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A Comparative Take on Finance, Value, and Inequality

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Knotty Financiers: A comparative take on finance, value, and inequality

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Abstract

This article argues for a larger comparative vision in the contemporary studies of finance, one that draws on financial practices observed in and theories developed from both capitalist and non-capitalist contexts. Much present-day ethnographic work on finance, due to specific analytic framing devices, has largely not considered why and how finance also occurs in non-capitalist contexts. In turn, the article compares Inka knot-record accounting to the accounting that occurs in present-day, private-equity led leveraged buyouts to show that people coercively use the same tools of abstraction in radically different cultural contexts. Moreover, this realization allows for better theorization of finance's emergence and role in a given society.

[Finance, Comparison, Private Equity, Inka]

> I dedicate this article to those striving to make archaeology safe and open for all who wish to learn about the traces of our common humanity (Rosenzweig 2020:12-13; e.g. Colaninno et al. 2020).

1. What is finance?

Anthropologists, sociologists, geographers, historians and other social analysts have written a number of books and articles about present-day financiers and the worlds they create, often with the aim of understanding the actions, the effects of actions, or the cultural and social life-worlds of relatively secretive elite actors such as quantitative stock traders, private equity investors, or central bankers. This work (reviewed below) has variously sought to map present-day finance by 1) plumbing the history of this financial universe in the recent context of capitalism, capitalist nation-states, and/or transnational political formations (say, its rise and efficacy over the last few hundred years); 2) describing the networks of human and non-human actors and technologies that make up this financial universe; and/or 3) describing the way in which financial action and logic can function as a mode of exercising social power. All told, it is an impressive body of work, made relevant anew with every fresh financial crisis, harried hostile takeover, or oracular central bank pronouncement.

However, there is room, and, perhaps, good reason to widen the comparative scope of this literature to non-capitalist contexts and archaeological approaches in order to have a broader, less historically confined view of the rise and fall of financialized systems of governance, labor coordination, and control, as well as the variety of ideological or hegemonic projects—other than millenarian-, neo-liberal-, or just late-capitalism—that can ethically underpin financial modes of power (e.g. Monson and Scheidel 2015; see also Graeber 2004:50). Recent archeological work has made the case that a better way to understand capitalism and finance would be to cease seeing capitalism or finance as historically specific and essentialized entities, born of one trajectory in history (e.g. Baron and Millhauser 2020; Pezzarossi 2019 [echoing Gibson-Graham 2006]). Instead, researchers should focus on various specific practices that make up either capitalism or finance (such as primitive accumulation, the extraction of surplus labor, commodity fetishism, etc. for capitalism, or ledgering, numerical abstraction, and contracting for finance) and then see the way these practices and processes manifest in different situations of wealth accumulation and hierarchical social formation (e.g. Park and Greenberg 2017).

In what follows, I develop a bridge between accounts of present-day finance and accounts of finance attested in the archaeological record. I focus on accounting and ledgering as particular examples of this sort of comparison, and show the way that strikingly different ideological systems congeal in similar financial practices that can then underpin the extraction of wealth and coordination of labor at a distance in varied historical context. The rest of this introduction explains some terms essential to this endeavor and outlines the specific organization of this article.

For present purposes, "finance" and "financing" are simply the processes by which humans identify, abstract, store, and allocate wealth in the present with an eye towards some sort of imagined future;[1] and "financialization" is what happens when valorizing finance and financing becomes a dominant concern of and pattern for people's lives (Pitluck et al. 2018). Put another way, an analysis of financialization seeks to describe what people's lives look like when concerns stemming from the mechanics of valuing, allocating, and transferring wealth for future ends become either inspiration for governing, lead to governmental priorities, or come to be seen or used as a technology of governing people. Financialization, in this view, becomes (just) one of the ways by which people govern other people, often at a heavily abstracted distance, and often with the goal of extracting wealth and coordinating labor (as in Sneath 2012 and Mattioli 2018).[2] Examples of this sort of finance and financialization are widely attested in the archaeological record, whether in broad cross-societal comparison of revenue collection and resource reallocation in the context of collective action (Blanton and Fargher 2008); in the use of various forms of financing in specific imperial formations (D'Altroy and Earle 1985; Monson and Scheidel 2015); or in the independent development of the same specific financial techniques occurring in human communities that are worlds apart (Goetzmann 2016; Goetzmann and Rouwenhorst 2005).

This account of what finance is and how it affects people's lives, though, is not necessarily explicitly shared across the recent literature on present-day financiers. Rather, there are a number of different analytic frames that academics have adopted to illuminate various forms of finance. While they all have something to offer our understanding of how finance functions, particularly in its present-day incarnations, not all intellectual approaches are equally

[1] I picked up the kernel of this definition listening to a presentation by John Millhauser at the 2018 meeting of the Society for American Archaeology—thanks, John!
[2] Monson and Scheidel suggest the term "fiscal regimes" (2015:22) to describe this sort of finance/governance/power nexus in the pre-modern (for them, political formations extant prior to the advent of sovereign debt) state and imperial formations.

amenable to cross-cultural, trans-historical, or archaeological comparison. This lack of comparability does two primarily limiting things: first, it portrays finance as something new or *sui generis*, limiting our ability to understand the variety of social contexts in which finance can flourish and fail (see also Millhauser, 2020). Second, and following on the first, by describing finance as new or sui generis, it becomes relatively easy to see finance as a natural, inevitable technological or societal process that is simply one more grounding feature of our modern predicament. The danger of naturalizing finance is that it limits our ability to see finance as a relatively predictable human-made precipitate of a series of practical and political dilemmas and projects. That which is human-made can be human-un-made—when analyzing finance, we miss that at our peril.

Undoubtedly there are specific features of capitalism, modernity, liberalism, etc. that are incomparable to past portions of the human comedy. However, attribution of financial phenomena to specific, recent, and unique forms of human history, again, allows little ground for further comparison. Ground for comparison becomes a bit clearer when analytic projects focus on the tools and technologies and the networks that allow finance to operate. After all, computational tools and accounting technologies are not specific to recent human history. That said, in practice much of this work on tools and technologies of present-day finance has dodged larger comparative questions, or questions of the exercise of social power altogether, often leaving the distinct impression that sophisticated socio-technical networks drive contemporary capitalism and exist at such staggering levels of complexity that larger comparison would be pointless.

Work that subordinates the study of finance and financiers to larger political projects gives grounds for the comparative study of the exercise of power in human societies generally, and the way that the exercise of power has made use of finance. What is particularly exciting about this last frame of analysis, is that there are numerous non-capitalist cases across human history and the archaeological record that are grounds for comparison and expansion of our understanding of where finance can function (e.g. Monson and Scheidel 2015). To this end, I offer an account of finance, accounting, and labor coordination in the Inka empire, based on documentary and material evidence, to illustrate how finance functioned in a distinctly non-capitalist context.

Here, on this basis, I compare Inka accounting to private equity accounting and labor coordination today, suggesting that both forms of accounting and labor coordination are specific, subsidiary financial processes for abstracting wealth and labor and then manipulating it at a distance. Moreover, both examples of accounting and labor coordination processes are executed by specific specialists capable of weighing in on questions of value, wealth, and worth, in other people's lives and work in distinct ideological and cultural worlds. Comparing these two instances of accounting and labor control allows for the examination of how different ideas can validate similar accounting practices. Accounting is a persuasive mode of financial reasoning that gets put to political purposes in order to coordinate large amounts of labor, as in the larger literature on "critical accounting" studies (Miller et al. 1991; e.g. Carmona et al. 1997). Crucially, I show that accounting functions in both capitalist and non-capitalist settings and is capable of expediting labor coordination via different ideological presuppositions in both cases.

2. The academic bestiary of financiers

In what follows, I review a number of recent studies of finance and categorize them according to a simplified account of their grounding analytic frame: 1) those studies that see financiers and financial practices as the result of historically specific features of capitalism; 2) those studies that see financiers and finance as explicable via recourse to human/non-human networks of technological entailments; and 3) those studies that see finance as part and parcel of specific political projects and the specific exercise of social power. This sequence is deliberate. The order I have laid out flows on a gradient of least comparable to most. That said, as will be apparent in the comparison which ends this article, each mode of scholarship—historical particularism, a focus on material networks and experts, and attention to the political context of finance—is necessary to my own comparative analysis.

Historically Specific Accounts of Finance People

Much recent scholarship on finance takes as its charge the explanation of historically particular developments in finance (e.g. de Goede 2005; Finel-Honigman 2010; Fisher 2012; Miyazaki 2013). Kimberly Chong's (2018) ethnography of management consultants in China illustrates what this can look like. Chong documents the way in which management consultants in China are brought into companies to install enterprise resource planning (ERP) software. The attention of consultants and the installation of ERP software serves as an indexical sign for global investors that the consulted companies are to be taken seriously and deserve money. In turn, this consulting activity emerges within the historical specificity of Chinese companies opening themselves up to foreign investments, which dictates the sorts of actions that should happen to a company. Similarly, Karen Ho's (2009) ethnography of investment bankers in New York City, also sees financiers as following from a specific capitalist history. Ho notes that capitalists in the last third of the 20th century have come to see companies, in part, through the lens of shareholder value. In turn, this shift in view of a corporation opens space for investment bankers to price and facilitate the sale of companies as though they were interchangeable, expendable parts of a portfolio. Moreover, in Ho's telling, this leads to no small amount of the amoral distancing and casual, cruel inhumanity of financial capitalism.

These studies offer specific, contextualized accounts of financial action and power. This sort of historical particularism is essential for understanding the nuances of any given case. However, it is often tricky, given the overwhelming focus on historical specificity to move to a more general analysis. In other words, to understand how our epoch stacks up to others, one needs to complement these sorts of accounts with broader theoretical frames.

Human/Non-human Networks in Accounting for Finance

One of the most striking things about contemporary financial capitalism is the degree to which it has automated and electrified (Borch 2016). Given this, it is understandable that another starting point for the study of finance could focus on technology as the material entailments of financial action. Much of this research flows out of actor network theory (e.g. Latour 2007), or performative theories of financial markets (e.g. Callon 2007), and attempts to understand economic actors via the complex socio-technical systems and networks financiers both co-create and take part in. The key insights in this body of literature are twofold: first, markets are not natural facts, but, rather, constructed, designed, and, at least partially, intentional. Second, one can only understand how financiers do anything if one also has a clear understanding of the technological affordances which co-constitute their actions.

One of the most expert ethnographic practitioners of this mode of scholarship is the sociologist Donald MacKenzie, who, for the last few decades, has been chronicling the mechanization and electrification of financial markets. A particularly good example of MacKenzie's work is his book *An Engine, Not a Camera* (2008), which explores the degree to which mathematical modelling of options prices affects the forms and behaviors of financial markets. As nuanced and complex as this book is, though, MacKenzie does not spend much time developing the larger socio-political significance of the rise of derivatives (as in Bryan and Rafferty 2006; Lee and LiPuma 2004; LiPuma 2017; or MacKenzie 2018).[3] Following this trend, others have demonstrated the ways in which, as markets have electrified and automated, traders and financiers have developed a number of social heuristics for interpreting the actions of market participants, despite being on the far side of a screen, as well as shown the limits and ignorance wrapped up in markets as they are currently constituted (Buenza and Stark 2012; Cetina and Preda 2007; Lange 2016; Leins 2018; Preda 2017; Svetlova 2012). Caitlin Zaloom (2006) described how the physical layout of the Chicago futures trading pits acted as a grounding technology for open outcry traders, who jostled and shouted and felt the market, all while standing on descending steps around an octagonal trading space.

A few scholars in this tradition have started cracking into questions of politics and distribution, albeit tentatively. Vincent Lépinay (2011), in describing the development and marketing of bespoke derivatives in large banks, underscores the interplay between external client demand, internal banking practice, and alludes to regulatory structuring (see also Arjaliè et al. 2017). Similarly, Annelise Riles (2011) shows the way that the retreat of government regulation and the increasingly transnational scope of financial institutions has led to a rise of contractual governance, in which forms of collateral fill the enforcement void left behind by states. Douglas Holmes (2013) shows how central bankers, as their monetary policy has a weaker and weaker hold on the imaginations of investors, have shifted to forms of public persuasion to

[3] Lately MacKenzie has started addressing the lack of a politically significant analysis in this genre of writing about finance by considering the interplay of various social fields to see who have shared or competing interest in the outcome of financial transactions (MacKenzie 2018)

affect, using rhetoric and market representational devices like charts as technologies to convey or perform particular attitudes towards the economy.

The triumph of this ANT or performativity inflected literature is its insistence that researchers should not take human/non-human relationships for granted and should not presume on the face of it that humans are the most important actors in a given assemblage of people and things. That said, should one seek to describe the way in which finance is shaping lives outside of the universe of professional finance, the above ANT or performativity inflected literature can be slow going. There is a sense of constantly waiting for the other foot to fall, waiting for an explanation of what on earth these careful analyses mean, what they signify.

Political Projects and the Exercise of Power Via Finance

Fortunate for the sort of analysis I advocate, there are a number of recent studies of financiers that take as their starting point the way in which finance affects larger political projects and actions. I suggest that these accounts of finance are distinguished from the first two sections of the above review by framing finance as a mechanism of politics and power, not a single phenomenon, specific to a single moment in capitalism. Moreover, the vast majority of these studies situate financiers vis-à-vis the larger political formations (such as states) that constrain and enable their actions.

Julia Ott (2011) offers a particularly clear example of the state using finance as a mode of governance, in this case as a way to support a war, in her book, *When Wall Street Met Main Street*. Ott shows that prior to a World War I era national bond drive, financial markets were seen as elitist and marginal to American society. By contrast, during and after World War I, financial markets came to be seen as central features of American life; and, ultimately, all this paved the way for the roaring twenties and the stock market crash that started the Great

Depression. In the context of another crisis (2007/2008), Daromir Rudnyckyj (2019) shows how another state (Malaysia) turned to finance. From the wreckage of that crisis, came a series of state policies and initiatives to set up a Malaysian-based global infrastructure to support Islamic finance. In turn, the Malaysian state hopes to lay the groundwork for a global Islamic financial network as an alternative to dominant financial practices, and as an assertion of a particular creedal tradition's way of being in the world. Finance becomes a way to be Malaysian and Muslim.[4] Numerous other scholars successfully analyze finance as a part of a larger political analysis historically (Arrighi 2010; Graeber 2011; Levy 2012) and in the present day (Aalbers 2008; Hertz 1998; Krippner 2011; Mattioli 2018; Peterson 2014; Sneath 2012). I (Souleles 2019a) have sought to show the way in which private equity investment practices both enrich capital holders and render workplaces increasingly volatile, insecure, and dominated by the imperatives of financial capitalism.

Among the scholars who subordinate financial activity to larger political and economic narratives, there is no predominant theoretical orientation. Rather, there is a common direction of analysis that seeks to understand the way in which finance is key to describing the rise and fall of particular political formations, and, in turn, is key in structuring the everyday lives of most people on the planet. Finance becomes a site to study the mechanics of power, however defined, and, in turn, amenable to comparative study.

3. Justification for wider comparison

Now that I have reviewed the bounty of contemporary studies of finance, I will broaden our analytic scope to societies prior to the rise of industrialization in Western Europe, non-capitalist

[4] Observers of Islam and Islamic Finance will know that interest bearing loans are generally seen as forbidden under Islamic law (e.g. Maurer 2005).

societies, and societies largely known from the archaeological record. Any such analysis should take seriously the politics of finance and the fact that financial modes of exercising power are not due exclusively to capitalism and should not be afforded the status of a historical novelty. In what follows, then, I offer an example of just such an analysis by comparing Inka and private equity accounting.

To do so, I draw on Eric Wolf's work to articulate a general theory of social power and then draw on voices from critical accounting studies to explain how such power is exercised via accounting practice, a specifically financial form of reasoning and technology that takes on local logics and entailments but also is general enough to be cross-culturally compared. The point of merging a specific definition of power with studies of accounting is to characterize the way in which accounting and those who keep the accounts use this reasoning and technology to coordinate labor and extract wealth at a distance. I suggest accounting is one way that financial reasoning in the exercise of power recurs.

Power and Accounting

The notion of power that I use is both relational and structural, following Wolf's (1999) observation that power is more than simple human potential or one individual dominating another (though, these are both real). Wolf suggests that two other ways to understand social power are the ability to set the terms of a social relationship, the terms of engagement, as well as deeper structural aspects of power that systematically tilt a political contest in one side's favor. Wolf goes on to link these structural forms of power to Marxist theories of labor coordination, and Foucauldian theories of governance, both of which are echoed below (Wolf 1999:5). So, when I say power, I use it in this structural and productive sense, gesturing to the ability to set the terms of social life, and to tilt the social field in one group's favor. Inequality, then, is simply the contours of these structural imbalances.[5]

Accounting mechanisms are one of the ways in which finance tips social power in one person or group's favor, allowing reliable, repetitive, and standardized control over the form and value of systematic abstraction, and, in turn, the coordination of labor via forms of material tracking and tracing (see also Maurer and Swartz 2017). Again, accounting is particularly useful for the coordinating of wealth and labor at scale and at a distance. In the context of industrial capitalism, Bryer (2006) has argued that, "the function of management accounting is to allow senior management to control workers, including subordinate managers" (553), and, as a consequence, "Accounting lies at the core of capitalist control of modern business enterprises…by holding the collective worker accountable for the rate of return on capital" (592). More generally, scholars of the "New Accounting History" make the point, that accounting, far from being a neutral, managerial expediency, often co-constitutes the exercise of power and control over the labor process (Miller, et al. 1991; see also Carmona et al. 1997:412; Cooper et al. 2016).

Flannery and Marcus (2012), in their book *The Creation of Inequality*, extend this point far beyond accounting, industrial capitalism, or European imperialism, and suggest that across human societies inequality is aided and abetted by restricted access to the ways in which a society determines what is valuable and how that value might reasonably be allocated (as in the processes of accounting). That is, the accumulation of wealth and the creation of inequality is related to control over bottlenecks in the identification and circulation of wealth (Earle et al.

[5] I concede that there is no absolute standard for assessing what sort of imbalance is meaningful or consequential in a given social context. One person's inequality could be another person's blessed subordination to, say, a monastic order. That said, the examples I observe are exceptionally coercive and people often do not have the meaningful ability to opt out.

2011:212). This control over the identification, distribution, and bottlenecking of resources is what I am attempting to render comparative. Most basically, the bottlenecking created by value specialists leads to the unequal distribution of wealth, and in turn, social power in a given society. Closer to the present analysis, this is what James Scott (2017) describes in his history of early states, the rise of writing and account keeping, and the exercise of state level power. Any sort of value specialist creates this kind of bottleneck. Financiers are one spectacular example of this sort of bottlenecking—10,000 people could work in a factory, but only a small group of, say, three to four analysts and their material and knowledge-based accounting entailments are legally and consequentially able to weigh in on questions of value, management, and worth.

Now, it may be objected that this is a trivial observation—of course the control over what is valuable would lead to some sort of social power. This seems almost tautological. However, Wolf's definition of power (the ability to set and manipulate a social field via the persuasive, coercive, and systematic deployment of ideas) as well as an understanding of the way in which accounting functions as an abstraction of labor and wealth (an abstraction that shifts and develops with various systems of power) makes this observation more specific. Accepted practices of accounting index certain forms of labor that people can, in turn, coordinate, marshal, and/or exploit. For present purposes, then, it becomes important to explain specifically what ideas validate specific accounting practices and how they come about in specific contexts (e.g. Joseph 2014). In what follows, I illustrate the exercise of this accounting-based social power to coordinate labor and allocate resources, first with the Inka, to illustrate the value of a non-present-day, non-capitalist cases, and then with my own research on private equity investors (Souleles 2020) to illustrate the continuity we might find with non-capitalist cases via one present-day, paradigmatically capitalist case.

4. Private Equity and the Inka

The Inka

A caveat before I begin: Sabine Hyland (personal communication) points out that claims about Inka accounting and khipu knot-records have me wading into an area of fast moving and highly competent scholarship (e.g. Hyland 2014, 2016, 2017; see also Lysaght 2016). Given this, I will circumscribe the nature of my comparison: I am making use of the fact that the imperial Inka had a hierarchical system of abstraction and accounting which was able to persuasively facilitate labor coordination and surplus accumulation from millions of subject people. I see this as comparable to the systems of accounting abstraction present-day financiers make use of in their own ledgering practices, and the material traces that accumulate (the accounting records, spreadsheets, financial models and the like, all noted above) in the service of their investment arguments. However, and this is what makes the comparison interesting, accounting for the Inka was able to carry radically different ideological assumptions about the nature of labor, the uses labor could be put to, and the larger nature of the cosmos.

Inka hegemonic ambitions were underscored by a cosmology in which the ruling Inka and all other living humans both existed in a world replete with animate beings (including features of the landscape, the earth, the sea, the sun, and so on) and ancestors of various wills and powers. The Inka needed to accumulate goods and people to sacrifice in order to mediate these various relationships (often with some instantiation of the sun in a position of primacy), all to bring order and control to a slippery, living, chaotic world (e.g. Swenson 2003; Wilkinson 2019; for an overview see D'Altroy 2015: 247—290). Moreover, the Inka built their empire and maintained their relationships with their full, vibrant world via a heterogenous mixture of imperial strategies, relying on everything from direct military coercion and forced labor, to symbolic building projects (Alconini 2008), as well as the co-opting of local long standing patterns of kin-based or ancestor-based labor coordination and reciprocity (Hastorf 2003), all of which led to a patchwork process of imperial state formation over several hundred years (Covey 2003). It is worth noting that these ideas and ambitions are a far cry from the individualist, capitalist, and modernist ambitions of contemporary financiers (and the politicians and judges who permit their activity) who often feel that investment, innovation, and processes of capital accumulation will lead, someday, to a consumer utopia in which all individual needs and wants are anticipated and met, and individual wealth grows indefinitely (see Wilkinson 2019 for a discussion of the uses and limits of contemporary/Inka comparison; see below for a further elaboration).

Relating to Inka number systems specifically, Urton (1997:181—183, 214—217; see also Tun's 2015 and 2016 work on Andean and Inka "Yupana" counting systems) ably demonstrates that assumptions and considerations foreign to those of present-day financiers come with Andean numeracy. No financier, for example, is obsessed with duality in construction of their spread sheets. Though, this sort of formulaic consideration is part of what makes accounting persuasive in different contexts—precision with private equity, and, among other things, dualism for the Inka. However, elsewhere Urton makes an explicit case for seeing Inka accounting as analogous to double entry bookkeeping (Urton 2009; Urton and Chu 2015; Fossa 2000 makes similar observation about the nature of Inka accounting), a foundational accounting practice both for the operation of contemporary businesses and a necessary input for the creation of financial models and reporting that undergirds much of present-day finance.[6],[7] What is noteworthy for present purposes, though, is the similar effects of Inka and investment accounting, despite the differences in cultural contexts, and, thereby, the difference in the ideas they carried. However, to appreciate these similarities across such difference, more information about how accounting and abstraction worked in the Inka domain is necessary.

At its height, the Inka empire spanned more than 4,000 km of western South America and encompassed more than ten million people (D'Altroy 2015:xv). D'Altroy observes that, "as their domain expanded, the Incas were faced with the challenge of governing societies that ranged from villages to states and a population that ultimately outnumbered them by about a hundred to one" (2003:231). Key to understanding Inka expansion and dominion is the fact that the Inka claimed to own all land and resources that they conquered. Insofar as local or indigenous or subordinate people could make use of their land and labor it was, "by the grace of the Inka" (D'Altroy 2015:395), and, conceptually, in exchange for regular subject labor on state-level projects either in perpetuity as relocated, specialized labor, or in the form of corvée labor teams for two to three months per year. Following this first assertion of total ownership of land, there was a second division of use which allowed the Inka to activate the labor of their subject populations to make land productive, described by a Spanish priest and missionary as follows:

[6] Double entry bookkeeping may be understood as a form of record keeping in which resources or wealth are doubly noted creating an auditable, zeroing-out of accounts. For example, if one were to borrow US$100,000 and account for it using double entry bookkeeping one might say that one has both a debit of US$100,000 in the form of an obligation to a bank or whomever lent the money, but a credit in a cash account in the same amount indicating money to spend. If one were to add of the debit and credit, they would sum to zero (a negative 100,000 owed plus a positive 100,000 available to spend). This sort of accounting allows the record keeper to both imagine and track cycles and flows of wealth. Moreover, this sort of accounting also allows for a straightforward mechanism of surveillance in the form auditing: when both sides of the double entry don't sum to zero, the accounting provides an index for potential problems in the treatment of wealth.

[7] For an overview of how these particular modes of accounting scaled-up into the larger organization of the Inka Empire see Urton (2015) as well as Julien (1988). To see how one might incorporate the Inka or financiers into larger comparative studies of accounting see Gomes (2008as well as Ezzamel 2009).

“When the Inca settled a town, or reduced one to obedience, he set up markers on its boundaries and divided the fields and arable land within it territory into three parts, in the following way: One part he assigned to Religion…another he took for himself, and a third he left for the common use of the people” (Bernabé Cobo b. 1582, cited in D’Altroy 2015:392)

The specific intricacies of Inka production, provisioning, storage and wealth are beyond the scope of this paper. But, what should be manifest is that the assertion of Inka ownership of land and Inka entitlement to labor over the span of their imperial domain coerced a sort of reciprocal relationship that the Inka grafted on top of already existing forms of kin-based labor coordination. This labor coordination coupled with widely shared notions of cosmologically demanded pooling of resources, as noted above, was one of the Inka strategies of government. Maintaining these relationships over the breadth of the Inka empire demanded sophisticated accounting and record keeping: censuses to track potential laborers, inventories of tasks rendered, and accounting for surplus accumulation and distribution (Urton 2017; see also D’Altroy et al. 1985). It also demanded specific material technology and specialists to keep and interpret them. The khipu was the key to all of this.

Given the enormity of their domain, the Inka created a series of ever smaller hierarchical relations in which “people of each sex were assigned to one of ten categories that corresponded to their life stage or ability to do useful work” (D’Altroy 2003:234; Urton and Brezine 2007) for “labor taxation and military recruitment” (D’Altroy 2003:231). What’s more “the Incas kept separate *khipu* [rope knot records] for each province, on which a pendant string recorded the number of people belonging to each category” (2003:235). This tabulation and tracking was all the more important as the Inka, “moved entire communities hundreds or even thousands of kilometers to create enclaves of settlers called *mitmaqkuna*…[in order to] disperse societies that posed threats to Inca security…[and] to congregate economic specialists whose products were destined for state use” (2003, 248, italics original; D’Altroy 2005).

Urton, drawing on Spanish sources, describes a bit of what this looked like:

> In Inka census taking, people were ordered into public places to be counted and classified. Although resistance and evasion may have been common in such proceedings, from what the Spanish chroniclers and administrative officials tell us, Inka censuses were accomplished using non-coercive measures—that is, local people apparently were compliant with the claims of authority coming from local officials and state administrators. Thus, as much as an accounting tool, the census khipu was an instrument for the performance and display of state authority and power within local communities. The census data collected by local record-keepers were knotted into khipus, copies were made of each record, and the data were subsequently reported to higher-level accountants in regional and provisional and administrative centers…[Urton 2011; see also Julien 1988:261 for a local description of the Inca census]

And, as Urton gestures to towards the end of his description, this mode of accounting was scalable—lower levels of administrative concern could communicate with higher levels. Or, put another way, lower knot-accounting levels could be summarized by higher level knot-records, and higher order imperatives could divide downward into greater levels of particularity (Urton 2015:194). Scalability was not the only commonality Inka accounting had to forms of accounting associated with the rise of capitalism and present-day finance; the Inka also made use of double entry ledgering (again, a foundational contemporary business practice that allows for the generation of financial statements) in their khipu to track debits and credits of labor and tribute obligation (Urton and Chu 2015).

Urton and Chu argue that these accounting abilities allowed the controllers of the khipu to, “exercise… the greatest force in establishing and maintaining Inka power throughout Tawantinsuyu [the Inkas’ name for their empire]. They did this by the most seemingly prosaic of acts—naming, counting, and recording statistics (as well as histories) in knots and colors” (2015:527). So once the Inka took control of a portion of their empire, despite their relatively small numbers, they had a system of rationalization and tracking that was both persuasive to the people they conquered and allowed them to mobilize the labor and resources of those same people (compare to Souleles 2019; Souleles and Scroggins 2017:89—91).

One particular example of khipu use and deposition will illustrate the khipu's role in imperial control. Gary Urton has written about the khipus found at Laguna de los Cóndores, noting that it is interesting that the khipus were already found in this region as it only came under Inka hegemony only 50 years prior to Spanish conquest; moreover these khipus were interred with mummy bundles (2007:64; see also Urton 2017:63ff; see). Urton suggests that, at this particular site, one khipu contains some sort of a two year calendar (2007:66), and others may have spoken to tribute obligations. Among the mummies it seems clear that there were Inka officials such as the master of the khipu, the khipukamayuq (2007:65). So, there is a khipukamayuq buried with calendrical, census, and possibly tribute related record keeping devices—devices that, taken together, allowed the tracking and coordination of labor, which followed the logic of Inka domination. This, then, is an Inka instance of Earl et al.'s bottlekneck: we have an individual and perhaps a retinue, an accounting specialist and their team standing between production of wealth by thousands on the one hand, and it's aggregation and redistribution on the other for the purposes of the empire.

A further note regarding the mummies will illustrate the nature of Inka reliance on khipu and their attendant modes of accounting:

"In the high Andes, a common person's status changed when he died…the thirsty spirit of an ancestor still inhabited the land, requiring libations of chicha and other attentions (Gose 1993)" (D'Altroy 2003:193). The dead were very much still with the living, and "Royal mummies [even] ate, drank, urinated, visited one another, sat at councils, and judged weighty questions"

(D'Altroy 2003:141). So, one has a cosmology in which the dead can consult with the living (and vice versa), and one has a form of burial in which state officials are interred with their provincial records on the same accounting devices that allow the Inka empire to provision itself and extract wealth. D'Altroy has suggested that the official, the khipukamayuq, was buried this way in case the Inka came back and wanted an account of their domain (personal communication). The khipukamayuq serves as a bottleneck, standing in between wealth's production and then its aggregation and redistribution according to the logic of Inka hegemonic rule, sacrificial production and consumption, and cosmological maintenance. Just as the present-day corporation is conceived of as an entity that can own property, acquire, debt, and never die, so too do interred khipukamayuqs and their ledgers suggest a sort of immortal obligation to a specific mode of labor coordination.

Private Equity

Much in the way that Inka managed others' labor at considerable scale and distance, so do present-day private equity investors. Private equity investors manage funds of borrowed money in order to buy, manage, and then sell companies at a profit for the investors who lend them money. Their ability to treat companies as investments comes out of a long, specific legal and political history (Pistor 2019) that has defined businesses as partible property that allows those holding title to buy, sell, dissolve, and combine whole companies as they see fit, as though these collections of people and lifeworlds were objects. Moreover, the collections of people and lifeworlds, can exist as "corporations," or be owned by larger corporations, all of which constitute a mode of legal personhood that is specifically designed for an indefinite existence in its ownership of property and contracting of obligations.

Beyond the specific form and fact of a corporation and its modes of ownership, a state-sponsored court directs the armed enforcement of this legal tradition via various levels of armed policing, often against and over the will of those who have some stake in a company but not ownership (such as a local community, or employee). All this, too, is in service to various ideologies supporting capitalist-friendly modes of production and government which suggest that the pursuit of individual gain and local organizational efficiency will lead to a better world in the utopian far-future, regardless of present tumult and chaos in pursuit of these goals (Foley 2006; Guyer 2007; Hirschman 1977). This individualistic, competitive, and teleological ideological grounding is opposed to Inka ideology, which, though millenarian in its own way, was more sacrificial and mutually interdependent in character.

At the time of the study I cite (Souleles 2019), private equity investors managed around $3.5 trillion dollars of capital across thousands of businesses in myriad industries—everything from industrialized hog slaughtering (Smithfield), to upper middle-class mall clothing (J Crew), to computer manufacturing (Dell), is subject to private equity take-over and management. The range of private equity activity is all the more remarkable as private equity, as a mode of financial activity and accumulation, only got started in the late 1970s, in the wake of numerous crises in other modes of capitalist accumulation and shifting ideological grounding for understanding what a corporation was and what role it should have in society (Souleles 2019:13ff).

Private equity investing activity serves to divert profits, or surplus value from vast swaths of industries, to the owners of capital, often large investment funds representing sovereign states (Saudi Arabia, Norway, or Alaska), pension and welfare funds (California or New York teachers), charitable foundations (the Harvard, Yale, or Princeton Endowment), or insurance companies (such as Guardian life insurance). Taken together, private equity can be seen as a mode of capital allocation that coordinates disparate sites of labor, and extracts and distributes wealth to the owners of capital. Whereas in the Inka example we could imagine, conceptually at least, a unitary dynastically led state personified in the Sapa Inka (the "Unique Lord" D'Altroy 2015:3), in the case of present-day private equity, the state serves no such direct coordinating role. Instead, the state sets up the conditions of competition among capitalists. As to the nature of this competition and accumulation, it is necessary to understand private equity's quotidian investing and accounting activities.

Any business seeking private equity capital would provide a number of years of accounting and financial statements to the private equity firm. In turn the private equity firm would take those financial statements to develop various predictive models of the company's future performance under particular managerial schemes and future scenarios in order to make an argument for purchase. This relationship to the future, prediction based on precise mathematical models of future cashflow is one of the techniques and technologies that present-day financiers use to make arguments, and persuade others of their acumen (Leins 2018; Souleles 2019:129ff; Svetlova 2012).

Investors use these models to persuade banks of the soundness of their investment strategy and secure the remainder of the necessary financing to make a purchase, as well as to justify hiring people, firing people, and making people do specific tasks. Part of what marks these models legitimate is their reliance on precision, and the fact that they are undertaken by presumed valuation experts, that is, by investment professionals. This mode of accounting and future prediction thereby allows private equity investors in their own societies to direct and allocate flows of wealth, and to justify their control over others' livelihoods. Put another way, private equity investors create a bottleneck in the flow of wealth in their society—they stand in between the many that produce wealth, and the institutions (private equity's "investors") who have a claim on that aggregated and reallocated wealth, all according to the logic of financial capitalism. In turn, this lock on the identification of value and access to capital can lead to dramatic societal conflict. One example is the saga of numerous bankruptcies, restructurings, and private equity led buyouts of Hostess brands, maker of the Twinkie snack cake (Souleles 2021).

In 2013, a consortium of private equity investors stood as triumphant owners of Hostess brands, having successfully persuaded courts to ignore union arguments for what was wrong with Hostess, invalidate thousands of union contracts, and reduce a pre-buyout work force of over 10,000 workers to just over 1,000 workers. All this was to deliver a return on investment to an assortment of capital owning funds with no necessary relation to Hostess, Hostess workers, or snack-cakes. This consortium of private equity investors and their limited partners were able to sell their newly stripped down, de-unionized Hostess for U.S.$2.3 billion, thirteen times what they paid for it. At the core of this social drama was private equity investors privileged access to value assignation—to accounting.

To underscore what this power means, in another project (Souleles 2020) on employee owned companies in the United States, I repeatedly heard that one thing standing in the way of more employees buying out their bosses was a lack of banks willing to lend them money. The transaction could be structured the same as a leveraged buyout, the form of transaction most frequently used in private equity deals. Banks simply did not trust employees to manage money in the same way that they trust private equity investors. Private equity investors' perceived financial acumen (partially earned, though largely due to their position in their society, and their fluency in modes of accounting) grants them access to capital, control over companies, and the ability to redirect money back to original capital owners (recall Chong's [2018] expert consultants). What undergirds this is a belief that financial management is a generalized skill, that businesses can be understood as investments, and, more generally, that future-oriented investor-based capitalism is a good way to organize human lives.

Put another way: the seeming precision of the numbers and the models (see Porter 1995), the ability to chart into an infinite future, the presumed expertise of financial generalists over labor specialists, all bolster a certain mode of rationality that is privileged in a present-day capitalist context. Just as the khipukamayuq was necessary—uniquely, within Inka society—to interpret the khipu knot-record, so are private equity investors specialists essential to consecrating buyout deals and persuading the owners of capital to lend out their wealth. However, unlike the khipukamayuq, private-equity-investors-as-bottlneckers act with a certain degree of autonomy from the state. There is no analogous state-controlled and -sponsored tributary and sacrificial logic at play as in the case of the Inka. Rather, private equity investors operate according to the legal rules various governments have created to allow for autonomous capitalist agents to individually accumulate wealth for private ends.

5. Towards a financial imaginary

In different times and with different techniques and traces, the Inka and private equity investors have taken control of other groups of people—a neighboring polity via military conquest in one case, and, say, a grocery store chain via a leveraged buyout and under the aegis of property rights in another. Yet both have ways of accounting for and proving what is valuable and when value can be extracted in their respective domains. Actors in both venues control techniques of accounting for value and generate wealth in the context of local cultural schemas in the interest of a form of labor and resource management with particular plans for the future in mind. However, each of these systems relies on very different grounding assumptions to make the abstraction tenable and a specialist bottleneck between the production and the accounting and reallocation of wealth possible. In the private equity case, accounting is granular, precise, rendered in numbers and on spread sheets. Taken together, the specific conjunction of counting specialist and their technology grant persuasiveness. For the Inka, accounting was persuasive because of the numerical form it carried as well as the way in which the Inka were able to insert themselves into preexisting forms of collective labor and cosmological obligation, just at a much grander scale.

The Inka perpetuated their hegemony by asserting that they were the sole ones capable of keeping the four parts of their empire together (Tawantinsuyu*,* literally the four parts together, D'Altroy 2003:xiii), in part via the khipu accounting system and their attendant labor and military taxation schemes. Private equity, in turn maintains its privileged position in the allocation of wealth and labor in a present day context due, in part, to its practitioners' precise financial acumen which allows them to arrange productive activity, decide what jobs should exist and why, and to decide who deserves to reap wealth in the interest of the long term economic growth and efficiency that they promise.

One further difference: whereas Inka-directed accumulation was essentially that of an imperial state actor, private equity practitioners make use of the state and a legal system to allow themselves an arena for privileged competition in which a state, at most, partially supervises. This difference, the significance of which only emerges in the light of comparison, points towards the future use of the sort of comparative analysis I outline here. First, juxtaposing present and past cases offers the opportunity to examine different ways that financial regimes of governance have come into being and what sort of ideological loading and hegemonic class and constellations validate and maintain them. Second, comparison and analysis of, particularly, historical cases offer the ability to inventory the ways in which financial regimes of governance have broken down, gone away, or shared space with other techniques of governing people. Extending this sort of analysis of the ends of finance would allow researcher to propose analogues to the present-day which could help both researchers and political actors understand the predeterminants for particular financial regimes' transformation or disappearance.

To my mind, the commonalities across the Inka and private equity cases, despite significant structural and ideological differences, also goes some distance towards the "riddle" of durable inequality in human societies, particularly since the rise of agriculture, that Wengrow and Graeber identify. They wonder, "why, after millennia of constructing and disassembling forms of hierarchy, *Homo sapiens*—supposedly the wisest of apes—allowed permanent and intractable systems of inequality to take root" (2015:17). One answer is that there are fairly repetitive forms of accounting for value identification and capture, and these are monopolized by a chosen few. Recent instances of financialization make use of these forms, as did the Inka. Insofar as we desire social change, attention to accounting, the mode of value identification, abstraction, and allocation, the assumptions that make accounting persuasive, and who accounts for what is worthwhile in a given social context, are all good places to start. Ultimately, this is the promise of a larger comparative vision of finance, a clarification of the varieties of contexts and ideological grounding that allows finance to flourish and, perhaps, fade away.

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