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The Governance of Global Wealth Chains

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The Governance of Global Wealth Chains

Leonard Seabrooke¹ and Duncan Wigan²

Abstract

This working paper creates a theoretical framework to explain how Global Wealth Chains are created, maintained, and governed. We draw upon different strands of literature, including scholarship in international political economy and economic geography on Global Value Chains, literature on finance and law in institutional economics, and work from economic sociology on network dynamics within markets. This scholarship assists us in highlighting three variables in how Global Wealth Chains are articulated and change according to: (1) the complexity of transactions, (2) regulatory liability and (3) innovation capacities among suppliers of products used in wealth chains. We then differentiate five types of global value chain governance - market, modular, relational, captive, and hierarchy - which range from simple 'off shelf' products shielded from regulators by advantageous international tax laws to highly complex and flexible innovative financial products produced by large financial institutions and corporations. This paper highlights how Global Wealth Chains intersect with value chains and real economies, and provides three brief case studies on offshore shell companies, family property trusts, and global-scale corporate tax avoidance.

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Introduction

The last decades have witnessed a proliferation of global value chains as industrial capabilities have spread to the developing world and firms have re-organized accordingly, disaggregating and allocating activities across jurisdictions to maximize competitive advantage and market position. Indeed, some commentators have gone as far as to suggest that we are witnessing the era of the post-national or decentred multinational corporation (Desai 2008). In these terms, the multinational company (MNC) has transcended a dominant national imaginary of economic life. Paralleling these developments has been the increasing size, mobility and fluidity of finance. Not only have financial markets grown so that the total value of financial assets now far outweighs global GDP, but the capacity of actors to shift asset, costs, profits and liabilities across borders has increased exponentially. One result of these, for us integrated, processes is a notable disjuncture between territorially fixed fiscal and intrinsically mobile financial systems. The mobility of capital and its ability to switch asset identity and jurisdictional home has raised the spectre of a permanent schism between the location of value creation and the geographical allocation of profits and wealth. These processes unfold through a variety of network forms ranging from market interactions supplying off the shelf tax products for the individual consumer to highly complex financial structures produced on a bespoke basis for large financial and non-financial firms. The purpose of this paper is to generate a theoretical framework for better understanding the governance and articulation of what we call 'global wealth chains'. Global Wealth Chains (GWCs) are defined as *transacted forms of capital operating multi-jurisdictionally for the purposes of pecuniary wealth creation and protection*. We seek to provide the most simple means of delineating forms of GWC to enable scholars and policy makers alike to understand their role in the changing nature of modern capitalism.

The impacts emanating from the operation and evolution of GWCs are pervasive, not only effecting the competitive position of firms within industries and specific value chains, but circumscribing the distribution of wealth arising from increasingly globalized economic activities (Seabrooke and Wigan 2014). The capacity to utilize wealth chains will directly impact opportunities for country level development and who bears the fiscal burden across and within both developed and developing countries. For International Political Economy wealth chains refract on-going challenges to extant conceptions of relations between states and markets and force us to confront the specificity of contemporary globalizing capital itself. Our hope is that by providing a means of categorizing and specifying global wealth chains this

research can also feed into urgent unilateral and multilateral policy efforts to ameliorate the disjuncture between value creation and allocation and the on-going project of value chain research to identify obstacles to, and opportunities for upgrading, learning and development within the contemporary world economy.

Specialize, Diversify, Network

We draw on three strands of literature, including scholarship in international political economy and economic geography on Global Value Chains, literature on finance and law in institutional economics, and work from economic sociology on network dynamics within markets, product selection and the status of those engaged in these markets. Our argument here is that the work on value chains is useful in identifying processes in market, that the work on finance and law highlights incentives to maximize profit, and that economic sociology tells us how actors select particular products and shift between them.

We use these three strands of literature to identify:

- i) Power asymmetries and related degrees of transaction complexity between suppliers and clients;
- ii) incentives for innovation in finance and law through institutional forms, including the drive to specialize & diversify;
- iii) the reasons why markets segment according to the status of the client and supplier, and what relationships reinforce wealth chains in particular ways.

The literature on global value chains and how they are governed began on the premise that production across the globe is increasingly fragmented. As trade became more integrated, production became more disintegrated with the rise of component manufacturing and modularity. Fragmentation in production networks spurred demand for explaining the various processes through which production was coordinated, the cost of transactions between particular suppliers and buyers, and, most of all, asset specificity - the capacity to replicate particular assets at low cost or protect them through premium added value (Gereffi, Humphrey and Sturgeon 2005). The global value chains literature drew on transaction cost economics to explain why some processes are not outsourced but kept in-house to reduce cost and retain competitive advantages. The argument proceeds in telling us that information asymmetries between different levels of the chain - characterized (as here) as 'market', 'modular', 'relational', 'captive', and 'hierarchy' - are important in determining the potential for genuine economic development, fostering human capital, and reducing trade barriers. This pro-development agenda has been taken up by a number of international economic organizations, with the World Bank, OECD, and others all promoting the notion of global value chains. The WTO, in particular, has placed the analysis of global value chains at the centre

of its research strategy, calling for policymakers and scholars to identify production processes and their relationship to trade to reduce information asymmetries and encourage growth and development. This burgeoning interest in the distributional consequences of globalization has only been extenuated under current conditions of heightened concern over rising and persistent inequality.

We suggest that what we call wealth chains are the yin to the yang of value chains. While actors in value chains share an interest in transparency and coordination, those in wealth chains thrive on rendering movements through the chain opaque. Wealth chains hide, obscure and relocate wealth to the extent that they break loose from the location of value creation and heighten inequality. Research on value chains has provided important tools for locating value creation, allocation and capture, producing thick descriptions on how value chains work in practice that are nested in typologies of governance and transaction complexity and codification (Gereffi et al. 2005, Ponte and Sturgeon 2014). While the literature on value chains provides a number of important insights and has had a significant impact on transnational policy development, it has been largely silent on the link between value chains and financial and legal innovations created by firms, lawyers and investors (with some notable exceptions, see Williams 2000; Milberg 2008). Of course scholars of value chains have a different empirical focus, but our claim here is that value chains must be understood alongside wealth chains. The rationale for doing so is straightforward: understanding the dynamics behind Multinational Corporations' (MNCs) global strategies and the geography of offshore finance, and, in turn, the opportunities and constraints these may generate in developed and developing countries, is incomplete if the legal and financial aspects which condition these dynamics and opportunities are neglected.

Furthermore, the early promises of value chains are being confronted by empirical developments. Value chain research has been premised on the disaggregation of production processes across space. We suggest that in the era of the 'decentred corporation' (Desai 2008) research should incorporate the legal and financial disaggregation of the firm. As capital itself finds increasingly abstract expression in the form of intellectual property and financial innovations our imaginaries of the corporation and its operations requires some revisiting. It is already apparent that the contemporary MNC has transcended the institutional complex of the Fordist era. It also seems the the MNC is now risk managed as an integrated productive and financial entity. However, our analytical tools for capturing these developments have not kept up. What we need is a better understanding of how financial and legal innovations are articulated through wealth chains in ways that harm value chains and development objectives. We also need to understand how wealth chains are maintained through professional

and social networks (Harrington 2012), including how they are grounded.

Studies of finance and law provide an immediate insight into the intellectual sources of those providing global wealth chains. There is a general silence on the offshore world in economics, including within this literature, which stays firmly within the boundaries of established national and international law rather than the grey zones frequently seen in the offshore world. Conventional theories of finance focus on deposit-taking institutions, equities trading and price formation, often with an emphasis on the welfare enhancing and market completing functions provided by new financial innovations (Allen and Santomero 1997) and a commitment to the assertion that financial development is a positive determinant of growth (Allen and Gale 1994). Economists interested in institutions have criticized the neo-classical perspective for only dealing with functions as opposed to institutions, claiming that this narrow perspective distorts analysis of how change in markets really occurs (a review of disputes over innovation in economics vs. financial economics can be found in Engelen et al. 2008). For example, insurance to protect against loss in the value of asset could be provided in an options market, but also by an insurance firm. While the function of asset protection is equivalent in both choices, the institutional arrangements underpinning this activity differ (Merton 1995: 467). In effect financial innovation has blurred prior boundaries between institutions and assets as the key product of innovation has been the capacity to replicate assets and exposures synthetically. This has transformed the fluidity and mobility of finance and in so doing the capacities and character of ownership (Bryan and Rafferty 2006). Innovations permit rapid and, relatively, frictionless switching. In consequence an exposure to an asset or an ownership position can be transformed in terms of character, term and 'geopolitical locations' (Merton 1995: 463-4). Finnerty (1988: 18) famously proposed three criteria for financial innovation; innovation must reduce or reallocate risk to reduce the required offering yield (cost of credit), lower issuance expenses (cost of financial production), or create a tax arbitrage opportunity (cost of political geography). Recent accelerated innovation in finance then has served to widen what is perceived as a disjuncture between the mobile and the fixed; here, in the form of the fiscal apparatus of the state.

Importantly for the study of wealth chains, the logical consequence of argument from those considering the relationship between finance, law and institutions is rapidly evolving forms of institutional differentiation to provide similar functions to different clients, including geopolitical 'relocation' to institutional conditions that maximize efficiencies. So while the more institutionalist literature does not address the offshore world, it provides pointers to the relationship between functional and institutional differentiation. As such, it holds

keys to understanding the supply of wealth chains and the incentives suppliers have to differentiate themselves in the marketplace.

The old institutional political economy of John Commons and Thorstein Veblen provides an entrance point in understanding the mutually constitutive role of finance and law in GWCs. In asserting the 'legal foundations of capitalism' Commons built on the earlier work of Veblen in outlining a theory of value based on the habits and customs of social life. Commons elaborated his conception of 'reasonable value' on the basis of the formation of the large US trusts at the end of the 19th century (1924: 1-65; 1934: 649-875). Drawing from hearings before the United States Industrial Commission, he argued that the value of an entity is neither a function of its physical property, its corporeal property, or its incorporeal property, or debts due. Business valuation rested instead largely upon 'intangible property'. Andrew Carnegie's corporeal property in his omnipotent steel business was valued at US\$ 75 million, but he was paid US\$300 million by the holding company. Further, while the corporeal property of the combination had been estimated to be worth US\$ 1 billion its ultimate valuation stood at US\$ 2 billion. The legally determined excess, above historic cost, can only be imputed to the owners control over the industry, or, in the first instance, to 'Carnegie's threatening position in the market' (Commons 1934: 649-650). Both are disingenuously named 'goodwill'. The important point here is that reasonable value had its foundations in law and the differential advantages and constraints law imposed. Value, rather than a direct corollary of the production process or of prices spontaneously emerging on a hedonic gauge, was a function of machinations in the sphere of law and finance³.

For Commons every economic transaction occurs simultaneously in two spheres. One is the sphere of goods and labour articulated in a production process. The other is the sphere of law as every exchange is simultaneously an exchange of a property title. The holder of a property title does so on the basis of attachment to a sovereign space. Every company must be incorporated in law and every contract must, by definition, be located in a sovereign space. 'Reasonable value' then, or the legally sanctioned attribution of worth, is generated by the interaction between the activity, the title and the sovereign. Work within International Political Economy on what is now widely termed the 'offshore world' (Palan 2003) has emphasized the constitutive significance of bifurcated sovereignty. States bifurcate law so that one sets of rules applies to a domestic sphere and another to a virtual

³ Veblen's analysis of absentee ownership is a case in point. He argued that the dilution of liability associated with the ownership of public equity privileged 'absentee' (we might think abstracted) owners in capturing wealth from corporate competition. In this perspective finance is and must be firstly a legal category. Financial assets are incorporeal and integrative of the future. As such, as commodities they are a function of law.

sphere, or, more prosaically, to internationally mobile people, titles and assets. The bifurcation of the transaction and the bifurcation of sovereignty are inextricably entwined. This is the institutional basis of the concept of wealth chains. Wealth chains flourish precisely because of capital's dual spheres and how this bifurcation enables capital to effectively arbitrage and valorize sovereign bifurcation.

We also suggest that scholarship in economic sociology and what is known as 'social studies of finance' is important for explaining how global wealth chains are articulated and governed.⁴ This is particularly the case for understanding what types of information are important for clients and suppliers in wealth chains and how types of information reflect different relationships. As with value chain analysis and work on financial innovation, economy sociology literature has not really engaged the offshore world, but contains important lessons if we are to construct an analytical toolkit for investigating global wealth chains.

One key reason why the offshore world has been overlooked in this literature (for example, the showcase collected volume in this field, Knorr Cetina and Preda 2005, mentions offshore only once) is that many of these studies are situated in the trading room or 'nerve centers' in financial institutions. MacKenzie's (2006) work, for example, has demonstrated how, when enacted, financial models act as 'engines' rather than 'cameras' in shaping rather than reflecting markets. Those applying particular financial theorems then engage in 'performativity' that directs markets in particular ways, heightening uncertainties while those doing the work are too blinded by faith to recognize them (ibid. 2011). Others have recently discussed the performativity in international microfinance markets (Henriksen 2013) and credit rating agencies (Paudyn 2012). There has also been a focus on global or transnational 'microstructures' that create convergence on how particular assets, products, and identities are viewed in European and American financial markets (Knorr Cetina and Bruegger 2002). Such work has also investigated the complex forms of communication and coordination between arbitrage traders who are locating opportunities from their desks in Manhattan investment banks (Stark 2009). For obvious reasons of secrecy, access to the inner dealings of suppliers operating in offshore jurisdictions have been harder to accomplish. Still, this work provides important insights into why there is convergence on the provision of certain products for wealth chains.

⁴ A different but related literature is that on 'financialization', which focuses on providing critical assessments of processes that encourage the individuation of responsibility for finance, including shareholder value, direct contributions in pension schemes, and housing finance. See Zwan 2014 for an excellent review of this literature. We agree with Simone Pollilo's (2013) argument that financialization as a concept is good at explaining processes but often misses conflicts between groups.

Scholarship in economic sociology has a lot of important lessons for the analysis of wealth chains when it comes to explaining the role of client perception, client and supplier status, and the structure of the market more generally. For example, the notion of structural equivalence in markets suggests that suppliers do not perceive demand independently but act in interdependent relationships where they perceive how other suppliers are pricing themselves (White 1976, White 2002). Research on entrepreneurship within networks has demonstrated that information sharing is more rapid in sectors that are transnational and less likely to be 'Balkanized', with a clear difference between transatlantic investment banking and US domestic supply-chain management (Burt 2010: 72-79). In such networks those who can demonstrate high status and behave aggressively tend to do better, as do those who are able to engage in 'epistemic arbitrage' in exploiting differences in knowledge between professional groups (Seabrooke 2014).

Work on status signals in markets has demonstrated that information asymmetries are important in both egocentric and altercentric forms (Podolny 2005). Egocentric uncertainty is about an actor's capacity to provide services or products of a certain quality, while altercentric uncertainty about the capacities of others. High altercentric uncertainty increases the high-status value of products, while high egocentric uncertainty undermines it (Podolny 2005: 227-9). Similarly, Phillips and Zuckerman (2001) provide solid grounds for why financial markets are differentiated not only from a capacity for innovation but from the capacities of clients to recognize differences in what the supplier is providing. Those who are not aware of in-product differences, or who are not attractive to suppliers, will tend to choose the most market conforming products available. Products that are considered to be extreme will be avoided for fear of being spotted by regulators, while middle of the road products will be identified as safe and less likely to come under international regulatory scrutiny. This scholarship is also helpful in identifying types of information, with information that has a high 'homophilic' value prized more than that from sources which are distant and unknown. This includes not only the source of the information but shared vocabularies, practices and assumptions about how markets operate (Reagan and Zuckerman 2008). Such homophilic information is particularly important among trust networks, including some of the forms of wealth chains we describe below.

As recognized in IPE scholarship, it is not only access to information that counts, but understanding what the information means that provides the key problem for governance (de Goede 2001). Uncertainty may not only present a problem for governance but a resource for those who seek to avoid governance (Seabrooke 2007; Wigan 2008). There are a number of ways to examine how information is treated, including interviews with practitioners and policymakers, participant

observation in trade fairs and training, and, recently, experimental methods that provide hard evidence on how suppliers positively respond to information requests that infringe national and international financial regulations (Findley, Nielson and Sharman 2013). We embrace all of these as means to investigate information asymmetries in wealth chains.

Types of Governance in Global Wealth Chains

What we term global wealth chains has been studied under the rubric of the 'offshore world' within International Political Economy (Palan 2003). This broad literature has provided insight into the structural and institutional determinants of GWCs, prolonged regulatory processes surrounding their evolution, the size and impact of capital's movement through offshore spaces and a rich tapestry of case studies which shed light on aspects of GWCs (Hudson 1998). Myriad components of and practices within GWCs have been examined. Areas as diverse as money laundering, financial intermediation, tax avoidance, tax evasion, transfer pricing, intellectual property management and multilateral and unilateral policy development have come under scrutiny. The topic has also proven a fertile bed for theoretical testing and development.

The contribution of the concept of GWCs is premised in part on the argument that while conceptualizing the practices and relationships we explore as constitutive of an offshore world has been helpful in emphasizing the bifurcation of sovereignty, it deflects attention to the pervasive and systemic presence of GWCs. The cartographic imaginary of 'offshore-onshore' alludes to a spatial demarcation that is not tenable. Further, a means of categorization and a framework through which to identify category determinants provides common ground on which disparate research can meet. We suggest the concept of GWCs can contribute to a comprehensive picture of the offshore ecology, the identification of the drivers of niche formation within that ecology and patterns of cooperation, conflict and dependence, which define its evolution. While we have an increasingly detailed picture of the offshore world we are yet to have the tools to identify patterns of the relationships that both circumscribe its manifestations and define its use and development.

Work on structural determinants has focused on the offshore world as a means of reconciling the contradictions between a world market and system of states (Palan 2003), international tax competition as a corollary to the rational maximizing behavior of competitive states (Rixen 2008) or offshore finance as a vehicle for the expression of capital's specificity and internationalization (Coates and Rafferty 2007). These divergent analyses draw our attention to system level implications. Institutional explanations elaborate origins in sovereignty, law, accounting and international business taxation. Here the implications of the state as 'legal fiction' (Picciotto 1999) and

practices of bifurcating and commercializing sovereignty are explored (Palan 2003). The role of accounting technologies and the relationship between the accounting profession, the globalization of capital and the state is another key component here (Sikka and Wilmott 2010). This work demonstrates the centrality of accounting standards and pinpoints some of the professionals active in the production of offshore, most notably in nominating the large accounting firms as an effective 'pinstripe mafia' (Mitchell and Sikka 2011). Picciotto (1992), from a legal perspective has provided perhaps the most comprehensive historical analysis of the interaction of international business with the myriad national legal and fiscal systems, which constitute the grounds upon which corporate tax abuse is executed. Both structural and institutional analyses have been important in highlighting system level prerequisites for the operation and proliferation of GWCs. They therefore provide a key resource in laying the groundwork for more fine-grained analyses.

A second stream of literature has since the OECD's 1996 launch of its harmful tax competition initiative investigated regulatory processes and the determinants of their results. Where the structural analyses noted above have highlighted origins in mutually exclusive and competing territorially bound sovereignty this literature emphasizes the constraints placed on regulatory traction by the competing interests of states, particularly those of micro-states, the OECD and OECD members (Ecclestone 2013; Rawlings 2007; Sharman 2006). For instance, that Europe's members include some of the largest offshore provider states means European policy traction faces considerable obstacles (Wigan 2014). Recent work on anti-money laundering policies has discussed power asymmetries in the determination of anti-money laundering policies and how they are often poorly targeted and provide administrative costs to developing countries that cannot afford them (Jakobi 2013; Sharman 2011; Tsingou 2010). Novel natural experiment methodologies have been deployed to gauge provider compliance and reveal the central role of providers in many OECD countries (Sharman 2011; Findley, Nielson and Sharman 2013). Work on the regulation of terrorist financing has highlighted mechanisms driving the securitization of money and the constitutive role of risk in regulatory design and social stratification and exclusion (de Goede 2005; Vlcek 2008). New research on how family trusts and wealth managers operate has peeped into the complex trust networks behind trustee and estate management (Rawlings 2011; Harrington 2012). This is not an exhaustive examination of the 'offshore' literature and much more has been done by activist scholars seeking to expose how wealth chains are articulated, including the renaming of 'offshore' to 'secrecy jurisdictions' to highlight that they are present in the heart of the OECD and expose their real function (Murphy 2012, Leaman and Waris 2013, Henry 2012).

We suggest that the literature on the ‘offshore world’ can be combined with the insights noted in the previous section on global value chains, finance and law, and economic sociology to propose a typology of global wealth chains. In creating this typology we draw directly from the well established typology on global value chains provided by Gereffi, Humphrey and Sturgeon. The value chains typology is built on the notion that between markets between firms and hierarchies within firms there are also network relationships they characterize as modular, relational, and captive (Gereffi, Humphrey and Sturgeon 2005: 83-4). The five basic types of value chain governance are Markets, Modular, Relational, Captive, and Hierarchy. Market value chains refers to when information is easily communicated and transactions are governed with little explicit coordination. Modular value chains occur from the provision of products to a customer’s specification but with generic machinery. Relational value chains there are complex interactions and high levels of specificity in what is being supplied. Captive value chains refers to when small suppliers rely on larger suppliers. Hierarchical value chains are vertically integrated with high levels of managerial control. These types of value chain governance provide the framework for this now substantial body of literature, including the active interest from policymakers in applying it to the international trading regime, as well as using it to inform discussions about corporate social responsibility.

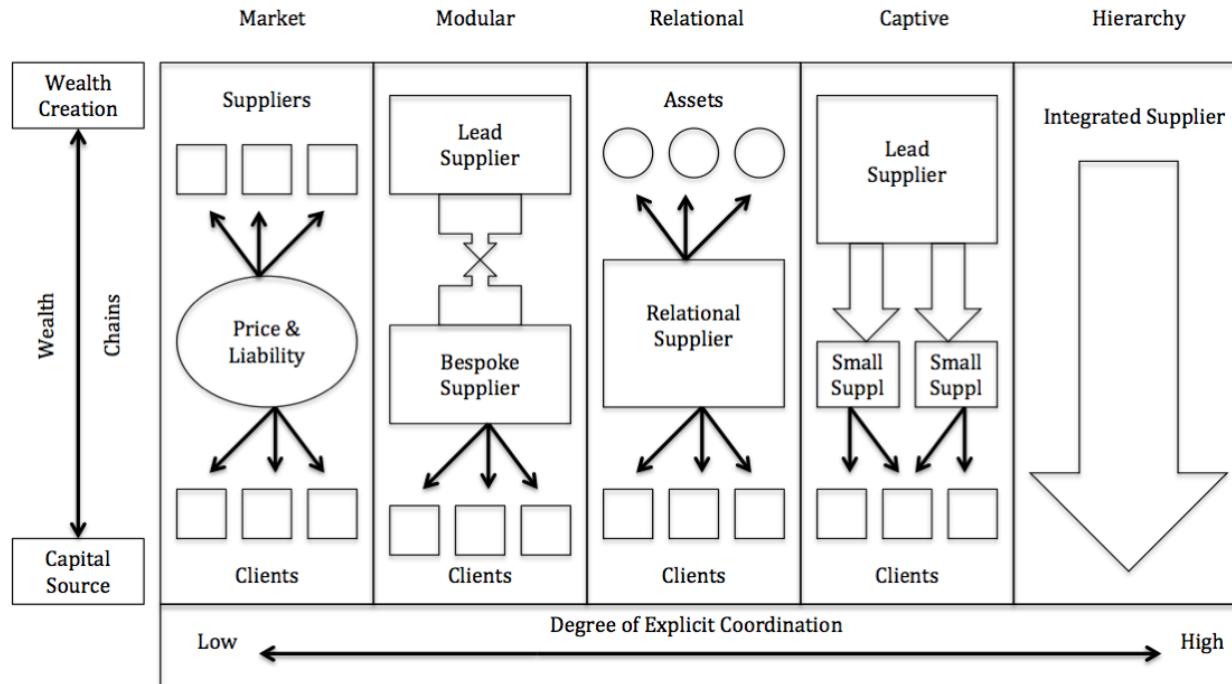
We adapt these five types of governing value chains to our interest on global wealth chains. Our types of governance for global wealth chains are analytical types. As with all ideal types they are constructed for the purpose of learning and should be broken down and reconstructed where appropriate. Our five types are not silos but can interact with each other in articulating global wealth chains. The types of governance in global wealth chains are:

1. *Market* linkages occur through arms length relationships with low complexity in established legal regimes. Products can be accessed from multiple suppliers who compete on price and capacity.
2. *Modular wealth chains* offer more bespoke services and products within well-established financial and legal environments that restrict the supplier and client flexibility. Products involve complex information but can be exchanged with little explicit coordination. Bespoke suppliers are commonly associated with a lead supplier.
3. *Relational wealth chains* involve the exchange of complex tacit information, requiring high levels of explicit coordination. Strong trust relationships managed by prestige and status interactions make switching costs high.

4. *Captive wealth chains* occur when lead suppliers dominate smaller suppliers by dominating the legal apparatus and financial technology. Clients' options are limited by the scope of what can be provided by small suppliers and, in turn, lead suppliers.
5. *Hierarchy* wealth chains are vertically integrated. A high degree of control is exercised by senior management, such as a Chief Financial Officer. Clients and suppliers are highly integrated and coordinate on complex transactions.

Figure 1, below, illustrates these five types following the definition of the different types of wealth chains given above. The figure identifies the lead suppliers of financial products and services, the secondary suppliers (be they bespoke relational or simply smaller), the clients and the basic relationships in the transfer of capital from its source to facilitate wealth creation and eventually return to the client. We also note that flow of capital from the source through wealth creation mechanisms and back again, as well as that coordination in these different forms of governance becomes more complex and explicit as we move from the left to the right of the diagram.

Figure 1 Five global wealth chain governance types



A Theory of Global Wealth Chain Governance

Our typology on the governance of global wealth chains draws on insights from the work on global value chains, from studies of the relationship between finance and law, and from scholarship in economic sociology on relational dynamics and network characteristics in financial markets. We argue that while this literature has largely ignored the offshore world, it assists us in creating a typology of wealth chains by pointing out the relationship between functions and institutions, incentives for specialization and diversification, and the role of information asymmetries within networks, including perceptions of status and prestige that shape these asymmetries. Combined these insights allow us to distinguish reasons why what has been understood as the offshore world can be understood as different types of governance over global wealth chains, identifying the market, modular, relational, captive, and hierarchy types discussed above.

Our conception of global wealth chains shares many similarities with Gereffi, Humphrey and Sturgeon's (2005) typology, but also contains important differences. These authors provide a theory of value chain governance that is premised on three factors: the complexity of information to sustain transactions; the ability to codify transactions, and the capabilities of potential suppliers to meet the requirements of the transaction (Gereffi, Humphrey and Sturgeon 2005: 85). These three factors are appropriate for value chains because they concentrate on identifying transaction complexity, efficiency and capacity. However, an important problem here when applying this thinking to global wealth chain is much of the activity is explicitly intended to avoid codification to third parties. Given this a focus on codification, as means of distinguishing wealth chains, is less effective than a focus on regulatory density. Furthermore, capabilities for those supplying products and services is less about the capacity to meet the requirements of the transaction and more about capabilities to mitigate challenges and cope with uncertainty about the status of the transaction. These considerations lead to the following factors in a theory of wealth chain governance:

- A) The *complexity* of information and knowledge transfer with regard to the product or service being provided by the supplier to meet the client's requirements;
- B) the *regulatory liability* involved in transactions and the ease of multi-jurisdictional regulatory intervention;

C) the *capabilities* of suppliers to create solutions to mitigate challenges to the status of the product or service by regulators.

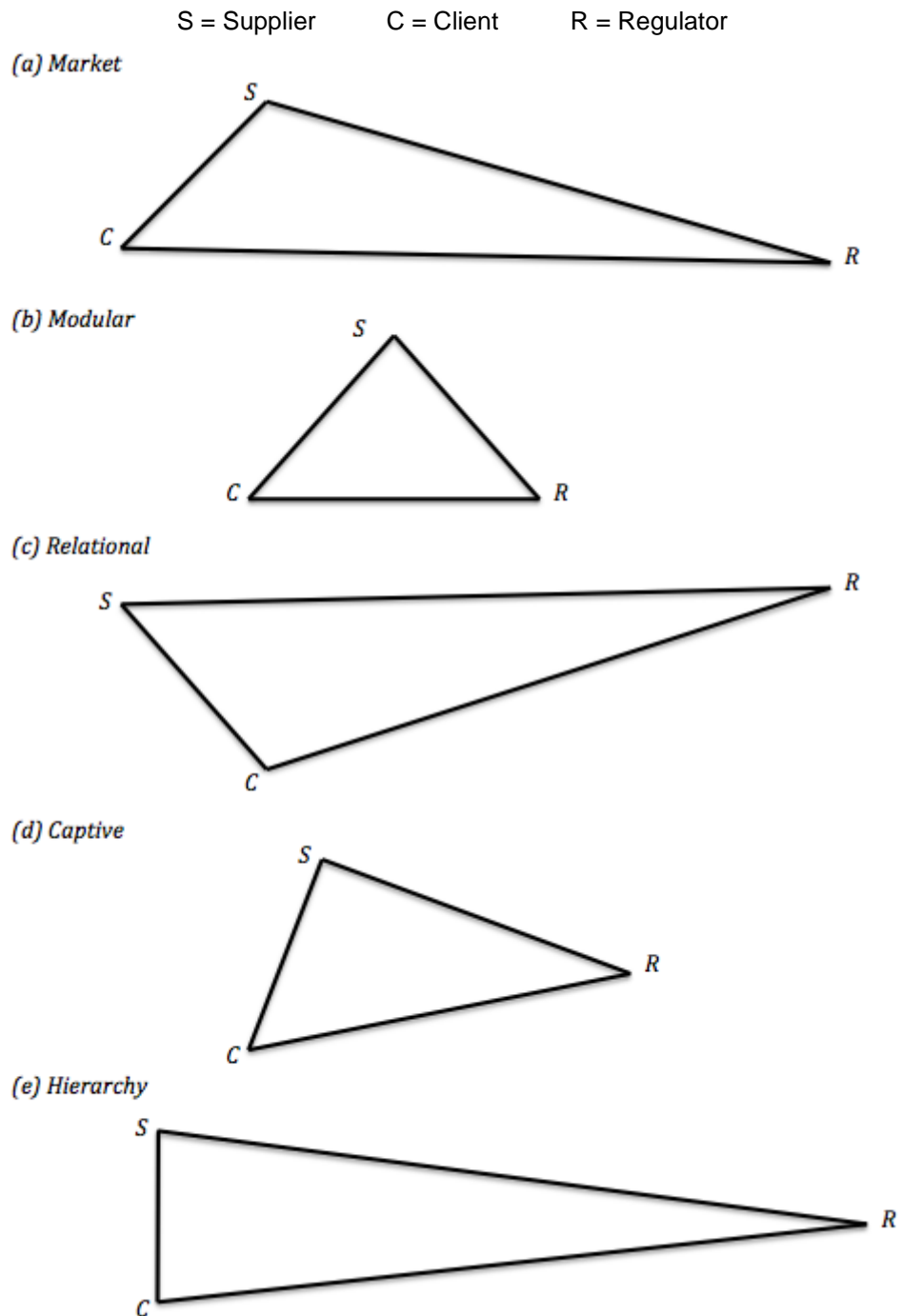
These three factors explain a great deal of variation in the governance of global wealth chains, as well as reasons for differences in function and institutional form. They also encourage us to view wealth chains as constituting not only clients and suppliers but also regulators.

Figure 2, below, provides a series of illustrations on information asymmetries between Suppliers, Clients, and Regulators in the governance of global wealth chains. The length of the line between the three different points represents how opaque information is between these actors. Information asymmetry provides a source of innovation and protection from regulation.

For the Market, Figure 2(a), an example is a standard ‘off the shelf’ offshore shell company established in the Cayman Islands. The Client and Supplier both have a good understanding of what is being provided by the product and required information about both parties (in many cases the Supplier has very little information who the client actually is, see Findley, Nielson, and Sharman, 2013). The key information asymmetry here is between the Client and the Regulator. The distance between the Supplier and the Regulator is less than that between the Client and the Regulator because that is the main point of such tax evasion operations - to hide the real identity of the client. As such the supplier acts as a buffer between the client and regulator, as condoned by international law that permits pervasive offshore activity. The main way of being discovered within this system is via a whistleblower that has a list of clients. However, a change in contract conditions to relocate assets permits the supplier to mitigate challenges.

Information asymmetries are less in the Modular form, Figure 2(b), because this is an active regulated market with clear anti-money laundering legislation and reporting requirements on the source of income. This is, in part, because Modular forms of wealth chains are more popular, as with expatriate communities, and easier to trace. For example, an expatriate who holds a HSBC offshore account can use this product to avoid taxes but there is quite a lot of information known between this Client, the Supplier (HSBC), and the Regulator, be they the authorities in the offshore jurisdiction or in the country where the Client is resident. Given the lack of information asymmetries here the lack of forward moving regulation on these wealth chains comes from a lack of political will rather than from capacity, although there has recently been a lot of momentum from US authorities to plug some of the fiscal leaks created by Modular wealth chains (Palan and Wigan 2014).

Figure 2: Information Asymmetries in the Governance of Global Wealth Chains




In Relational wealth chains, depicted in Figure 2(c), the greatest information asymmetry is between the Supplier and the Client, since the point of the relationship between the Supplier and the Client is to ensure that Client assets cannot be touched by the Regulator, even if the Client comes under scrutiny. A good example here is the surgeon

who has an Asset Protection Trust in the Cook Islands, to ensure that if he is sued or a divorce occurs then assets cannot be taken by the Regulator, even when the Regulator has some information.

The Captive form, Figure 2(d), shows greater information asymmetries than in the Modular form but also less than in the other forms. This is again a function of the size and scale of activity that is linked back to domestic jurisdictions where Regulators can attempt to keep an eye on what is going on. An example here is the relationship between Ernst and Young (the Supplier) and a firm (the Client) over the best strategies to avoid and minimize corporate taxes. Regulators have clear information on how this takes place and the likely revenue lost, and the Client and Supplier have clear lines of communication to share information on their needs. The Regulator is a bit more distant from the Client than the Supplier, since a large part of the service provided by the Supplier is to provide professional and legal reasons to Regulators for the Client's activities.

Finally, the Hierarchy form, Figure 2(e), shows a short distance and low information asymmetries between the Supplier and the Client while clear and significant information asymmetries between the Client and the Regulator and the Supplier and the Regulator. A key reason here is that relations between the Client and Supplier are often 'in house', reducing information asymmetries. Their collective dominant position in the market means that the pace of financial and legal innovation can increase, which is assisted by superior information sharing. This innovation seeks to obscure information going to the Regulator. An example here is Apple's fiscal model, or structured finance solutions provided by Barclays to hedge fund clients. We provide details on both below.

Table 1 Key determinants of global wealth chain governance

Governance type	Complexity of product and services	Regulatory liability	Capabilities to mitigate uncertainty	Degree of explicit coordination
Market	Low	Low	High	Low
Modular	Low	High	Low	
Relational	High	Low	High	
Captive	High	High	High	
Hierarchy	High	Low	High	

These five global wealth chain types and the three variables that determine the form of information asymmetries between client, suppliers, and regulators are listed below in Table 1, above. We may note here that only the Modular form of governance has a low

capabilities in being able to mitigate uncertainty, and also that this type and the Captive type are the only forms of governance where regulatory liability is high. This can be explained by a strong regulatory focus on large institutions that can be monitored, or attempt to be monitored, compared to the Market and Relational types that can rely on contracts as the key form of completing transactions without going through traditional financial intermediaries, while those in the Hierarchy form are able to provide comprehensive scheme that mix conventional and shadow banking with products and services in offshore jurisdictions to minimize tax exposures.

We also note that the degree of explicit coordination increases as we move down the right hand side column in the table. Ordering a shell company can be done online without unnecessary fuss. Buying large denomination bills is simpler. Clients engaging in modular forms of governance will only receive a private banker who can assist them with international taxation issues once they have invested £250,000. Family dealing with trustee and estate planners or asset protection trusts have more significant sums to pay for highly customized services. Clients and suppliers in captive markets engage in a range of complex transactions to create wealth chains and rely heavily on professionals and experts from firms such as KPMG, Ernst and Young and the like. These professionals have a strong interest in maintaining their expert community by limiting the terms of debate over what can be governed (Seabrooke and Tsingou 2014), and activist challenges to them are forced to address them on their own terms (Seabrooke and Wigan 2013). Those engaged in the Hierarchy form have extremely complex systems of governance to ensure that transfer pricing and tax avoidance and evasion cannot be sufficiently traced by regulators.

The Future Research Agenda

As noted above we see the five types not as silos but often mixed in the articulation of wealth chains. Interactions may occur across wealth chain types and suppliers may switch, under regulatory or competitive pressure, from one chain to another. A brief examination of some of the various wealth chains now in operation serves to illustrate the potential traction of our framework and the salience of the dynamics we identify as conditioning elements.

A Hierarchy-Relational Global Wealth Chain

Apple Inc. has attracted sustained attention about its global assembly and tax planning activities. In May 2013, for instance, following investigations into Microsoft and Hewlett Packard, the US Senate's Permanent Subcommittee on Investigations conducted formal hearings into Apple's global tax planning which was alleged to enable the firm to reduce US taxes by \$10 billion a year. For instance, in 2011 under a 'cost sharing agreement' (CSA) with a subsidiary in Ireland, Apple was able to route approximately \$22 billion (or 64% of global pre-tax profits) into its Irish holding company (by way of comparison its Irish operations employs 4% of its global workforce and accounts for about 1% of its worldwide sales). The effective tax rate on Apple's international earnings was 2.5%, and estimates of lost tax revenue range considerably, with some suggesting \$100 billion. The hearings found that Apple's global activities were being arranged in ways that not only affected the U.S. Treasury, but many other tax jurisdictions. Only 6% of Apple's pre-tax global income is allocated to jurisdictions other than Ireland and the U.S. (U.S. PSI 2013).

Apple's multi-jurisdictional tax planning activities constitute an hierarchical global wealth chain. Here products are made either in-house or in close relationships between supplier and client. The ability to gain regulatory traction on these chains is severely circumscribed by product complexity, flexibility via the iterative re-design of products and low information asymmetry between client and supplier. Levels of coordination are high. We suggest that regulatory liability is lowest in these chains as the high levels of capacity between the supplier and client ensure regulators and revenue authorities are in a constant game of cat and mouse. Apple Operations International (AOI) and Apple Sales International (ASI) take economic ownership of a large share of Apple's IP via a cost and revenue sharing arrangement (CSA), wherein for a contribution towards the development of IP the purchaser gains economic rights accruing to the revenue accruing to that ownership worldwide. Even if the price paid to the parent is 'correct' a CSA, as

opposed to a licensing agreement, transfers the economic rights to the IP to Ireland. A licensing agreement on the other hand means that the IP investment and return on investment remain in the U.S. (Sullivan 2013). Richard Harvey, former senior adviser to the U.S. Inland Revenue Service, explained in his testimony to the Apple hearing; 'Even if the payment from the tax haven affiliate to the U.S. parent is at true fair market value for the intangible assets transferred, ... the U.S. parent has effectively shifted income to the tax haven affiliate by virtue of the equity contribution' (Harvey 2013).

Apple established AOI in Ireland to act as a group holding company as early as 1980. At the time, Apple also conducted significant manufacturing activity in Ireland. What is especially noteworthy about that subsidiary company, however, is that to date AOI has not declared tax residency in any jurisdiction. Thus despite an income estimated at about \$30 billion in the 3 years between 2009 and 2012, AOI filed no corporate income tax returns and paid no taxes. AOI, the first amongst many offshore affiliates, is able to take advantage of the fact that Ireland establishes tax residency on the basis of *the location of management and control* while the U.S. bases determination of tax residency on *place of incorporation*. Hence, much like Google, AOI by virtue of the arbitrage offered by different juridical bases of tax and corporate nationality is effectively not tax resident anywhere. For the U.S., AOI is Irish, for Ireland it is a U.S. entity. In this way, AOI operates in the spread between these different national jurisdictions, and arbitrages that spread. Such complex corporate structures pose the challenge to regulators of a complete overhaul of, or more accurately, the invention of accounting, tax and legal rules which are multi-jurisdictional and offer universal purchase. Without such intervention the capacity of the client-supplier will ensure this type of hierarchical chain outruns piecemeal interventions.

A second type of hierarchical chains shares many of these features, but in this case the chains also shares some characteristics of relational chains. Financial derivatives can be designed so as to alter where, when and what definitional basis a tax charge is levied or tax credit afforded (Donohue 2012; Wigan 2013). A recent hearing in the US Senate investigated how two global banks, Barclays Bank PLC and Deutsche Bank AG, supplied tax efficient (and leverage enhancing) trading vehicles to hedge fund clients. Here, for instance, Barclays sold basket options products to the hedge fund Renaissance Technologies LLC which converted short term capital gains (subject to up to 39% tax in the US) to long term capital gains (now subject to 20% tax in the US). Simply the hedge fund maintained a trading account at Barclays where Barclays owned the assets and conducted the hedge fund's trading strategies involving many thousands of short term positions. The basket options account, also formally owned by Barclays, was used to conduct option trades which mirrored the trades in the brokerage account. Effectively, the hedge fund by buying an option on the basket

account was able to buy an option from Barclays on its own trading. To maintain equivalence between the brokerage and basket options account would require extremely close coordination between supplier and client, with little gap between them. The bank appointed a hedge fund partner to act as investment advisor to the trading account. In effect, this is the hedge fund inside the bank. The structure allowed the hedge fund to claim tax due at the point at which the option on the basket was exercised. So long the option was exercised more than 12 months after its inception, the hedge fund was able to claim that the profits came from exercising the option rather than the underlying trades and pay the reduced long term capital gains tax (U.S. PSI 2014).

A Modular-Captive Global Wealth Chain

A different kind of global wealth chain is seen in the growing market for expatriate 'Expat' international banking. This wealth chain uses both the modular and captive types of wealth chains described above. The targeted population are expatriate 'mass affluents', those who can move between domestic fiscal jurisdictions and who can avoid higher tax burdens through the use of offshore services provided by large international banks offering services via what we identify as a modular global wealth chains. This population is wealthy enough for financial institutions to be encouraged to help them minimize tax liabilities, but not sufficiently wealthy to enlist, or afford, their own autonomous trustees and wealth managers (see Harrington 2012). Instead the expatriate mass affluent choose different forms of offshore products via a bespoke financial institution that offers these choices and has the economies of scope and scale due to relationships with larger financial institutions. The presentation of Expat banking by large international banks, such as HSBC and Lloyds, assures clients that offshore banking is not illegal or dishonest and provides significant tax advantages. The wealth chain is articulated by hosting client's capital in a subsidiary in an offshore jurisdiction, with access to the capital controlled by the subsidiary and parent institutions, and with the client having information and access via internet technologies. For example, HSBC Expat's operations are organized primarily through Jersey, which is promoted to clients as a stable regulatory jurisdiction that works in close cooperation with the UK Financial Conduct Authority and conforms with OECD standards on international tax agreements (www.expat.hsbc.com).

This wealth chain is primarily modular because what clients have access to depends on what they are investing, with a clearly demarcated decision-tree in operation for the large international operating in this market. For example, a client with Lloyds Bank with less than £25,000-£49,000 to invest will be offered multi-currency banking and internet and phone banking. Clients with £50,000 to £249,000 are offered 'premier' services with a call from a Premier Relationship Manager and potential to meet with International

Financial Managers to discuss investment strategies. Those with more than £250,000 to invest are provided with private banking services and a Private Banking Relationship Manager with a direct phone line and email access. Premier and private banking clients also have access to an International Tax Service who are tasked with 'ensuring you don't pay more tax than you should' (international.lloydsbank.com).

This is where the global wealth chain also reflects a captive type, since the international tax services are provided by one of the Big Four professional accountancy firms. In the case of Lloyds the client is placed in a relationship with Ernst & Young, who assist the client in minimizing their tax exposure. Importantly, the Big Four provide an excellent example of the captive type of global wealth chain. Institutional change and reform within this 'mature organizational field' is particularly difficult, since there is a high degree of consensus from the professionals involved on the appropriate technologies and standards for governing financial transactions (Suddaby, Cooper and Greenwood, 2007). Innovation within this captive type is through international professional interaction, and that is offered to clients is limited by consensus among the Big Four, the 'lead suppliers'. As such, Expat banking provides an example of how capital moves from clients to an offshore jurisdiction, with the client assessed for what services are appropriate, depending on their investment, and then referred to the tax management giants. Expat banking provides an example of the combination of modular and captive types of global wealth chains.

A Market-Relational Global Wealth Chain

Market chains involve the simplest and most easily accessed products. Cash, in the form of the big bill is the clearest example, ensuring client's operating illicit wealth chains security, anonymity and an effective means of exchange and store of value. Regulatory attention is channeled through a flawed anti-money laundering regime (Tsingou 2010) to focus on second tier suppliers. The irony in the case of big bills is that the state in the form of central banks and Treasuries are the first tier suppliers, with banking institutions delivering the product to the ultimate clients. The key bills here are the American \$100 bill, the €200 and €500 notes, and the 1000 Swiss franc note. Notably, the big Euro bills were introduced by the ECB in 2002 in what seems to be a competitive strategy to gain access to the seigniorage then enjoyed almost exclusively by the U.S. and Switzerland (Henry 2014). Regulatory liability here is even lower than for off the shelf shell companies with costs of switching between suppliers and costs of entrance minimal. Since states are the first tier supplier here, an absence of decisive intervention must be a function of weak political will. In other market wealth chains regulatory interventions have created new opportunities of offshore financial service provision and catalyzed shift between chain types.

In the case of Liechtenstein, regulatory initiatives in the form the 2003 EU Savings Tax Directive prompted a shift from a relational to a market chain, while more recent interventions have prompted offshore business in the jurisdiction to return to a more relational model (Sharman 2014). The Savings Tax Directive demands EU member states and European tax havens either supply information on non-resident EU citizen bank interest income or apply a withholding tax to that income. That the Directive did not track accounts held by trusts or corporate entities generated a flood of business in Liechtenstein, particularly from Switzerland, as clients converted personal bank accounts to accounts held by trusts or Liechtenstein *Anstalts*. This conversion is a simple matter of signing a contract. Trusts and *Anstalts* can be mass-produced to demand. Regulatory traction on this process is low as the provider need not know client identity, as much as the client need not know the provider. Pressure from the G20 in 2009 and the fallout from the Kieber leak where an employee of LGT Bank sold client information to the German government lead to the shift back to the more relational form led by the Liechtenstein government. In agreement with the UK, Liechtenstein established the Liechtenstein Disclosure Facility which allowed those owing tax to the UK and with assets in Liechtenstein to declare this wealth for a much a reduced penalty. In result, funds have flowed back into Liechtenstein bank accounts from account holders in a range of offshore jurisdictions. Significantly, account holders must establish a lasting relationship with the bank allowing the bank to sell a range of auxiliary services.

Conclusion

In closing, our aim in this paper is to provide an original theoretical framework for understanding how global wealth chains are governed. We argue that an analysis of global wealth chains is essential for understanding the integration of production and finance. As suggested above, global wealth chains are the yin to the yang of global value chains. Many value chains, which do have the potential to reduce information asymmetries and enhance development, exist alongside wealth chains, which operate multi-jurisdictionally to protect and create wealth, often through opaque structures and secrecy. Here we argue that global wealth chains can be understood by the complexity of transactions, the regulatory liability implied, and the capacities of suppliers to provide certain kinds of financial instruments. We have outlined how global wealth chains can be seen in five types: market, modular, relational, captive, and hierarchy. These types are often mixed as firms, groups, and individuals engage in innovative forms of multi-jurisdictional wealth protection and creation. Future research can use these types to investigate and reflect on how global wealth chains are articulated, including locating what kinds of actors and organizations are involved and what kind of processes permit their existence. Finally, we suggest that analyses of global wealth chains are essential for understanding not only how finance is changing but core changes in finance and production in modern capitalism.

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