

Financial Centre Development in Central and Eastern Europe

The Rise of Warsaw and
the Hierarchy of Regional Financial Centres

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Abstract

Nearly 30 years after the market transition, the capital cities in Central and Eastern Europe (CEE), namely Warsaw, Prague, and Budapest, exhibit a high degree of financial centre development. In particular, the rise of Warsaw is characterised by the recent reclassification of its securities market from ‘emerging’ to ‘developed’ by FTSE Russell, the first post-socialist economy to achieve the upgrading. While the majority of financial assets in Poland are still managed by the Warsaw-headquartered commercial banks (rather than investment funds), the secondary cities such as Kraków and Wrocław have also become destinations for international financial and business services (FABS) providers. These two thematic approaches – evaluating the position of Warsaw as a growing regional/international financial centre in CEE and illustrating the nuanced primacy of Warsaw as *the* national financial centre in Poland – are often adopted separately, investigating one theme while taking the other granted.

This thesis, therefore, aims to fill in a gap in the literature with a case study on CEE (Warsaw in particular) and on the relative positioning of regional, national *and* domestic financial centres. In terms of structure, (1) by documenting the history of financial institutional reforms in Poland, the Czech Republic (Czechia), and Hungary, it lays a foundation for investigating the geography of financial centres in CEE; (2) by measuring the spatial reach of capital market services, it provides a landscape of financial services trade in the region, linking the national financial centres with the global network of cities; and (3) by analysing the concentration of FABS employment in major Polish metropolitan areas, it illustrates how the rise of Warsaw has modified the hierarchy of domestic financial centres. Compiled together, this thesis follows the development of a growing financial centre through its relative positioning vis-à-vis other centres in the region and draws a nuanced and complex picture of cities in finance.

In terms of methodological framework, the post-socialist reforms are presented through historical narratives with the agency of policymakers at the centre of analyses. It calls for a historically informed financial geography with a particular attention to individual reformers and their policies, a departure from deterministic institutional thinking. In addition to the data retrieved from national and European statistical offices, financial supervisory authorities, central banks, and securities exchanges, the datasets on capital market services from *Dealogic* as well as on FABS employment and gross value added from *Oxford Economics* illustrate a spatiotemporal distribution of financial actors and activities in the region. The quantile regression estimators alongside firm-centric narratives and descriptive statistics revisit the Central Place Theory: the econometric analysis confirms the key propositions of the theory in regard to the positive correlation between the size/complexity of services and the size of market areas for capital market services in CEE. On the sub-national level, the statistical analysis on FABS employment reaffirms the primacy of Warsaw without a ‘runner-up’ city. Instead, several secondary cities take smaller market shares, with some evidence of Wrocław and Poznań becoming more dynamic. Mergers and acquisitions in FABS are largely concentrated in Warsaw, but there is little evidence to suggest the *increasing* dominance of Warsaw.

Interpreting the above trends and patterns, Warsaw continues to attract portfolio investment both nationally and internationally as is evidenced by the performance of its securities market and symbolised by the FTSE Russell reclassification. This rise of

Warsaw originates in the reformers' willingness to strengthen the trading platform infrastructures and to cultivate trust among market participants. Although Warsaw has become a provider of larger and more complex capital market services, establishing itself as a leading regional financial centre, the other financial centres in the region (e.g. Prague, Budapest) retain their market shares through, for example, product differentiation. Likewise, while Warsaw remains the dominant player in FABS production, Warsaw's prominence as a growing regional financial centre did not result in the decline of other domestic financial centres. The growing division of labour among these national and domestic financial centres then requires us to reassess the concept of 'hierarchy' as the guiding framework to illustrate the global network of financial centres.

In other words, the assumed hierarchy of national and domestic financial centres is not based on a deterministic zero-sum game where the agglomeration of financial actors and institutions at the national centres would lead to the decline of other domestic centres. The rise of Warsaw is attributed to the city's ability to handle larger and more complex capital market services rather than to the concentration of domestic financial activities in the capital city. Otherwise, the latter shall increase over time, serving as an additional evidence to illustrate the rise of Warsaw. It follows that the articulator of the national and regional financial markets no longer seems to be the primary role of Warsaw and that the city is anchored to the global network of financial centres as a medium-sized international financial services centre. By listing several market and policy initiatives currently taking place, this thesis also suggests a number of research foci for future projects.

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List of Abbreviations

ABS	advanced business services
ABSL	Association of Business Services Leaders (Poland)
BPO	business process outsourcing
CEE	Central and Eastern Europe
CEESEG	CEE Stock Exchange Group
CPT	Central Place Theory
DCM	debt capital market
ECM	equity capital market
FABS (FBS)	financial and business services
FESE	Federation of European Securities Exchanges
GaWC	Globalisation and World Cities (research network)
GCI	Global Cities Index
GCO	Global Cities Outlook (index)
GFCI	Global Financial Centres Index
GFN	Global Financial Network (theory)
GVA	gross value added
HFT	high frequency trade
IPO	initial public offering
IFCD Index	International Financial Centers Development Index
KIBS	knowledge-intensive business services
KNF	Komisja Nadzoru Finansowego (Polish Financial Supervisory Authority)
LQ	location quotients
MiFID	Markets in Financial Instruments Directive (EU)
MTF	multilateral trading facility
M&A	merger and acquisition
NBP	Narodowy Bank Polski (National Bank of Poland)
NIF	National Investment Fund (Poland)
PFR	Polski Fundusz Rozwoju (Polish Development Fund)
PSE	Prague Stock Exchange
RMS	RM-Systém Czech Stock Exchange
SSC	shared service centre
WSE	Warsaw Stock Exchange

Chapter 1 | Introduction: Relative Positioning of Financial Centres in Central and Eastern Europe

1.1. The rise of Warsaw

Only a quarter of century has passed since the fall of the communist regimes in Central and Eastern Europe (CEE), but Warsaw (or more precisely, its policymakers and professional elites) already demonstrates both the ambition and capability of a regional, or even international, financial centre. The Warsaw Stock Exchange (WSE, or Giełda Papierów Wartościowych w Warszawie) surpassed the then Vienna-led CEE Stock Exchange Group (CEESEG) in terms of total market capitalisation in 2012¹, and it remains as the largest securities exchange in the region with EUR 135 billion as of December 2019². The WSE continues to maintain its independence from more established exchanges in the region, such as Vienna and Frankfurt, as far as infrastructures (e.g. trading platform, clearing house) are concerned. It is relatively common for firms in CEE to consider listing on the WSE to access liquid capital, while they regard listing on their home exchanges (e.g. Prague) as ‘a marketing tool’³. As such, Poland became the first post-socialist economy to have its securities market classification upgraded by FTSE Russell from ‘emerging’ to ‘developed’⁴.

Beyond CEE, large privatisation-related initial public offerings (IPOs) have attracted global investment banks such as Goldman Sachs, Credit Suisse, and JP Morgan to Poland⁵. While the financial and business services (FABS) to such complex and large transactions are often provided by their London or New York headquarters, these banks also opened

¹ The CEESEG was composed of the securities exchanges from Vienna, Prague, Budapest, and Ljubljana. In 2015, Ljubljana was sold to Zagreb, and Budapest was re-nationalised.

² Prior to the coronavirus outbreak in Europe. According to the Federation of European Securities Exchanges.

³ In this thesis, news articles are treated as data sources and are cited in the footnotes. All links are last accessed between 6-16 January 2020. Thompson, Emily. (2012) Warsaw Stock Exchange eclipsing Prague: Prague Exchange is being relegated to a marketing tool. *The Prague Post*, 6 June. Available at: <http://www.praguepost.com/business/13358-warsaw-stock-exchange-eclipsing-prague.html>.

⁴ Shotter, James and Martin, Katie. (2018) Poland wins upgrade from EM status by FTSE Russell. *Financial Times*, 24 September. Available at: <https://www.ft.com/content/b581df88-bfde-11e8-8d55-54197280d3f7>.

⁵ Waldoch, Marta. (2011) Goldman Sachs opens Warsaw office, says Poland a ‘financial hub’. *Bloomberg*, 11 May. Available at: <http://www.bloomberg.com/news/2011-05-11/goldman-sachs-opens-warsaw-office-says-poland-a-financial-hub-.html>.

their shared services centres (SSC) in Warsaw⁶. Warsaw is thus perceived to be a major regional node in the global network of financial centres, integrated not only through trades and direct investments, but also via intra-firm office linkages and cross-border service transactions. At the same time, Credit Suisse first opened its SSC in Wrocław, alongside the asset management firm BNY Mellon, while another asset management firm State Street opted for an SSC in Kraków. The relative positioning of Warsaw as a growing regional financial centre is certainly accompanied by the primacy of Warsaw as *the* national financial centre in Poland. However, when the scope of analysis is expanded from capital market services (e.g. bond/equity issues underwriting, loan syndication, mergers and acquisitions (M&A) advisory) to FABS (including BPO⁷/SSC), the geography of finance in CEE becomes more complex and nuanced.

From ‘advanced business services’ (Friedmann, 1986) to ‘knowledge-intensive business services’ (Wood, 2006), from ‘producer services’ (Sassen, 1991) to ‘financial and business services’ (Taylor, 2004), the literature is crowded with definitions and categorisations when it comes to FABS. As such, ‘different types of [F]ABS have attracted different levels of attention from geographers’ (Wójcik, 2013b:331). In grasping the global network of financial centres and the magnitude of financialisation in shifting global economy (Dicken, 2003), it makes sense to focus on globally influential financial centres such as New York and London (e.g. Sassen, 1991), and FABS relevant to the increasing gravity/centrality of these global cities (e.g. M&A advisory, investment banking) are often in the limelight. Yet, as financial centre formation can be understood as the outcome of ‘an interplay between centripetal and centrifugal forces’ (Contel & Wójcik, 2019), analyses on medium-sized financial centres provide a valuable insight on how national urban systems interact with the global network of cities.

To put into perspective, Warsaw, intuitively, is on the receiving end of the centrifugal force originating from global financial centres such as New York and London, and the same can be said for Prague or Wrocław. The reclassification of Warsaw by FTSE suggests the rise of Warsaw as a regional financial centre, while the Global Financial

⁶ Shotter, James and Noonan, Laura. (2017) Goldman Sachs to beef up Polish operations. *Financial Times*, 5 December. Available at: <https://www.ft.com/content/716d8302-d44c-11e7-8c9a-d9c0a5c8d5c9>; Anand, Shefali. (2018) Warsaw’s Wola District lures big U.S. companies. *The Wall Street Journal*, 5 June. Available at: <https://www.wsj.com/articles/warsaws-wola-district-lures-big-u-s-companies-1528204313>.

⁷ Business process outsourcing.

Centres Index (GFCI)⁸ ranks Prague higher than Warsaw in its recent editions, contesting a notion of hierarchical relationship between Warsaw and Prague based on their securities market attributes. On the sub-national level, as the prominent national financial centre, Warsaw can be seen as the articulator of national economy (cf. Friedmann, 1986). Yet, BPO/SSCs in Wrocław or Kraków add a layer of interurban linkages to cities such as New York and London, bypassing Warsaw. Then, what is the relative positioning of Warsaw vis-à-vis Prague (i.e. among national financial centres) and Wrocław (i.e. among domestic financial centres)? How do the different definitions/categorisations of FABS influence our understanding of (hierarchical) financial centre network? What does the complex and nuanced geography of finance in CEE inform us in terms of financial centre development? These are some of the core questions this thesis aims to answer.

The relational geography of financial centres in CEE reveals a number of concerns for Warsaw to sustain its financial centre development trajectory. Specifically, Warsaw struggles to establish itself as more than a hub for the niche regional financial markets in CEE. These markets are characterised by the privatisation of state-owned enterprises and the liquidity provided by conservative (i.e. the scope of investment being legally restricted to low-risk instruments) institutional investors such as public pension funds. Despite high levels of active trading in securities contributing to high turnover in Warsaw, the rise of Eurosceptic nationalist parties in Hungary and Poland (as well as the Czech Republic (Czechia⁹) to a lesser extent) casts a shadow on a prospect of regionally coordinating the financial centre development for further liquidity. The WSE's failed attempts to commence a high frequency trade platform or to manage the pan-European multilateral trading facility Aquis Exchange in London are other notable setbacks Warsaw has experienced in the recent years. The yielding growth of Warsaw consequently means that there still is a room for Vienna or London¹⁰ to regain the control of the region, while Prague and Budapest can strengthen the existing connectivities with Vienna and potentially benefiting from it. Thus, the CEE region continues to provide relevant insights for understanding the changing interurban relations in financial geography.

⁸ Available at: <https://www.longfinance.net/programmes/financial-centre-futures/global-financial-centres-index/>.

⁹ Although 'Czechia' was adopted as the country name for official uses in 2016, 'the Czech Republic' remains popular even among the government officials.

¹⁰ For example, London still accounts for almost a half of over-the-counter foreign exchange daily turnover for Polish zloty for the last decade, according to the Bank for International Settlements.

The objective of this project is, therefore, to investigate the rise of Warsaw as a financial centre, and to illustrate how such emerging financial centres are anchored within (or incorporated into) the existing hierarchical network of cities, both globally and regionally. Warsaw and the financial centres in CEE are valuable natural experiments, as the cities experienced only minor development in financial markets during their socialist past. The timespan of 30 years since the collapse of the socialist regimes is recent enough to conduct interviews with those who were involved in the emergence of Warsaw as a financial centre and other contemporary events. It is also long enough to visualise the macro-financial impact of institutional changes in the region. Post-socialist reforms as well as the EU accession processes in CEE are well documented, and the institutional environment of CEE in which financial centres arose is relatively easy to identify and analyse. Thus, this thesis contributes to filling in a gap in the financial geography literature identified by Taylor (2004:40-41, table 2.2), highlighting the absence of empirical studies on financial centre development in the post-socialist economies apart from Moscow. As the world and global cities (Sassen, 1991; Taylor, 2004) dominate the prominent positions in the literature, this thesis likewise contributes to deepening our understanding on the positioning of medium-sized financial centres. The upgrading of Warsaw by FTSE Russell shows why it matters for corporate strategy and public policy.

By way of introduction, this chapter first illustrates how various indices and rankings depict financial centres in CEE. While these indices and rankings exhibit more ordinal than cardinal characteristics, measuring the relative positioning among the cities rather than providing a comparable quantitative measurement for each city, they are nonetheless valuable in reading the general sentiment of the market. It also justifies the choice of financial centres which are further analysed in the later chapters: namely, Warsaw, Vienna, Prague, and Budapest on the supra-national level, and Kraków, Wrocław, and Poznań on the sub-national level. Then, the second half of this chapter lays out the conceptual framework of this thesis by listing the overview of each chapter and highlighting the relationship between them. While Chapter 2 serves as a general literature review, Chapters 3, 4, and 5 form a portfolio of independent, but interrelated, research papers, as per the thesis regulation at the University of Oxford. This introductory chapter concludes with a number of key concepts highlighted in this thesis which will serve as a bridge to the following literature review chapter.

1.2. Central and Eastern Europe in the financial centre indices and rankings

In March 2014, the *Financial Times* reported that ‘New York ousts London as top financial centre’¹¹, referring to the biannual Global Financial Centres Index (GFCI) published by the London-based consultancy Z/Yen under the Long Finance initiative¹². The article points out that the ‘decline’ of London can be a symptom of the general relative weakness of European financial markets vis-à-vis the North American and East Asian markets. At the same time, a special report also by the *Financial Times* in April 2014¹³ praised Frankfurt as an international financial centre, ready to overtake London in the near future. While the complementarity between Frankfurt and London is supported by a number of scholarly works (e.g. Faulconbridge, 2004; Beaverstock et al., 2005), financial centre indices such as the GFCI continue to provide rankings of financial centres which employ a hierarchical (and often zero-sum, i.e. the rise of one is reflected on the decline of another) approach to the financial centre development. Likewise, the GFCI exhibits an increasing competition among the financial centres in CEE (Figure 1.1), and there seems to be no clear winner leading the region in the recent years.

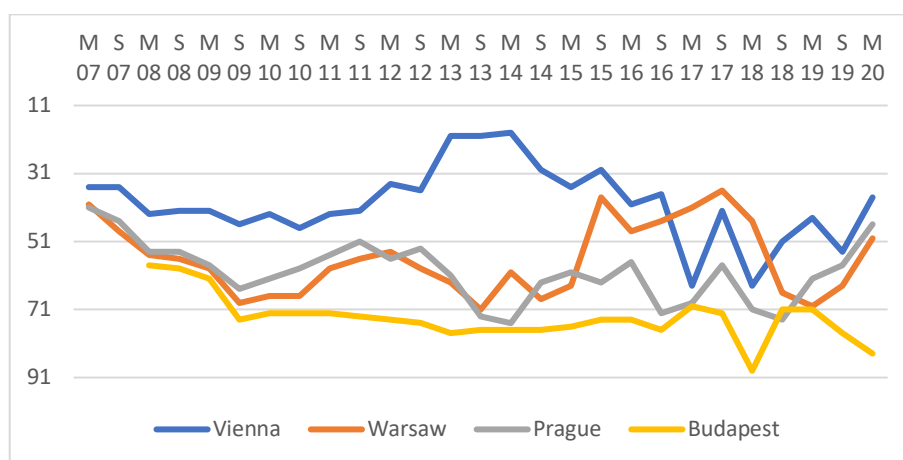


Figure 1.1. GFCI ranking of the financial centres in CEE

M = March, S = September

Source: Long Finance

Among the financial centres in a broader post-socialist Eastern Europe, Moscow and St. Petersburg perform not as competitive as the other centres according to the GFCI. Sofia

¹¹ Pickford, James. (2014) New York ousts London as top financial centre. *Financial Times*, 15 March. Available at: <http://www.ft.com/intl/cms/s/0/9a8fbf6a-ab89-11e3-aad9-00144feab7de.html>.

¹² Available at: http://www.longfinance.net/images/GFCI15_15March2014.pdf.

¹³ Financial Times. (2014) Frankfurt as a financial centre. *FT Special Report*, 17 April. Available at: <http://im.ft-static.com/content/images/5e2f5962-c435-11e3-870b-00144feabdc0.pdf>.

appeared for the first time in September 2018 and Vilnius in March 2020, while Bratislava remains outside of the ranking due to a low number of professional assessments Z/Yen has collected. Tallinn and Riga were highly praised in 2016/17 presumably due to optimistic market perceptions on the so-called ‘FinTech’ sector, but their positions have not been stable. Within CEE (Figure 1.1), Vienna has been a leading financial centre, but Warsaw challenged and replaced Vienna in 2017/18. As Vienna took back the throne of the leading regional financial centre in September 2018, Prague and Budapest began to compete with Warsaw for the second place, with Prague performed the best in the last three GFCI editions.

The GFCI takes into account a wide range of factors drawn from various indices as well as online questionnaires (‘financial centre assessments’) submitted by professionals¹⁴. The financial centres in CEE received their external assessments mostly from the London-based professionals (Figure 1.2). Thus, their sentiment might be skewed and biased, based on the specific interests of London, fluctuating the ranking of the financial centres in CEE. Here, a remark made by Mark Boleat, the then policy chairman of the City of London Corporation, serves as a useful reminder in adopting the financial centre indices: ‘[the GFCI is] a useful broad brush indicator but the methodology is such that no great significance should be read into movements from one half-year to another’¹⁵. Wójcik also comments on the ‘exaggerated decline’ of London (which can be applicable to any declining financial centres in the index) while highlighting the ‘underestimated power’ of the indices and rankings (2013a:2744). Unlike frequent references to it in the media or policymaking¹⁶, the GFCI is only seldom mentioned in the literature (e.g. Shirai, 2009; French et al., 2010; Derudder et al., 2011; Walther et al., 2011; Beaverstock & Hall, 2012; Lai, 2012), often supplementary to their main analyses.

¹⁴ For example, the most recent edition published in March 2020 utilises 37,695 assessments. Available at: <https://www.longfinance.net/programmes/financial-centre-futures/global-financial-centres-index/gfci-methodology/>.

¹⁵ Pickford, James. (2014) New York ousts London as top financial centre. *Financial Times*, 15 March. Available at: <http://www.ft.com/intl/cms/s/0/9a8fbf6a-ab89-11e3-aad9-00144feab7de.html>.

¹⁶ The Dublin City manager, for example, took the declining trend of the city seriously and commissioned Z/Yen to further investigate the city’s global competitiveness. Available at: <https://www.dublincity.ie/sites/default/files/content/YourCouncil/AbouttheCouncil/CouncilDepartments/Documents/Dublin's%20Position%20in%20GFCI%206.%20Z.Yen.%20DCC.pdf>. Also see Boland, Vincent. (2014) Ireland reviews strategy on financial centre. *Financial Times*, 23 September. Available at: <http://www.ft.com/intl/cms/s/0/5a868922-432c-11e4-9a58-00144feabdc0.html>.

GFCI 26 Connectivity Chart

This graph shows which financial centres rated each other in GFCI 26. Click and drag nodes to highlight them and lock their position. Double click nodes to unlock them.

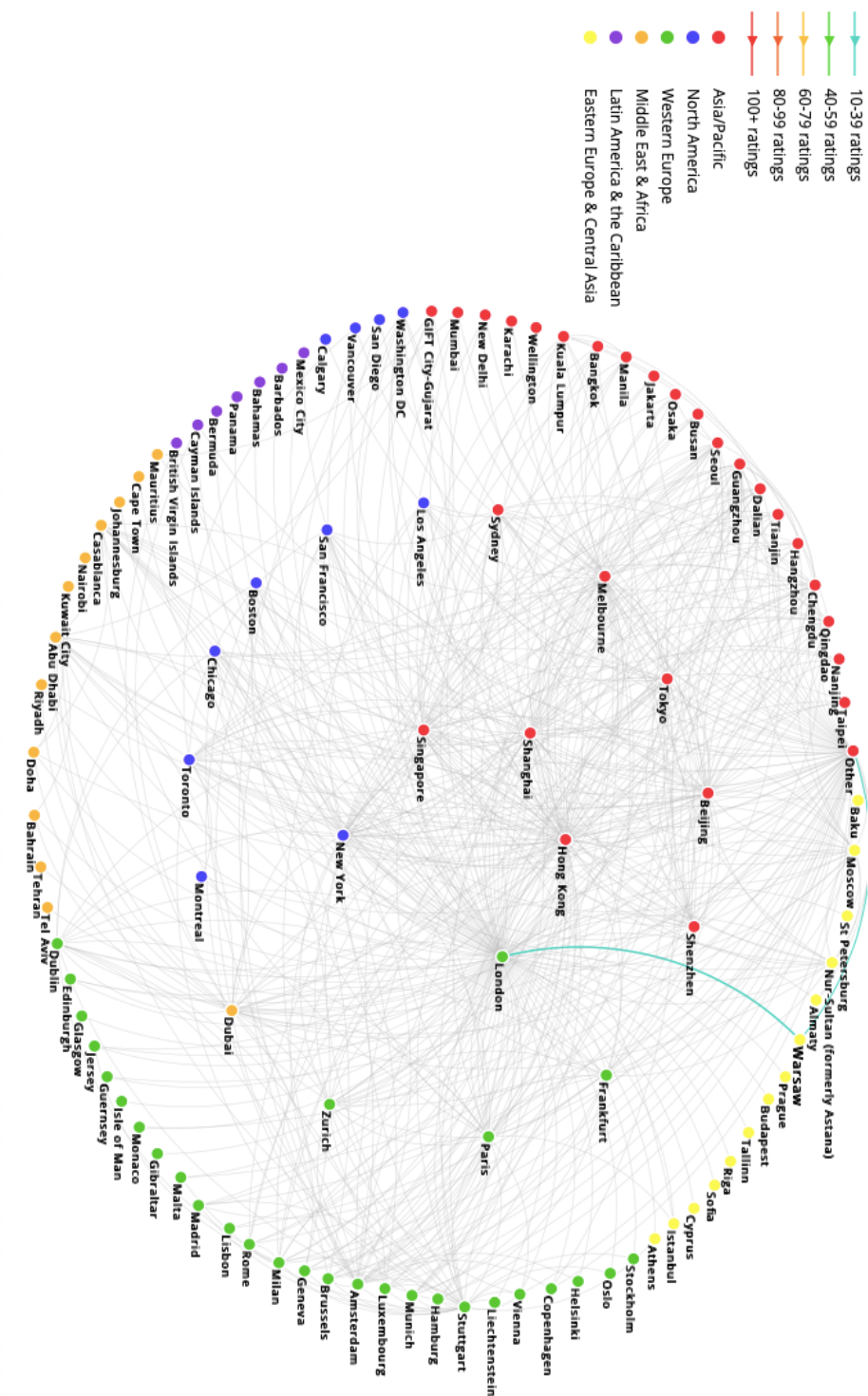


Figure 1.2. GFCI 26 professional assessment linkages
Warsaw is highlighted in the chart.
Source: Long Finance, nodes rearranged by the author¹⁷

¹⁷ The original chart is available at: <https://www.longfinance.net/programmes/financial-centre-futures/global-financial-centres-index/gfci-26-explore-data/gfci-26-connectivity-chart/>.

The list of the referring literature is almost empty when it comes to other financial centre indices such as those composed by Xinhua-Dow Jones and A.T. Kearney (see e.g. Rottier & Véron, 2010). Between 2010 and 2014, Xinhua News Agency in Beijing and Dow Jones Index Service published the International Financial Centers Development (IFCD) Index. This annual index covered 45 selected financial centres, focusing on the growth and development of the financial centres, especially in the so-called BRIC countries (i.e. Brazil, Russia, India, China). Neither Prague nor Warsaw was on the list (though Budapest was included), and the prominence of Vienna observed in the GFCI was not evident in the IFCD Index. Thus, this index is not as informative as the GFCI as far as the financial centres in CEE are concerned, apart from a moderate recognition of Vienna as the leading financial centre in the region.

A Chicago-based management consulting firm, A.T. Kearney, publishes the Global Cities Index (GCI). Since its launch in 2008, the GCI has been published biennially until 2014 then annually. In the 2012 edition, financial centre scholars such as Peter J. Taylor and Saskia Sassen contributed commentaries, creating a dialogue between business professionals and academics within the index. The GCI is constructed from five dimensions of factors: ‘business activity’, ‘human capital’, ‘information exchange’, ‘cultural experience’, and ‘political engagement’. Thus, unlike GFCI, the GCI is short in explaining financial activities *per se* within a given city. Perhaps due to this broader socio-economic focus, the prominence of Vienna in terms of ranking is more visible in the GCI than in the GFCI (Figure 1.3) as the city scored high in the cultural and political categories (although it has been losing its position from the 13th in 2012 to the 25th in 2019). Warsaw, Prague, and Budapest joined the list in 2014: while Warsaw exhibits an upward trend, Budapest is declining, and Prague maintains its position as the second highest ranked city in the region since 2016.

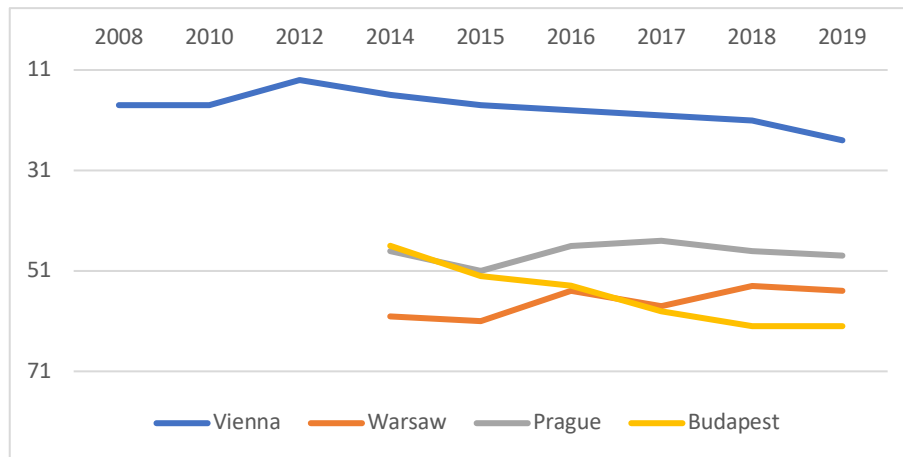


Figure 1.3. GCI ranking of the financial centres in CEE
Source: A.T. Kearney

A.T. Kearney also composes the Global Cities Outlook since 2015, based on cities' future potential. Vienna is increasingly considered as a city with a high potential, while the index is less optimistic about Budapest (Figure 1.4). Between 2017 and 2019, Prague maintained its position while Warsaw dropped from the 31st to the 41st. Coincidentally, Warsaw also dropped its position in the GFCI from the 41st in March 2017 to the 70th in March 2019 (Figure 1.1). One must avoid making hasty conclusions, but the strong presence of Vienna followed by Prague, fluctuating performance of Warsaw, and the lack of confidence in Budapest seem to echo in many indices and rankings.

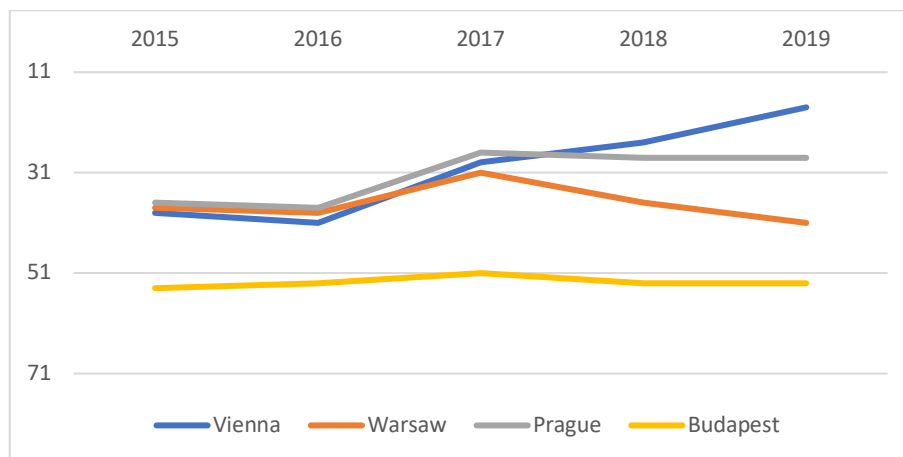


Figure 1.4. GCO ranking of the financial centres in CEE
Source: A.T. Kearney

If the GFCI and other indices aim to *rank* the financial centres, the 1999 paper 'a roster of world cities' by Beaverstock, Smith, and Taylor aims to *group* them in order to depart from the minutely hierarchical nature of the former (e.g. the 69th is 'better' than the 70th).

The paper approximates the ‘global capacity’ of cities with the presence of advanced business services firms¹⁸ and approaches the concept of ‘world cities’ from a functional point of view. Such a functional approach to the cities is echoed in Sassen’s *The Global City* (1991), although it covers only London, New York, and Tokyo and approaches these cities in a timeless manner (i.e. changes from one year to another are not highlighted). Taylor does not claim timelessness nor path-dependency of cities in his *World City Network* (2004), treating cities as a ‘process’ (cf. Castells, 1996). The global connectivity and coordination of cities change over time reflecting the distribution of services production at that time. His Globalisation and World Cities (GaWC) research network at Loughborough University continues to document the changing landscape of global coordination of cities through the office networks of advanced business services firms.

The GaWC publishes the classification of world cities every 2-4 years since 2000 based on the office-connectivities. It defines ‘alpha’ and ‘alpha-’ cities as ‘[v]ery important world cities that link major economic regions and states into the world economy’; All ‘beta’ level cities are defined as ‘important world cities that are instrumental in linking their region or state into the world economy’; All ‘gamma’ level cities are defined as ‘world cities linking smaller regions or states into the world economy, or important world cities whose major global capacity is not in advanced producer services’; Some cities ‘have sufficient services so as not to be overtly dependent on world cities’ – they are labelled as cities with ‘(high) sufficiency’¹⁹. Warsaw achieved the ‘alpha’ city labelling in 2016, surpassing Vienna (Table 1.1). Both Prague and Budapest move between ‘alpha-’ and ‘beta+’, indicating their fluctuating interurban connectivities.

	2000	2004	2008	2010	2012	2016	2018
Vienna	B+	B+	A-	A-	A-	A-	A-
Warsaw	B+	A-	A-	A-	A-	A	A
Prague	A-	B+	A-	B+	A-	B+	A-
Budapest	B+	A-	A-	B	B+	B+	A-

Table 1.1. Financial centres in CEE according to the GaWC

A = alpha, B = beta, G = gamma

Source: GaWC

¹⁸ Overlapping categorisations of advanced business services and FABS are dealt in depth in Chapter 5.

¹⁹ Available at: <http://www.lboro.ac.uk/gawc/gawcworlds.html>.

Beyond the four leading financial centres in CEE, Bratislava debuted as a ‘gamma-’ city, but it was recently upgraded to ‘beta-’. Ljubljana (whose securities exchange was once owned by Vienna) was regarded as a city with ‘sufficiency’, later classified as a ‘gamma’ city. Within Poland, Wrocław, Kraków, and Poznań joined the list in 2010 as cities with ‘high sufficiency’, while Katowice and Łódź joined the list in 2016 as cities with ‘sufficiency’. The secondary cities in the Czech Republic and Hungary, such as Brno or Debrecen, are not on the list.

Looking at securities market attributes such as total market capitalisation and the FTSE classification, Warsaw is a rising financial centre, and the office opening of several international financial services providers seems to confirm such an observation. However, financial centre indices and rankings have mixed views, and the hierarchy of financial centres in CEE is anything, but fixed. At the same time, domestic financial centres in Poland are more represented in these indices and rankings than the secondary cities in the Czech Republic and Hungary. These domestic financial centres host BPO/SSCs of global firms, suggesting a degree of integration between the national urban system of Poland and the global network of financial centres. The next section elaborates these themes, incorporated into three empirical chapters, and highlights some of the theoretical foci which will be dealt in the next chapter.

1.3. Structure of the thesis and themes for theoretical discussion

In terms of structure, this project follows the ‘three-paper’ approach, each paper corresponding to a chapter in this thesis:

- Agency of Reformers in the European Financial-Centres-in-Making: A Historically Informed Financial Geography (Chapter 3, submitted to *Finance and Society*),
- Spatial Reach of Financial Centres: An Empirical Investigation of Interurban Trade in Capital Market Services (Chapter 4, submitted to *Urban Studies*),

- The Geography of Financial and Business Services in Poland: Stable Concentration and a Growing Division of Labour (Chapter 5, a shorter version accepted by *European Urban and Regional Studies*).

The starting point (i.e. Chapter 3) is a historical narrative of Poland, the Czech Republic, and Hungary in the style of *Capitals of Capital* (Cassis, 2006; also see Cassis & Wójcik (eds.), 2018). While macroeconomic and institutional frameworks are dominant in analysing post-socialist transition (e.g. Aghion & Blanchard, 1994; Gelos & Sahay, 2000; Balcerowicz, 2002; King & Szelényi, 2005; Åslund, 2007), this chapter illustrates how individual policymakers underline the characteristics of financial institutions and set, or even alter, the courses of financial centre development. Historical narratives from CEE reveal the reformers' contrasting philosophies and approaches towards the post-socialist transition, despite their shared goals of market liberalisation and European integration. Their reforms (or the lack thereof) differentiated the securities markets in Warsaw, Prague, and Budapest, especially with regard to financial intermediary mechanisms. While the legacies of such reforms continue to shape an uneven landscape of financial centres in CEE, this chapter argues that reformer-centred narratives reject deterministic institutional thinking, that the presence of certain institutions (e.g. headquarters, investment banks, market of financial intermediaries) explains/justifies the growth of the financial centre in question. It therefore promotes historical narratives on policymakers (i.e. agency of reformers) to be included into the observation framework of financial centre development, similar to how scholars analyse foreign policy focusing on the heads of governments and ministers. Chapter 3 lays a foundation for investigating the relational geography of financial centres in CEE.

Chapter 4 illustrates the result of such reforms, relevant for corporate strategies and public policy. It investigates the spatial patterns of interurban trade in capital market services by analysing service relationships between clients in CEE and financial services companies worldwide between 2000 and 2014. It aims to address a gap in research on financial centres and interurban trade by providing empirical evidence on the relationship between complexity of services and the size of market areas, across which they are traded. It utilises recent contributions to Central Place Theory (CPT), which provide suitably general models of interurban trade applicable to financial services. The key propositions on CPT in this respect is that more complex services are traded across larger market areas,

thus translating into a further spatial reach of service centres. Given that these propositions are derived at a very general level, this chapter relies on global city theory for explaining the underlying causal mechanisms at play in the context of capital market services. The analysis examines the geography of adviser-client trade links to investigate how spatial patterns of interurban trade in capital market services are shaped by the characteristics of the services traded. It uncovers evidence that more complex and larger transactions are associated with higher distance between clients and financial services providers. This in turn means that more complex services are traded across larger market areas. While clients in CEE can generally find suitable providers for less complex capital market services locally, they often rely on financial services providers globally for the most complex transactions. Chapter 4 thus provides a landscape of financial services trade in the region, linking the national financial centres with the global network of cities.

While Chapter 4 focuses on capital market services (e.g. bond/equity issues underwriting, loan syndication, M&A advisory), Chapter 5 deals with FABS at large which includes BPO/SSC. It documents the spatiotemporal distribution of FABS production among the Polish metropolitan areas in three features: employment in FABS, gross value added (GVA) from FABS, and M&A among FABS firms. While all features are likely to be concentrated in Warsaw, the national financial centre, the spatiotemporal analysis illustrates how the changes at the national level are reflected across major Polish cities. By composing the location quotients for FABS employment and GVA, it investigates if any cities are involved in FABS out of proportion to their shares in total employment or the national GDP. Furthermore, by analysing the spatial distribution of M&A among FABS firms, it aims to depict if FABS are increasingly concentrated in certain cities. Considering the growing prominence of Warsaw in the international network of financial centres, one could expect increasing spatial concentration of FABS in the country. The statistical analysis confirms the undisputed primacy of Warsaw with no obvious ‘runner-up’ cities but shows a dynamic development of FABS in Wrocław and Poznań, partially corresponding to the GaWC classification. Overall, there is little evidence to suggest consolidation of FABS in Poland. The rise of Warsaw as a regional financial centre does not take place at the expense of other domestic financial centres, and the findings suggest a growing division of labour among these domestic financial centres. Chapter 5, therefore, indicates that the articulator of the national and regional financial markets is no longer the primary role of Warsaw.

Given that the majority of recent studies on interurban relations in CEE utilise macroeconomic (e.g. foreign direct investment) analyses²⁰, this thesis also complements the literature in terms of methodology. Following the Central Place Theory frameworks (Chapter 4), for example, it focuses on the behaviour of firms. This microeconomic approach allows us to investigate the incentives affecting firms (e.g. to open a subsidiary, to import a service) and to assess the impact of various reforms and initiatives. Such reforms and initiatives come from regulations/rules (by the European and national authorities) or projects/events (e.g. opening of a new trading platform). Thus, this study also focuses on the policymakers and financial platform managers and uses chronological narratives (i.e. the agency of reformers, see Chapter 3) as an additional method. Multivariate regression analysis (Chapter 4) and descriptive statistics (Chapters 4 & 5) serve as analytical tools especially when the data covers cross-border transactions. In order to facilitate the illustration of spatiotemporal distribution and concentration, the ‘location quotients’ (see Contel & Wójcik, 2019) are used for FABS employment and GVA (Chapter 5).

The financial markets (especially commercial banking and securities market platforms) in Warsaw have developed quite independently from the Austrian capital (i.e. the Vienna-headquartered banks and Wiener Börse), unlike in the case of Prague. At the wake of market liberalisation, the newly established commercial banks in Poland were ‘paired’ with geographically diverse investors to avoid Warsaw being subordinated to a particular financial centre (see Chapter 3). Furthermore, a number of New-York- and London-headquartered global firms operate their BPO/SSCs in Wrocław and Kraków, bypassing Warsaw (see Chapter 5), while more complex and larger capital market services are demanded and predominantly produced in Warsaw (see Chapter 4), forming overlapping layers of intrafirm and interurban networks. Hence, an additional objective of this project is to highlight the elements of nuances and complexity added to the geography of money and finance, due to the dynamic changes in institutional and financial services landscapes.

More specifically, this thesis explores different characteristics associated with the concepts of ‘international financial centre’, ‘world city’, and ‘global city’ as well as their

²⁰ It is common to refer to capital cities and countries interchangeably, assuming the primacy of the capital cities in finance in each CEE country. See e.g. Helmenstein (ed.) (1999), Batten and Kearney (eds.) (2006), Lane and Myant (eds.) (2007), Matousek (ed.) (2010), and Åslund (2013).

‘development’ and ‘hierarchy’. While the literature seems to accept some degree of overlaps among these terms describing financial centres, ‘world city’ and ‘global city’ often rely on a more institutionally deterministic development of hierarchical interurban structures for medium-sized financial centres (see Chapters 2 & 3). Medium-sized financial centres generally lack the ability to produce the most complex capital market services (e.g. M&A advisory), and the ‘development’ of financial centres is often measured by the broadening and deepening of financial services offered (see e.g. the aforementioned GFCI or GaWC). Different types of institutions are attributed to the growth of financial centres, from regulation to trading platforms, from intra-firm office connectivity to the market of financial intermediaries (e.g. Christophers, 2016; Hughes, 2005; Taylor, 2004; Wójcik, 2011). The presence of these institutions and inter-institutional relations then explain and justify the hierarchical nature of the global interurban network with globally influential financial centres such as New York and London situating at the top (Sassen, 2001). In this global network of cities, medium-sized financial centres such as Warsaw are expected to function as regional financial centres, benefiting from the geographical proximity to the potential clients (cf. Parr & Budd, 2000; Rodríguez-Pose & Crescenzi, 2008). Alternatively, a financial centre may take advantage of distinctive regulatory arrangements in a case of offshore centres (e.g. Wójcik, 2013b). While these observations are suitable in analysing the positioning of medium-sized financial centres vis-à-vis global financial centres, they provide little insight on their positioning against each other or vis-à-vis secondary (i.e. local or domestic) financial centres.

The case of CEE shall demonstrate the shift in regional urban systems from a stable/stagnant hierarchy of cities (based on the concentration of financial actors and institutions in a handful cities) to a more nuanced interurban network of financial centres with overlapping market areas and growing division of labour (see Chapters 4 & 5). Neither the office presence of global FABS firms nor the steady growth of securities markets has led Warsaw to locally experience an increasing centripetal force, as the city does not take a large portion of financial activities away from other national and domestic financial centres. While Warsaw clearly dominates FABS production in Poland, domestic financial centres retain direct trade links and office-connectivity with other international financial centres. The growth of Warsaw as a regional financial centre continues, without inflicting strong hierarchical relationships (i.e. command and control) to nearby national

financial centres and domestic cities. The Polish urban system is integrated into the global network of cities, and cities such as Wrocław and Krakow are also the nodes in the network, characterised by the international division of labour, relatively independent from Warsaw. Thus, the level of FABS production and trade in terms of size and complexity, rather than the chain of articulation (i.e. a regional financial centre articulating several national financial centres which in turn articulating domestic financial centres), shapes the 'hierarchical' structure of regional financial centres. This shift of focus from the articulator of national and regional economy to the development of FABS production in terms of size and complexity signals a need to reassess the role of Warsaw in national and regional policymaking and business strategies. The concluding chapter of this thesis provides further discussions in relation to these findings.

The next chapter first deals with the question of overlapping concepts surrounding financial centres. Once the network characteristics among financial centres are highlighted, it further elaborates the geographies of money and finance. In this context, financial services trade is placed at the core of interurban relations: it is highly relevant in CEE especially when the market liberalisation and EU accession accelerated the opening of regional financial centres vis-à-vis the rest of the world. This argumentation leads to Chapter 3 which presents post-communist reforms in CEE with the agency of reformers at the centre of analysis.

Chapter 2 | Geographies of Financial Centres, Money, and Financial and Business Services

2.1. Introduction

When Goldman Sachs opened its Warsaw office in 2011, the firm stated that they ‘consider Poland, and Warsaw in particular, to be an important *financial hub* for the whole region [... and] one of the leading *financial centers* in Europe’ (emphasis added)²¹. By 2017, however, Goldman Sachs made Warsaw as a global operations centre, presumably to gain from labour arbitrage²². The nuance carried in the word ‘financial hub’ is that various financial products are traded through the hub²³, while an ‘operations centre’ has an image of a back-office, i.e. with lower value added, less power and a lower position in international finance. At the same time, when financial trade is interpreted as financial and business services (FABS)²⁴ trade, the expansion of the Warsaw office reinforces the intra-office network between Goldman Sachs headquarters (London and New York) and Warsaw and strengthens the hub characteristics of Warsaw as a regional financial (or FABS) centre. As discussed in Section 1.2, however, the rise of Warsaw as a financial centre is not a consensus among financial centre indices and rankings.

While the concept of ‘financial centre’ continues to evolve in the literature, regional (or medium-sized) financial centres such as Warsaw develop with multiple attributes: an articulator of a national economy, a regional platform of financial products trade, and an agglomeration of FABS firms, to name a few. Intuitively, the role Warsaw plays in the interurban relations vis-à-vis London or New York (i.e. global financial centres) differs from that vis-à-vis Kraków or Wrocław (i.e. domestic financial centres). By surveying the financial centre literature, this chapter aims to identify major themes relevant to these various roles regional financial centres play. As such, it reviews the concept of

²¹ Qtd. Waldoch, Marta. (2011) Goldman Sachs opens Warsaw office, says Poland a ‘financial hub’. *Bloomberg*, 11 May. Available at: <http://www.bloomberg.com/news/2011-05-11/goldman-sachs-opens-warsaw-office-says-poland-a-financial-hub-.html>.

²² Shotter, James and Noonan, Laura. (2017) Goldman Sachs to beef up Polish operations. *Financial Times*, 5 December. Available at: <https://www.ft.com/content/716d8302-d44c-11e7-8c9a-d9c0a5c8d5c9>.

²³ Wiesław Rozłucki, the first president of the Warsaw Stock Exchange refers to the concept of ‘Drehscheibe’ (railway turntable) utilised by Vienna as his understanding of a financial hub. Interview (9 November 2017).

²⁴ Various definitions and conceptualisations of FABS are discussed in the later section and Chapter 5.

‘financialisation’ (*à la* Hall, 2012 & 2013) – narrowly applied here as a process in which a city increases its ‘financial centre’ attributes – but paying special attention to the post-communist market liberalisation.

As economic integration continues to proceed in Central and Eastern Europe (CEE) with regard to the freedom to provide financial services in another member state of the EU (known as ‘passporting’), multinational FABS firms began to expand their office networks into the region. Political stability and an effective legal system were two important criteria for European Union accession, and the same can be said for financial centre development from a supply point of view (Davis, 1990). Uncertainties surrounding the socio-political environments increase operational risks which are hard to be mitigated through derivatives and other financial products and techniques. In the wake of market liberalisation in CEE, the World Bank and its Multilateral Investment Guarantee Agency provided funds to protect foreign investments from such risks, while the Group of 24 countries established the European Bank for Reconstruction and Development to support foreign business participation (USITC, 1991). EU accession then added a visible layer of institutional stability, and non-EU capital cities, such as Kiev and Minsk, remain as less favoured candidates for regional financial centres. Therefore, this literature review (and the thesis as a whole) focuses on the three new member states with relatively large populations and economies, namely Poland, the Czech Republic, and Hungary, when it refers to CEE²⁵.

The rest of this chapter is divided into five sections. Sections 2.2 and 2.3 illustrate two trends in characterising a financial centre: ‘financial centre as an agglomeration of firms’ and ‘financial centre as a node within the global network’. This thesis generally follows the latter approach in order to emphasise the regional interurban relations within CEE (or Poland), in addition to the relations with international financial centres beyond CEE (e.g. London and Frankfurt). Even though various agglomerations are addressed in the empirical chapters (e.g. concentration of FABS employment in Warsaw), the topic is dealt with in the context of spatial/size distribution, rather than analysing the cities’ attributes which lead to agglomeration. Furthermore, as an analytical focus, the relative positioning of Warsaw (*vis-à-vis* Prague, Budapest, and Vienna on the supra-national level, and *vis-*

²⁵ Due to the geographical proximity between Bratislava and Vienna (64km), this thesis does not focus on Slovakia as much as the other three countries.

à-vis Kraków and Wrocław on the sub-national level) shifts the topic of agglomeration towards the node/articulator function of a financial centre. Sections 2.4 and 2.5 trace the themes covered in the ‘progress reports’²⁶ of *Progress in Human Geography* as a representative sample set of the contemporary studies on the geographies of services, money, and finance, supplemented by other relevant literature. The aim of Section 2.4 is to highlight how geographers have conceptualised international services trade toward the end of the Cold War, while Section 2.5 focuses on the geography of money/finance and the associated phenomenon of ‘financialisation’. The last section of this chapter (i.e. Section 2.6) identifies the gaps in literature and illustrates how this thesis aims to fill them in.

2.2. Financial centre as an agglomeration of firms

The socio-political criteria for financial centre development (and EU accession) previously mentioned in this chapter are necessary conditions upon which financial centres are established, rather than sufficient incentives for firms to agglomerate and make a city a financial centre. Fujita and Thisse (2002) thus elaborate on the economies of agglomeration by asking how cities are formed and why firms gather around certain cities. Due to the history of managed economies, financial resources in CEE were already concentrated in the capital cities. Even though the pre-war stories of property rights and financial trade occasionally reach the lips of policymakers and local scholars (e.g. Gál, 2010b; Cottrell (ed.), 2017), such factors are too distant to illustrate the contemporary financial centre landscape in the region. Therefore, more relevant questions for financial centre development in CEE are how and why cities rise or decline and how they have survived as financial centres in the midst of European integration.

In more general terms, McCann (2001) describes two types of economies which firms would enjoy in an ‘upcoming’ financial centre (i.e. a financial-centre-in-making). ‘Localisation economies’ are the positive externalities firms obtain by locating themselves next to similar firms (e.g. through easier access to information and knowledge, pooled markets of skilled labour). ‘Agglomeration (urbanisation) economies’ are

²⁶ In some instances, it is called an ‘interface’ report.

economies of scale firms receive by basing operations in large urban areas (e.g. developed infrastructure, access to larger markets, network of supporting firms)²⁷. Taylor et al. (2003) further point out that agglomeration (or clustering) in the financial sector becomes a norm rather than an exception due to the complex nature of modern financial markets where a single firm is not able to handle the A-to-Z of FABS transactions. Through international surveys they also find that the location of offices serves as a source of positive branding and marketing for the firm, which shall be added to the two economies of scale listed above as an incentive to agglomerate.

Although the term ‘cluster’ was introduced by Porter (1990), its conceptualisation can be traced back to Marshall’s ‘industrial district’ (1920). Clusters are agglomerations of firms which provide the aforementioned economies and incentivise innovation and growth (Beaudry & Swann, 2009; Klepper, 2010; De Vaan et al., 2013). As these works are dominated by the theoretical model of ‘life-cycle’ where a single wave of rise and decline is a norm, Martin and Sunley (2011) propose a complex ‘adaptive system’ model where clusters evolve with adaptive (as opposed to return-to-the-prior-state) resilience to (i.e. capacity to recover from) external socio-economic shocks. A cluster as an agglomeration of firms is thus conceptualised through the lens of evolutionary geography (e.g. Boschma & Frenken, 2006; Ter Wal & Boschma, 2011). Boschma (2015:743) then incorporates the evolution of clusters with regional economy, stating that ‘the resilience of regions is strongly rooted in their past legacy, as embodied in their industrial, network and institutional structures’. This is highly relevant for CEE where the legacy of centralised economy is attributed to the forming of national financial centres, some of which adapted themselves to the new environment of the single market to become regional financial centres²⁸.

While the studies on clustering are valuable in terms of the reasons why firms agglomerate, they do not provide a causal explanation why some financial centres thrive

²⁷ Head et al. (2004) link agglomeration economies with ‘the home market effect’ while adding ‘favourable factor conditions’ on the list of economies to investigate the link between the market size and agglomeration. Baldwin and Okubo (2006) question the heterogeneity of the agglomerating firms while their study focuses only on the relocation of the firms, not the expansion of their networks.

²⁸ Here, ‘region’ can mean, *inter alia*, a supra-national region (e.g. CEE), a historical region (e.g. Pomerania surrounding Gdańsk and Szczecin), or an administrative region (e.g. Wielkopolska Voivodeship surrounding Poznań). With some variance, however, the statement of resilience shall hold by modifying the analytical framework on industrial, network, and institutional structures (e.g. Eurozone, securities exchange groups, special economic zones).

(and others do not), except that both the rise and decline of financial centres are visualised as medium-to-long-term trends as opposed to spontaneous events. Described as ‘a chicken and egg situation’ (Cooper, 2011:9), the firms’ decision to agglomerate with the other firms on one side and the growth of certain financial centres on the other must be understood as intertwined events instead of one strictly causing the other²⁹. This thesis (especially Chapter 3) therefore employs historical narratives (*à la* Kindleberger, 1984; Cassis, 2006; Cassis & Wójcik (eds.), 2018 etc.) in order to illustrate the whole trend of financial centre development rather than hastily identifying a simplistic causal relation between an event (e.g. EU accession) and the growth of financial centres or financial markets in the region.

Moreover, the literature tends to focus on the agglomeration or clustering of financial entities (e.g. banks and insurance companies) rather than that of FABS firms at large (including law and advertisement firms) as is pointed out by Taylor (2004). This is partly because global law firms, for example, do not exclusively work for the financial sector, and thus, the link between their clustering and the financial centre development is difficult to document. In fact, from Porter (1990) to Klepper (2010), the works on clustering tend to emphasise the various economies firms can enjoy (e.g. pooled markets of skilled labour, network of supporting firms), and in this analysing process, they inevitably assume boundaries between the industrial categories by highlighting the similarities among the clustering firms. This assumption is less suitable for FABS where firms offer diverse services under one roof, utilising their global office-networks and the international division of labour (cf. Sassen, 2001; Cassis, 2006). Hence, this thesis (especially Chapter 5) deals with FABS in a broader sense, defined by *Oxford Economics*, i.e. ‘financial and insurance activities, real estate activities, professional, scientific & technical activities and administrative & support service sectors’³⁰. Such a definition corresponds to *Eurostat*’s statistical classification of economic activities (NACE Rev. 2) sections K, L, M, and N. The agglomeration of FABS firms, therefore, may not be a ‘cluster’ when the latter is narrowly conceptualised, and in this thesis (e.g. in Chapter 4), the narrower categorisation is applied not to the firms but to the services traded.

²⁹ Storper (2013:14) also elaborates the relationship between the agglomeration of firms and the population growth but argues that the former causes the latter. As such, he emphasises the economies of agglomeration as a driving force behind continuous growth of certain cities.

³⁰ Oxford Economics. (2017) *Global Cities: Variable Definitions*.

Apart from clustering, the concept of ‘hinterland’ on the supply-side economics of financial centre development partially answers the question on the rise and fall of financial centres. A hinterland is a region where a financial centre serves as the ‘best access point’ for regional financial activities and information flow (Porteous, 1999). For linguistic and cultural reasons, the boundaries of hinterlands often resemble national borders (cf. Polèse & Shearmur, 2004). Although, as Dicken (2011) points out, financial power of major international financial centres, such as London, often exceeds the controlling capacity of the hosting states due to the magnitude and complexity of financial centre networks. When several hinterlands are integrated economically through a customs union, such as in the case of the EU, the landscape of the ‘best access point’ changes (cf. Krugman, 1993; Sassen, 2006). Within the context of CEE the hinterland theory helps to explain the following three observations: first, prior to EU accession the capital cities have served as the national financial centres in each CEE country; second, following the accession, the rise of some financial centres (e.g. Warsaw, Prague) seems to be accompanied by the relative decline of others (e.g. Ljubljana, Bratislava); third, nearby financial centres (e.g. Vienna) become major actors in post-socialist CEE despite the limited roles they played during the socialist era. Nonetheless, an obvious empirical difficulty is to draw a clear line, for example, between the Vienna-led and Warsaw-led hinterlands: hinterlands tend to overlap each other, as the process of re-association of a new financial centre with its hinterland, what Agnes (2000) calls ‘territorialization’ of hinterlands, takes time.

On the demand-side, the ‘central place’ theory (Christaller, 1933 & 1950; Lösch, 1940; Berry, 1967; Taylor et al., 2010) can be parallel to the hinterland theory. While the spatial size of market areas determines the cities’ ability to draw resources and information in the hinterland-based models, the ‘central place’ models recognise that the production of larger or more complex services is concentrated in fewer cities as the demand for such services is scarce. Thus, the market areas of higher order (larger and/or more complex) services are larger than those of lower order services, allowing the hierarchical overlapping of market areas. An increasing demand for higher order FABS (e.g. mergers consulting) in CEE, for example, incentivises a regional financial centre to increase the production of higher order FABS, providing an explanation for the rise of certain financial centres. Chapter 4 provides a further discussion on the central place theory as it is modified to illustrate the spatial reach of capital market services in CEE (cf. Parr & Budd,

2000; Taylor et al, 2010). While the theory is a useful tool to investigate the uneven geography of capital market services production and trade, it does not provide explanations on the spatiality and centrality of financial centres. Therefore, Chapter 4 draws insights from global/world city framework. Likewise, this literature review also shifts its focus from financial centres as agglomerations to financial centres as nodes.

Neither clusters nor hinterlands/central places as presented above is directly linked to the global network of cities, giving an impression that the development of one does not influence the other. In order to properly analyse, for example, the rise of Warsaw as a financial centre in which global FABS firms such as Goldman Sachs play a part, it instead requires synthesising the agglomerative and network characteristics of financial centres. The Warsaw-led hinterland has access to London or New York through the agglomeration of globally connected FABS firms in Warsaw, rather than through direct trade links between the locally embedded FABS firms in each city (see Chapters 4 & 5 for empirical evidence). The agglomeration of FABS firms in Warsaw can naturally be attributed to the city's past legacy in the centralised economy, but its rise is often illustrated in relation to other financial centres in the region, as Goldman Sachs utilised the word 'hub'. In other words, financial centres seem to be the articulators of hinterlands and function as the nodes within the global network of cities. With these limitations on the agglomeration framework in mind, the next section focuses on the node characteristics of financial centres.

2.3. Financial centre as a node within the global network

Technology connects all parts of the world, and the new modes of information flow shape and are shaped by the global networks of information agents (Castells, 1996). At the same time, businesses located in a certain financial centre enjoy superior access to nearby regions (i.e. hinterlands) especially when face-to-face encounters produce a degree of trust in complicated transactions (e.g. legal services, see Jones, 2007) – a part of what Gertler (2003; also see Faulconbridge, 2006) describes as 'tacit knowledge'. As such, the 'end/death of geography' is highly disputed (Graham, 1998; Agnes, 2000; Morgan, 2004) with evidence of further co-agglomeration across various industries (e.g. Ellison et al.,

2010) and of deepened interaction between clusters (e.g. Taylor, 2004; Pollock et al., 2004). Therefore, the literature on financial centre development heavily explores the networking characteristics of financial centres both within and among cities by considering cities as ‘nodes’.

Wallerstein, for example, describes the sixteenth century European cities as ‘nodes of industrial activity’ (1974:225) in relation to the world economy. A literature survey by Short et al. (1996) further lists some earlier studies and emphasises the location of corporate headquarters, concentration of telecommunication systems and transportation networks as major attributes for the rise of cities. Fujita and Mori (1996) focus on ports and consider cities as nodes of transportation where information and resources are gathered. Such a conceptualisation of cities as nodes based on infrastructure development, however, still resembles the studies on agglomeration, as these works focus on the network *attributes* rather than the *networking* activities (assuming that the former represents the latter). Brenner (1998) thus incorporates ‘post-Fordist forms of global industrialization’ whereby cities accumulate and coordinate power (mostly on decision-making) with traditional core-periphery relations of resources³¹: Dematteis (2000) describes such nodes as ‘metropolises’ while Scott (2001) broadens the concept into ‘city-regions’. Yet, the networking characteristics of cities – particularly important for cross-border financial transactions – were not strongly incorporated into these studies on cities.

Friedmann’s work (1986, as well as Friedmann & Wolff, 1982) is one of the foundations of such network-oriented understandings of financial centres. He states that ‘[t]he world city hypothesis is about the spatial organization of the new international division of labour’ (1986:69). This statement implies interurban specialisation (cf. Clark, 2002) and a hierarchical command chain among financial centres (as international financial centres would specialise in managing regional financial centres). Specialised financial centres then collectively characterise the global financial network, while the network influences the characteristics of financial centres. This integration between cities and the global network is where Taylor quotes Castells (1996) with the concept of ‘cities as process’

³¹ In the context of the post-Fordism, Yeung (1994) calls for further research on the typology among different network relations and organisational forms of business. While it focuses on the network aspect of business activities, it does not deal with interurban relations *per se*.

(2004:8). Taylor's emphasis is on its plural form – *cities* – which are the most significant nodes (Amin & Thrift, 1992) within the global financial centre network.

Previously, Christaller (1933 & 1950) and Berry (1967) focused on the spatial distribution of demand for not only goods but also services, where larger nodes (central places) can serve larger market areas. The services analysed in these studies are, however, often categorised as 'consumer services' where they themselves are the end products. For the financial centre network, many services are intermediary products which facilitate complex cross-border financial transactions. Broadly labelled as 'producer services', firms can provide these services to the clients worldwide utilising their global office-networks and gain efficiency from the new international division of labour (e.g. Coffey, 2000; Sassen, 2001). Thus, the various office-networks strengthen the global network of cities, and Coe et al. (2014) lead this scholarly trend by integrating finance into the global production network (also see Blažek, 2016; Dörry, 2016a). In this 'global financial network', some financial centres attract more FABS firms, presumably to gain from agglomeration or proximity to the potential clients, while some firms avoid established financial centres and outsource their services to lesser known financial centres.

While Coe et al. (2014) essentially rebranded producer services as FABS in the context of global financial network (see Chapter 5 for further discussion), Sokol (2017) emphasised financial centres as nodes in the global financial value chain. Alongside Lagoarde-Segot (2015 & 2017), Sokol (2017) calls for a research agenda to link the spatiality of financialisation and uneven geography of development. Here, not only the agglomeration of financial actors and resources (Krippner, 2005; Froud et al. 2006; Erturk et al. (eds.), 2008) but also the relational geographies of financial centres (Layshon & Thrift, 1997; Clark & Wójcik, 2007; Aalbers, 2009; Wójcik, 2011; French et al., 2011) are emphasised (Dixon & Monk, 2014). Financialisation is 'the *explanandum* (the phenomenon to be explained)' as well as 'the *explanans* (the thing that explains)' (Aalbers, 2015:215), and as it will be discussed in Sections 2.4 and 2.5, Aalbers' 'progress reports' (2018, 2019 & 2020) elaborate on this theme of financial centre-cum-financial value chain. Financial centres are the 'strategic nodes' (Dörry & Musil, 2015) in the global financial industry and the relational geographies of financial centres are shaped by the power relations among the leading FABS firms (Dörry, 2015; also see Bortz & Kaltenbrunner, 2017). The hierarchical positioning of financial centres is approximated

by the spatial reach of financial services trade (or market areas), echoing the ‘central place’ thinking (Parr & Budd, 2000; Taylor et al., 2010) discussed in the previous section.

So, which cities shall we consider? One of the most quoted studies by Sassen (1991) for example introduces the troika: New York, London, and Tokyo, dividing the globe into three time zones (or meta-hinterlands). Whether London should be called a global city (Sassen, 1991), a world city (Taylor, 2004), or an international financial centre (Cassis, 2006) is perhaps a matter of taste, as these concepts seem to overlap significantly when it comes to London or New York (e.g. Taylor, 2005). Taylor and his colleagues, for another example, lead the ‘Globalization and World Cities Research Network’ at Loughborough University, which classifies 707 cities based on the office-networks of 175 FABS firms³². As is briefly described in Chapter 1 (Table 1.1), in CEE, Warsaw is an ‘alpha’ city, and Prague and Budapest are ‘alpha -’ cities according to their 2018 classification, signalling a certain degree of office-connectivities the region enjoys within the global network of cities. Thus, those three cities as well as their relations with London and New York (both are ‘alpha ++’ cities) or Vienna (an ‘alpha -’ city) shall be a core of the analysis.

Further to the studies on office-connectivity, Derudder (2007) reconceptualises cities from a relational (or power) perspective. According to Derudder, world cities (Friedmann & Wolff, 1982; Friedmann, 1986) reproduce spatial inequality, as the ‘new international division of labour’ is driven by multinational corporations based on intra-firm power distribution. In other words, the relationship between corporate headquarters and their regional offices are transposed onto core-periphery relations among cities and *vice versa*. Sassen’s global cities (2001)³³, on the other hand, shift their production model towards advanced business services, and because of the rapid developments in IT, a ‘new geography of centrality and marginality’ emerges alongside existing core-periphery relations. Despite the ambiguity of ‘new geography’, dynamic changes in the worldwide city-network structure illustrated by Sassen is similar to Scott’s observation of city-

³² Available at: <https://www.lboro.ac.uk/gawc/world2018.html>. Beaverstock (2011), however, suggests that the GaWC model does not consider personalised and specialised relationships among firms, which differentiate each connectivity.

³³ The title of the book is *The Global City* in the singular format, but here, the plural format refers to cities which can be considered as a global city. The book is originally published in 1991, but this paragraph cites the second edition (2001) in order to highlight the conceptual elaboration made in the latter.

regions (2001). In emphasising the departure from the previous understanding of ‘cities’, Scott reintroduces ‘city-regions’ and describes their structure as an ‘archipelago’ of economic activities. As is in the case of agglomerations, infrastructure is the key factor of development for city-regions, while the distance between the cities (in both a topological and institutional sense) is also relevant in determining the power relationships among city-regions³⁴.

The above conceptual departure – from the traditional core-periphery relations based on the exploitation of resources to the new (or relational) geography of decision-making – led studies on cities towards the rejection of the idea that the network of financial centres is characterised by a ‘zero-sum game’, where a rise of one city is mirrored by a decline of another. Decision-making can be a specialisation of a certain city, and the same city may still rely on the resources or specialisations of other cities nearby. Beaverstock et al. (2001 & 2005) for example stress that the rise of Frankfurt due to the implementation of the common European currency will not result in London’s financial decline³⁵. Faulconbridge (2004) also deals with the London-Frankfurt ‘rivalry’ and cautions that quantitative data such as financial turnover may mislead, as his interviewees suggest an increasing interdependence between the two cities. His later studies (2006, 2007 & 2008) echo and emphasise interdependence, especially in transnational law firms, as the legal environment is locally embedded while the method of legal knowledge production is globally transferrable. Thus, even when the rise of Warsaw as a financial centre is empirically observed, the decline of Vienna, Prague, or Kraków cannot be presumed without the analysis solely focused on the latter.

Regarding financial services production, Wójcik adds the concept of a ‘multi-sided network’ (2011:156) for liquidity: financial centres are the nodes of a global network of ‘international securities market centres’, where issuers meet investors, and liquidity-takers (e.g. investors) meet liquidity-makers (e.g. traders). Using this concept of liquidity, this thesis questions if the liquidity-related interurban relationships are different in the primary and secondary markets, especially within the context of post-communist transition. In Warsaw for example, privatisation-related IPOs provide liquidity in the

³⁴ Taylor (2001) further specifies inter-city relations into ‘elemental’, ‘proportional’, ‘distance’, and ‘asymmetric’, but such classification is out of this thesis’ scope.

³⁵ The so-called Brexit was an unknown factor when such an analysis was made.

primary markets, and foreign firms usually take the investors' side in the IPO markets, linking two cities (e.g. London and Warsaw). On the other hand, foreign firms in the secondary markets are both liquidity-takers and liquidity-makers, and they interact with each other, with stock exchanges providing platforms. Thus, interurban relationships in the secondary markets characterise a 'web' of interdependent regional financial centres (e.g. Warsaw, Prague, Budapest, and Vienna). Generalised, this observation of 'multi-sided network' leads us to the concept of 'financialisation' and the geography of money/finance, which is a focus of the next two sections.

2.4. Progress in the geographies of trade and services

Since *Progress in Human Geography* span off from *Progress in Geography* in January 1977, the journal has been commissioning high-quality 'progress reports' in the field, some of which touch upon the topic of money and finance, especially in the last three decades (i.e. post-Cold War era). Coincidentally, January 1977 marked the end of the Ford presidency in the United States. The Ford presidency was characterised by the end of the Vietnam War, a détente with the Soviet Union, and a deep recession. While the recession/stagflation remained in place under the following Carter presidency, the Soviet invasion of Afghanistan ended the détente, and the Iran-Iraq War of 1980 redrew the geopolitical map of the Middle East. The so-called 'Reaganomics' of the 1980s, with the reduction of income tax, government spending, inflation, and regulation³⁶, as well as the eventual end of the Cold War expanded international trade, and the geography of money became more relevant. Across the pond, Margaret Thatcher conducted a similar supply-side policy throughout the same decade³⁷, while her successor, John Major, failed to keep the UK within the European Exchange Rate Mechanism at the wake of the so-called 'Black Wednesday' currency speculation in 1992³⁸. Leyshon's first progress report 'Geographies of money and finance I' appeared shortly after in 1995. Thus, by chronologically following the footsteps of *Progress* (supplemented by other relevant works), we can familiarise ourselves with the geographers' interests on money and

³⁶ For the evaluation of Reaganomics, see e.g. Blanchard et al. (1987), Samuelson (1987), Sen (1987).

³⁷ For the evaluation of Thatcherism in economics, see e.g. Overbeek (1989), Healey (1992).

³⁸ For the post-ERM monetary policy in the UK, see e.g. Cobham (1997).

finance from a very early stage. Furthermore, the time period corresponds with the collapse of communist regimes in CEE, relevant to this thesis and Chapter 3 in particular.

In the midst of the aforementioned global turmoil of the 1970/80s, it is not surprising to find Jones' 'A geography of money' (1981) as a presentation of theoretical models rather than of empirical findings. International trade relations, let alone cross-border financial transactions, were unpredictable at best, and geographers at the time seem to be less interested in conceptualising international trade beyond the macroeconomic framework of comparative advantage (McConnell, 1986; Grant, 1994). Hampton's 'Economics and human geography' (1987:106) reads that '[e]conomists and human geographers are concerned with the same major topic, resource allocation' and praises the works of e.g. Christaller (1933), Lösch (1940), and Berry (1967), the majority of which are from the pre-1970 period. As it is argued in the previous sections, these works generally pursue the agglomeration approach as opposed to the node approach, and money is discussed in the context of capital movement (e.g. investment) and infrastructure development, rather than financialisation and financial trade.

McConnell (1986), despite his commentary on the general lack of interests in international trade among his contemporary geographers, lists several works which differ from these agglomeration-oriented studies. For example, it mentions Krugman (1983) which notes the application of the industrial organisation theory in international trade, thereby conceptually expanding the latter to include 'intraindustry trade'³⁹. Krugman explains that 'interindustry trade [is] based on comparative advantage, and intraindustry trade [is] based on economies of scale' and that the latter 'explains both why similar countries trade so much, and why so much of their trade is two-way exchanges of similar products' (1983:344). While the article directly refers to manufactures trade, these observations (e.g. economies of scale, trade between high-income countries, two-way exchanges of similar products/services) are relevant to FABS trade as well. However, as McConnell (1986) states, many studies were then focused on nation-to-nation relations (i.e. methodological nationalism, a point which is returned to in Chapter 3). In spite of

³⁹ The article also includes the theory of 'technological competition', but it is mainly relevant to the sectors which heavily rely on R&D.

Krugman's effort (1983) to incorporate multinational firms and industrial groups as main economic actors, interurban trade was still largely ignored.

On the sub-national level, the works by Peschel (1982) and Edgington (1984) are highlighted by McConnell (1986). The former focuses on the impact of international trade on different regions in West Germany and concludes that '[e]xport activities contributed to regional industrial despecialization' (1982:247). The latter study is narrowly focusing on the activities of Japanese transnational corporations in Australia and observed a 'hierarchy of spatial impacts' among the Australian regions. Surely, both studies are not on services trade, and they do not emphasise the interurban activities. Still, they began to pay attention to the capital movements and differences in institutional arrangements which later became the starting point of the financial geography.

McConnell (1986) then refers to Langdale (1985), which documents interurban electronic funds transfer, as an exception to the commodity trade-driven research agendas among the geographers at the time. Thompson also reports on 'the geography of venture capital' (1989) following the works of Harvey (1982) and Clark et al. (1986) which illustrate various capital movements and the capital formation/accumulation on the regional level. Thompson carefully reviews these studies and confirms the significance and relevance of venture capital in geography. However, he also notes that the studies on venture capital at the time lack spatial thinking as the researchers focus on the agglomeration of venture capitalists (or their entities) and on the aggregative flow of capital stemming from venture capital transactions: how the network of these actors is formed and how the network influences these actors are missing from the picture.

While Grant's review on international trade literature (1994) still echoes the frustration expressed by Thrift (1985) and McConnell (1986), it nonetheless acknowledges an increasing interest among geographers on intra-firm and intra-industry linkages. By 1994, Porter (1990) introduced the concept of industrial cluster as we discussed previously. Krugman elaborated an investment/(re)location model based on increasing return (1991) and incorporated locational decision-making into international trade (1993⁴⁰). Johnston (1989) took a historical approach, thereby combining the trends in international trade with

⁴⁰ While the MIT Press edition was published in 1993, the original lecture series which the book was based on took place in October 1990 and the scripts were subsequently published in 1991.

uneven economic development. While Berry et al. (1976) elaborate a traditional perspective on international trade based on macroeconomic (i.e. nation-level) comparative advantage, one of the co-authors, Conkling, began to explore the new domain of intra-firm and intra-industry activities (Conkling & McConnell, 1981). Ray⁴¹ (1991) and Storper (1992) further investigated these trade relations and found a degree of differentiation and specialisation (a theme which is relevant for Chapter 4). As Grant (1994) notes, these studies certainly deepened our understanding of international trade. They paved a way towards the studies on services (especially FABS) trade which is heavily characterised by intra-firm and intra-industry linkages.

Dicken's *Global Shift* is also a major work in this field, but it has different subtitles for different editions, reflecting his evolving thematic focus at the time. The first edition (1986) reads *Industrial Change in a Turbulent World*, highlighting the scholarly trend of conceptualising the complex international production network which is partly described above. The second edition (1992) is called *The Internationalization of Economic Activity*, shifting the focus from the uneven production in manufacturing to globalised production/trade activities. This focal change is further enhanced in the third edition (1998) *Transforming the World Economy* and the fourth edition (2003) *Reshaping the Global Economic Map in the 21st Century*. In both editions, Dicken emphasises how international trade (including services trade) shape and are shaped by the global trade network and recognises complex interactions among transnational corporations and states. Still, Dicken and Thrift (1992) point out a bias among the researchers towards large firms in many empirical studies and suggest a more comprehensive approach, balancing the 'clusters of industries' and 'corporate webs of power' (i.e. agglomeration and node characteristics of cities).

While international services trade *per se* seems to be neglected by the geographers in the early 1980s, Daniels' first review 'The geography of services' appeared in *Progress* in 1985, and he comments how diverse the researches on the service sector are. He thus focuses on 'intermediate producer services' and identifies a number of thematic foci adapted by the geographers: growth/development, inter-regional flows, internationalisation, and office location. Among these, according to Daniels (1985), the

⁴¹ This is Edward John Ray, different from D. Michael Ray who co-authored Berry et al. (1976).

studies focusing on inter-regional flows (Polèse, 1982; Polèse & Stafford, 1982) face methodological hardships as it is difficult to measure or estimate the costs of services production. Daniels repeats this statement from the output point of view in his 1986 review. While Clark (1985) mentions the concentration of intermediate service providers in a small number of cities within the US, it stops as a brief comment in a larger study. Kellerman (1985b, also see 1985a) also talks about such concentration and implies an interurban hierarchy, but it is for the retail trade. His contribution to the service sector (1985a) compares nations rather than cities. Hall and Markusen⁴² (1985) list a number of cities in the Silicon Valley for the computer services but the industry is only one part of FABS. Thrift (1985) is perhaps most influential in terms of interurban services trade research at the time, calling for further investigations into the so-called ‘offshore’ service providers, which are relevant for FABS in CEE.

Daniels’ 1987 report talks about ‘numerous statistical, definitional and classification problems’ which makes many studies incomparable to each other⁴³. The complexity of the service sector coincided with a scholarly debate if the rise of the service sector employment (and the accompanying decline of the manufacturing sector employment) leads to a greater regional socio-economic development (see e.g. Cohen & Zysman, 1987; Urry, 1987). As the regional dimension of the issue continued to attract the attention of geographers, the lack of interurban analysis was sidelined. Nevertheless, the financial services sector is emphasised in the report (Daniels, 1987) and the rise of London, New York, and Tokyo in the financial services sector naturally makes the analysis more city-oriented as opposed to nation-centred. Still, as is discussed in the previous sections, the ‘agglomerating’ characteristics in these cities are often more emphasised than the ‘node’ characteristics of international financial centres.

Daniels’ final report is entitled ‘*Some perspectives on the geography of services*’ (1988, emphasis added) signalling the widened research foci among geographers on services trade. The foci highlighted in the report include intra-European analysis (e.g. Ochel & Wegner, 1987; Howells, 1988) and FABS trade. For the latter, he lists several conference papers he himself co-authored with Leyshon and Thrift. Leyshon and Thrift continue to

⁴² This is Sir Peter *Geoffrey* Hall, different from Peter *Andrew* Hall who edited *Varieties of Capitalism* with David Soskice (2001). Also, this is Ann Markusen. James R. Markusen (1984) is her husband.

⁴³ Issues related to FABS are further discussed in Chapter 5.

work on the geography of FABS in the UK (1993) and more broadly in their book *Money/Space* (1997). In *Progress*, Britton (1990) and Beyers (1992 & 1993) succeeded Daniels to report on the service sector. While FABS are still emphasised in these reports, it is Leyshon's 'Geographies of money and finance I' (1995) that clearly articulated the importance of this theme in economic geography and beyond.

2.5. Progress in the geographies of money and finance

Leyshon opens his first-of-the-three report with a cautiously optimistic remark: 'in the context of the historical evolution of writing on the geography of money and finance, we may well have reached the end of the beginning' (1995:531). He notes that the interests in money and finance developed among the geographers were in part contextual, as the economic and political crises at the time were increasingly spun around financial matters. He acknowledges that there is a shift in focus for the 'progress reports' from producer services (Beyers, 1992 & 1993) to the geography of money/finance but justifies the shift with a list of influential works dedicated to the latter. Here, Leyshon treats financial services as a part of producer (i.e. intermediate) services, but he finds different and diverse traits among geographers in writing about money and finance, which led him to entitle his three reports in a plural format, 'Geographies of money and finance' (1995, 1997 & 1998, emphasis added).

One of Leyshon's foci is the 'geopolitical economy of finance' based on its conceptualisation by e.g. Corbridge and Agnew (1991). Leyshon reports the influence of the hegemonic stability theory (Kindleberger, 1973) and surrounding discussions (e.g. Walter, 1991) while pointing out how inter-state economic (and financial) relations are increasingly interpreted as the geography of flows. As such, despite the deepening globalisation, Leyshon argues, local geographies (e.g. institutional arrangement) matter in shaping the dynamics of money flow (Agnew, 1994; Allen & Hamnett (eds.), 1995; Amin & Thrift, 1995a; Amin & Thrift (eds.), 1995b; Amin, 1999). The 1992 withdrawal of the UK from the ERM as the result of the 'Black Wednesday' was then placed at the intersection between the global financial network and the local/regional financial systems, which led the geographers to question the relationship between the local society and the

global flow of money. While these works advanced the research in this field and deepened our understanding of money and finance, quite a number of them are framed in a normative analysis, criticising the states' failure to address the pressing issues related to the local and regional development. Such a normative geographical approach to the political economy of development is a move away from the geography of services we have witnessed earlier, where interurban FABS trade became a major part of the research agenda (see the discussion on Tickell's reports (1999, 2001 & 2002) later in this section).

Leyshon's second report (1997) follows three scholars who 'challenge' the above geopolitical economy school of thought: Viviana Zelizer, Nigel Dodd, and Nigel Thrift. Zelizer (1994) criticises how the spread of monetisation (i.e. a trend to ubiquitously assess a transaction in terms of monetary value) can mislead researchers to believe in the homogeneous 'rationality' (i.e. to guide transaction decisions with a comparison of the approximated monetary values). The connotation of money may differ from society to society, and two financial transactions with the same currency amount may have different values in each society. While it is difficult to systematically illustrate such an anthropological geography of money, it is nonetheless an important reminder when investigating financial centre development: interactions among economic actors may differ from one financial centre to another, even when the institutional arrangements are similar to each other. For example, different risk perceptions towards mutual funds are likely to differentiate the development of money market.

Leyshon (1997, further elaborated in Leyshon & Thrift, 1997) then highlights the theory of 'monetary network' by Nigel Dodd (e.g. 1994). Here, while acknowledging the relevance of the anthropological and historical perspective on finance (e.g. different perceptions of money), the theory weighs more on the flow of information as a key attribute to bind the network more coherent and comprehensive (also see Castells, 1996). For coherence, the universality of financial services (e.g. accounting) reduces the impact of differentiated perceptions of money in the global financial network and facilitates international financial trade. For comprehensiveness, the departure from monetisation to monetary network allows the economic actors to engage in other intermediary services trade as the network conveys more than the monetary value information. While Dodd is trained in sociology, his works directly refer to several geographical studies, and the monetary network (alongside Castells' network society, 1996) is a useful framework to

illustrate the geography of finance. In particular, Amin and Thrift (1992) and Thrift (1994) were highlighted by Leyshon (1997) as leading examples in which international financial centres are introduced as ‘nodes’ in the global information network that resembles the monetary network. Leyshon’s last report concludes that ‘there has been a move away from the general to the particular, from a concern with “systems” to “networks”’⁴⁴ (1998:442). Translating it within the context of CEE, as the region experiences the post-socialist market liberalisation, the region is linked and exposed to the global network of financial centres. As the region may retain distinctive socio-cultural and institutional behaviours, it can be misleading to consider an enlarged European financial system.

At the turn of the century, Tickell picks up again the theme of the geography of services (1999, 2001 & 2002) as he succeeds Leyshon. In his first report (1999), Tickell expands the scope of his inquiry from financial services to the advanced producer services in general and focuses on the service sector’s impact on national and regional economies. He then briefly talks about the studies on internationalisation, or more precisely, ‘the geography of international finance’ (Beaverstock, 1996; Beaverstock & Smith, 1996; Christopherson & Hovey, 1996; Leyshon & Thrift, 1997)⁴⁵. This topic is further elaborated in Tickell’s second report (2001) which questions the boundary between the state and the private sector in contemporary international finance. In his third report (2002), Tickell comments how scholars are focusing on the geography of a particular service industry, on the cross-border services trade, or on the methodology of measuring producer services. In this context, the works by the ‘world city’ group (Beaverstock & Boardwell, 2000; Beaverstock et al., 2000a & b; Taylor, 2001; Taylor & Walker, 2001) are highlighted. The birth of this group coincides with Sassen’s second edition (2001), stimulating a further discussion about the global network of cities, and of financial centres in particular. Contemporaneously, *Journal of Economic Geography* was launched in 2001, and in its inaugural issue, Clark and Wójcik (2001) illustrate the complex role financial intermediaries play in the City of London, complementing the above scholarly trend.

⁴⁴ The quote continues: ‘and, more recently, to “bodies”’. However, the concept of ‘the economic body’ refers to a metaphor to describe ‘alternative financial institutions’ where non-economic rationales (e.g. customs) can be found as operational rules. Since it barely touches up on the global interurban network, it is omitted from this literature review.

⁴⁵ FDI is mentioned in the report as well, albeit briefly. cf. Alfaro et al. (2004).

After Tickell, the geography of finance *per se* disappeared from *Progress* until Sarah Hall's first report (2011), but some related themes were present. Hughes' reports on exchanges and circulation (2005, 2006 & 2007) are closer to the geography of trade (e.g. Grant, 1994) than to the geography of services or of money, even though Castells' style of information network is highlighted as 'knowledge circulation' and the role of global producer services firms in it is implied. Taylor solidified his 'world city' research in his *World City Network* (2004) and Smith reported the world city typologies in *Progress* (2003). Hall and Soskice initiated the discussion on the 'varieties of capitalism' (Hall & Soskice (eds.), 2001; Lane & Myant (eds.), 2007; Clark & Wójcik, 2007; Hancké (ed.), 2009), and Peck and Theodore (2007) reply with the concept of the 'variegated capitalism' followed by Dixon (2011)⁴⁶, both through *Progress*. Outside *Progress*, Laulajainen (2003) provides an overview of financial geography in relation to various banking activities, Cassis (2006) reminds us the relevance of a historical approach in financial geography, and Clark (2000 & 2003) highlights the role pension funds play as both local and international financial intermediaries.

Hall (2011) begins with an acknowledgement that the 2007/08 financial crisis provides a new context which Leyshon did not experience in the 1990s when he provided his reports. While listing the relevant works written at the wake of the crisis (e.g. Clark & Wójcik, 2007; Pryke, 2007; Faulconbridge et al., 2007; Wójcik, 2007⁴⁷), Hall also illustrates how economic geography 'has become increasingly outward-looking and engaged with work in sociology, anthropology, political science and, to a lesser extent, economics' (2011:234-235). Alongside this line, the topic of financialisation is dealt through (socio)cultural geography (see Pike & Pollard, 2010), weighing on e.g. interpersonal networks, social relations, and embeddedness (cf. Leyshon & Thrift, 1997). Hall then critically engages with Berndt and Boeckler (2009) on the geography of exchanges and circulation and with Peck and Theodore (2007) on the variegated capitalism, commenting that 'the trade in ideas with cultural economy can be characterized largely as a selective importing of ideas' (2011:242). Hall elaborates the theme of financialisation further in

⁴⁶ Dixon (2014) further elaborates this discussion. Generally speaking, the 'varieties of capitalism' theory highlights different ways firms coordinate with each other and focuses on how this difference shapes market economies. The 'variegated capitalism' school criticises the 'varieties' for its bipolar taxonomy of global economy and calls for a more nuanced approach with less path-dependency, less methodological nationalism, and more resilient thinking.

⁴⁷ The last two articles are the part of a special issue. See Wójcik et al. (2007) for details.

her second report (2012), identifying the financial crisis from a ‘subjective’ (as opposed to objective/non-human/institutional) perspective with the interaction between financial elites and consumers at the core. Other analytical foci reviewed under financialisation (Hall, 2012 & 2013) is the uneven consequences of financial crises and the relationship between finance and the ‘real economy’⁴⁸. While the spatiality of interactions among the financial actors or uneven consequences was still conceptualised through a socio-political and cultural lens, the engagement with the ‘real economy’ opened the discussion for ‘wider economic geographies’ (Hall, 2013:291), in which the geography of cities is listed.

‘[D]uring its relatively short history the concept of financialization has been employed in different ways and for different purposes’, remark French et al. (2011:799). Citing Lee et al. (2009), the article points out diverse definitions and implications of financialisation pronounced by various authors, Epstein’s (2005) and Krippner’s (2005) leading the way (Ioannou & Wójcik, 2019). This is partly due to the nature of the financialisation studies, ‘approached from a range of different perspectives as part of a weakly integrated, interdisciplinary project’ (French et al., 2011:801; Engelen, 2008; also see the discussion between Christophers, 2015b and Aalbers, 2015). Here, three ‘schools of financialization’ are identified, namely: ‘regulation theory’, ‘a critical social accountancy approach’ (especially in relation to shareholder value, known as ‘narrative and numbers’), and ‘a sociocultural approach’. Being a co-author of the article, its parallel to Leyshon (1995, 1997 & 1998; also Leyshon & Thrift, 1997) in its engagement with political and cultural economy (cf. Froud et al., 2006) makes sense. These three schools are then loosely linked to three levels of analysis: nations, firms, and households. Neither the schools nor the levels are exclusive among each other (e.g. analysing shareholder value or corporate governance within the context of national comparison/case study, see Froud et al., 2006; Clark & Wójcik, 2007; Faulconbridge & Muzio, 2009). While this scholarly trend of ‘financializing space’ (French et al., 2011) stretches from the local to global spheres, cities were neglected as a distinctive unit of places, or they were taken granted as the articulator of national spaces. Though, given the network characteristics already highlighted in the earlier studies on financialisation (see e.g. Clark & Wójcik, 2007; Lee et al., 2009; Pike & Pollard, 2010)⁴⁹, ‘spacing financialisation’ (French et al., 2011) – or

⁴⁸ This relationship is at the centre of critical development geography. See Mawdsley (2018).

⁴⁹ Likewise, Aalbers (2009) points out the relevance of interurban network (through *inter alia* social networks of financial elites, office networks of international firms, and international financial services trade) but does not place it as the theoretical backbone of his analysis.

casting the concept of financialisation – over the global network of cities is not a difficult task.

Christophers' first progress report 'Geographies of finance I' (2014) takes a Foucauldian approach to historical geography of finance, highlighting the nature of value and risk expressed as a (mathematical) function of time⁵⁰. Therefore, the focus is not on *a* geography of *money* which documents the spatial distribution of monetary transactions at present, but *geographies of finance* which stress the uneven consequences of such transactions to shape financial institutions, systems, and networks. Though Kindleberger (1973, 1974 & 1984), Cassis and Bussière (eds.) (2005), or Cassis (2006) were not mentioned in his report, their analytical frameworks are all resonating. His second report (2015a) refers to Hall's report (2012, and indirectly Leyshon 1995 & 1997) and Harvey (1982) and calls for further engagement with geographical political economy. Extending, financial regulation is the central theme for Christophers' third report (2016); as financial actors are concentrated/agglomerated in international financial centres (e.g. New York and London), cities become a unit of analysis. Here, Wójcik (2013b) instead utilises 'jurisdictions' (some of which are cities, such as Hong Kong, some of which are countries, such as Israel, and some of which are distinctive areas, such as Cayman Islands) to illustrate the geography of offshore finance. The geography of finance is no longer solely based on comparisons of national financial systems but is based on broader observations of interurban/interjurisdictional networks (cf. Leyshon, 1998 on the shift from 'systems' to 'networks'; French et al., 2011 on 'spacing financialization').

As the presence of money does not necessarily correspond to the allocation of decision-making power (e.g. offshore), Bassens and van Meeteren (2015) revisit the 'world city' framework and incorporate it into financialisation. Knowledge transfer between two firms from a different city in exchange for a fee allows to conceptualise financial and business services (FABS)⁵¹ trade between a city specialised in FABS production and a city specialised in other types of economic activities (e.g. manufacturing). Even when both cities are specialised in FABS, their services/products can be complimentary to each other (Clark, 2002). Clark (2002) also differentiates the geography of financial trading from

⁵⁰ Christophers (2018) elaborates on this point and links it with environmental and climate issues.

⁵¹ 'Advanced producer services' for Bassens and van Meeteren (2015). See Chapter 5 of this thesis for different definitions surrounding FABS.

the geography of financial production, and Wójcik (2013b) adds the geography of investment vehicles. Beneath such distinctions is a triangular relationship among world cities, offshore jurisdictions, and the cities in the rest of the world (though some cities may overlap in the first two categories). Aalbers (2018) then focuses on tax heavens and the attempts to regulate them: the interurban network surrounding world cities and offshore jurisdictions is accompanied by the complex relationship among states, cities, private entities, and non-governmental organisations (some of them are labelled as ‘watch dogs’). Interactions among these actors are not necessarily monetary even though they are about money (e.g. regulatory reforms⁵²). Thus, Aalbers (2018, 2019 & 2020) emphasises a shift from the geographies *of* money/finance to ‘financial geographies of other themes’, or more precisely, ‘from money and finance as an object of geographical analysis to finance as a lens through which one can look at other issues’ (2018:916).

Aalbers (2019) continues his report with a renewed interest on housing and real estate. While residential and commercial real estates are fixed to their locations, securitisation allows them to be globally traded through mortgage debt and real estate investment trusts. Earlier (2009), Aalbers contextualised the geographies of housing and real estate in relation to the 2008/09 financial crisis. A decade later, he reports different modes of financialisation in real estate, some of which are aimed at long-term capital accumulation while others are aimed at gains from short-term trading. Given that there are FABS firms specialised in real estate, the Clark-Wójcik model of three geographies of finance (production, trade, investment vehicles) remains relevant. Aalbers’ final report (2020) looks into the financialisation of the city (‘the financialization of urban governance’ and ‘urban financialization as a state strategy’), primarily focusing on the geography of financial production.

While the virtualisation of financial product trade (Wójcik, 2007; Engelen & Grote, 2009) continues to redraw the map of international financial centres, the process of financialisation influences the structure of cities, states, and regions (Ioannou & Wójcik, 2019) and spills over to the geography of financial trade and investment vehicles. Not only financial product trade but also FABS production and trade become a key for the financial centre growth (Wójcik et al., 2018). For example, the fact that Warsaw hosts the

⁵² See Chapter 3 for examples from CEE.

largest securities exchange in CEE in terms of total market capitalisation certainly strengthens Warsaw's position vis-à-vis Prague and Budapest. Global FABS firms such as Goldman Sachs and JP Morgan opening offices in Warsaw implies the city's significance within the global network of financial centres. At the same time, the presence of other global FABS firms such as State Street in Kraków and other Polish cities signals the nuanced geographies of FABS *production*. Warsaw's position as the articulator of FABS *trade* for Polish cities as well as cities in CEE cannot be confirmed if the argument is solely based on the agglomeration of FABS firms attributed to Warsaw.

2.6. Gaps in the literature

McCann (2001), Fujita and Thisse (2002), Taylor et al. (2003) or Cooper (2011) all stress how firms enjoy different types of economies by agglomerating together, and the agglomeration in turn functions as a centripetal force to a financial centre. Some financial centres broaden and deepen the services they offer, becoming world/global cities (Sassen, 1991; Taylor, 2004). Such an evolutionary understanding of geography (e.g. Ter Wal & Boschma, 2011; Boschma, 2015) is also shaped by the changes in external institutional arrangements (e.g. the end of the Cold War, EU accession) and is undoubtedly relevant to CEE (see Chapter 3). At the same time, national financial centres may not have adequate expertise or experience to produce more complex and larger capital market services (e.g. merger advisory), and local clients seek service providers in global financial centres such as London and New York (see Chapter 4). Thus, market areas of financial centres are likely to be uneven and to overlap each other. Financial actors in local/domestic financial centres may bypass their national financial centre, making the relational geography of financial services more nuanced. When the ability to produce higher order financial services and the spatial reach of such services are treated as a proxy to depict a financial centre hierarchy, the agglomeration framework is ill-equipped to illustrate the geography of regional financial centres.

Therefore, this thesis positions itself within a larger framework of world/global city and considers financial centres as nodes in the global interurban network. Originated in Friedmann and Wolff (1982) and Friedmann (1986), cities in this framework are

understood through the relational network of flows (Amin & Thrift, 1992; Castells, 1996). While Sassen (1991) and Taylor (2004) acknowledge the economies of agglomeration at the core of centripetal force towards international financial centres, they shift their focus to relational attributes (e.g. office-connectivity, interurban advanced business services trade) and place financialisation at the core of the urban research (Aalbers, 2015; Sokol, 2017). Likewise, while this thesis pays attention to the agglomeration of financial actors and institutions in the national financial centres, and Warsaw in particular (Chapters 3 & 4), it nonetheless focuses on the relational geography of financial services trade (Chapters 4 & 5). Following Coe et al. (2014), this thesis investigates both higher order capital market services trade (Chapter 4) and FABS production at large (Chapter 5) in order to capture differences in the spatiality (division of labour) among national and domestic financial centres.

As Sections 2.4 and 2.5 largely draw insights from *Progress in Human Geography*, this literature review may seem Anglo-centric. Certainly, geographers from different background have unique motives and theoretical traditions underneath their contributions (e.g. Engelen & Grote, 2009 for Amsterdam and Frankfurt; Dörny, 2015 & 2016b for Luxembourg; Cassis & Bussière (eds.), 2005 for Paris; Shirai, 2009 for Tokyo), and this is also true for CEE (e.g. Matousek (ed.), 2010; Němec, 2011; Gál, 2014 & 2015; Blažek & Bečicová, 2016; Gál & Schmidt, 2017; Blažek & Hejnová, 2020). However, the ‘progress reports’ and other related articles from *Progress* by McConnell (1986), Daniels (1985 & 1988), Leyshon (1995 & 1997), Hall (2011 & 2013), French et al. (2011), and Bassens and van Meeteren (2015) keep interregional and interdisciplinary mindsets in reviewing the field, especially when financialisation is concerned. Given limited access to works written in a language other than English (especially in Hungarian), a postmodernist critique of this thesis can be found in its lack to address issues raised in other scholarly traditions. Yet, as is discussed below, a clear research gap exists both in terms of case study (CEE) and conceptualisation (geography of medium-sized financial centres). This thesis is the first step to fill in this gap.

Following Hall (2012 & 2013), this thesis follows a narrower application of the concept of financialisation. It is understood as a process in which city increases its ‘financial centre’ attributes through *inter alia* security market reform (Chapter 3), establishment of markets for financial intermediation (Chapter 3), production of higher order financial

services (Chapter 4), financial centre differentiation (Chapter 4), increased share of employment in FABS (Chapter 5), and concentration FABS firms through mergers and acquisition (Chapter 5). This is partly because of the short history of capitalism experienced in CEE and partly because of the motive of this thesis to highlight nuanced interurban relations between, for example, Warsaw and Prague (i.e. among national financial centres), Warsaw and London (i.e. between a regional financial centre and a global financial centre), Warsaw and Wrocław (i.e. between a national financial centre and a domestic financial centre), and Wrocław and London (i.e. between a local financial centre and a global financial centre) – ideally all in a unified conceptual framework.

There are at least two types of gaps in the literature reviewed above: CEE (and Warsaw in particular) as a case study and the ambivalence surrounding the FABS production and trade. As is pointed out by Taylor (2004:40-41, table 2.2; also echoed by Sellar et al., 2019), CEE was under-researched at the wake of its accession to the EU. While there exists a rich body of empirical studies on economic transition, subsequent EU accession, and financial market development (e.g. Griffith-Jones & Drábek (eds.), 1995; Lavigne, 1996; Blanchard, 1997; OECD (ed.), 1998; Pickles & Smith (eds.), 1998; Helmenstein (ed.), 1999; Balcerowicz, 2002; Meyendorff & Thakor (eds.), 2002; Batten & Kearney (eds.), 2006; Åslund, 2007)⁵³, CEE was rarely dealt with in the literature of international financial centres. The compatibility between the newly transitioned financial systems and the global financial market was analysed first and foremost institutionally and macroeconomically, paying little attention to the nuanced and complex interurban relations in financial services trade. As such, the national financial centres (i.e. the capital cities) were addressed interchangeably with the nations as a whole, and the methodological nationalism prevailed.

Fifteen years after the accession, the situation is similar with few exceptions⁵⁴, although some evidence presented in the introductory chapter illustrates that CEE is a valuable part of the global network of financial centres with a growing interest among global FABS firms. While Matousek (ed.) (2010), Blažek and Bečicová (2016), or Blažek and Hejnová

⁵³ These works are referred to also in Chapter 3.

⁵⁴ In CEE, the rules for professorship (including post-doctoral qualification known as ‘habilitation’) and other research assessment mechanisms systematically encourage rapid and frequent publication of the research findings in the local journals. While it certainly increased the volume of studies domestically produced, theoretical dialogues and interactions with the international academia have become superficial in many cases.

(2020) inevitably focus on the banking sector due to their underlying interests in Prague⁵⁵, Němec (2011) analyses advanced business services, and Sellar (2015) expands his analysis into knowledge-intensive services provided by banks. Schwan (2017) deals with financialisation at large which includes FABS production, although the level of his analysis is limited to sub-national regions (NUTS 2) rather than cities. The phenomenon of financialisation in CEE requires a careful analysis. As researched by Blažek (2016), Blažek and Bečicová (2016), Blažek and Hejnová (2020), Gál (2014), Gál (2015), and Gál and Schmidt (2017), (re)location and (re)positioning strategies of global and regional FABS producers shape the uneven but changing geography of financial centres in CEE. In case of Poland, any analyses on FABS production and trade shall include not only the national financial centre, Warsaw, but also a number of secondary cities such as Wrocław, Kraków, and Poznań. These cities are known for hosting various BPO firms for and SSCs of global FABS providers and are appeared in the recent editions of GaWC. Furthermore, the hierarchical relationships between international and regional financial centres (based on inter-regional trade, e.g. London and Warsaw) and between national and domestic financial centres (based on intra-regional production distribution, e.g. Warsaw and Wrocław) are often analysed separately, oversimplifying the geographies of finance in CEE.

Therefore, Chapter 3 lays down a foundation for financial centre analysis by highlighting several reforms which shaped the initial regional landscape of national financial markets at the wake of post-socialist transition. It focuses on the financial intermediary mechanisms to compare the developmental trajectories of securities markets in Warsaw, Prague, and Budapest. Chapter 4 continues with depicting interurban trades in capital market services. By anchoring in the central place models, it departs from methodological nationalism and treats financial centres in CEE as nodes in the global network of cities (see earlier sections). Chapter 5 expands the analysis from capital market services to FABS at large in order to further incorporate national and local financial centres into the geographies of financial services. Compiled together, these chapters shall provide a comprehensive view of Warsaw vis-à-vis the global as well as national network of cities.

⁵⁵ The Czech banking sector grows in a relatively stable manner and is considered as its comparative advantage vis-à-vis Poland. See Chapters 3 and 4 for further explanations.

Conceptually, both post-socialist privatisation and European integration provide a particular context within which the expansion of the financial centre network took place. Foreign-firm-based privatisation, often seen in CEE, directly links financial centres through intra-firm links, globally. European integration diminishes particularities (or advantages) of local institutions and accelerates globalisation and financialisation at least on the regulatory level. The more integration deepens, the more the agglomeration of financial resources towards London or Vienna might have occurred. On the contrary, regional capital market services trade seem to be concentrated in Warsaw, and the city is to become a regional financial hub. The puzzle is that such a trend is not depicted in various financial centre indices (e.g. GFCI), and many FABS firms still maintain operations centres in other Polish cities (e.g. Wrocław, Kraków, Poznań).

The ambivalence between the centralisation (towards a national/regional financial centre) and decentralisation (towards domestic financial centres) of FABS highlights nuanced spatial dynamics. On one hand, the geography of FABS *trade* may highlight the rise of Warsaw partly due to the monopoly of financial trading platforms (e.g. securities exchange) and partly due to the size of market area Warsaw is able to articulate. On the other hand, the geography of FABS *production* may look dispersed when FABS employment is concerned (cf. Beaverstock 2007). Therefore, Chapter 4 investigates the correlation between the deal size (a proxy for the complexity of services traded) and the market size for each capital market services category. Warsaw shall dominate in the production and trade of larger deals and more complex services, while other national and domestic financial centres maintain their market shares in the production of smaller and less complex services. The differentiation of products and financial centres further add a nuance to this hierarchical landscape. Chapter 5 also deals with M&As in FABS to determine if the ambivalence between centralisation (or consolidation) and decentralisation remains in a foreseeable future.

As a starting point, the next chapter investigates the regulatory reforms took place in CEE during the early stage of economic transition. It underlines the role played by various reformers in differentiating the course of financial centre development (i.e. agency of policymakers), loosely associated with the process of financialisation (i.e. increasing the financial centre attributes of the capital cities). As this literature review chapter illustrated, the term ‘financialisation’ covers a broad spectrum of financial geography, linking the

development of financial markets with a wide range of social, economic, and political observations. Here, however, it is centred around the cities' evolution towards the nodes in the global network of financial centres. It traces the development of medium-sized financial centres, depicts their interurban relations at both the supra- and sub-national levels, and determines their role as the articulators of national and regional financial markets.

Chapter 3 | Agency of Reformers in the European Financial-Centres-in-Making: A Historically Informed Financial Geography

3.1. Introduction

Reading through the news on the *Financial Times* or *Bloomberg*, we can familiarise ourselves with ‘who’s who’ in financial markets from the heads of regulators to the CEOs of major corporations. Reports and analyses often refer to personal attributes in order to form policy expectations and market forecasts, especially when major changes such as regulatory reforms are taking place. Geographically, individual policymakers, or reformers, are agents of cities who are influenced by the particularities of their socio-economic environments (cf. Amin & Thrift, 2017). At the same time, differences in their personal philosophies and leadership styles can change the course of action each institution or regulatory regime pursues. Despite the interests in such policymakers for the financial media, economic/financial geography at large continues to engage with the methodological institutionalism (i.e. placing an epistemological emphasis on inter-institutional relations such as services trade, office-connectivity, and offshoring). The presence of certain institutions (e.g. headquarters, investment banks, market of financial intermediaries) then explains/justifies the growth of the financial centre in question. This analytical trend contrasts with foreign policy analysis where both media and academia pay significant attention to the heads of governments and foreign ministers in deepening their understandings of institutional behaviours.

With the exception of Balcerowicz and Klaus, for instance, financial policymakers in Central and Eastern Europe (CEE) have been neglected in the mainstream literature. Reforms on financial institutions in Poland, the then Czechoslovakia, and Hungary are typically presented in a result-oriented manner with comparative macroeconomic data. Beneath such analyses, the term ‘transition economy’ often implies that successful reforms towards the fully-fledged liberal economy have a certain course of action to be pursued, consisting of strong rule of law, well-defined property rights, and full price/trade liberalisation (Fischer et al., 1996; Lavigne, 1996; Balcerowicz, 2002; Dunford, 2005). These economies are assumed to be dependent on investments from the US and Western Europe (cf. Pavlínek, 2004) and guided by the international liberal consensus. The developmental paths of financial centres in CEE would thus resemble each other along

with Europeanisation/Westernisation of financial institutions, with a variance in terms of the speed and degree of institutional transition (Aghion & Blanchard, 1994). However, as the policy priorities, visions, and political capital of the reformers differ from one another, Warsaw, Prague, and Budapest have differentiated their development as regional financial centres – a departure from a deterministic thinking. Then, to what extent did those reformers influence the shaping of the new financial centre landscape in CEE? How does such a historically informed financial geography differ from widely communicated macroeconomic analyses of the region?

This chapter approaches these questions with historical narratives arranged in a chronological and geographical manner. Quantitatively, it utilises the securities market data obtained from the Federation of European Securities Exchanges (FESE) and Eurostat to identify the time periods when the courses of financial centre development in Warsaw, Prague, and Budapest seem to have been altered and differentiated. Qualitatively, it refers to the memoirs and articles written by those who have engaged in high-level policymaking during the transition (e.g. Petr Pithart, Stanisław Gomułka, Janusz Lewandowski) in order to provide insights on how individual policymakers initiated their reforms. Reports issued by other academics, consulting firms, and media supplement the historical analysis as the access to official archives and interviewees⁵⁶ is limited.

This chapter argues that reformer-centred historical narratives reject deterministic institutional thinking and calls for the agency of policymakers to be included into the observation framework of financial centres. The establishment of a securities exchange alone, for example, does not make the financial centre in question to flourish. What is emphasised here is that the reformers in CEE had different approaches to the securities exchanges, thus, influencing the developmental paths for each capital city as a securities centre. At the early stage of the post-socialist transition, these reforms heavily characterised the financial-centres-in-making.

⁵⁶ For example, some interviewees avoid commenting on details due to their current positions. Others have changed their sectors or professions and their analyses on the legacies of reforms are not necessarily up to date. The author also acknowledges that his lack of knowledge in Hungarian language may have resulted in an uneven treatment of primary materials between the countries studied in this chapter. Therefore, it shall be read as a *regional* historical narrative rather than a *comparative* historical study.

The next section summarises some of the key theoretical themes in financial history and historically informed financial geography with an emphasis on the agency of policymakers. Then, it briefly visualises the landscape of financial centres in CEE through the narratives of recent events as well as comparable quantitative data. The subsequent qualitative historical narratives highlight that the financial transition is by no means deterministic, with reformers altering the developmental path of the financial centre in transition. The concluding section lists topics for future research within the scope of this chapter.

3.2. Financial history and agency of policymakers

From Wallerstein (1974) to Taylor (2004), financial history has found its place in the financial geography literature, especially when interurban connectivities are concerned. Detailed accounts of historical narratives on international trade were centred around the agglomeration of wealth and urbanisation (e.g. Kindleberger, 1984; Cassis, 2006), and they subsequently observed the hierarchical relationship among the major cities. While the rise and fall of international financial centres, such as London, Frankfurt, and Hong Kong, continue to attract the interest of scholars (e.g. Cassis & Wójcik (eds.), 2018), this body of financial history literature also became a part of the standard readings for the global network of cities (e.g. Friedmann, 1986; Amin & Thrift, 1992; Brenner, 1998; Castells, 2010). However, while historical narratives in general are fond of individuals and their anecdotes, it seems that individual policymakers did not attain the same level of scholarly attention compared to external events.

To be more precise, on one hand, financial history as well as historically informed financial geography often utilise events external to the institutions in question (e.g. the end of the Cold War, the 2007/08 financial crisis) as the turning *points* of institutional development. On the other hand, they consider reforms initiated by individual policymakers (i.e. internal to the institutions in question) as *processes* of institutional development, with the results assumed to be revealed in a gradual manner. The boundary between the analytical frameworks based on external events and those based on internal policymakers is certainly ambiguous. What is emphasised here is that the latter can

explain *how* reformers altered and differentiated institutional developments whereas the former can explain *why* such differentiation took place. By largely fixing the external events to the end of the Cold War (and the post-socialist transition), this study is able to analyse the agency of reformers in depth, complementing the analyses based on external relations, macroeconomic environments, and institutional developments in the region (e.g. Aghion & Blanchard, 1994; Gelos & Sahay, 2000; Balcerowicz, 2002; King & Szelényi, 2005; Åslund, 2007).

As is implied above, the concept of financial centre ‘development’ is understood broadly in this study, because the chapter focuses on the agency of reformers and the process of financial centre differentiation, which includes ineffective or failed reform initiatives (in retrospect). Given the characteristics of the early stage post-socialist transition at the time, these narratives are centred around securities markets which inevitably distance the study from a larger body of financialisation and global network of cities literature, as the latter often deals with more complex and advanced financial services trade. Nevertheless, the core message of this chapter is a call for a historically informed financial geography with an emphasis on the agency of policymakers. The case study of CEE shall justify such a call particularly when we analyse medium-sized financial centres where a small group of elite actors (cf. Dörny, 2016b; Amin & Thrift, 2017⁵⁷) has significant influence in shaping the developmental path of institutions/financial centres (cf. King & Szelényi, 2005).

On a regional level, institutions, even when they are ‘liberal’ (hence, flexible), are expected to evolve in a stable manner (Hall & Thelen, 2009) or ‘on-path’ (Kang, 2006), nourishing a deterministic way of thinking in understanding the financial centre development. In CEE, the liberalisation of markets can be understood as an institutionally deterministic path, for it was a single dominant policy doctrine in the region after the collapse of the socialist regimes. The dogmatic influence of international organisations (e.g. World Bank, IMF, European Commission) was clearly visible during the post-socialist transition and EU accession periods. At the same time, as the degree and methods of transition differ from country to country, from reformer to reformer, the

⁵⁷ To a certain extent, the topic of the agency touches the debate surrounding assemblage theory and critical urban theory (Brenner et al., 2011; McFarlane, 2011; Storper & Scott, 2016). This chapter, however, deals with reformers – they were already institutionally empowered to influence the development of cities. The process in which those elites climbed to such positions is more relevant to this debate, and it is beyond the scope of this study.

epistemological capacity of the path dependent theory is limited in analysing the evolution of financial centres in CEE (Kang, 2006; Mykhnenko, 2007b). Due to the so-called ‘open method of coordination’ of the European Union where Brussels allows each Member State to adjust its own national institutional arrangements, even the institutional convergence surrounding the EU accession of CEE seems to exhibit non deterministic characteristics (Epstein, 2008; e.g. European Monetary Union and the decision to stay out of it, see Hancké et al., 2009).

The following historical narratives therefore illustrate how national policymakers and elites differentiated these institutional developmental paths. It argues that the agency of these reformers is a powerful tool to explain the uneven financial centre development in the region. The 2004 accession countries (e.g. Poland, the Czech Republic, Hungary) are undoubtedly more similar to each other compared to those yet to complete the transition (e.g. Ukraine, Belarus). Yet, such a macroeconomic comparison is insufficient to justify the deterministic analysis on the former in relation to financial centre development. Thus, this chapter follows a style of Cassis (2006; also Cassis & Wójcik (eds.), 2018) to present a historically informed financial geography of CEE and resists a temptation to utilise the 2004 accession as the turning point towards homogeneous institutional developments shared in the region.

3.3. Overview of stock markets in Warsaw, Prague, and Budapest

In September 2014, the Warsaw Stock Exchange (WSE) led by Paweł Tamborski withdrew from the merger talks with the Vienna-led stock exchange consortium (Central and Eastern Europe Stock Exchange Group, CEESEG)⁵⁸. Warsaw has been the largest stock exchange in the region since 2008 with its total market capitalisation reaching EUR 154 billion at the time of the above announcement, against Vienna with 81 billion, Prague 26 billion, and Budapest 13 billion according to the FESE. A relatively large and stable economy in Poland led Goldman Sachs to open its Warsaw investment banking office (albeit small) in 2011, ‘consider[ing] Poland, and Warsaw in particular, to be an important

⁵⁸ Iglewski, Jakub. (2014) UPDATE 1-Polish bourse says no longer interested in tie-up with Vienna. *Reuters*, 23 September. Available at: <http://www.reuters.com/article/2014/09/23/warsaw-exchange-vienna-idUSL6N0RO4K820140923>.

financial hub for the whole region'⁵⁹. In the midst of stock exchange consolidation in Western Europe, the merger between the WSE and the CEESEG was considered a logical step to provide higher liquidity and to attract more regional and global investors to CEE⁶⁰. The September announcement, therefore, signalled Tamborski's willingness to remain institutionally independent from its Western neighbours in spite of the foreseen economies of scale achieved through the merger, at least for the moment.

Two contrasting views on the 'independence' from the West came from Prague and Budapest. Criticising former President Václav Klaus' Euroscepticism, the then Czech Finance Minister Andrej Babiš commented in March 2014 that 'the most natural ally [for the Czech Republic] is Germany and not Britain'⁶¹. The Prague Stock Exchange has been a part of the CEESEG and its predecessor since 2008, symbolising financial integration with its immediate neighbours. Strong presence of Austrian/German banks in the Czech Republic accompanies such an integration trend in the capital markets. In Budapest where its stock exchange was owned by Vienna since 2004, Viktor Orbán's national conservative government imposed regulatory burdens to (or 'levied') foreign-owned banks as he returned to power in 2010. Orbán eventually renationalised the stock exchange in December 2015, making both the capitalisation via loans and equities more 'Hungarian'. Although his policy seems effective against the 2015 Swiss franc shock⁶², the Hungarian financial market is considered lacking 'shareholder value' by, for example, Austrian Raiffeisen Bank⁶³. Today, neither Budapest nor Prague seems to have benefited from either the policy as far as the total market capitalisation is concerned.

The following figures (3.1 to 3.3) illustrate such claims visually. With market capitalisation reaching 30% of GDP, Prague became an active financial centre in the mid-

⁵⁹ Waldoch, Marta. (2011) Goldman Sachs opens Warsaw office, says Poland a 'financial hub'. *Bloomberg*, 11 May. Available at: <http://www.bloomberg.com/news/2011-05-11/goldman-sachs-opens-warsaw-office-says-poland-a-financial-hub-.html>.

⁶⁰ Cieński, Jan. (2013) Stock exchanges: Sound of overtures in Warsaw and Vienna. *Financial Times*, 9 May. Available at: <http://www.ft.com/cms/s/0/a80d3bb4-ae7c-11e2-bdfd-00144feabdc0.html?siteedition=intl#axzz3EwIr2NQs>.

⁶¹ Santa, Martin. (2014) Czech Finance Minister open to Euro adoption, but consolidation a priority. *Reuters*, 11 March. Available at: <http://www.reuters.com/article/2014/03/11/us-eu-czech-idUSBREA2A1KJ20140311>.

⁶² Rao, Sujata and Peto, Sandor. (2015) After Hungary's Swiss franc mortgage manoeuvre, a nod to Orbánomics. *Reuters*, 26 January. Available at: <http://www.reuters.com/article/2015/01/26/hungary-orbanomics-idUSL6N0V236U20150126>.

⁶³ Shields, Michael. (2015) Raiffeisen Bank executive says Hungary unit lacks shareholder value. *Reuters*, 20 January. Available at: <http://www.reuters.com/article/2015/01/20/raiffeisen-hungary-idUSL6N0UZ36020150120>.

1990s. Warsaw's financial market, on the other hand, was almost non-existent up until 1995, but it rapidly increased the market capitalisation along with the doubled GDP by 2000. Financial markets in CEE in general have grown more than four times in terms of size between 2002 and 2007, reaching EUR 385 billion among Vienna, Warsaw, Prague, and Budapest. This period is characterised by large capitalisation especially in Vienna reaching nearly 60% of GDP. The effect of recent financial crisis in Europe is visible in 2008⁶⁴ and 2011, although Warsaw seems to recover faster than the other financial centres. Between 2009 and 2018, the trends in Warsaw mirrored those in Vienna, as far as total market capitalisation is concerned⁶⁵. The development of financial markets in Budapest has been rather weak and slow. Despite the steady increase in GDP, the total market capitalisation today is still comparable to that in the pre-EU accession period.

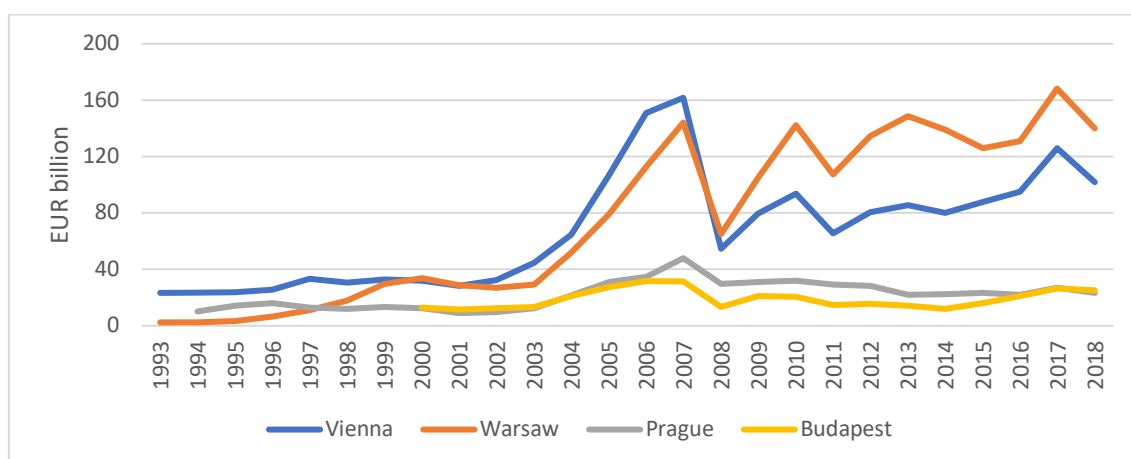


Figure 3.1. Total market capitalisation (domestic securities)

Source: FESE, supplemented by WSE (1993-1999) and PSE (1994-2000)

⁶⁴ The 2008 crisis was first observed in the equity markets, then sovereign eurobond market, foreign exchange markets, and credit insurance markets (Mihaljek, 2010). The sequence of the events partly explains the fall of GDP was delayed until 2009 while the financial markets already began to recover by October 2009.

⁶⁵ During this period, total market capitalisation in Warsaw is between 1.5 and 2 times larger than the gross capital formation in Poland, while they are roughly the same in Vienna. Calculated by the author from the same dataset as Figures 3.1 and 3.2.

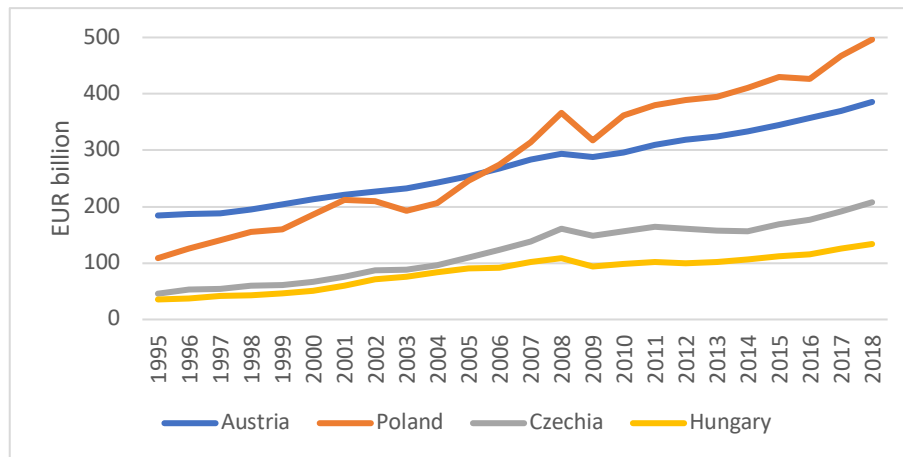


Figure 3.2. Gross domestic product (GDP) at market prices
Source: Eurostat (nama_10_gdp)

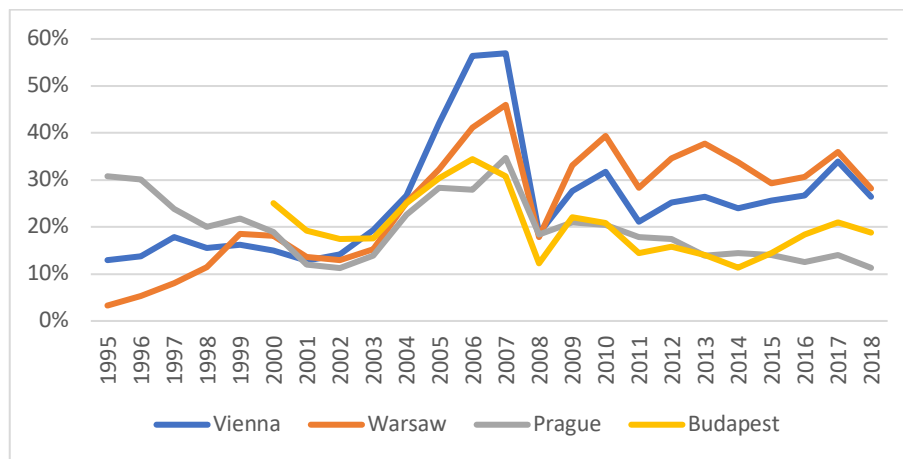


Figure 3.3. Total market capitalisation in % GDP
Source: Composed by Author based on Figures 3.1 & 3.2

Warsaw also hosts a rapidly growing initial public offerings (IPO) market, which was ranked fifth in terms of value and first in terms of the number of IPOs among European stock exchange groups in 2012 (when the WSE recovered from the 2011 shock) according to the Treasury⁶⁶. It also ranked seventh among the top ten listing venues by volume for cross-border IPOs in the world in 2012⁶⁷. With the ordinary capital increase (i.e. newly issued shares), the amount of investment flows channelled through Warsaw during this period is significantly higher than the rest of CEE, reaching EUR 2 billion according to the FESE. While the large IPO market in general can be explained by the privatisation

⁶⁶ Available at: http://msp.gov.pl/portal/en/88/3973/Warsaw_Stock_Exchanges_primary_market_summary_of_2012_and_prospects_for_2013.html.

⁶⁷ PwC (2012) *Equity sans frontières: Trends in Cross-Border IPOs and Outlook for the Future*. Available at: http://www.pwc.com/en_GX/gx/audit-services/ipo-centre/assets/pwc-cross-border-ipo-trends.pdf.

schemes, the large ordinary capital increase suggests that the firms seek capital through the securities market in Warsaw rather than through direct bank loans.

Today, the number of listed companies in Warsaw reaches 336 (main market, of which 39 are foreign, as of July 2020), significantly higher than Vienna, Prague, and Budapest combined together. In analysing multilateral trading facilities as markets for liquidity, Wójcik (2011) identifies investors as ‘liquidity takers’ and traders (and to some extent, issuers) as ‘liquidity makers’. A relatively large number of listed companies means that financial intermediaries are able to offer different types of portfolio management strategies. Liquidity makers are then able to receive positive externalities from the other liquidity makers as they collectively increase both the supply of financial products as well as the options for risk diversification, both of which attract more liquidity takers into the market. In contrast, liquidity supply in Prague dries up due to the lack of IPOs and the absence of the ordinary capital increase. A part of the vicious cycle, ironically, is the relatively strong banking sector in the Czech Republic, allowing firms to secure affordable direct bank loans rather than to seek investments through securities markets. As far as foreign listing is concerned, Budapest is no longer an *international* securities market centre, seemingly focusing only on the domestic clients.

Certainly, comparing financial centres should go beyond the securities market as the contemporary global financial market is more complex and its landscape is uneven (Wójcik, 2011). Capturing a wide range of financial centre activities, the Global Financial Centres Index⁶⁸, for example, ranks Prague higher than Warsaw time to time. As discussed earlier, at the beginning of the post-socialist transition, securities markets were at the centre of financial sector reforms alongside the banking and insurance sectors. Furthermore, as the following sections illustrate, the differentiated paths of financial centres are more evident in securities markets.

Against this background, the next section narrates the histories of financial centre development in Warsaw, Prague, and Budapest, paying particular attention to the securities market reforms. It is divided into four themes: ‘the voucher privatisation and the decline of Prague’, ‘the National Investment Funds and the rise of Warsaw’, ‘the

⁶⁸ Available at: <https://www.longfinance.net/programmes/financial-centre-futures/global-financial-centres-index/>.

gradual reform and the exit of Budapest’, and ‘consolidation of exchanges and the independence of Warsaw’, building on the earlier study by the OECD (Blommestein, 1998). While the first three themes focus more on the late 1990s and early 2000s, the last theme focuses more on the post-EU accession development.

3.4. The voucher privatisation and the decline of Prague

While the ‘voucher’ privatisation programme in the Czech Republic is relatively well-known, the internal disagreement among the reformers – a key item in analysing the agency of policymakers – has not been well documented in the literature. Despite the swift legalisation of foreign investment in 1988, the challenge to acquire liquid capital from the domestic markets remained. The simultaneous banking and enterprise reform pressured the newly privatised commercial banks to assess the loan applications without adequate information (Griffith-Jones, 1995). Informal market structures and social arrangements delayed many bankruptcy procedures, increasing the payment insolvency between enterprises. Neither the National Property Fund (Fond národního majetku) nor the Czech-Moravian Guarantee and Development Bank (Ceskomoravská záruční a rozvojová banka) had serious impact in providing sufficient liquid capital to the other smaller debtors (Hlaváček & Mejstřík, 1997; Zemplerová & Laštovička, 1997), until the Consolidation Bank (Konsolidační banka) began absorbing a large amount of bad debts rolled-over from the socialist era.

Still, the then Federal (i.e. Czechoslovakian) Finance Minister Václav Klaus was reluctant towards large scale foreign takeovers. So, the Czech premier Petr Pithart gathered a team to prepare for a series of large scale foreign-based privatisation negotiations ‘against the will’ of Klaus (Pithart, 1994 & 2011). The team included Deputy Prime Minister Franšek Vlasák, Minister of Industry Jan Vrba⁶⁹, Minister of Labour and Social Affairs Milan Horálek, and Minister of State Property Management and Privatisation Tomáš Ježek (Ježek, 2006), which illustrated Pithart’s intention to address

⁶⁹ Pokorný, Marek. (2002) Nejsem handlír (I am not a trader). *Respekt*, 5 August. Available at: <http://respekt.ihned.cz/c1-36169530-nejsem-handlir>; Pick, Pedro J. (1992) Privatizing privatization: The Czech experience. *Arthur D. Little*. Available at: https://www.adlittle.com/sites/default/files/prism/1992_q3_17-19.pdf.

a wide range of issues, not only financial stability of the privatised enterprises, but also employment condition and property rights. Under Pithart, Rakona Rakovnice was acquired by Procter and Gamble in 1991, Volkswagen obtained 30% share of Škoda Mladá Boleslav in 1991, and Barum Otrokovice became a part of the Continental group in 1992. As soon as Klaus took over the federal premiership in 1992, large scale foreign-based privatisation subsided, until the Aero Vodochody takeover by Boeing in 1998 under Josef Tošovský. Although the National Property Fund estimated that around one third of state-owned enterprises in terms of volume has transferred through large privatisation, foreign participation in the first wave of voucher privatisation was around 2% by volume on average (qtd. Mejstřík, 1997:61 & 67). The voucher-dependent privatisation systematically encouraged disperse ownership and preserved small and medium sized enterprises as the bases of initial securities markets in Prague.

Immediately, Prague faced two obstacles. First, the majority of voucher owners were regular citizens who had no previous experience or knowledge in business management. As Kraakman et al. (2009) illustrate, threats to sell equities is an effective corporate governance mechanism to solve principal-agent problems between investor-owners and managers. Thus, the voucher-dominated securities markets in Prague would have required a proper exchange mechanism from vouchers to tradable equities, transferring corporate supervision responsibilities from investors to financial intermediaries. Rapid introduction of voucher-based securities exchanges in Prague accelerated information asymmetry. As a result, manipulative investment funds, such as Harvard Capital Consulting led by Viktor Kožený with the infamous slogan ‘jistota desetinásobku (certainly ten times more)’, began predatory purchases of equities, increasing market volatilities without strengthening the fundamentals and corporate governance mechanism.

The second obstacle Prague faced in the mid 1990s was the slow trading at the Prague Stock Exchange despite a large number of issues was listed on the main markets. By 1996, the number of listed companies at the PSE reached 1,792 – a year later, the PSE had to de-list 1,301 companies due to their low level of trade⁷⁰. In the midst of Miloš Zeman’s political challenge to Klaus, the Czech currency crisis and the emergency expenditures for the flood victims in Moravia in summer 1997 tightened Klaus’ ability to salvage its

⁷⁰ According to the PSE as well as the FESE.

securities market (Gelos & Sahay, 2000). The Czech crisis was followed by the Russian crisis in summer 1998, resulted in the general decline of the EC's economic activities vis-à-vis CEE. The lack of dynamics in the IPO markets in Prague then dried up the liquidity in the main market.

In terms of securities market infrastructure, the plurality of securities markets in Prague is rather confusing. As a natural consequence of voucher privatisation, RM-System exchange ('registrační místo' or 'place of registration') was established in 1993 by the Investment and Postal Bank (Investiční a poštovní banka) group. The RMS practically took over the nationwide network of voucher registration system as the basis of electronic trading platform (Musílek, 1998). At the same time, the Prague Stock Exchange (PSE) was re-opened also in 1993 by the consortium of local commercial banks. Investors seemed to have treated the RMS and PSE as complementary trading platforms, due to different trading frequency and registration requirements. Officially, commission is slightly higher for the RMS, but registered intermediary at the PSE may charge additional fee for individual investors. The price quoted at the RMS often differed from the price at the PSE despite some effort made by the government to reduce price volatility (Mejstřík, 1997) which gave incentives to speculative and predatory trading orders.

As the markets mature, however, arbitrage trading between the RMS and PSE increased and the price differences diminished (Hanousek & Němeček, 2002). Through the amendments of the Securities Act, Commercial Code, and the Investment Funds Act, the Securities and Exchange Commission was established in 1998 (Musílek, 1998), increasing the transparency and trust in the Czech financial market, which were severely damaged during the 1997 crisis. Ten years later, the RMS underwent a transformation from off-exchange to standard exchange, rebranding itself as RM-System Czech Stock Exchange in 2008. In 2010, the RMS's Securities Centre (Středisko cenných papírů) transferred its settlement duties to the Central Securities Depository (Centrální depozitář cenných papírů), a part of the PSE Group, linking the RMS and PSE activities. While the RMS continues to attract individual investors, the PSE became a part of the Vienna-led CEESEG in 2008, serving as the secondary exchange for regional institutional investors.

As noted earlier, the departure of Klaus from the power in 1997/98⁷¹ marked the revival of foreign-based privatisation. In its commentary, a global law firm *White & Case* touched upon the expected spill-over effects on corporate governance through the participation of experienced foreign strategic investors in Prague⁷². While the commentary inserted a cautionary note on potential political instability (e.g. minority cabinet), it listed several successful cases including the sale of Česká spořitelna savings bank to Erste Bank and Agrobanka to GE Capital, both of which involved the German/Austrian capital and launched fundamental restructuring in the following years. After the Czech accession to the EU, Prague began to welcome investors from other EU member states: for example, Český Telecom was sold to Spanish Telefónica in 2005. The internal disagreement between Pithart and Klaus as well as Klaus' departure from the power, or the agency of policymakers in general, provide additional layer of analyses in illustrating the financial history of the post-socialist Prague.

3.5. The National Investment Funds and the rise of Warsaw

While both the 'voucher' privatisation in the Czech Republic and the 'shock therapy' in Poland might be considered successful, those two transition programmes seemed to be incompatible to each other, not only because of the different 'starting point' in each economy, but also due to the different visions on stock market in relation to corporate governance. In 1989, the year when Tadeusz Mazowiecki assumed the premiership, nearly 30% of GDP already came from the private sector (including the co-operatives), employing more than 44% of the total labour force. Yet, 'Solidarity was above all a trade union and, as such, could not and did not have the return to full blooded capitalism as its principal objective', write Gomulka and Jasiński (1994:221). The Solidarity supporters increasingly expressed their passion in property rights and employee-ownership as their perceived symbols of liberal democracy⁷³.

⁷¹ Although Klaus assumed the Presidency in 2003, Beneš and Karlas (2010) find that the 2009 Czech Presidency of the European Union illustrated some degree of policy convergence between Prague and other capitals and institutions in the EU.

⁷² Dlouhý, Michal (2002) Czech privatization: A ten-year overview. *White & Case*. Available at: http://www.whitecase.com/Publications/Detail.aspx?publication=211#.VRRUN_zF8rU.

⁷³ For example, Lewandowski and Szyszko quote that '47% of Poles were in favor of employee

The expert team led by Balcerowicz, however, considered such an option as inefficient, echoed by Stanisław Gomułka's privatisation proposals to organise investment banking activities (Gomułka & Kowalik, 2011). Thus, the initial privatisation proposals in 1990/91 resembled the IPO-based commercialisation in the UK along with the below-market-price asset leasing (Lewandowski & Szyszko, 1999)⁷⁴. The employee-leased companies were later transformed into employee-buyouts after several years of leasing (Kozarzewski & Woodward, 2003), the time-gap being crucial in screening competitive and sustainable firms. At the same time, the relative absence of the financial labour market in Poland resulted in the lack of intermediaries, and thus, the Government Plenipotentiary for Ownership Transformation, Krzysztof Lis, laid out a rather flexible general framework which allows various methods and techniques of privatisation (Gomułka & Jasiński, 1994). The Lis proposal, later known as the Act on the Privatisation of State-owned Enterprises, was passed in 1990 despite some resistance from the employee ownership supporters. Lis then advocated mass-scale commercialisation and openly went against vouchers and investment funds, which were two main instruments in the Czech Republic. The proposal was again dismissed by the employee ownership supporters.

This privatisation discussion also coincided with the conflict between premier Mazowiecki and popular President Lech Wałęsa in late 1990. The victory over Mazowiecki in the presidential election led Wałęsa to select a successor premier, Jan Krzysztof Bielecki, who kept Balcerowicz as his Finance Minister. Thereby, the privatisation project seemed to have continued smoothly, Bielecki proposing various commercialisation schemes of state-owned enterprises accompanied by the establishment of the Warsaw Stock Exchange in 1991. Yet, the employee ownership supporters still preferred the Czech-style voucher privatisation over the IPO-based commercialisation, and the resistance resulted in the weakening of Bielecki's political foundation, leading to his resignation in less than one year in office⁷⁵. The following Jan Olszewski (half year), first Waldemar Pawlak (33 days), and Hanna Suchocka (15 months) governments were

ownership' (1999:45).

⁷⁴ To be precise, Lewandowski is the author of the voucher privatisation, but after the Czech experience, he seemed to have changed his mind.

⁷⁵ Externally, Moscow was pressuring Warsaw through the revival of the Comecon (*EWPG Bis*), and Balcerowicz was ready to compromise for the sake of economic stability. Bielecki resisted, and the confrontation was softened as the Soviet Union finally collapsed (Davies, 2001).

also found short-lived and politically unstable, compared to Klaus in the Czech Republic who stayed in power from July 1992 until January 1998. This continuous succession inevitably delayed the privatisation process, especially ones with less popular methods. Tomasz Gruszecki, for example, drafted the proposal for mass privatisation in 1992, but fell along with the Olszewski government. Janusz Lewandowski, who contributed to the establishment of the WSE, succeeded Gruszecki, and some of the programmes were revived and continued. In 1993, Lewandowski finally achieved to pass his mass privatisation proposal (Gomułka & Kowalik, 2011).

Lewandowski's proposal was to establish a number of National Investment Funds, which were tightly regulated by statutes, but functioned as 'venture capital/turn around agencies, holding companies, and closed-end funds' (Gomułka & Jasiński, 1994:237). Some of the concerns addressed earlier were resolved. Employees received 15% of the shares in their enterprises when they participate in the mass privatisation scheme through the NIF⁷⁶. Ultimately, state-owned enterprises themselves (and in a large extent their employees) could choose the method of privatisation (including whether to participate in the NIF-led privatisation or not) per scribed in the Pact of Enterprises signed by the government, trade union, and enterprise representatives in 1992. The Pact also mentions speedy privatisation or otherwise forced privatisation by the Ministry of Privatisation. As far as foreign takeover is concerned, a majority of board members in each NIF must be Polish citizens, who then selected the fund managers. Furthermore, unlike in the case of the Czech privatisation funds, the Polish NIFs were joint-stock companies and the remuneration of the fund managers was linked to the income of the fund, ameliorating the principal-agent problems in corporate governance (Simoneti et al. (eds.), 1999; Hashi, 2000; Kraakman et al., 2009). In other words, the fund managers were actively involved in the restructuring of the privatised enterprises, increasing their productivity, competitiveness, and stock values. The governance of the Funds itself was also controlled by the market rhetoric, thereby, all citizens could receive a participation certificate for the NIFs, which gave the entitlement to receive dividend-like revenues. The certificates could be traded as they were (i.e. without voting rights) or exchanged to the de-materialised form of the NIF share with usual voting rights at the Warsaw Stock Exchange through a licensed bank or broker.

⁷⁶ The rest of the shares are divided among leading NIF (33%), other NIFs (27%), and State Treasury (25%).

The NIF-based mass privatisation programmes were first implemented in 1995, corresponding with the rise of the market capitalisation in Warsaw. By the time when the total market capitalisation in Warsaw peaked in 1999, ‘512 larger and medium-sized SOEs [state-owned enterprises], representing around 10% of industrial sector sales, were formally transferred to the National Investment Funds Program’ (Lewandowski & Szyszko, 1999:45). Surely, large institutional investors such as pension funds, which were reformed in 1999, have decisive influence in capital market when it comes to available liquid capital (Naczyk & Palier, 2014; Oręziak, 2014; also see Clark, 2000 & 2003). However, the presence of institutional investors alone does not automatically increase the securities trading. After all, investors take liquidity from the securities markets, while it is issuers and traders who provide liquidity in the securities trading (as opposed to liquidity of capital). The NIFs therefore have provided liquidity in trading and contributed to the rise of Warsaw as a securities market centre in the late 1990s through their portfolio management and corporate governance activities. Furthermore, as Glaeser et al. (2001) noted, motivated Polish regulators installed a transparent high-standard financial regulatory regime in the early stage of transition, comparable to the OECD average, strengthening the investors’ trust in the market.

The ownership of the NIFs began to consolidate towards the end of 2000 under BRE (Bank Rozwoju Eksportu), PKO (Polska Kasa Opieki), and PZU (Powszechny Zakład Ubezpieczeń) (Błaszczuk et al., 2003), but the banking sector reform were delayed by the presence of politically well-connected specialised banks⁷⁷. These shareholders were rather interested in the synergy effect rather than the value of NIF shares, and thus, Błaszczuk et al. (2003) further argue that corporate governance structure of the NIF became more complicated involving not only the privatisation of NIFs, but that of shareholders. The NIF also illustrated certain degree of delay in identifying new investors for smaller companies, resulting relatively low performance. The macroeconomic slowdown became evident in 2000, and until the European accession finalises in 2004, the Polish financial market remained rather bank-centred (Mykhnenko, 2007a) as

⁷⁷ For example, Bielecki ‘even question[ed] the definition of BGŻ [Bank Gospodarki Żywnościowej] as a “bank”’ (Mitchell, 2003:28) due to its structure as well as lobbying capacity. BGŻ specialised in the agricultural sector and owned the network of rural cooperative banks.

opposed to securities-market-centred, despite the NIF-led expansion of the securities market from the supply-side point of view.

As Kokoszczyński (1999) highlights, the WSE was assumed to be the only stock exchange in the country, unlike in Prague. The WSE under the leadership of Wiesław Rozłucki, who holds a PhD in Economic Geography, actively engaged foreign investors with a regional mindset to participate in the Polish market, alongside the Polish Agency for Foreign Investment (today, Polska Agencja Inwestycji i Handlu under Polski Fundusz Rozwoju) and the Ministries. Foreign investment banks replied the call by opening their offices in Warsaw especially after the 2004 EU accession. Curiously, the total market capitalisation did not necessarily correlate with the GDP growth, but rather with the FDI inflow (Akbar et al., 2006) – it seems that Warsaw began to function as the regional platform for liquidity, linking domestic issuers with foreign/regional investors. Still, the initial conflict between the policymakers and the employee-ownership supporters and eventual establishment of NIFs characterise the timing and type of reforms Poland (and Warsaw) has pursued.

3.6. The gradual reform and the exit of Budapest

Although Hungary can be considered as one of the model cases for a smooth political transition, the success of its financial reforms is debatable. Hungary introduced a two-tiered banking system in 1987, earlier than other CEE countries, while the costly recapitalisation programmes pressured the public finance up until 1995. As Gál (2010b) illustrates, Budapest has thrived as a regional banking and financial centre in the 19th and 20th centuries, largely benefiting from its geographical location to connect the Russian, Ottoman, and Austrian Empires. Today, OTP (Országos Takarékpénztár, National Savings Bank) and MKB (Magyar Külkereskedelmi Bank, Hungarian Foreign Trade Bank) enjoy the economies of scale stemming from their branch networks in the Balkans. However, as Gál himself argues (2010a), these regional banking networks are not sufficient enough to make Budapest an ‘international’ financial centre, as securities markets host a wide range of financial institutions. The rise of Orbán’s nationalist government and his campaign against foreign-owned banks characterise the challenge

Budapest faces today. On one hand, the capital inflow from these foreign-owned banks has stabilised the Hungarian economy and accelerated the post-socialist economic transition and development. On the other hand, the recent financial crisis has shown the probable reverse capital outflow especially when their domicile economy (e.g. Germany and Austria) is in trouble⁷⁸. In other words, the high volatility of capital flow in Budapest signals a certain degree of financial exploitation by other financial centres in the region, namely Vienna, Munich, and Frankfurt.

Even prior to its political transition, Hungary has already gradually installed the concept of the property rights and a hint of the capitalist rhetoric through limited trading activities. The so-called ‘spontaneous’ privatisations led by the state-owned enterprises provided at least valuable experience in handling the process, if not the momentum for the fully-fledged capital economy (Ábel, 1999). While Poland and Czechoslovakia went through the rather harmful rapid price stabilisation programmes, the gradual Hungarian transition model illustrated some degree of stability. The Hungarian approach to many urgent issues (known as the ‘Bokros package’), such as deficit reduction, was radical enough (albeit gradual) to provide effective solutions. Nevertheless, some earlier critics argue that ‘[strategic mid-to-long-term] economic policy was left without firm [political] leadership’ (Stark & Bruszt, 1998; qtd. Åslund, 2013:28). The successive rise of various coalition governments in the 1990s led to the speculative trading in the foreign exchange and sovereign bond markets, delaying the development of the corporate securities market.

The privatisation method predominantly used in Hungary was the sale to foreign investors. In the Czech Republic and Poland, the vouchers and the NIF certificates were expected to be traded at the securities exchanges, known as the secondary privatisation. As the direct sales to outside owners do not involve such certificates, the securities market was not considered as a realm of privatisation in the Hungarian model. The Budapest Stock Exchange existed since 1987, although domestically registered investors began trading in 1989 and the IPO became active only after the introduction of Securities Act in March 1990. The price index illustrates that the general price of the shares in Budapest fluctuated throughout the decade. This was partly due to the government’s various ‘experiment’

⁷⁸ Buckley, Nell. (2014) Hungary cannot bank on state ownership. *Financial Times*, 10 December. Available at: <http://www.ft.com/intl/cms/s/0/a9164cac-8054-11e4-9907-00144feabdc0.html#axzz3WKD2kgjc>.

policies, e.g. the 1992-1993 automatic bankruptcy procedure (Bonin & Shaffer, 2002) accompanied by the mishandling of debt-for-equity swap cases in the hand of domestic fund managers. Thus, the general macroeconomic performance (e.g. GDP) functioned as the major indicator for companies' collective well-being in Budapest as opposed to individual financial statements by the firm. As a result, the total market capitalisation correlates with the GDP growth whereas it was with the FDI inflow for Poland (Akbar et al., 2006; cf. Alfaro et al., 2004).

In addition to the price volatility, the securities market in Budapest faced some further structural setbacks. As in Prague, the relatively stable banking sector in Hungary led many firms to seek capital through loans rather than through IPO or ordinary capital increase. Strong presence of FDI and foreign-ownership also encouraged cross-border capitalisation activities, including the listing at foreign exchanges. Thus, despite the fact that the higher ratio of the total market capitalisation to GDP was maintained in Budapest compared to Warsaw and Prague prior to EU accession, the investment flow channelled through the exchange remained low. Furthermore, the Bank for International Settlement data shows that Hungary was particularly exposed to capital inflow reversal risks during the pre-crisis period (Mihaljek, 2010). While the average price of equity recovered to the pre-crisis (i.e. early 2007) level by mid-2010 in both Budapest and in Warsaw as opposed to Prague, what differentiated Budapest from Warsaw was the lack of recovery in sovereign eurobond and foreign exchange market in the former⁷⁹.

Budapest as it stands seems to have exited from the race to become the international financial centre in CEE, at least when it comes to securities market. Nonetheless, Szabadföldi's survey (2002) reveals strong international business presence (regional headquarters, R&D, accounting, IT, HR) in Budapest, including Philips, GE (General Electric), and KPMG. While the survey highlights the ease to connect Budapest with other financial centres in the region, it also demonstrates the lack of leadership in Budapest. Although the so-called Széchenyi Plan of developmental strategy in 2001 aimed to compete against Warsaw and Prague as the regional business (and financial) centre, the New Széchenyi Plan in 2011 shifted the focus to acquire EU funding for the

⁷⁹ The Budapest Commodity Exchange has been active in currency derivatives which are generally assumed to function as a market's response to the unreliable monetary policy in Hungary. The Hungarian derivatives market has illustrated some degree of stable development over the past two decades (e.g. Chi & Young, 2006).

infrastructure development. Surely, these plans have identified the comparative advantages of Budapest against its Western neighbours. Nevertheless, they are short in providing a vision for the identity of Budapest as a regional financial centre, differentiating itself from Warsaw and Prague.

3.7. Consolidation of exchanges in CEE and the independence of Warsaw

As Prague and Budapest lack momentum to expand their securities markets, Vienna began to consolidate the regional financial landscape. The Vienna Stock Exchange acquired Budapest in 2004, and Prague and Ljubljana in 2008, to form the CEESEG. With Bratislava becoming *de facto* financial suburb of Vienna due to geographical proximity, Warsaw remains as the only sizeable securities exchange in the region, which avoids consolidation. In the Czech Republic, foreign owned enterprises seek their capital in the parent companies and domestically owned smaller businesses have little chance to accumulate enough capital in the securities market in Prague – thus, the latter better negotiates with the local banks (Myant, 2007). Listing on the PSE therefore is used as a publicity stunt⁸⁰ as any activities related to the PSE attracts media attention. For this reason, the WSE attempted to acquire the PSE, but lost against Vienna.

Ludwik Sobolewski who took over the WSE presidency in 2006 began active marketing of the Exchange. Firstly, he refined the price index (WIG) with various sub-indices which are considered as the most ‘efficient’ in CEE (Křišťoufek, 2010) and increased the range of financial products offered in Warsaw. The establishment of *NewConnect* for smaller enterprises in 2007 increased Warsaw’s liquidity with its volatility impacting on the main markets only in a limited manner. In 2009, the WSE launched *Catalyst* bond/debt securities market, complementing the treasury bills and bond markets under *BondSpot* exchange (formerly *Centralna Tabela Ofert, CeTO*), currently owned also by the WSE⁸¹. On the demand side, Sobolewski actively invited international financial firms to the

⁸⁰ Thompson, Emily. (2012) Warsaw Stock Exchange eclipsing Prague: Prague Exchange is being relegated to a marketing tool. *The Prague Post*, 6 June. Available at: <http://www.praguepost.com/business/13358-warsaw-stock-exchange-eclipsing-prague.html>.

⁸¹ However, Kouwenberg and Mentink (2006) argue that euro-denominated government bond markets in Poland and Hungary correlate with those in Germany and the UK, diminishing the portfolio diversification effects. Harrison and Moore (2010) also illustrate a similar result, despite cautiously.

membership of the WSE and conducted a successful IPO of the WSE itself in 2010⁸². Even though the total privatisation of the Exchange is yet to be seen, the IPO raised both capital for further expansion and awareness of Warsaw as a major financial centre in the region.

These initiatives are remarkable considering the concerns spread among European banks about their engagement with ‘emerging Europe’. Their engagement was assured as the Vienna Initiative in 2009, but once eurozone sovereign debt crisis erupted in 2011, ‘Vienna 2.0’ was negotiated. This time, Marek Belka, the then President of the National Bank of Poland, assumed the chairmanship of the ‘Vienna 2.0’, symbolising the Polish survival of the crisis as well as its high regulatory standards. Previously, Glaeser et al. (2001) note that motivated Polish regulators installed a transparent high-standard financial regulatory regime in the early stage of transition, comparable to the OECD average. Today, the Polish Financial Supervisory Authority (Komisja Nadzoru Finansowego) is a board member for both the European Banking Authority and European Securities Market Authority, contributing to the refinement and supervision of the European-level regulations.

In the meantime, the Markets in Financial Instruments Directive (MiFID) was transposed in Poland in 2009 with a delay of almost two years. While the MiFID differentiated a regulated market from a multilateral trading facility (MTF), the transposed Polish regulation distinguished an exchange market (rynek giełdowy) and an over-the-counter market (rynek pozagiełdowy), the latter is implied to have no physical trading space⁸³. By doing so, the WSE was able to run MTF *NewConnect* under the regulatory umbrella of ‘exchange market’. As opposed to *BondSpot* which was categorised as an OTC market, *Catalyst* under the WSE can be treated as a part of the regulated market activities with OTC characteristics. Whether such regulatory development is a result of lobbying by Sobolewski or the Polish regulator’s willingness to reflect the reality into their regulation is in the realm of speculation. Yet, active transformation of the regulated market to include the MTF activities through mergers and acquisitions seems to be a dominant

⁸² Sobczyk, Marcin and Kruk, Marynia. (2010) Warsaw Stock Exchange IPO priced at top of range. *The Wall Street Journal*, 29 October. Available at: <http://www.wsj.com/articles/SB10001424052702303284604575582212904949400>.

⁸³ Available at: https://www.knf.gov.pl/Images/Rynek%20wtorny%20papierow%20wartosciowych_tcm75-17591.pdf.

strategy for the WSE. In August 2013 the WSE announced, with a 30 percent share purchase, its participation in a pan-European MTF *Aquis* (operated by BATS Chi-X Europe)⁸⁴. While newly introduced MiFID II is yet to determine the prospects and potentials of *Aquis*, Warsaw's intention to link itself with London became visible. Moreover, the WSE obtained the Polish Power Exchange (Towarowa giełda energii) also in 2013, challenging nearby energy commodity market, such as Power Exchange Central Europe in Prague (a part of CEESEG) and European Energy Exchange in Leipzig (EEX, a part of the Frankfurt-based consortium). The Global Financial Centre Index published in September 2015 illustrated financial actors' interests on Warsaw, pushing the city to the 38th position – but it was dropped to 64th in September 2019.

Meanwhile, Prague envisioned to host hedge funds and asset management companies, which are required to be domiciled within the terrain of the EU⁸⁵. However, Prague found it difficult to achieve this goal as the legal and technical infrastructures are yet to be installed. The deflation of Czech crown in 2013 resulted in increasing inflation, further delaying the process. If Prague succeeds to host hedge funds and asset management companies, then it is possible for Prague to differentiate itself from Warsaw, potentially complementing each other in terms of regional financial market development. Yet, 6 years after these initiatives, little has been materialised. Whether Prague is serious or not will be seen in its implementation of EU regulations such as MiFID II as well as further refinement of infrastructures in the near future.

3.8. Conclusion

Historical narratives from CEE casts a doubt on deterministic institutional analysis of financial centres. The securities market development in Prague in the 1990s was largely characterised by the contrasting reform ideals of handful influential domestic actors, e.g. Pithart's aspiration for large-scale foreign-based privatisation and Klaus' passion for

⁸⁴ Cave, Tim. (2013) Warsaw Stock Exchange and Aquis: Unlikely bedfellows. *e-Financial News*, 19 August. Available at: <http://www.efinancialnews.com/story/2013-08-19/the-warsaw-stock-exchange-and-aquis-are-unlikely-bedfellows>.

⁸⁵ Laca, Peter and Chamonikolas, Krystof. (2013) Czech push to lure hedge funds eyes Luxembourg not Cyprus. *Bloomberg*, 26 April. Available at: <http://www.bloomberg.com/news/articles/2013-04-26/czech-push-to-lure-hedge-funds-eyes-luxembourg-not-cyprus>.

voucher privatisation. In Budapest, the privatisation was mostly based on the sales to foreign-based companies, and thus, they were more likely to request capital from their parent companies rather than through securities exchanges. Even though the conservative policies by Orbán may be praised by some financial actors in the months after the Swiss franc shock, his nationalist approach still discourages the internationalisation of Budapest as a financial centre. Balcerowicz in Warsaw insisted on avoiding the voucher-based privatisation due to foreseen inefficiency in corporate governance. The establishment of the National Investment Funds (NIFs) by Lewandowski then functioned as the development of domestic financial intermediaries. It was a gradual process further slowed down by the poor macroeconomic growth prior to the EU accession. However, the high standard of financial regulations in Poland accompanied by the active development strategies by the WSE under Sobolewski accelerated the development of Warsaw as an international securities market centre.

The moment these policymakers differentiated their reforms, an institutionally deterministic theoretical framework would face analytical problems. These narratives show that a handful of reformers had considerable influence on the establishment and modification of key securities market institutions which in turn shaped the characteristics of the given financial centre. When the concept of financial centre ‘development’ is defined broadly, the above historical observation leads to conclusions that the reformers had altered the developmental paths/trajectories of financial centres in CEE and that the agency of policymakers is a powerful tool in illustrating the process of financial centre differentiation. As the narratives presented above are centred around securities markets, the developments in other parts of the financial sector (e.g. investment banking, mergers and acquisition, service outsourcing) are largely ignored in this study. By incorporating these developments, future works on a historically informed financial geography of CEE can incorporate relational aspects of financial centre development (e.g. hierarchical interurban relations, regional urban system, and international division of labour) and complement the works in these fields.

It requires more observations and investigations to validate the agency of policymakers in financial centre development, as this study limits its scope to the reform initiatives during the post-socialist transition. One of the unanswered questions is how non-policymaking elites (e.g. CEOs of major retail banks) influenced the financial centre

development. As the securities markets in CEE grew in size, these professional elites may have differentiated their firms' activities in the given financial centre. For example, in Warsaw, the state-owned insurance giant PZU's decision to purchase Pekao Bank (then owned by Italian UniCredit) was likely to be driven by the then CEO Andrzej Kleszyk's vision to consolidate the banking sector in Poland. Whether the particular individual has policymaking or foreign experiences, and whether the particular firm is owned by foreign firms or not may influence such a case study. Any analyses on the agency of elites would be incomplete without investigating these actors.

Another 'missing piece' is the self-consciousness of these actors. For example, the internal disagreement between Pithart and Klaus is enough to justify the inclusion of these reformers into the observation framework of financial centre development. However, it is still unclear how they envisioned Prague as a financial centre, how they observed the interurban relations and urban system of the Czech Republic, and how they foresaw the spatiotemporal distribution of financial activities among the financial centres in Europe. To give a comparison, in foreign policy analysis, policymakers' beliefs and general rules are systematically summated into a 'doctrine'. During the tenure of the policymaker in question, we assume that policymakers consciously make their decisions based on the given doctrine and that the successors may continue, modify, or reject the doctrine, making the historical analysis more periodised. In order to take advantage of the agency analysis, studies on financial centre development may need to identify these doctrines and periodise the history of the given financial centre based on doctrines rather than external events.

Finally, the agency of financial centre has to be scrutinised. Once we establish the influence and intentions of elites in shaping the financial centre development, we must think how the financial centre in question can influence the global network of cities. To be clear, while reformer centred analyses promoted in this chapter rejects deterministic institutional thinking, they are nonetheless compatible with macroeconomic and institutional analyses, as reformers are the agents of institutions. As these reformers are characterised as the agents of financial centres, financial centres in turn may be characterised as the agents of the global network of cities. The circle of thinking completes when we analyse how elites observe the global network of cities. Therefore,

the agency of reformers is the first step towards a deeper understanding of the relational geography of financial centres.

Chapter 4 | Spatial Reach of Financial Centres: An Empirical Investigation of Interurban Trade in Capital Market Services

[This chapter is co-authored with Vladimír Pažitka and Dariusz Wójcik.]⁸⁶

4.1. Introduction

In the last few decades we have witnessed a meteoric rise of the size and complexity of financial markets (Krippner, 2005). As a consequence, the financial logic has permeated all sectors of the economy, including business, state, and households through a process of financialisation (Epstein (ed), 2005; Krippner, 2011; Erturk et al. (eds), 2008). The rise of financial centres has further deepened the financialisation of cities and urban development (Bassens and van Meeteren, 2015; Aalbers, 2020). Capital market services have assumed the centre stage due to their high value, low-volume character and the associated elite culture of investment banks as providers of these services (Wójcik, 2012). The drive for shareholder value maximisation, a central tenet of financialisation, has enhanced demand for capital market services by publicly listed companies striving to cater to the needs of investors (Muellerleile, 2009).

While most literature on the geography of capital market services is focused on leading financial centres and the global north (e.g. Sassen, 2001; Taylor, 2004), this chapter focuses on medium-sized economies in Central and Eastern Europe (CEE), namely Austria, Poland, the Czech Republic (Czechia), Hungary, and Slovakia. The trade patterns in capital market services exhibit a mixture of hierarchical interurban relations as well as uneven and overlapping market areas for services of varying complexity. The Austrian capital, however omnipresent throughout CEE, does not monopolise the region, as Brussels-headquartered KBC and Parisian Société Générale, for example, facilitate additional linkages to the ‘parent’ financial centres through their subsidiaries. The mere 64km distance to Bratislava assisted the expansion of Viennese Erste and Raiffeisen to Slovakia, while the strong presence of PKO Bank Polski in Warsaw and OTP Bank in Budapest illustrates the growing local capacities to handle financial transactions. The

⁸⁶ Responding to the comments and suggestions made by the editors and anonymous referees of *Urban Studies*, this chapter has been thoroughly revised. Additionally, the authors agreed to utilise the first-person pronoun ‘we’ in this chapter, whereas this is not the case for the other chapters.

Vienna Stock Exchange failed to consolidate the securities exchanges in CEE⁸⁷, and London still accounts for almost a half of over-the-counter foreign exchange daily turnover for the Polish zloty and Hungarian forint in recent years⁸⁸. The complex structure of external urban relations in capital market services trade stimulates a discussion beyond the horizontal network of international financial centres and their regional ‘hinterlands’.

This chapter investigates the interurban trade in capital market services by analysing adviser-client trade links. More specifically, we examine how external urban relations are shaped by the characteristics of capital market services traded. ‘Capital market services’ in this study are defined as intermediary services rendered to firms in a form of bond and equity securities underwriting, loan syndication, and mergers and acquisitions (M&A) advisory. While these services are fundamental to international financial centres, many post-socialist economies in CEE seek financial services providers globally to meet increasingly complex local demands. For example, a firm in Katowice, Poland may import capital market services from London, instead of seeking them in Warsaw (domestic financial centre) or Vienna (regional financial centre). As we show, firms in CEE tend to look beyond their domestic or regional financial centres, particularly if they require services to support very large and complex capital market transactions. Meanwhile, smaller and less complex transactions are typically catered to by domestic or regional financial services providers.

We operationalise our model of interurban trade derived from Central Place Theory (CPT; Parr & Budd, 2000) by analysing the adviser-client pairwise distance. In doing so, we are able to examine the relationship between the size and complexity of services traded on one side, and the size of their market areas on the other. We hypothesise that larger and more complex capital market services have larger market areas. To test this proposition, we examine the relationship between size of capital market transactions and measures of their complexity on one hand and the pairwise distance between clients and financial services providers. We also investigate potential overlaps among market areas, indicating heterogeneity among capital market services providers and financial centres. We utilise data on capital market transactions sourced from *Dealogic* databases. Our dataset contains 16,324 trade links worldwide, which involve advisers and/or clients in CEE

⁸⁷ See Chapters 1 and 2 for details.

⁸⁸ Bank for International Settlements.

conducted between 2000 and 2014. This database is widely used for market and performance evaluations of investment banks and has become an industrial standard for their ranking tables⁸⁹. We use quantile regression techniques for panel data analysis to estimate our models and bootstrapped standard errors to evaluate the statistical significance of our coefficient estimates (Koenker, 2004; Greene, 2018).

Our results indicate that the spatial structure of interurban trade in capital market services broadly corresponds to the key proposition of CPT, namely that more complex services are traded across larger market areas (Christaller, 1933; Lösch, 1940; Berry, 1967; Parr & Budd, 2000). This striking resemblance may be surprising at the outset, given that the early CPT research focused on retail services, rather than those provided to corporations. Nevertheless, key concepts from CPT have been adapted to suit the needs of research on financial services and have been shown to be equally relevant in this context (Parr & Budd, 2000). That being said, CPT is applicable to interurban trade in financial services only at a high level of abstraction and does not necessarily pin down the specific processes that generate the observed distribution of trade links related to the provision of financial services. This study therefore complements CPT with insights from global city theory (Taylor, 2004; Sassen, 2001), which theorizes the workings of advanced producer services complexes, which form the beating heart of financial centres.

The remainder of this chapter is divided into five sections. Section 4.2 reviews literature on financial centres, interurban trade in services, CPT, global and world cities. Section 4.3 develops three hypotheses. Section 4.4 explains how we build our dataset and details our econometric modelling methodology. Section 4.5 first offers a descriptive analysis of interurban trade within the urban systems in Austria, Poland, the Czech Republic, Hungary, and Slovakia and then presents our econometric results. Section 4.6 concludes and discusses our findings in relations to existing research on the topic.

⁸⁹ This database is transaction based and suitable for this study. Other databases produced by national and international organisations such as IMF, World Bank, BIS and national statistical offices are often based on macroeconomic attributes and aggregated by sector or region. Although *Dealogic* assumes the location of transactions based on the firms' operation headquarters and some transactions are registered with a delay, they are not compromising the econometric analysis carried out in this study.

4.2. Financial centres as central places

‘Until very recently, research on external relations of towns and cities was severely neglected in urban geography’ (Taylor et al., 2010:2815). While they admit the CPT models introduced by Christaller (1933 & 1950) ‘became unfashionable in Geography’ due to its formal (or strictly geometrical) spatial modelling (Taylor et al., 2010:2803), their survey also notes the Central Place ‘thinking’ in the recent world and global city scholarship (e.g. Taylor, 2004; Sassen, 2001) and the new economic geography (e.g. Krugman, 1998; cf. Mulligan et al. 2012). Bennett and Graham (1998) linked CPT with interregional trade theory to investigate the hierarchy of business services centres. Focusing on the dispersed nature of demand for intermediary financial services, Parr and Budd (2000) extract the principles of CPT to explain the spatial structure of financial centres. Encouraged by these predecessors, this section elaborates on some of the key CPT concepts concerning interurban trade patterns and hierarchical interurban structure. Following the propositions developed by Lösch (1940) and Berry (1967), the section highlights the connection between the *order* and *range* of goods/services.

In analysing interurban socio-economic activities, Christaller (1933 & 1950) assumes strict geometrical distribution of settlements, or ‘central places’, arranged in a grid of hexagons. This equidistant arrangement makes central places the best access points of goods/services for the surrounding market area, a concept similar to ‘hinterland’. In fact, Porteous (1999:105) defines hinterland in relation to a *financial centre* which ‘provides the best access point for profitable exploitation of valuable information flows’. What differentiates the CPT framework from the models based purely on hinterlands is the source of hierarchical interurban structure. In the latter models, the spatial size of market areas (hinterlands) dictates the capacity of cities to draw resources and information. Therefore, cities compete against each other over the market areas on a level playing field, which can be easily translated into a zero-sum game among cities. In the CPT framework, the production of more complex services is concentrated in fewer places, forming a more spacious matrix of higher order central places *over* the matrix of lower order central places. The interurban relations are thus hierarchical based on the capacity to deliver higher order services (Berry & Garrison, 1958a, b & c; Berry, 1967). The higher the *order* of services (i.e. larger and/or more complex), the longer the *range* of services (the

maximum distance consumers/clients are willing to travel), making the varying spatial size of market areas primarily a result, rather than a source, of interurban hierarchy.

In generalising Christaller's models, Lösch (1940) relaxes the assumption of perfectly even spatial distribution of demand⁹⁰. Eaton and Lipsey (1982) further elaborate Lösch's modifications and bring producers' profit maximising behaviours into the model⁹¹, thus building the microeconomic foundations of the CPT framework. Christaller developed his earlier models with a number of 'principles' (e.g. marketing, transport, and administrative principles), focusing not only on the division of market areas, but also on the customers' mobility through the transportation networks. By relaxing the assumptions on the even spatial distribution of demand, producers in the modified models are aware of the economies of agglomeration achieved by locating near each other (Parr & Budd, 2000; Fujita & Thisse, 2002) which include the ease to access skilled labour force and the development of shared infrastructures. As such, Lösch (1940) begins to explain a virtuous cycle of higher order central places, where the agglomeration of producers enables the production of further higher order services. As higher order services have larger market areas, the enlarged market area (hence, increased demand) enables the producers to sustain their production at the higher order central places. The sustainable production then strengthens the hierarchical interurban structure⁹².

The lowest sustainable level of production is known as the *threshold* of production, below which the low level of demand makes the production of (higher order) services uneconomical. In capital market services, different types of services are demanded at different scales and frequencies (e.g. managing loans vs. M&A advising, underwriting of new equity issues in Warsaw vs. Bratislava). This notion is a significant departure from the even distribution of demand and homogeneous tastes, assumed in the earlier CPT models (cf. Parr & Budd, 2000). Infrequent demands for higher order capital market

⁹⁰ Parr (1978) also attempts to modify Christaller's and Lösch's models, but his model retains the geometric spatial distribution of demand.

⁹¹ This producer-centric model is then linked to inter-regional trade and investment patterns. See Helpman (2014).

⁹² Following Castells (1996) and echoing Meijers (2007), Taylor et al. (2010) consider the horizontal networks of information flows to be 'distinctive and separate' from the hierarchical interurban relations. While this complexity of external urban relations has broader theoretical importance, the distinction between the two modes of relations is less relevant for the empirical models of this chapter. Thus, the chapter employs the term 'CPT *framework*' to loosely incorporate their horizontal 'spaces of flows' and hierarchical 'spaces of places' models.

services in smaller financial centres make the localised production of such services by subsidiaries less economical even when the benefits of face-to-face interactions (e.g. Jones, 2007) or the economies of co-location (e.g. Krugman, 1991) are considered. As a result, Taylor et al. (2003) observe the clustering – i.e. agglomeration of not only advisers but also *clients* – to be a norm rather than an exception in the financial sector.

The transportation cost, or the ‘distance-decay’, has been a major factor for the threshold of production as well as the firms’ localisation strategies, and this proximity-concentration trade-off (Markusen, 1984) is the basis for more elaborated CPT models such as ‘optimal integration strategies’ (Grossman et al., 2006), ‘competing [market] destinations’ (Fotheringham, 1983), and ‘competing central places’ (Fik & Mulligan, 1990). Krmenec and Esparza (1993) generalise such a ‘family of models’ to include ‘aspatial’ goods (i.e. goods and services with low or no transportation costs, such as capital market services) and find the hierarchical interurban structure (and the threshold) to remain relevant. Shearmur and Doloreux (2015) go further and claim that knowledge-intensive business services firms consider the proximity with clients less significant, thus making their CPT model more hierarchical, based on the capacity to be innovative. Producers of capital market services (hereafter ‘advisers’) shift their focus from spatial proximity with their clients to differentiation/specialisation of their services, and they ‘select an approximately central location within [their] market area’ (Parr & Budd, 2000:602).

Such ‘heterogeneous strategies and capabilities’ of multinational enterprises (Goerzen et al., 2013; Yeaple, 2003) lead to the heterogeneity of central places, as opposed to the absolute specialisation among central places, due to ‘synergistic development’ in clusters (Gordon & McCann, 2000). Sassen (2001) points out in relation to Castells (1996) that firms entertain a spatial division of labour within their ‘global assembly line’, in order to maintain the cost-effectiveness of their global production networks and information flows. In other words, each subsidiary office within a global firm may specialise in a certain product, depending on the synergistic characteristics of local clusters. Thus, higher order financial centres and clusters of multinational enterprises are more likely to be exposed to each firm’s heterogeneous strategy, and the exposure culminates into the heterogeneity of financial centres (Bennett & Graham, 1998). As the heterogeneity of financial centres in this framework is partly endogenous to firms’ strategies, the complementarity between

subsidiary offices within a firm can easily be translated into the complementarity of financial centres (e.g. Faulconbridge, 2004; Beaverstock et al., 2005; Meijers, 2007).

Whether in Parr and Budd (2000), Parr (2017) or Taylor et al. (2010), CPT largely remains a tool to illustrate spatial patterns/structures of relational geographies. On one hand, by departing from highly restrictive Christaller's (1933) models, modified CPT models can be applied to financial services trade with an uneven distribution of demand. The structural association between the *order* and *range* of services is interpreted as an association between the size/complexity of services traded and the spatial reach of financial centres. The causal mechanisms underlying the spatial reach of financial centres must however be sought outside of CPT, as financial services providers utilise economies of scale, service differentiation, network connectivity and rely on the institutional environment of the countries they operate from (Wójcik et al., 2018; Pažitka & Wójcik, 2019).

Global city theory informs our understanding of the varying spatial reach of financial centres through its emphasis on the co-production of complex financial services and recognizes the importance of advanced producer services (APS) complexes. These complexes form the heart of financial centres and feature accounting, auditing, law and management consultancy firms as important actors supporting capital market transactions (Sassen, 2001). More complex capital market services require more advanced expertise of financial services providers as well as accounting, auditing, legal and management consulting professionals involved in these transactions. It therefore follows that the more complex the service, the fewer financial centres will have all the necessary skillset and expertise to support such its delivery. Sassen (2001) highlights the role of New York, London, and Tokyo as global cities with the most developed APS complexes. Naturally other cities also display global city characteristics and are plugged into a global network through office networks of multinational companies (Taylor et al., 2010). That being said, both the numbers and quality of offices of advanced services providers vary widely across cities (Taylor, 2004) and smaller financial centres are therefore unlikely to share the same capabilities and expertise of the world's leading financial centres. Consequently, while the expertise to support smaller, less complex and routine capital market transactions is likely to be available across a higher number of cities, only a very limited number of financial centres will have all the necessary expertise available to support the most

complex transactions (Sassen, 2001). This in turn means that companies wishing to access capital market services will be able to find service providers able to cater to their needs locally or domestically, they may find it necessary to look for suitable service providers globally, to support the most complex transactions. The next section lists hypotheses based on these theoretical discussions and model modifications.

4.3. Hypotheses development

Drawing on the insights from CPT and global city theory, we therefore propose that more complex capital market services will be traded across larger market areas. In order to develop testable hypotheses to test this proposition, we utilize the concept of *range* from CPT, which is the limit to the size of market area for a service of particular order of complexity (Berry, 1967). We use two measures of service complexity – size of transaction and service category. We assume that larger transactions are more complex and require higher levels of expertise, implying that they can be provided from fewer financial centres and consequently are traded across larger market areas. Similarly, we assume that certain types of capital market services, such as M&A advisory are more complex and are traded across larger market areas than less complex services such as bond underwriting.

Hypothesis #1: Services involving larger transactions can be traded across larger market areas.

Hypothesis #2: More complex services, such as M&A advisory can be traded across larger market areas.

The *heterogeneity* and complementarity of services provided by different financial centres is likely to lead to *overlapping* market areas. In fact, Berry empirically illustrates (1967:11-12, 17-21 & 92) how customers from the same market area are served by more than one central place. In the context of capital market services, there are several underlying factors that drive the heterogeneity of services provided by different financial centres. First, financial centres in different countries are subject to different institutional

environment and different legal frameworks, thus subjecting clients to different regulation (Wójcik, 2013b). Second, different financial centres host different capital market services providers, who are able to facilitate access to alternative groups of investors, thus allowing publicly listed companies to diversify their shareholder base beyond what would be likely achieved through a single financial centre. Third, the organisational networks of financial services providers located in different financial centres vary widely (Pažitka et al., 2019). Consequently, depending on the client's needs, it may be advantageous to access capital market services through a financial centre, which is best positioned to leverage its network ties of investors, potential targets of acquisitions or lending syndicate partners to meet the client's needs. Given that such needs may vary with every transaction, the above points are likely to lead to overlapping market areas for capital market services. This means that clients in the same geographical area would be served by multiple financial centres.

Hypothesis #3: Market areas of financial centres overlap with each other and consequently clients located in the same area are served by advisers from multiple financial centres, even if their demands do not differ in terms of transaction size and service category.

Based on Guérin-Pace (1995) and Krakover (1998), Poon et al. (2004) illustrate increasing competition from regional financial centres (such as Vienna) vis-à-vis larger international financial centres (such as London), partly due to the increasing capacity of the former to produce higher order services in terms of both size and product category (Wójcik et al., 2018). Nevertheless, Esparza and Krmenc (1996) note that smaller (non-capital) cities do not extend their spatial market areas beyond the respective regional (sub-national) urban systems. In other words, larger financial centres are expected to have larger market areas, and their advisers are competing with advisers from smaller financial centres near their clients, rather than advisers from smaller financial centres competing for clients proximate to larger financial centres (Wójcik et al., 2019). The next section describes the data and methods utilised in this study in order to test the above hypotheses.

4.4. Data and methodology

In order to identify trade-links among clients and providers of capital market services, we track bookrunners (lead advisers in bond and equity issues), mandated lead arrangers of syndicated loans, and acquirer and target advisers in M&As. We refer to them as advisers for short. The rationale is that they constitute the primary link to the clients as either the sole adviser on a deal or one of the lead advisers in a syndicate, receiving a vast majority of fees. Our dataset covers clients headquartered in Austria, Poland, the Czech Republic, Hungary, and Slovakia (referred to as CEE for short), and we trace their trade-links to advisers worldwide. Our data on provision of capital market services is sourced from *Dealogic* database. With more than one million adviser-client pairwise trade links recorded since 1980, the database has become an industrial standard for market and performance evaluations of investment banks. Our dataset contains 12,473 trade links of 1,045 advisers worldwide with their 2,971 clients in CEE conducted between 2000 and 2014⁹³. Further 3,851 trade links representing exports from CEE to the rest of the world are examined for comparisons among the regional financial centres (Vienna, Warsaw, Prague, Budapest, and Bratislava). We complement this data with data from the *Bureau van Dijk-Amadeus* database, which provides location data for advisers and clients. This allows us to construct our dependent variable, which is a pairwise distance between the headquarters of the advisor and client for each transaction.

We analyse our dataset by first offering a descriptive analysis of the spatiality of trade in capital market services. We then proceed to a quantile regression analysis, which we use to test our hypotheses. Given that our first two hypotheses are centred on the *range* of services (the size of market areas), modelling the conditional mean of pairwise distance between advisers and clients, as would be the case in standard multivariate regression analysis, would not correspond to testing these hypotheses. We therefore model the conditional percentiles of pairwise distance ranging from 50th to 90th. The 90th conditional percentile is most relevant for the purposes of our analysis, meaning that we effectively use the right tail of the distribution of observed pairwise distances among advisers and clients as a statistical proxy for the size of market areas. We estimate our models using

⁹³ During the process of identifying the location date for advisers and clients, 1,090 trade links were excluded from the original dataset. Many advisers and clients in these trade links have been liquidated or relocated, resulting in the missing location data.

the penalised quantile regression with fixed effects (Koenker, 2004 and 2005). We use client fixed effects and time period fixed effects. Standard errors are obtained by bootstrapping (Greene, 2018) based on 100 simulations⁹⁴. We estimate a series of quantile regression equations in the following form:

$$\begin{aligned} \ln(dist_{i,j,t}) = & \alpha + \beta_1 \ln(transaction_size_{i,j,t}) + \beta_2 \ln(city_size_{i,j,t}) + \\ & \beta_3 \ln(equity_securities_{i,j,t}) + \beta_4 \ln(syndicated_loans_{i,j,t}) + \beta_5 \ln(M\&A_acq_advisory_{i,j,t}) + \\ & \beta_6 \ln(M\&A_tar_advisory_{i,j,t}) + \beta_7 \ln(Bratislava_i) + \beta_8 \ln(Budapest_i) + \beta_9 \ln(Prague_i) + \\ & \beta_{10} \ln(Vienna_i) + \beta_{11} \ln(Warsaw_i) + \eta_i + \gamma_t + \varepsilon_{i,j,t} \end{aligned} \quad (1)$$

where $dist_{i,j,t}$ is a pairwise distance between client i and adviser j in time period t , measured in kilometres; $transaction_size_{i,j,t}$ is the deal value of either equity/bond securities issue, syndicated loan or M&A, measured in constant 2012 USD; $city_size_{i,j,t}$ is the aggregate value of fees earned from equity/bond securities underwriting, syndicated loans and M&A advisory by advisers located in a financial centre, measured in constant 2012 USD; $equity_securities_{i,j,t}$ is a binary (0,1) indicator variable for equity securities issues; $syndicated_loans_{i,j,t}$ is a binary (0,1) indicator variable for syndicated loans; $M\&A_acq_advisory_{i,j,t}$ and $M\&A_tar_advisory_{i,j,t}$ are binary (0,1) indicator variables for M&A acquiror and target advisory; $Bratislava_i$, $Budapest_i$, $Prague_i$, $Vienna_i$ and $Warsaw_i$ are binary (0,1) indicator variable for clients i being headquartered in the respective cities; η_i is a client fixed effect; γ_t is a time period fixed effect; $\varepsilon_{i,j,t}$ is an idiosyncratic error term. Finally, we transform all continuous variables by taking a natural logarithm to allow for non-linear relationships.

We test hypothesis #1 by testing the statistical significance of the coefficient estimate on transaction size, a measure of complexity of service transactions. Similarly, hypothesis #2 is tested by examining the statistical significance on four product category indicator variables. Finally, to test hypothesis #3, we test the statistical significance of the coefficient on the city size (total fees) of financial centres. Positive and statistically significant partial correlation between financial centre size and pairwise distance indicates overlaps in the associated market areas, when the transaction size and product category are already controlled for.

⁹⁴ The null hypothesis is rejected if the p-value is lower than 0.10.

4.5. Results

4.5.1 Dataset description

The capital cities dominate the provision of capital market services in CEE and served as the domestic financial centres (Table 4.1). Vienna earned USD 1.7 billion in total fees (84.1% of fees collected in Austria), and Warsaw earned USD 0.5 billion (86.3% of Poland) from 2000 to 2014. The two largest economies in the region, Austria and Poland, exhibited an element of decentralisation by having multiple financial centres⁹⁵, while Prague (USD 146.5 million in total fees), Budapest (USD 41.8 million), and Bratislava (USD 13.0 million) dominate the capital market services provision in each country. The weak performance by (or even the absence of) Graz and Salzburg (2nd and 4th largest cities in terms of population in Austria) as well as Kraków and Łódź (2nd and 3rd largest in Poland) suggests that the population size is not the best proxy for estimating the order of financial centres. Thus, departing from Christaller's 'marketing principle' model, this chapter utilises the collected fees as a proxy for the size (and order) of financial centres.

	Fee	Share	Fee	% total fee	Fee	% export
Vienna	1,736.0	84.1%	745.8	43.0%	156.9	21.0%
Linz	286.4	13.9%	3.2	3.7%	0.4	11.9%
Innsbruck	28.2	1.4%	1.0	1.1%		
Graz	12.9	0.6%				
Total	2,063.5	100.0%	750.1	36.4%	157.3	21.0%
Warsaw	507.0	86.3%	26.3	5.2%	3.5	13.4%
Wrocław	53.7	9.1%	3.4	6.4%	0.7	19.1%
Poznań	17.2	2.9%	5.0	28.8%		
Gdańsk	5.9	1.0%	2.2	38.0%		
Kraków	3.7	0.6%	1.0	27.0%		
Total	587.4	100.0%	37.9	6.5%	4.2	11.0%
Prague	146.5	100.0%	35.6	24.3%	18.6	52.3%
Budapest	41.8	100.0%	5.7	13.7%	0.2	3.7%
Bratislava	13.0	100.0%	1.1	8.5%	0.8	72.3%

Table 4.1. Capital market services production in CEE
Collected fees in USD million (2012 constant)
Source: *Dealogic*

⁹⁵ See Chapter 5 for the further analyses on the Polish metropolitan areas.

Looking at the export destinations, Vienna earned 21% of fees from other CEE countries, 21% from the former Soviet Union countries (mainly Russia, amounted to USD 117 million), and 19% from South-eastern European countries including Turkey (Figure 4.1). Prague exported as widely as Warsaw in terms of the number of destinations, but the amount of fees collected from cross-border transactions for Prague exceeded that of Warsaw. Yet, beyond Europe and the former Soviet Union, Warsaw's exports reached as far as the United States, Canada, China, Israel, and South Africa, while Prague exported only to South Korea. Prague earned more than half of the cross-border fees from other CEE countries (Austria and Poland in particular), and Bratislava earned 72% from the Czech Republic. Budapest and Bratislava exported to only a limited number of destinations outside Visegrád.

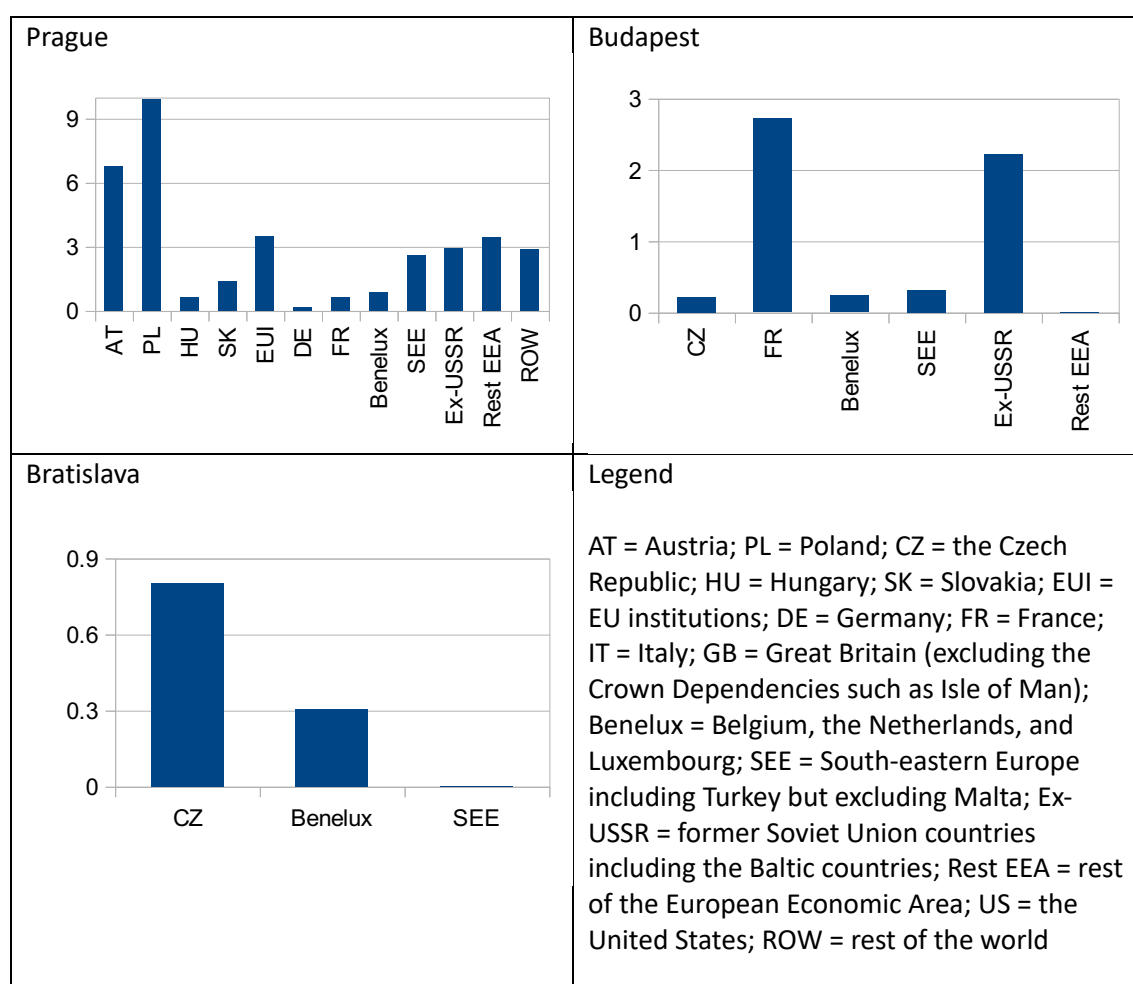


Figure 4.1. Spatial distribution of cross-border transactions
Collected fees in USD million (2012 constant)
Source: Dealogic

Further observations on trade links highlight how a small number of transactions can characterise the export landscape of medium-sized financial centres. Taking Warsaw as an example, Lasanoz Finance in association with CDM Pekao (the broker house division of the then UniCredit subsidiary) advised South African Naspers in 2007, collecting USD 3.3 million. Icentis Capital (a Credit Suisse subsidiary) earned USD 5.4 million in fees from Eton Park Capital Management, an American hedge fund. Icentis and Eton Park bought the stake on Ruch (kiosk/retail company) held by the Polish Treasury in 2010. Dom Maklerski Bank Handlowy (the broker house division of a City subsidiary) in association with Excellion Capital collected USD 2.7 million in 2010 from Israel. Excellion specialises in cross-border transactions in the UK, Germany, Austria, and Israel. Bank Handlowy has been the major adviser for European Investment Bank, earning USD 1.5 million in the studied period. Finally, state-owned PKO Bank Polski advised KGHM (Polish metal producer) in Canada and Peixin International Group in China (registered in the Netherlands) both in 2013. These transactions explain more than half of the total fees collected from the cross-border trade links in Warsaw. Similar patterns can be observed for Prague, Budapest, and Bratislava, although their cross-border trade links are largely shaped by the intra-European subsidiary relations such as Brussels-based KBC with ČSOB and Patria Group, Deutsche Bank with its direct subsidiaries, and Viennese Erste with Česká spořitelna.

Focusing on the trade links between advisers *worldwide* and clients in CEE, Figure 4.2 illustrates how more complex capital market services are more likely to be imported and how the propensity to import varies across the *types* of services as well as across the *countries* where clients are located. In particular, debt and equity securities underwriting were less reliant on imports compared to M&A advisory, suggesting different levels of service complexity within these categories. Nevertheless, an element of specialisation among the financial centres can be observed. Loans in Hungary showed a sign of strong local production as OTP Bank, MKB Bank and state-owned special purpose financial entities (i.e. Hungarian Development Bank and Hungarian Export-Import Bank) were active in lending. As Warsaw hosts the largest stock exchange in the region and consequently equity securities underwriting is highly concentrated in the capital city. The broker houses of PKO Bank Polski, BOŚ, as well as the online broker house IDM dominate equity securities underwriting in Poland alongside foreign subsidiaries.

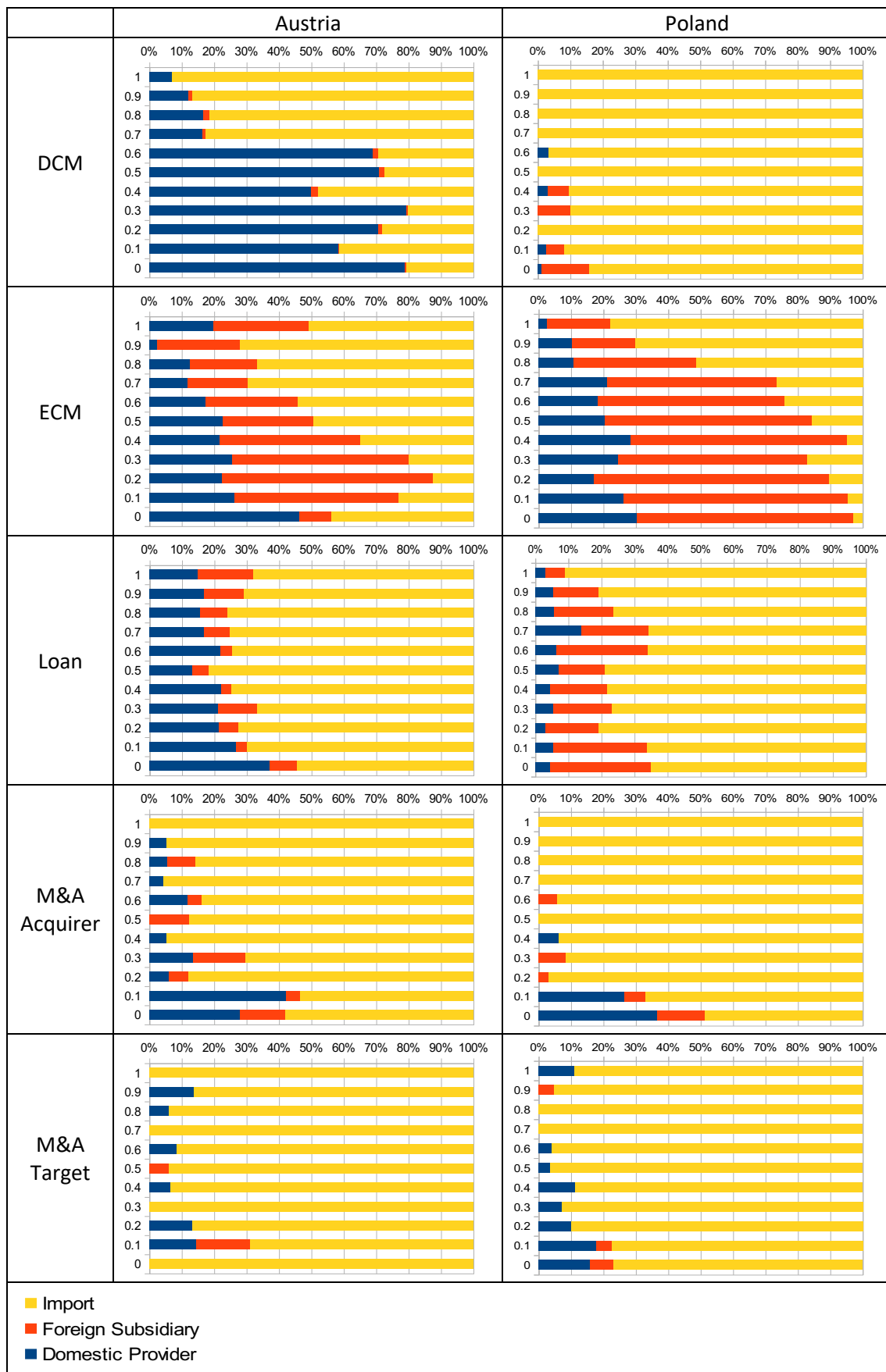
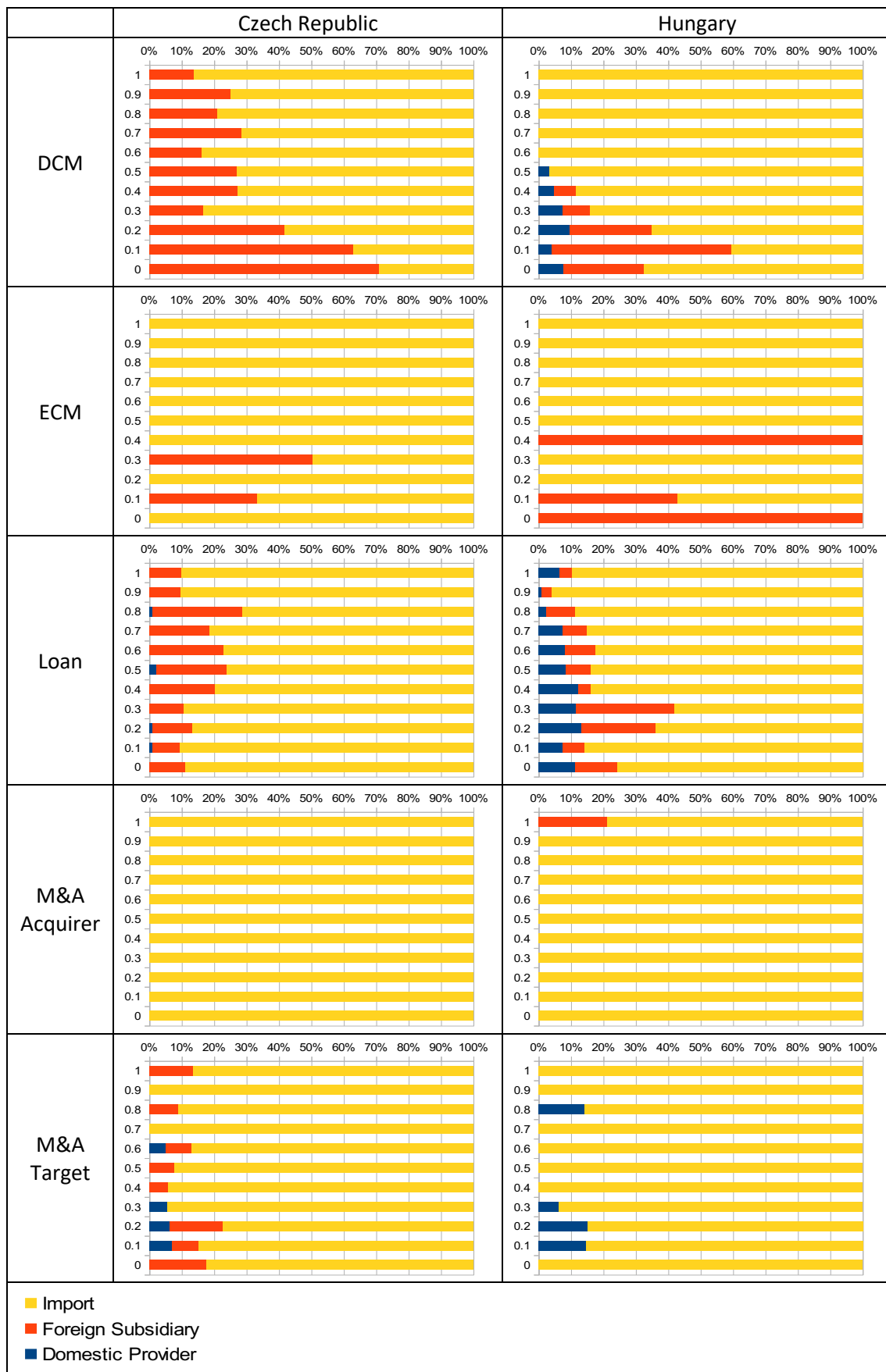


Figure 4.2. Domestic and foreign subsidiaries vs. imports

Deal value in deciles.

Source: *Dealogic*



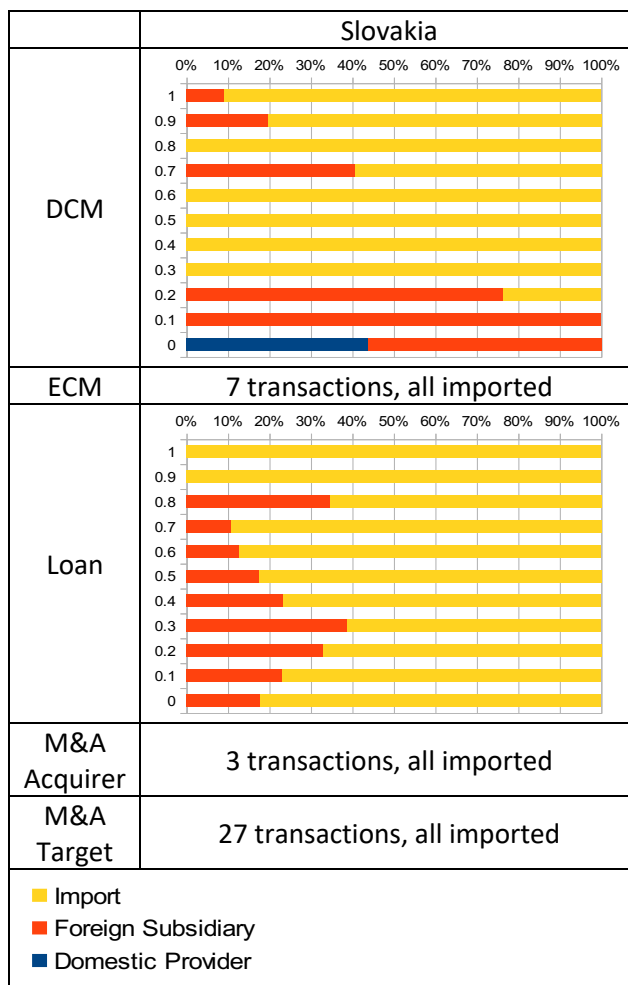


Figure 4.2. (cont.)

Figure 4.2 highlights that particularly smaller financial centres may not be able to provide services, for which the domestic demand falls below the minimum threshold necessary to sustain domestic provision of services. In Slovakia, equity underwriting (7 transactions), M&A acquirer advisory (3 transactions), and M&A target advisory (27 transactions) were all imported. M&A advisory has been provided by large foreign investment banks including Lehman Brothers, JP Morgan, Credit Suisse, Citi, Deutsche Bank, HSBC as well as management consulting arms of Deloitte and PwC. As these M&A transactions usually involve multiple

parties across the region, services were often imported from the advisers' headquarters in New York (956 trade links, USD 2.1 billion) and London (1,922 trade links, USD 2.2 billion) to acquirers and targets in CEE countries. Need for compliance with the EU regulations adds to the demand for more complex and sophisticated services, partly explaining the import behaviours from major international financial centres. The M&A markets in the Czech Republic and Hungary followed similar patterns, with regional firms such as Navigator Capital Group in Warsaw and Wood & Company in Prague (before it moved to Warsaw) being active in the intra-regional transactions alongside foreign subsidiaries such as BRE Bank (Commerzbank) in Warsaw and Patria (KBC) in Prague.

4.5.2 Econometric analysis

Hypothesis #1: Services involving larger transactions can be traded across larger market areas.

The conditional quantile of the dependent variable (the adviser-client pairwise distance) is represented by τ (tau), and the fixed client effects were penalised by including a factor variable of standardised client names with the shrinkage parameter represented by λ (lambda)⁹⁶. Without the shrinking parameter λ (Table 4.2 – Section 1), we estimate a 0.26% increase in the median ($\tau = 0.5$) of pairwise distance for every 1 percentile increase in transaction size. The partial correlation is positive and statistically significant throughout the higher conditional quantiles (e.g. 0.35% increase at $\tau = 0.9$) of pairwise distance. With the client fixed effects introduced (Table 4.2 – Sections 2-4), the coefficient estimates at lower conditional quantiles have become smaller in absolute terms and often statistically insignificant. For example, we estimate a 0.39% increase in the 90th percentile ($\tau = 0.9$) of pairwise distance for every 1 percentile increase in transaction size using a shrinkage parameter $\lambda = 5$ ⁹⁷. Therefore, even when the unobserved heterogeneity across clients is controlled for using fixed effects, we find statistically significant and positive relationship between the adviser-client pairwise distance and transaction size. This means that larger transactions are in fact traded over larger market areas, an evidence consistent with hypothesis #1.

⁹⁶ The reason is to alleviate the incidental parameter problem, as otherwise one parameter for every client (nearly 3,000 coefficients) would be added to each model, considerably reducing the statistical significance. The larger the λ is, the more shrinking occurs.

⁹⁷ This has been tested up to $\lambda = 30$, and it has not yielded a qualitative change in the estimated results.

Dependent variable is the natural logarithm of pairwise distance between the city of client and the city of advisor (calculated as spheric distance by R function distGeo() from package 'geosphere'); Section 1 shows the results of a standard quantile regression across a range of conditional quantiles, while sections 2-4 show the results of penalized fixed effects quantiles regression with shrinkage parameter lambda varying from 1 (section 2) to 5 (section 4). τ - conditional quantile of dependent variable; λ - the penalty parameter controlling the shrinkage of the fixed effects toward zero; Coeff. Est. - coefficient estimate; t-stat - t-statistic of the coefficient estimate; Bootstrap method (xy pairs resampling) for estimating standard errors has been used based on 100 simulations. Time period fixed effects are introduced by including a set of dummy variables for T-1 years (2001-2014). Client fixed effects are introduced by including a factor variable of standardised client names. Statistical significance levels are denoted as significant at 1% level (***), 5% level (**) and 10% level (*).

Section 1	$\tau = 0.5$			$\tau = 0.6$			$\tau = 0.7$			$\tau = 0.8$			$\tau = 0.9$		
	Coeff. est.	t-stat		Coeff. est.	t-stat		Coeff. est.	t-stat		Coeff. est.	t-stat		Coeff. est.	t-stat	
CPT key variables															
Transaction size	0.2619 ***	(4.8705)		0.1325 ***	(3.0027)		0.1027 ***	(3.2863)		0.0994 ***	(3.7872)		0.3488 ***	(3.8440)	
City size	11.4414 ***	(34.5756)		8.3637 ***	(31.3512)		5.0898 ***	(19.3664)		3.4164 ***	(22.8653)		3.5584 ***	(19.3582)	
Product type															
Equity securities	0.5493 ***	(8.8627)		0.5046 ***	(6.5266)		0.2259 ***	(5.7566)		0.1155 ***	(4.2980)		0.6724 ***	(4.1079)	
Syndicated loans	0.6375 ***	(17.4852)		0.5266 ***	(13.8915)		0.3580 ***	(12.8115)		0.4374 ***	(9.4556)		1.3012 ***	(12.3065)	
M&A acq. advisory	1.5688 ***	(17.4624)		1.7468 ***	(50.1550)		1.7340 ***	(109.0638)		1.7121 ***	(111.4593)		1.5995 ***	(29.0695)	
M&A tar. advisory	0.9122 ***	(4.6506)		1.6961 ***	(7.5596)		1.7196 ***	(116.0280)		1.7171 ***	(81.6527)		1.7246 ***	(35.6193)	
Client city															
Bratislava	-4.8631 ***	-(14.4685)		-1.6714 ***	-(6.3918)		1.9689 ***	(7.3608)		3.7013 ***	(25.3632)		3.9155 ***	(13.4371)	
Budapest	-4.7980 ***	-(14.8552)		-1.6750 ***	-(6.4391)		1.9846 ***	(7.4781)		3.7416 ***	(25.1368)		3.8376 ***	(13.9722)	
Prague	-5.2282 ***	-(15.1991)		-1.8961 ***	-(7.0793)		1.7305 ***	(6.6398)		3.5387 ***	(22.7914)		3.6381 ***	(14.8278)	
Vienna	-5.0200 ***	-(14.9626)		-1.7176 ***	-(6.4267)		1.9232 ***	(7.4024)		3.6478 ***	(24.5986)		3.7064 ***	(14.6348)	
Warsaw	-5.0111 ***	-(14.1929)		-1.7278 ***	-(6.3078)		1.9276 ***	(7.1876)		3.7418 ***	(24.8547)		3.7820 ***	(15.4174)	
Fixed effects															
Client / Time period	No / Yes			No / Yes			No / Yes			No / Yes			No / Yes		
Section 2	$\tau = 0.5; \lambda = 1$			$\tau = 0.6; \lambda = 1$			$\tau = 0.7; \lambda = 1$			$\tau = 0.8; \lambda = 1$			$\tau = 0.9; \lambda = 1$		
	Coeff. est.	t-stat		Coeff. est.	t-stat		Coeff. est.	t-stat		Coeff. est.	t-stat		Coeff. est.	t-stat	
CPT key variables															
Transaction size	-0.0712	-(1.3390)		-0.0094	-(0.2921)		0.0113	(0.2927)		0.1847 **	(2.3871)		0.6608 ***	(3.4949)	
City size	6.1455 ***	(6.0082)		5.8831 ***	(5.9809)		5.1008 ***	(5.1997)		4.4912 ***	(4.5073)		4.4285 ***	(5.6404)	
Product type															
Equity securities	0.2146 **	(2.3604)		0.2125 ***	(2.8213)		0.1551 **	(2.4168)		0.0327	(0.4227)		-0.1997	-(0.9663)	
Syndicated loans	0.2743 ***	(3.9809)		0.3257 ***	(4.7768)		0.3254 ***	(4.6121)		0.4290 ***	(7.320)		0.7661 ***	(3.7422)	
M&A acq. advisory	0.9980 ***	(3.2957)		1.4654 ***	(7.1624)		1.5198 ***	(9.1375)		1.5615 ***	(10.5052)		1.2552 ***	(6.8757)	
M&A tar. advisory	0.5520 ***	(2.8638)		1.5037 ***	(8.4328)		1.6843 ***	(10.4443)		1.6858 ***	(9.9431)		1.3877 ***	(6.6604)	
Client city															
Bratislava	0.8416	(0.7537)		1.1213	(1.0706)		2.0859 **	(2.0525)		2.8268 ***	(3.1519)		2.9898 ***	(4.9340)	
Budapest	0.7674	(0.6734)		1.0424	(0.9819)		2.0162 **	(1.9654)		2.7736 ***	(2.9357)		2.9465 ***	(4.0470)	
Prague	0.5058	(0.4507)		0.7873	(0.7499)		1.7244 *	(1.6887)		2.4111 **	(2.5014)		2.8372 ***	(3.8360)	
Vienna	0.6873	(0.6056)		0.9943	(0.9288)		1.9731 *	(1.8897)		2.6290 ***	(2.6942)		2.7090 ***	(3.7604)	
Warsaw	0.6805	(0.5935)		0.9423	(0.8860)		1.8848 *	(1.8506)		2.6242 ***	(2.8095)		2.8534 ***	(4.0008)	
Fixed effects															
Client / Time period	Yes / Yes			Yes / Yes			Yes / Yes			Yes / Yes			Yes / Yes		
Section 3	$\tau = 0.5; \lambda = 3$			$\tau = 0.6; \lambda = 3$			$\tau = 0.7; \lambda = 3$			$\tau = 0.8; \lambda = 3$			$\tau = 0.9; \lambda = 3$		
	Coeff. est.	t-stat		Coeff. est.	t-stat		Coeff. est.	t-stat		Coeff. est.	t-stat		Coeff. est.	t-stat	
CPT key variables															
Transaction size	-0.0183	-(0.4763)		0.0000	(0.0000)		0.0266	(0.8150)		0.1061 *	(1.7700)		0.3844 **	(2.4226)	
City size	6.5388 ***	(6.7439)		5.9188 ***	(7.2469)		4.5850 ***	(7.2422)		3.5473 **	(7.1862)		3.5559 ***	(7.5737)	
Product type															
Equity securities	0.1279	(1.1637)		0.2037 ***	(3.0279)		0.1648 ***	(3.2362)		0.1606	(1.5956)		0.2211	(0.7155)	
Syndicated loans	0.2445 ***	(3.7563)		0.2921 ***	(5.1419)		0.2940 ***	(4.5810)		0.3984 ***	(3.7345)		0.7207 ***	(2.6475)	
M&A acq. advisory	0.9642 **	(2.3030)		1.5379 ***	(7.0081)		1.6863 ***	(12.9156)		1.6918 ***	(15.2330)		1.2923 ***	(6.6641)	
M&A tar. advisory	0.3775 ***	(3.5188)		1.4871 ***	(4.4616)		1.7370 ***	(21.0962)		1.7807 ***	(21.6803)		1.4387 ***	(7.7393)	
Client city															
Bratislava	0.3681	(0.3428)		1.0937	(1.1775)		2.5884 ***	(3.8004)		3.5779 ***	(8.3505)		4.3361 ***	(7.9022)	
Budapest	0.3723	(0.3391)		1.0793	(1.1339)		2.5586 ***	(3.6609)		3.4605 ***	(7.6201)		4.3377 ***	(7.1217)	
Prague	0.0970	(0.0896)		0.7558	(0.8095)		2.2342 ***	(3.2009)		3.1795 ***	(6.6376)		4.0783 ***	(6.5927)	
Vienna	0.2644	(0.2471)		1.0004	(1.0811)		2.4779 ***	(3.5962)		3.3508 ***	(7.2230)		3.8916 ***	(6.8669)	
Warsaw	0.4452	(0.4025)		1.1133	(1.1743)		2.5503 ***	(3.7987)		3.4536 ***	(7.6938)		4.3304 ***	(7.4617)	
Fixed effects															
Client / Time period	Yes / Yes			Yes / Yes			Yes / Yes			Yes / Yes			Yes / Yes		
Section 4	$\tau = 0.5; \lambda = 5$			$\tau = 0.6; \lambda = 5$			$\tau = 0.7; \lambda = 5$			$\tau = 0.8; \lambda = 5$			$\tau = 0.9; \lambda = 5$		
	Coeff. est.	t-stat		Coeff. est.	t-stat		Coeff. est.	t-stat		Coeff. est.	t-stat		Coeff. est.	t-stat	
CPT key variables															
Transaction size	0.0000	(0.0000)		0.0000	(0.0000)		0.0469	(1.1303)		0.1162 *	(1.9288)		0.3906 ***	(2.7116)	
City size	6.7140 ***	(7.0516)		5.9865 ***	(7.6338)		4.5600 ***	(7.4435)		3.4247 ***	(6.5640)		3.5076 ***	(7.2714)	
Product type															
Equity securities	0.1325	(1.2058)		0.1842 ***	(3.1130)		0.1490 ***	(3.1784)		0.1163	(1.1879)		0.3427	(1.2167)	
Syndicated loans	0.2234 ***	(3.0522)		0.2588 ***	(4.6039)		0.2741 ***	(4.4409)		0.3821 ***	(3.7935)		0.8744 ***	(3.3802)	
M&A acq. advisory	0.6885	(1.4908)		1.5658 ***	(5.3001)		1.6954 ***	(17.4674)		1.6955 ***	(20.8682)		1.3809 ***	(7.9279)	
M&A tar. advisory	0.3342 ***	(2.8885)		1.5269 ***	(3.7935)		1.7222 ***	(22.8036)		1.7530 ***	(22.7587)		1.4269 ***	(7.4733)	
Client city															
Bratislava	0.2159	(0.2076)		1.0936	(1.2524)		2.6373 ***	(4.2865)		3.6765 ***	(7.6652)		4.3695 ***	(6.7263)	
Budapest	0.2421	(0.2288)		1.0655	(1.2033)		2.5913 ***	(4.1140)		3.6273 ***	(7.4823)		4.2826 ***	(6.7510)	
Prague	-0.0412	-(0.0399)		0.7492	(0.8682)		2.3238 ***	(3.6268)		3.3661 ***	(6.7331)		4.0310 ***	(6.3694)	
Vienna	0.1060	(0.1022)		0.9822	(1.1304)		2.5279 ***	(3.9762)		3.5143 ***	(7.0150)		3.9160 ***	(6.5654)	
Warsaw	0.3062	(0.2850)		1.0981	(1.2312)		2.6026 ***	(4.1883)		3.6312 ***	(7.1480)		4.2496 ***	(6.7123)	
Fixed effects															
Client / Time period	Yes / Yes			Yes / Yes			Yes / Yes			Yes / Yes			Yes / Yes		

Table 4.2. CPT models and quantile regression results

Source: Calculated by the authors

Hypothesis #2: More complex services, such as M&A advisory can be traded across larger market areas.

The coefficients for product types are best interpreted in comparison to the base group – bond underwriting in this case. Differences in pairwise distance between different product categories are measured by calculating the difference between their coefficients. The difference between coefficient estimates for bond and equity securities underwriting indicates that the median distance ($\tau = 0.5$) for equity securities is 54.9% higher than bonds *ceteris paribus* (Table 4.2 – Section 1). The differences are 63.8% for syndicated loans, 156.8% for M&A acquirer advisory, and 91.2% for M&A target advisory. While the estimates varied, when the shrinkage parameter λ was introduced, the ordering of coefficient estimate is consistent across the service categories. This evidence indicates that the most complex services – M&A advisory are traded across larger market areas than syndicated loans and equity securities underwriting, which are in turn traded across larger market areas than bond underwriting, which is most localised.

Hypothesis #3: Market areas of financial centres overlap with each other and consequently clients in the same areas are served by advisers from multiple financial centres, even if their demands do not differ in terms of transaction size and service category.

Christaller's (1933) 'marketing principle' model predicts that the *city size* becomes statistically insignificant when the order of services is controlled for. This is due to the assumed product homogeneity within the respective orders and categories of services. Our results however indicate the coefficient estimates on *city size* remain positive and statistically significant throughout the conditional quantiles, despite controlling for the order of complexity of services by including transaction size and service category indicator variables. This result implies that market areas of capital market services in fact overlap due to service heterogeneity across different providers and financial centres, evidence consistent with hypothesis #3.

4.6. Conclusion

We have analysed spatial patterns of interurban trade in capital market services by analysing 12,473 trade links among clients in Austria, Poland, the Czech Republic, Hungary, and Slovakia and financial services providers worldwide over the period 2000-2014. Our analysis confirms that capital market services of higher level of complexity are traded across larger market areas. The degree of local production varied from city to city, with Warsaw specialising in equity securities underwriting and Budapest in syndicated loans. With the rise of local enterprises such as PKO Bank Polski in Warsaw, Wood & Company in Prague/Warsaw, and OTP Bank in Budapest, the heterogeneity of their business models and specialisations shaped the heterogeneity of financial centres. This heterogeneity in services provided by financial services companies located in different financial centres resulted in overlapping market areas.

These findings are consistent with the key propositions developed by Lösch (1940) and Berry (1967) regarding overlaps in market areas as a result of service heterogeneity. The heterogeneity is linked to producers' profit maximising behaviours (Eaton & Lipsey, 1982), and the interurban trade patterns in capital market services deepen our understanding of the world city networks and global cities (e.g. Taylor, 2004; Sassen, 2001). Advisers located in larger financial centres compete with those from smaller centres located nearer to the clients, while advisers from smaller financial centres do not generally export beyond their regional urban system (Esparza & Krmenc, 1996). While Taylor et al. (2010) observe central place 'thinking' in global city theory, this study provides empirical evidence on the spatial structure of external urban relations formed through interurban trade in capital market services. In doing so it confirms the usefulness of CPT models in understanding the spatiality of finance and demonstrates, how such general models of interurban trade can be married with relevant theory that specifically deals with the provision of financial services (Parr & Budd, 2000; Sassen, 2001).

There are several areas for future research. First, CPT framework could be tested in other types of financial services including asset management and mortgage markets (cf. Aalbers, 2019). Second, given the limited geographical coverage of this study, it would be interesting to replicate this analysis for other geographical regions or even at a global scale. Third, there is certainly a great deal of scope in developing more refined models of

interurban trade as well as further developing theories that aim to explain patterns of interurban trade. As it stands, we had to combine two theoretical frameworks to support ground our analysis. In particular, incorporating institutional factors would be helpful in addressing the limitations of CPT in the context of financial services. Firm-specific factors, such as repeated transactions by the same adviser-client pair and corporate ownership links, shall be analysed further. It is assumed that foreign subsidiaries (e.g. Société Générale in Prague) facilitated linkages to their parent financial centres. Analyses based on microeconomic data shall indicate the influence of such intra-firm and quasi intra-firm linkages on the spatial reach of financial centres.

Chapter 5 | The Geography of Financial and Business Services in Poland: Stable Concentration and a Growing Division of Labour

[This chapter is co-authored with Dariusz Wójcik.]

5.1. Introduction

‘JPMorgan picks Warsaw for new operations center’ (*Reuters*, 22 September 2017), ‘Goldman Sachs to beef up Polish operations’ (*FT*, 5 December 2017), ‘Warsaw’s Wola district lures big U.S. companies’ (*WSJ*, 5 June 2018), ‘Standard Chartered to set up new global business services hub in Warsaw’ (*Reuters*, 14 June 2018)⁹⁸. These headlines from major news outlets depict Warsaw as a regional (i.e. central European) financial and business services (FABS) centre, or even give an impression that the city is an international financial centre. Alongside a vibrant initial public offerings (IPO) market⁹⁹, Warsaw hosts an equity market larger (in terms of total market capitalisation) than those in Vienna¹⁰⁰. Geographically, London, Paris, Frankfurt, and many other financial centres in Europe are all within the 2.5-hour radius by air from Warsaw. Local private equity and investment firms, such as Wood, Abris, MCI, and Enterprise, utilise the frequent flights from Warsaw to these cities¹⁰¹, making the city a convenient hub for regional FABS trade.

Based on the office-connectivity of major FABS firms, the Globalisation and World Cities (GaWC) network has categorised Warsaw as an ‘alpha’ city since 2016 (see Chapter 1, especially Table 1.1, for its relative positioning in the region). Wrocław, Kraków, Poznań, Katowice and Łódź are listed as the cities with ‘(high) sufficiency’ below the ‘gamma -’ cities. The Association of Business Services Leaders (ABSL, 2018)

⁹⁸ Available at: <https://www.reuters.com/article/us-jpmorgan-poland/jpmorgan-picks-warsaw-for-new-operations-center-polish-deputy-pm-idUSKCN1BX1HC>, <https://www.ft.com/content/716d8302-d44c-11e7-8c9a-d9c0a5c8d5c9>, <https://www.wsj.com/articles/warsaws-wola-district-lures-big-u-s-companies-1528204313>, and <https://www.reuters.com/article/us-stanchart-poland/standard-chartered-to-set-up-new-global-business-services-hub-in-warsaw-idUSKBN1JA0TD>.

⁹⁹ In 2017, Warsaw conducted 13 IPOs worth EUR 3.9 billion (in market capitalisation on the first day of trading) and in 2018 (as of November) 9 IPOs worth EUR 0.4 billion, according to the Federation of European Securities Exchanges (FESE).

¹⁰⁰ Amounting to EUR 135 and 119 billion respectively, according to the FESE (as of December 2019, prior to the coronavirus outbreak in Europe). For the significance of stock exchanges in Financial Geography, see Wójcik (2011:106-125). In 2018, Poland became the first country among the post-socialist economies to be classified as a ‘Developed’ market by FTSE Russell.

¹⁰¹ Interview with Jarosław Daryło (managing director at Wood, 6 April 2018), Neil Milne (managing partner at Abris, 24 November 2017), and Sylwester Janik (senior partner at MCI Capital, 22 November 2017). Also see Klonowski (2011) and Dębniewska and Wojtowicz (2015).

reports that more than 1,200 BPO/SSC (business process outsourcing/shared services centre) and other services centres were operating in Poland. Warsaw hosts such centres more (in terms of the number of centres) than any other cities, while it is Kraków which takes the largest share in terms of labour force in this sector (23%), followed by Warsaw and Wrocław. When it comes to banking services, almost all major retail banks are headquartered in Warsaw (see Appendix 1), and Kraków represents less than 1% in capital market services production in terms of fees collected (see Table 4.1 from the previous chapter). According to the *Oxford Economics* database which defines FABS much more broadly, Warsaw employs in FABS nearly 5 times more people than Kraków or Wrocław. Thus, depending on the analytical focus, whether it is employment or office locations, FABS in a narrower or broader sense, the degree of centralisation in Warsaw and the hierarchy of domestic financial centres would be acknowledged differently. In contrast to Warsaw, Wrocław and Poznań are known for German speaking BPO/SSCs, and an *increasing* concentration of FABS in Warsaw would signal a rise of a central European regional hub, less dependent on the German financial flows. Thus, this case study on Poland shall be placed within a wider framing of relational European geographies.

The geography of FABS in Poland therefore reveals a couple of themes relevant to the research on financial centres in general. First, it highlights a degree of ambiguity surrounding the concept of FABS and how it is connected to the network of financial centres. On one hand, by focusing narrowly on BPO/SSC (as is the case in the above ABSL reports), the landscape of financial centres may look more dispersed and less hierarchical, reflecting the firms' centrifugal movements away from the established national financial centres in order to reduce the operating costs of office networks. On the other hand, by defining FABS broadly (such is the case for Sassen (2001) or the *Oxford Economics* database), the changing patterns of FABS spatial distribution may depict the firms' centripetal movements towards the national and (supra-national) regional financial centres¹⁰² in order to enjoy the economies of agglomeration (see Chapter 2 for detailed discussion). In either case, there seems to be no unified definition of FABS, partly due to the statistical offices' general practice to publish aggregated data for the whole service

¹⁰² In this chapter, the adjective 'regional' is attributed to supra-national regions (e.g. Central and Eastern Europe) while the adjective 'local' is associated to sub-national regions/areas (e.g. Western Poland, Silesia (Śląsk), Wielkopolska).

sector, and partly due to FABS firms offering different types of services under one roof (e.g. an accounting firm offering management consulting).

Second, as the rise of financial centres in Central and Eastern Europe (CEE) is a relatively new phenomenon largely accelerated by its accession to the European Union, there is a gap in the literature to list these regional financial centres on the ‘roster’ of world/global cities (cf. Taylor, 2004¹⁰³). Moreover, as Poland suffered relatively less than the other EU member states during the 2007/08 financial crisis, its presence in the body of financial centre literature complements a current scholarly trend to study global financial centres in the post-crisis environment. The independence of Warsaw in terms of securities market infrastructure provides a room for the platform managers and regulators to implement local and national initiatives to attract foreign investors, and such a policy-oriented analysis is another research direction the region can accommodate.

Alongside these themes, the three core research questions considered in this chapter are: (1) how have FABS employment and the gross value added (GVA) in Poland changed since 2000 at the national level, (2) what are the patterns of this change across major Polish cities and what can explain these patterns, and (3) has the hierarchy of financial centres in Poland changed significantly. The chapter analyses the FABS data of eight major metropolitan areas in Poland from 2000 to 2015, retrieved from *Oxford Economics*. The statistical analysis is supplemented by additional data and news items (e.g. from the ABSL, the Warsaw Stock Exchange, the Polish Financial Supervisory Authority) as well as expert interviews (23 in total)¹⁰⁴ in order to provide explanations for the observed trends. Complementing Chapter 4, which focuses on the deal size and fees collected, this chapter utilises the GVA in order to capture FABS production in various stages, including the so-called ‘back-office’ functions.

Furthermore, the data on mergers and acquisitions (M&As) in FABS, retrieved from *Dealogic*¹⁰⁵, illustrates a consolidation process in the sector. Here, the concentration of

¹⁰³ Especially Table 2.2 pp. 40-41, as is also highlighted in Chapter 2. Among the 16 major studies published before 2000, only Beaverstock et al. (1999) which covers the largest number of cities (55) include Warsaw, Prague, and Budapest.

¹⁰⁴ All interviews in this thesis were conducted under the ethics approval ref. SOGE 17A-23 by the Central University Research Ethics Committee at the University of Oxford. The list of interviewees is available in Appendix 4.

¹⁰⁵ See Section 4.4 from the previous chapter for a discussion regarding the limitations of this dataset.

FABS firms through an *increasing* number of M&As is assumed to strengthen the hierarchy of domestic financial centres. While a similar set of supplemental materials as above is used to explain various trends depicted in M&As, this study is not aiming at providing an exhaustive list of reasons why individual firms chose their office presence in a certain city (e.g. Boston Consulting Group in Warsaw, State Street in Kraków). Instead, it investigates if and how the relative positioning (or hierarchy) of domestic financial centres has changed over time. While the primacy of Warsaw as *the* national financial centre in Poland is expected, whether the dominance of Warsaw has increased at the expense of other cities or not remains as a part of inquiry.

The rest of the chapter is divided into five sections. Section 5.2 surveys the literature, illustrating the relevance of FABS (and their consolidation) in financial geography, and introduces a series of hypotheses. Section 5.3 briefly describes the dataset and lists some of the methodological limitations. Section 5.4 deals with the first research question (i.e. the national trends) while Section 5.5 covers the second and the third (i.e. the patterns of change in the major cities, the stability of the interurban hierarchy). The last section discusses the findings in relation to other chapters and suggests future research directions within the scope of this chapter.

5.2. FABS in the literature and hypotheses

Financial centre formation can be understood as the outcome of ‘an interplay between centripetal and centrifugal forces’ (Contel & Wójcik, 2019). On one hand, various economies of scale (McCann, 2001) accelerate the spatial concentration of FABS in the primate national financial centre, which also functions as a gateway into the national urban system (Taylor & Derudder, 2016). On the other hand, a survey by Deloitte (2019) highlights a recent trend that ‘strategic and interaction-heavy’ functions are increasingly outsourced, in addition to orthodox cost-cutting outsourcing or operation optimisation. The aforementioned ABSL report (2018) depicts a decentralising trend from international financial centres abroad to the secondary (or domestic) financial centres in Poland. Such BPO/SSCs generally deals with services beyond capital market services (e.g. equity underwriting, loan syndication, merger advisory). Thus, this study defines FABS more

broadly, complementing the previous chapter which focuses on larger and more complex capital market services.

Despite a growing appetite for researching the global network of financial centres, studies on FABS are underdeveloped, with capital market services represented better than operational services (or ‘back offices’). Whether it is an investment bank or a law firm, their services are produced and traded at the intersection of their intrafirm office networks and the agglomeration of various service providers. Although Taylor (2004) acknowledges the overlapping nature of FABS (e.g. an accounting firm offering management consulting), he focuses on the office networks of major FABS firms as a proxy for interurban connectivity, thus limiting the range of services he investigates. Globally active firms in accounting, advertisement, banking/financial services, insurance, law, and management consultancy are chosen for his empirical research on ‘world city network’ (2004:66-67). The choice of these subsectors within FABS is of a pragmatic nature, based on the data availability, even though many case studies have followed and highlighted the significance of these subsectors in financial centre development (e.g. Beaverstock, 2004 in law; Faulconbridge, 2006 in advertisement). As Taylor focuses on the office connectivities, the subsectors which emphasise on face-to-face interactions (cf. Storper & Venables, 2004; Jones, 2007) are more represented¹⁰⁶, further skewing the literature away from the FABS centres with middle/back-office functions.

As far as the definition of FABS is concerned, Taylor (2004, also Taylor & Derudder, 2016)¹⁰⁷ largely follows Sassen’s notion of advanced producer services. For Sassen, producer services are primarily offered to the business clients rather than the households;

[p]roducer services cover financial, legal, and general management matters, innovation, development, design, administration, personnel, production technology, maintenance, transport, communications, wholesale distribution, advertising, cleaning services for firms, security, and storage (2001:90).

To be precise, Sassen (2001, originally published in 1991) did not use the adjective ‘advanced’. Instead, she states that the ‘central components’ of such producer services

¹⁰⁶ The geographical proximity with clients partially serves as a theoretical backbone for the agglomeration of FABS firms in an international financial centre. See e.g. Cook et al. (2007) for financial service firm agglomeration in London.

¹⁰⁷ Although, he does not utilise the acronym.

are ‘insurance, banking, financial services, real estate, legal services, accounting, and professional associations’, distinguished from other services as ‘intermediate outputs’ (2001:91). In contrast, services such as cleaning, security, and storage are themselves the end products. Citing the scholarly works from the 70s and 80s (e.g. Bell, 1973; Hill, 1977; Delaunay & Gadrey, 1987; Castells, 1989), Sassen argues that these ‘central components’ are aimed at facilitating the complex operation of global office networks, thus accelerating the development of global cities. Some of these services may be outsourced, but only those services outsourced within the same city are considered in the theoretical framework of the ‘global city’. As Wójcik cautions, ‘different types of [F]ABS have attracted different levels of attention from geographers’ (2013b:331), making the empirical findings less compatible with each other.

On outsourcing, Friedmann’s seminal work (1986) distinguishes ‘advanced/professional/high level business services’ from ‘producer services’, the latter being outsourced as a part of the world city restructuring. While he does not provide concrete examples, the latter category is depicted as highly clerical and mundane without the intermediary characteristics, thus, different from Sassen’s ‘(advanced) producer services’. Wood (1991) utilises the term ‘business services’ but focuses on the organisational flexibility as their comparative advantage for capital accumulation. He then endeavours to explain regional development through the rise of business services firms (2006) labelling some of these services as ‘knowledge-intensive business services’ (KIBS, also see Nordenflycht, 2010). Delgado-Márquez and García-Velasco (2013) illustrate regional specialisation in relation to KIBS. It follows that some FABS centres may specialise in certain KIBS in a form of BPO/SSC (as opposed to Friedmann’s cost-cutting outsourcing). This is more relevant for globally active firms where finance, human resources, IT, procurement, customer service, tax etc. functions are outsourced internally to the firm’s own shared services centres (SSCs)¹⁰⁸, externally to business process outsourcing (BPO) firms.

Despite the fact that some of these services can be routine, as noted earlier in this section, a survey by Deloitte (2019) states that ‘strategic and interaction-heavy’ functions are increasingly outsourced. BPO/SSC is considered not only to reduce the operational costs,

¹⁰⁸ Taylor et al. (2013:270) differentiate the advanced producer services firms which maintain strategic office presence in several key financial centres from those ubiquitously present throughout the world.

but also to drive business value in adapting to the new business environments (e.g. digitalisation). As such, while ‘labour arbitrage’ (and related operation optimisation – see Zehnder et al., 2007) continues to remain as the most cited metric in selecting the BPO/SSC location, ‘expertise/labor quality’, ‘familiarity with regulations & legal norms’, and ‘proximity to headquarters’ (i.e. ‘similar time zones and ease of travel’ – see Gerbl et al., 2016) place Poland among the top 5 outsourcing destinations in the survey¹⁰⁹. As Richter and Brühl (2017) point out, the literature on BPO/SSC is heavily focused on process management, which is not necessarily of geographer’s interest. Yet, ‘proximity’ (both in terms of regulations and locations) is a recurring theme in economic/financial geography research. Furthermore, while the topic of outsourcing *per se* has attracted IT and HR scholarship from the process management and optimisation point of view, ‘finance shared service’ is often singled out as a driving force of BPO/SSC development (e.g. Zehnder et al., 2007; Seal & Herbert, 2013).

Looking at FABS in general, Bristow et al. (1999) utilise the term ‘financial and business services’, but the network element of FABS (which includes cross-border outsourcing) is underplayed. Dicken (2011) highlights the network characteristics but lists financial services and advanced business services in parallel. While he admits that the boundary between them became blurred in recent years, Dicken maintains the two categories of services separated partly due to the different regulatory frameworks governing these professions, and partly due to the diverse spatial distribution patterns observed in their office networks. The study by Coe et al. (2014) is one of the major attempts to anchor advanced producer/business services within the global financial network (GFN) framework. By focusing on financial centres, they essentially rebrand these advanced business services (*a la* Taylor, 2004; Sassen, 1991) as financial and business services (FABS) with an emphasis on their hierarchical relationship among different types of services, placing investment banks on the top (cf. Wójcik, 2012 & 2013b¹¹⁰).

This chapter adopts a broader definition of FABS which includes services produced at BPO/SSC in order to illustrate the spatial distribution/structure of FABS on the sub-national level. It largely follows Coe et al. (2014), but by not limiting FABS to capital

¹⁰⁹ While a number of empirical works deal with BPO/SSC in Poland and CEE (e.g. Kornet, 2011; Marciniak, 2014; Budzyńska, 2016; Ślusarczyk, 2017), the vast majority of them are published in local journals which inevitably reduces their exposure on the international arena.

¹¹⁰ See Chapter 4 for the observed hierarchy of capital market services.

market services (cf. Chapter 4), it aims to capture ‘an interplay between centripetal and centrifugal forces’ (Contel & Wójcik, 2019) within a national urban system. Here, not only the number of employees but also the transaction value becomes a key to understand the interurban hierarchy. For this reason, this study analyses both FABS employment as well as gross value added (GVA).

Once FABS is conceptualised within the GFN framework, Friedmann’s analysis on modern metropolitan areas becomes more relevant for FABS centres. He identifies three functions of modern metropolitan areas: headquarter function, financial centres, and the ‘articulation of regional and/or national economies with the global system’ (1986:70). While the ‘most important cities’ have all three functions (also see Castells, 2010:87-89), the balance of these metropolitan functions shapes the structural changes internal to the metropolitan area. Friedmann’s thesis thus can be re-interpreted that the structure of metropolitan labour market, for example, reflects the most dominant function of the city in question (cf. Massey, 1995; Wójcik, 2012). As the headquarter and articulator functions are more attributed to the national financial centre, other cities may experience an increasing share of FABS in total metropolitan employment due to their financial centre function being dominant. Along this line, Wójcik and MacDonald-Korth (2015) compare the centralised UK and decentralised German financial system to illustrate the hierarchy of domestic/national financial (FABS) centres even when the primacy of London and Frankfurt as international financial centres is evident. Likewise, while the primacy of Warsaw in FABS would be an obvious finding in this study (given the near monopoly of capital market services production observed in Chapter 4), changes in the prominence of Warsaw vis-à-vis domestic financial centres shall inform us how (and why) the hierarchy of Polish metropolitan areas has been modified.

In this study, ‘metropolitan areas’ and ‘cities’ are used interchangeably in order to capture the associated labour markets. Rather than focusing on the theme of ‘suburbanisation’ (i.e. physical (spatial) expansion of primate cities to the surrounding towns, see Manson et al., 1984; Jackson, 1985; Mieszkowski & Mills, 1993), this study is interested in a locational shift of decentralisation from a primate city to the secondary cities (e.g. Warsaw vs Kraków rather than Wola district in central Warsaw vs the suburban town of Piaseczno). This is in line with a series of studies such as Pollard and Storper (1996), Hansen (2001), Turok and Mykhnenko (2007), and Wolff (2018) that focus on the

changing size distribution of population/employment on the sub-national level. Due to the presence of the only Polish securities exchange in Warsaw, the trading of capital market services is concentrated in the Warsaw metropolitan area (see Chapter 4; also cf. Clark, 2002, who distinguishes the geography of financial services production from the geography of financial services trading¹¹¹). At the same time, BPO/SSCs are FABS production sites, and they can be scattered throughout Poland (e.g. Kraków, Wrocław) to enjoy the cost efficiency. These BPO/SSCs in FABS, however, require the access to knowledge-intensive skilled labour market with foreign language proficiency (especially in English) to facilitate intrafirm communication¹¹². Thus, smaller metropolitan areas (e.g. Szczecin) are expected to host only a handful of BPO/SSCs which leads to a lower level of employment in FABS.

When BPO/SSCs illustrate decentralisation, mergers and acquisitions (M&A) depict the consolidation process among FABS firms. As is discussed below, the Polish urban system is quite decentralised and resembles more that of Germany than the UK (cf. Wójcik & MacDonald-Korth, 2015). While the Communist regime centralised economic resources and decision-making power in Warsaw, the initial commercialisation of the Central Bank regional branches strengthened the financial centre characteristics of the secondary cities in Poland (see Chapter 3). A wave of M&As in the banking sector is centred around Warsaw (cf. Appendix 1), but the secondary cities, e.g. Kraków and Wrocław, seem to remain as favourite destinations for global FABS firms, especially when BPO/SSCs are concerned (see the introductory section of this chapter).

On top of these trends, a number of M&As took place among FABS firms, making the centralisation and decentralisation in FABS more ambivalent. Zademach and Rodríguez-Pose characterise M&A as ‘a drastic relocation of firms headquarters and of economic decision-making’ (2009:767) and focus on cross-border takeovers. They found that socio-economic and geographical proximity (cf. Rodríguez-Pose & Crescenzi, 2008) continues to play a significant role in takeover motives while larger firms also consider the innovative capacity and wealth of the target city/country (also see Kang & Johansson,

¹¹¹ Wójcik (2013b) adds the geography of investment vehicles in which securitisation drives the FABS trade. However, due to the concentration of trading platforms, the geography of IVs is similar to the geography of FABS trade on the sub-national level.

¹¹² Klimek (2018) shows that FABS firms are less likely to hire students from technical universities and speculates that legal and linguistic skills are more in need in many of these firms.

2000 for a series of motivations). Böckerman and Lehto (2006) confirm these trends for domestic M&As and conclude that they ‘reinforce the core-periphery dimension’ (2006:856). Thus, FABS firms in the primate financial centre (e.g. Warsaw) are expected to be more active in domestic takeovers (in line with Böckerman & Lehto, 2006), while the cross-border takeovers are likely to be divided into two categories. First, larger M&As would occur at the primate financial centre to expand the innovative capacity, facilitating the transition from the national financial centre to a regional financial centre (i.e. to an important node within the global network of cities, see Chapter 2). Second, some smaller M&As would occur at the financial centres near the border (e.g. Wrocław) based on the geographical proximity while others still would occur at the primate financial centre based on the socio-economic proximity between relatively large cities (i.e. firms in Paris may find Warsaw more metropolitan and closer to Paris than Szczecin to Paris). Therefore, trends in M&A shall supplement the analysis on the patterns of change in the spatial distribution of FABS employment and provide a more nuanced and complex picture regarding the ambivalence between centralisation and decentralisation surrounding the national financial centre, Warsaw.

While the FABS literature is relatively silent when it comes to the cities in Poland, the development of Polish cities in terms of population has been well documented. Berry (1961:575) classifies pre-transition (socialist) Poland under the ‘rank-size’ model (i.e. decentralised urban system), among Italy, Finland, Belgium, the US, West Germany, and Switzerland. The model illustrates the correlation between the size of population in each city and the rank class of the city, attributing the lognormal relationship between them as an evidence of highly developed national-urban systems. Such a development in Poland may not be surprising, given the history of medieval and early modern Poland. It hosted several Hanseatic cities, i.e. Gdańsk (Danzig with a *Kantor*, the regional headquarter), Toruń (Thorn), Kraków (Cracow), Wrocław (Breslaw), and Szczecin (Stettin), and Malbork (Marienburg) was the headquarters of the Teutonic Knights. Both the trade and religious/military postings require strong logistics networks throughout the territory, but the process of further developing the interurban network was inevitably halted when Poland disappeared from the map due to its partition among the three neighbouring kingdoms (see e.g. Davies, 2005). After the two World Wars, Poland was restored (though its territory shifted westwards) but under communism – the central planning mechanism institutionalised the primacy of Warsaw with limited interurban

connectivities. In this context, documenting the FABS development in contemporary Poland is intriguing, as the legacies of two opposing urban systems – decentralised population and centralised economic resources/decision-making power – are echoed by global FABS firms’ two contrasting strategies – cost-cutting by outsourcing to the firms located in the secondary cities and enjoying the economies of scale by operating an office in the primate (or regional) financial centre.

As Kupiszewski et al. (1998) and Kaczmarczyk (2018) noted, various internal migration trends were observed in the 90s as the country prepared for economic transition (and eventually, European Union accession in 2004). Śleszyński (2007) illustrates the prominence of Warsaw in terms of ‘economic control functions’ but also notes local (i.e. sub-national regional) economic control functions exercised by other metropolitan areas. He concludes however that these local structures of command and control were inherited from the previous political system where the hierarchical control of resources was at the core of the planned economy. While economic resources and decision-making powers were ultimately accumulated in Warsaw, they were delegated to other metropolitan areas for the maintenance of local economic structures. Thus, some degree of decentralisation continued to occur as the market was liberalised (especially in the metropolitan areas closer to Germany, e.g. Wrocław), but this decentralisation of control functions did not spill over to the other smaller cities and did not result in the birth of a new primate city (Śleszyński, 2007; also cf. Stryjakiewicz, 2004 & 2005). While a shift in the labour market from the industry to service sector was observed at the turn of the century (e.g. Parysek, 2005), no particular emphasis was put on FABS as far as research foci are concerned. Still, the trend of decentralisation from Warsaw in FABS is likely to be experienced differently from one metropolitan area to another. Some metropolitan areas are expected to strengthen the financial centre characteristics by increasing the share of FABS in total metropolitan employment and by engaging in smaller M&As with the firms in the neighbouring cities, while other metropolitan areas are expected to be not active in FABS, focusing on other sectors.

Summarising, this study calls for further research on the geography of FABS and takes Poland as an intriguing example highlighting the ambivalence between centralisation and decentralisation – or ‘an interplay between centripetal and centrifugal forces’ (Contel & Wójcik, 2019). Capital market services are better represented than operational services in

the literature, even though the centrifugal/decentralising nature of outsourcing the latter is relevant when illustrating the hierarchy of financial centres. As is underscored in the aforementioned Deloitte survey (2019), many of such services are outsourced to drive business value which shall be reflected on the increasing share of FABS GVA in total metropolitan GDP for some cities. While the decentralised urban system in Poland may facilitate the ‘rise’ of domestic financial centres in terms of the share of FABS in total metropolitan employment, the primacy of Warsaw in capital market services shall be expressed as the dominance of Warsaw in FABS at large. The questions are if the prominence of Warsaw in FABS has been strengthened over time, and if the rise of Warsaw as the national financial centre is achieved at the expense of other domestic financial centres.

Therefore, in respect to the three research questions listed in the introductory section, it is hypothesised as follows.

1. There is a general shift towards FABS in Poland, and more business value driven services are produced in/outsourced to Poland.
2. Warsaw tracks the national trend and maintains its dominance in FABS.
 - a. The share of Warsaw has increased over time, but only moderately, suggesting the presence of both centralisation and decentralisation processes.
 - b. There exists a spatial division of labour on the sub-national level, with some metropolitan areas strengthening their financial centre characteristics.
 - c. The hierarchy of financial centres in Poland is nuanced as some domestic financial centres attract business value driven services while others attract cost-cutting outsourcing.
3. Warsaw is the leading centre of FABS firm consolidation, but this centripetal process is slow, and the legacy of decentralised urban system continues to influence the hierarchy of financial centres.

5.3. Dataset

The dataset (e.g. population, FABS employment, GVA, GDP) analysed in this study is retrieved from *Oxford Economics* (OE). OE obtains the source data from public statistical services, such as *Statistics Poland* (Główny Urząd Statystyczny) and *Eurostat*, but these public services tend to publish only the limited (e.g. provincially aggregated) data on their own websites, making the OE metropolitan-area-level dataset more desirable for the current research. According to OE, FABS is defined as ‘financial and insurance activities, real estate activities, professional, scientific & technical activities and administrative & support service sectors’¹¹³ which corresponds to *Eurostat*’s statistical classification of economic activities (NACE Rev. 2) sections K, L, M, and N. The dataset covered in this study contains the FABS data of eight major metropolitan areas in Poland, annually from 2000 to 2015¹¹⁴ – the time period covering various external events such as the 2004 EU accession and the 2008 financial crisis. The eight metropolitan areas covered in the dataset are (in order of the FABS employment size in 2015): (1) Warsaw, (2) Katowice, (3) Wrocław, (4) Kraków, (5) Gdańsk, (6) Łódź, (7) Poznań, and (8) Szczecin (see Figure 5.1 for their relative locations). All but Gdańsk and Szczecin are listed on the GaWC, highlighting their office connectivities (see Section 1.2).



Figure 5.1. Location of the eight metropolitan areas
Source: Google Maps

¹¹³ Oxford Economics. (2017) *Global Cities: Variable Definitions*.

¹¹⁴ The 2016 data contains the estimations made by OE, and thus it is excluded from this study.

There are two remarks regarding these metropolitan areas which can be interpreted as the limitations for this study. First, as these metropolitan areas can be defined differently in terms of geographical boundaries, the analyses presented in this chapter may not be totally compatible with other studies on Poland. In this chapter, ‘Gdańsk’ includes the neighbouring cities of Gdynia and Sopot (collectively known as ‘Trójmiasto’ or ‘Tri-City’), and ‘Katowice’ refers to a large conurbation with the cities and towns nearby but not the whole continuous metropolitan area as it can stretch to the Czech Republic. Second, as there are 16 regions (voivodeships) in Poland, a half of the voivodeship capitals are not represented in the dataset. However, these unlisted capitals are significantly smaller than Szczecin (the eighth metropolitan area on the dataset)¹¹⁵, and to the best of our knowledge, no major FABS firm is headquartered in these cities, with an exception of Bank Pocztowy (Postal Bank) in Bydgoszcz.

As background information, Figure 5.2 below depicts the population size of the eight metropolitan areas, and the legend of the figure lists these metropolitan areas in the order of FABS employment in 2015. Sizable increases in total population are experienced by Warsaw and Gdańsk and decreases by Katowice and Łódź. Otherwise no significant alterations in terms of population size ranking is observed.

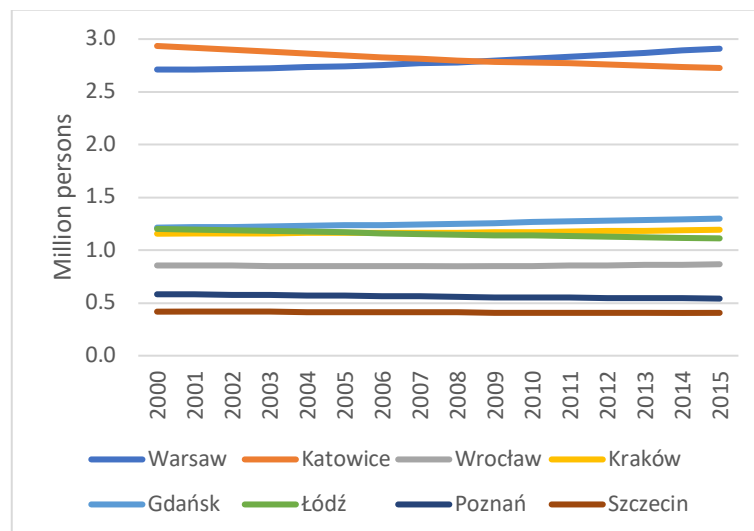


Figure 5.2. Total metropolitan population
Source: *Oxford Economics*

¹¹⁵ The Bydgoszcz-Toruń twin city metropolitan area has a larger population than Szczecin, but the twin cities are individually smaller than Szczecin and their integration is not as advanced as Tri-City.

In order to facilitate the illustration of (de)centralisation, ‘location quotients’ are defined, based on Contel and Wójcik (2019):

$$LQ_i = \frac{x_i}{s_i}$$

where i notates a metropolitan area (unlike the original formula which takes a region or state as a unit); x is the share of the metropolitan area in the national FABS employment or nationally aggregated FABS GVA, and s is the share of the metropolitan area in the national total employment or national GDP, respectively. An increasing LQ means a shift towards FABS and/or consolidation of FABS in a given city.

The M&A data is retrieved from the *Dealogic* database which is considered as the industry standard among investment bankers. The total of 1,853 M&A deals involving a Polish company (broader FABS, covering 2000-2017¹¹⁶) are recorded with a deal value greater than zero. The locational data of the acquirers and targets is hand-collected from *KRS-online* (Krajowy Rejestr Sądowy), a publicly accessible business registration database. Undisclosed or private deals, deals with multiple locational targets (as not all locations are disclosed/recorded), and management buyouts are eliminated in this process, leaving 1,469 deals (1,004 domestic and 465 cross-border, worth USD 109.2 billion). Some trends in M&As will be identified based on the number of deals in each metropolitan area, deal size, acquirer-target pairwise connectivities, and sub-sector categories (e.g. finance, real estate, professional services).

The next two sections are dedicated to the empirical analyses. The first section (i.e. Section 5.4) deals with the trends in FABS on the national level, corresponding to the first research question. The latter section deals with the trends in FABS on the sub-national level, focusing on the patterns of change in FABS employment across Poland, corresponding to the second research question, and on the consolidation process through M&As, corresponding to the third research question.

¹¹⁶ Filed or announced, rather than completed in these years.

5.4. General trend of FABS in Poland

Poland completed the accession negotiations with the EU in December 2002, officially signing the so-called Accession Treaty in April 2003. A report by the National Bank of Poland entitled ‘Financial System Development in Poland 2002-2003’¹¹⁷ lists a number of legal and policy adjustments implemented during this period which made the Polish financial market more compatible with the rest of the EU (cf. Blommestein, 1998; Schröder (ed.), 2001; Batten & Kearney (eds.), 2006). The assets of commercial and cooperative banks in Poland (arguably, the only vibrant financial sector in the early transition period)¹¹⁸ steadily rose from PLN 197.1 billion in 1996 to 428.4 billion in 2000, then, relatively stabilised at below 500 billion until 2003¹¹⁹ (Figure 5.3). The number of these banks, however, decreased from 1,475 in 1996 to 754 in 2000 and then to 660 in 2003. While the available data is limited, the commercial banking sector in Poland seems to have gone through a period of consolidation¹²⁰, mostly centred around Warsaw as far as headquarters are concerned (cf. Chapter 3 as well as Appendix 1). From 2004 (i.e. EU accession) onward, the assets of commercial and cooperative banks have increased, reaching to PLN 1.6 trillion in 2015 – the 2007/08 financial crisis slowed down this trend in 2009.

¹¹⁷ Available at: <http://www.nbp.pl/homen.aspx?f=/en/systemfinansowy/rozwoj.html>.

¹¹⁸ Excluding the credit unions (SKOK or Spółdzielcza Kasa Oszczędnościowo-Kredytowa), which have been self-supervised nearly 10 years without the national financial supervisory authority (KNF or Komisja Nadzoru Finansowego), resulted in not meeting the sufficient capital requirement with an eventual ‘bail-out’. Unlike Raiffeisen or Volksbank in Austria, the Polish cooperative banks and credit unions lack a central body to facilitate or attract cross-border strategic investments. Thus, these banks rarely interact with the global network of financial centres. See e.g. Golec (2013).

¹¹⁹ According to the National Bank of Poland, it was XEU (European currency unit) 1 = PLN 3.57 on 31 December 1996, EUR 1 = PLN 3.85 on 29 December 2000, EUR 1 = 4.08 on 31 December 2004.

¹²⁰ For general trends in CEE, see Matousek (ed.) (2010); for listed banks, see Kochaniak (2010).

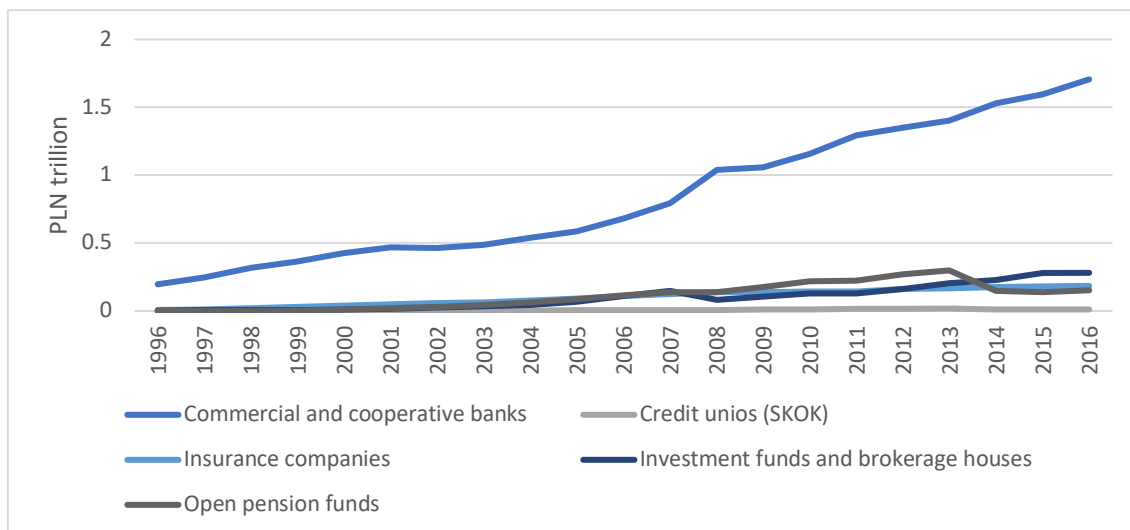


Figure 5.3. Assets of financial institutions in Poland

Source: National Bank of Poland

The total employment declined until 2003 presumably corresponding to these structural adjustments, but FABS employment increased. A similar observation can be made for GVA as well, with an initially slow GDP growth and an increasing FABS GVA (Figure 5.4). Though, Figure 5.5 places these trends in a more nuanced perspective. Despite large unit increases in total employment and GDP between 2003 and 2015, FABS employment and GVA grew faster than the total in terms of percent growth from the level at 2003. This is particularly evident in employment where the share of FABS in total employment increased from 6.1% in 2000 to nearly 10% in 2015 (Figure 5.6). The share of FABS GVA in GDP is considerably higher (around 14%) than the share of FABS in total employment (6-10%), a typical pattern observed internationally. In contrast to employment, the GVA share has not grown significantly. FABS are generally labour-intensive, and unlike in manufacturing, it is difficult to obtain major increases in productivity in the sector.

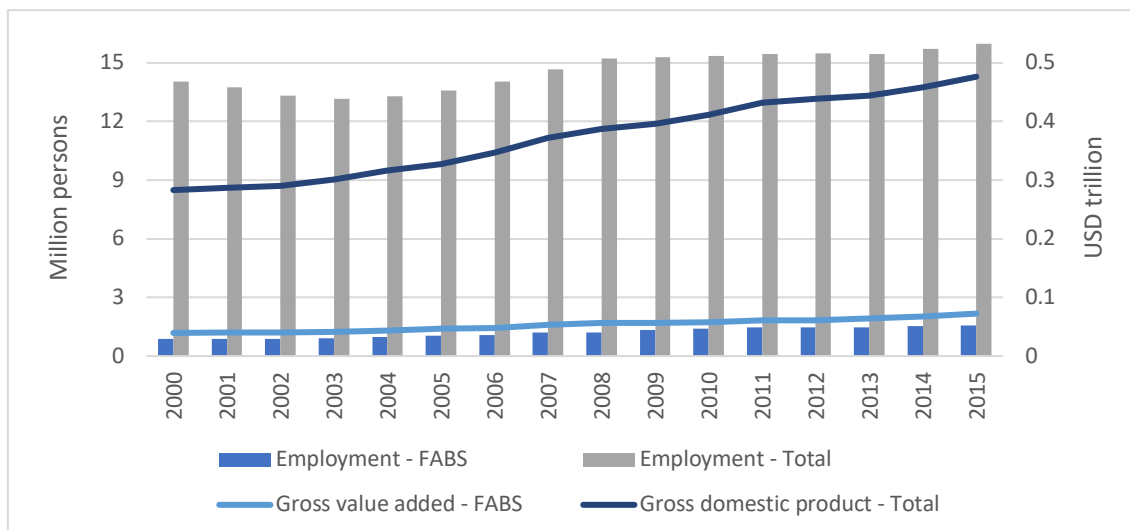


Figure 5.4. FABS employment and GVA in Poland

Source: *Oxford Economics*

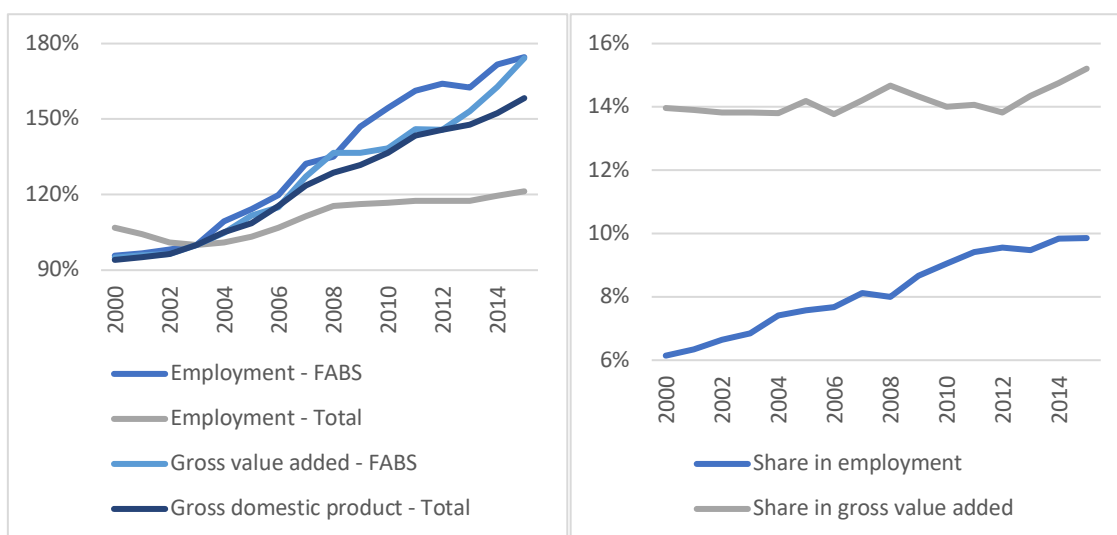


Figure 5.5. (left) FABS employment and GVA (2003 = 100%)

Figure 5.6. (right) Share of FABS in employment and GVA

Source: *Oxford Economics*

In the wake of the financial crisis in 2008, the share of FABS in GVA began to decline until 2012. In contrast, the share of FABS employment continued to increase throughout the 2008-12 period (Figure 5.6). Alior Bank, for example, was launched two weeks after the collapse of Lehman Brothers, seeing the crisis as a business opportunity to establish a retail bank which is more transparent and open¹²¹. The global asset management firm State Street opened its Kraków office in 2007, ostensibly to gain from global labour arbitrage. From 2012 onward, the share of FABS employment was relatively stable at just below 10%, and the share of GVA from FABS increased from 13.8% to 15.2% (Figure

¹²¹ Interview with Tomasz Motyl (Chief Innovation Officer at Alior, 8 December 2017).

5.6). Interestingly, this corresponds with Goldman Sachs opening its Warsaw office in 2011, calling the city ‘financial hub’¹²². However, even Goldman Sachs has been increasing the number of staffs in Warsaw, shifting its focus from regional investment management to global operation services, contributing more to an increasing FABS employment. Therefore, while the increasing share of FABS GVA in national GDP since 2012 suggests that more business-value driven services are produced in/outsource to Poland, this might not be a dominant trend observed throughout the country. These increases in share might be experienced differently from one metropolitan area to another, influenced by the strategies of global FABS firms which are present in these cities.

Although the motivation to open an office in Poland may differ from firm to firm and from one market condition to another, a general shift towards FABS in Poland is observed with the increasing share of FABS in total employment. The liberalisation of markets, which led to the establishment of a stock exchange, naturally strengthened Warsaw’s role as *the* national financial centre, and the process was carefully studied by the reformers. The ‘Agenda Warsaw City 2010’, for example, was composed on the eve of EU accession by a team of policymakers and practitioners, led by Igor Chalupec¹²³, the then Deputy Finance Minister and Wiesław Rozłucki¹²⁴, the CEO of the Warsaw Stock Exchange. Primarily aiming at finding a strategy for FABS centre development, the Agenda focused on the economic opportunities Poland was facing in both short- and medium-term. Rozłucki, an economic geographer, refers to ‘Drehscheibe’ (railway turntable), the word frequently used by Vienna for their visions, to describe the ‘hub’ characteristics of Warsaw, and the Agenda was modelled after Frankfurt’s Finanzplatz, the City of London Corporation, Paris’ Europlace, and Kuala Lumpur City Corporation. The change in the government meant that the Agenda lost a priority, even though Minister of Treasury Aleksander Grad¹²⁵ tried to revive it under the Tusk government (2007-2011). Still, the development of Warsaw as a FABS centre was often in the mind of policymakers as Poland was experiencing a general shift towards the sector.

¹²² Waldoch, Marta. (2011) Goldman Sachs opens Warsaw office, says Poland a ‘financial hub’. *Bloomberg*, 11 May. Available at: <http://www.bloomberg.com/news/2011-05-11/goldman-sachs-opens-warsaw-office-says-poland-a-financial-hub-.html>.

¹²³ Interview (22 November 2017).

¹²⁴ Interview (9 November 2017).

¹²⁵ Grad graduated in industrial geodesy, and it is rumoured that he has a similar (i.e. geographer’s) mindset as Rozłucki, which led to the revival of the Agenda.

At the same time, global FABS firms were also looking at other options, such as Kraków and Wrocław, for their outsourcing destinations. Thus, the next section illustrates the pattern of change in FABS across major metropolitan areas, in order to investigate the dominance of Warsaw as the national financial (FABS) centre on one hand, and the hierarchy of domestic financial centres on the other.

5.5. Pattern of change across major metropolitan areas in Poland

Given the pre-eminence of branch banking in Poland (cf. Figure 5.3), a larger FABS employment is expected in a city with a larger population, and therefore larger retail customer base (cf. Figure 5.2), but this was not the case. In 2000, Warsaw employed 2.8 times more people in FABS than Katowice, which has a similar population size, and the ratio increased to 3.4 times by 2015. Gdańsk is ranked third in terms of total population, more than double in size of Poznań, while FABS employment in these cities is of similar magnitude. Wrocław which is a relatively small metropolitan area employs a similar number of people in FABS as Kraków, which has roughly 30% more population than Wrocław. Over the studied period, the level of FABS employment has become similar among Katowice, Wrocław, Kraków, Gdańsk, Łódź, and Poznań, Warsaw being clearly a primate city. Thus, this study focuses more on the share of FABS in total metropolitan *employment* (Figure 5.7) rather than in total metropolitan *population*.

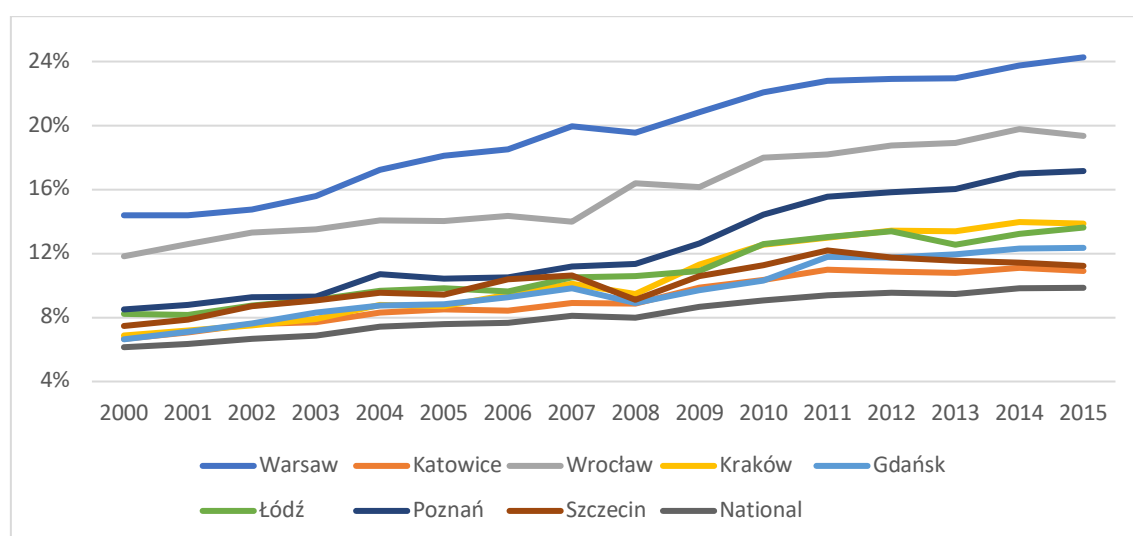


Figure 5.7. Share of FABS in total employment (metropolitan and national)

Source: *Oxford Economics*

On the national level, the share of FABS in total employment increased from 6.1% in 2000 to 9.9% in 2015. All eight major metropolitan areas exceeded the national average every single year, highlighting the concentrated presence of FABS in the metropolitan areas. Warsaw has increased the share of FABS in total metropolitan employment from 14.4% in 2000 to 24.3% in 2015, indicating a high rate of increase above the national average. Wrocław, the third largest city in terms of FABS employment, maintained the second highest share, 3.7% on average below the level of Warsaw, also increasing faster than the national average. Katowice, the second largest city in terms of FABS employment as well as total population, has the lowest share among major metropolitan areas, suggesting the city's reduced financial centre functions. In 2008, the share declined in most cities, but in Wrocław, it increased by more than 2% (nearly 15.5 thousand persons). After 2008, Poznań accelerated its increase in the share from 11.3% in 2008 to 17.2% in 2015, establishing itself as the third highest city in terms of the share of FABS in total metropolitan employment. In this regard, Wrocław and Poznań stand out as domestic financial centres, despite their relatively small size of FABS employment.

Wrocław is home to many SSCs of global FABS firms, such as BNY Mellon, Credit Suisse, McKinsey, Société Générale, and UBS. This is not surprising given that the city hosts one of the most prominent Polish universities specialised in Management, Economics, and Finance, Wrocław University of Economics (Uniwersytet Ekonomiczny we Wrocławiu). Situating in Western Poland, the city is known for an easy access to the German speaking labour market, with German being the third most spoken language in the Polish BPO/SSC sector after English and Polish¹²⁶. However, this is a relatively new trend, as both BNY Mellon and McKinsey opened their offices only in 2010. UBS originally chose Wrocław in 2015, as the local policymakers suggested that the office building in which UBS planned to move could be included in the nearby Legnica Special Economic Zone (and UBS would receive certain corporate tax benefits). While the inclusion ultimately did not materialise, UBS nonetheless moved to Wrocław, and the incident was used 'as a sign of a new maturity in the Polish economy' (Meek, 2019:212)¹²⁷.

¹²⁶ ABSL. (2018) *Business Services Sector in Poland 2018*. Available at: https://absl.pl/wp-content/uploads/2018/06/raport_absl_2018_EN_180527_epub.pdf.

¹²⁷ Although, the unpegging of Swiss francs made the eastward expansion more economical. See Gocłowski, Marcin and Zurawski, Wojciech. (2015) Swiss banks trade Zurich's costly charm for

Poznań is conveniently located between Warsaw and Berlin, also with an easy access to the German speaking labour market. Its stable flow of university students and graduates makes the city highly attractive for BPO/SSC¹²⁸. Although Poznań hosts more and more BPO offices and SSCs since 2008 (partially corresponding to the metropolitan trend observed in Figure 5.7), a majority of them deal with FABS for global non-FABS firms (e.g. Carlsberg, GSK, Volkswagen). It thus suggests a certain division of labour between Wrocław and Poznań, the former focusing on BPO/SSC for global FABS firms while the latter focusing on BPO/SSC for global non-FABS firms. That being said, Wrocław and Poznań share the legacy of Bank Zachodni WBK (today's Santander Bank Polska) which was formed by the 2001 merger of Bank Zachodni in Wrocław and Wielkopolski Bank Kredytowy in Poznań. As such, both cities still host the bank's regional offices in addition to SSCs for Santander, explaining their increasing FABS employment in the early 2000s.

Having SSCs in multiple cities is common among FABS firms. McKinsey has SSCs in both Wrocław and Poznań, but the firm is locally headquartered in Warsaw, from where it serves for the whole CEE region. UBS operates two SSCs in Kraków in addition to the aforementioned Wrocław SSC, while it maintains an investment banking office (i.e. the official Polish branch) in Warsaw. Credit Suisse opened its Wrocław office in 2007 (contributing to the 2008 FABS employment increase in Wrocław), but the firm expanded to Warsaw in 2016. Besides cost-cutting, keeping offices in different cities cultivates 'multi-culturalism', according to Alior's Tomasz Motyl¹²⁹. Alior Bank maintains an IT team in Kraków which serves the innovation office in Warsaw, linking the talent pool of the old capital¹³⁰ with the decision-making function of the new capital. These observations illustrate the trends of both decentralisation (e.g. from Zürich to Wrocław) and centralisation (e.g. from Wrocław to Warsaw), as well as both cost-cutting outsourcing and business value driven diversification of office locations. At the same time, EY has local offices in 7 metropolitan areas and PwC in additional 2 cities, suggesting that some firms are ubiquitously present throughout the country, carefully

Polish provinces. *Reuters*, 15 February. Available at: <https://www.reuters.com/article/us-swiss-snb-banks-offshoring/swiss-banks-trade-zurichs-costly-charm-for-polish-provinces-idUSKBN0LJ0BD20150215>.

¹²⁸ Pro Progressio. (2019) *Focus on Poznan*. Available at: <https://www.proprogressio.pl/en/foundation/reports-and-analysis.html>.

¹²⁹ Interview with Tomasz Motyl (Chief Innovation Officer at Alior, 8 December 2017).

¹³⁰ Kraków is home to one of the oldest surviving universities in the world, Jagiellonian.

tracing the decentralised urban system. This explains why the shift towards FABS is experienced in all major metropolitan areas as far as employment is concerned.

Figure 5.8 below corresponds to Figure 5.7 but focusing on GVA. The share of FABS GVA in metropolitan GDP for Katowice is below the national average throughout the studied period. Katowice is a major coal and steel production centre and holds a prominent position in industrial production. With the re-election of the conservative national government which takes a protective position towards the coal industry, accompanied by a low metropolitan unemployment rate, Katowice is less likely to focus on FABS in the near future, despite being one of the largest metropolitan areas in Poland in terms of employment in the sector. The share of FABS GVA in Poznań reached the national average in 2010, corresponding to the opening of BNY Mellon and McKinsey offices, and the share has increased since then. Unlike the share of FABS in total metropolitan employment, the share of FABS GVA in metropolitan GDP tends to fluctuate. Still, Warsaw dominates throughout the studied period, followed by Wrocław and Kraków, suggesting a high degree of business value driven FABS produced in these cities. After the financial crisis, the share of FABS GVA declined in Warsaw until 2012, but both Wrocław and Kraków maintained the share. It follows that the latter cities have a certain degree of independence from Warsaw in FABS production (i.e. decentralised), with its values not necessarily influenced by Warsaw. The relationship between Warsaw and Wrocław/Kraków is not based on command and control despite Warsaw has many headquarters. Otherwise, the performance of Warsaw in terms of FABS GVA would have been reflected on the other cities. Furthermore, the dominance of Warsaw in FABS has not been maintained at a cost of other cities, as the increase of FABS GVA in Warsaw does not coincide with the decline of it in another city.

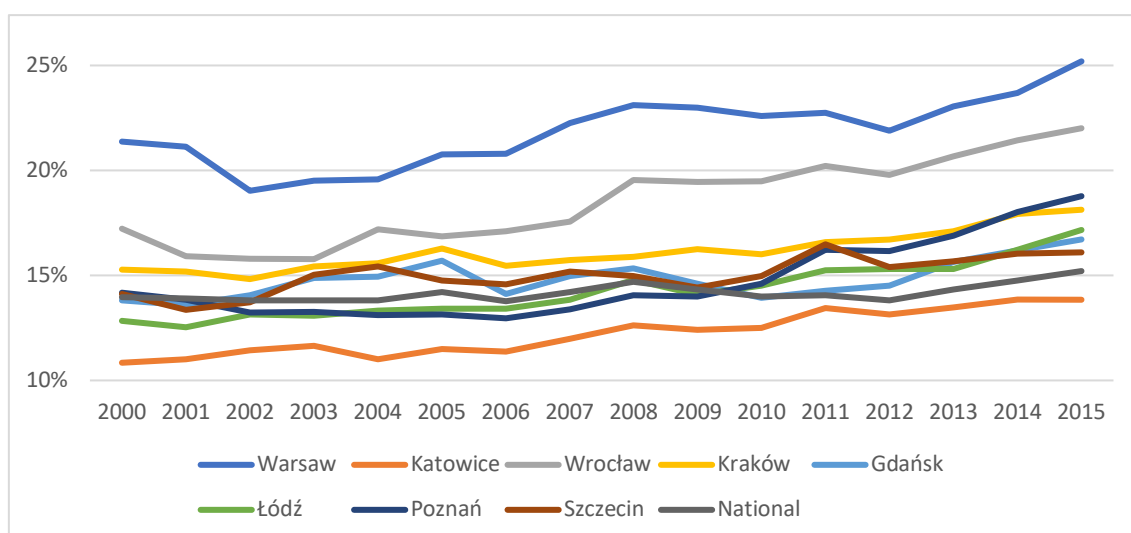


Figure 5.8. Share of FABS in GDP (metropolitan and national)

Source: *Oxford Economics*

As far as the dominance of Warsaw is concerned, roughly a quarter of national FABS employment are concentrated in the city. FABS GVA also shows a similar magnitude of concentration in Warsaw, though it declined to 20% in years 2002-2004. Otherwise, the concentration of FABS employment and the concentration of FABS GVA are similar, with no significant changes observed in the ranking order of metropolitan areas. Location quotients (LQ), however, provide a more nuanced picture. The LQs for FABS employment (Figure 5.9) exceeded 1.0 (i.e. FABS employment being concentrated out of proportion to the concentration of total employment in the given metropolitan area) for all eight metropolitan areas during the studied period. For example, in 2000, 23.3% of FABS employment was concentrated in Warsaw, while only 9.9% of total employment is concentrated in Warsaw ($LQ = 2.34$). The LQ for FABS employment remained just below 2.5 in Warsaw throughout the studied period, followed by Wrocław and Poznań (especially since 2010). These LQs confirm that the labour markets in Warsaw, Wrocław, and Poznań are heavily oriented towards FABS.

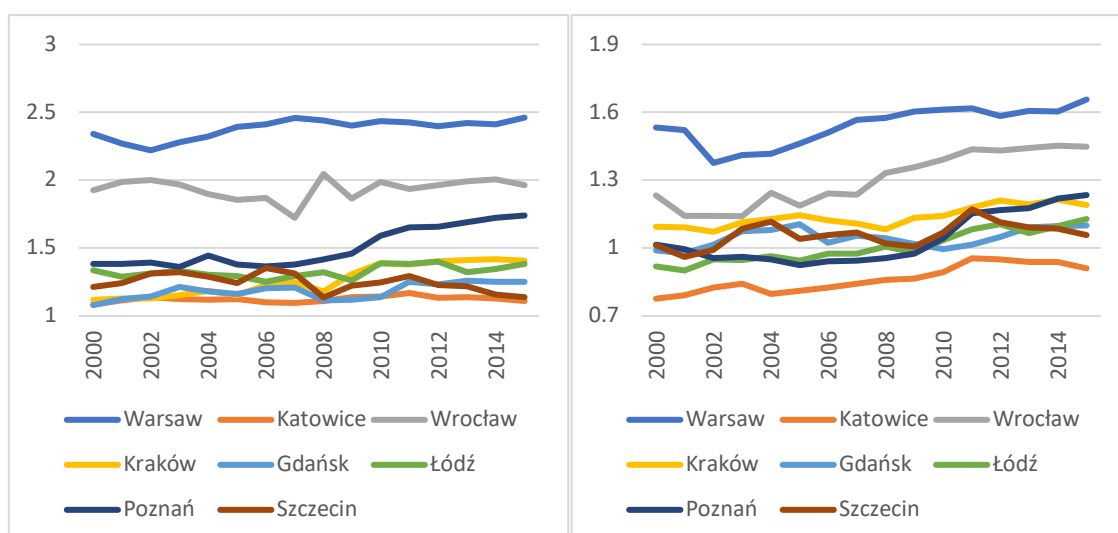


Figure 5.9. (left) LQ for FABS employment

Figure 5.10. (right) LQ for FABS GVA

Source: author's calculation based on *Oxford Economics*

The LQs for FABS GVA (Figure 5.10) also illustrate a concentration of FABS in Warsaw followed by Wrocław, but unlike the LQs for FABS employment, Kraków has maintained the third position until 2014. The LQ for FABS GVA has been below 1.0 in Katowice, and only in Warsaw, Wrocław, and Kraków exceeded 1.0 throughout the whole studied period. Like the LQ for FABS employment, Poznań showed its dynamism in the LQ for FABS GVA since 2010. While Figures 5.9 and 5.10 resemble Figures 5.7 and 5.8¹³¹, these LQs inform us that Warsaw, Wrocław, and Poznań have strengthened their financial centre characteristics, and alongside Kraków, these financial centres seem to attract more business value driven services, increasing the LQ for FABS GVA. The rest of the section focuses on M&As in FABS in order to investigate if the sector has been consolidated in these financial centres.

Out of 1,469 M&A deals observed between 2000 and 2017, 651 deals originated in Warsaw as the headquarter location of acquirers, but these deals counted for only 26.16% in terms of total deal value (Table 5.1 & Appendix 2). The largest portion (11.53% out of 26.16%, USD 12.6 billion) took place within Warsaw (i.e. both the acquirer and target located in Warsaw), followed by 4.68% (USD 5.1 billion) targeting firms located in the Gdańsk metropolitan area (i.e. Tri-City). The latter was shaped by Warsaw-headquartered Pekao purchasing the operational assets of BPH in Gdańsk (USD 3.0 billion) in 2006, in

¹³¹ LQ equals to the share of FABS in total metropolitan employment (or GDP) divided by the share of FABS in total national employment (or GDP). Since the divisor is common to all dividends in a given year, the ranking order of the dividends is the same as the ranking order of the quotients.

relation to the merger of their parent banks (UniCredit and HVB respectively). Even this transaction has intra-Warsaw characteristics as BPH partly originates in Warsaw-based Powszechny Bank Kredytowy. In 2016, the core business assets of BPH was sold to Alior Bank in Warsaw (USD 311 million). Another notable transaction was the 2013 sale of Nordea Bank Polska (USD 890 million including the subsidiaries) to PKO Bank Polski in Warsaw. Thus, the vast majority of Warsaw-Gdańsk M&A transactions (USD 4.2 out of 5.1 billion) was based on the banking sector consolidation.

Acquirer	Domestic	Cross-border	Deal value
Warsaw	625	26	26.16 %
Katowice	41	0	0.29 %
Wrocław	80	11	3.36 %
Kraków	42	0	0.34 %
Gdańsk	27	2	2.22 %
Łódź	53	3	1.11 %
Poznań	45	4	0.51 %
Szczecin	5	0	0.03 %
Rest of Poland	86	0	0.88 %
Foreign	n/a	419	65.12 %
Total	1,004 deals	465 deals	100.00 %

Table 5.1. M&A deals in FABS

Source: *Dealogic*

Out of USD 28.6 billion in terms of deal value involving Warsaw-headquartered acquirers, USD 19.4 billion came from the finance subsector, followed by USD 6.7 billion from insurance. However, the latter was shaped by the 2016 purchase of Pekao from UniCredit by the state-owned insurance giant PZU (accompanied by the also state-owned national development fund PFR, valued at USD 5.1 billion). PZU has been active in the banking sector consolidation: the insurance firm is heavily exposed to the sector as the largest corporate and government debt holder, and the KNF (financial supervisory authority) objected to private equity firms owning retail banks¹³². Non-PZU/PFR acquisition in the insurance subsector amounted to only USD 300 million. Thus, USD 25.8 out of 28.6 billion originated in Warsaw were linked to the financial (i.e. narrower than FABS) sector consolidation. Such acquisitions in the financial sector are often spread into several deals (e.g. subsidiary-by-subsidary, multiple acquirers, multi-year acquisitions) making the number of deals fluctuate year-by-year (Figures 5.11 & 5.12). The aforementioned large-scale M&As in banking increased the aggregated deal value originated in Warsaw (e.g.

¹³² Interview with Andrzej Klesyk (former CEO at PZU, 1 December 2017).

2006, 2016), but the increases in 2015 and 2016 were also driven by local private equity and investment funds such as Abris, IPOPEMA, and MCI, as well as foreign subsidiary investment firms such as Altus and Trigon.

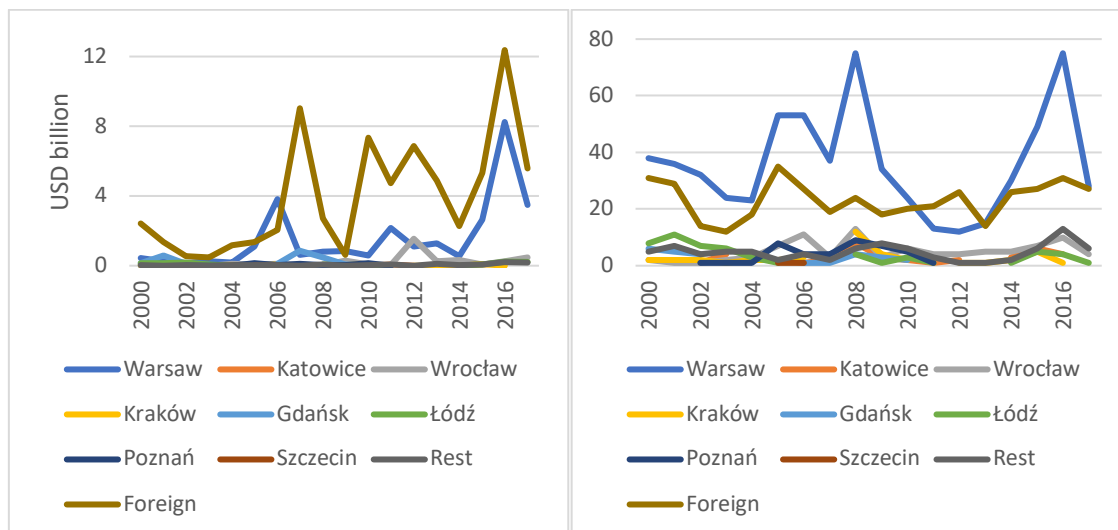


Figure 5.11. (left) M&A deal value aggregated by the location of acquirer headquarters
Figure 5.12. (right) M&A deal counts aggregated by the location of acquirer headquarters
Source: Dealogic

Beyond Warsaw, Wrocław's increase in 2012 is due to the Bank Zachodni WBK's purchase of Kredyt Bank in Warsaw (USD 1.5 billion), and Gdańsk's increase in 2007 is due to GE Money Bank's purchase of BPH (both in Gdańsk, USD 858 million). In other words, Warsaw is 'the only game in town' when it comes to domestic M&As, and this trend is largely characterised by the narrower banking sector consolidation rather than the broader FABS sector consolidation. In fact, when the M&A data is limited to those with the deal value greater than USD 1 million, Warsaw conducted 107 out of 217 deals, followed by Wrocław (15 deals) – no other city has more than a few deals (Appendix 3). Even though the analysis on FABS employment and GVA noted some evidence of dynamism observed in Wrocław, Poznań, and Kraków, these cities are largely absent when it comes to M&As.

A total of 419 deals (65.12% of total deal value) came from overseas, many of which were also linked to the acquisitions of retail banks (e.g. UniCredit acquiring Pekao in 2007 worth USD 6.3 billion, Santander acquiring Bank Zachodni WBK in 2010 worth USD 5.1 billion, BNP Paribas acquiring BGŻ in 2013 worth USD 1.4 billion). Polish firms conducted only 46 deals (0.85%) to acquire foreign firms, mostly within the CEE

region. A majority of these cross-border deals from Poland was originated in Warsaw (26 deals, 0.45%), followed by Wrocław (11 deals, 0.16%) and Poznań (4 deals, 0.18%) (Appendix 2). The number of acquisitions by foreign firms has been between 20 and 30 per year during the studied period, but the aggregated deal value per year fluctuated throughout (Figures 5.11 & 5.12). Therefore, cross-border M&As in FABS in Poland are infrequent, also largely influenced by the banking sector consolidation rather than the FABS sector consolidation.

5.6. Conclusion

This chapter aimed to illustrate and investigate the geography of FABS in Poland, paying a particular attention to the nuanced hierarchy of financial centres at the sub-national level. During the studied period (i.e. 2000-2015 for FABS employment and GVA), Poland has experienced a spectacular growth in FABS. Employment in the sector increased by 82.4% and continued to grow even when the total national employment declined during the pre-EU accession period and when it was stable during the post-crisis period. The share of FABS in total employment increased from 6.1% to 9.9%, characterising a general shift towards FABS in Poland. As the LQs for FABS employment illustrate, the sector is concentrated in the largest metropolitan areas.

While the share of FABS GVA in GDP is significantly higher than the share of FABS in total employment, the growth of the former is slow, illustrating difficulties to obtain major increases in productivity in the sector. Nevertheless, the share of FABS GVA in GDP has been increasing since 2012, corresponding to the opening of several SSCs for global FABS firms. As is illustrated by the Deloitte survey (2019), the findings suggest that more business value driven services are produced in/outsourced to Poland. In light of Coe et al. (2014), the Polish metropolitan areas are well integrated into the global financial network (GFN) as FABS centres.

That being said, not all metropolitan areas have experienced the shift towards FABS. Szczecin, for example, is too small to attract major BPO/SSCs while Katowice seems to specialise in other sectors such as coal and steel. Despite the pre-eminence of branch

banking, the size of metropolitan population does not correlate with the size of FABS employment in the given city. In this regard, Warsaw, Wrocław, Poznań, and Kraków emerged as FABS centres with LQs for both FABS employment and GVA greater than 1.0.

Warsaw is clearly dominating the sector, having the highest share of FABS in both metropolitan employment and GDP. The rate of increase in the share is faster than the national average, signifying its national financial centre characteristics. While Wrocław is known for SSCs for global FABS firms, Poznań hosts many SSCs in FABS for global non-FABS firms, suggesting a certain division of labour among FABS centres. Despite the recent rise of Poznań, Kraków has maintained a large share of FABS GVA in metropolitan GDP, suggesting a high degree of business value driven FABS produced in Kraków. The evidence illustrates the interplay between centrifugal (from an international financial centre to a domestic FABS centre) and centripetal (from a domestic FABS centre to the national FABS centre, i.e. Warsaw) forces, as well as between cost-cutting outsourcing and business value driven diversification of office locations.

Given the location and socio-historical narratives of these cities, the findings suggest that the Polish urban system is relatively decentralised as far as FABS are concerned, in analogy to the German urban system (cf. Wójcik and MacDonald-Korth, 2015). While Warsaw dominates the M&As in FABS, they are infrequent and characterised by the narrower finance/banking sector consolidation. Hence, there is a little evidence to suggest that Warsaw increases its dominance in FABS through consolidation and centralisation. Instead, the findings depict a stable hierarchy of financial centres: the national financial centre Warsaw, followed by a regional FABS centre Wrocław, an emerging FABS centre Poznań, and a relatively established business value driven FABS centre Kraków. Warsaw did not increase its dominance in FABS at the expense of other FABS centres, further strengthening the observation regarding the spatial division of labour in FABS production.

There are some concerns regarding the above conclusions which shall be understood as a plan for future research. First, the dataset ends on 2015 for FABS employment and GVA and on 2017 for FABS M&A. The current situation might be different especially given the nationalisation of major retail banks (i.e. Pekao, Alior; see Appendix 1) which inevitably strengthened the financial centre characteristics of Warsaw. The re-

privatisation of these banks, however, may redraw the map of FABS in Poland, especially when foreign banks consider the absence of major retail bank headquarters in Wrocław, Poznań, or Kraków as a business opportunity – or it may function as a deterrent, slowing down the decentralisation process. A follow-up study is needed in the near future. Second, the global law firm CMS reported continuous expansion of the Polish M&A market for 2017¹³³ but our dataset indicates a decline of M&As in FABS. A future study will show if the decline of the latter is a single year event or a new trend (e.g. the focus of M&A shifting from FABS to elsewhere). Third, the nuanced relationship between FABS employment and GVA can be investigated further. While the latter has increased its share in GDP since 2012, the data is too limited to make any conclusions regarding the nature of this increase. Nevertheless, this case study of Poland illustrates the complexity surrounding the geography of FABS, beyond mere ranking of employment size or aggregated GVA.

Wrocław and Poznań are known for German speaking BPO/SSCs, while the presence of Goldman Sachs or JP Morgan in Warsaw suggests direct office-connectivity between Warsaw and London/New York. In a context of a wider pan-European geography of financial centres, the Polish case highlights a complex hierarchy of national and regional FABS centres. The spatial division of labour among the Polish FABS centres reflects the relational geographies of a wider Europe, where the centripetal trends towards national and regional centres are accompanied by the centrifugal trends of outsourcing and the international/global division of labour.

In relation to Chapters 2 and 4, the broader conceptualisation of FABS enabled us to observe the growing division of labour and an element of financial centre differentiation in Poland. For FABS firms, the findings shall facilitate making their location/networking decisions. For local government officials, the findings shall facilitate making their reform decisions. Observing their activities then will support an argument for the agency of elites presented in Chapter 3. The next chapter concludes this thesis and elaborate these relations between chapters.

¹³³ Available at: <https://cms.law/en/svk/publication/emerging-europe-m-a-report-2017-18>.

Chapter 6 | Conclusions and Implications

6.1. The rise of Warsaw vs. Poland

‘As such, Poland became the first post-socialist economy to have its securities market classification upgraded by FTSE Russell from “emerging” to “developed”’ – reads the introduction of this thesis. While this is a remarkable achievement considering that only 30 years have passed since the fall of communist regimes in Central and Eastern Europe (CEE), this statement alone is unclear if the rise of Poland simply reflects the rise of Warsaw as a national and regional financial centre (or *vice versa*) or if it signals the development of the Polish urban financial system as a whole with a notable growth of secondary domestic financial centres. On one hand, Warsaw hosts the largest securities market in the region in terms of total market capitalisation, and the Warsaw Stock Exchange maintains its independence from other regional exchange groups in terms of infrastructure. Warsaw dominates in retail banking as well as financial and business services (FABS) production, and the majority of local private equity and investment funds are headquartered in Warsaw. On the other hand, many global FABS firms operate shared services centres (SSCs) in other Polish metropolitan areas such as Wrocław and Kraków, strengthening the office-connectivity between international financial centres where the headquarters are located and the domestic financial centres where the SSCs are located. Intuitively, the rise of Warsaw as a regional (i.e. CEE) financial centre is linked to the prominence of Warsaw as *the* national financial centre in Poland. However, the supra-national interurban relations of Warsaw vis-à-vis Vienna, Prague etc. are often analysed separately from the sub-national interurban relations vis-à-vis Wrocław, Kraków etc. In some cases, the prominence of Warsaw as the national financial centre is taken granted, and ‘the rise of Warsaw’ is used as a synonym to ‘the rise of Poland’. This thesis pledged to build a bridge between the two (i.e. supra- and sub-national) approaches in order to provide a more comprehensive geography of financial centres in CEE.

The tendency to conflate the rise of Warsaw and of Poland has two analytical undercurrents. First, the post-communist transition is mostly analysed in a macroeconomic manner with a strong inclination towards methodological institutionalism. Many of these studies aimed at assessing the institutional reforms (or the lack thereof), leading us to a more deterministic thinking, whereby the presence of certain

institutions (e.g. headquarters, investment banks, market of financial intermediaries) explains/justifies the growth of the financial centre in question. Second, FABS at large have not received the same degree of scholarly attention as higher order capital market services (e.g. bond/equity issues underwriting, loan syndication, mergers and acquisitions (M&A) advisory). As the latter services are concentrated in national financial centres due to the near monopoly of securities trading platforms, the sub-national dynamics in FABS has been largely ignored. Even though global FABS firms, local industry groups (e.g. ABSL, Pro Progressio), and policymakers (including the national development banks) have shown increasing interest in the topic, there seems to be no unified definition of FABS, undermining further scholarly discussion.

That being said, there are some merits to narrowing down the scope of analysis by separating the supra- and sub-national approaches, especially in relation to these analytical undercurrents. The financial centre development in each national centre certainly reflects the institutional environments in which firms operate. Even though domestic and supra-national (e.g. EU-level) reforms affect all cities within the given jurisdiction, the primate financial centres experience the most of changes when it comes to securities and capital markets. The differentiated developmental path of each primate financial centre thus mirrors the supra-national institutional comparison. Furthermore, capital market services are likely to be produced at these primate financial centres while FABS production at large may be decentralised to domestic financial centres. Therefore, the empirical part of this thesis dealt with institutional reforms (Chapter 3), regional (supra-national) spatial distribution of capital market services production and trade (Chapter 4), and sub-national level analysis on FABS production at large (Chapter 5). This chapter aims to reflect on the findings from the empirical chapters in the context of extant literature (as discussed in Chapter 2).

The rest of this chapter is divided into three sections. The first section restates the findings from each empirical chapter and highlights the links between them. The second section lists their theoretical and practical implications. The third section discusses the limitations of this study and suggests a number of future research directions.

6.2. Supra- and sub-national approaches to the geography of Polish financial centres

Chapter 3, entitled ‘Agency of Reformers in the European Financial-Centres-in-Making: A Historically Informed Financial Geography’, begins with a notion that individual policymakers (or reformers) have been largely ignored in economic/financial geography, unlike in the case of foreign policy analysis. It asserts that these individual reformers have altered the course of financial centre development (i.e. an emphasis on the agency of policymakers; cf. Amin & Thrift, 2017) and that a historically informed financial geography (*à la* Kindleberger, 1984; Cassis, 2006; Cassis & Wójcik (eds.), 2018) supplements macroeconomic analyses of CEE, which are popular among the post-socialist transition scholars. The chapter utilises the statistical data as well as reports issued by media, consulting firms, and academics to trace the reform processes in Poland, the Czech Republic (Czechia), and Hungary and highlights how the developmental paths of Warsaw, Prague, and Budapest as national financial centres were altered by the policy priorities, visions, and political capital of the individual reformers.

Findings from these historical narratives question the institutionally deterministic understanding of the financial centre development in CEE, and the agency of policymakers is found a useful tool to illustrate the differentiated developmental paths among national financial centres. While the voucher privatisation in the Czech Republic might be considered successful in accelerating the market liberalisation, the scheme inflated the equity market without proper corporate governance mechanisms. Prague (or more precisely, its policymakers) thus slowed down its financial centre development, assuming that the growth of the market for financial intermediaries is a key element to measure the growth of a financial centre. Economic and financial reforms in Hungary were gradual with no particular emphasis on its securities markets in Budapest. While Vienna aimed to consolidate regional securities markets, Warsaw maintained its independence. The National Investment Funds in Poland functioned as competent financial intermediaries, strengthening the corporate governance of newly privatised enterprises. While the self-consciousness of reformers (e.g. how they envisioned the positioning of their city in the global network of financial centres, how they understood the spatiotemporal distribution of financial activities among the financial centres in Europe) is difficult to be revealed in depth, many reforms were clearly aimed at strengthening the financial centre attributes of the capital city. As these reforms

differentiated the developmental paths of the capital cities, the agency of policymakers and historically-informed financial geography lay a foundation for investigating the relational geography of financial centres in CEE.

To provide some details, in Prague, while Pithart was enthusiastic about large-scale privatisation, Klaus objected to foreign (especially German) takeovers and instead launched the employee-centred voucher privatisation. The lack of proper corporate governance mechanisms led many privatised companies to be delisted from the Prague Stock Exchange. The relatively strong banking sector in the Czech Republic softened the demand for capital in the securities market, and ultimately, the PSE became a part of the Vienna-led CEESEG. In Budapest, foreign-based companies were the main actors in the privatisation process. The intra-firm capital transfer was more convenient for these firms than seeking new investors in the local securities market, thus, slowing down the financial centre development in Budapest. The lack of political leadership in strengthening the securities market infrastructures was also noted. In Warsaw, the so-called Balcerowicz team opposed to employee-ownership from the corporate governance point of view. A rapid succession of short-lived governments required larger political capital to implement any privatisation schemes, and a compromise was Lewandowski's plan to establish a number of National Investment Funds (NIF). While the large institutional investors, such as pension funds, continued to shape the landscape of capital markets in Warsaw, the NIFs engaged in the restructuring of the privatised enterprises, avoiding the Prague-like mass delisting. The process was gradual, partly due to a slow economic growth prior to the EU accession. Yet, with the high standard regulatory environment, Warsaw remained competitive as a regional financial centre and retained independence from Vienna in the midst of its endeavour to consolidate the securities markets in CEE.

While the general characteristics of Prague as a banking centre and of Warsaw as a capital market centre – or more precisely, the differentiation among financial centres – is also supported by other empirical chapters, Chapter 3 provides an opportunity to revisit concepts such as 'development' and 'hierarchy' of financial centres. The emphasis on the agency of policymakers has a strong public policy implication, while a historically informed financial geography is an attractive conceptual framework for firms to deepen their understanding of interurban relational dynamics. Section 6.3 shall deal with these observations in depth.

Chapter 4, entitled ‘Spatial Reach of Financial Centres: An Empirical Investigation of Interurban Trade in Capital Market Services’, revisits the Central Place Theory (CPT) framework. While Chapter 3 illustrates the differentiated infrastructural and institutional developments in the national securities markets, Chapter 4 deals with inter- and intra-regional services trade in capital market services. It begins with a notion that there exist hierarchical relations between domestic/national financial centres where subsidiaries are located and international financial centres where their parent firms are headquartered. While the national financial centres may monopolise the domestic securities trade, larger and more complex capital market services (such as M&As advisory) are often imported from London and New York. In other words, firms in a national financial centre (which have access to national securities exchanges), firms in international financial centres (which have subsidiaries in CEE), and firms in London and New York (which demonstrate expertise in larger and more complex services) – all of them can serve clients in the same city, making the market areas of capital market services uneven and overlapping. Furthermore, locally owned large retail banks in Warsaw (e.g. PKO Bank Polski) and Budapest (e.g. OTP Bank) seem to have increased the capacities of respective national financial centres to handle relatively larger and more complex deals.

In order to illustrate the spatial and hierarchical structure of intra- and interurban trade, the chapter focuses on the adviser-client pairwise distance and investigates the partial correlation between the size/complexity of services traded and the size of market areas. This is a key proposition of CPT, but it is understood in the theoretical framework developed by Lösch (1940) and Berry (1967) rather than the geometrically rigid framework developed by Christaller (1933). In the former, demand is unevenly distributed, and therefore market areas vary in size and may overlap due to product heterogeneity (cf. Parr & Budd, 2000; Taylor et al., 2010). The following hypotheses are therefore introduced:

‘Hypothesis #1: Services involving larger transactions can be traded across larger market areas.

Hypothesis #2: More complex services, such as M&A advisory can be traded across larger market areas.

Hypothesis #3: Market areas of financial centres overlap with each other and consequently clients located in the same area are served by advisers from multiple financial centres, even if their demands do not differ in terms of transaction size and service category.’ (Section 4.3)

The chapter finds these hypotheses to hold. As CPT is applicable to interurban trade in financial services only at a high level of abstraction, this chapter complements CPT with insights from global city theory (Sassen, 2001; Taylor, 2004). The multivariate regression analysis is conducted based on the *Dealogic* dataset (covering years between 2000 and 2014), supplemented by firm-centric narratives and descriptive statistics. It confirms that larger deals were more likely to have longer adviser-client pairwise distance. Assumed to be more complex, such capital market services with a larger deal value were more likely to be imported, and the absence of foreign subsidiaries when the local demand was infrequent supports the proposition regarding the *threshold*. The variance in distance was larger for M&A advisory than for debt/equity capital market services, suggesting a hierarchy of capital market services. M&A advisory was often imported from London and New York, while debt/equity capital market services were more locally produced in the national financial centres. Warsaw is found specialising in equity capital market services while Budapest in loans, which are understandable given the findings from Chapter 3. Even within the same product order and category, other factors such as the size of the financial centre where the adviser is located is found statistically significant. It suggests that the heterogeneity of product, business models, and specialisations resulted in the overlapping of market areas.

Similar to Chapter 3, Chapter 4 also provides an opportunity to discuss dimensions of financial centre ‘development’ and ‘hierarchy’. While Chapter 3 focuses on institutional attributes of national financial centres, Chapter 4 maps the relational geography of these national financial centres and highlights the nuanced division of labour where spatial reach of financial centres are uneven and overlapping. Anchored to the global/world city framework, the findings from Chapter 4 are limited to higher order capital market services trade and production, thus narrowing the scope of study to national financial centres. Thus, Chapter 5 expands its focus to FABS in general and investigates the relational financial geography on the sub-national level.

Entitled as ‘The Geography of Financial and Business Services in Poland: Stable Concentration and a Growing Division of Labour’, Chapter 5 focuses on the FABS production at large on the sub-national level. Utilising the *Oxford Economics* dataset on FABS employment and gross value added (GVA) for years between 2000 and 2015 and the *Dealogic* dataset on M&As in FABS registered between 2000 and 2017, the chapter illustrates the spatiotemporal distribution of FABS production on the national and sub-national levels. Corresponding to the findings from Chapters 3 and 4, Warsaw is found increasing its FABS production, reflecting the general growth of the sector on the national level. While the secondary cities in Poland were largely absent in capital market services production, Wrocław, Poznań, and Kraków are found as major centres of broader FABS production, partly corresponding to GaWC classifications (Section 1.2). The sector was concentrated in the largest metropolitan areas, and an increasing number of business value driven services are produced in/outsourced to Poland. These *spatiotemporal* analyses provide a more nuanced picture than the spatial distribution depicted in Chapter 4, whereby a handful of financial centres are increasing their capacity to locally handle larger and more complex financial services over time.

The concept of threshold from Chapter 4 is echoed in the absence of Szczecin, a relatively smaller metropolitan area, when it comes to FABS production. Katowice is found specialising in non-financial sectors. Wrocław hosts SSCs for global FABS firms while Poznań hosts SSCs for global non-FABS firms. Kraków seems to attract a high degree of business value driven FABS production. Thus, the market areas for FABS are uneven and overlapping, with a spatial division of labour linked to the heterogeneity of financial centres. As far as FABS GVA is concerned, the rise of Warsaw in FABS production was not achieved at the expense of other FABS centres, making the interurban relations among Polish financial centres less hierarchical. That being said, the primacy of Warsaw as the national financial centre is supported by the semi-monopoly of capital market services production/trade as well as the banking sector consolidation.

The trend of centralisation and consolidation did not spill over to non-banking financial sectors. M&As in FABS illustrate Warsaw to be prominent, but the process of consolidation in FABS has been slow and infrequent. Foreign takeovers (mostly in retail banking) continued to dominate the consolidation process on the supra-national level. At the same time, foreign FABS firms have strengthened their presence in domestic financial

centres through increasing employment in the BPO/SSC sector, depicting the ambivalent trends of centralisation and decentralisation, as well as cost-cutting outsourcing and business value driven diversification of office locations.

The stable concentration of FABS production (Chapter 5), accompanied by historically rooted institutional attributes (Chapter 3) and increasing local capacity to handle higher order financial services (Chapter 4), solidifies the position of Warsaw as a leading regional financial centre in CEE. The growing division of labour in FABS (Chapter 5) and differentiation of financial centres (Chapters 3 & 4) facilitate direct interurban linkages between international and domestic financial centres, bypassing national financial centres. The regional hierarchy of financial centres are thus nuanced, and national financial centres, especially Warsaw, do not necessarily represent the secondary domestic financial centres in the global network of cities. Thus, the articulator of national and regional economy (cf. Friedmann, 1986) is no longer the primary role of Warsaw, and the city functions as an important node within the global FABS network. In addition to concepts such as ‘development’ and ‘hierarchy’ of financial centres, the terms describing financial centres (e.g. ‘international financial centre’, ‘global city’, ‘world city’) or describing financial services (e.g. ‘advanced business services’, ‘FABS’) shape our understanding of the relational financial geography in CEE. The next section continues on such theoretical and practical implications.

6.3. Theoretical and practical implications

In the wake of the 2004 EU accession, the assumed hierarchy of financial centres in CEE consisted of ‘western’ financial centres (e.g. Vienna) at the top, the national capitals in the middle, and other major metropolitan areas as the third tier. The primacy of Warsaw as the national financial centre strengthened its position in the supra-national competition to become a regional (CEE) financial centre. In general, the national capitals were considered as the articulators of the national economy within the global interurban network (cf. Friedmann, 1986; see Section 5.2). Yet, various subsidiaries and shared services centres established the direct link between international financial centres and the third-tier financial centres. Furthermore, focusing on individual reformers, capital market

services production/trade, and FABS production/consolidation, the empirical chapters found the hierarchy of financial centres in CEE to be complex and nuanced, exhibiting ambivalent trends. Reflecting the above, this section lists theoretical and practical implications of these findings.

To begin with, while the economies of agglomeration matter, firms and policymakers alike must reflect on the existing (and perceived) spatial *divisions* of labour in order to gain advantages from the heterogeneity of metropolitan areas. The concept is referred to here in a plural format as the spatial division of labour in the office network of one firm may look different from that of another firm, largely influenced by the differences in their business models and corporate strategies. Generally speaking, the overall spatial division of labour among metropolitan areas is perceived so based on the spatial division of labour in the office networks of major firms. When there is a cluster of firms from a certain sector, the metropolitan area where the cluster is located would assume specialising in that sector. For firms from another sector located in the same city, the spatial division of labour expressed in their office networks may be different from the generally perceived spatial division of labour among metropolitan areas. To underline this, the following revisits the examples from Katowice and Prague, in order to supplement the findings from Warsaw highlighted in the previous section.

Katowice employs the second largest number of people in FABS among the major Polish metropolitan areas. As is described in Chapter 2, McCann (2001) lists two types of economies in the context of financial services production. “Localisation economies” are the positive externalities firms obtain by locating themselves next to similar firms (e.g. through easier access to information and knowledge, pooled markets of skilled labour), while “[a]gglomeration (urbanisation) economies” are economies of scale firms receive by basing operations in large urban areas (e.g. developed infrastructure, access to larger markets, network of supporting firms)’ (Section 2.2). It implies that FABS firms shall enjoy these economies of agglomeration in a large city with existing FABS production, such as Katowice. However, the same can be said to other sectors, and Katowice seems to have already specialised in coal and steel production. In comparison, Katowice experienced a slow growth of FABS in terms of its shares in total metropolitan employment and GDP, diminishing its function as a financial centre (see Chapter 5).

Yet, it does not mean that investing in FABS (broadly defined) in Katowice is uneconomical (or ‘below the threshold’ in the CPT framework; see Chapter 4). Surely, localisation economies in the financial (banking) sector are expected to be limited in Katowice, compared to Warsaw, as ING Bank Śląski is the only major retail bank headquartered there¹³⁴ (Appendix 1). According to the ABSL¹³⁵, nearly a half of business services sector employment in the Katowice metropolitan area comes from IT, represented by the SSCs for Capgemini and IBM. Katowice thus differentiates itself as a business services centre specialised in IT-related services and consulting. As the financial sector is increasingly digitalised, a synergy between the IT sector in Katowice and the financial sector in Katowice and elsewhere is foreseeable.

The example of Katowice is a good reminder, not to be misled by the absolute number of FABS employment or SSCs without looking into the interurban relations to which the city is exposed. From investing in infrastructure to support a certain sector to opening a new office, identifying the heterogeneity of the given metropolitan area in relation to the spatial divisions of labour (in own office network, in the competitor’s office network, or in a general sense) is essential in enjoying the various economies of agglomeration. Furthermore, analysing the financial sector in a narrower sense (e.g. banking), as opposed to analysing FABS in a broader sense, will lead to a shallower understanding of the national, regional, and global interurban networks. Surely, Warsaw is a leading regional financial centre in CEE when it comes to equity capital market services, and the city is increasing its capacity to handle larger and more complex deals. Yet, the consolidation of FABS firms in Poland is slow, and the market areas for FABS are uneven and overlapping. As such, Chapter 5 noted Wrocław, Poznań, and Kraków as the secondary financial centres in Poland, with an inclination of Wrocław to host SSCs for global FABS firms and Poznań for non-FABS firms. The manner in which Katowice’s IT sector is incorporated into the global office network shall be different from one firm to another, reflecting their diverse business models, resources, needs etc. Although this thesis focused on Warsaw and identified three secondary financial centres in Poland, it does not discredit the potential of other metropolitan areas, such as Katowice, to function as domestic financial centres. Rather, by illustrating the historically informed

¹³⁴ The bank originated in the Katowice branch of the National Bank of Poland.

¹³⁵ ABSL. (2017) *Business Services in Katowice & the Katowice Agglomeration*. Available at: https://absl.pl/wp-content/uploads/2017/12/raport_katowice_2018_EN_171202_epub.pdf.

spatiotemporal distribution of FABS production and trade both on supra- and sub-national levels, it provides a tool for policymakers and firms to make their locational decisions.

In this thesis, the decline of Prague as a regional financial (securities market) centre is recorded in a direct and indirect manner. Directly, it refers to the voucher privatisation and the accompanying lack of proper financial intermediaries. Disagreements among the reformers are noted, and the institutional redundancy is highlighted. While the strong presence of foreign-owned banks as well as the formation of the regional securities exchange consortium (i.e. SEESEG) strengthened Prague's connectivity vis-à-vis Vienna, the equity market in Prague have struggled to recover the lost liquidity in trade, and the city seems to have failed to establish a FABS agglomeration. Indirectly, the GaWC notes the absence of secondary financial centres in the Czech Republic (Section 1.2), and it is evidenced by the lack of capital market services production apart from Prague (Table 4.1). Unlike in Poland where firms can choose different combinations of office locations, firms in the Czech Republic have little room to adjust their own spatial division of labour. Although it shall be further investigated, Prague's growth as a FABS centre is likely to be limited due to the rigid geography of financial centres. This contrasts with a dynamism observed in Poland with the establishment of new SSCs in various cities and a notable increase of FBAS employment in Poznań.

Prague is often ranked higher than Warsaw or Budapest in financial centre indices (Figures 1.1 & 1.3-4). Capital market service in Prague is characterised by the regional clientele with the total fees collected from the cross-border services transactions in capital market services exceeding those of Warsaw (Table 4.1). At the same time, Warsaw is noted with its reach to the out-of-the-region clients (Figure 4.1), and a high proportion of services (especially in equity capital market) is produced locally. Therefore, in incorporating Warsaw or Prague into the office network, firms should consider these trends in interurban trade links as well as the particularities surrounding the firm's motivations to open an office. To give an example from the credit rating agencies, Warsaw is the only city in CEE which hosts the offices of all 'big three' agencies (i.e. S&P, Fitch, and Moody's), highlighting the city's importance in their global office networks. Vienna has none, while Moody's has 'Investors Service' and 'Analytics' in Prague and Shared Services in Vilnius. Officially, for Moody's, its Warsaw office is a branch of Moody's Investors Service in London, its Prague office (investor service) is a

branch of Moody's Deutschland in Frankfurt, and its Vilnius office is a subsidiary of Moody's Group France in Paris¹³⁶. This complex corporate structure stems from various factors, from regulatory constraints to budgeting, and firm-centric narratives are informative in analysing the spatial divisions of labour, and in turn, the geography/hierarchy of financial centres.

Warsaw maintains the high standard institutional and regulatory infrastructures with relatively large total market capitalisation in securities/capital markets, but a slow development of the financial 'ecosystem', which could facilitate a variety of entrepreneurial activities, remains as the major concern¹³⁷. As is highlighted in Chapter 5, the hierarchical relationship between Warsaw and Wrocław/Poznań/Kraków is characterised by the former's capacity to handle capital market services, but there is a little evidence to suggest that the rise of Warsaw as a regional financial centre caused the decline of another city. In other words, the interurban competition is not necessarily a 'zero-sum game', and the ambivalent trends of centralisation and decentralisation seem to continue, as the consolidation process in FABS is slow and gradual. Thus, for policymakers in Warsaw, incentivising FABS production through price competition (i.e. attracting the services in cost-cutting outsourcing) might be counter-productive, as such measures may reduce the FABS production outsourced to the secondary financial centres for a cost-cutting purpose. Rather, paying attention to the nuanced hierarchy of financial centres on the sub-national level and to the heterogeneity of financial centres on the supra-national level, policymakers can nourish the aforementioned financial 'ecosystem' in the city and strengthen the 'node' characteristics of Warsaw as a leading regional financial centre. In this process, the city shall attract more business value driven services, highlighting the perceived spatial divisions of labour Warsaw is currently facing.

This thesis aimed to fill in the gaps in the literature from two perspectives. First, it provides a comprehensive picture on the rise of Warsaw and the hierarchy of financial centres in CEE. As Warsaw suffered relatively less from the recent financial crisis, it also complements the current studies on financial centres which tend to focus on the post-

¹³⁶ Available at: <https://www.moody.com/sites/products/ProductAttachments/Exhibit4.pdf>.

¹³⁷ Interview with Jarosław Daryło (managing director at Wood, 6 April 2018), Tomasz Motyl (Chief Innovation Officer at Alior, 8 December 2017), Michael Dembinski (Chief Adviser at the British-Polish Chamber of Commerce, 17 November 2017), and Marcin Petrykowski (Managing Director at S&P, 8 November 2017).

crisis environment. Furthermore, the thesis systematically analysed the financial centre development in Warsaw, supplementing a number of reports made on Warsaw by consulting firms and investment funds. Second, as is already highlighted above, the ambivalence between the centralisation and decentralisation is depicted with detailed spatiotemporal analyses. These trends can be analysed from the perspectives of capital market services vs. FABS, FABS trade vs. production, or business value vs. cost-cutting. The hierarchy of financial centres in CEE exhibits the spatial division of labour based on the heterogeneity of financial centres; their development trajectories have been altered, rejecting the institutionally deterministic thinking; and their market areas are uneven and overlapping, rejecting the view of a zero-sum game among the national and domestic financial centres.

As is acknowledged in Sections 1.3 and 3.1, the ‘development’ of financial centres is measured differently, depending on the motives of the assessor, and the ‘decline’ of Prague or the ‘rise’ of Warsaw is depicted in this thesis, primarily within an observation framework which focuses on securities markets, markets on financial intermediaries, and interurban FABS trade. In other words, when the assessment criteria are altered (e.g. banking and insurance sector attributes) the financial centre development in CEE can be understood differently (e.g. the ‘rise’ of Prague). Nevertheless, while the observed division of labour and financial centre differentiation indicate different developmental paths for different financial centres, a degree of positive ‘development’ is observed when a city increases its financial centre attributes. Whether financial centre rankings and indices (e.g. GFCI, GaWC) or world/global city (Sassen 2001; Taylor, 2004), financial centres with a capacity to provide a wide range of larger and more complex services are considered highly in their hierarchical understanding of financial geography. Looking at institutional arrangements in securities markets, capital market services, and FABS in general, this thesis confirms the development of Warsaw as a financial centre in the past 30 years. Although Warsaw has increased its capacity to produce higher order FABS, the positioning of Warsaw in the region which is still characterised by niche financial activities (e.g. privatisation of state-owned enterprises, heavily regulated investment behaviours by pension funds) is unclear.

Even though Prague and Budapest did not experience an increase in FABS production like Warsaw, there is little evidence to suggest Warsaw taking away FABS from nearby

financial centres to consolidate its prominence. Prague and Budapest have strengthened their capacity to locally produce larger and more complex capital market services with a degree of specialisation and differentiation. What separates Warsaw from Prague or Budapest is the secondary national centres. As is noted in Section 1.2 and supported by the findings from Chapters 4 and 5, cities such as Wrocław, Poznań, and Kraków, unlike Brno or Debrecen, are dynamic nodes within the regional network of FABS production. Certainly, the hierarchy exists between Warsaw and the rest based on their respective spatial reach, the growth of Warsaw is achieved not at a cost of other cities. Warsaw, thus, does not articulate national nor regional financial markets as its primary role.

Such a conceptualisation of ‘hierarchy’, based on the levels of FABS production rather than articulation, corresponds to world/global cities. World/global cities specialise in larger and more complex FABS and function as strategic nodes in the global network of cities. In other words, this thesis highlights the nodes characteristics of Warsaw as a regional financial centre. Here, the adjective ‘regional’ signifies the positioning of Warsaw, higher than ‘national’, lower than ‘global’. ‘Regional financial centres’ have regional, as opposed to global, spatial reach but do not necessarily function as an intermediary between the clients in their market areas and the FABS provider located in global financial centres. With this articulator function less highlighted for Warsaw, firms and policymakers can differentiate the development of Warsaw as a financial centre from the macroeconomic development of Poland. As the secondary cities in the Czech Republic and Hungary are not as active as those in Poland in terms of FABS production, the articular function remains with Prague and Budapest. Thus, the discussion on the ‘hierarchy’ of financial centres helps us to illustrate the nuanced geography of regional financial centres.

When the concept of FABS is expanded from higher order capital market services to intermediary producer services which include BPO/SSC, domestic financial centres in Poland join the map of financial centres in CEE. The ‘hierarchy’ is still maintained as Warsaw dominates FABS production, and the growing division of labour strengthens the node characteristics of these domestic financial centres. Thus, the Polish urban system is well integrated into the global network of financial centres. With the financial centre attributes strengthened in many cities, the financialisation of the Polish urban system highlights the role of these cities in the global value chain. Policymakers and firms alike

can strategise their (re)location decisions based on the compatibility or expected synergy between the current relational geography of financial centres and proposed changes.

6.4. Limitations and future research directions

There are several limitations already highlighted in the empirical chapters, which serve as a list of unanswered questions. The EU-level regulatory harmonisation stemming from the implementation of MiFID II is likely to trigger the restructuring of regulated securities exchanges and multilateral trading facilities. It still requires a closer observation as there is a time delay in adjusting the office networks. The potential expansion of the European Exchange Rate Mechanism II (as a prerequisite to join the Eurozone), pension reforms, changing strategies of global investment banks, privatisation of state-owned banks and securities exchanges – all have major impacts on the liquidity of capital markets. Shrinking demography as well as migration of skilled workers in relation to the Brexit or COVID modify the labour markets. Technology is another factor which was not fully addressed in this study. High frequency trade and AI will change the way in which investors interact. Even when all external factors are experienced in a similar manner among the regional financial centres, there still is a room for reformers and policymakers to alter the course of financial centre development.

While the agency of policymakers and elites are emphasised, their self-consciousness needs more observations and investigations. How do they perceive the interurban relations and the positioning of regional financial centres? Is the financial centre differentiation engineered by the local policymakers and elites? Or is it a result of certain agglomeration patterns? These questions are particularly relevant for smaller and domestic financial centres where a handful elites have significant influence in shaping the institutional arrangements.

Continuing on the topic of differentiation, while this study confirmed the propositions from the Central Place Theory framework, it is still unclear how the product heterogeneity is linked to the heterogeneity of financial centres. The firm-specific factors (e.g. repeated transactions by the same-adviser-client pair, corporate ownership link) are ambiguous at

best, and we still know little about how global FABS firms utilise the subsidiaries and SSCs within their intra-firm spatial division of labour. The relationship between the increased FABS employment and GVA is opaque as the boundary between cost-cutting outsourcing and business value driven diversification of office location is blur. While the retail banking sector has been consolidated (at least in Poland), the FABS sector at large is yet to experience consolidation, and the relationship between the two must have a much deeper theoretical discussion.

Against these general limitations, this section selects and suggests five research directions. First, in line with Chapter 3, historical and institutional narratives on financial centre development in CEE should continue to be documented. In particular, the role of development banks must be analysed further to supplement the analyses presented in the chapter. In Hungary, the Hungarian Development Bank (Magyar Fejlesztési Bank) has been a key stakeholder in loan syndication. Given the state-centric attitude of the current government, the state-owned special purpose financial entities, such as the MFB, are expected to expand their investment portfolios. In the Czech Republic, while the Czech-Moravian Guarantee and Development Bank (Ceskomoravská záruční a rozvojová banka) had a limited role in consolidating non-performing loans during the initial economic transition, it remains as the only development bank in the country. In Poland, the state-owned development bank, BGK (Bank Gospodarstwa Krajowego), continues to be active in project finance, while the Polish Development Fund (Polski Fundusz Rozwoju) owns a number of large retail banks and other financial entities. These development banks and funds have mandates and strategies different from private investment banks, and most notably, they are often keen on supporting the initiatives to promote provinces which are economically lagged behind. Their influence on the decentralisation trend in FABS is one of the foci for this research direction.

Second, the empirical chapters noted the independence of Warsaw in terms of securities market infrastructure, but an in-depth analysis on how the independence influences the intra-regional financial services trade is yet to be conducted. In particular, the role of clearing houses is understudied. While the management body of the clearing house in Warsaw (the Central Securities Depository of Poland, KDPW) seems to have a strong voice within the Warsaw Stock Exchange group, the evidence tends to be anecdotal, linked to particular individuals. Given that the structure of risk transfer to the central

counterparties is a major criterion for assessing the development of securities markets (e.g. by FTSE Russell), clearing houses are integral to the development of financial centres. Additionally, in relation to the counterparty risk management, brokerage houses are heavily regulated in Warsaw – as a result, major retail banks acquired the majority of brokerage houses with only a handful independent houses left¹³⁸. While the tight regulation is likely to increase the certainty in the financial system, it may diminish the room for innovative competition. Therefore, the independence of securities market infrastructures in Warsaw must be analysed from multiple stakeholder's points of view.

Third, as is briefly stated, individual firm's spatial division of labour shall be investigated in depth. While the rich body of empirical studies on office-connectivities represented by Taylor (2004) is informative of interurban relations, FABS firms in these studies are often treated as homogeneous with the individual interaction between one office and another has no particular significance in illustrating the overall office network. As is shown in Chapters 4 and 5, however, firm-centric narratives complement statistical analyses in explaining the irregularities in the observed trends. In this context, a firm's decision to open an office or acquire a subsidiary depicts the spatial division of labour perceived by the firm in question. When a firm opens an SSC, the types of services the centre produces provide an insight into the nature of outsourcing, whether it is cost-cutting or value-creating diversification.

Fourth, externally to the firm, the firm-specific factors are other analytical foci the previous research direction can accommodate. Whether it is for loan or merger advisory, it is rare to have a single adviser when the deal value is large and hence more complex. As there are only a handful local FABS firms capable of providing such services in CEE, a client may repeatedly hire the same adviser, but at the best of our knowledge, there has not been a systematic analysis on repeated transactions between a given adviser-client pair. Furthermore, in Poland, many major FABS providers are state-owned, and some clients may feel more politically protected to hire the state-owned FABS firms. Thus, the ownership structure of FABS firms is integral to this research direction.

¹³⁸ Interview with Tomasz Bardziłowski (Managing Director at Vestor Dom Maklerski, 13 December 2017) and Waldemar Markiewicz (President at the Chamber of Brokerage Houses, Izba Domów Maklerskich, and CEO at the then DB Securities, 27 November 2017).

Fifth, expanding Clark (2002), Wójcik (2013b) contrasts the geographies of FABS production, FABS trade, and investment vehicles (Section 5.2, especially note 123). As a number of local private equity and investment funds (e.g. Wood, Abris, MCI) invest abroad (e.g. Romania, Ukraine, Turkey), the geography of investment vehicles begins to differ from the geography of FABS trade in CEE. Previously, due to the monopoly of trading platforms by the national capitals, these two geographies resembled each other. While institutional investors, such as pension funds, still dominate the investment scenes in CEE, an increasing presence of multilateral investment vehicles and funds is observed, especially in Warsaw. These activities must be documented to complete the picture of investment landscape in CEE.

The rise of Warsaw as a regional financial centre touched upon a number of concepts, and the nuanced and complex hierarchy of financial centres calls for an interdisciplinary approach to financial geography. Historical backgrounds must be addressed, product and financial centre heterogeneities must be highlighted, and ambivalent trends of centralisation and decentralisation must be identified. Many factors are specific to particular locations where the financial activity in question takes place, while the characteristics of the interurban networks (or the characteristics of each node) materialise these factors in a diverse manner. After all, geography still matters.

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[Note: Non-standard English characters, such as Å and Ó, are listed *after* the standard English characters, such as A and O respectively.]

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Appendix 1. Listed universal banks and their current dominant/strategic investors

Rank	Name	Total assets (PLN bln, %)*	HQ	Dominant/strategic investor
1	Powszechna Kasa Oszczędności (PKO) Bank Polski	286.4 (15.7%)	Warsaw	Treasury
2	Bank Polska Kasa Opieki (Pekao)	170.5 (9.4%)	Warsaw	Treasury (through PZU and the Polish Development Fund (PFR))
3	Bank Zachodni WBK (Santander)**	149.8 (8.2%)	Wrocław (Warsaw)**	Santander
4	mBank	129.4 (7.1%)	Warsaw	Commerzbank
5	ING Bank Śląski	120.2 (6.6%)	Katowice	ING
6	Bank BGŻ BNP Paribas	72.0 (4.0%)	Warsaw	BNP Paribas
7	Bank Millennium	69.5 (3.8%)	Warsaw	Banco Comercial Português
8	Getin Noble Bank***	64.5 (3.5%)	Warsaw	Leszek Czarnecki
9	Alior Bank	61.8 (3.4%)	Warsaw	Treasury (through PZU)
10	Bank Handlowy	44.6 (2.5%)	Warsaw	Citi
11	Idea Bank***	22.9 (1.3%)	Warsaw	Leszek Czarnecki
12	Bank Ochrony Środowiska	19.9 (1.1%)	Warsaw	Treasury (through National Fund for Environmental Protection and Water Management)

* As of June 2017 (when PZU and PFR purchased Pekao). Percent share in the banking sector in Poland.

** In 2018, BZWBK officially became Santander Polska and moved its headquarters to Warsaw.

*** In January 2019, Idea Bank announced to buy Getin Noble Bank, but the KNF rejected.

Source: KNF¹³⁹

¹³⁹ UKNF (2017) *Raport o sytuacji banków w I półroczu 2017 r. (Report on the Situation of the Banks in the First Half of 2017)*. Available at: https://www.knf.gov.pl/knf/pl/komponenty/img/RAPORT_O_SYTUACJI_BANKOW_2017_06_59842.pdf, 66.

Appendix 2. M&A location of acquirer (row) and target (column)
(2000-2017 aggregated, % total deal value)

	WA*	KA	WR	KR	GD	LO	PO	SZ	Rest	Cross	Total
WA	11.53	1.61	0.81	1.89	4.68	0.10	1.79	0.04	3.25	0.45	26.16
KA	0.05	0.14	0.00**	0.00	nt***	nt	0.00	nt	0.10	nt	0.29
WR	1.97	0.09	0.48	0.00	0.00	0.25	0.00	nt	0.40	0.16	3.36
KR	0.15	0.02	nt	0.11	nt	0.00	0.01	nt	0.06	nt	0.34
GD	0.91	0.00	0.00	nt	1.17	nt	nt	nt	0.08	0.05	2.22
LO	0.71	0.00	0.00	0.00	0.00	0.21	0.03	nt	0.14	0.01	1.11
PO	0.06	0.00	0.04	0.01	nt	nt	0.18	nt	0.03	0.18	0.51
SZ	0.00	nt	0.02	nt	nt	nt	nt	0.00	0.01	nt	0.03
Rest	0.50	0.03	0.08	0.12	0.04	nt	nt	nt	0.12	nt	0.88
Cross	34.63	3.16	7.00	1.60	2.41	0.89	10.81	0.17	4.45	N/A	65.12
Total	50.51	5.04	8.43	3.74	8.31	1.45	12.82	0.20	8.65	0.85	100.00

* WA = Warsaw, KA = Katowice, WR = Wrocław, KR = Kraków, GD = Gdańsk, LO = Łódź,
PO = Poznań, SZ = Szczecin, Rest = rest of Poland, Cross = cross-border

** 0.00 = less than 0.005%

*** nt = no transactions recorded

Source: *Dealogic*

Appendix 3. M&A location of acquirer (row) and target (column)
(2000-2017 aggregated, deal value exceeding USD 1 million, deal count)

	WA*	KA	WR	KR	GD	LO	PO	SZ	Rest	Cross	Total
WA	53	2	6	5	6	3	9		18	5	107
KA	1	2							1		4
WR	2		8			1	1		1	2	15
KR		1									1
GD	1										1
LO	1					4			1		6
PO	1										1
SZ											0
Rest ¹⁴⁰	9		3						8		20
Cross	33		11	1	1	2	3		11	N/A	62
Total	101	5	28	6	7	10	13	0	40	7	217

* WA = Warsaw, KA = Katowice, WR = Wrocław, KR = Kraków, GD = Gdańsk, LO = Łódź, PO = Poznań, SZ = Szczecin, Rest = rest of Poland, Cross = cross-border

Source: Dealogic

¹⁴⁰ Notable cities in this category are Bielsko-Biała and Płock which are near Katowice and Warsaw respectively.

Appendix 4. List of interviewees in a chronological order

- Marek Tatała, Vice President of the Board at Fundacja Forum Obywatelskiego Rozwoju (Civil Development Forum) (12 October 2017)
- Witold Orłowski, former advisor to Leszek Balcerowicz; Chief Economic Advisor at PwC sp. z o.o.; Rector at Vistula University (13 October 2017)
- Nicholas Richardson, Partner at Richardson i Wspólnicy sp.k, (law firm); Vice Chairman of the Board at the British-Polish Chamber of Commerce (18 October 2017)
- Russell Towlson, Trade Director at the British-Polish Chamber of Commerce (26 October 2017)
- Anonymous, executive director at an investment bank (31 October 2017)
- Dariusz Odzioba, managing director at PKO Bank Polski SA (state-owned universal bank) (7 November 2017)
- Michael Davies, independent, former Partner at Siemiątkowski i Davies Radcowie Prawni sp.p. (law firm) (7 November 2017)
- Jan Krzysztof Bielecki, former Prime Minister; chairman of the Partners Board at EY sp. z o.o. (8 November 2017)
- Anonymous, director at an international commercial bank (8 November 2017)
- Marcin Petrykowski, Managing Director at S&P Global Ratings Europe Limited sp. z o.o.; supervisory board member at MCI Capital SA (private equity firm/venture capital) (8 November 2017)
- Wiesław Rozłucki, former President of the Board at the Warsaw Stock Exchange; Senior Advisor at Rothschild Polska sp. z o.o. (9 November 2017)
- Michael Dembinski, Chief Advisor at the British-Polish Chamber of Commerce (17 November 2017)
- Anonymous, supervisory board member at a commercial bank (22 November 2017)
- Igor Chalupec, former Deputy Financial Minister; author of 'Agenda Warsaw City 2010' (22 November 2017)
- Sylwester Janik, Senior Partner at MCI Capital SA (private equity firm/venture capital) (22 November 2017)
- Anonymous, regional director of an international organisation (24 November 2017)
- Neil Milne, Managing Partner and Co-Founder at Abris Capital Partners sp. z o.o. (independent private equity firm) (24 November 2017)
- Waldemar Markiewicz, President at Izba Domów Maklerskich (Chamber of Brokerage Houses); President of the Board at Dom Maklerski DB Securities SA (brokerage house under Deutsche Bank) (27 November 2017)
- Professor Krzysztof Jajuga, President at CFA (Chartered Financial Analyst) Society Poland; Head of the Department of Financial Investments and Risk Management, Wrocław University of Economics (28 November 2017)
- Andrzej Klesyk, former President of the Board at Powszechny Zakład Ubezpieczeń (PZU) SA (state-owned regional insurance firm) (1 December 2017)

Tomasz Motyl, Chief Innovation Officer at Alior Bank SA (8 December 2017)

Tomasz Bardziłowski, Managing Director and Vice President of the Board at Vestor Dom Maklerski SA (independent brokerage house) (13 December 2017)

Marek Dietl, President of the Board at the Warsaw Stock Exchange (30 January 2018)

[Note: ‘SA’ (spółka akcyjna) stands for ‘joint-stock company’, ‘sp. z o.o.’ (spółka z ograniczoną odpowiedzialnością) stands for ‘limited liability company’, ‘sp.p.’ (spółka partnerska) stands for ‘limited liability partnership’, and ‘sp.k.’ (spółka komandytowa) stands for ‘limited partnership’. These legal classifications imply different dynamics of corporate governance in addition to their sources of capital. ‘President of the Board’ (Prezes Zarządu) is often translated as ‘CEO’ in the financial media.]