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# Money and Borders

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## Summary

Money and finance are often thought of as forming a uniform, frictionless global space. While events in the last decades have certainly showed how monetary and financial practices and events have consequences that span largely across the globe, such global reach of money and finance is far from evenly distributed. Rather, money flows and lumps unevenly across space, with the financial system connecting some places better than others, producing effects that are geoeconomic, sociocultural and material in nature. One productive way of opening the black-box of 'global finance' is by exploring money's manifold entailments with space and borders. Borders is here meant writ large. It means of course the geopolitical borders of the sovereign state and jurisdictional territory, showing how global finance is rooted in the contemporary architecture of states and international relations. But it means also attending to how lines in this cartographical space of geopolitical borders are rearranged, stretched, inflected through cross-border networks of actors, notably financial institutions, concentrated in key places of international finance. In this chapter, we bring to broader academic debate on money and borders a reading where the 'plumbing and wiring' of international finance is seen as entailed with practices of 'b/ordering' that 'dissolve' borderlands and connect space as much as they produce margins, edges and fringes. Thinking money and finance in terms of borders and frontiers help us understanding how money and financial markets (notably, credit-debt relations) materialize differently on both sides of financial inclusion and exclusion lines, with implications for the bodies that inhabit them.


## Problematizing the spaces and borders of money

The role and impact of financial institutions, markets and logics in shaping contemporary livelihoods has become painstakingly clear over the last few decades. After the 2001 attacks, George Bush, quickly followed by the United Nations, vowed to "starve terrorists of funding", bringing financial circulations surveillance to the forefront of security. Before the end of that decade, the burst of the US subprime mortgage bubble would dramatically change the residential and socioeconomic landscape of the country, with nearly 7.8 million home foreclosures between 2007 and 2016. As the financial crisis spread to Europe through transatlantic financial networks, the project of monetary and socioeconomic integration would repeatedly come to the brink of failure, with national economies caving under 'austeritarian' demands, pushing their youth to emigrate, and, in the case of the UK, even voting to leave the block. The years of austerity were also those of whistle-blowers and leaked documents unveiling the transacted, cross-jurisdictional schemes of offshore finance depriving national economies fiscal revenues and sustaining the very flows of corruption and terrorism financing that Bush and the UN had pledged to curb. At the time of writing, the lock-down of both home and national spaces in response to the outbreak of the Covid-19 virus has affected large swaths of the global economy and prompted stock market downfalls unseen since 1987, evidencing the ‘biofinancial’ excess of international health crises.

If finance has become a key entry-point into how global capitalism works, the ways in which it has been shielded as the ‘complex’, ‘technical’ preserve of economists and other ‘experts’ have been decried across the social sciences, particularly within the field of Sociology of Finance (Knorr-Cetina & Preda, 2005, 2012; Preda, 2009). From a geographical tradition, while contemporary money and finance appear, in the models and equations of economics, as flowing in a uniform, frictionless global space organized by supply-demand and rate of returns, this ‘global’ monetary and financial space is indeed variously entailed with a multiplicity of borders and frontiers.

Without entering conceptual and disciplinary debates around the notion of ‘border’, the aim is here to examine how money and finance deal in borders writ large. This means of course the geopolitical borders of the sovereign state and jurisdictional territory, showing how global finance is rooted in the contemporary architecture of states and international relations. But it means also attending to how lines in this cartographical space of geopolitical borders are rearranged, stretched, inflected through multiple ways in which finance “takes place” and connects specific sites more than others. Within and across geopolitical borders, finance demands and materializes other forms of connectivity as well as boundary- making, from networked financial centres to the indebted households and bodies in so-called subprime areas. This is a reading of money’s borders that is thus stretched to include how global finance entails multiple forms of delimiting, segmenting, scoring and ranking on which financial markets and accumulation can be grounded.

Forms of financial borders – or, as some geographers have put it, b/ordering (Van Houtum et al., 2005; Berndt & Boeckler, 2011) – help understanding how money and financial markets (notably, credit-debt relations) materialize on both sides of financial inclusion and exclusion lines, from the securitization and trading practices taking place at investment banks in New York or London, to the reliance on department store credit cards in impoverished neighbourhoods of Santiago (Ossandón et al, 2018). This brings us to broader academic and popular debate on money and borders a reading where the ‘plumbing and wiring’ underpinning the seemingly frictionless, effortless global space of finance is put in critical tension with its margins, edges and fringes, not as unpopulated, sterile monetary deserts, but as sites where bodies, monetary practices and social forms are constantly targeted and refigured as new frontier markets. Paying analytical attention to these spaces also contributes to critically position and, in that sense, hopefully enlarge geographical writing on money and finance from their still predominantly Anglo-American centres of intellectual and empirical production (Grandi et al., 2019; Mendes, 2018).

Crucially, the different spaces and forms of border- making and unmaking of money and finance examined here are not to be read scales but rather as different analytical lenses through which distinct forms of the relationship between money, finance and boundaries become visible. This multiplicity of analytical entry points reflects a rich and interdisciplinary tradition of geographical research on money and finance. While a genealogy of the subfield of geographies of money and finance is outside the scope of this chapter (see Leyshon, 1995, 1997, 1998; Hall, 2011, 2012, 2013) for comprehensive reviews of the field), it is worth to briefly link the analytical approaches – and, notably, changing imaginaries of borders, boundaries and spaces - that will be here reviewed to key 'turns' and inflections that have shaped it over the years.

Geographical writings on money and global finance emerge initially, to a significant extent, out of a dialogue with Political Economic work on the world monetary and financial orders following the demise of the Bretton Woods system. The state, jurisdictional borderlands and national and international regulatory frameworks thus organized the geographical vocabulary and spatial imaginaries of money and finance, even if geared towards accounts of globalized 'casino capitalism' (Strange, 1994).

Concomitantly, geographers pursuing a 'radical' turn within geography (Harvey 1982, 1990) by tracing market commodities to the situated social and material relations of their production have aptly argued for including money and the financial services industry into accounts of global production and value networks (Christophers, 2011; Coe et al., 2014; Seabrooke & Wigan, forth.). These network representations of money and finance in terms of chains and articulations between different actors geographically distributed have found particular analytical and methodological ammunition in parallel economic geographical research on service industries, particularly on the geographies of Advanced Business Services providers (Jones, 2005; Faulconbridge & Hall, 2008; Beaverstock, 2004). Benefitting from a tradition of work on World Cities and regional and urban studies, these engagements have contributed to effectively 'ground' money and finance in specific places of their making, such as archipelagos of International Financial Centres (IFCs) and offshore havens.

This relational turn in geographical accounts and imaginaries of money and finance was also importantly accompanied by a so-called 'cultural' turn, where attention turned from the functional articulations and complementarities between actors in financial networks towards the ways in which these are ultimately enacted through situated professional practices, knowledges and embodied subjectivities (Hall 2008, 2012, 2018). Drawing analytical tools from Cultural Economic work on how economic markets materialize amidst everyday life, culturally- sensitized approaches to the geographies of money and finance have brought nuance to the 'grounding' of money and finance, turning from the places of the financial industry to various everyday spaces where individuals' multiple entanglements with the financial system materialize as lived, practical realities. Central here are the credit-debt relations whereby individuals and households come to engage with financial markets as savers-investors or/ as debtors through the myriad of financial products (e.g. mortgages, pensions, insurance, consumption credit, etc.) whereby finance has permeated the boundaries of the private home, rendering it a site of financial accumulation and intervention. As such, financial geography has become much more than a mere study of the financial sector in the strict sense, even though such studies remain valuable.

While these imaginaries may work as finance capital ideals, realities are much messier. What follows offers a roadmap for thinking about money and finance in relation to borders and processes of boundary- making/ remaking by exploring four key spaces and borders of money and finance – the territorial state, financial networks, places of international finance, and the everyday. Rather than a programmatic or exhaustive reader of the field of financial geography per se, these should be read as heuristic devices for analysing money and finance's multidimensional entanglement with space in ways that might render analytically visible the variety of actors, practices and relations key to contemporary, finance- led capitalism (cf. van Meeteren & Bassens, 2016).

First, the nexus between money and the territorially-bounded state is considered. This means recognizing, from the outset, that monetary and financial institutions and activities happen 'somewhere' and are therefore necessarily linked to territorially-bounded sovereignty, institutions and resources. The section 'Financial Networks and Circulations' then moves to investigate the capacity of finance to re-organize and network space according to strategies of capital accumulation. Indeed, as has become clear, money also has an unusual extraterritorial reach and border-crossing character. Financial geographers have added much to the debate here, bringing in a range of studies on corporate and professional networks. Thinking money and finance spatially thus also means paying attention to the "obligatory passage points" (Bassens & van Meeteren, 2015) of global financial circulations. The section 'Places of International Finance' thus turns to the constitutiveness of place and key sites such as international financial centres and offshore jurisdictions in the making of such transactional space of 'global finance'. Fourth, since the very practices of financial actors and markets affect the larger economy and society, these places of finance, however, are but an expression of the much wider, variegated spaces of financialization. 'Spaces of Financialization' considers in this sense the variegated spaces wherein finance permeates the tissue of socioeconomic life. These include the penetration of the borders of the firm or the boundaries of the home by financial logics and tools such as shareholder value or credit risk scoring, rendering them sites of financial accumulation. Finally, the discussion is closed by considering new frontiers of contemporary monetary and financial forms. Developments such as seemingly 'stateless' cryptocurrencies, financial technology (FinTech), digital crowdfunding, or carbon credit markets are re-configuring the nexus between money, finance and governance and are putting pressure on social scientific understandings of value, power and, indeed, space and borders.

## Money, the Territorial State and International Financial Relations

The nexus between money, the territorial state, and the global financial order has undoubtedly marked geographers' earlier interest in financial geography (Thrift & Leyshon, 1988). The link between money and the state can be traced to the first State theories of money, which first noted that the sovereign's dual power to both levy taxes and mint the token accepted for paying them configured money as a critical technology enacting the territory of political authority (Goodhart 1998). As students of finance, we need to appreciate money's complex entanglements with political power and a transnational space composed of multiple national political economies. The spatial nexus between state power, money and global finance has been evidenced historically with the emergence of financial centres supplying credit for long-distance trade and financing the wars of foreign royalty (Arrighi, 2010 [1994]; Braudel, 1992 [1982]; Cassis, 2010).

Closer to date and leaving historical continuities aside, the seemingly unbounded global nature of early 21st century finance was enabled by the undoing of the post-war Bretton Woods system (1945-1971/3). Bretton Woods sought to stabilize the international financial system with strict capital controls and fixed exchange rates of currencies against the US dollar. It was vested in the post-war hegemony of the United States, but effectively came to an end in the early 1970s. In fact, the foundations for the "unbounded" character marking the global system from the last decades of the 20th century onwards were already put in place during the Bretton Woods period: As soon as the 1950s the strictly regulated "international" system was leaking with Eurodollar markets being run from international financial centres (London in particular) and offshore centres that served as primary spaces for "regulatory arbitrage" – i.e. finding and exploiting legal loopholes. Somewhat counterintuitively then, global finance is still anchored in bounded sovereign states that have opened their borders to the particular needs of global finance, often pushing regulations toward light-touch, low-tax approaches – a set of spaces that now also includes competitively regulated "onshore" economies such as Belgium and The Netherlands. With implications in terms of the meaning of 'regulatory space' (Dörry, 2017), what we observe here echoes what Palan (2002) has called the "commercialization of state sovereignty" in the face of global finance.

Influenced by insights from international political economy (Strange, 1994) financial geographers have acknowledged that the global financial system is more of a geographical hybrid with credit and debt increasingly circulate at a global level, whereas the means of payment remains grounded in currencies validated by territorially bounded nation-states (Leyshon 1995, p. 534). A key question is then how this global financial architecture is governed, the contemporary answer being that in effect there is no centralized space where this occurs. Despite Keynesian ambitions to create world money and despite the global reach of the International Monetary Fund, the World Bank, the G20, and key professional organizations such as the International Accountancy Standards Board, and regulatory bodies such as the Bank for International Settlements, there is no integrated regulatory space that governs finance (Leyshon & Tickell, 1994). The rise of global finance then also embodies a shift of power from states and governments towards international technocratic institutions and fora, and the emergence of a transnational business and financial capital class.

Global finance, then, in turn, wields significant power over the very territorial states that enable its existence. This paradoxical anchoring of global finance in territorially bounded sovereignty became evident in the eruption of the Eurozone crisis when national banking systems dragged down national budgets or, vice versa, poor national economic indicators threatened to wipe out the balance sheets of banks exposed to sovereign debt (Bassens et al., 2013; Lapavitsas et al., 2012). But the Eurozone crisis was but one iteration of the power of financial markets over territorial states. O'Tuathail (1997) argues that states feel the gaze of markets as their leaders take decisions as global finance has now installed what he calls a geofinancial panopticon: a space constituted by an amalgamation of financial media, market analysts, rating agencies, etc. Financial markets hence to a large degree exert power through governmentality: the self-disciplining of states to calm and regain trust of financial markets. Recurring crises have shown that such 'trust" is cyclical and can deeply affect states that depend on foreign capital. Historical examples include the less-developed-country debt crisis in the 1980s and the Asian crisis in the late 1990s. But, as austerity policies in the Eurozone to get public finances in order has shown, governmentality in the face of financial markets arguably is a more general phenomenon affecting all states that lack the "exorbitant privilege" of the United States to get indebted in its own currency (Eichengreen, 2010).

There is hence another sense of territoriality here that drives global finance. Namely, the ordering of asset classes and investment products on the basis of territorial geographies. The rise of "emerging markets" in Asia, the Middle East, Latin America and elsewhere since the 1990s is a key example of how national economies have been transformed into investor products (Sidaway & Pryke, 2000). As financial geographers have shown, the construction of financial markets hinges on dense professional networks that assemble knowledge about 'overseas' markets, but also construe discourses to funnel investments into what are risky asset classes (Lai, 2006). As Lee (2003) explains, financial intermediaries engage in processes of "Othering" and "disOthering" at the same time: investments in emerging markets is presented as different from other markets, yet at the same time in full adherence to the known premises of financial market development. Financial geographies of emerging markets (Bassens, 2012) or "frontier" markets (Dixon & Monk 2014) may question whether we are witnessing a geo-economic shift, but in fact the rise of these markets is mostly a channel through which money flows "downhill" from the Global North to the Global South.

Concomitantly, however, the rise of new geo-economic powerhouses such as Brazil, Russia, India, China, and South Africa (BRICS) and the enduring role of resource-rich states such as those in the Gulf Region in the Middle East, has made that money is increasingly flowing "uphill" as well. The 2007-2009 crisis which was initially mostly a North-Atlantic crisis saw an unprecedented influx of capital from the

Middle East into faltering companies in Europe (Haberly, 2013) building on a broader agenda of extraterritorial reach (Haberly, 2011). China in particular is at the forefront of such geo-economic shifts, with the Belt and Roads Initiative acting as the framework for capital investments in an increasingly widening sphere of influence (Lai et al., 2020), but also the growing extraterritorial role of the Renminbi (Töpfer and Hall, 2018). Financial geographers have been debating the geopolitical dimensions through the concept of sovereign fund capital (Clark et al., 2010). A key question in these debates is also to what extent such newly emerging financial markets adhere different value logics. One point of attention has been the rise of Islamic financial markets that marry finance to matters of Shari'a compliance (Bassens et al., 2011; Rethel, 2011). Insights from these markets are mixed, showing that Shari'a compliance is all but a singular notion, yet prone to ongoing debates and interpretation. Meanwhile Islamic financial markets, despite their alternative allure, are entangled with mainstay financial intermediaries and markets, as much as with speculative investments in the built environment and commodities.

As such, a final notion of territoriality comes into focus as we by now appreciate that financial geographies are all but singular. Hence, the acknowledgement that the configurations of monetary and financial systems vary from country to country, even from region to region, has called forth a geography of capitalisms. Often engaging with regulationist approaches and comparative political economy traditions, this strand has explored the territorially embedded inter-relationships that exist among financial structures, industrial organization and state regulation (Boyer, 2000; Stockhammer, 2008; Karwowski et al., 2017). The uneven fallout of the global financial crisis have motivated financial geographers' engagement with the concept and literatures on financialization (Pike & Pollard 2010; French et al., 2011; Sokol, 2013; Christophers, 2012; 2015), on the financial crisis (French et al. 2009), and on financial (re)regulation and imagined financial futures (Christophers, 2016). Central in such political economy approaches, is the extent to which finance has produced a "spatial fix" that has temporarily reconciled contradictions inherent in capitalism though an increased reliance on debt to fuel private and public investment (Krippner, 2011; Streeck, 2014).

## Financial Networks and Circulations

Money is a political economic technology backed by, as well as territorializing the reach of state authority and power. This ability to circulate across distance and notably geopolitical borders, thus featuring in transnational 'money games' (Agnew, 2009), is constitutively linked to the financial system providing its 'plumbing and wiring' and which, as also examined above, can take various institutional and regulatory configurations. Money flows and 'lumps' (Martin & Pollard 2017, p.24) unevenly across these variegated geoeconomic and institutional landscapes, as financial circulations flow differentially through some places rather than others, forming a transacted space of financial networks where people and places become differently connected to the financial system. More concretely, bulge bracket banks, other financial institutions and leading business services firms are some of the most globally active corporations, investing globally, but also marshalling office networks spanning the globe (Taylor & Derudder, 2016). Meanwhile, financial executives, bankers, brokers, consultants, analysts and other well-remunerated professionals form a globally connected community operating from and travelling between financial centres (Beaverstock, 2002).

Observing these networked geographies, geographers have called for 'following the money' (Christophers, 2011; Gilbert, 2011) through social and spatial pathways in order to make analytically visible this networked space of financial circulation and accumulation in the same way that a tradition of global commodity chains and global value chains had already been doing for production and consumption goods. Echoing a 'radical' turn within economic geography that furthers David Harvey's manifesto to defetichize commodities, a key concern has been indeed with how financial circuits of value stretch over space as these are interlaced and intertwined with, and extract value from the wider global economy (Lee et al., 2008). The field is in fact driven by an interest in both understand fixity and flux, the agglomeration of money (and its operators) in specific places and the networked connections or flows of money, people, knowledge between spaces. The focus on flows is quite intuitive when broaching the analysis of money yet has posed quite some methodological issues. The tracing of the trajectories of money would indeed allow to demystify the uneven socio-social relations money as a commodity reproduces. Such geographies would then allow unpacking the black box of the abridged Marxian M-M' formula where money simply begets more money (Christophers, 2011).

Thus far, analytical attempts at following the money have not been scarce. Seminal here has been the notion of the global financial network emerging from an attempt to integrate finance into the global production network framework (Coe et al., 2014). This has allowed to foreground key sites of money's circulation and has also helped to theorize the connections between production spaces and the world of global finance. Such a relational perspective does not stand in isolation yet is mirrored in other type of chain-based or network-based approaches. The notion of the investment chain has been a useful analytical tool to understand how institutional investors download standards onto markets (Hebb & Wojcik, 2005). It is a prominent notion beyond geography per se (Arjalies et al., 2017:4) where the concept strives to unpack "the sets of intermediaries that 'sit between' savers and companies or governments, along with the links between those intermediaries". The notion of investment chains has steered empirical analysis of the social networks connecting investment banks in underwriting syndicates (Pazitka et al., 2019), while others have unpacked the spaces and actors involved in the issuance of financial products (van Meeteren & Bassens, 2016) unveiling networks geographies between financial and offshore centres.

But geographers have sharpened their conceptual tools further. Struggling with the opacity of financial circuits of value, scholars have turned to other sources of data that can serve as an approximation of the operational geographies of finance. World city network research for one has offered model-based approaches to mapping and measuring the centrality of cities in the global economy more widely. Rather than tracing actual monetary flows, they have sought to model the interurban connections supported by globally operating firms in finance and auxiliary advanced producer services (APS) in advertising, accountancy, law, and management consultancy (Taylor & Derudder, 2016). The collective body of studies on the geographies of the world city network approaches support a remarkable stability of a key set of networked international financial centres (IFCs) – the dyad New York – London in particular - and a complementary rise of Southeast Asian cities (Derudder et al., 2010). World city network approaches have also been useful in explaining the relational growth of emerging IFCs in the Middle East as nodes on Islamic financial circuits (Bassens et al., 2010). Firm networks are then a powerful empirical entry-point into the operational geographies of global finance, for instance when complemented with qualitative research into the role of financial market intermediaries in the construction of emerging markets (Lai, 2006) and semi-peripheral nodes in the world city network (Krijnen et al., 2016).

Finally, while network and chain accounts of finance have undoubtedly contributed to 'defetichize' money by following how it flows and lumps like mercury (Clark, 2005; Martin & Pollard, 2017) in the key nodes of financial system, critical nuance has been introduced by approaches querying this interconnectedness in terms differential degrees and forms of financial inclusion and exclusion. Global financial networks should not be seen as zero-width lines, but rather in terms of multiple smaller, distinctive ecologies of financial services production and use, whereby individuals and households become more or less financially included or excluded "depending upon their social, economic and geographical location" (Leyshon et al., 2004, p.626). Accordingly, the middle to affluent clients of financial advisors in Singapore (Lai, 2016), or the constellations of wealth managers, asset managers, tax planners and legal advisors serving London's international High and Ultra High Net worth clientele (Beaverstock et al., 2013; Santos, 2018, forth.), configure distinctive ecologies of financially 'super-included' individuals, (often multiple) financial institutions and products, trust and knowledge. These contrast sharply with the ecologies of door-to-door retail insurance and credit sale, payday lenders, debt collection firms, and credit score literacy programmes keeping debt attached to 'riskier' poor to middle income groups across the UK and US (Leyshon et al. 2004, 2006; Deville, 2015; Kear, 2017; Langley et al., 2019). In even further edges of global financial networks, one finds the ecologies of debt that co-materialize with and across jurisdictional boundaries in the Occupied territories of Palestine (Harker, 2017), or the reliance on supermarket and department store credit cards and loans by poorer consumers in Chile (Ossandón et al., 2018).

An ecological approach thus augments network spatial imaginaries of finance beyond its obligatory passage points by rendering visible segmenting lines and discontinuities within, around and across the borders and territories of national political economies and World Cities/ IFCs considered previously.

## Places of International Finance

Focusing on financial networks and ecologies evidence how money “flows like mercury” (Clark, 2005) and ‘lumps’ (Martin & Pollard, 2017) in certain places more than others. Prominent among these, have been the key, larger International Financial Centres such as New York, London, Frankfurt, Tokyo or Hong Kong, joined in the early 21st century by competing runner-ups like Singapore, Shanghai or Dubai. But also less ‘visible’ places like Jersey or the Cayman Islands, and other places of offshore financial practices and accumulation. Here we turn to the territorial formations known as financial centres, where pools of private capital, financial market structures and institutions (e.g. banks, exchanges, clearing houses), knowledges and regulatory resources concentrate to variously enable processes of de-bordering of finance.

These places of global finance have since long merited the interest of International Political Economy and Comparative Political Economy, in terms of their role in organizing credit practices and polarizing shifting power relations in world financial orders (Braudel, 1984; Helleiner, 1993; Arrighi, 1994; Langley, 2002; Cassis 2010). In this context, distinctions have been made between World Financial Centres and national and regional financial centres, with the former drawing their status from their centralisation of capital read as historical expression of the hegemony of their respective national political economies as world centres for commodities exchange. This lens has been used to read the historical development of Amsterdam and London financial centres, and the shift in power between them as expression of the relative dominance of the Dutch and British empires respectively.

Another key distinction along which financial centres have been read as places where global finance is done has been between International and Offshore financial centres (IFCs and OFCs). Crucial to our discussion of borders, the boundaries between onshore and offshore spaces do not necessarily correspond to visible territories and sovereign national borderlands (although that might be the case), but rather to different positions within the regulatory space of the state where some delimited enclaves enjoy a regulatory exceptionalism or autonomy whereby some regulations and taxation are withheld (Palan, 2002; Langley, 2002). Key examples include the relative regulatory autonomy enjoyed by “the square mile” of the City of London (and its role in funnelling international capital to the offshore archipelago of British crown dependencies and overseas territories), or the legal and monetary offshore status of Hong Kong (and, similarly, its role as gateway between mainland China and international capital).

Within financial geography, places of international finance have received interest in terms of this role in articulating the onshore-offshore spatial nexus of capital, as well as in terms of their nodal, modular relation with financial networks and value chains, as APS complexes (Wójcik, 2013, Bassens et al., 2020). But while there has been a large emphasis on the networked dimension, issues of place hence remain key to explain financial geographies. Drawing on a wider economic geography appraisal of “institutional thickness”, such synthesis was already offered early on by Amin & Thrift (1992) who made a plea to conceive of financial centres as neo-Marshallian nodes in global networks. Critical here are the proximity effects and relational networks creating opportunities for business and functional complementarities but also (re)producing financial and business knowledges (Beaverstock, 2002, 2004; Hall, 2008, 2009).

The success of places like The City of London hinges on both the agglomerated resources in place and the networked relations to a global financial community allowing the interpretation of a tremendous flow of financial noise. Somewhat paradoxically at times of the alleged erosion of space amidst globalization, the scholarly consensus is that in its drive to overcome space, finance in fact depends on being embedded spatially in a discontinuous archipelago consisting of international financial centres and offshore jurisdictions connected up by finance and a host of other APS. This position echoes parallel views on the centrality of financial intermediaries and a range of advanced producer services (APS) that have surfaced in political economy readings of world-city formation. In such readings, APS have been hypothesized as “obligatory passage points” for the realization of capital in the global economy (Bassens & van Meeteren, 2015; cf. Allen, 2010). Put differently, to act and invest profitably in the global economy, one is very likely to draw on the specific inputs – credit, but also financial and other “expertise” – provided by such intermediaries that operate in and produce archipelagic spaces tying together different territorial jurisdictions.

Research on tax avoidance/evasion and more broadly offshoring has been a clear area where such archipelagic structures are paramount (Harrington, 2016; Aalbers, 2018). While geographers had looked with some curiosity at the origins of offshore havens in the bosom of the post-war Bretton Woods era (Roberts, 1995), the debate took mostly place outside of geography, stayed limited to a few studies on elite tax evasion (Beaverstock et al., 2004; Wainwright, 2011) only to enter the field with force in the aftermath of the 2007-2009 crisis. Geographers interested in the origins of the crisis turned to the geographical sources of instability and risk in the global financial system, delving into the spread of key innovations such as securitization. This technique of packaging debt was typically organized through special purpose entities set up by banks in offshore havens and affected both core and emerging markets (Aalbers et al., 2011; Bassens et al., 2013; Wainwright, 2009). Meanwhile, APS have also worked importantly to match and connect jurisdictions to create tailor-made solutions to their clients resulting in the offshoring of corporate wealth with lead firms of today (Hendrikse & Fernandez, 2019; Seabrooke & Wigan, forth.).

Financial networks thus rely on the situated interpretative communities that collectively make sense of increasingly complex products and practices and reduce the uncertainty of financial markets for corporate and private clients (Clark & O’Connor, 1997). These are supplied via transnational circuits of elite professionals, championed by multinational corporations circulating their senior executives across key sites (Beaverstock, 2002) and leading recruitment firms acting as gate keepers to elite labour markets (Faulconbridge et al., 2009). These networks play a key role in sedimenting epistemic communities through embodied practice and skills – a role that is further supported and indeed formalized by the concentration of financial and business education programmes and institutions around these ‘capitals of capital’ (Cassis, 2010; see also Hall, 2008; Hall & Appleyard, 2009). Animated by these shared backgrounds and embodied knowledges, highly skilled, internationally mobile financiers, corporate lawyers and accountants thus enable a ‘local buzz’ (Bathelt et al., 2004) of formal and tacit knowledge and information circulation and exchange across professional, as well as social and leisure spaces.

## Spaces of Financialization

Tracing the space of ‘global finance’ to APS articulations and sociotechnical financial practices and cultures concentrated in IFCs and Offshore jurisdictions has certainly been critical to unpack the nexus between the borderlessness and placeness of money and finance. However, a disproportionate focus on these sites risks fetichizing them as the exclusive precincts of money and finance (Hall, 2018). Beyond the territorial limits of World Cities, the ‘Chinese walls’ of investment banks or the frames of traders’ screens, the ways in which the *bodies* of individuals, firms and households come to be (dis)connected with the financial system through different financial markets and institutions is manifold. In order to grasp them, we must shift “from money and finance as an object of geographical analysis to finance as a lens through which one can look at other issues” (Aalbers, 2018). The concept of financialization has been used across the social sciences to take stock and make sense of the multiple guises and dynamics whereby financial motives, markets, tools, institutions, etc. insinuate across social life, from the state, to corporate governance, to how individuals relate to the future through saving and investing (Van der Zwan 2014; Mader et al. 2020), while economic geographers have called for more explicitly ‘spacing’ (French et al., 2011; Pike & Pollard, 2010) and ‘grounding’ (O’Brien et al. 2019) financialization.

As a part of a wider shift to shareholder value management, finance has permeated the boundaries of both financial and non-financial corporations, shaping their business activity and strategies, as well as organizational and managerial cultures and practices according to the logic of shareholder value and other metrics of financialized valuation (Lazonick & O’Sullivan, 2000; Froud et al., 2006; Erturk et al., 2008). Crucially, the question of the enfolding and reorganization of corporate settings and managerial culture by financial logics and processes is closely entwined with the question of capital, its edges, and how these are expanded through techniques of assetization, i.e. the rendering all manner of things into future income streams (Leyshon & Thrift, 2007; Birch, 2017; Ouma, 2018; Muniesa et al., 2017). Combined practices of privatization, securitization and capitalization (i.e. leveraging debt against future income streams as source of financing) bring forward key landscapes and frontiers of financialization. One key illustration is the incorporation of drilling/ mining and farmland into financial circuits of value as an alternative asset class attractive to institutional investors and asset managers (Mezzadra & Neilson, 2015, 2017; Ouma, 2016). This insinuation of the logic and tools of financial valuation has intensified and expanded the extractive and logistic ‘operations of capital’ (ibid.)

involved in the "forced removal of raw materials and life forms from the earth's surface, depths, and biosphere" (Mezzadra & Neilson, 2017, p.185). This neo-extractivism (ibid.) reveals a rent- seeking character of expansive, 'frontier' financialization (Langley, 2018), where ultimately it is the very material conditions of collective life that are targeted as privileged site of accumulation.

But financialization is all but limited to the corporate sphere as such. As was hinted at above, the past few decades have witnessed an increase in the power of financial markets and institutions over the state, democratic rule and public policy-making. This has been demonstrated in the tax-payers bail-outs demanded by 'too big to fail institutions' following the Global Financial Crisis, followed by the sovereign debt crisis and austerity policies demanded by private capital markets and credit rating agencies. But finance has also enclosed social security systems and revenues from national resources such (e.g. oil, gas) into financial structures such as sovereign wealth funds. Meanwhile, public debt is increasingly dependent on financial instruments such as derivatives for managing interest rates and risk (Hendrikse & Sidaway, 2014; Lagna, 2015; Deruytter & Möller, 2020). Public infrastructure, utilities, and services such as household water supply, electricity grids or sewage systems, care homes, and the likes act as sources of (monopolistic) rents for financial capital (Allen & Pryke, 2013; Langley, 2018; Deruytter & Derudder, 2019; Pike et al., 2019).

The financialization of the state has been matched by the growth of institutional investors such as pension funds and insurance companies, signalling deeper finance-life imbrications. As noted by literature on financialization and everyday life (Martin, 2002; Aitken, 2007; Langley, 2008; Van der Zwan, 2014; Haiven, 2014; Deville, 2015; Lai, 2017), the decline of defined benefit pension schemes, retrenchment of public welfare provision and pervasive precarization of employment form a context where financial markets have come to feature as vital to securing life and the future. Finance has thus captured various sites and spaces of production and work in the shape of remuneration packages and occupational pension schemes closely tied to financial markets (Langley, 2008). Through the calculative and screening techniques of portfolio allocation that "construct risk as an opportunity to be embraced" (ibid., p.17), private pension and investment insurance arrangements recalibrate wage earners as rational, self-reliant, risk-embracing investors. But these new 'everyday' saver-investor financial subjectivities have also been activated through policy initiatives aimed at variously assembling financially responsible individuals: from popular investing campaigns and financial literacy programmes (Aitken, 2007; Langley, 2008; Kear, 2017) to professional standard setting for those providing financial advice to consumers (Lai, 2016).

In this context of assembling asset- minded subjects, the 'private home' emerges, alongside pensions, as key site whereby financial markets and institutions harness onto individuals' everyday lives. The role played by the built environment and urban space in providing financial capital with opportunities for accumulation has merited attention within geography and urban studies since the writings of Henri Lefebvre (1974) or David Harvey (1982). But it is the context of the asset- based welfare regime (Finlayson, 2009; Doling & Ronald, 2010) mentioned above that housing and real estate surge as a key asset class to home owners and mortgage providers, but also institutional investors and high net-worth individuals (Fields, 2018; Fernandez et al., 2016; Atkinson, 2020). More precisely, it is after the Global Financial Crisis that a boom in empirically detailed accounts from diverse geographical contexts exposed the financialization of housing and house financing markets in terms of discrete practices of mortgage debt securitization, or the re-organization of social housing and foreclosed properties as an asset class for private equity and hedge funds (Aalbers, 2011; Wainwright & Manville, 2017; Fields, 2018).

The enfolding and refiguring of housing as an asset class thus entails the activation of investor subjects but also of borrowers and credit-debt relations (Langley, 2008; Lazzarato, 2012; Deville, 2015). Central to this have been the credit history and scoring tools and techniques assessing the creditworthiness of credit applicants and reflecting it on the pricing of mortgage but also personal finance products like unsecured consumption credit or payday lending (Poon, 2009; Langley, 2014). As an extensive literature on financialization and indebted life has documented (ibid.; also Deville, 2015; Kear, 2017; Langley et al., 2019), the use of credit histories and scoring by credit providers (but also creditworthiness- minded consumers) has fuelled the expansion of (niche, unsecured) credit markets, from consumption credit to payday loans, thus re-organizing a variety of everyday spaces and relations as sites of debt management and financial reckoning. Furthermore, pervasive data collection and mining technologies and, notably, personal finance online tools and mobile apps has greatly intensified the ways in which credit-debt relations have been made attached to borrowers (ibid.), as well as the extent to which ‘all data is credit data’ (Aitken, 2017). The coupling of data tracing and mining technologies with personal credit-debt relations has thus configured a particular ‘algorithmic’ way of financial markets ‘seeing’ (Kear, 2017) beyond the boundaries of economic value of house assets or personal income to monitor and factor in everyday budgeting habits, spending choices, timely or delayed payments, etc. (ibid). This has shaped how individuals ‘learn to make themselves up’ in relation to financial markets through ‘self-datafication’ (ibid.).

Financial risk and value become yet further inscribed onto individuals through the private health and life insurance schemes rising in the context of eroded public of healthcare provision. In effect, as the future becomes an individual responsibility to be met privately through financial markets, new products and insurantial practices emerge that are explicitly attuned to the ‘body’ as site of ‘biofinancial’ accumulation (French & Kneale, 2009, 2012). Through lifestyle queries and other data collection devices, medical and social metrics such as BMI, exercising habits, or alcoholic and smoking units work within insurance policies to stabilize the boundaries of the ‘insurable’ body, pricing its ‘excesses’ and ultimately making healthcare differentially accessible and costly to different embodied subjects. Far from an abstract force, our review of the spaces of financialization has hoped to elucidate that there in fact seems to be few borders left between finance and crucial domains of human life.

## Concluding remarks: Frontiers of Money and Finance

*"Reinvent money. Transform the global economy. So people everywhere can live better lives." (Facebook's Libra project unveiled in June 2019, as reported by the Financial Times)*

*"A simple global payment system and financial infrastructure that empowers billions of people" (Facebook's Libra project website 2020)*

First introduced in June 2019, Facebook's project for its digital currency Libra configures an interesting plateau for closing our discussion of money and borders. Toned down from its original pledge to 'reinvent money' to a payment infrastructure designed to complement, rather than replace 'fiat currency', questions arise as to the 'stuff' of moneyness that tech and data giant Facebook could not replicate and ultimately had to relinquish. As it unfolded, the rather underwhelming Libra tale resonates strongly with the case made here for the constitutive role of space and borders in the (re)production of contemporary money and finance, while also offering important insights into how those entanglements are being reconfigured (rather than surpassed) in the context of recent developments.

At any rate, Libra's aborted monetary revolution confirms the 'stickiness' of the jurisdictional territory and borders, even if French finance minister Bruno Le Maire decried it as a 'threat to national sovereignty'. Interestingly, national governments and international regulators' distaste for Libra's original self-pitch as money has similarly been read as reflecting national preferences for having incumbent banks adopt themselves many of the technologies and models underpinning Libra as well as other 'digital disruptors', thus keeping them as (easier to regulate and supervise) main conduits in the new 'magic tree of digital money'. Gaining momentum since Libra's announcement, the topic of central bank digital currencies, and the 'joint-venture' rallying the central banks of Japan, Britain, the Eurozone, Sweden and Switzerland around the Bank of International Settlements, suggest that the nexus between money and state power and borders is unlikely to radically halt, nor be fundamentally disrupted by digital transformations of money and finance.

The Libra case, as well as other developments in terms of the intersections between money, financial services and digital technologies, configure an interesting vantage point for critically closing an enquiry on the multiple dimensions of the link between money, borders and space. Global finance can only materialize as concrete shapes, practices and relations within the context of particular institutional configurations embedded within, and specific to national political economies. This does not mean that central governments are in charge of a 'magic tree of money'. In a 2017 poll reported by campaign group Positive Money, an overwhelming majority of 85% British MPs reported believing that money was created by the Bank of England and Royal Mint, where in fact 97% of new money is created in the form of loans booked by commercial banks. Rather, the 'magic tree of money' is placed in the hands of financial institutions which entertain distinctive relations with several actors (i.e. state, firms, households) parameterized by institutional and regulatory frameworks, with consequences in terms of how these different actors become differently empowered.

Reversely, finance features centrally in geopolitical power struggles, meaning that geopolitics is in fact embedded in the realm of global finance. China's recent halting of the London-Shanghai Stock Connect, the market protocol and infrastructure enabling cross-border listings in RMB between the Shanghai and London stock exchanges, as a result of UK government criticism of China's handling of demonstrations in Hong Kong[i] is perhaps a recent textbook example of how financial system setup features in 'transnational money games'. Beyond international financial and trade relations, moreover, the integration of the financial system with what Marieke de Goede has called 'chains of security' (2018) shows yet another iteration of the co-constitution of money and borders. Indeed, the surveillance of the global financial messaging company SWIFT in search for and reporting of 'suspicious transactions' and 'dirty money' illustrates how the entanglement between money, finance and digital surveillance and data mining technologies have come to feature in national and international security and enacting the reach of state power in ways that bend the cartographical space.

As the Libra example shows, financial networks and places are being reconfigured as well, notably through developments such as 'innovation hubs' or 'regulatory sandboxes' designed to attract Fintech innovators using digital and online applications in financial services. The geographies of FinTech add nuance to the fluidity/fixity debate around financial networks, begging attention to the potential effect of digital disruption on the geographies of the global financial system. Quite often disruption is thought to manifest itself as disintermediation with dire consequences for incumbents (banks), but also for the future of financial centres. Geographers have found that incumbents set up ecosystems to embrace fintech start-ups and their innovations (Hendrikse et al., 2019; Langley & Leyshon, 2017), while state, finance, and tech engage in new acts of strategic coupling to gear up their financial centres for a digital future. Even though empirical research is piecemeal, first evidence suggests that fintech has not triggered a radical disruption of the current networked hierarchy of financial centres. Rather, digital finance in fact accelerates the current networked use of onshore and offshore jurisdiction in ever more efficient ways. What is becoming clear, however, is that the shift to digital finance has augmented the relevance of data in global financial circuits, a theme which has gotten little research thus far, but most likely new forms of geo-political strife. Further, the inroads of Big Tech companies from the US and China suggest that new realignments with territorial or macro-regional interests could be around the corner (Zhuboff, 2019; Gruin, 2019; Töpfer, 2018).

Crucially, if digital technologies are shifting financial networks as well as the face of territorially concentrated agglomerations of APS, causing money to leak from financial centres to Silicon Valley, developments such as personal finance apps or crowdfunding platforms (Langley & Leyshon, 2018) are also recreating the ecologies of individuals' connectedness with the financial system as new spaces of financialization. Indeed, whereas the techniques of collateral valuation and credit risk scoring have drawn boundaries segregating contrasting geographies of financial (high net-worth) inclusion and exclusion (Aalbers, 2011; Leyshon et al. 2004, 2006), it has also become clear that recurring investor appetite for riskier, higher-yield assets has the capacity to reach for and work across those ‘redlined’ edges of finance. Subprime mortgages and other forms of ‘fringe finance’ (Aitken, 2015) like micro-credit, micro-insurance, peer-to-peer lending or payday loans thus show how the borders and edges of finance are not ‘zero width lines’ (ibid.) but dynamic spaces hosting ‘the most intense practices’ (ibid.) that both realize and manifest the inherently expansive character of global finance (Strange, 1994). Of particular concern is then how, through the international circuits of finance, ‘money at the margins’ (Maurer et al., 2018) materializes as “formalized financial practices systematically designed to extract value from (…) the vulnerable bodies that exist at those edges” (Aitken, 2015:4).

To conclude, the ongoing digital shift in global finance is heralding an ever more encompassing influence over the everyday life of both us, the authors, and you the reader. We may hope that the here presented analytical framework offers the right tools to navigate the constantly shifting landscape of global finance.

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[i] Financial Times, January 2020; https://www.ft.com/content/c5dfa1c0-2d3e-11ea-bc77-65e4aa615551