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ABSTRACT
Innovation studies rarely incorporate finance in their analysis, although productive innovation and economic development require efficient allocation of financial resources. Complex financial vehicles other than banks increasingly fund global economic activity. These innovative, yet 'dark' financial entities service the shielding of private – not public – wealth, and challenge the positive notion of financial innovation as they help cement socio-spatial inequalities. We illustrate how legal structuring benefits (from) the commercialization of state sovereignty and the finetuned work of finance-cum-law that have long shaped the business model of leading financial centres; a legacy difficult to disengage from in times of financial sustainability imperatives.

KEYWORDS
legal structuring; financial innovation; international financial centres; commercialization of state sovereignty; legal geographies; international tax planning

JEL F65, G2, K, L1
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1. INTRODUCTION

Despite frequent financial crises and omissions in the global offshore/onshore networks of finance, international financial centres (IFCs) continue to morph into economic powerhouses and regional growth poles, thus suggesting the potential of and for financial innovation. However, cities and regions that host IFCs do not always benefit from the promises of income rises typically associated with innovation-based economic growth, not least because finance-based growth is unequally shared (Sunley et al., 2021). Cities with strikingly successful IFCs, such as London, New York and Hong Kong, have witnessed skyrocketing house prices and living costs. It makes meeting ends difficult, even for middle-class households. Refuting longstanding aspirations for social equality, these crucial negative consequences linked to financial innovation (Christensen et al., 2016; Dörry, forthcoming) formulate this article's puzzle.

IFCs – commonly dubbed the production sites of finance – host large clusters of financial corporations, including banks and non-banks, but also auxiliary services such as financial brokers, dealers, insurers, law and accounting firms. They can be grouped under the umbrella of financial and advanced business services (FABS) firms, which together form vibrant economic ecosystems (Auerswald & Dani, 2018). To date, financial geographers have provided valuable insights into the global architecture of IFCs, such as the positioning of FABS firms via functions-cum-location heatmapping techniques (Storme et al., 2019), IFCs' placing vis-à-vis major world cities (Derudder & Taylor, 2005) and the interplay of IFCs with offshore and onshore characteristics (Haberly & Wójcik, 2015; Wójcik et al., 2022). Although these mapping exercises present impressive structural results, they often lack further explanation regarding their formation, for example, key mechanisms that define and maintain these networks. This article addresses this gap, including the 'paucity of insight into the role of specific jurisdictions in mediating offshore capital flows' (Sigler et al., 2020, p. 621), to better explain the design of the financial sector's arbitrage DNA that is its 'ability to do the business it wants, where it wants, despite regulators putting lines on the maps' (*The Economist*, 2020, p. 27). In so doing, this article specifically unpacks financial innovations that concomitantly form the activity of IFCs and link global financial networks (GFNs). It pays particular attention to the relationships between location and the territoriality of law, and between legal practices that precondition the creation of complex financial vehicles, which have given rise to the ongoing manipulation of the global geographies of profits.

A widespread definition of financial innovation relates to the creation of new financial products, services and/or processes. They enable firms to raise capital in greater quantities and at lower cost than otherwise possible

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(Lerner & Tufano, 2011) and address inefficiencies in the allocation of funding that may otherwise hinder real economic innovation. Financing activities include the lending of funds, the management of investments and the circulation of money to allocate capital and increase 'the capacity to drive social, economic, and environmental change, transforming ideas into new technologies, industries, and jobs' (Allen & Yago, 2010, p. 4). Although this literature suggests that innovation is vital for economic growth (Asheim et al., 2011; Block & Keller, 2009) and that finance is vital for innovation, *financial innovation* is widely ignored in both contexts. The conventional story holds that financial innovation comprises products, practices and instruments from various financial sub-industries, including the payment sector (credit cards, mobile payment apps) and retail banking (cash machines, mobile banking, lending platforms), where innovation – hailed by consumers – mainly comes in the shape of technology-driven efficiency gains, including organizational innovations such as crowd-funding platforms.

However, innovation in investment banking, for example, derivatives, mortgage-backed securities, but also recent innovative supply-chain financing (a technique based on securitization offered, for example, by the collapsed Greensill Bank), as well as innovation in asset management (e.g., exchange traded funds, new legal structures) is perceived more ambivalently. This article will focus specifically on innovation in the asset management industry. An exaggeration in scale and scope of innovative financial products (e.g., asset-backed securities), practices (e.g., securitization) and methods (e.g., valuation, assessing market risk) employed by banks and other financial institutions, mixed with relatively lax regulatory oversight, helped brew the global financial crisis in 2008/09 and shift the weight from (investment) banking to shadow banking (Wójcik et al., 2018), that is, non-bank financial institutions with Black Rock, Allianz and Amundi among the largest. In contrast to banks, asset managers (mainly) manage other people's money, and as opposed to regulated banking, financial intermediaries in shadow banking facilitate credit creation largely beyond the oversight of the regulated banking system. The total value of assets managed by investment companies in 2019 amounted to US $85.9 trillion worldwide (US$42 trillion in the United States, US$22.8 trillion in Europe, US$11.2 trillion in Asia, excluding Japan and Australia).[1] However, not equity but borrowed funds are mainly used to finance assets, for example, loans. It makes financing not only a highly leveraged business (Sgambati, 2019) but also a highly interconnected one, where banks provide funding to shadow banks.

Regarding the conditions that foster innovation processes, scholarship in regional studies has produced a rich literature on practices and processes of knowledge creation and diffusion (Audretsch & Feldman, 1996; Capello & Lenzi, 2014; Simmie, 2003) linked with innovation activities and policies (Crevoisier, 2016; Müller & Zenker, 2001) that help determine a region's economic development, wealth and well-being (Fernandes et al., 2021). However, although finance's increasing importance and consequences have been aptly characterized as 'capitalization of almost everything' (Leyshon & Thrift, 2007) and 'profiting without producing' (Lapavitsas, 2013), it has hardly been studied as a fully fledged, innovation-driven industry by economic geographers. Furthermore, financial innovation processes have often only indirectly been linked with their production sites, that is, IFCs. These lacunae are addressed in this article.

Although financial innovation is ample and pervasive, it is also contradictory. In fact, innovation in 'finance to finance' is dissimilar to that of 'finance to production' (Ülgen, 2014); and only the latter is comparable to the positive Schumpeterian notion of 'destructive' innovation with resulting improvement for the many. For Schumpeter (1912/2017), the entrepreneurial profit by economic agents originates in innovation and the obtained surplus over costs, often linked to new technology, for which money, credit and finance are essential. Keynes (1930/1971), in contrast, emphasized that money was an asset and as such not neutral (Keynes, 1937) because 'demand for liquidity … depended on the transactions, precautionary, and speculative motives for holding money' (Knell, 2015, p. 301). This goes not only beyond Schumpeterian entrepreneurial profits but leads to fundamental uncertainty and instability. Based on this view, Minsky (1982, 1986a) concluded that instability of financial markets is endemic: Financial fragility tends to grow during boom periods and systematic changes in the underlying structure of the financial markets encourage speculators to make money by the appreciation of their assets, thus contrasting Schumpeter's take on credit creation in relation to (productive) entrepreneurship. This deep structural transformation of the financial industry (cf. Christophers, 2020; Krippner, 2011) from being the 'servant' to becoming the 'master' of the economy (Helleiner, 1993) indicates the growing significance of innovation in finance *to* finance.

Each financial innovation – from the invention of junk bonds to the trading and pricing of risk via new insurance contracts – reveals its own micro-history and micro-geography by giving rise to new financial intermediaries (e.g., venture capitalists, private equity firms), new types of financial instruments, services and/or legal techniques. This article develops this line of reasoning with a specific focus on law and legal practice linked to territory and space, and on the various roles of IFCs therein. Section 2 positions the argument among three disparate yet important strands of literature: the contributions of economists; the emerging literature that interlaces legal studies with geography; and financial geography contributions concerned with the development of regional economies under specific financial regimes. The cross-section of these key, yet often silo-ed strands of literature provides a fertile ground not only for building on their specifically developed insights and for positioning this article, but also for acknowledging the potential to further develop the research presented therein. In doing so, it departs from the often cited, but – as a guiding heuristics – still under-developed GFNs approach (cf. Coe et al., 2014). GFN scholars correctly show how the spheres of global production networks (GPNs) are ultimately interwoven with those of GFNs and that '(f)inance is arguably even more globalized and networked than production' (Coe et al., 2014, p. 762). Although GFN scholars acknowledge the importance of incorporating financing and financial logic into the global operations of the economy, they have been hesitant to identify the shaping micro-geographies in order to better comprehend the patterns of (global) financial networks and societal effects such as those of financialization and spatial inequality.

This article therefore decidedly follows the approach suggested by Dörry (2015) to examine the GPNs of (complex) finance in and across IFCs themselves. This approach forensically dissects the constituent financial and para-financial (e.g., legal) activities and practices performed by specialized business ecosystems. They are usually seen as powerful, but the complexity of their activities in the context of IFCs remain poorly understood. Section 3 presents methods and data that inform the empirical illustrations in section 4. Section 4 develops the principles of the micro-geographies and micro-histories of complex financial vehicles argued to have encouraged building highly efficient ecosystems around the financial activities they pursue. This is despite the (largely) *unsustainable* nature of these activities and their substantial manipulation of the global geography of profits. Section 5 summarizes and discusses the main findings and assesses them against the background of the growing sustainability claims and imperatives in finance. Overall, this article invites stronger engagement with the legal geographies of global finance rooted in law and perceived as innovative. It hopes to stimulate further forensic drilling into the complexities of financial vehicles and financial infrastructures across IFCs (cf. Dörry & Hesse, 2022).

2. INNOVATION IN FINANCE AND THE TERRITORIALITY OF LAW

2.1. Finance and innovation

Just like lending practices, investment practices increased in importance with the rise of *money manager capitalism* that imposed 'a new layer of intermediation … into the financial structure' (Minsky, 1996, p. 636) with the aim to maximize the value of the investments made by the fund holders. The expansion of the global eurodollar markets since the 1970s, and the associated deepening of financialization, contributed to a massive credit boom and a gigantic increase in private wealth. It heralded the age of a thriving asset management industry (e.g., for pension fund capitalism, Clark, 2000; and for asset manager capitalism, see Braun, 2021). Asset managers, the new direct owners of a large proportion of the financial instruments who traditionally combined dividends, interests and the appreciation in per share value, soon shifted more boldly to explicit wealth shielding and tax engineering strategies as equally important goals (Minsky, 1986b). The rise of the money manager capitalism brought on an explosion of activity by finance companies and the *end* of a shared prosperity (Whalen, 1997).

A thorny question in regional innovation studies has been whether 'the geography of innovation is the geography of innovative regions … [or of] the entrepreneur – that is, an innovator who may, or may not, be located within an innovative region' (Shearmur et al., 2016, p. 8). It has led to the unsubstantiated assumption that innovation is the privilege of (large) cities. The proximity claim of financial activity in specific places and regions is indeed strong (Hashimoto & Wójcik, 2021; Kindleberger, 1974), and recent studies stress that 'large financial centres like New York, London and Paris … [are certainly an] indicator for a country's or region's capacity to originate speculative capital flows' (Kohler, 2021, p. 22). However, it is not only expertise and proximity that define an IFC's significance for innovation. Pistor's (2019) astute analysis shows how practices of legal coding of capital fits (newly created) asset classes, thereby privileging certain asset holders over others, and how 'states have supported the coding of capital by offering their coercive law powers to enforce the legal rights that have been bestowed on capital' (Pistor, 2019, p. x). Hence, and contrary to what is suggested in economic theory, capital is made up of two core components, namely an *asset* and a *legal code* (Nougayrède, 2019; Pistor, 2019), and the innovative processes of legal coding have been performed largely hidden from and unnoticed by the public (Potts, 2020). The coding masters, that is, commercial lawyers, are paid enormous fees for their services, and the legal coding of assets is the main recipe for generating the vast amounts of wealth for the asset holders. Legal coding allows lawyers to shield assets from taxes and 'place them beyond the reach of creditors … with the help of the states' own laws' (Pistor, 2019, p. 3). Most of today's *financial capital* is coded in the world's leading IFCs, New York and London, that are embedded in the two legal systems that dominate the world: English common law and the laws of New York State (cf. Potts, 2020). This is exemplified by the law of trusts. Trusts are legal vehicles to shield assets from the trustee's creditors and settlors, but also by corporate law that helps to essentially 'mint capital' (Pistor, 2019). To stay within the realm of the important asset management industry, financial innovation is imprinted in the legal design, as finance is 'defined almost completely by contracts' (Potts, 2016, p. 524). These legal–contractual constructions bundle together obligations and rights, for example as derivatives with no link to the underlying assets, in order to repackage them 'as successive layers of progressively more liquid legal vehicles' (Haberly, 2020, p. 558).

Indeed, specialized FABS firms shape the business profiles of today's IFCs and help create private wealth rather than value for the broader good (Seabrooke & Wigan, 2014). The literature has revealed the huge extent to which not only the 'Big Four' accounting firms (Ajdacic et al., 2021; Boussebaa, 2015) but also other para-financial firms are, for example, able to shift global profits. Creative accounting is an indispensable 'dark' twin of what is perceived as *financial* innovation and helps global financial groups to cushion tax impacts. However, the ongoing crisis of the welfare state coupled with the profit piling of large financial corporations calls into question the international system of corporate taxation, where national tax competition and 'ridiculous'[2] accounting techniques manufacture arbitrage (Marian, 2017) harboured in offshore havens such as the Netherlands, Luxembourg, Switzerland and Ireland (Fichtner, 2014; Hampton, 1996; Hudson, 2000). Important for the argument at hand, these jurisdictions can only be attributed as offshore or tax havens 'in relation to other places' (Roberts, 1994, p. 240), not by law per se. This article shows how law and legal practice help create *synthetic* difference between jurisdictions and actively construct the institutional capacity of and between place(s) with the legal design and construction of the financial entity being of the core interest. Pistor's (2019) excellent, historically grounded study into lawyers' capacity to create private – not public – wealth that has altered the nature and complexity of (financial) assets can therefore serve as a useful starting point. There are two contributing dimensions to that development. First, the rising fragmentation – or 'legal partitioning of assets' (Nougayrède, 2019) – of an economically fully integrated business organization as illustrated in section 4, and second, the increasing expansion of the territoriality of law. Both aspects and their far-reaching impacts are discussed below.

2.2. The legal geographies of incorporation

The management of assets is organized via the legal organization of the business, that is, via all kinds of investment funds. An investment or mutual fund has its own legal personality. It can therefore own its own assets for an indefinite lifespan, and it can contract, sue and be sued in its own name (Pistor, 2019). So, a fund's chain of contracts is set up with the legal entity as the principal, not with natural persons such as the directors or other stakeholders. In this context, the legal device of *limited liability* is a point worthy of particular investigation since 'today's shareholders employ the corporate form to create distinct pools of assets against which they raise debt finance, or which they place in jurisdictions where they can benefit from regulatory or tax arbitrage' (Pistor, 2019, p. 56). Just as important as the application of the legal modules, which help define and enable a financial firm's strategy, is the choice of location for its *incorporation* (Nougayrède, 2019). Incorporation is therefore another key element and process in the design of clustered financial activity. The question of how much legal engineering defines a business organization is thus crucial not only for understanding the creation of legal or institutional arbitrage. It is also important to comprehend the vibrant and highly efficient business models around which today's most successful IFCs revolve, and on which they thrive. Indeed, some states are punching far above their weight: they compete in the judicial game for incorporation services, for example, by promoting their sovereignty rights (Palan, 2002) and collaborating with other on/offshore centres in their provision of the important legal platforms to *globalize* financial services. This legacy and early recipe for economic success of (offshore) financial centres echoes to this day. Not only have more governments recently joined this global game. Rather, the overall growth and concentration of the financial sector that thrives on legal modules and techniques stabilized the 'hierarchy' of IFCs, with the leading IFCs growing faster than the rest, and the overall number of IFCs increasing (Sassen, 2019).

One of the private law foundations that underpin the success of IFCs dependent on economic success and keen on successfully competing for future business is incorporation services, which register beneficial owners from abroad. Such registration services are usually attributed to the offshore centre (Haberly, 2020) as a legal platform to support the proliferation of so-called shell companies. They owe their success, on the one hand, to 'their quasi-unconditional international recognition as legal persons endowed with the full range of civil rights: the capacity to own assets, enter into contracts, sue, and offer limitation of liability' (Nougayrède, 2019, p. 4). On the other hand, the ongoing economic success of a range of 'incorporation hubs' and the heated competition between them has created a new market place for legal competition between places. It has further shifted the focus away from so-called 'real-seat' jurisdictions such as Germany and France, to places embedded in legal systems that tolerate the incorporation of 'naked' shell companies without substance (Nougayrède, 2019), for example, the United States, UK and Singapore. Other states and their IFCs have specialized their industries on the *administration* services for the incorporated shell companies. Within the European Union, for example, the Netherlands serve as a centre for holding companies (HoldCos). Luxembourg is an all-round incorporation centre with a second specialization in finance and investment funds. Ireland has historically specialized in asset finance (e.g., in aircraft leasing) before it expanded to the tech sector and – copying Luxembourg – specialized in finance and investment funds (Nougayrède, 2019), to name but a few European incorporation hubs.

Technically speaking, complex financial arrangements, for example funds-of-funds or feeder funds (section 4), are essentially *multi*national corporations (MNC). These financial corporations have adapted the principle of the MNCs to be '*not* a single *legal entity*, but rather a group of corporations throughout the world sharing *a single* underlying *economic unity*' (Palan, 2002, p. 170, emphasis added). The efficiency and success of a financial vehicle's organizational structure is defined by its *legal design*. In the course of time, the socially constructed phenomenon of a *divided* fiscal subject and a *whole* real subject became a key principle in mediating capital flows between offshore and onshore jurisdictions, increasingly concentrated over time, as recently illustrated in the asset management industry (Wójcik et al., 2022). The legally fractured MNC – just like its complex financial counterpart – learnt to capitalize on this fiction of fragmentation and went for jurisdiction shopping (Roberts, 1994). In short, the legal design of financial vehicles permits certain financial and fiscal operations; and it puts commercial law(yers) as well as the role(s) of the state in the spotlight when engaging with *enabling* practices of financial innovation.

The relational shaping of the new, expanding territoriality of law concomitantly defined by new, growing economic–legal spaces (Potts, 2016) furthermore define the key practice of spatial and institutional creation of arbitrage. However, law and legal practice change over time as it is permanently negotiated among parties (Martin, 2003; Martin & Minns, 1995). Arbitrage is the active creation and exploitation of *difference*, for example, price, time and regulatory/institutional difference, and aids the global manipulation of the geographies of super-profits. While economists have extensively discussed arbitrage between rates that in principle should be the same (but are not), the creation of spatial arbitrage relies on different (interpretations of the) territoriality of law that is increasingly artificial in nature. While such global strategies of private profit shifting harm states and societies, many states paradoxically support such practices by creating respective 'regional assets' in their financial centres (Walther et al., 2011). States' support in turn serves the thriving of business ecosystems based on largely non-productive para-financial practices.

2.3. Commercialization of state sovereignty and expansion of the territoriality of law

Taking this previous analysis a step further, states have long used their sovereignty rights for commercial purposes. Switzerland's legacy of its (modern) bank secrecy to help protect 'foreigners from their own governments' sovereign claims' (Palan, 2002, p. 170) is an apt case in point. Haller (2019) provides fascinating insights into the history of Switzerland's rise as a successful global transit and commodity-trading hub that subsequently reinvented itself as an equally prosperous global hub of financial wealth. It weaves together the gradually evolving practices and (old) agency of the (new) legal wizards with a mix of law, legal technology and geopolitics that innovatively combined its use of territorial sovereignty and neutrality over time. In this regard, IFCs such as Zurich and Geneva built a social order that came to serve both logics at the same time: that of the nation state and that of the globally integrating capital markets. Essentially, therefore, much of contemporary financial innovation is embedded in the territorial–organizational logics at play, the practices that constitute and link them to different social orders, and the path dependencies that result from these underlying logics (cf. Sassen, 2008).

Strategies of states to commercialize their sovereignty have evolved slowly and rather randomly, but were initially neither 'deliberate' nor 'instrumental' (Palan, 2002, p. 153). In fact, the aiding process that led to the growing rigidity in the relationship between sovereignty and territoriality dates back to the 19th century (Commons, 1924; Polanyi, 1978; Sassen, 2008). The sovereign state, however, 'is an entity constructed, recognized, and formalized by an ultimately changeable series of laws, practices, and traditions, both domestic and international' (Lienau, 2016, p. 124), and the increasingly tense relationship 'between the insulation of the state in law and the internationalization of capital' (Palan, 2002, p. 171) invited new interpretations of the concept(s) of *sovereign space*, on which, for example, tax havens still thrive today: States use their sovereign rights as competitive commercial assets and 'tax havens provide important legal platforms for the globalizing financial … services' (Palan, 2002, p. 172). Importantly,

> because of the discrete nature of insulated 'national' law, the multinational enterprises do not exist in law … the MNE is not a single legal entity, but rather a group of corporations throughout the world sharing a single underlying economic unity.
>
> (p. 170)

Hence, the socially constructed phenomenon of a *divided* fiscal subject and a *complete* real subject is key for jurisdictions with offshore and onshore traits to mediate capital flows between them. States, forced to solve the two conflicting goals of the state's positive law in times of growing capital internationalization, (reluctantly) accepted the principle that legal persons can reside in different legal systems at the same time, which came with the risk that a legal person would pick the best regulatory packages offered by a place/state. Ever since, 'the practice of jurisdiction shopping – or commercialized sovereignty – has spread (and) "international tax planning" … is the planning of whichever aspect of their "reality" corporations or wealthy individuals are prepared to reveal at whichever location' (p. 170). This is a guiding principle for many of today's complex financial vehicles.

Over time, MNCs transformed their *legal existence* in a way they deemed most appropriate; and this shift went in close consultation with a growing number of governments. These governments' 'core business' has since been to obtain license fees or 'rent' from companies in return for granting them the right to register in their jurisdictions (Palan et al., 2010; Roberts, 1994), a recipe for early economic success in IFCs with offshore traits. These historically developed conditions echo until this day and help innovate and create financial products and instruments that in effect contain inbuilt legal bridges for international transactions. Complex investment fund arrangements are a case in point. Indeed, they innovatively address a number of the 'technical' obstacles resulting from positive state law and still affecting jurisdictional key arenas today. This includes, for example, the difficulty to determine the tax location of intangible goods (e.g., software, services) and the possibility that the rules and regulations of one state undermine the sovereignty of another state (Palan, 2002).

Complex financial arrangements have perfected leverage financing and speculative profit-making and benefitted from expanding territorialities of law. Trust law, for example, is an offspring from English Common Law and has spread through colonization and propagation; the latter through 'the sheer force of private and corporate capital seeking global mobility [with minimal regulatory friction]' (Harrington, 2017, p. 17). Non-trust law states, that is, countries whose legal systems do not recognize the trust concept, have, however, increasingly fit in trust assets, beneficiaries and trustees in their laws (Harrington, 2017; Hayton, 1987). Trusts, traditionally functioning as estate planning and asset protection vehicles for the ultra-rich (Pistor, 2019), are increasingly common in contemporary structured finance for (financial) corporations (section 4). In the absence of a global governance structure, and as a direct result of the conflicting principles of national sovereignty in the age of globally mobile capital, law cannot simply abolish offshore jurisdictions. Consequently, these issues need to be addressed at the *multi*lateral level, and the concerted global effort through the Organisation for Economic Co-operation and Development's (OECD) Base Erosion Profit Shifting (BEPS) measures since 2016 are a first step in seeking to address this issue. In fact, it may influence how both investment vehicles and their investments will be structured in the future.

The invoked examples demonstrate the need to better comprehend the coevolution of legal practice with the territorialities of law, thereby increasingly producing inseparable links with the active creation of enabling financialized practices designed by (para-)financial ecosystems in IFCs. The expansionist economic space of commercial law firms across the globe thus follows processes of an expanding territoriality of a specific law family, on which new business opportunities of law firms build. While the internationalization strategies of law firms are well studied by economic geographers (e.g., Faulconbridge et al., 2012; Faulconbridge & Muzio, 2015), the former processes are hardly analysed. Yet, the importance of such studies cannot be overstated as these processes make IFCs key places of financial production and legal design that assigns them disproportionately high control over other economic activity and influence far beyond their immediate geographical reach. Put differently, some of the most successful IFCs have disproportionately benefitted from their economic (that is, legal and financial engineering) activity in *governing* the global game between places that benefit from capital accumulation and places suffering from wealth extraction. Section 4 will thus empirically engage with some of the innovative, complex legal structures that make up an investment fund by employing the institutional advantages and legal framework conditions of different places, that is, IFCs.

3. METHODS AND DATA

Empirically, this article draws on insights from a mix of sources. They include interviews with FABS experts in several places, as well as webinars and web-based trainings provided by large law and audit firms mainly from the United States, UK, Ireland and Luxembourg, between March 2020 and February 2021. Importantly, empirical research into the specific practices of structuring financial vehicles is challenging: experts seem reluctant to reveal concrete (clandestine) practices, and answering researchers' questions is no bill-able (and thus neglect-able) task. In addition, COVID-related measures interfered with planned fieldwork and required adjustment. Some first expert interviews with more generic, explorative questions on financial ecosystems, performed in different IFCs, had been conducted before lockdown measures struck. Firms also responded to the new lockdown situation, and the author registered and participated in a range of webinars on specific taxation-cum-finance topics offered by globally leading law and audit firms. The webinars revealed a trove of information, not only content related but also how experts presented themselves and their expertise to help their clients manoeuvre in situations of new rules and regulations. For example, as Anti Tax Avoidance Directive (ATAD) I and II became transposed into national law (within the frame of BEPS), place-specific rules and laws required remedy and innovative input from tax and legal experts. The example cases presented during the webinars provided valuable insights and rich data. Yet, a webinar about the same regulation given by the same law firm but located, for example, in the United States and Luxembourg differed, for obvious reasons, in the details of solutions offered and the experts' advice to clients; thus implicitly hinting towards the utilization of arbitrage.

To be fair, the webinars revealed largely general information and no tailored solutions for family offices/institutional/corporate clients. Nonetheless, the insights helped tackle specific questions arising from new regulations and gain useful synopses of regulations and experts' perceptions and interpretations. As a rule of thumb, new regulations are not rolled out *without* yearlong prior consultations with the industry onsite, and the experts are certainly aware of potential pitfalls in the new regulations as a direct result of their consultations with the regulators. The application of these new rules, however, poses specific challenges for each client firm, and the range of examples of specific cases invoked during the webinars was valuable in this regard. Four in-depth interviews with a chief financial officer (CFO) of a family office, a partner of a global law firm, a partner of a global auditing firm, and a director of a private equity group were still conducted in London and Luxembourg and complemented the insights from the webinars.

4. PERFECTING *UNSUSTAINABLE* FINANCE: LIMITING LIABILITY AND DRIVING INEQUALITY

Empirical data confirm, first, that commercial law firms usually operate on a global basis. Their knowledge about a variety of both wealthy clients and legal environments in IFCs/states puts law firms in a key position not only to identify the need for certain jurisdictions to make their legal frameworks more 'competitive', but also to assist their governments in compliance processes with new international agreements. Working groups within powerful industry associations, for example, are usually set up to cover pressing topics, and they consult and negotiate with state/regulatory representatives during such processes. Over time, clients' needs for new legal solutions identified by law firms often transpose to law, thus, making 'regulators … enablers rather than enforcers' (Committee on Oversight and Government Reform, 2008, p. 2). These processes – and the crucial function of commercial lawyers therein – need to be understood together with strategies of nation states to commercialize their sovereignty. In the end, this fee-generating business is lucrative for both sides.

Second, interview results confirm the typical process of setting up complex financial vehicles, thereby showing the key role of the commercial law firm. When setting up a new financial structure (with its own legal personality), the law firm is the first and most important contact point. The lawyer identifies the client's specific investment purpose and tax goals in order to establish the best profit arrangement. This comprises the best choice of locations, including the tax residence of the client and the tax residence of the fund structure, the legal structure(s) of the financial company's different entities, and the concrete contractual arrangements between the different parties to allocate property rights and liability. Lawyers set up the structure on behalf of their client, that is, the fund promoter (general partner) (Figure 1). The lawyer subsequently bargains with the regulator about the legality and compatibility of the new legal structure of the financial vehicle with applicable law. Once these crucial steps have been finalized, the lawyer hands over the legal structure to the fund administrator (management service company – ManCo), where corporate services, including valuation, financial statements, custody/depository services and other commercial governance functions are performed to maintain the vehicle, including fund auditing services (cf. Dörry, 2015). Hence, the legal setup of a fund structure in the form of an 'efficient securitization structure' (Wainwright, 2011) is mainly about two components: entity and profit shielding from taxation, and shielding legal liability from the beneficial owners (Nougayrède, 2019).

However, once the fund structure is set up by the law firm and passed on to the ManCo to administer the fund, the legal responsibility is also *delegated*. In essence, this means that the representative (director) of the ManCo now carries the full risk (in return for fees). The ManCo usually insures its employees against such risk, but the case of the collapsed Greensill Bank illustrates the remaining residual risk. Some of the legal partnership agreements (LPA) are several hundred pages long. These complex legal documents need to be verified by the ManCo, whose representatives are usually short of time and often lack sufficient understanding of legal detail. The delegation of risk, that is, the contractual shifts of legal liability from the law firm to the ManCo are thus also referred to as 'poison pills [that require to] carefully navigate corporate law, securities law, and tax and accounting rules' (Pistor, 2019, p. 164). Because the legal structuring literally defines if and how much taxes are to be paid, and if and to what extent the partners bear loss and benefit from income streams, the fund promoter is keen to have the most favourable legal structure to market and sell the fund to global investors. This ties in well with the third empirical observation.

As stressed by the interviewees, the increasingly global promotion of funds and their shopping for investors also pressures the fund support industry, that is, law firms, custody/depository banks, fund administrators, prime brokers, etc., to follow and also build up global market presence. Since only a limited number of firms have the resources to expand globally, a resulting market consolidation can be observed, for example, in the global custody/depository banking industry (Wójcik et al., 2022) and among large law and accountancy firms. Their growing economies of scale and network effects also link specialized IFCs with one another. The ensuing concentration of knowledge in the hand of fewer, but increasingly more powerful, law firms that operate globally also helps them to code capital in these places more effectively. Law firms thus:

> built over years of practice in exchanges with clients and their professional kin, to craft new capital and in this process often *make* new law from existing legal material … [and] no single state controls the limits of what or how lawyers code capital in law.
>
> (Pistor, 2019, p. 160, original emphasis)

Legal innovation for the purpose in this article is thus both pervasive and continuous, and defined through administrative territory and specific spatial links.

So far, these empirical findings illustrate the efficiency and vibrancy of the creation and growth of financial ecosystems in IFCs that show that law firms are an underappreciated species in the FABS complex in most analyses in economic geography. Law firms, in effect, stand not only at the apex of the FABS complex, but they have largely been operating hidden in plain scholarly sight. The fund vehicles' legal structuring and jurisdictional incorporation ultimately condition their accounting, valuation and administration. It makes law firms themselves crucial shapers of the political economy in a select number of privileged IFCs, which form essential parts of an enabling archipelago of places for the smooth operation of parts of global finance.

Fourth, and focusing specifically on the legal design of the financial business organization, complex (alternative) funds that seek to maximize absolute returns for their investors and usually apply a range of strategies, including unconventional and illiquid investments, are set up as a mutual fund or a private partnership. Hedge funds that speculate in securities, for example, may increase the risk of such activity by using borrowed money and derivatives to leverage the investments or by conducting short-selling (betting on falling stocks), and some funds trade up to about 900 positions a day. A defining element in these structures is trust law, and the legal setup of a fund structure is mainly about two components: shielding profit from taxation (via eligibility for *pass-through taxation*), and shielding legal liability from the beneficial owners (via *limited partnership*) in case of losses. While both

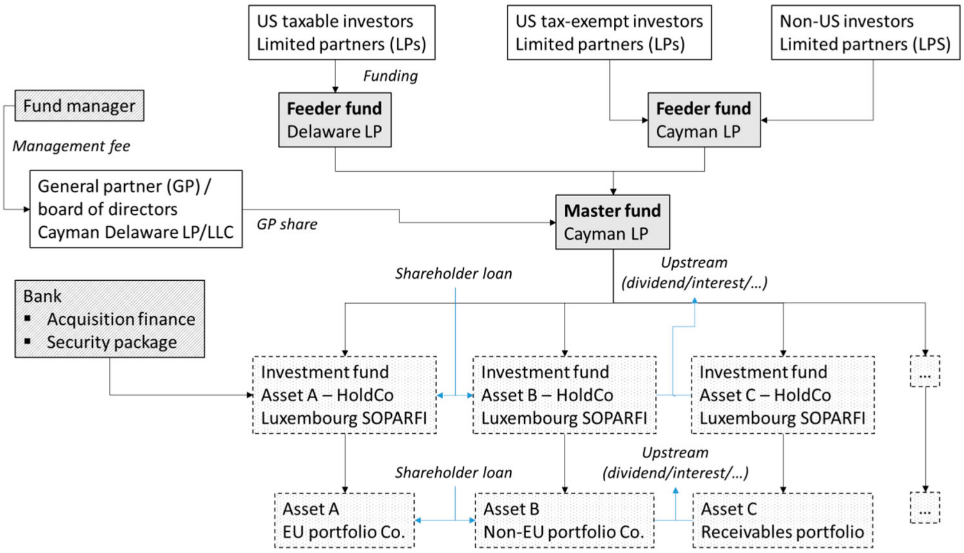
US taxable investors
Limited partners (LPs)
US tax-exempt investors
Limited partners (LPs)
Non-US investors
Limited partners (LPS)
Funding
Fund manager
Management fee
Feeder fund
Delaware LP
Feeder fund
Cayman LP
General partner (GP) / board of directors
Cayman Delaware LP/LLC
GP share
Master fund
Cayman LP
Shareholder loan
Upstream (dividend/interest/...)
Bank
▪ Acquisition finance
▪ Security package
Investment fund
Asset A – HoldCo
Luxembourg SOPARFI
Investment fund
Asset B – HoldCo
Luxembourg SOPARFI
Investment fund
Asset C – HoldCo
Luxembourg SOPARFI
...
Shareholder loan
Upstream (dividend/interest/...)
Asset A
EU portfolio Co.
Asset B
Non-EU portfolio Co.
Asset C
Receivables portfolio
...

Figure 1. A Delaware–Cayman private equity master-feeder structure.
Source: Author's own illustration based on material from the law firms Ogier and Linklaters.

dimensions are equally important, here we focus on liability protection, be it for a sole owner or one of multiple owners. In essence, the bottom of Figure 1 illustrates that each asset A–C is legally shielded or 'hedged' through protecting legal structures, here: holding companies (HoldCos).

Complex legal structures such as master-feeder funds (Figure 1) consist most commonly of a two-tiered investment structure: Investors deposit capital in a feeder fund, which in turn invests in a master fund (with different incorporation locations). The master fund is the entity that invests in the market (securities, alternative investments, etc.) and generates profit (or loss). Each structure in its composition of tax, regulatory and financial considerations is set up for the distinct purpose of the general partner (fund promoter) to attract investors (limited partners) to raise money from investors in different places by taking into account their tax situation. Liability protection builds on a range of legal arrangements that run through an entire structure and – via stand-alone legal entities, for example, a so-called HoldCo (and LLPs for private equity, respectively) – to shield loss and profit from each asset, in which the fund has invested, from the other assets that are part of the investment strategy of the master fund. While the investment strategies are important to understand – be it investment in price-inflated assets, in partitioned assets, or true innovation-based value-creating economic activity –, the empirical exercise shows the equal importance of analysing the treatment of the financial returns through legal modules built in the financial vehicles. These modules are important channels to direct financial wealth. The rising demand for their creation – and ongoing innovation – also explains the disproportionately high concentration of law and auditing services in only some IFCs as compared with others (e.g., Luxembourg as compared with Frankfurt and Paris; cf. Dörry, 2015).

In essence, IFCs have over the years become important financial production sites aided through the expanding territoriality of law, usually English law and its specificities such as trust law, including trust law recognition by some countries without proper trust law. Over time, IFCs have 'upgraded' their legal frameworks to attract financial business, often by joining what some scholars have called a regulatory race to the bottom (cf. Dörry, 2017): Much of the extent and success of financial innovation is defined by law and legal structuring, a highly lucrative, fee-based, yet largely *non*-productive economic activity. Such activity is increasingly at the core of many IFCs, around which profitable ecosystems of further financial and para-financial (e.g., legal, auditing) services with high growth dynamics have developed. Thus, IFCs that are thriving on their dynamic financial ecosystems may economically be beneficial to their host cities, as several ranking exercises of IFCs as economic growth engines and powerhouses suggest (e.g., Z/Yen Group, 2022). Yet, the underlying fee-generating activities, on which these financial ecosystems build and develop, are, as a whole, neither sustainable nor productive when considering these activities' degree of value creation for the broader society, including inflating house prices due to disproportionately high incomes and investment strategies of employees who are part of these ecosystems.

5. SUMMARY AND CRITICAL REFLECTION

This article offers an analytical, and forensic empirical, perspective for strengthening the innovation studies of financial corporations and services of global reach as well as their production centres, that is, IFCs. IFCs have markedly shaped the nature of finance as a driver of structural inequality in the 21st century. By mobilizing and building on three disparate strands of literatures, this article invites further interdisciplinary research on the significance of *innovative* financial activity in IFCs that has been serving private profit shielding and wealth accumulation, therefore essentially deepening spatial and social inequalities. As revealed in the literature review, social sciences scholarship reiterates the imperative to better comprehend the mechanisms and implications summarized in research questions such the making of capital from its legal cloth, the thriving of multinational financial corporations through legal and taxation engineering strategies, and the roles of the state in supporting these structures by backing legal practices and commercializing own sovereignty rights. Such processes manifest themselves in economically efficient, highly successful IFCs with both offshore and onshore traits. This article has applied and further developed the analytical approach of GPNs of finance (Dörry, 2015) to take a deep empirical dive and forensically investigate practices and mechanisms – here on the example of complex fund vehicles – to better comprehend structures of global finance. These structures, their designs and linking practices, so the argument in this article, enable particular places to subject other places to the control of financial metrics, motives, rationales and wealth extraction.

The empirical results of this article further reiterate Minsky's warning that since the financial economy is an institutionally driven social system, determined by time and stake, innovations in banking and finance have real consequences and 'are not always conducive to progress' (Minsky, 1986a, p. 347). The *non-neutrality of money*, injected into the real economy as the debt of banks and defined through the liability structures of the debt-carrying capacity of units (Minsky, 1982, 1986b), suggests that finance has evolved into a growth industry in its own right by now, and key financial practices and motives embody and mediate financialized logics across places and space. Indeed, IFCs have developed a strong agency themselves, performed through their combined agency of the state-backed territorialities of law and the legal-cum-finance mechanisms elevated by the FABS complex. The ability of the FABS complex in a range of IFCs to create spaces of geoeconomic importance and geopolitical rank is perhaps the most impressive and perilous agency they have been developing over time (Tooze, 2018). It includes the construction of synthetic difference through law and legal practice, which this article discussed in empirical detail but, in doing so, revealed further need for research. The commercial use of sovereignty employed by an increasing number of states has perfected the distinct agency of some IFCs in their role as global conduits to direct global flows of capital and to reinterpret and negotiate the global rules for (few) beneficiaries, not the broader public.

The analysis of this 'dark side' of financial innovation has further identified commonalities with, as well as deviations from, established analytical approaches rooted in the real economy, but which can define a set of analytical entry points for further research. First, IFCs, understood as innovative clusters of financial firms and ecosystems, can draw insights from the literature on regional innovation systems (RIS). However, while the literature of RIS is concerned with practices and dynamics of innovative tangible goods and services through which to generate and justify future financial returns, much innovation in financial industries roots in *legal* creativity to design vehicles for financial transactions across a range of select IFCs. IFCs' global organization as 'switchboards', second, suggests scrutinizing the essence of their innovating financial ecosystems. This is important as we showed that IFCs are key beneficiaries from securing income streams of fee-based business models themselves, which however offer little value creation for the broader public. Here, the literature on the emergence of MNCs in the realm of the globalizing real economy across space and, for example, 'innovative' practices of incorporation, can provide useful hints for further research. In this sense, and as illustrated in this article, IFCs cannot be understood without the ultimately enabling roles played by the state. In fact, nation-state authority has been vital in (1) legally backing the 'legal modules, namely contract, property rights, collateral, trust, corporate and bankruptcy law [which are] powerful tools for social ordering' (Pistor, 2019, p. x), and (2) the spreading task of assessing and regulating risk related to the innovating financial industry. Yet, financial *complexity* may not always mean financial innovation but dilution, and *novelty* may not mean innovation but digression (Allen & Yago, 2010). However, both aspects are determined by the territorial–organizational logics, by the practices that constitute them, and by the path dependencies that result from these underlying logics, all of which remains to be analytically scrutinized by future research.

This dark side of innovation in finance – and the resulting intertwined structures from the co-evolution of law, legal practice and the territorialities of law in and between specific places – is now being confronted with a strong sustainability imperative. Strictly speaking, and linked with the United Nations' global Sustainable Development Goals (SDGs), sustainable finance would follow rigid investment criteria formulated for environmental, social and governance (ESG) concerns in projects and assets to generate impact that goes beyond financial return. Transition dynamics towards true sustainability ascribe finance a key enabling role, and regional financial economies of global reach, such as powerful IFCs, are key hinges in such transition dynamics (Dörry & Schulz, 2021). The enormous skill and expertise assembled in IFCs may indeed be a chance to redirect financial innovation by reconnecting to more sustainable practices in designing sustainable financial vehicles. While ESG criteria force investors to understand and ensure the sustainability of their investments (including supply chains), most often finance itself fails to apply such sustainability standards on its own 'production systems'. Recalibrating the illustrated (mal-)practices of finance could therefore be a promising, fruitful future avenue for research to help link sustainable practices of innovation in finance, thereby redirecting IFCs away from currently deepening their roles as structural drivers of social and spatial inequality. While the rewards could well be tremendous, the alternative is a reproduction of financial capitalism at its worst.

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NOTES

1. See www.statista.com/statistics/264907/asset-under-management-worldwide-by-region/ (accessed 20 March 2021).
2. See www.uspirg.org/sites/pirg/files/reports/USP%20ShellGames%20Oct16%201.2_FINAL.pdf (p. 6) (accessed 3 June 2016).

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