

## GEOGRAPHIES OF FINANCE: CENTERS, FLOWS, AND RELATIONS\*

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### *Abstract*

In this paper, I critically examine how geographers and other social scientists have developed complementary research programs for economic studies of finance by drawing on new relational concepts such as networks and embeddedness and opening up new research frontiers. In so doing, I investigate how global financial spaces have been conceptualized in mainstream finance literature and how economic concepts have been applied to studies of finance. Drawing on these discussions, I suggest that we need to undertake an alternative research of financial space that pays more attention to relational power dynamics among financial firms and the macroeconomic impacts of financial flows on regional economies.

*Keywords:* relational turns, financial space, financial centers, financial flows

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### I. *Introduction*

In his well-received book *Governing the Global Economy*, Kapstein (1994) suggests that by documenting evidence of the key roles played by nation-states in managing the global financial system, he would demonstrate the continuing importance of nation-states in the global economy and thus assure us of the efficacy of political science in current global affairs. O'Brien's (1992) "end-of-geography" thesis provoked geographers who were eager to attest the importance of geography against a tyranny of global financial flows supported both by competitive deregulation and by information and communication technology. Geographers have refuted the end-of-geography thesis by explaining the continuing existence of global financial centers, either pointing out the emerging system of global financial centers as nodes in the global economy (Clark & O'Connor 1997; Sassen 1991; Tschoegl 2000), or showing that locally specific customs and business relations among financial firms and their clients within financial centers are crucial in global financial production (Pryke and Lee 1995; Thrift and

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Leyshon 1994). These geographical takes on finance, focusing on (g)local centers, have prospered alongside a new “relational turn” in economic geography that was preceded by the cultural turn in the early 1990s. These relational approaches by economic geographers, influenced by social and anthropological studies, pay ample attention to cultural and social aspects of economic activities, stressing the importance of embeddedness, reflexivity, and networks in configuring the economy (Leyshon 1995; 1997; 1998).

As Leyshon (1997) points out, the geography of money and space has reached its “end-of-the-beginning” era, marked by a shift from traditional political economy approaches to cultural and anthropological interpretations of money. This shift produced alternative ways of interpreting global financial spaces to the preexisting, dominantly economic explanations based on the assumption of a “frictionless market.” Despite this epistemological shift, the study of global financial centers is still one of the main foci in geographical research on finance. This focus on global financial centers as agglomerations in the geography literature was, in a sense, externally imposed partly because of an urgency to respond to threatening non-spatial discourses such as the end-of-geography thesis. Recently, this focus on financial centers has been complemented by new research frontiers that have moved beyond *site*-oriented studies of global financial centers and started to apply *situation*-oriented concepts such as relationships, networks, and intermediation to studies of financialization and financial crises.

Financial firms, through their operations, produce two different but complementary geographies: financial centers and financial flows. While financial firms strategically locate their offices in particular cities and thus generate financial centers, they ultimately intermediate between investors and borrowers and create financial flows. It is thus necessary to extend our geographical imagination beyond financial centers, toward financial spaces of flows, or intermediations, in order to grasp the overall landscape of global finance. These are two highly related but distinct aspects of the geography of finance. Geographies of financial flows/intermediation provide a good complement to site-oriented research by pointing out the ways in which financial firms connect different places with each other through transactions between investors and borrowers. Existing studies on financial intermediation focus on the relationships between financial firms and their customers, with a few studies focusing on the relationships among financial firms in the domestic financial market. Yet no studies have examined cross-border financial relationships in global financial markets. As global financial transactions become larger and more frequent, it is increasingly the networks of financial firms, that is, credit syndicates, that intermediate financial flows. Along with spaces of financial centers, therefore, the geographies of financial intermediation both between financial firms and clients and among financial firms should be examined as an integral part of the overall landscape of global finance.

In this paper, I critically examine how geographers and other social scientists have developed research programs complementary to economic studies of finance by drawing on new relational concepts such as networks and embeddedness and how they have opened up new research frontiers. The paper is organized as follows. In section II, I critically examine the ways in which global financial spaces have been conceptualized in the mainstream finance literature and how these economic concepts were applied to studies of finance. In section III-V, I critically examine how new relational/cultural economic geographers have contributed to existing studies of financial centers, at the same time pointing out their limitations. In section VI, I explore an alternative research into financial space that pays more attention to relational

networks and power structures among financial firms and the macroeconomic impacts of financial flows. Last, I summarize the arguments and suggest a new research agenda that emerges from these considerations.

## II. *Space in the Mainstream Finance Literature*

Broadly speaking, there are three strands of research in economics and management that implicitly or explicitly tackle issues of financial spaces: international expansion of multinational banks, research on financial centers, and studies on the effects of distance on financial transactions. First, research on multinational banks has focused on two questions: why banks engage in foreign financial markets, and how they successfully compete against domestic players. In so doing, it focuses on the performance of foreign financial firms in host economies. While scholars tend to largely agree upon the existence of “unavoidable” or “extra” costs that foreign financial firms must face in the host economy (Hayter and Edgington 1997; Zaheer and Mosakowski 1997), empirical findings on their impact on foreign financial firms’ performance have been divided. Some suggest that foreign subunits or subsidiaries suffer from lower profitability compared to that of domestic ones, a lower survival rate (Zaheer and Mosakowski 1997), and a lower X-efficiency than local ones (Miller and Parkhe 2002). In contrast, others have found that foreign financial firms in London and Tokyo tend to outperform their local counterparts thanks to multinationality or global capabilities based on their global presence, experience, and relationship with the investor community that have enabled them to offer a full range of services tailored to the needs of local customers (Nachum 2003; Pohl 2002).

Researchers suggest that the intensity of foreign-local competition in the host economy and the regulatory distance of home-host financial systems are critical factors in determining the level of success of foreign financial firms (Zaheer and Mosakowski 1997; Nachum 2003; Miller and Parkhe 2002). In a sense, this attention to the impact of different institutional and competitive dynamics on the performance of international banks invites geographical intervention as it implies a relationship between firms’ international performance and the relational geographies of institutional systems. Furthermore, the recent trend of cross-border mergers and acquisitions and strategic alliances in the financial markets is casting doubt on the relevance of a simple view of financial space that is based primarily on a binary domestic-foreign framework (Budd 1995). These research findings suggest that we should disaggregate the analysis of financial firms beyond the simple dichotomy between foreign and domestic players in order to account for their performance variances across different national markets (Berger, DeYoung, Genay, and Udell 2000).

Theories of multinational banking also examine spatial patterns of multinational banks’ expansion by measuring and documenting the size of foreign assets/liabilities and office networks. The eclectic paradigm argues that these spatial patterns depend on generic sets of competitiveness factors—ownership-specific advantages, internalization advantages, and location-specific advantages (Dunning 1991, p. 117), whereas internalization theorists attribute them to configurations of global social, political, and economic relations (Williams 1997). Both approaches tend to focus on how industrial activities and other political economic conditions affect the ways in which financial firms organize their operational space rather than vice versa and on the strategies of a single financial firm without much consideration given to how the

strategic choices of a financial firm are tied to those of its competitors or collaborators. In addition, the empirical indicators used in these studies are not sufficient for analyzing the service industry, because banking as a service industry affects the economy through sales, employment, and transactions, rather than through the size of assets or location of offices (Dunning 1993). Despite their interest in space, these theories treat firms as agents that are exogenous to places and thus underplay the ways in which multinational firms evolve in place-specific ways and differ in their spatial and operational practices depending on their host economy (Dicken 2000).

During the last two and a half decades, the origin of international financial centers, their hierarchies and types, and their locations have been the subject of extensive research (Davis 1990; Gehrig 2000; Reed 1981; 1983; Tschoegl 2000). In his pioneering study, *The Formation of Financial Centers*, Kindleberger (1974) treats financial centers as “intermediaries” that carry out a “medium-of-exchange function” and “interspatial store-of-value function,” and stresses the efficiency achieved by economies of scale in financial centers (p. 6). Despite divergent views on what triggered the initial growth of particular financial centers, economists generally agree upon the importance of external economies in explaining the continuous growth of existing financial centers such as London and New York (Davis 1990; Gehrig 2000). They attribute the formation of different-sized financial centers to interaction between centrifugal and centripetal forces in sub-sectors of financial markets at particular localities (Gehrig 2000; Walter 1998). These financial centers of varying sizes constitute a global urban hierarchy, which reflects structural patterns of financial market activities or divisions of labor among financial centers (Campayne 1992; Reed 1981; 1983). These studies have facilitated our understanding of the economic rationale that underlies the rise of financial centers and their hierarchy while underplaying complex dynamics among financial firms within financial centers or relational dynamics among financial centers.

Despite their common characteristics as global financial centers, London, New York, and Tokyo are unique, each with their own constituents, unique customs, and market dynamics (Coakley 1992; Walter 1998). For example, international lending was dominated by European banks, accounting for over 55 percent, while U.S. banks dominated corporate finance, occupying eight of the top ten spots in the league table (Walter 1998). As is well known, Switzerland topped other centers in private banking (personal asset management), whereas London was the first in institutional management (Walter 1998). In case of the futures market, trading firms have traditionally been the main players in London, dominating over individual traders, while the Chicago markets have largely been dominated by local speculators (Zaloom 2006). Little is known, however, regarding factors accounting for these locational and territorial dynamics in individual financial markets, other than regulatory differences among financial centers. Even less is known regarding how internal market dynamics in individual financial product markets are related to the fortunes of financial centers. In addition to recognizing the interdependent nature of financial markets and external economies of financial centers as a site for multiple financial markets, we need to carefully examine the dynamics within individual financial markets and then tease out the linkages among them. Existing wholesale accounts of global financial centers need to be complemented with more specific accounts of how individual financial markets work within and across them.

In recent years, economists have also started to examine the ways in which distance affects lending and other financial transactions. In particular, economists pay considerable attention to

how regulatory and technological changes have changed the effects of physical distance in lending decisions and performance. Researchers are divided on this issue. On the one hand, it is argued that advances in communications technologies and such new institutional schemes as credit-scoring models have weakened the effects of physical distance in financial transactions, especially in markets where lenders rely on opaque information (Agarwal and Hauswald 2010; Berger 2003; DeYoung, Glennon, and Nigro 2008; Felici and Pagnini 2008; Petersen and Rajan 2002). For them, technological advances have improved lenders' access to information on opaque borrowers (for example, small firms) by hardening "soft" information (Petersen and Rajan 2002) or by introducing standardized credit-scoring models (DeYoung, Glennon, and Nigro 2008). In addition, new technologies have also expanded the geographical reach of bank entry decisions and led to the integration of distant local credit markets (Felici and Pagnini 2008). The negative effects of distance are expected to be overcome by augmenting organizational efficiency (Berger and DeYoung 2001). However, all seem to acknowledge the reduced but persistent effects of distance on financial transactions and the organization of financial institutions.

On the other hand, others argue that distance is still a critical factor in financial transactions, leading to localized financial transactions (Brevoort and Hannan 2006; Deng and Elyasiani 2005; Butler 2007). Brevoort and Hannan (2006) even argue that distance has become more important than ever as increasingly competitive pressures by distant lenders have forced local lenders to focus further on transactions with their local borrowers with whom they have an informational advantage over non-local lenders, and has thus led to shorter distances between local lenders and borrowers. Similarly, for the issuance of lower-grade or non-rated bonds, investment banks with local presence have an advantage over non-local banks as they maintain better access to "soft" information for these difficult borrowers than outside lenders (Butler 2007). In addition, the increasing distance between bank holding companies and their subsidiaries is likely to result in higher risk of failure for bank holding companies because the increasing distance is likely to result in the lower efficiency of internal control (Deng and Elyasiani 2005). They tend to stress the emerging dynamics that reinforce the effects of distance while underplaying the offsetting forces of technological advances against distance-induced disadvantage.

In summary, economists treat space as a deterrent to efficient financial transactions and idealize the "frictionless" space of arbitrage, thus downplaying the relevance of the "question of the locations of financial activity to issues of spatial arbitrage which are based on the different regulatory or tax treatment of financial transactions in different countries" (Gehrig 1999, p. 424). This space of arbitrage has forced financial centers to compete with each other to attract profitable business within their boundaries by equipping themselves with further liberalization and better technological infrastructure. In essence, these efforts have been made to minimize the friction of space in financial transactions and achieve a state of the "end of geography" (O'Brien 1992). In a recent reflection on the current economic crisis and responses, O'Brien reconfirms his teleological projection of global finance, underplaying efforts to reinstate the importance of regulatory frameworks to tame cross-border financial flows (O'Brien and Keith 2009).

### III. *Relational Turn and Geographies of Financial Centers*

Along with the provocative “end of geography” thesis, the relational/cultural turns in geography were critical in shaping the geographical research agenda in economic geography, including issues of money and finance, in the 1990s. Due to historical misfortunes, space was largely neglected in research on money and finance until Kindleberger’s (1974) research on financial centers and Harvey’s (1982) prominent research on the role of finance in a capitalist space economy (Martin 1999). Geographers, especially the new cultural/relational economic geographers of the 1990s, have addressed important theoretical gaps in this research field largely dominated by economists for the last few decades. They suggest that the current global financial system has become “more social, more reflexive and more interpretive” and established “dynamic and reciprocal relationships between telecommunication and context” (Thrift and Leyshon 1994, p. 311-2). As a result, liberalization and new information technologies do not lead to the end of geography, but to the emergence of fewer and more important financial centers. New cultural/relational economic geographers also have stressed the importance of the inner dynamics of financial centers in underpinning global financial flows, by showing how social relations among market participants within financial centers are crucial in the production of financial services. While geographers agree with economists on the importance of external economies in the geographical clustering of financial production, they also consider them as social processes (Pryke and Lee 1995). Finance is largely viewed a business of people that depends on spatial proximity for activities requiring direct and personal contact (Walter 1998). Pryke and Lee (1995) suggest that “the creation of networks of interpersonal and intercorporate communication and knowledge” is central to work in financial centers and is established through constant “reassessment of the parameters of trust, status and the suitability of partners” (p. 331). Thrift (1996) argues that the continued need for information, for expertise to interpret that information, and for social contacts that generate trust, information, and interpretive schemes together suggest a promising future for global financial centers and the financial firms located in them. Thus, the continued success of financial centers is attributed to the social and cultural nature of financial transactions, shaped and directed by distinctive sets of social relations and the availability of locally specific information, and constituted through social and cultural practices (Agnes 2000; Cobb 1999; Leyshon 1997; Pryke and Lee 1995; Thrift 1996).

However, spatial proximity does not guarantee better access to the information critical for new business opportunities. Every bank in London, for instance, has different networks of partners and customers that channel critical information to them and thus does not have the same accessibility to market information. A recent study voices a similar concern, suggesting the need to consider various types of proximity, such as organizational, cultural, and vocational proximity, between financial actors and their clients as they affect knowledge sharing for financial production (Grote et al. 2000). Therefore, it is important to examine how different actors in global financial centers negotiate these various types of proximity with each other and their clients to engage in financial production and contribute to the industrial ecology of global financial centers.

In a more radical way, Clark and O’Connor (1997) cogently suggest the importance of geography in the era of global finance, by arguing that geography still matters even under the

assumption of “the efficient spatial-economic integration of the global financial system” (p. 92). First, given the existence of time and space, there will always be systematic price differences, even in globally integrated commodities like gold, due to differences in market-specific information availability (Clark and O’Connor 1997). Secondly, while O’Brien (1992) suggests that the importance of geography in finance is confined to “marketing and delivery” and is not significant in financial production (p. 75), they argue that the importance of information in financial production and the spatial configuration of information results in uneven geographies of global finance (Clark and O’Connor 1997). By relating financial production with the informational contents associated within it, Clark and O’Connor (1997) stress the dynamics between financial products and their spatial scopes: three different types of financial product—transparent, translucent, and opaque—with the global, the national, and the local. The wider the market scope, the lower the information intensity and the less the expertise required, and the lower the risk-adjusted return. Despite its simplicity and limitations in practical application, this framework sheds insight into how geography plays a key role in the production of financial products and services at various scales and helps us think beyond the geographies of financial centers.

In a slightly different context, the development of offshore financial centers has also attracted geographers’ attention (Cobb 1998; 1999; Roberts 1994; 1995). Roberts (1995) suggests that the development of offshore financial centers illustrates the ways in which the global financial system has generated a new set of financial centers in an attempt to avoid crises and state regulation—a spatial fix. Thus, space is an integral part of the operation of global capital, not the “result of changes in financial system” (Roberts 1995, p. 253). In order to be successful, Cobb (1998) argues that offshore financial centers need to be linked to the global economy in three dimensions: *locational* links to the nearest global city; *functional* links to other offshore financial centers and international capital markets; and *regulatory* links to onshore jurisdictions. These studies also point out the vulnerability of offshore financial centers, suggesting that these small islands, like other financial centers, need to continuously adapt to the changing needs of international financial capital, and engage in entrepreneurial projects to compete with each other (Cobb 1998; Roberts 1994; 1995).

In short, geographical studies of global financial centers, onshore and offshore, have been largely confined to social dynamism among actors in sharing knowledge and establishing trust while rarely questioning the division of labor and power dynamics in the networks of financial firms in global financial centers. In other words, how financial actors with various levels of organizational, functional, and cultural affinity interact with each other and produce unique dynamism in these global financial centers remains an under-researched area.

#### IV. *A Global Sense of Financial Center?*

The continuing existence of financial centers, especially global ones, is definitely one of many possible geographies of global finance. The existing literature has, however, represented global financial centers in a limited way, stressing them as “sticky” sites of global finance rather than examining their constitution as global centers, that is, revealing their “global sense of place”—the ways in which place is connected to the outside world through various relational ties and networks (Massey 1991). The “global sense” of financial centers needs to be examined

through analyzing the ways in which these centers are connected to other centers through both local and non-local networks, rather than simply paying attention to hierarchical position as given by quantitative indexes.

There seems to be a gap between the ways in which global centers are conceptualized in existing studies and the ways in which they are analyzed empirically. Conceptually, global financial centers are constantly referred to as key nodes in *networks* of financial centers or spatial junctions of global financial *flows* (Beaverstock, Smith, and Taylor 2000; Sassen 1991). Empirically, the “global” status of financial centers is measured by site-based indicators, including the number of offices and the provision of high-order services in particular centers, or the earnings, assets, revenue, and the number of offices of internationally active large banks, or the foreign assets/liabilities held in particular centers (Campayne 1992; Reed 1983). The appropriateness of such indicators can be questioned on two grounds. First, the mere concentration of so-called internationally active banks, selected by size of assets, is not sufficient for defining a global financial center, since little is known regarding the geographies of these banks’ activities and their connections to different centers, except the size of transactions. Second, connection or services to other places are simply represented by foreignness, as measured by foreign assets/liabilities and activities in Euromarkets, instead of explicitly addressing the geographical linkages/contents in their transactions. In other words, it is not clear what is meant by “global” center, when quantitative indices do little more than differentiate foreign from domestic transactions.

The current state of this strand of research is closely related to data availability. Beaverstock, Smith, and Taylor (2000) suggest that previous research has failed to reveal the network itself due to a lack of relational data, and has instead accumulated substantial knowledge on the attributes of the world cities. A few studies provide limited, but useful, insight into how to overcome this hierarchical approach, using quantitative indicators of the interconnectedness among cities as a way to examine the status of financial centers (Beaverstock et al. 2000; Choi et al. 1996; 1986). Choi et al. (1986; 1996) examine the interconnectedness of fourteen financial centers (identified by Reed 1981) by counting offices established by the world’s largest banks, and examine possible macro- and micro-economic reasons for the attractiveness of major financial centers. Taking a very similar approach, geographers have recently examined intercity networks among fifty-five world cities under the assumption that intra-firm office networks reflect inter-city relations (Beaverstock et al., 2000). However, as Choi et al. (1996) point out, interconnectedness based on the number of offices can only be of limited value since it fails to recognize the depth and breadth that each foreign bank’s presence may have.

It is important to differentiate between the geometry of networks and the geographical content of networks. The former refers to the geometry of inter-firm linkages between different places, measured by the coexistence of office networks. The latter refers to geographical or territorial connections that result from transactions with other firms and clients. The two are related but distinct, unless we can assume that “the organizational geographies mirror the pattern of business” (Beaverstock et al. 2000, p. 59). For example, two financial firms with the same office networks may show completely different geographies in terms of the location/nationalities of their clients and business partners and their currencies. In other words, it is necessary to examine to what extent and in what ways financial firms in these financial centers connect with other places via their business relationships with customers and transactions with

other partners. These specific relationships and their geographies, embedded in global financial centers, may add a “global sense of place” to currently prevailing views of financial centers as being fixed in a functional hierarchy.

Like economists who focus on the net inflow and outflow of capital movement across boundaries, geographers often treat global finance as an overarching phenomenon, rarely providing any specific geographies of it. The existing literature implicitly suggests the presence of global financial spaces through the existence of global nodes, or through an annihilated space of circulation of portfolio investments and derivatives, where the amount, speed, and freedom of circulation are described as global attributes (for example, Sassen 1991; Leyshon 1995). It is important to pay attention to the specific nature of financial relationships in order to understand both the “partial, fragmented, deeply contested” nature of global financial space, as well as the social differentiation among co-residing financial firms in a particular financial center (Majury 1999, p. 29).

Recent studies in financial geography succeed in explaining how space matters in financial production processes, stressing the importance of local customs and locally embedded social networks in knowledge production in finance. However, few studies tackle global finance at a more structural and broader level, questioning how the current financial system channels money flows and how it is contributing to the current state of uneven development. This is in turn related to a lack of research on financial flows, with research instead concentrating on financial centers that have been a center of attention in neo-liberal policy discourse in financial competitiveness.

Financial space is an uneven socio-economic space, which is highly differentiated among stakeholders in terms of relationships, networks, and market positions. Geographers have paid little attention to the ways in which these differentiated factors determine the geographies of financial flows. There has been little research to date examining the specific geographies hidden in the relational networks of financial firms, such as how and with whom they cooperate and provide services, which in turn shape the overall geographies of their credit allocations. Geographers rarely question how the creation of geographical proximity, through cross-border penetration by financial firms, has influenced other cultural and social distances among co-residing financial firms in a particular center. Nor have they paid sufficient attention to the consumption side of financial markets, which seems to be important in understanding the power dynamics linking financial firms and borrowers in different world regional markets. For instance, Asian borrowers may be more likely to contact Japanese banks with a similar institutional background than U.S. or European banks, despite jeopardizing opportunities to obtain better deals with foreign banks.

Overall, the geography literature stresses the importance of locally embedded information for the social production of finance and the persistence of (g)local financial centers, as well as competitive opportunities for actors within centers. However, considering recent trends in financial integration, and the concentration of financial power through mergers and acquisitions, the urgent question to ask is who constitutes these different financial spaces, and furthermore, which major players control the financial markets and direct the financial flows. The other important question, in these times of transformation, is to what extent globalization has mapped a different landscape of opportunities for banks with different institutional backgrounds, particularly those from a so-called Anglo-Saxon market-based system versus those engaged in Asian relationship-based banking systems.

Recent research in finance geography has shifted its focus towards institutional dynamics in the globalizing financial markets, examining the ways in which institutional differences in corporate governance and pension funds are contested and negotiated through multinational financial institutions and how the power of global finance—reification of the Anglo-Saxon neoliberal financial system at the global scale—has led to transformations in European economies (Clark 2003a; 2003b; Clark and Wojcik 2007; Dixon and Monk 2009; Dixon 2010; Peck and Theodore 2007). These institutional contestations are also widely studied at the urban scale, stressing the importance of relational dynamics among financial centers embedded in different historical and institutional backgrounds (Engelen and Grote 2009; Beaverstock et al. 2007; Grote 2007). These studies have successfully challenged the flattening discourse on emerging neoliberal global capitalism and laid the foundations for further research into the variegated nature of global finance (Dixon 2010; Peck and Theodore 2007).

### V. *Social Space of Finance*

Since the late 1990s, geographers have participated in research efforts in social studies of finance, increasingly incorporating cultural and anthropological interpretations of financial markets that challenge the atomic view of actors in finance and stress the importance of socio-relational dynamics among various actors in financial markets beyond the efficient market hypothesis (Clark and Wojcik 2007; Knorr Cetina and Preda 2005; Leyshon 1995; 1997; 1998). Against economists' belief in the role of financial markets as an efficient mechanism of setting prices through arbitrage, controlling risk, and channeling capital, economic sociologists and anthropologists have suggested that transactions in financial markets are circumscribed by social relations and networks embedded in the market and by socio-technical arrangements (Abolafia 1996; Knorr Cetina 2005; Uzzi 1999; Zaloom 2003; 2006). For some, financial markets are "socially constructed institutions...as a result of the purposeful action and interaction of interdependent powerful interests competing for control" (Abolafia 1996, p. 8). Here, social networks, both between partner financial firms as lenders, and between financial firms and their borrowing customers, are central constituents of globally organized and socially engineered financial markets (for example, Uzzi 1999). For others, social aspects are not sufficient for understanding the dynamics of global financial markets as technical aspects have freed certain financial transactions from social constraints. In order to capture the reality, they suggest, it is necessary to examine the ways in which social aspects interact with new technical environments that range from the micro-design of the trading floor to the global architecture of the currency trading system (Knorr Cetina 2005; Zaloom 2003; 2006). In so doing, Miyazaki (2005) suggests that it is necessary to examine the "performative" quality of economic and finance theory rather than simply resorting to a quick critique of economic and finance theory, which is an inaccurate representation of the real market. MacKenzie (2005) suggests that we need to pay attention to the performative nature of finance theory, that is, how economic theory has shaped financial markets rather than just being used.

In many ways, these studies have provided new insights into how we examine financial actors and markets by introducing their socially embedded nature and mutually constitutive processes between the social and the technical. However, they tend to underplay the political nature of market actors and agencements as their focus on and attention to the use of economic

theory “serve to reinforce and reify the power of rational calculation as articulated in neoclassical economics” (Hall 2010, p. 5).

## VI. *Power in Relational Financial Space*

In *The Rise of the Network Society*, Castells (2000) argues that “our society is constructed around flows: flows of capital, flows of information, flows of technology, flows of organizational interaction, flows of images, sounds, and symbols” (p. 442). He presents the geography of these flows as rather unstructured, describing three layers of the space of flows—a circuit of electronic exchanges, its nodes and hubs, and the spatial organization of dominant managerial elites. He stresses the importance of the last layer and the “directional functions around which such space is articulated,” representing a spatial logic of domination (Castells 2000, p. 445). At the same time, however, Castells (2000) denies the structural effect of this power, suggesting that because corporations transform themselves into a web of multiple networks embedded in a multiplicity of institutional environments, power is “randomly exercised” (p. 210).

Against this socially sensitive but political ambiguous stance, geographers have made efforts to incorporate power into relational turns in geography. Allen (2003) and Yeung (2005) propose to treat power as emergent and relational effects rather than stocks, and stress the resulting particularities of power from relational practices in space and time. In other words, power is not separable from relational practices in which actors interact with each other to complete socio-economic transactions. In a similar vein, Sheppard (2002) argues for an approach to capture the social and geographical space of networks via (geo)positionality as an alternative way to enhance relational approaches in geography. He elaborates positionality as follows.

First, positionality is a relational construct; the condition of possibility for an agent depends on her or his position with respect to others. . . . Second, positionality involves power relations . . . in the sense that some positions tend to be more influential than others. . . . Third, positionality is continually enacted in a way that both reproduces and challenges configurations. (p. 318)

These points resonate well with Yeung’s (2005) suggestion that power is “encapsulated in *both* position and practice” (p. 45).

This emerging attention to power is very relevant to the development of financial geography, considering geopolitical struggles over financial and monetary policy initiatives in G-20 summits in the post-2007 crisis period and the restructuring of the global financial services industry driven by mergers and acquisitions, which has resulted in new sets of relationships among financial actors on multiple scales. So far, the outcomes have favored a few larger U.S. and European banks (Schwartz 2009; Seo 2004; Walter 1998). While the current state of global financial markets is characterized by unprecedented accessibility, driven by information technologies and liberalization, global finance seems to result in highly selective and uneven geographies of both financial centers and flows. These uneven geographies of global finance suggest how certain actors are better positioned to take advantage of the system. In order to understand this dynamic, it is important to examine existing power dynamics

embedded in the financial networks in global financial markets and their impact on the emerging geographies of financial flows and centers.

Space is an important element in understanding the power dynamics within networks of financial firms. Each geographical and product market presents particular financial firms with a unique power position in a given market, depending on existing relational ties or perceptions of market participants toward them. Financial firms do not always cooperate with the same partners or play the same roles in the market; they also change them, depending on their previous experiences with and information on particular clients and markets. Power dynamics among financial firms are not fixed, therefore, but vary depending on whom they partner with, who their customers are, and where they are located. For instance, while Japanese banks dominate in Asian financial markets, playing key roles based on their long-term business relationships with Asian firms, they may play minor roles in other regional markets and in relationships with non-Asian customers in Asian markets.

One characteristic that deserves theoretical scrutiny by economic geographers is the mechanism, and its specific details, by which space constitutes the changing landscape of relational space of finance, especially related to the production of financial knowledge and power. As French (2000) points out, relational assets such as knowledge and trust are neither necessarily specific to locally based networks nor fixed, but are constantly negotiated and re-evaluated in different spaces (French 2000). The recent volatility in global financial markets illustrates the potential fluidity of relational assets and the ways in which the spatial aspect of power dynamics among financial firms becomes important in understanding the evolution of global financial space. Financial shocks such as the Asian financial crisis in 1997 and a virtual economic recession in Japan have disturbed the existing power position of Japanese banks in Asian financial markets. Temporary withdrawal of Japanese banks from Asian financial markets has facilitated new relational assets for U.S. and European financial firms, providing opportunities for them to take over the position of Japanese banks (Seo 2004). Consequently, the existing relational assets between Japanese banks and firms in Asian markets have been replaced, to some extent, by the new relational assets of U.S. and European banks with Asian firms.

## VII. *Conclusion*

Despite a short history of geographical research on money and finance, geographers and related social scientists, mainly anthropologists and sociologists, have begun to contribute to research on financial firms and markets that economists have dominated for the last two decades. The increased attention to relational and network approaches within the geographical political economy is introducing a new excitement to this already booming literature. Theoretical arguments put forward in the geographical literature on finance so far have been sufficient for documenting the importance of understanding how the global financial landscape is driven by social dynamics among the different actors involved. In addition, an increasing number of studies are examining how global financial dynamics are shaping the fortunes of localities (Muellerleile 2009; Pike 2006; Swyngedouw 1996; Zademach 2009) and how post-crisis impacts have been experienced by different institutions and places (Beaverstock and Doel 2001; Edgington and Hayter 2001) as well as examining preliminary theoretical engagements

(Park 2001; Webber 2001).

For further research into relational dynamics among financial actors and their role in shaping the space of global finance, we require a different kind of information. As evidenced in the global city literature, the lack of flow and relational data remains a major hindrance to the practical applications of these new theoretical perspectives. Yet, while it is still hard to find relational data at the city level, ever-increasing uncertainty in the economy, especially the finance industry, has generated various commercial sources of information on financial markets, including detailed geo-referenced information on financial firms. Evaluation of new theoretical ideas in the geography of global finance, especially those in financial flows and networks, can be facilitated by the availability of such geo-referenced information sources on financial transactions. These data allow us to study how private financial firms interact, negotiate, and create power relationships in financial markets. A new space of global finance, constituted by specific geographies of financial networks created out of active negotiations and contestations among financial intermediaries, is emerging. Second, the specific geography of financial flows can be approximated by analyzing networks of financial firms: the origins of funds can be identified through the locations of participating financial firms, and their destinations, through the locations of borrowers. Such analysis of the geographies of financial flows may help to examine the ways in which private financial firms have affected uneven global development by channeling money into specific regions.

Revealing the geographies of global financial flows and their impact on regional economies can be a foundational work that has significant implications for future research into global finance. First, as suggested above, it helps to link the two geographies of financial firms, those of financial centers, and those of financial flows, which have largely been studied separately. Insights from existing studies direct attention to the different logics underlying these two geographies. These two geographies are definitely related but their inter-connections are rarely discussed. It is too early to produce a cogent argument on this matter. Second, a focus on financial centers has resulted in an illumination of the particular ways in which finance is related to the space economy. Actors tend to focus on how to promote (g)local economies by attracting diverse financial firms, along with a parallel discussion of the neo-liberal discourse on urban competitiveness. As a result, research efforts have ignored the overall impact of these inter-city competition-driven policies on the national economy. While a prosperous financial center may have positive impacts on the economy in general, as repeatedly pointed out in the existing literature, London's case also illustrates well the disassociation between the competitiveness of London's financial sector and that of the UK economy.

By extending our attention to the geographies of financial flows, we need to examine how effectively the global financial system intermediates the financial needs of different places and how the "real" economy is tied to financial economic dynamics. As Barbara Garson (2001) demonstrates in her book, *Money Makes the World Go Around*, every time money takes a different form and shifts its location in search of profit, it inevitably leaves traces in the "real" economy, in communities, and eventually in people's lives. It is this intimacy between financial flows and our daily lives that demands geographical scrutiny into global finance.

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