

## Urban Geographies of Financial Convergence: Situating Indian Financial Centers across Global **Production and Financial Networks**

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Urban Geographies of Financial Convergence: Situating Indian Financial Centers across Global Production and Financial Networks

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#### Key words:

global financial networks global production networks information technology finance Mumbai Bangalore New Delhi India Recent advancements in the global production networks (GPNs) literature seek to better emphasize the role of finance by identifying where and how global financial networks (GFNs) intersect with GPNs. Financial centers (FCs) operate as key sites for articulating financial convergence, understood as the merging of financial and nonfinancial sectors enacted by cross-sectoral investments. Yet, how such entanglement both feeds on and impacts intercity networks, affecting metropolitan hierarchies, remains largely overlooked. Using a novel data set of 12,147 intersectoral, cross-border and domestic merger and acquisition deals involving finance and insurance firms throughout the period of 2000-20, this article unpacks the sectoral dynamics that underpin the intersection of GFNs with GPNs at the city level in India, the fifth largest economy in the world. Our longitudinal and multiscalar analysis demonstrates how uneven patterns of financial convergence, structured around the rising entanglement between finance and information technology (IT), have reshaped intercity networks and affected the landscape of FCs in India. If Mumbai remains India's financial capital, Bangalore and New Delhi gained power in domestic and international flows, well ahead of other Indian cities. The article emphasizes how the IT firms, as recipients of transnational investments, and central governments, through direct interventions and state-hybrid investors, operate as key drivers in articulating GFNs with GPNs through intercity networks, changing urban geographies of finance, raising methodological and conceptual questions for future research on financial geography.

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Recent advancements in the global production networks (GPNs) literature seek to better emphasize the role of finance in shaping global economic activity (Coe and Yeung 2019). Acknowledging a theoretical lacuna on the causal role of finance (Coe and Yeung 2015), the GPN 2.0 framework, building upon the framework of the global financial networks (GFNs), was developed to examine how financial firms, markets, firms, and logics coordinate the networked geographies of global production and orchestrate the diffusion of financial discipline (Yeung and Coe 2015) across other economic sectors, thus participating in a wider process of financialization (Epstein 2005; Klinge, Fernandez, and Aalbers 2021). These two relational frameworks consider financial centers (FCs) as key control centers (Friedmann 1986) in the global economy through the spatial clustering of both financial and business services and headquarters of nonfinancial corporations. The presence of these corporate actors and the financial links established between cities yield a variegated geography of corporate power, which unevenly integrates cities into the global economy, turning a few dominant nodes, such as London, New York, or Singapore, into international FCs (Taylor and Derudder 2016; Wójcik et al. 2019).

If the intercity networks forged by financial firms' investments are a fundamental topic for economic geography (Faulconbridge et al. 2007; Wójcik et al. 2022), how the intersection of GFNs with GPNs impacts existing networks and hierarchies of FCs remains rather overlooked, despite the call for investigating how finance orchestrates and interacts with GPNs (Coe and Yeung 2015). Recent studies, largely quantitative in design, have examined patterns of economic convergence between finance and other sectors, conceptualized as corporate financialization to analyze organizational change and corporate restructuring (Klinge, Fernandez, and Aalbers 2021) or as *financial convergence* (Keenan, Monteath, and Wójcik 2022). This burgeoning scholarship is mostly supported by international, national, and comparative studies across firms, sectors, and countries. To the best of our knowledge and despite the fact that both theoretical frameworks emphasize the key role of FCs in articulating GFNs with GPNs, no studies have unpacked the city networks and urban

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nodes that drive and result from this economic convergence. This constitutes a problematic research gap in the era of financialized globalization (Bassens and van Meeteren 2015), given that FCs are conceptualized as "vital territories in the spatial articulation and manifestation of intersecting global finance and production networks" (Coe, Lai, and Wójcik 2014, 764).

Uncovering the urban geographies through which GFNs and GPNs become entangled raises empirical challenges. First, such task requires the extension of both the analytical and geographic scope of research. The literature on world city networks or FCs typically adopts a single-sector approach, using descriptive, factorial, and network analysis with transaction data or office locations to identify hierarchical patterns and differentiated functions between cities, leaving aside the convergence between GFNs and GPNs. Meanwhile, studies on corporate financialization tend to neglect the geographic dimensions (Klinge, Fernandez, and Aalbers 2021). Second, existing scholarship reflects a long-term preference for the study of cross-border activities, with a twofold consequence: a neglect of the domestic dynamics and key functions performed by FCs, given that domestic activity is often dominant even in leading FCs (Wójcik et al. 2019). This focus on cross-border flows introduces a methodological bias against cities that structurally and historically account for a lower proportion of the financial flows that circulate across GPNs and GFNs, despite a rising interest for Asian cities (Lai 2012; Taylor, Derudder, and Liu 2021).

Our dual ambition in this article is therefore to advance a geographic understanding of the intersection of GFNs with GPNs through intercity networks and to investigate how such convergence affects the hierarchical landscape of FCs. To that end, we conduct a longitudinal and cross-sectoral analysis of a novel data set of 12,147 cross-border and domestic merger and acquisition (M&A) deals involving the finance and insurance sector, either on the acquisition or target side, throughout the period of 2000–20, for the country of India. The fifth largest economy in the world, India remains largely off the map of financial geography (Lai et al. 2020). This is despite the fact that India already reflects how the process of convergence between GFNs and GPNs translates into changing urban trajectories as evidenced by the global production of services. The offshoring and outsourcing industries, powered by the success of the diaspora-orchestrated, export-oriented software sector (Saxenian 2005), have indeed turned major Indian cities, such as Bangalore, Mumbai, Pune, Chennai, and Hyderabad, into functional nodes for the global financial industry. Yet the role and position of these cities continues to be described as subordinate in terms of decision-making power, restricted to back- and midoffice tasks (Parthasarathy 2004; Grote and Täube 2006; Lambregts, Kleibert, and Beerepoot 2018). On the GPN side, sectoral studies that examined the financialization of the pharmaceutical or telecom industries in India (Horner 2014; Bhatia 2022) largely overlook the urban dimension of these processes. As a fast emerging, large economy of the Global South, India provides a unique context to analyze the city networks driving the convergence between GFNs and GPNs. Using descriptive statistics and network visualizations, we ask the following two questions: How does the convergence between finance and other economic sectors unfold across Indian cities? How does the convergence of GPNs with GFNs through cross-border and domestic financial flows reshape the hierarchy of FCs in India?

We first find that Indian cities experience a rising, continuous, yet uneven and variegated process of financial convergence, which unfolds through distinctive sectoral patterns and intercity networks when comparing cross-border and domestic M&A markets. Path-dependent, cross-sectoral investments, especially between finance and the information technology (IT) sector, have reshaped the geography and scope of cross-border networks, turning Bangalore into an international FC over the last decade. Second, our findings also reveal the key role of central governments in shaping intercity networks that drive financial convergence, stimulating the rise of New Delhi on a domestic level, and supporting cross-border regional integration through investments in and out of the financial sector. The intersection between GFNs and GPNs has transformed India's financial geography, shifting over the last two decades from a highly centralized system dominated by Mumbai to a polarized, three-headed network, characterized by the relative decline of Mumbai's primacy as Bangalore and New Delhi gained corporate power and consolidated their role as FCs in both domestic and international flows. These urban geographies of financial con-4 vergence have established Mumbai, New Delhi, and Bangalore as India's leading FCs, characterized by differentiated profiles, and deepened the gap between this leading trio and the other major Indian cities.

The next section discusses the missing urban perspective on FCs as a site of intersection between GPNs and GFNs, before contextualizing the case and relevance of Indian cities. The following section describes our M&A data set and the methodology used to capture cross-sectoral trends of financial convergence from a multiscalar perspective. After charting the uneven structures of financial convergence at the national level, we investigate how the convergence between IT and finance supported the rise of Bangalore through shifting intercity connections. Then, we examine the role of the state in changing domestic hierarchies of FCs in India. The sixth section proposes a typology of the leading FCs in India, highlighting a shift toward a more polycentric structure as a result of financial convergence. The final section concludes and draws implications for future research on the urban geographies of financial convergence resulting from the entanglements of GFNs and GPNs, within and beyond the case of India.

### Financial Centers at the Intersection of GPNs and GFNs

Global Production Network 2.0 theory seeks to situate the causal mechanisms of finance in the orchestration of the global economy and the resulting patterns of uneven development (Coe and Yeung 2019). As "one of the major gaps in the GPN literature" (Coe, Lai, and Wójcik 2014, 762), this lack of engagement with finance delineated a research agenda to grasp how finance reshapes the networks of global production. A wide range of studies have demonstrated how financialization, understood as a variegated, uneven, and conjunctural process, transforms other economic sectors through the introduction of financial metrics, imperatives, and modes of governance (Pike and Pollard 2010). On the other hand, financial geographers have introduced the concept of global financial networks to map the financial sector through the interlocking structures and agencies of FCs, offshore jurisdictions, financial and business services, and world governments.

#### Financial Convergence: The Missing Urban Perspective

Concentrating firms, markets, and institutions, FCs operate as "key nodes of decision-making power" (Wójcik et al. 2022, 99). If most studies focus on the financial sector and other advanced producer services to understand the evolution and specialization of FCs (Faulconbridge et al. 2007; Lai 2012; Wójcik et al. 2019), FCs also concentrate headquarters of nonfinancial corporations, which seek proximity to financial and business services to source funding, receive legal and business advice, and undertake complex transactions such as M&As. As agents of financial discipline and engineers of the world economy, financial and business services are involved at every step of M&As. Through M&As, financial firms enter new markets, invest outside their sector, transfer or acquire corporate control in nonfinancial corporations, and source new knowledge and technology (Focarelli and Pozzolo 2008). Consolidation or concentration, through which ownership, control, and ultimately power are transferred, affect the hierarchy of FCs (Chapman 2003; Allen 2010).

In that regard, M&As provide key data to explore the spatial concentration of decision-making power and capture the changing landscape of FCs (Cardenas Morales and Dubé 2021; Wójcik et al. 2022; Wu et al. 2022). Moreover, transaction data allow us to measure intercity networks in terms of financial volume and value, going beyond the use of office networks (Taylor and Derudder 2016), criticized for its "assumption of flows through a mere existence of office location," especially for cities of the Global South (Kleibert 2017, 2898). The volume, value, and institutional anatomy of such complex transactions directly reflect activities and networks that shape FCs at the local level. As illustrations of the significance of M&As to the geography of FCs, consider how the acquisitions of regional and local banks by London-based banks contributed to financial centralization in the UK (Leyshon and Thrift 1997) or how M&As contributed to the shift of the leading FCs in Brazil, Canada, and South Africa, from Rio to Sao Paulo, Montreal to Toronto, and Cape Town to Johannesburg, respectively (Contel and Wójcik 2019).

Perhaps, more importantly, with regard to research gaps identified in the GPN and GFN literature, M&As offer an insightful proxy to investigate the economic convergence of finance with other sectors. Broadly speaking, economic convergence can be defined as the "blurring of boundaries between industries due to converging value propositions, technologies and markets" (Bröring, Martin Cloutier, and Leker 2006, 488). Tracing the intersection of GFNs with GPNs, Keenan, Monteath, and Wójcik (2022, 5) define financial convergence as "the merging of financial and non-financial sectors through intersectoral M&A deals." While they provide evidence on the rise of cross-sectoral deals in the 2000–20 period, their analysis is restricted to global and national levels, leaving aside the role of FCs in this process. Most studies in financial geography conducted at the international or national scale do not unpack the "sectoral and geographical complexity" (Coe and Yeung 2015, 24) that arises at the city or firm level. Applying the analytical potential of the GFN in conjunction with the GPN 2.0 framework, and building on this definition of financial convergence, we examine how the relational ties of financial firms with GPNs unfold through intercity networks, affecting the landscape of FCs, using India as a case study.

#### Indian Cities at the Intersection of GPNs and GFNs

While Indian cities remain underrepresented in economic geography, we can identify two key patterns regarding their position and role across GPNs and GFNs to guide our analysis of financial convergence: the subordinate position of Indian FCs in GFNs, and the role of the IT sector in linking GFNs and GPNs with the support of the central government in facilitating growth and integration.

From a GFN perspective, Indian cities are commonly acknowledged as secondary FCs in the world economy: as recipients of efficiency and technology-seeking M&As (Motis 2007), Mumbai, Chennai, and New Delhi feature in the top twenty of the largest net targets by volume over the last decade (Wójcik et al. 2022). In a landscape of restricted knowledge, quantitative studies largely relegate Indian cities to the bottom of tables. On a global and regional scale, Mumbai stands out as a recognized international FC (Kleibert 2017) and India's financial capital. This status is inherited from the historic concentration of foreign companies, especially in finance and insurance (Grant and Nijman 2002), and the presence of key regulatory institutions such as the Bombay Stock Exchange or the Reserve Bank of India, relocated from Kolkata to Mumbai in 1937. As an *alpha* city, Mumbai ranks as the most connected city in India for advanced producer services firms (Derudder and Taylor 2018), well ahead of New Delhi and Bangalore (*alpha*), Chennai (*beta*), Pune, Hyderabad, Kolkata, and Ahmedabad (*gamma*).<sup>1</sup>

Yet, Mumbai's status as India's financial capital is inseparable from its role and insertion into GPNs. Due to structural changes both in domestic and global economy with the rise of maritime networks (Jacobs, Ducruet, and De Langen 2010), Mumbai took over Kolkata as India's gateway city (Grant and Nijman 2002). As a major colonial, cotton-trading hub, Mumbai benefited from the presence of foreign banks specialized in international trade (Bagchi 1987) and a strong connection to British, London-based private capital (Chaudhary, Gupta, and Roy 2016). Mumbai's role as a trading gateway for India is closely related to the presence of large conglomerates, with textile, steel, and oil in the lead. According to Forbes's 2021 *Global 2000* ranking,<sup>2</sup> Mumbai hosts twenty-eight of India's fifty largest public companies, well ahead of New Delhi (ten) and Bangalore (four). Overall, Mumbai's status of financial capital is a telling example of the "close relationship between international trade and crossborder finance" (Wójcik, Knight, and Pažitka 2018, 5) that turn cities into FCs through the close entanglement of GPNs and GFNs.

If India features more prominently in GPN-informed research, sectoral studies do not foreground the urban dimension (Posthuma and Nathan 2010), with the notable exception of the literature on the software and business process outsourcing (BPO) industry highlighting the increasing interplay between the finance and technological industries. Two decades ago, Saxenian's pioneering work emphasized how "venture capital firms are emerging to invest in firms that link Silicon Valley's technology and market access with India's software skills," promoting the economic development of Bangalore (Saxenian, 2002, 194). A wide range of studies have examined how the outsourcing and

<sup>&</sup>lt;sup>1</sup> GaWC, 2020, https://www.lboro.ac.uk/microsites/geography/gawc/world2020t.html.

<sup>&</sup>lt;sup>2</sup> https://www.kaggle.com/datasets/arjunprasadsarkhel/forbes-top-200020172021?select=Forbes-2021. xlsx.

offshoring industry have established cross-border intercity networks and investment patterns that supported an early process of convergence between GFNs and GPNs (Grote and Täube 2007; Aranya 2008; Kleibert 2015; Lambregts, Kleibert, and Beerepoot 2018). From a sample of 219 M&A deals over the 1997–2004 period, Grote and Taübe (2006, 1293) concluded that "M&A activities of financial institutions are highly concentrated in the very few cities with IT clusters in India," with Mumbai attracting the largest share of foreign direct investments (FDIs) made by financial firms, ahead of Bangalore and New Delhi.

Prior research emphasized the key role of the central government through the creation of special economic zones offering tax rebates to the export-oriented IT firms such as the Software Technology Parks of India established in 1991 by the Ministry of Electronics and Information Technology. While Mumbai's position is linked to the historic concentration of both foreign and domestic financial firms, financial and business services, and large nonfinancial corporations, Bangalore's rise in GFNs is underpinned by the headquarters of outsourcing giants, such as Wipro or Infosys, and the numerous offshore campuses opened by foreign financial firms since the early 1990s (Aranya 2008). Yet, even in the case of the offshore industry, little is known about the actual volume, value, and sectoral composition of the financial flows that drive financial convergence and affect the role and position of Indian cities in GPNs and GFNs. This article therefore seeks to disentangle how the process of financial convergence both builds on and affects the hierarchical networks of FCs in India.

## Tracing Financial Convergence across Cities with M&A Data

We use proprietary data on M&As sourced from the Zephyr database by Bureau Van Dijk. Using the North American Industry Classification System (NAICS), we extracted all cross-border and domestic deals involving firms in the finance and insurance sector, either on the acquisition or target side, for the period 2000–20. The finance and insurance sector (NAICS Code 52) includes banks, insurance companies, asset management companies, pension funds, and other financial institutions.

A key issue was to geolocate all companies on the target and acquisition side at the city level. We manually located about 2,800 deals for which the city was unknown, using Bloomberg, Zaubacorp, and corporate websites. Locations were aggregated to the larger metropolitan area, using the latest spatial data on built-up areas compiled by the Geopolis research program (Denis and Marius-Gnanou 2010). For instance, a company headquartered in Gurugram or Noida would be located in New Delhi, using the boundaries of the National Capital Territory of Delhi. To ensure accuracy of the data, we manually checked and corrected the locations stated by Bureau Van Dijk for the largest deals in terms of value, and for all deals where either the target or acquiring company was located outside of the main eight metropolitan areas (Ahmedabad, Bangalore, Chennai, Delhi, Hyderabad, Kolkata, Mumbai, Pune). To combine sectoral and geographic analysis and take into account domestic hierarchies, we categorized deals into *domestic, inbound* (foreign firms investing in India), and *outbound* (Indian firms investing abroad).

We also paid particular attention to the sectoral dimension of M&As and the variegated nature of finance as an analytical category. Using the NAICS, we broke down the *Finance & Insurance* category into the following subsectors: *Commercial Banking, Insurance,* and *Other Finance*. To better capture the centrality of the IT industry, we broke down the NAICS Sector 51 *Information* into *IT*, with companies involved in data processing, software publishers, and other computer services; and *Information & Communication*, covering telecommunications, television broadcasting, and newspapers. Acquisition from *Executive Offices* were coded as *Public Administration*. We categorize deals into three types to analyze financial convergence: *outward* (financial firms investing in nonfinancial sectors); *inward* (nonfinancial firms investing in the financial sector); and *intrasectoral*, where the deal involves only financial firms.

Using a gross domestic product (GDP) deflator sourced from the World Bank's World Development Indicators,<sup>3</sup> we adjusted all deal values to constant 2015 US dollars. To account for missing deal value, we used median imputation, computing the annual median value depending on the type of deal (inward, outward, domestic). We removed all deals valued under US\$1 million. We also removed deals involving private individuals, identified by their names, and deals involving Hindu Undivided Family, a type of legal entity similar to a family trust.

The final sample contains 12,147 geolocated deals from 2000 to 2020 covering 17,600 city-pairs. To capture the evolutionary dimension of intersecting GPNs and GFNs, we use longitudinal analysis through a combination of descriptive statistics and data visualization of investment networks. Considering cities as nodes and the number, value, and types of deals as edges, we built a network visualized through Sankey diagrams, a type of plot particularly relevant for presenting weighted flows across categorical variables, yet largely underused in economic geography. While our analysis is driven by quantitative data, our understanding of FCs in India is also informed by interviews with thirty-one financial and business services executives and policy makers, conducted in Mumbai and Bangalore in January 2020.

### The Uneven Structure of Financial Convergence in India

As Figures 1 and 2 show, outward deals dominate the M&A market at the domestic and cross-border levels. Both foreign and Indian financial firms have intensified their consolidation with other economic sectors, with a remarkable growth in the inbound market, and the modest, yet rising investments made by Indian financial firms abroad during the 2010s (see also Table 1). The aftermath of the global financial crisis only temporarily reduced the activity of foreign firms in India's fast-rising economy. By 2015, the total value of inbound deals recovered from the recession and have since constantly exceeded figures from the 2003–7 boom years, when the country was recording an 8 percent annual GDP growth. The relative slowdown of the economy since 2016 did not hinder this trend with a record of US\$37.5 billion invested by foreign firms in 2020. Outward deals account for the largest share (89 percent).

<sup>&</sup>lt;sup>3</sup> World Bank, 2023, https://data.worldbank.org/indicator/NY.GDP.DEFL.ZS?locations=US.



Figure I. Annual value of M&A deals from 2000 to 2020.

The domestic market reveals contrasting patterns with a remarkable recent spike in the value of inward deals and a rise of intrasectoral M&As. The growth of the domestic market means that the position of Indian cities should also be assessed in the light of internal dynamics rather than just a function of foreign-driven financial flows. In both 2018 and 2019, the total domestic deal value significantly surpassed that of inbound M&As.

Figure 3 reveals differentiated sectoral patterns of financial convergence between GFNs and GPNs within and into India. The evolution of inbound–outward deals underlines that foreign financial firms increasingly targeted three sectors, mostly by acquiring or raising minority stakes rather than concluding full acquisitions. IT, information, and pharmaceuticals attracted, respectively, 24 percent, 13 percent, and 7 percent of the total value from 2011 to 2020. Comparing the two decades, the share of manufacturing and utilities declined to 11 and 6 percent. In comparison, the Indian financial industry remains less attractive for foreign financial firms: intrasectoral deals only represent a fifth of the total annual value of inbound deals, despite an increase since 2015. The domestic market differs in terms of cross-sectoral investments: manufacturing remains the main sector for Indian financial investors, ahead of IT and utilities.

Finally, the convergence between GPNs and GFNs cannot be reduced to inbound dynamics (see Figure 1). Albeit modest in numbers and value, outbound M&As are on the rise with a record of thirty-seven outward deals in 2019. Most of this activity bears the



Figure 2. Annual volume of M&A deals from 2000 to 2020.

marks of financial convergence: Indian financial firms invest in nonfinancial sectors, in particular IT, targeting firms based in the US (171 deals), Singapore (35 deals), and other South Asian countries (China, Malaysia, Indonesia).

These uneven sectoral evolutions are explained by structural changes in the domestic economy but also by regulatory steps undertaken by the national government continuing the economic and financial liberalization initiated in the early 1990s. In 2016, new provisions relaxed the regulation for cross-border M&As in the pharmaceutical industry, with government approval being required only when foreign ownership exceeds 74 percent. In 2017, the government also abolished the Foreign Investment Promotion Board, relaxing FDI restrictions (Rao and Dhar 2021). Full foreign ownership is permitted in mining; petroleum and natural gas; telecommunication services; aviation; satellite establishment and operation; broadcasting carriage services; and the entire manufacturing sector, including pharmaceuticals, medical devices, computers, and arms industries. In contrast, banking and insurance fall under restrictive caps in terms of FDI and foreign ownership (Bhatia 2022), which have been relaxed only in recent years. While foreign participation is limited to 20 percent for public banks, the Reserve Bank of India increased the limit to 74 percent for private banks in 2015.<sup>4</sup> Similarly, foreign companies

<sup>&</sup>lt;sup>4</sup> Reserve Bank of India, 2015, Notification No. FEMA.354/2015-RB, https://rbidocs.rbi.org.in/rdocs/ notification/PDFs/N354038F78D787024D098442BF66A57F111A.PDF.

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|         | 2000–10         |       | 2011–20         |                 |      |                 |                 |
|---------|-----------------|-------|-----------------|-----------------|------|-----------------|-----------------|
|         | Value in US\$Bn | In %  | Number of Deals | Value in US\$Bn | In % | Number of Deals | Growth in Value |
| Domesti | c deals         |       |                 |                 |      |                 |                 |
| Intra   | 18.63           | 35.2  | 525             | 45.75           | 27.1 | 666             | 145.6           |
| Inward  | 5.11            | 9.6   | 183             | 53.79           | 31.9 | 384             | 952.6           |
| Outward | 29.25           | 55.2  | 1536            | 69.16           | 41.0 | 3,415           | 136.5           |
| Total   | 53              | 100   | 2,244           | 169             | 100  | 4,465           | _               |
| Inbound | deals           |       |                 |                 |      |                 |                 |
| Intra   | 13.21           | 18.0  | 414             | 33.08           | 17.7 | 585             | 150.4           |
| Inward  | 1.34            | 1.8   | 52              | 7.24            | 3.9  | 123             | 441.8           |
| Outward | 58.67           | 80. I | 1683            | 147.09          | 78.5 | 3,644           | 150.7           |
| Total   | 73              | 100   | 2,149           | 187             | 100  | 4,352           | _               |
| Outboun | d deals         |       |                 |                 |      |                 |                 |
| Intra   | 1.74            | 32.3  | 36              | 0.49            | 6.0  | 22              | -71.7           |
| Inward  | 0.52            | 9.6   | 24              | 0.94            | 11.3 | 12              | 80.4            |
| Outward | 3.14            | 58. I | 74              | 6.83            | 82.7 | 208             | 117.7           |
| Total   | 5               | 100   | 134             | 8               | 100  | 242             | —               |

M&A Deals by Sectoral and Geographic Trends (2000–20)

Source: Zephyr database by Bureau Van Dijk, author's own calculations.



Figure 3. Sectoral composition of domestic and inbounds M&As (2000-20).

were allowed to increase their shares from 26 percent to 49 percent in the insurance sector, which consequently witnessed a steep increase of inbound M&As. Amazon, for instance, invested in an online, Mumbai-based vehicle insurance provider in 2018. Finally, the recent peak of inward M&As in the domestic market stems directly from the consolidation of public-sector banks undertaken by the national government, with a spectacular growth of commercial banking as the main targeted sector (see Figure 3).

With these intersectoral patterns reflecting the increasing entanglement between GFNs and GPNs both at the domestic and cross-border scale, the next section analyzes the urban geography of financial convergence and its consequences for Indian FCs.

# IT and Finance Driving Financial Convergence: The Rise of Bangalore

The geography of cross-border deals reveals the central role of the IT sector in supporting financial convergence, strengthening existing cross-border relationships between cities on a global level, and forging new connections on a regional level. These financial flows have affected the hierarchy of FCs in India, with the spectacular rise and changing role of Bangalore over the last two decades.

As shown in Figure 4, Mumbai remains India's financial gateway for foreign investors, attracting 45 percent of the total value of inward deals for both decades. The US retains its leadership as the largest origin of inbound M&As, with 37 percent of deal

12 retains its readership as the targest origin of module interits, with 57 percent of deal value between 2011 and 2020. Looking at the city-dyads that structure networks of investments (see Appendix Table B), New York-based financial firms remain the most important source of investments over the last decade, targeting nonfinancial sectors in Mumbai and Bangalore. Deals involving a UK acquirer are in decline in both absolute and relative terms. Investments from the Middle East and Asia increased significantly. On the receiving end, Mumbai, New Delhi, and Bangalore lead. The next five metropolitan areas of Ahmedabad, Chennai, Hyderabad, Kolkata, and Pune combined account for only 17 percent of the total inbound value in 2011–20, a proportion similar to the previous decade.

#### Bangalore on the Rise

The rise of Bangalore across intercity networks is spectacular and results from investments in the IT industry. With a 480 percent growth of invested value between the two decades, Bangalore catapulted its share of foreign investments from 8 percent to 18 percent, closing the gap with New Delhi (21 percent in 2011–20). In the context of a relative decline of manufacturing and utilities, Bangalore concentrated more than half of all foreign investments into the IT sector during the 2010s, with US investors accounting for 60 percent of all inbound deals targeting Bangalore. Significant deals underline patterns of IT-driven financial convergence. Flipkart, a Bangalore-based e-commerce platform received investments from Tokyo-based Softbank Group (through a holding registered in Jersey, UK), venture capital firm Accel Management Company (in San Francisco Bay Area), private equity fund Tiger Global Management (New York), GIC (a sovereign wealth fund from Singapore), and the Qatar Investment Authority, to name the main players. Flipkart was eventually acquired by Walmart in 2018. Representative deals include ANI Technologies, the parent company for the ride-sharing start-up Ola Cabs, and Think&Learn, an exam preparation platform, whose investors include BlackRock (New York), Silver Lake Technology Management (Bay Area), and the private equity firm General Atlantic (New York).

The trajectory of Bangalore as a receiving node confirms the key role of IT in reshaping the geographies of FCs through path-dependency effects exemplified by the historic



Figure 4. The network of inbound M&A deals (based on value).

connections to US investors and firms based in the Bay Area. The cross-border, intersectoral flows that connect Indian cities to San Francisco and Silicon Valley became an umbilical cord of the M&A market during the 2010s: while in terms of value, New York– Mumbai and New York–Bangalore remain the top city-dyads for the inbound market, the San Francisco–Bangalore dyad accounted for the highest volume of activity with 362 deals during in 2011–20.

Compared with Bangalore, Mumbai and New Delhi exhibit a more diversified sectoral profile (see Figure 4). For New Delhi, inbound foreign investments target mainly utilities (42 percent), information and communication, and manufacturing. As India's historic financial capital, Mumbai attracts foreign investment in commercial banking (77 percent of total investments in this sector), finance (58 percent), insurance (73 percent), but Mumbai also captures 80 percent of investments into the pharmaceutical industry. In 2018, for example, HDFC Bank raised US\$1.8 billion from JP Morgan. In 2015, Sun Pharma received investments from Goldman Sachs (through its Singapore branch), GIC, and the Mauritius-based Aranda Investments, a wholly owned subsidiary of Temasek Holdings, another Singaporean sovereign wealth fund. Insurance companies, such as Reliance Capital, ICICI Lombard General Insurance, and Birla Sun, recently concluded numerous deals with investors headquartered in New York, Singapore, Toronto, Tokyo, and Mauritius. Mumbai also attracts foreign investments in information and communication, and in the IT sector, with the presence of Jio Platforms, owned by the conglomerate Reliance Industries, which experienced the largest initial public offering in 2020. Investors included Silver Lake Technology Management, the Abu Dhabi Investment Authority, the Public Investment Fund from Riyad, and the venture capital firm Intel Capital (San Francisco).

Outbound activities underline that Bangalore became an international FC for India over the last decade: the city accounts for the largest number of deals (ninety-two) in India and represents 30 percent of the total value, compared to 7 percent in the previous

decade. New Delhi almost doubled its outbound market activity (twenty-four to fortythree deals), but its share of value remains stable, around 15 percent. Mumbai's enduring prominence (see Appendix) is due to large investments made by the Mittal family in its own Luxembourg-based subsidiary ArcelorMittal in 2013. Leaving this deal aside, Bangalore would stand as the largest node for outbound investments, with 38 percent of the total value, ahead of Mumbai (27 percent).

#### Shifting Regional Connections

This hierarchical evolution on a domestic scale is correlated with two geographic shifts on a global and regional level. First, San Francisco became the largest partner for Bangalore- and Mumbai-based investors (eighteen deals) during the last decade, with Bangalore making half of the total US\$1.8 billion of investments. Value-wise, these outbound flows remain limited but demonstrate the changing position of Bangalore in GFNs. A few Indian financial companies, such as private equity firms PremijInvest

14 (the family office of Azim Premji, chairman of the IT and consulting Bangalore-based company Wipro), Blume Venture Advisors (Mumbai), or Sequoia Capital India Advisor (Bangalore), now have the scale, knowledge, and legitimacy to position themselves as international investors and driving financial convergence: Indian financial firms targeting US-based companies in IT (32 percent of outward investment value) but also in finance and insurance (14 percent).

Offshore and midshore jurisdictions articulate the convergence between GPNs and GFNs. As shown on Figure 4, the Mauritius route, with financial firms registered in Port Louis, remains a central feature of financial convergence in India, accounting for 15 percent of the total value of deals in 2011–20. Since 2000, Mauritius has been the largest source of FDI into India. A Double Taxation Avoidance Agreement signed in 1982 stipulated that Mauritius-based companies selling shares of Indian companies were exempt from capital gains tax in India. Significant deals include Goldman Sachs, through its Singapore entity, and Citigroup, through a subsidiary in Mauritius, investing in Mumbai-based Axis bank. Following the treaty's renegotiation in 2017, the Mauritius route was eventually surpassed in 2018 by Singapore and the US, as confirmed by city-dyads. This rising role of Singapore (from 7 percent to 16 percent) and the presence of Hong Kong (about 3 percent in both decades) further confirms the key role of FCs and offshore jurisdictions in driving financial convergence: a closer look at the data reveals that most inward deals involve holdings or investment funds located in Port Louis, such as Mauritius-registered subsidiaries from Morgan Stanley or Franklin Templeton, and state-owned firms from Singapore acquiring shares in nonfinancial sectors in India. Our analysis also confirms the continuing presence of other central nodes, such as Luxembourg and the Netherlands, which feature among the top fifteen sources of FDI.<sup>5</sup>

Finally, financial convergence is brought about by the clear emergence of Asian cities in intercity networks, including Bangkok, Bayan Lepas, Beijing, Hangzhou, Ho Chi Minh City, Seoul, Shanghai, Suzhou, Taipei, and Yokohama. If financial flows

<sup>&</sup>lt;sup>5</sup> Reserve Bank of India, 2021, Annual Report 2020–2021, https://m.rbi.org.in/Scripts/AnnualReport Publications.aspx?Id=1278.

between India and Chinese cities remain low compared to other destinations—notwithstanding the established connection to and from Hong Kong—they confirm the influence of IT, which attracted the bulk of Chinese investors. The largest deal involved, in 2015, Alibaba Capital Partners (Hangzhou) investing in One97 (New Delhi), the parent telecommunication company of the FinTech firm Paytm. New dyads have also appeared, strengthening connections to Europe (Dublin, Geneva, Hamburg, Luxembourg, Frankfurt) and North America (Denver, Los Angeles, Washington, Vancouver, Raleigh, Tampa, Toronto). India's connections in the African and South American continent remain rare and decreased over time, with only two deals targeting Johannesburg and Dar es Salam.

Overall, the network of cross-border investments remains extremely polarized among three cities, but the perception of Mumbai as India's financial gateway to the world economy needs to be nuanced given the changing role of Bangalore as an international FC in the city networks created by the convergence of GFNs with GPNs. The next section explores financial convergence from the perspective of the domestic M&A market and examines the resulting changes for FC hierarchy in India.

# Changing Domestic Hierarchies: The Most Visible Hand of the State

Domestic networks appear structurally different from the cross-border dynamics, both from a sectoral and institutional perspective (see Figure 3). Characterized by the overwhelming primacy of Mumbai between 2000 and 2010, the domestic network recently evolved into a bipolar structure due to the rise of New Delhi (see Figure 5). This changing landscape underlines how the evolution of FCs is deeply embedded in the changing geography of power orchestrated by the central government.

Mumbai remains the largest node of the domestic M&A market, with US\$78 billion worth of investments in 2011–20, a 121 percent growth compared to 2000–10. This prominence is engraved in the city's internal market that accounts for the largest share of the domestic value (see Appendix Table A). On the acquiror side, Mumbai dominates across all sectors, hosting the head offices of commercial banks (Kotak Mahindra, HDFC, ICICI Bank); insurance companies (Life Insurance Corporation of India); private equity funds (Blume Venture Advisors, India Quotient Advisers, Mumbai Angel Venture Mentors); and other powerful, large financial firms such as the HDFC group, Tata Capital, and Reliance Capital. Life Corp, a state-run entity, was the largest Mumbaibased acquirer during both decades, with a diversified, cross-sectoral portfolio, investing in Yes Bank, Axis Bank, and IDBI Bank (Mumbai), Infosys (Bangalore), the Indian Oil Corporation (Mumbai), ITC Limited (Kolkata), NTPC Limited (the government-controlled electricity company based in New Delhi), and Tata Motors (Mumbai). On the target side, Mumbai remains the largest node for intrasectoral deals that consolidate the financial industry but also for investments in manufacturing, pharmaceutical, and utilities.

Yet, the increasing weight of New Delhi is visible on the investor side. During the 2010s, the city accounted for 37 percent of the total value invested across Indian cities, compared to 11 percent in the 2000s. In the meantime, Mumbai's share declined



Figure 5. The network of domestic M&A deals (based on value).

from 66 percent to 46 percent. In terms of sectoral dynamics, while the upward trajectory of Bangalore in cross-border investments resulted from outward deals, the rise of New Delhi is due to numerous inward deals: the central government invested in commercial banking, mostly in the form of acquisitions through capital injections. Since 2011, the government of India invested US\$47 billion in a total of 160 deals targeting commercial banks headquartered in major cities around the country (see outward deals in Appendix Table A). In addition, multiple mergers took place between commercial banks over the last twenty years, with the government approving the merger of ten state-run banks into four larger public-sector banks in 2020. These waves of mergers conducted in the name of consolidation, global competitiveness, and restructuring in response to the accumulation of nonperforming assets (Kadanda and Raj 2018) have been driven by the central government. This emphasizes how New Delhi gained in terms of power and decisionmaking within domestic networks. In contrast, Bangalore records low levels of activity: this is related to the distinctive sectoral patterns of the domestic market, where IT companies attract only a minor proportion of Indian investors (9 percent of the total value in the last decade). Consequently, Bangalore ranks far behind the leading duo of New Delhi and Mumbai in domestic intercity networks.

## Urban Geographies of Financial Convergence: Toward a More Polycentric Structure of Financial Centers in India

Having analyzed different parts of India's M&A market involving financial companies, we are now ready to draw a broad picture of the evolving hierarchy and typology of India's major cities as shaped by financial convergence. This is based on three groups of measures: (1) the evolution of a city's rank over the last two decades in terms of market share on the target and acquisition side (see Figure 6), (2) the sectoral breakdown of

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Figure 6. The ranking of leading Indian cities in M&A deals.

flows for each city (see Table 2), and (3) the geographic breakdown of flows in terms of outgoing and incoming values (also in Table 2).

Mumbai remains India's main FC, as a net acquirer in the domestic market and with the second highest ratio of outgoing to incoming flows. The fact that the latter ratio is higher for New Delhi (0.72) is due to the involvement of the central government. Taking all types of deals into account, Mumbai ranks first on the acquisition (46 percent share) and target side (42 percent) during the 2010s. This prominence is rooted in the city's diversified financial profile, with investments to and from key sectors such as commercial banking, insurance, and other types of financial firms, but also results from the concentration of various conglomerates' headquarters, particularly in manufacturing and utilities.

Financial convergence has established Bangalore as India's second leading FC, driven by cross-border outward deals targeting the IT sector. Sixty-five percent (65 percent) of the value invested in Bangalore comes from foreign investors—the highest ratio among the eight largest cities in India. On the acquisition side, and in contrast to Mumbai, Bangalore's own financial sector is less diverse, without dominant players in commercial banking or insurance, except for the government-owned Canara Bank. The city, however, has strengths in private equity and venture capital (88 percent of outgoing flows), which mainly invest in local IT firms. More importantly, Bangalore displays distinctive connections to other international FCs, such as

|                                    |               |           | Table      | 2          |         |          |              |   |
|------------------------------------|---------------|-----------|------------|------------|---------|----------|--------------|---|
| es of Leading                      | Indian Cities | by Sector | al Distrib | oution and | Geograp | hy of M8 | As (200      | ) |
|                                    | Ahmedabad     | Bangalore | Chennai    | Hyderabad  | Kolkata | Mumbai   | New<br>Delhi |   |
| <b>ing flows</b><br>ercial banking | 0.1           | 10.7      | 16.7       | 11.5       | 47.1    | 27.9*    | 7.6          |   |

Pune

Incom Comm 18.4 5 Other finance 7.2 3.5 30.4 6.6 15.2 Ш 4.4 Information 0.7 1.4 2.1 2.3 0.2 9.2 16.3 0.1 IT 5.2 56.6 8.6 10.2 0.8 4.5 15.8 35.3 Manufacturing 26.9 6.2 10.4 6.8 22.4 13.4 11.2 23 Utilities 18.5 0.8 24.6 13.3 4.8 13.7 2.3 3.1 Other sectors 41.4 20.8 28.7 38 11.2 25 24.4 16.5 Total 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 Total value in US\$ bn 11.3 61.3 26.3 16.4 27.3 210.1 101.5 7.5 **Outgoing flows** 18 Commercial banking 11.0 28.0 1.0 55.2\*\* 13.6 1.7 12.9 0.6 54.8 29.5 25.5 97.9 88.2 52.5 51.5 68.7 Other finance Insurance 0.2 0.2 7.5 0.5 5.3 31.1 0.3 6.4 72.5 Other sectors 1.3 0.7 9.7 46.1 10.1 3.7 12.1 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 Total Total value in US\$ bn 2.0 14.0 6.0 3.9 5.6 122.9 72.7 2.3 Geography of flows Ratio of outgoing to 0.18 0.23 0.23 0.24 0.21 0.58 0.72 0.31 incoming flows 58% Inbound deals as % of 56% 66% 58% 26% 48% 45% 48% incoming flows Outbound deals as % of 5% 20% 3% 1% 12% 10% 0,1% 2% outgoing flows

Profile 0 - 20)

\* For Mumbai, 27.9% of the incoming value goes to commercial banking

\*\* For Kolkata, 55.2% of the outgoing value comes from commercial banking

Source: Zephyr database by Bureau Van Dijk, author's own calculations.

San Francisco, through cross-sectoral networks (see outward deals in Appendix Table C). Bangalore provides a stepping stone for Indian investors: 20 percent of the outgoing value goes abroad, in contrast with Mumbai (10 percent), which caters mainly to the domestic market. Put differently, while Bangalore does not yet compete with Mumbai in terms of size, the geographic pattern of investments reveals a higher exposure to transnational flows, particularly through the strengthening of historic connections to global FCs with New York and the San Francisco Bay Area in the lead.

New Delhi appears as India's third leading FC, with a dual profile highlighting the variegated entanglement between GFNs and GPNs. On the one hand, the rising status of New Delhi seems conjunctural and orchestrated by the central government's investments into the domestic financial sector. The state accounts for a staggering 68 percent of the outgoing value of deals. Compared with Mumbai and Bangalore, commercial banks and other types of financial firms play a much smaller role on the acquisition side. On the other hand, New Delhi's rise is also rooted in long-term structural economic changes. A net target in cross-border, cross-sectoral deals, New Delhi hosts the headquarters of energy, finance, telecommunication, and IT companies, attractive to foreign (see Figure 4) and domestic financial firms (see Figure 5). This new status goes hand in hand with patterns of urban development: New Delhi's rise is largely underpinned by the growth of Gurgaon, a satellite city that became a hub for finance (e.g., Indiabulls Housing Finance) and telecommunication (e.g., Bharti Group). On its own Gurgaon, which grew from 0.86 percent to 2.8 percent of the total value on the acquisition side and from 4.7 percent to 6 percent on the target side, would overtake Ahmedabad, Hyderabad, or Pune.

The next five major cities rank far behind this leading trio. Kolkata and Chennai display similar shares on the acquisition (3 percent of the total value) and target side (4 percent). Kolkata's position is mainly attached to inward investments through which financial firms invest in the local manufacturing and utility industries—the IT sector being almost nonexistent—and a few intrasectoral deals due to the presence of the National Insurance Company and the Bandhan Bank, which received investments from a Singapore sovereign fund, Merrill Lynch, and Goldman Sachs. Yet, Kolkata's position remains mostly restricted to the domestic scene, with very low levels of crossborder activities. Chennai's position is linked to a few key actors in the financial industry: the Indian Bank, the Indian Overseas Bank, and various Tamil-controlled private equity and financial firms such as the Shriram Group. Hyderabad, Ahmedabad, and Pune rank further behind with contrasting profiles highlighting the intersection of GFNs with GPNs. While Pune hosts an attractive IT sector, Hyderabad and Ahmedabad receive domestic and foreign investments that mainly target the industrial sector. Pharmaceutical companies account for the second largest incoming value for Hyderabad (15 percent), behind utilities (30 percent). Ahmedabad engages in outgoing flows through small, local private investment firms, while Gruh Finance, specialized in rural housing finance, was acquired in 2019 by the Kolkata-based Bandhan Bank.

## **Conclusions and Implications**

This article sought to address two research gaps in the era of financial convergence: tracing the intercity networks that both support and result from the increasing entanglement of GFNs with GPNs to examine the evolution of FCs; and the lack of representation of Indian cities in financial geography beyond the literature on offshoring. One of our primary contributions in this article is to reveal how the city-networks of financial convergence changed the landscape of FCs in India, most specifically through two dynamics: the transnational, path-dependent dynamics of the IT sector, which attracted investments of foreign financial firms; and the strong involvement of the central government in promoting foreign investments in finance and other sectors, and in consolidating the domestic banking industry. The cross-border nature of investments, in and out of the financial sector, confirm how the contemporary geography of FCs needs to be understood in the context of intersectoral dynamics and financial convergence in particular.

Measuring the entanglement between GPNs and GFNs allowed us to identify the sectoral trends that reshape intercity networks and drive financial convergence. The integration of Indian cities into the global economy is taking place mostly through deals targeting nonfinancial sectors: over the last two decades, foreign financial firms gradually shifted their investments from manufacturing and utilities toward the IT,

telecommunication, and pharmaceutical industries. Our findings emphasize the dual role of IT firms as both recipient and source of transnational investments, which turn them into a linchpin of the networks that unevenly connect FCs. Indian IT companies attracted a rising share of inward deals, not only for developing offshoring facilities but also to source new technologies, while strategically investing in the booming mass-consumption domestic market driven by e-commerce and digital platforms.<sup>6</sup>

The GFN framework proves relevant to assess the intersection of finance with the structures of GPNs, as our analysis reveals clear links between the largest Indian cities and international FCs such as New York, Singapore, and the San Francisco Bay Area. Our results also highlight the key role of offshore jurisdictions, like Port Louis in Mauritius, for cross-sectoral investments. If our findings reveal path-dependent proximities between Indian cities and the West Coast of the US, they also highlight weak connections between Chinese and Indian financial firms. Yet, recent transactions between Chinese and Asian cities signal how the IT-finance nexus generates powerful mechanisms of change over the links that structure the global economy, and orchestrate the in-20 tegration between GFNs and GPNs, producing new intercity networks that support urban

geographies of financial convergence.

These cross-sectoral dynamics unevenly integrate Indian cities within the corporate networks and financial flows of the M&A market. While the hierarchy of Indian FCs remains relatively stable and highly polarized, it has evolved from a singular structure characterized by the primacy of Mumbai, to a more polycentric, three-headed structure: following two decades of cross-border and domestic investments that translate into a changing distribution of corporate power, Bangalore and New Delhi emerged as FCs both on a domestic and international level, alongside Mumbai, which remains India's financial capital. In terms of volume, value, and geographic connections with the rest of the world, there is a clear gap between this leading trio and the other major Indian cities. Mumbai, Bangalore, and New Delhi operate as basing points for global capital in two ways: by becoming leading nodes in domestic capital flows through intersectoral deals; and by strengthening established and developing new connections with investments banks, venture capital firms, and state-owned funds located in global FCs, mostly due India's comparative advantages in the IT sector. These findings confirm the influence of the tech-finance nexus in knitting GPNs with GFNs and shaping metropolitan patterns of globalization (Derudder and Taylor 2020).

Our evidence on M&As facilitating a more polycentric growth of India's FCs is an important counterpoint to studies showing how M&As drive spatial concentration in finance (Leyshon and Thrift 1997; Contel and Wójcik 2019). Our results are a reminder that firm-level consolidation and international financial integration do not have to lead to spatial concentration. With the established FC (Mumbai), seat of government (New Delhi), and center of IT industry (Bangalore) in different parts of a large country with a fast-growing economy, India appears as a special case. It also remains to be seen how the emerging trio of FCs in India affects financial development and investment in other parts of the country.

Reserve Bank of India, 2021, Annual Report 2020-2021, https://m.rbi.org.in/Scripts/AnnualReport Publications.aspx?Id=1278.

The increasing volume and value of acquisitions by foreign financial firms across Indian cities corroborates how the changing distribution of corporate power affects the subordinate position of Indian FCs for an emerging economy (Bonizzi, Kaltenbrunner, and Powell 2022). Yet, despite the fact that outward activities from Indian FCs remain small, Mumbai, Bangalore, and New Delhi cannot be conceptualized as passive subjects of Western financial interests. A net target in the M&A market, Bangalore also emerged as a major gateway for Indian firms seeking to position themselves as international investors, building on established connections with the US and the San Francisco Bay Area to invest across the IT and financial sectors.

These transnational patterns captured here at the city and firm level underline that future research is necessary to illuminate how corporate actors collaborate and compete when articulating GFNs and GPNs. An important question concerns the relationships between the flows of money examined in the article, and the related circulation of people and knowledge. Seen from India, financial convergence highlights the major role played by the migration of entrepreneurs and cross-border investments that support the rise of Indian FCs. The GFNs through which IT services or digital platforms access funding from private equity, venture capital, and investment banking results from closely knit relationships forged in campuses and diaspora's social networks (Chacko 2007). The cross-border nature of these flows, in and out of the financial sector, confirm how the contemporary geography of FCs, in terms of links and functions, also needs to be understood by paying attention to intersectoral dynamics forged by professional trajectories. In that regard, the new availability of finegrained data on employment and career hubs (Bühlmann et al. 2023) opens productive lines of enquiry to further examine how the intercity networks of corporate elites correlate with intercity networks of firms' location and investments, and ground the intersection of GFNs with GPNs.

From the vantage point of India, this article confirms how uncovering the sectoral and institutional trends that shape the evolution of FCs benefits from the quantitative measurement of value, using transactional data to investigate where and how GFNs intersect with GPNs. Yet, such an approach might become complicated if empirical markers, such as sector codes, become less relevant over time: On the one hand, financial convergence blurs the boundary between financial and nonfinancial firms. On the other hand, the state, through its apparatus, intervenes directly in financial markets, affecting the hierarchical position and differentiation of FCs, and orchestrating urban geographies of financial convergence. The intersection of GPNs with GFNs highlights the key role of central governments in shaping urban networks and FCs, especially in emerging economies such as India or China (Pan et al. 2020; Petry, Koddenbrock, and Nölke 2023).

Government influence manifests itself in the provision of policies to foster or restrict financial integration (Töpfer 2018), particularly in the case of M&As, since such transactions directly influence patterns of foreign ownership. In India, the effects of tax rebates in the IT sector or of FDI relaxations in the insurance industry provide a telling example on the formative effect of legislation over the evolution of FCs. New Delhi's command and control functions gained prominence through the recent largescale and repeated state-driven investments, driving consolidation in the network of public banks, echoing the wider set of state interventions in the Global South. Singapore,

Dubai, and Abu Dhabi through their sovereign wealth funds, subsidiaries of private equity firms, and central banks invested US\$4 billion in Mumbai. As these "state–capital hybrids" become "increasingly integrated into transnational circuits of capital" (Alami and Dixon 2020, 70), the sectoral activities of these state-linked investors (Haberly 2011) deserve more attention.

As state interventions change the nature of financial actors, this evolution of finance (O'Connell and Elliott 2023), along with the increasing digitalization of the industry, is likely to challenge the classification systems used by economic geographers in their quantitative research designs. It will also require an extension of the analytical scope beyond financial and business services to capture the intercity networks of corporate power and investments that shape the landscape of FCs on a domestic and international level. Overall, future research could be informed by and contribute to the expanding scholarship on state capitalism, complementing the (inter)national scale of analysis in exploring the role and position of FCs in articulating the convergence between GPNs and GFNs.

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Table A

## Appendix

| Type of Deal | Acquiror  | Target    | Value in US\$Bn | Number of Deals |
|--------------|-----------|-----------|-----------------|-----------------|
| 2000–10      |           |           |                 |                 |
| Intra        | Mumbai    | Mumbai    | 12.34           | 192             |
| Outward      | Mumbai    | Mumbai    | 7.57            | 349             |
| Outward      | Mumbai    | New Delhi | 4.08            | 150             |
| Outward      | Mumbai    | Hyderabad | 2.07            | 101             |
| Outward      | New Delhi | Mumbai    | 1.47            | 55              |
| Inward       | Hyderabad | New Delhi | 1.48            | 3               |
| 6 Outward    | Mumbai    | Chennai   | 1.35            | 69              |
| Outward      | Mumbai    | Bangalore | 1.29            | 81              |
| Intra        | Mumbai    | New Delhi | 1.16            | 38              |
| Outward      | New Delhi | New Delhi | 1.18            | 83              |
| 2011-20      |           |           |                 |                 |
| Intra        | Mumbai    | Mumbai    | 23.49           | 241             |
| Inward       | New Delhi | Mumbai    | 20.93           | 64              |
| Outward      | Mumbai    | Mumbai    | 15.03           | 636             |
| Outward      | Mumbai    | New Delhi | 9.58            | 434             |
| Inward       | New Delhi | New Delhi | 8.43            | 61              |
| Inward       | New Delhi | Kolkata   | 7.33            | 33              |
| Outward      | Mumbai    | Bangalore | 6.62            | 329             |
| Outward      | New Delhi | New Delhi | 6.58            | 255             |
| Outward      | Mumbai    | Kolkata   | 6.19            | 57              |
| Inward       | New Delhi | Chennai   | 4.53            | 13              |

#### Top Ten City Dyads for Domestic Deals

Source: Zephyr database by Bureau Van Dijk, author's own calculations.

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| Table B |
|---------|
|---------|

| Type of Deal | Acquiror      | Target    | Value in US\$Bn | Number of Deals |
|--------------|---------------|-----------|-----------------|-----------------|
| 2000–10      |               |           |                 |                 |
| Outward      | New York      | New Delhi | 5.96            | 91              |
| Outward      | Port Louis    | Mumbai    | 5.64            | 135             |
| Outward      | New York      | Mumbai    | 3.73            | 85              |
| Outward      | London        | Mumbai    | 3.25            | 68              |
| Outward      | Port Louis    | New Delhi | 2.61            | 111             |
| Outward      | San Francisco | Mumbai    | 2.51            | 36              |
| Intra        | New York      | Mumbai    | 2.07            | 38              |
| Outward      | New York      | Bangalore | 1.74            | 37              |
| Intra        | London        | Mumbai    | 1.71            | 31              |
| Outward      | Los Angeles   | New Delhi | 1.49            | 4               |
| 2011-20      |               |           |                 |                 |
| Outward      | New York      | Mumbai    | 11.04           | 194             |
| Outward      | New York      | Bangalore | 9.95            | 151             |
| Outward      | Singapore     | New Delhi | 8.04            | 149             |
| Outward      | Singapore     | Mumbai    | 7.59            | 139             |
| Outward      | Port Louis    | Mumbai    | 6.27            | 201             |
| Outward      | New York      | New Delhi | 5.70            | 142             |
| Outward      | San Francisco | Bangalore | 4.89            | 362             |
| Outward      | Port Louis    | New Delhi | 4.67            | 154             |
| Intra        | Port Louis    | Mumbai    | 4.01            | 50              |
| Outward      | Paris         | Mumbai    | 3.61            | 21              |

#### Top Ten City Dyads for Inbound Deals

Source: Zephyr database by Bureau Van Dijk, author's own calculations.

#### Table C

#### Top Ten City Dyads for Outbound Deals

|         | Acquiror  | Target         | Value in US\$Bn | Number of Deals |
|---------|-----------|----------------|-----------------|-----------------|
| 2000-10 |           |                |                 |                 |
| Outward | Lucknow   | London         | 0.79            | 1               |
| Intra   | Mumbai    | Riyad          | 0.62            | 1               |
| Outward | New Delhi | Singapore      | 0.46            | I               |
| Outward | Chennai   | Oslo           | 0.33            | 1               |
| Outward | Mumbai    | Hamilton       | 0.26            | I               |
| Intra   | New Delhi | San Francisco  | 0.22            | 2               |
| Outward | Bangalore | San Francisco  | 0.19            | 13              |
| Outward | Mumbai    | San Francisco  | 0.16            | 9               |
| Outward | Mumbai    | Bologna        | 0.16            | I               |
| Inward  | Mumbai    | Birmingham     | 0.12            | 1               |
| 2011-20 |           |                |                 |                 |
| Outward | Mumbai    | Luxembourg     | 1.8             | 1               |
| Outward | Bangalore | San Francisco  | 0.83            | 38              |
| Outward | Lucknow   | New York       | 0.59            | I               |
| Inward  | Bangalore | Tampa          | 0.46            | I.              |
| Outward | Bangalore | Boston         | 0.32            | 4               |
| Intra   | New Delhi | Seattle        | 0.32            | 3               |
| Outward | Mumbai    | San Francisco  | 0.23            | 18              |
| Outward | Mumbai    | Singapore      | 0.22            | 12              |
| Outward | Chennai   | Virgin Islands | 0.16            | I               |
| Outward | Mumbai    | Beijing        | 0.15            | I               |

Source: Zephyr database by Bureau Van Dijk, author's own calculations.