridge, J., Engelen, E., Hoyler, M., Beaverstock, J. (2007) Analysing the Changing Landscape of European Financial Centres: The Role of Financial Products and the Case of Amsterdam, *Growth and Change*, 38(2): 279-303.

Focarelli, D., Pozzolo, A. F. (2008) Cross-border M&As in the financial sector: Is banking different from insurance?, *Journal of Banking and Finance*, 32(1): 15-29.

Fohlin, C. (2016) A Brief History of Investment Banking from Medieval Times to the Present, In Cassis, Y., Grossman, R., Schenk, C. (eds) *The Oxford Handbook of Banking and Financial History*, pp. 133-162, Oxford: Oxford University Press.

Gal, Z. (2015) Development of international financial centres in Central and Eastern Europe during transition period and crisis: The case of Budapest, *Studia Regionalne i Lokalne*, 60(2): 53-80.

Galiani, S., Kim, S. (2008) Political Centralization and Urban Primacy, In Costa, D., Lamoreaux, N. (eds) *Understanding Long-Run Economic Growth: Geography, Institutions, and the Knowledge Economy*, pp. 121-153, Chicago: Chicago University Press.

Gehrig, T. (2000) Cities and geography of financial centres, In Huriot, J., Thisse, J. (eds) *Economics of Cities: Theoretical Perspectives*, pp. 415–430, Cambridge: Cambridge University Press.

Golubchikov, O., Makhrova, A., Badyina, A., Brade, I. (2015) Uneven Urban Resilience: The Economic Adjustment and Polarization of Russia's Cities, In Lang, T., Henn, S., Sgibnev, W., Ehrlich, K. (eds) *Understanding Geographies of Polarization and Peripheralization: New Geographies of Europe*, pp. 270-284, London: Palgrave Macmillan.

Grote, M. H. (2008) Foreign banks' attraction to the financial centre Frankfurt – an inverted 'U' -shaped relationship, *Journal of Economic Geography*, 8(2): 239-258.

Haberly, D., Wójcik, D. (2022) *Sticky Power: Global Financial Networks in the World Economy*. Oxford: Oxford University Press.

Hall, S. (2017) Rethinking international financial centres through the politics of territory: renminbi internationalisation in London's financial district, *Transactions of the Institute of British Geographers*, 42(4): 489–502.

Hall, P., Soskice, D. (2003) Response: Varieties of Capitalism and Institutional Change: A Response to Three Critics, *Comparative European Politics*, 1: 241-250.

Hashimoto, T., Wójcik, D. (2020) The geography of financial and business services in Poland: Stable concentration and a growing division of labour, *European Urban and Regional Studies*, Euro Commentary: 1-7.

Hendrikse, R., van Meeteren, M., Bassens, D. (2020) Strategic coupling between finance, technology and the state: Cultivating a Fintech ecosystem for incumbent finance, *EPA: Economy and Space,* 52(8): 1516-1538.

Heneghan, H., Hall, S. (2020) The emerging geography of European financial centres: Fragmentation in the European Union and concentration in the UK?, *European Urban and Regional Studies*, 28(1): 40-46.

Ioannou, S., Wójcik, D. (2021) Finance, Globalization, and Urban Primacy, *Economic Geography*, 97(1): 34-65.

Jefferson, M. (1939) The Law of the Primate City, *Geographical Review*, 29(2): 226-232.

Kang, T. (2019) Is It Necessary for South Korea to Nurture Another Financial Hub? *The Diplomat.*

Kwon, K. (2016) The Evolution of the World City Network, 2006-2013: The Case of the Organizational Structures in Transnational Corporations. Globalization and World Cities Research Bulletin 449.

Lai, K. (2012) Differentiated rkets: Shanghai, Beijing and Hong Kong in China's Financial Centre Network, *Urban Studies*, 49(6): 1275-1296.

Lai, K., Pan F., Sokol, M., Wójcik, D. (2020) New financial geographies of Asia, *Regional Studies*, 54(2): 143-148.

Lavery, S., McDaniel, S and Schmid, D. (2019) Finance fragmented? Frankfurt and Paris as European financial centres after Brexit, *Journal of European Public Policy*, 26(10): 1502-1520.

Loginova, J., Sigler, T., Searle, G., O'Connor, K. (2021) The distribution of national urban hierarchies of connectivity within global city networks, *Global Networks*, Online Early View; 1-18.

Lui, T., Rowley, C., Oh, I. (2020) After the storm: how Hong Kong holds onto its global status as a business hub in Asia-Pacific. *Asia Pacific Business Review Call for Papers*.

Marshall, J. (2013) A geographical political economy of banking crises: a peripheral region perspective on organizational concentration and spatial centralisaiton in Britain, *Cambridge Journal of Regions, Economy and Society*, 6(3): 455-477.

McCann, P. (2001) *Urban and regional economics*. Oxford: Oxford University Press.

Meyer, D. (2020) The Hong Kong protests will not undermine it as a leading global financial centre, *Area Development and Policy*, 5(3): 256-268.

Meyer, D. (2015) The world cities of Hong Kong and Singapore: Network hubs of global finance, *International Journal of Comparative Sociology*, 56(3-4): 198-231.

Moomaw, R., Alwosabi, M. (2004) An empirical analysis of competing explanations of urban primacy evidence from Asia and the Americas, *Annals of Regional Science*, 38(1): 149-171.

Moral, S. (2011) Iberian Cities, In Taylor, P., Ni, P., Derudder, B., Hoyler, M., Huang, J., Witlox, F. (eds) *Global Urban Analysis: A Survey of Cities in Globalization*, pp. 312-317, London: Earthscan.

Ni, P., Yue, X., Huang, J. (2011) Chinese Cities, In Taylor, P., Ni, P., Derudder, B., Hoyler, M., Huang, J., Witlox, F. (eds) *Global Urban Analysis: A Survey of Cities in Globalization*, pp. 205-211, London: Earthscan.

Nisbett, N. (2009) *Growing up in the Knowledge Society: Living the IT Dream in Bangalore.* New Delhi: Routledge.

O'Neill, P., Knight, E., Wójcik, D. (2018) Australia's shifting global engagement: the stuttering rise of financial services and city-based competitiveness, *Australian Geographer*, 49(3): 349-364.

Pan, F., Hall, S., Zhang, H. (2020) The spatial dynamics of financial activities in Beijing: agglomeration economies and urban planning, *Urban Geography*, 41(6): 849-864.

Pažitka, V., Wójcik, D. (2018) Clustery dynamics of financial centres in the UK: do connected firms grow fast?, *Regional Studies*, 53(7): 1017-1028.

Peck, J., Theodore, N. (2007) Variegated capitalism, *Progress in Human Geography*, 31(6): 731-772.

Poon, J. P. H., Pollard, J., Chow, Y. W., Ewers, M. (2017) The rise of Kuala Lumpur as an Islamic financial frontier, *Regional Studies*, 51(10): 1443-1453.

Porteous, D. J. (1999) The development of financial centres: Location, information externalities and path dependence, In Martin, R. (eds) *Money and the Space Economy*, pp. 95-114, Chichester: Wiley.

Sassen, S. (1991) *The Global City: New York, London, Tokyo*. New Jersey: Princeton University Press.

Short, J., Pinet-Peralta, L. (2009) Urban Primacy: Reopening the Debate, *Geography Compass*, 3(3): 1245-1266.

Shirai, S. (2017) Tokyo as a leading global financial center: the vision under the spotlight again. Working Paper 758, Asian Development Bank Institute, Tokyo.

Sigler, T. (2013) Relational Cities: Doha, Panama City, and Dubai as 21st Century EntrepÔts, *Urban Geography*, 34(5): 612-633.

Sjöberg, Ö., Sjöholm, F. (2004) Trade liberalization and the geography of production: Agglomeration, concentration, and dispersal in Indonesia's manufacturing industry, *Economic Geography*, 80(3): 287-310.

Taylor, P., Derudder, B. (2016) *World City Network: A global urban analysis*. London: Routledge.

Verdier, D. (2002) *Moving Money: Banking and Finance in the Industrialized World.* Cambridge: Cambridge University Press.

Wall, R. (2011) South African Cities, In Taylor, P., Ni, P., Derudder, B., Hoyler, M., Huang, J., Witlox, F. (eds) *Global Urban Analysis: A Survey of Cities in Globalization*, pp. 318-323, London: Earthscan.

Wójcik, D. (2013) The Dark Side of NY-LON: Financial Centres and the Global Financial Crisis, *Urban Studies*, 50(13): 2736-2752.

Wójcik, D., MacDonald-Korth, D. (2015) The British and the German financial sectors in the wake of the crisis: size, structure and spatial concentration, *Journal of Economic Geography*, 15(5): 1033-1054.

Wójcik, D., Knight, E., Pažitka, V. (2019) Investment banking centres since the global financial crisis: New typology, ranking and trends, *EPA: Economy and Space*, 51(3): 687-704.

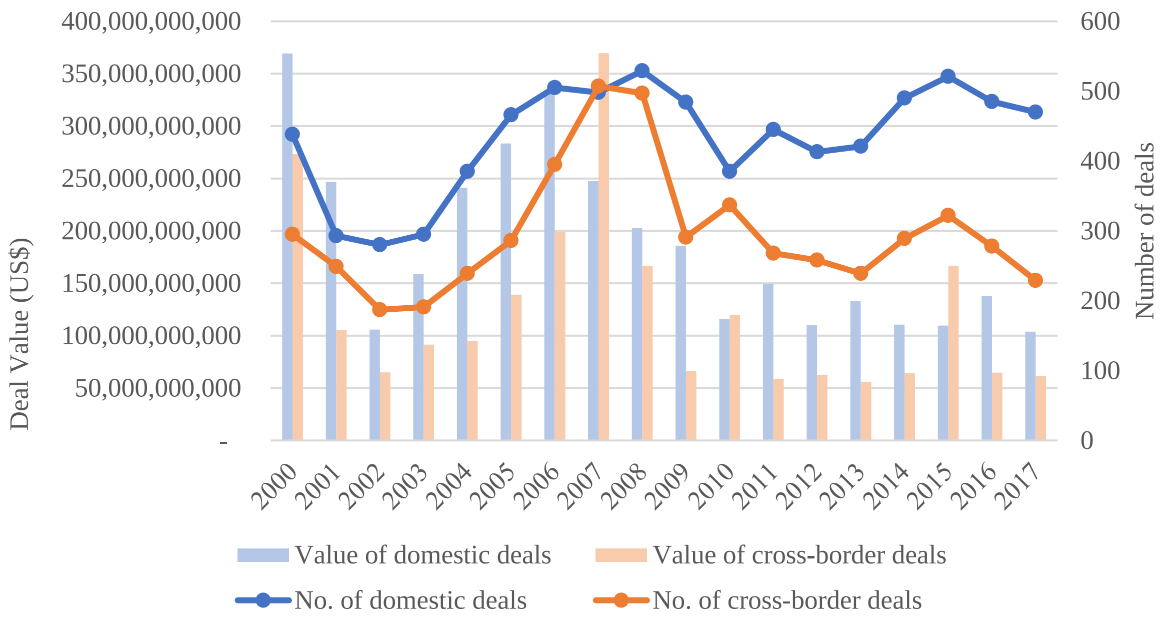
Wójcik, D., Knight, E., Pažitka, V. (2018) What turns cities into international financial centres? Analysis of cross-border investment banking 2000-2014, *Journal of Economic Geography*, 18(1): 1-33.

Zademach, H., Musil, R. (2012) Global integration along historic pathways: Vienna and Munich in the changing financial geography, of Europe, *European Urban and Regional Studies*, 21(4): 463-483.

Zademach, H., Rodríguez-Pose, A. (2009) Cross-Border M&As and the Changing Economic Geography of Europe, *European Planning Studies*, 17(5): 765-789.

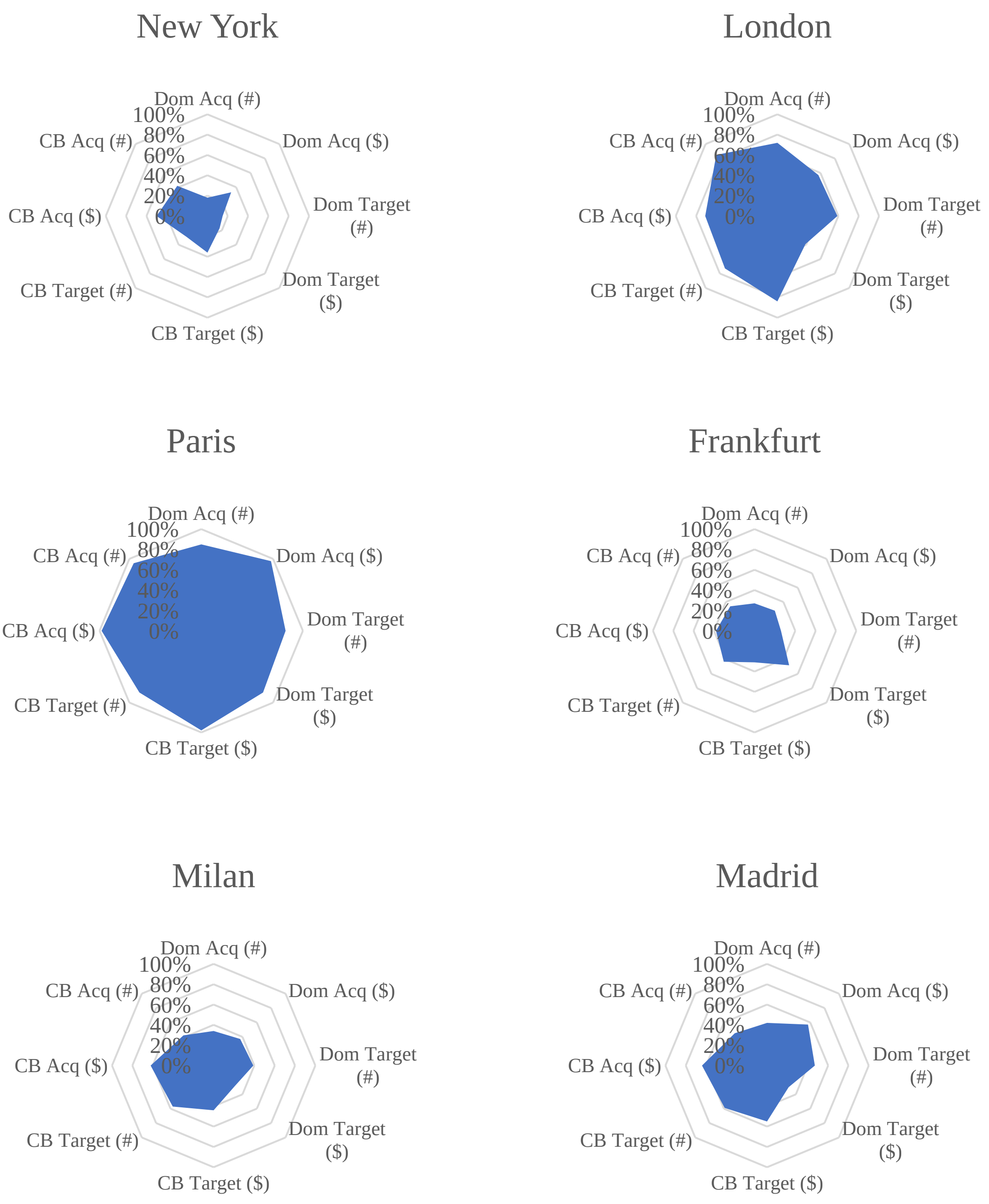
Figures

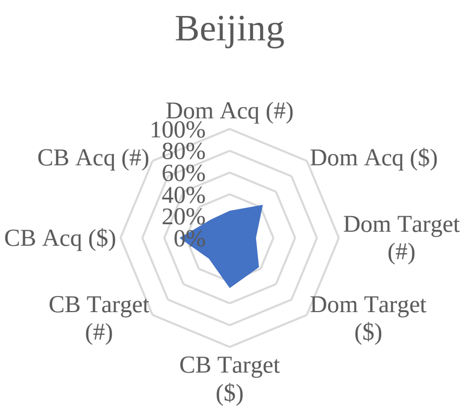
Figure 1. Global M&A deals by number and value (2000-17)

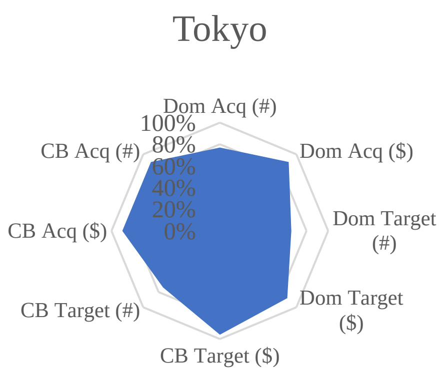


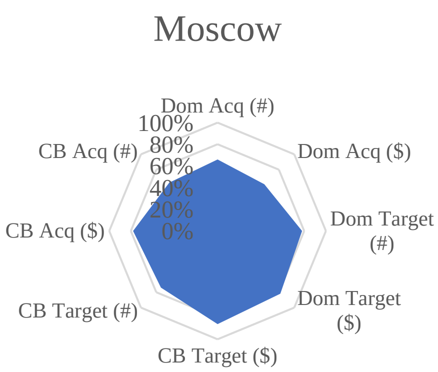
Source: Author's analysis of Dealogic data.

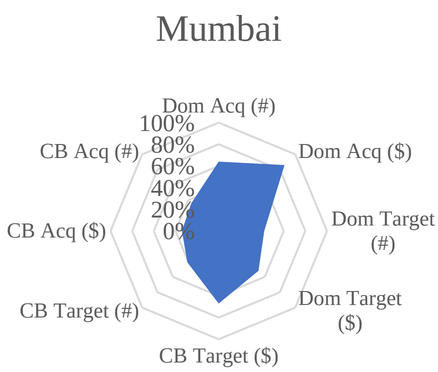
Figure 2. The share of primate financial centres in the domestic and cross-border M&A activity of their countries

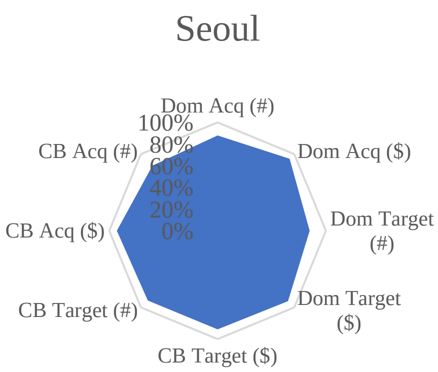


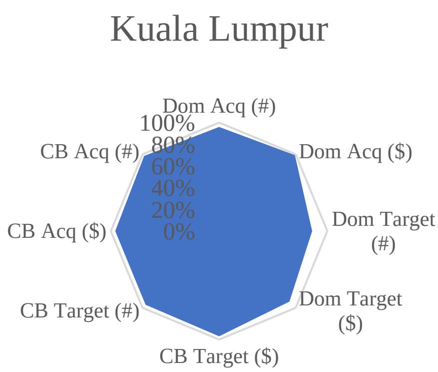

Beijing
Dom Acq (#)
Dom Acq ($)
Dom Target (#)
Dom Target ($)
CB Target ($)
CB Target (#)
CB Acq ($)
CB Acq (#)
100%
80%
60%
40%
20%
0%

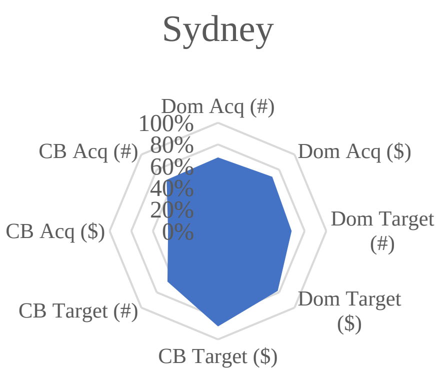

Tokyo
Dom Acq (#)
Dom Acq ($)
Dom Target (#)
Dom Target ($)
CB Target ($)
CB Target (#)
CB Acq ($)
CB Acq (#)
100%
80%
60%
40%
20%
0%

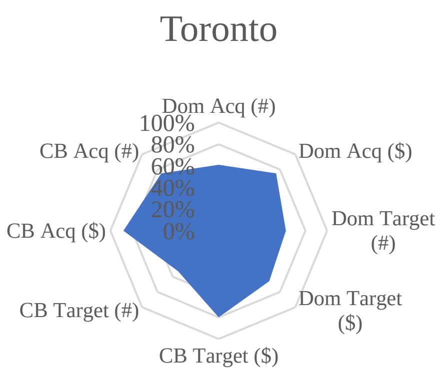

Moscow
Dom Acq (#)
Dom Acq ($)
Dom Target (#)
Dom Target ($)
CB Target ($)
CB Target (#)
CB Acq ($)
CB Acq (#)
100%
80%
60%
40%
20%
0%

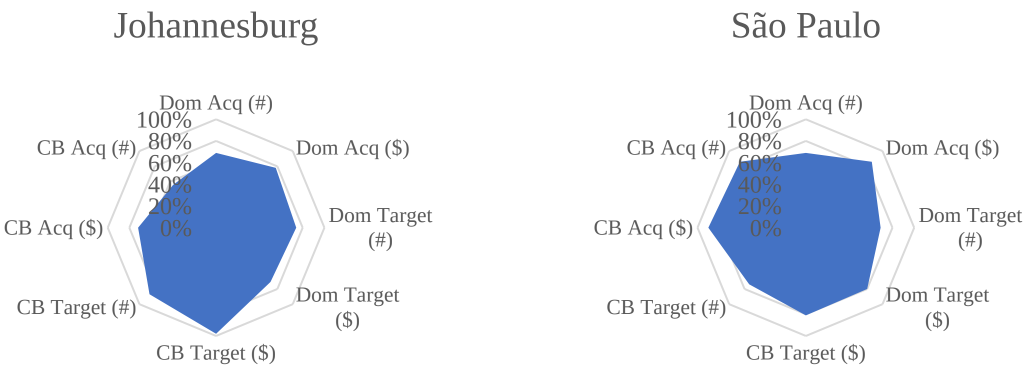

Mumbai
Dom Acq (#)
Dom Acq ($)
Dom Target (#)
Dom Target ($)
CB Target ($)
CB Target (#)
CB Acq ($)
CB Acq (#)
100%
80%
60%
40%
20%
0%


Seoul
Dom Acq (#)
Dom Acq ($)
Dom Target (#)
Dom Target ($)
CB Target ($)
CB Target (#)
CB Acq ($)
CB Acq (#)
100%
80%
60%
40%
20%
0%


Kuala Lumpur
Dom Acq (#)
Dom Acq ($)
Dom Target (#)
Dom Target ($)
CB Target ($)
CB Target (#)
CB Acq ($)
CB Acq (#)
100%
80%
60%
40%
20%
0%


Sydney
Dom Acq (#)
Dom Acq ($)
Dom Target (#)
Dom Target ($)
CB Target ($)
CB Target (#)
CB Acq ($)
CB Acq (#)
100%
80%
60%
40%
20%
0%

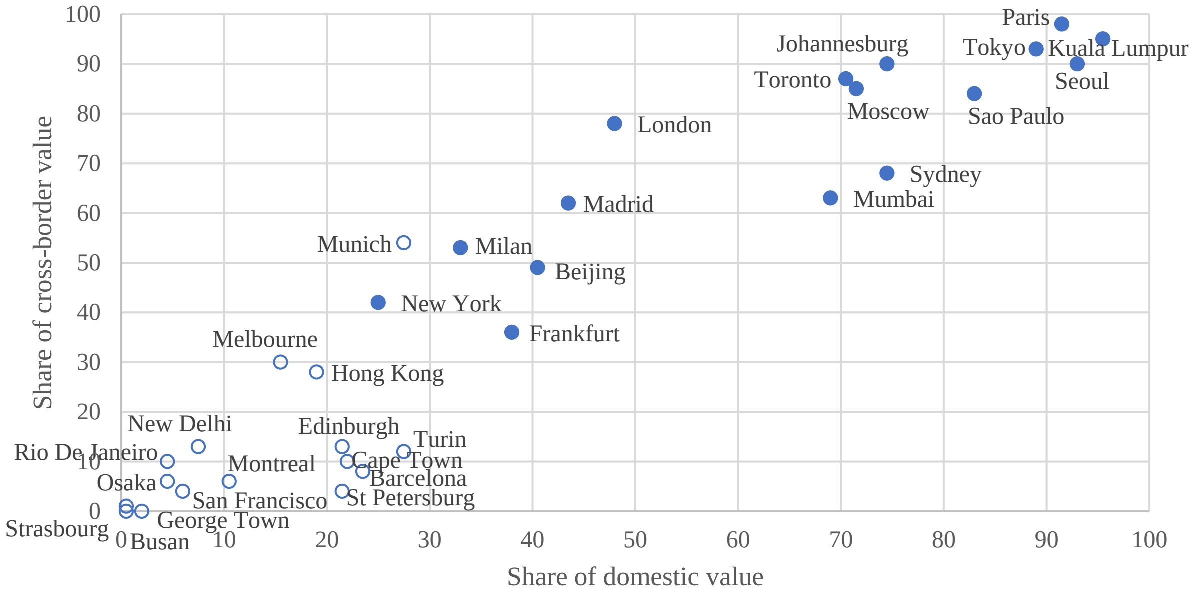

Toronto
Dom Acq (#)
Dom Acq ($)
Dom Target (#)
Dom Target ($)
CB Target ($)
CB Target (#)
CB Acq ($)
CB Acq (#)
100%
80%
60%
40%
20%
0%



Note: Dom Acq (Dom Target) axes show the % share of the primate centre in the total number (#) or value ($) of acquisitions (targets) in the domestic deals in the respective country, for the period 2000-17. CB axes do the same for cross-border deals.

Source: Author’s analysis of Dealogic data.

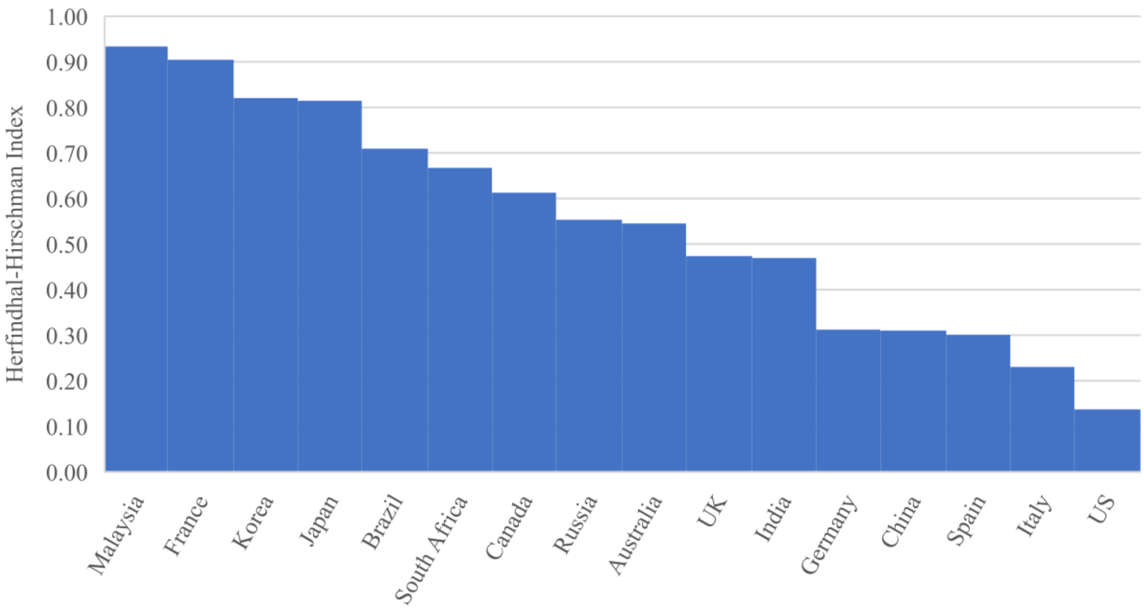
Figure 3. The share of primate and second-place financial centres in the domestic and cross-border M&A activity of their countries



Note: The share of domestic (cross-border) deals is calculated as the share in the total value of domestic (cross-border) deals in the respective country, for the period 2000-17. Primate centres are shown with full, and second-place centres with empty circles.

Source: Author's analysis of Dealogic data.

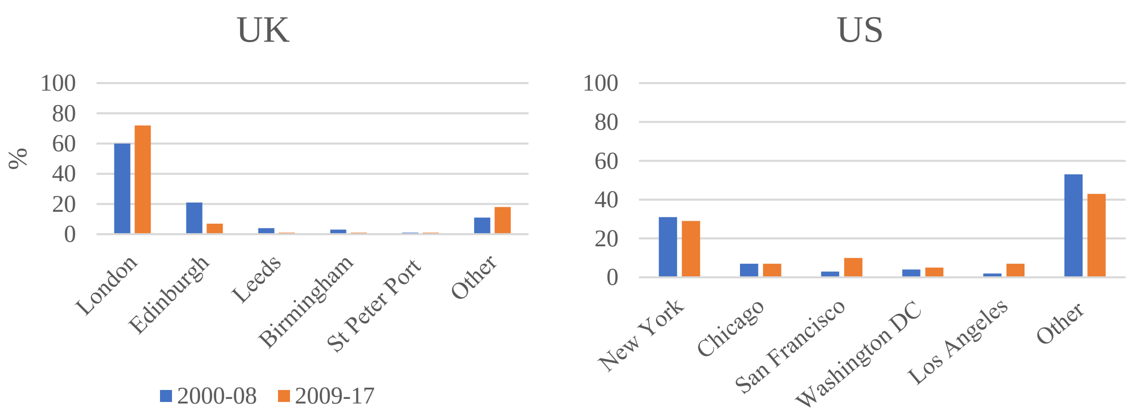
Figure 4. HHI for the domestic hierarchies of financial centres (2000-2017)

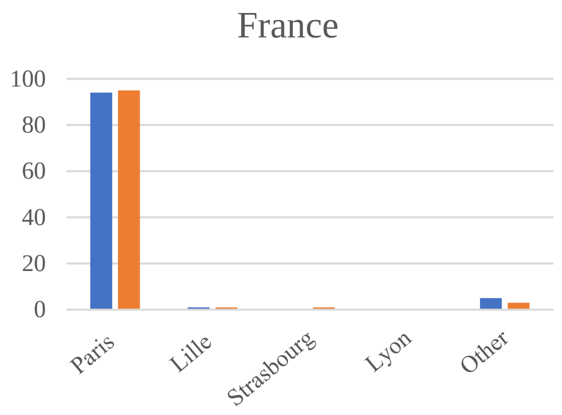


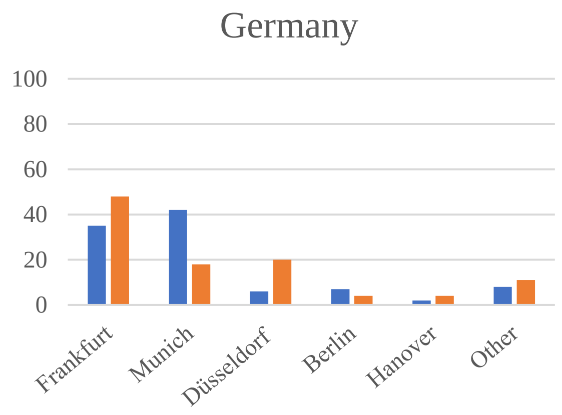
Note: HHI is calculated by summing the square of % share of M&A values for all financial centres within a given country.

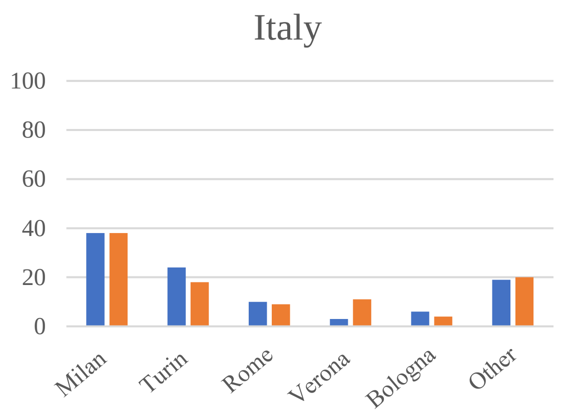
Source: Author's analysis of Dealogic data.

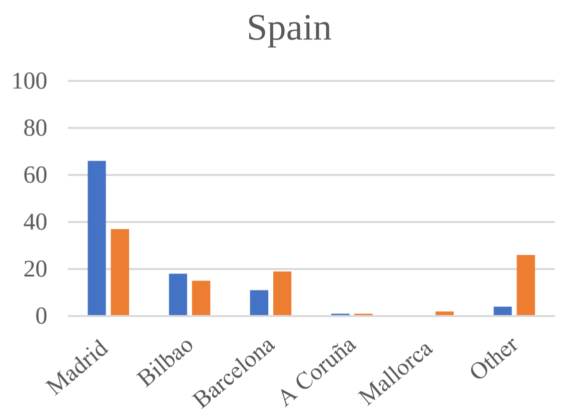
Figure 5. Changing shares of financial centres in the M&A activity of their countries

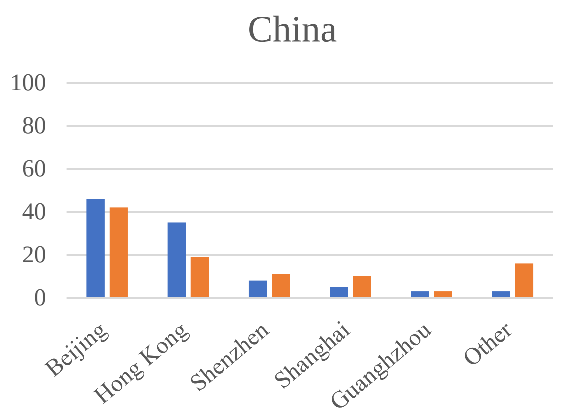


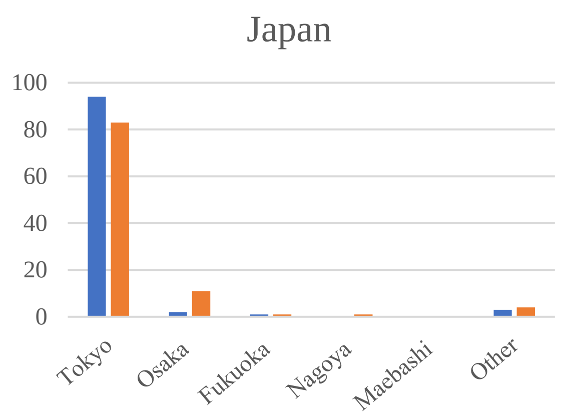

France
100
80
60
40
20
0
Paris
Lille
Strasbourg
Lyon
Other

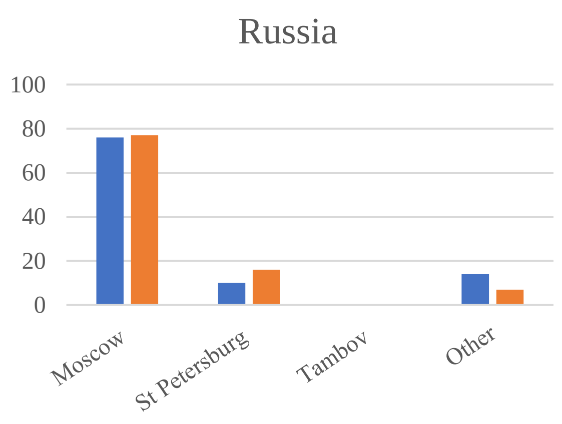

Germany
100
80
60
40
20
0
Frankfurt
Munich
Düsseldorf
Berlin
Hanover
Other

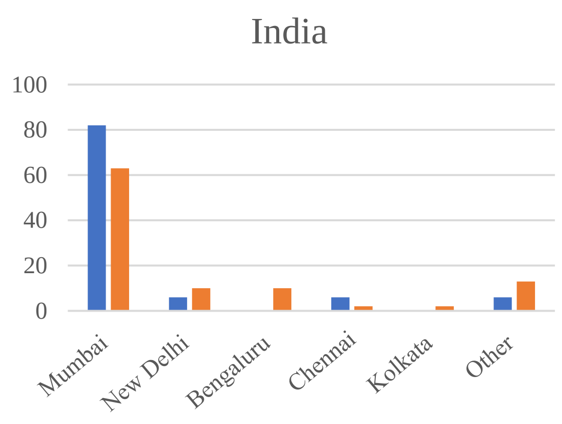

Italy
100
80
60
40
20
0
Milan
Turin
Rome
Verona
Bologna
Other

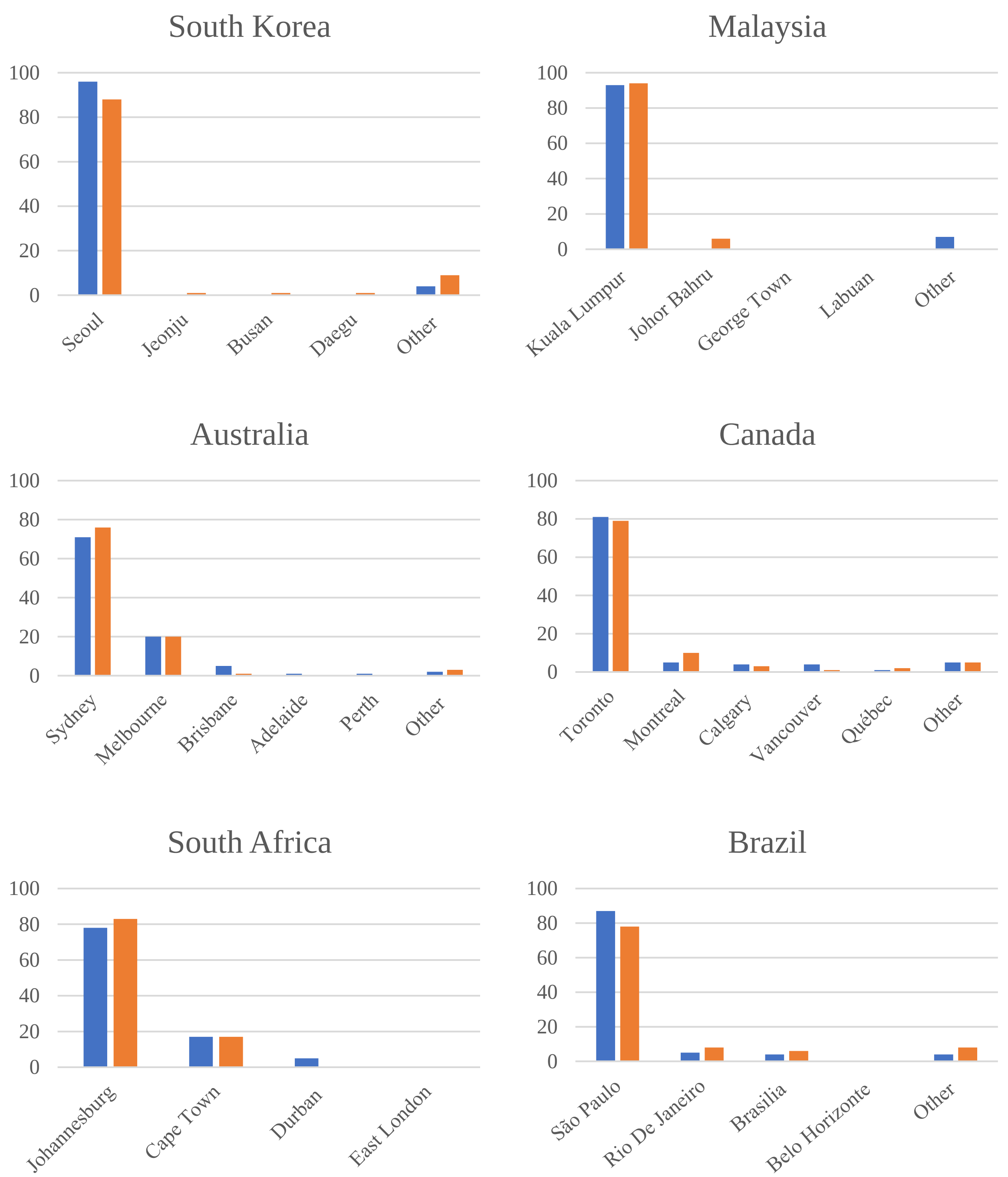

Spain
100
80
60
40
20
0
Madrid
Bilbao
Barcelona
A Coruña
Mallorca
Other


China
100
80
60
40
20
0
Beijing
Hong Kong
Shenzhen
Shanghai
Guanghzhou
Other


Japan
100
80
60
40
20
0
Tokyo
Osaka
Fukuoka
Nagoya
Maebashi
Other


Russia
100
80
60
40
20
0
Moscow
St Petersburg
Tambov
Other


India
100
80
60
40
20
0
Mumbai
New Delhi
Bengaluru
Chennai
Kolkata
Other



Note: The % score of each financial centre (or group) is calculated by averaging their share of domestic and cross-border acquisition and target values in their respective country.

Source: Author’s analysis of Dealogic data.

Tables

Table 1. Interpreting financial centre primacy through urban primacy, GaWCs and CPE

	Centripetal forces and high levels of financial centre primacy	Centrifugal forces and low levels of financial centre primacy
Urban primacy	• Low number of financial firms and centres • Low levels of financial employment • Co-location of capital city and primate financial centre	• High number of financial firms and centres • High levels of financial employment • Ethno-linguistic fractionalization
GaWCs	• Domestically oriented financial system and markets • Weaker regional financial networks and infrastructure	• Internationally oriented financial system and markets • Stronger regional financial networks and infrastructure
CPE	• Centralized political structure • Liberal market economy • High levels of financial deregulation and liberalization	• Decentralized political structure • Coordinated market economy • Low levels of financial deregulation and liberalization

Source: Author’s analysis.

Appendices

Appendix A. Balance of domestic deals in primate financial centres

	Pre-crisis (#)	Pre-crisis (Billion US$)	Post-crisis (#)	Post-crisis (Billion US$)
New York	29	152	31	51
Toronto	1	3	-3	-3
São Paulo	12	4	-12	2
London	52	20	16	11
Milan	12	30	-37	-7
Paris	9	17	-4	0
Madrid	-11	-2	2	20
Frankfurt	2	-27	0	5
Johannesburg	-1	1	-7	2
Moscow	-2	0	-11	-4
Tokyo	38	-1	41	5
Beijing	-6	-2	15	6
Sydney	2	-16	-3	8
Seoul	11	1	-3	0
Mumbai	10	1	36	6
Kuala Lumpur	14	1	1	0

Note: Balance of domestic deals is calculated as the difference between acquisitions and targets, based on the number (#) or value (US$) of deals.

Source: Author's analysis of Dealogic data.