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Capital as Process and the History of Capitalism

In the wake of the Great Recession, a new cycle of scholarship opened on the history of American capitalism. This occurred, however, without much specification of the subject at hand. In this essay, I offer a conceptualization of capitalism, by focusing on its root—capital. Much historical writing has treated capital as a physical factor of production. Against such a “materialist” capital concept, I define capital as a pecuniary process of forward-looking valuation, associated with investment. Engaging recent work across literatures, I try to show how this conceptualization of capital and capitalism helps illuminate many core dynamics of modern economic life.

Keywords: capitalism, capital theory, economic thought, finance, Industrial Revolution, Keynes, money, slavery, Veblen

Recently, the so-called new history of capitalism has helped bring economic life back closer to the center of the professional historical agenda. But what further point might it now serve—especially for scholars toiling in the fields of business and economic history all the while independent of historiographical fashion and trend?

In the wake of the U.S. financial panic of 2008 and the Great Recession that followed, in the field of U.S. history a new cycle of scholarship on the history of American capitalism opened, but without all that much conceptualization of the subject at hand—capitalism. If there has been one shared impulse, it is probably the study of commodification. Follow the commodity wherever it may lead, across thresholds of space, time, and the ever-expanding boundaries of the market.

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Historians, many invoking capitalism, have analyzed and described the commodification of cotton, money, coal, labor, slaves, risk, debt, real estate, corporate securities, a host of consumer goods, and more.¹

In the meantime, the capitalism question—What is it exactly?—has mostly been suspended, and oftentimes consciously so. Some suggest that to rigidly define capitalism would be to foreclose the entry of possible participants into an open conversation, where eclectic methods and approaches might thrive.² Yet others worry that the lack of a clear conceptualization of the subject prohibits the setting of a positive research agenda, which undermines the coherence of the project or, at a minimum, makes it difficult to assess.³ I share this worry. Still more conceptual specification is necessary if the history of capitalism is to be something more than an inviting rubric.⁴ In this essay, I put forward one possible understanding of capitalism and try to demonstrate what distinctive contributions the history of capitalism, thought of in this

¹ My own past work on the commodification of risk fits into this category: Jonathan Levy, *Freaks of Fortune: The Emerging World of Capitalism and Risk* (Cambridge, Mass., 2012). See, for sample works in this decade alone, Michael Zakim and Gary J. Kornblith, eds., *Capitalism Takes Command: The Social Transformation of Nineteenth-Century America* (Chicago, 2012); Sven Beckert, *Empire of Cotton: A Global History* (New York, 2014); Walter Johnson, *River of Dark Dreams: Slavery and Empire in the Cotton Kingdom* (Cambridge, Mass., 2013); Jeffrey Sklansky, *Sovereign of the Market: The Money Question in Early America* (Chicago, 2017); Christine Desan, *Making Money: Coin, Currency, and the Coming of Capitalism* (New York, 2015); Christopher Jones, *Routes of Power: Energy in Modern America* (Cambridge, Mass., 2014); Edward Baptist, *The Half Has Never Been Told: Slavery and the Making of American Capitalism* (New York, 2015); Daina Ramey Berry, *The Price for Their Pound of Flesh: The Value of the Enslaved, from Womb to Grave, in the Building of a Nation* (New York, 2017); Louis Hyman, *Debtor Nation: The History of America in Red Ink* (Princeton, 2011); N. D. B. Connolly, *A World More Concrete: Real Estate and the Making of Jim Crow South Florida* (Chicago, 2014); Julia C. Ott, *When Wall Street Met Main Street: The Quest for an Investor's Democracy* (Cambridge, Mass., 2011); and Zara Anishanslin, *Portrait of a Woman in Silk: Hidden Histories of the British Atlantic World* (New Haven, 2016).

² Seth Rockman, "What Makes the History of Capitalism Newsworthy?" *Journal of the Early Republic* 34, no. 3 (2014): 439–66; Louis Hyman, "Why Write the History of Capitalism?" *Symposium Magazine*, 8 July 2013, <http://www.symposium-magazine.com/>; "Interchange: The History of Capitalism," *Journal of American History* 2, no. 101 (2014): 503–36.

³ See, for instance, Naomi Lamoreaux's concerns in "Interchange: The History of Capitalism."

⁴ I follow and build on recent works in this spirit, including Paul A. Kramer, "Embedding Capital: Political-Economic History, the United States, and the World," *Journal of the Gilded Age and Progressive Era* 15, no. 3 (2016): 331–62; Amy Dru Stanley, "Histories of Capitalism and Sex Difference," *Journal of the Early Republic* 36, no. 2 (2016): 343–50; William H. Sewell Jr., "The Capitalist Epoch," *Social Science History* 38 (Spring/Summer 2014): 1–11; Jeffrey Sklansky, "Labor, Money, and the Financial Turn in the History of Capitalism," *Labor: Studies in Working-Class History of the Americas* 11, no. 1 (2014): 23–46; Jeffrey Sklansky, "The Elusive Sovereign: New Intellectual and Social Histories of Capitalism," *Modern Intellectual History* 9, no. 1 (2012): 233–48; Zakim and Kornblith, *Capitalism Takes Command*, 1–12; Sven Beckert, "History of American Capitalism," in *American History Now*, ed. Eric Foner and Lisa McGirr (Philadelphia, 2011), 314–35.

way, might offer to the even more important trend afoot: the broader, ongoing revival of historical interest in economic subjects, whether under the guise of the history of capitalism, business history, economic history, the history of political economy, environmental history, labor history, the history of economic life, or something else.⁵

It would seem impossible to define capitalism without first attending to its root, “capital.” The centrality of capital in modern economic life must be the most compelling reason to invoke capitalism as a category of analysis. Otherwise, why not speak of the economy, enterprise, the market, the commodity form, or some other category instead. But that then begs the question: What is capital? Even if implicitly, generations of historical writing have been guided by a roughly century-old definition of capital, which equates capital with a physically embodied factor of production. For example, the editor of the two-volume *Cambridge History of Capitalism*, a magisterial collection of essays by economic historians, defines capital as “a factor of production that is somehow physically embodied, whether in buildings and equipment, or in improvements to land, or in people with special knowledge.”⁶

Engaging with many new works, my goal in this essay is to sketch out an alternative conceptualization of capital, which I believe is more adequate to the task of both writing the history of capitalism and illuminating the core dynamics of modern economic life. In this conceptualization, capital is not necessarily a material factor of physical production. Rather, capital is a particular kind of pecuniary process of valuation, associated with investment, in which capital may (or may not) become a factor of production.

Toward this end, the first section of this essay is a brief survey of the historical evolution of economic theories of capital. I follow the twentieth-century economist John Hicks, who distinguished “fundist” from “materialist” theories of capital.⁷ The original understanding of capital

⁵ See Guillaume Calafat and Éric Monnet, “The Return of Economic History?” *Books & Ideas*, 30 Jan. 2017, <http://www.booksandideas.net/>; Kenneth Lipartito, “Reassembling the Economic: New Departures in Historical Materialism,” *American Historical Review* 121, no. 1 (2016): 101–39; Peter Temin, “The Cambridge History of ‘Capitalism,’” *Journal of Economic Literature* 53, no. 4 (2015): 996–1016; Louis Galambos, “Is This a Decisive Moment for the History of Business, Economic History, and the History of Capitalism?” *Essays in Economic & Business History* 32 (2014): 1–18; Jeremy Adelman and Jonathan Levy, “The Fall and Rise of Economic History,” *Chronicle of Higher Education*, 1 Dec. 2014, <http://www.chronicle.com/article/The-FallRise-of-Economic/150247>.

⁶ Larry Neal, “Introduction,” in Larry Neal and Jeffrey G. Williamson, eds., *The Cambridge History of Capitalism: Volume I, The Rise of Capitalism: From Ancient Origins to 1848* (New York, 1994), 3.

⁷ John Hicks, “Capital Controversies: Ancient and Modern,” *American Economic Review* 64, no. 2 (1974): 307–16. I have also drawn heavily from Geoffrey M. Hodgson, *Conceptualizing Capitalism: Institutions, Evolution, Future* (Chicago, 2015), chap. 7; Pat Hudson and Keith Tribe, eds., *The Contradictions of Capital in the Twenty-First Century: The Piketty*

as a fund of money for investment had by the turn of the twentieth century been replaced, Hicks argued, by many economists' abstraction from money and redescription of capital as a material mass of objects, physical things produced only in order to produce more things—a “produced means of production.”

The materialist concept is parsimonious. Its clarity has enabled and continues to enable scholarship of great value. If nothing more, defining capital as a produced physical means of production distinguishes capital from the larger categories of wealth and property, as well as the broader class of all commodities. And yet, because it equates capital with a produced physical factor of production, the materialist conception is a highly restrictive definition of capital. For the writing of history, there are chiefly three almost natural consequences of the materialist restriction. First, because of its emphasis on a produced factor of physical production, capital becomes almost synonymous with industrial machinery and equipment.⁸ Second, likewise the materialist capital concept abstracts from money—treating monetary and financial dynamics as extrinsic to both capital and the “real economy” in general. Third, for reasons to be explained later, the materialist capital concept is a temporally static concept. Thus, in addition to money it also abstracts from historical time—or at least, in pursuit of analytical clarity, it abstracts from the many eventful historical processes that are extrinsic from the point of view of the physical characteristics of the masses of objects that materialists define as capital.⁹

In recent years, many historians (and also economists) have almost instinctively broken away from the materialist capital concept. They have focused on preindustrial or postindustrial economies, in which not only physical machinery and equipment, but also land, slaves, or financial assets are important forms of capital. They have revived interest in issues of money, credit, and finance, phenomena no less and no more economically “real” than physical production. And, working at the boundary of economic and putatively noneconomic domains, whether

Opportunity (New York, 2017), esp. chap. 2; Tyler Beck Goodspeed, *Rethinking the Keynesian Revolution: Keynes, Hayek, and the Wicksell Connection* (New York, 2012); Avi Cohen and Geoff Harcourt, “Introduction: Capital Theory Controversy: Scarcity, Production, Equilibrium and Time,” in *Capital Theory*, vol. 1, ed. Christopher Bliss, Avi J. Cohen, and G. C. Harcourt (Cheltenham, U.K., 2005), xxvii–lx; Francesco Boldizzoni, *Means and Ends: The Idea of Capital in the West, 1500–1970* (London, 2008).

⁸The most extreme expression of this might be the “equipment hypothesis,” which theorizes that machines are unique vessels of economic growth. See J. Bradford De Long and Lawrence H. Summers, “Equipment Investment and Economic Growth,” *Quarterly Journal of Economics* 106, no. 2 (1991): 445–502.

⁹On eventfulness and historical time, see William H. Sewell Jr., *Logics of History: Social Theory and Social Transformation* (Chicago, 2005).

studying market culture, law, or political economy they have reintroduced the economy to a variety of historical processes, and vice versa. Yet they have done so without the benefit of a more expansive, although still distinct conception of capital, which might ground a working conceptualization of capitalism.

Therefore, in the second section, I argue for another conceptualization of capital—as an economic *process*, governed by a form of pecuniary valuation, namely, capitalization.¹⁰ At the most abstract level, capital, in this line of thought, is what Thorstein Veblen once called a “pecuniary magnet.”¹¹ Capital is legal property assigned a pecuniary value in expectation of a likely future pecuniary income. Capital valuation is prospective, always occurring under conditions of uncertainty. A capitalized form of property, including but not limited to a material factor of production, is a capital asset. Its legal owner is a capitalist. An economy in which capitalization has risen to principal economic status may be said to be a capitalist economy.

Capital as process is a pragmatic definition of capital, one in which agents and institutions are always doing the ongoing work of capitalizing different legal forms of wealth and property. This definition of capital distinguishes capital from wealth and from other exchangeable commodities (consumer goods, for instance, are not capital). It does not treat capital as a physical factor of production, independent of money, ready to be plugged into economists’ production functions. Rather than production or commodification, the primary site of analysis is investment. For physical factors of production, or any other form of capital, must always be capitalized—transformed into legal assets of pecuniary value, expected to yield future pecuniary income. This emphasis on practice means that business people—the typical subjects of this journal—must be placed front and center, for the way they shape and act upon ideas about the future fundamentally shapes the capital process. In general, with the focus on the forward-looking process of pecuniary investment and its results and consequences, more than anything the essence of capital becomes time.

With this definition in hand, in the third section I broaden the discussion from capital to capitalism. Capitalism is an appropriate designation when the capital process has become habitual, sufficiently dominating economic life, having appropriated the production and distribution of wealth towards its pecuniary ends. Here, I distinguish between two elements of the capital process. First is the prospective

¹⁰ On capitalization, see Eli Cook, *The Pricing of Progress: Economic Indicators and the Capitalization of American Life* (Cambridge, Mass., 2017).

¹¹ Thorstein B. Veblen, “On the Nature of Capital II: Investment, Intangible Assets, and the Pecuniary Magnet,” *Quarterly Journal of Economics* 23, no. 1 (1908): 104–36.

valuation of capital assets, and second is the actual pecuniary-income generation from them. These may be considered the twin economic processes at the center of any capitalist economy.

This conceptualization of capitalism has the benefit of anchoring histories of capitalism in specific forms of economic activity. Such a definition enables an engagement with economics and economic history (something the new history of capitalism has sorely lacked). At the same time it also incorporates the history of capitalism's potential strengths—given its eclecticism and its openness to putatively noneconomic issues of culture, law, race, environment, psyche, gender, sex, labor, ideas, politics, and other domains often essential to economic life under capitalism but that are nonetheless sometimes excluded by business and economic historians.

Throughout the essay, I try to demonstrate the potential of this definition of capital and this conceptualization of capitalism to explain the core dynamics of modern economies, while connecting literatures too often kept apart. Given my research specialty, though, I draw overwhelmingly from the U.S. history literature. But first the diversion into economic theories of capital.

Capital as Fund, Capital as Material

The origins of the capital concept are clear enough. Fernand Braudel wrote in *Civilization and Capitalism* of the conceptual history of the triad “capital, capitalist, capitalism.” Capital came first. According to Braudel, in the commercial city-states of Italy no later than the thirteenth century, capital meant the “*money* capital of a firm or of a merchant” devoted to investment.¹² “Capitale,” as the concept emerged in the thirteenth-century Latin West, in an explicit philosophical translation of business enterprise, was a “dynamic” form of money, capable of expansion in the future through investment in commerce. It was distinguishable from “simple” money, a sterile form that existed only for quantitative commensuration so as to facilitate immediate commercial exchange.¹³ Many studies attest that the rise of double-entry bookkeeping that same century clarified and spread the concept.¹⁴ Starting no later

¹² Fernand Braudel, *Civilization and Capitalism, 15th–18th Century*, vol. 2, *The Wheels of Commerce* (1979; Berkeley, 1992), 232.

¹³ Joel Kaye, *A History of Balance, 1250–1375: The Emergence of a New Model of Equilibrium and Its Impact on Thought* (New York, 2014), 67; André Orléan, *The Empire of Value: A New Foundation for Economics*, trans. M. B. DeBevoise (Cambridge, Mass., 2014), chap. 4.

¹⁴ Jonathan Levy, “Accounting for Profit and the History of Capital,” *Critical Historical Studies* 1, no. 2 (2014): 171–214.

than the thirteenth century, in everyday European business life capital meant a money *fund* of investment in pursuit of profit.

With the birth of early modern joint-stock trading companies, the fund of investment could also be referred to as a “capital stock”—stock in the sense, nowadays, of financial stockholding in a publicly traded corporation. However, by the seventeenth century, at the very latest, the term “capital stock” had acquired a different valence, which, in hindsight, inaugurated the materialist trajectory. The Austrian school-inspired U.S. economist Frank Fetter, who wrote many penetrating articles on the capital concept in the 1920s and 1930s, referred to a 1611 *Dictionarie* that defined capital as “wealth, worth; a stocke, man’s principall, or chiefe, substance.” Fetter noted, “Here the idea of ‘worth,’ implying a valuation, is, thoroughly mixed with that of substance, no doubt in the sense of material things in possession.”¹⁵ Capital could now connote a physical thing, but most accounts stress that well into the eighteenth century the fundist, money-oriented business definition was far more prevalent.¹⁶

Fundist and materialist definitions of capital began to overlap in conflicting and confusing ways, and sometimes the debate turned metaphysical. Hicks was convinced that fundist definitions prevailed among eighteenth- and nineteenth-century political economists. He underscored classical political economy’s holy trinity of “land, labor, and capital” and argued that for Adam Smith, as well as for David Ricardo, capital referred to an investment fund, applied to land (which is not capital) and mixed with labor. In that vein, for Karl Marx the “general formula for capital” was M-C-M,’ indicating that an investment of money (M) in commodities (C) initiated capital’s economic process, yielding a money surplus (M’). But other accounts differ. In Geoffrey Hodgson’s illuminating recent discussion, to Smith capital meant only “physical stuff”—that not immediately consumed in the present, but instrumentally employed to produce more stuff in the future.¹⁷

A distinction began to emerge, between physical commodities (i.e., capital) that were employed in the production of more commodities (“the production of commodities by means of commodities,” as Piero Sraffa later put it) and commodities immediately consumed.¹⁸ The division was more fully articulated in John Mill’s *Principles of Political Economy* (1848), which defined capital physically, as the “accumulated

¹⁵ Frank A. Fetter, “Capital,” in *Encyclopedia of the Social Sciences*, vol. 3, ed. Edwin R. A. Seligman and Alvin Johnson (New York, 1930), 187.

¹⁶ Hodgson, *Conceptualizing Capitalism*, chap. 7.

¹⁷ *Ibid.*, 176.

¹⁸ Piero Sraffa, *Production of Commodities by Means of Commodities: Prelude to a Critique of Economic Theory* (New York, 1960).

stock of the produce of labour.”¹⁹ Capital thus became, in some definitions, a specific form of material wealth. Instead of referring to the sum of money invested in things, it became almost synonymous with things themselves—which is why in his critique of the “classical economists” Marx took great pains to argue that “capital is not a thing, but a social relation between persons, established by the instrumentality of things.” Value, for Marx, was more like a metaphysical fund (even, in Hegelian terms, a metaphysical subject) than a physical stock of the produce of labor.²⁰ In Marx’s account capital value, like all value after the generalization of the commodity form, was fundamentally social in character. But even Marx used physical metaphors of “congealed” or “coagulated” value.²¹ Giant controversies lurk here. Perhaps the point to be made is that political economy, through Marx, trafficked in recognizably fundist and materialist definitions of capital without ever really worrying about it too much.

Anxiety about a possible hard fundist/materialist distinction only appeared in the next generation, among the economists who launched the materialist revolution in capital theory. This was the generation that split the modern discipline of economics off from political economy. That move made it possible to theorize capital as a material good, independent of many of the concerns of classical political economy.

U.S. economist John Bates Clark was one of the first thinkers to accomplish all three feats—capital as material, independent of money, abstracted from historical time. That makes his capital theory both instructive and emblematic. Clark first took up the issue in 1891:

Capital may be studied from two points of view. Science has used both, the one intentionally and the other unconsciously and blundering. It has alternated in the same discussion from the one view to the other, to the confusion of the analysis. In formal definition a concrete view has been taken, and capital has been treated as a mass of instruments for aiding labor. It is tools, buildings, materials, etc. In the actual treatment of the subject capital has been regarded in a way that is more in harmony with practical thought. It has been

¹⁹ John Stuart Mill, *Principles of Political Economy, with Some of Their Applications to Social Philosophy* (1848; Indianapolis, 2004), 32.

²⁰ Here it is worth noting the etymological roots of capital in the Latin “*caput*” or head.

²¹ Karl Marx, *Capital*, vol. 1, *A Critique of Political Economy*, trans. Ben Fowkes (1867; New York, 1992), 325, 932. On the social “substance” of value in Marx’s value theory, see Moishe Postone, *Time, Labor, and Social Domination: A Reinterpretation of Marx’s Critical Theory* (New York, 1996), esp. chap. 7. With respect to capital, in addition accumulation and reproduction, both materialist terms, Marx sometimes appealed to “process,” a term which appeared in the original subtitles of all three volumes of *Capital*. I thank J. J. Clegg for pointing this out.

considered abstractly, as a fund or quantity of wealth devoted to productive uses. In this view it is what a business man has in mind when he speaks of his invested capital as a hundred thousand dollars; and in the same way in his published statement of assets and liabilities.²²

Clark called capital in “the abstract” the fund of “pure capital,” while capital in “the concrete” was called “capital goods.” Capital goods, or produced means of production, were distinct from all other goods, by definition consumer goods—or goods immediately consumed. Among later economists, the term “pure capital” never caught on, but “capital goods” did, and, long after the materialist triumph, it remains in use today.

Clark theorized that “capital itself is in reality one and the same thing in whichever way it is treated.” It was simply that physical capital goods were “changeable” while pure capital, or “the fund itself,” was “permanent.”²³ Clark was not interested in theorizing capital’s changefulness—what he called “dynamics.” He preferred to pursue a “static” capital theory abstracted from time. Clark also abstracted from money. The “permanent” fund of capital value was no longer a fund of money. Drawing from Ricardo’s theory of land rent, Clark adopted a marginalist theory of value, which he believed could incorporate both senses of capital. Pure capital was a homogenous aggregate of productiveness (not money). It explained the static “distribution” of income between the homogenous aggregate of “capital” and “labor,” since Clark held that both the owners of pure capital and the owners of labor, given their contributions to production, earned their marginal value in respective capital and labor income shares.²⁴

Yet, pure capital was somehow embodied *directly* in physical “capital goods”—no practical transmission, or valuation, through the nexus of money, credit, and investment was theoretically required. Capital stocks were static masses, although bubbling with industrial productiveness and an innate desire for income (again, defined in homogenous units of marginal value, not actual money). Clark was happy to assume that over time the accumulated fund of pure capital somehow translated seamlessly into capital goods. There is no passage in Clark that explains why this actually does happen, or that considers the theoretical significance of the fact that, somehow, it must. As if by transubstantiation, pure capital becomes capital goods. All capital is of a

²² J. B. Clark, “Distribution as Determined by a Law of Rent,” *Quarterly Journal of Economics* 5, no. 3 (1891): 300. Clark first distinguished pure capital from capital goods in “Capital and Its Earnings,” *Publications of the American Economic Association* 3, no. 2 (1888): 9–69.

²³ Clark, “Distribution,” 301–2.

²⁴ Income in the abstract, not necessarily pecuniary income.

physical substance, produced and ever poised for more production.²⁵ Clark's capital theory thus assumed physical production and abstracted capital from both money and time.

At the turn of the twentieth century, the moment when the very term "capitalism" came into wide usage, according to Hicks many articles and books on the capital concept began to appear and assumed that capital was a physical good.²⁶ Also, the materialist revolution in capital theory and the marginalist revolution in value theory went hand in hand. In marginalist value theory, subjective utility replaced labor. The existence of capital became ever more associated with delayed gratification, restraint from present consumption. Present consumption (not past labor) was responsible for the accumulation of savings. The interest rate became the market price that equilibrated savings and investment. That such an equilibrium led to physical production was assumed. Here was a "static" model of economic life, in equilibrium, in which capital was a physical factor of production, earning its marginal income. And in which, theoretically, there was no need for money.²⁷

It may be no exaggeration to say that twentieth-century mainstream economics was erected as much upon the foundation of the materialist theory of capital as it was upon that of the marginalist theory of value. There was a period, during the Great Depression, when the relationships among money, capital, and time became pressing. Both Friedrich Hayek's *Prices and Production* (1931) and John Maynard Keynes's *The General Theory of Employment, Interest, and Money* (1936) insisted that money and historical time were fundamental theoretical elements of capital. But in mainstream economics, this moment proved to be fleeting.²⁸

In the wake of World War II, when states repressed finance on behalf of all-out war production, the materialist/marginalist capital concept became dominant. Hicks's translation of Keynes's *General Theory* into a general equilibrium framework, as even he later admitted, "put

²⁵ Clark's early training in the Hegelian metaphysics of "substance" at the University of Heidelberg should be noted.

²⁶ Even Irving Fisher, who did make time central to his neoclassical capital theory, still believed the paradigmatic form of capital was a factory. See Fisher, *The Nature of Capital and Income* (New York, 1906).

²⁷ This model of economy was hitched to Irving Fisher's quantity theory of money, in which money was "neutral." Fisher, *The Purchasing Power of Money* (New York, 1911).

²⁸ On this moment, see Goodspeed, *Rethinking the Keynesian Revolution*; Joel Isaac, "The Political Economy of Uncertainty" (manuscript in author's possession, 2016); Friedrich A. Hayek, *Prices and Production* (London, 1931); and John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (1936; New York, 1964). Still preoccupied with time, Hayek abstracted from money in *The Pure Theory of Capital* (London, 1941), promising a subsequent work that would integrate his "pure" fundism with money. It never appeared.

[time] to one side.”²⁹ Paul Samuelson’s *Foundations of Economic Analysis* (1947) likewise stripped general equilibrium economics of historical time.³⁰ When post–World War II economics pivoted to issues of “growth,” many aggregate production functions began to consist of two physical factors of production, capital and labor, which mechanistically combined to produce a physical output.³¹ For economists, time came to be conceived not historically, but rather logically, as a series of free-standing moments to be related to one another through mathematically legible causal mechanisms: $t(1)$. . . , $t(2)$. . . , $t(3)$. . . , etc. As Joan Robinson put it, “Time, so to say, runs at right angles to the page at each point on the curve.”³² By the middle of the twentieth century, in economics departments, at least according to Hicks, the materialist revolution was complete.

Critiques of the materialist capital concept thrived at the margins, or outside, of economics departments. Late in his career, Hicks attempted a revival of Austrian fundism.³³ Cambridge (U.K.) economists famously critiqued the logical coherence of the marginalist “measurement” of capital.³⁴ Schumpeter argued for a money- and credit-based understanding of capital, insisting that money be incorporated at “the ground floor” of economic analysis.³⁵ Max Weber, drawing from Clark, had used the term “capital goods” for produced means of production;

²⁹ J. R. Hicks, “Mr. Keynes and the ‘Classics’; A Suggested Interpretation,” *Econometrica* 5, no. 2 (1937): 147–59; J. R. Hicks, “Some Questions of Time in Economics,” in *Evolution, Welfare and Time in Economics*, ed. A. M. Tang, F. M. Westfield, and J. S. Worley (Lexington, Mass., 1976), 140.

³⁰ See Isaac, “Political Economy of Uncertainty”; and Paul A. Samuelson, *Foundations of Economic Analysis*, enlarged ed. (1947; Cambridge, Mass., 1961). A mathematical understanding of risk/uncertainty further eliminated historical time. See Kenneth J. Arrow, “Alternative Approaches to the Theory of Choice in Risk-Taking Situations,” *Econometrica* 19, no. 4 (1951): 404–37. Assuming perfect foresight, Arrow then collapsed the future into the present for the purposes of an intertemporal, general equilibrium. Kenneth J. Arrow and Gerard Debreu, “Existence of an Equilibrium for a Competitive Economy,” *Econometrica* 22, no. 3 (1954): 265–90.

³¹ Robert Solow, “A Contribution to the Theory of Economic Growth,” *Quarterly Journal of Economics* 70, no. 1 (1956): 65–94.

³² Joan Robinson, *Economic Heresies* (London, 1971), 103–4.

³³ John Hicks, *Capital and Time: A Neo-Austrian Theory* (Oxford, 1973). Austrian fundism still abstracted from money, theorizing capital as a fund of “waiting” during the time of physical production. For the origins of this approach, see Eugen von Böhm-Bawerk, *The Positive Theory of Capital*, trans. William A. Smart (London, 1891).

³⁴ G. C. Harcourt, *Some Cambridge Controversies in the Theory of Capital* (New York, 1972). The Cambridge “capital controversies” became embroiled in the logical coherence of the unit of measurement in the materialist/marginalist concept of capital goods, as the value of the physical product of capital must always be determined by something already abstracted from (the pecuniary value of capital). Cambridge, U.K., also raised the issue of time. See Joan Robinson, “History versus Equilibrium,” in *Collected Economic Papers*, vol. 5 (Cambridge, Mass., 1980), 48–58.

³⁵ Joseph A. Schumpeter, *History of Economic Analysis* (New York, 1954), 322.

however, he held that capital goods were always administered “on the basis of capital accounting,” which influenced subsequent sociological scholarship.³⁶ There are too many theorists working in the Marxian tradition who emphasized both the temporal dimensions of capital and capital’s relentless pursuit of pecuniary surplus value to even attempt to mention.³⁷ In the spirit of many thinkers who dissented from the materialist capital concept, but drawing above all on both the largely misinterpreted capital-theoretic writings of Keynes and the largely unappreciated capital-theoretic writings of Veblen, I now would like to suggest an alternative definition of capital, as process.³⁸

Capital as Process

Rather than a preexisting money fund, or a material factor of production, capital is best understood as a particular kind of economic process. Capital is property capitalized—a legal asset assigned a pecuniary value in expectation of its capacity to yield a likely future pecuniary income. Because money and property are historical institutions, because wealth results from the past, because the value of capital always concerns the future, capital can never be fully abstracted from either the past or the future. Capital is always in process.³⁹

The materialist capital concept assumes that capital goods are valuable in themselves, simply because of their innate physical productivity. That means treating many of the phenomena that determine the actual pecuniary values of capital goods as “exogenous,” matters of disequilibrium, or not part of the “real economy.” For how else to explain the obvious market price volatility of “capital goods” except to say that some aspects of their valuation have nothing to do with their innate physical qualities? Such events—disinvestment from physical structures and equipment, soaring real estate prices—speak to destructions and

³⁶ Max Weber, *Economy and Society: An Outline of Interpretive Sociology*, vol. 1, trans. G. Roth and C. Wittich (Berkeley, 1978), 91.

³⁷ Here, I should at least mention two works of wide influence that underscored the relationship between capital and time: Postone, *Time, Labor, and Social Domination*; and David Harvey, *The Limits to Capital* (Chicago, 1982).

³⁸ Thorstein B. Veblen, “On the Nature of Capital I: The Productivity of Capital Goods,” *Quarterly Journal of Economics* 22, no. 4 (1908): 517–42; Veblen, “On the Nature of Capital II,” 104–36.

³⁹ I draw the idea of “process” from many sources in addition to Veblen and Keynes. The term appears throughout Marx’s writings on capital. The language, with respect to capital theory in twentieth-century economics, perhaps first appeared in Knut Wicksell’s theory of a “cumulative process” in pecuniary capital markets. See Wicksell, *Interest and Prices: A Study of the Causes Regulating the Value of Money*, trans. R. Kahn (1898; New York, 1962). Process remained a term of art for Austrian fundism. See Hicks, *Capital and Time*, esp. chap. 2 (although Hicks, like many Austrian fundists, abstracted from money).

creations of pecuniary value, which leave the material characteristics of the things themselves literally unchanged. Thus, the capitalized value and the wealth-producing capacities of a physical object may often overlap, but are empirically distinct.

In this sense, Veblen, writing at the dawn of materialist capital theory, was correct to insist that money—capital's first form—remains its primary form. The only kind of capital is “pecuniary capital.” By contrast, the materialist capital concept was complicit with the move in economics to abstract from money, or to treat money as not “real,” “neutral,” or merely an improvement upon the inefficiencies of barter.⁴⁰ Against this view, one might note the flourishing contemporary historical literature on the history of money, whether the intellectual origins of the institution, the relationship between money and sovereignty, or the political economy of monetary policy.⁴¹ Clearly, capital as process might incorporate the revival of interest in the history of money.

The question then becomes how and why capital value manifests in physical, productive forms. To become capital, practically industrial “capital goods” must always be capitalized, assigned pecuniary values in light of their future pecuniary earning capacity—and thus become humanly capitalized legal assets. Further, in every instance, capitalization involves a pecuniary valuation of something more than the intrinsic productivity of innate objects. Material wealth may be accumulated to no end. But only accumulated knowledge, habits, and propensities—culture, as it were—can enable human beings, acting in concert, to put those objects into economic motion, springing their potential productivity to life. Looking at the history of capital as a form of property, Veblen went so far as to say that “the substantial core of all capital is immaterial wealth.” By becoming the exclusive legal owners of capitalized goods, capitalists over time had politically and legally “cornered”

⁴⁰ The quantity theory of money and the loanable funds theory of the interest rate separated monetary from “real” economics. See Paul A. Samuelson, “What Classical and Neoclassical Monetary Theory Really Was,” *Canadian Journal of Economics* 1, no. 1 (1968): 1–15.

⁴¹ This new work extends from ancient to contemporary history. For a sampling, see Alain Bresson, *The Making of the Ancient Greek Economy: Institutions, Markets, and Growth in the City-States*, trans. Steven Rendall (Chicago, 2015), chap. 10; Marie-Thérèse Boyer-Xambeu, Ghislain Deleplace, and Lucien Gillard, *Private Money and Public Currencies: The Sixteenth Century Challenge*, trans. Azizeh Azodi (New York, 1994); Desan, *Making Money*; Sklansky, *Sovereign of the Market*; Stephen Mihm, *A Nation of Counterfeiters: Capitalists, Con Men, and the Making of the United States* (Cambridge, Mass., 2007); Andrew David Edwards, “The American Revolution and Christine Desan’s New History of Money,” *Law and Social Inquiry* 42, no. 1 (2017): 252–78; Farley Grubb, “Paper Money and the Quantity Theory of Money: An Extension” (NBER Working Paper No. 22192, Apr. 2016); Barry Eichengreen and Peter Temin, “The Gold Standard and the Great Depression,” *Contemporary European History* 9, no. 2 (2000): 181–207; Harold James, *Making the European Monetary Union* (Cambridge, Mass., 2012); and Greta R. Krippner, *Capitalizing on Crisis: The Political Origins of the Rise of Finance* (Cambridge, Mass., 2011), chap. 5.

the market in immaterial “technological expedients.”⁴² What Veblen had in mind here was something like exclusive intellectual property rights. But certainly, physical objects do not make property of themselves.

Thus, capital cannot be abstracted from money but also time, which includes the immaterial cultural, legal, and political inheritance of the past. Considering the historical prerequisites of Clark’s “capital goods,” Veblen raised a host of necessary approaches to the study of industrial capitalism. These are all flourishing at the moment, whether under the guise of the history of capitalism or not. These would include cultural history, legal history, and political economy approaches. For their part, even economic historians increasingly appreciate the cultural context of the Industrial Revolution and modern economic growth.⁴³ Addressing culture, Veblen argued that capital was merely one economic “method of doing things” in the world among others.⁴⁴

Instantly, one might ask where and when this “method of doing things” has appeared. Veblen critiqued the applicability of the materialist “capital goods” concept to industrial machinery and equipment. But implicit in the critique is the possibility that other objects, besides factories, might well be capitalized, too. Take preindustrial forms of capital, such as land and slaves.

During the emergence of capitalism, land was long the dominant form of capitalized property and wealth. With rare exceptions, both fundist and materialist definitions of capital failed to equate land with capital.⁴⁵ Land was not a fund of money, and, if capital was a “produced means of production,” land itself could not be capital, since the land—unlike capital improvements upon it, like, say, drainage ditches or enclosures—was never produced by labor, but rather a natural given. This move made it possible for many twentieth-century economists to simply drop land from their aggregate production functions and growth models. Land was not an input, and the environment became an externality. Modern economic history began with industrialization and urbanization, and, even then, environmental considerations were subsidiary, if not nonexistent.

⁴² Thorstein B. Veblen, “Fisher’s Capital and Income,” *Political Science Quarterly* 23, no. 1 (1908): 117.

⁴³ Joel Mokyr, *The Enlightened Economy: An Economic History of Britain 1700–1850* (New Haven, 2012); Margaret C. Jacob, *The First Knowledge Economy: Human Capital and the European Economy, 1750–1850* (Cambridge, U.K., 2014).

⁴⁴ Thorstein B. Veblen, “Why Is Economics Not an Evolutionary Science?” *Quarterly Journal of Economics* 12, no. 4 (1898): 389.

⁴⁵ On exceptions, see M. Northrup Buechner, “Frank Knight on Capital as the Only Factor of Production,” *Journal of Economic Issues* 10, no. 3 (1976): 598–617. In a sense, neoclassical economics conflated land and capital. Clark, for instance, extended Ricardo’s theory of land rents to the marginal income of capital. Meanwhile, land became reduced to capital productivity. I thank J. J. Clegg for alerting me to these points.

Dropping materialist assumptions, there is no reason why land cannot be either consciously or de facto capitalized. Land prices certainly play a large role in asset appreciation today.⁴⁶ Long ago, the successful capitalization of the land was the basis of preindustrial economies' periodic commercial dynamism—another subject of intense recent research, after the “revolt of the early modernists” dethroned the Industrial Revolution as the great leap forward into economic modernity.⁴⁷ Here, one might refer to law, political economy, and culture once again, but also, indeed, environmental and biological processes.⁴⁸ After all, the dominant preindustrial economic process—more dominant than capital—was photosynthesis, which set limits to the amount of wealth and pecuniary income that could be wrung from the earth's soil.⁴⁹

Slaves were another prevalent preindustrial form of capital in the New World. “Slavery's capitalism,” or “slave-racial capitalism,” has drawn much attention of late from self-identifying historians of U.S. capitalism.⁵⁰ While not often noted, much of the thrust of this literature is in line with the approach taken decades ago by “new economic historians,” who emphasized the capitalistic qualities of New World slavery. They commonly analyzed black slaves as a form of “fixed capital,” with the unique characteristics of portability.⁵¹ Historians of capitalism have not been so precise, invoking commodification rather than capitalization. Still, this recent cycle of scholarship has compellingly demonstrated capital as process in the form of human chattel in great depth—in the registers of enterprise, political economy, finance, labor, consumerism, law, race, gender, sex, and also environment.⁵²

⁴⁶ Land prices, not construction costs, seem to determine the trajectory of residential real estate prices. See Katharina Knoll, Moritz Schularick, and Thomas Steger, “No Price Like Home: Global House Prices, 1870–2012,” *American Economic Review* 107, no. 2 (2017): 331–53.

⁴⁷ Jan Luiten Van Zanden summarizes work on the high levels of market development, technical change, and consumer habits in the early modern period. Van Zanden, “The ‘Revolt of the Early Modernists’ and the ‘First Modern Economy’: An Assessment,” *Economic History Review* 55, no. 4 (2002): 619–41.

⁴⁸ See Fredrik Albritton Jonsson, “The Industrial Revolution in the Anthropocene,” *Journal of Modern History* 84, no. 2 (2012): 670–96.

⁴⁹ E. A. Wrigley, *Continuity, Chance and Change: The Character of the Industrial Revolution in England* (Cambridge, U.K., 1988); Rolf Peter Sieferle, *The Subterranean Forest: Energy Systems and the Industrial Revolution* (Cambridge, U.K., 2001).

⁵⁰ The term “slave-racial-capitalism” is from Johnson, *River of Dark Dreams*.

⁵¹ For instance, Ralph V. Anderson and Robert E. Gallman, “Slaves as Fixed Capital: Slave Labor and Southern Economic Development,” *Journal of American History* 64, no. 1 (1977): 24–46; Roger Ransom and Richard Sutch, “Capitalists without Capital: The Burden of Slavery and the Impact of Emancipation,” *Agricultural History* 62, no. 3 (1988): 133–60; and Gavin Wright, *Slavery and American Economic Development* (Baton Rouge, 2006).

⁵² This literature is now too vast to adequately cite. For an overview of its significance, see Sven Beckert and Seth Rockman, eds., *Slavery's Capitalism: A New History of American Economic Development* (Philadelphia, 2016), 1–28. An important emphasis of this work has been

If it is not production but the activity of investing pecuniary value in—capitalizing—an object that is primary, why not turn back to the original fundist definition of capital? There is a money fund of capital, and sometimes it has been invested in land, sometimes in slaves, and at other times in industrial machinery and equipment. But further reflection upon the capitalist “method of doing things” reveals flaws with aspects of fundism, too.

Veblen was theorizing about capital at a specific moment in the history of U.S. capitalism: during the Great Merger Movement, at the turn of the twentieth century, when thousands of U.S. firms consolidated into giant, horizontally and vertically industrial corporations. Veblen saw that precisely at the moment when his economist peers were theorizing the materialist capital concept, U.S. business enterprise itself was faced with the staggering practical problem of how to capitalize large blocks of physical (and intellectual) assets that were changing legal hands. How much was the United States Steel Corporation worth? Corporate accountants, investment bankers, and investors in securities markets debated the subject. But the only answer, Veblen noted, was somehow or other to capitalize the expected pecuniary income streams of the newly consolidated assets, discounted against a uniform market interest rate. Moreover, a “uniform” market interest rate was something historically novel, being made possible by the recent geographical integration of capital markets in the age of railroad, telegraph, and steam.⁵³

Such an act of capitalization, Veblen argued, is what brings capital to life. Soon enough, Keynes, breaking away from the materialist/marginalist theory of capital himself, would define one of the core concepts of *The General Theory* as the “marginal efficiency of capital”—that is, the expected pecuniary yield of capital assets, given their replacement costs, above the going interest rate.⁵⁴ “It is much preferable to speak of capital,” Keynes wrote, “as having a yield over the course of its life in excess of its original cost, than as being *productive*.” The value of capital became a matter of expectations, concerning the “*prospective yield* of the investment.”⁵⁵

to illustrate overlaps between free and slave capitalisms. See Beckert, *Empire of Cotton*; and Seth Rockman, *Scraping By: Wage Labor, Slavery, and Survival in Early Baltimore* (Baltimore, 2008).

⁵³ Many early modern landed and slave-owning capitalists could not have made such discounts.

⁵⁴ That is, not by the price equilibrating savings and investment, or the supply and demand for loanable funds.

⁵⁵ Keynes, *General Theory*, 213. A capital asset, Keynes argued, was really nothing more than a “series of annuities,” or prospective financial returns flowing from the ownership of a capital asset. The problems raised by the materialist/marginalist theory of capital, involving “the definition of the physical unit of capital,” Keynes declared “both insoluble and

Indeed, as one of Veblen's early interpreters put it, capital is "not a fund" of money accumulated from the past so much as an "expectation"—concerning the likely future pecuniary earning capacity of a legal asset.⁵⁶ For fundists, it is as if capital values flow from the past like a river into some reservoir, pooled for present use in production. It might appear to make sense to consider the capital of one particular enterprise this way, as Weber did—as the money sum of capital that still exists at the closing of the books (and not coincidentally, the fundist concept was born of practical merchant origins). But that adding up represents income yielded from capital, not capital itself.

In the present, all wealth, material or immaterial, including pecuniary profit, held in the form of money, must come from the past—it represents an *accumulation*. In the present, however, all capital value must come from a future *expectation*—of a future pecuniary income—even if it is accumulated wealth from the past, even past money profit, that is being presently capitalized. Under capitalism, not all wealth, nor even all commodities (like consumer goods), are capitalized. A past pecuniary profit, a present material object, embodied human knowledge, the fruits of expropriated wealth or labor—all must be capitalized to be capital, or valued in the expectation of a future earning capacity. There may be no capital without wealth, but wealth and capital are not the same.

Something like a capital/wealth distinction has long been recognized, but in the wrong way. The production and exchange of wealth—physical labor, machines, the market—became the "real" economy. Capitalization, occurring in the realm of finance and money, became not only secondary, but also somehow less real. Recent works in financial history have sought to overturn this view—not in order to privilege finance, but rather to examine the coproduction of finance and physical work, industry, and wealth accumulation across time.⁵⁷ Here, one thinks of recent work on the industrial corporation, in which corporations are treated not solely as units of enterprise, which must choose between commercial markets and bureaucratic hierarchies, but, in the first instance, as institutions that raise and deploy capital—in fixed, physical forms (or not)—with an eye toward realizing a future pecuniary income.⁵⁸

unnecessary." See Luigi Pasinetti, "The Marginal Efficiency of Investment," in A "Second Edition" of *The General Theory*, vol. 1, ed. G. C. Harcourt and P. A. Riach (London, 1997), 198.

⁵⁶ John Commons, *Legal Foundations of Capitalism* (New York, 1924).

⁵⁷ This is another long list, but among the most thoughtful on this score are Carl Wennerlind, *Casualties of Credit: The English Financial Revolution, 1620–1720* (Cambridge, Mass., 2011); and Peter Hudson, *Bankers and Empire: How Wall Street Colonized the Caribbean* (Chicago, 2017).

⁵⁸ See, for instance, Richard White, *Railroaded: The Transcontinentals and the Making of Modern America* (New York, 2011); and Robert F. Freeland, *The Struggle for Control of the*

In sum, to paraphrase and reverse Marx, under capitalism it is not so much the past but the future that weighs on the brains of the living—and, often enough, just like a nightmare. That is perhaps capitalism's greatest transformation: to order present economic action toward an uncertain future, as opposed to the mere replication of the economic past (the dominant temporal order of precapitalist economic life).⁵⁹ Irving Fisher perhaps put it most succinctly. With respect to capital, “when values are considered, the causal relation is not from present to the future, but from future to present.”⁶⁰ It is this orientation toward an uncertain future that helps account for capitalism's propulsive dynamism and periodic fragility.

Indeed, this insight helps explain one of the more perplexing features of capitalism: the possible accumulation of wealth and productive capacity alongside the persistence of pecuniary poverty, or what Keynes, during the Great Depression, called the “paradox of poverty in the midst of plenty.”⁶¹ The paradox speaks to the potential gap between accumulated wealth and prospective capital value, which reveals a temporal disjuncture—that wealth results from the past, while capital value results from relating prospective futures back to the present. Keynes said that investment, leading to production, did not just happen because past savings or profits presented themselves as a present fund of investment. Rather, investment in capital goods always depends upon capitalists' “liquidity preference,” or their confidence in the state of “long-term expectations” concerning the likely earning capacity of capital goods, versus their psychological desire to hoard value in the money form, forgoing productive investment.⁶² To Keynes, it was “liquidity preference,” not the equilibrium between savings and investment that set the market interest—the baseline for determining the marginal efficiency of capital. Hoarding in this line of thought becomes capitalism's greatest enemy—it ceases the capitalist economic process.

So, capital is a process whose present existence cannot be abstracted from its historical antecedents, or from expectations of its future consequences. Through such an economic process, over time various physical objects—metal coins, land, slaves, factories, asset-backed securities—have been held to a particular kind of expectation and account and thereby

Modern Corporation: Organizational Change at General Motors, 1924–1970 (Cambridge, U.K., 2001).

⁵⁹ Jens Beckert, *Imagined Futures: Fictional Expectations and Capitalist Dynamics* (Cambridge, Mass., 2016).

⁶⁰ Fisher, *Nature of Capital and Income*, 328.

⁶¹ Keynes, *General Theory*, 30

⁶² *Ibid.*, 212.

capitalized as legal assets to which agents and institutions attribute a particular kind of pecuniary value.

To be clear, this is not to say that capital cannot or should not be abstracted from time for useful purposes of quantitative measurement or mathematical modeling. Doing so has and will continue to illuminate the historical record. Rather, it is to say that there is always some aspect of capital that cannot be so abstracted, and that it may be the unique contribution of historians of capitalism to capture and elucidate the full life course of the capital process.

Under capitalism, the process of capitalization has become so economically prevalent that it has become conceivable as a general form of strategic action and valuation.⁶³ Today, one might easily lengthen Pierre Bourdieu's list of "forms of capital" (economic, social, cultural, and symbolic) to include the important subject of "human capital"—a produced means of production by the family, as defined by economists.⁶⁴ In my view, a distinct notion of economic capital must be preserved.⁶⁵ But the "capital creep" of the past century, even the past decade, says something important about the reach of the capital process into noneconomic domains of life.⁶⁶ Recently, much historical work has made good use of a variety of these capital concepts.⁶⁷

To conclude this section, it is possible to appeal to the causal priority of the future in capital values to suggest a link between capital as process and value theory. Both "classical" political economists, as Marx named them, and "neoclassical" economists, as Veblen branded them, held that the basis of capital value was something, in Veblen's terms, "authentic" and essential and intrinsic to capital itself. That authentic substance might be past labor, or psychic utility. These were value theories, as Foucault once noted, premised upon exchange.⁶⁸ Something was

⁶³ See Cook, *The Pricing of Progress*; and Michel Feher, "Self-Appreciation; or, The Aspirations of Human Capital," *Public Culture* 21, no. 1 (2009): 21–41.

⁶⁴ Pierre Bourdieu, "The Forms of Capital," in *Handbook of Theory and Research for the Sociology of Education*, ed. J. Richardson (Westport, Conn., 1986), 241–58; Hodgson, *Conceptualizing Capitalism*, chap. 7.

⁶⁵ This point is made by Thomas Piketty, in *Capital in the Twenty-First Century*, trans. Arthur Goldhammer (Cambridge, Mass., 2014), 48, 168. Piketty's definition of capital suffers only from its unwillingness to distinguish capital from wealth—a point made by many commentators. See Hudson and Tribe, *Contradictions of Capital*.

⁶⁶ I thank Katrina Forrester for this phrase.

⁶⁷ On human capital, see Jacobs, *First Knowledge Economy*; and Claudia Goldin and Lawrence F. Katz, *The Race between Education and Technology* (Cambridge, Mass., 2008). On social capital, see Susie Pak, *Gentlemen Bankers: The World of J. P. Morgan*, Harvard Studies in Business History 51 (Cambridge, Mass., 2013); and Sven Beckert, *The Monied Metropolis: New York City and the Consolidation of the American Bourgeoisie, 1850–1896* (Cambridge, U.K., 2001).

⁶⁸ Michel Foucault, *Lectures on the Will to Know*, ed. Daniel Defert, trans. Graham Burchell (New York, 2013), esp. 118–20.

brought to a spot market. Did its exchange price reflect its “real” value—its “just price,” in the old language? There were political consequences to the answer. Did the exchange of labor power represent exploitation? Did market exchange morally corrupt the object at hand? Did capital and income receive their just, marginal shares of income (a great concern of John Bates Clark, who answered yes)?⁶⁹

By contrast, the forward-looking capital process is always prospective and therefore always contingent. There are no “real” capital values lurking behind the veil of money. Precisely because of the “radical uncertainty” of the future, as Keynes put it—or the fact that not every economically relevant contingent future event can be assigned a mathematical probability—any capital asset valued in light of an expected future pecuniary income cannot possibly have one true or “authentic” value alone. Veblen called this an “evolutionary” as opposed to a “taxonomic” theory of capital value. But given the intellectual influences acting on Veblen at the University of Chicago when he was working on capital theory, it might also safely be labeled pragmatist. (At Cambridge, Keynes was influenced by a not dissimilar philosophy.)⁷⁰ Capital values—the empirically observed market prices of capital assets—do not represent hidden metaphysical essences, which can be theorized taxonomically, independent of the flow of expectations. Expectations, whether rational or not, are subject to constant change. When, for example, liquidity dried up in asset-backed securities markets during the financial crisis of 2008, it became impossible to even value many classes of financial assets. The actual generation of pecuniary income is likewise contingent upon the occurrence of all manner of historical events. Once again, capital values are always in process.

If capital has no fixed, authentic value, the question becomes, as Veblen put it, “Whose imputation of value is to be accepted?”⁷¹ There is no such thing as capital—property assigned a pecuniary value in expectation of future pecuniary income—without capitalists. A form of property in which every member of society were somehow entitled to an equal stake in its capitalization, and in which every member had an equal stake in determining what was capitalized to begin with, might not deserve the name “capital” at all. Capital is a matter of power and of politics, of determining which assets get capitalized, under what

⁶⁹ John Bates Clark, *The Distribution of Wealth* (New York, 1908). On this point, see James Livingston, “The Social Analysis of Economic History and Theory: Conjectures on Late Nineteenth-Century American Development,” *American Historical Review* 92, no. 1 (1987): 69–95.

⁷⁰ Veblen, “Why Is Economics Not an Evolutionary Science?”; John B. Davis, “Convergence in Keynes and Wittgenstein’s Later Views,” *European Journal of the History of Economic Thought* 3, no. 3 (1996): 433–48; Ludwig Wittgenstein, *On Certainty: Parallel Text*, ed. G. E. M. Anscombe and G. H. von Wright, trans. Denis Paul (New York, 1969).

⁷¹ Veblen, “Fisher’s Capital and Income,” 120.

terms, and for the benefit of whom.⁷² These issues begin to raise the question of capitalism.

Capitalism

Capitalism may designate any economic form of life in which the economic logic of the capital process—capitalization—has become both habitual and dominant, subordinating the production and distribution of wealth in large part to its pecuniary ends. The primary task of a history of capitalism would be to narrate the unfolding of the capital process in its many interrelated historical contexts. Given the vast array of relevant contexts, the history of capitalism could not be only economic history. Yet it might still focus upon the different economic forms in which capital has manifested—different pecuniary magnets. Those forms ground different capitalisms, different regimes of forward-looking investment, in the not only economic but broadest possible sense of the term “investment.”

If capital is a process, historical time is implicit. But since, in addition to time, space is another of historians’ most fundamental coordinates, I would like to first note the spatial indeterminacy of capital as process. The materialist capital concept grew up along with national economies, when much capital value manifested in physical structures, within the territorial borders of nation-states—and at a time when national histories became hegemonic. While many economic models might abstract from geographical scale—the capital stock (K) simply represented a factor of production—nevertheless statistical quantifications of capital stocks mostly occurred, and still occur, at the level of the nation-state. It would be absurd not to continue to make use of such data (to note, say, the declining rate of U.S. investment in manufacturing capital stock since the Volcker Shock of 1979–1981), or to deny the historical existence of quite territorially bounded national economies, which the U.S. economy was in the immediate postwar decades, when the rate of investment in manufacturing capital stock was, relative to now, high.⁷³ Nonetheless, historians have lately focused upon a variety of non-national scales, including empires, contemporary and past globalization cycles, transnational histories of capital flows, urban and

⁷² On these points, see Jonathan Nitzan and Shimshon Bichler, *Capital as Power: A Study of Order and Creorder* (New York, 2009).

⁷³ See Christopher J. Kurz and Norman J. Morin, “Annual Data on Investment and Capital Stocks” (FEDS Notes, Board of Governors of the Federal Reserve System, Washington, D.C., 2 Mar. 2016), doi:[10.17016/2380-7172.1717](https://doi.org/10.17016/2380-7172.1717).

regional histories, and plural forms of territorial sovereignty.⁷⁴ Capital as process leaves the question of spatial scale—and the possibility of multiple scales—open, dependent upon the purposes of analysis.

That said, the capital process issues forth an astonishing and perplexing array of temporalities. Discontinuous and dramatic events radically move capital values across classes of objects, as during financial crises. They overlap with repeating patterns of enterprise, like business cycles, and linear directionalities of long duration, like self-sustaining gross domestic product (GDP) growth per capita or anthropogenic climate change.⁷⁵ How to approach them?

In writing the history of capitalism, it may be possible to distinguish between two sets of histories. One set is prospective, addressing the forward-looking, contingent project of capitalization. Another set is retrospective, addressing the results and broad consequences of the actual pecuniary income generation from capital, including their evidently structural patterns.

Prospective histories of capital would speak to the investment of pecuniary value in capital assets, in expectation of their likely future pecuniary-earning capacity. While these prospective histories may and very often do directly manifest in the shifting prices of capital assets, the category of prospective history is meant to evoke something more grand. Investment may be considered not only a matter of the rational calculation of future profits and losses, but also of economic life's larger orientation toward the uncertain future. Under capitalism, investment not only pursues pecuniary profits. It is a generative, world-making activity.⁷⁶

To begin with, there must be prospective histories that explain how capitalization ever became a plausible way of relating the future to the present in the first instance. Virtually every major theorist of capitalism has proposed candidates. Again, Veblen invoked the histories of money, property rights, the cultural accumulation of technical knowledge, and the corporate legal form as necessary if not sufficient for capital ever to emerge as the dominant economic “method of doing things.” Capitalism for him emerged fully only in the late nineteenth century. Weber identified an earlier historical split of “instrumental” and “value” rationality, which was the unintended consequence of Protestant notions of

⁷⁴ This would be too long a list, but for a recent history of capitalism that moves across geographical scales, which is conceptually in line with many of the views advocated here, see Noam Maggor, *Brahmin Capitalism: Frontiers of Wealth and Populism in America's First Gilded Age* (Cambridge, Mass., 2017).

⁷⁵ William H. Sewell Jr., “The Temporalities of Capitalism,” *Socio-Economic Review* 6, no. 3 (2008): 517–37.

⁷⁶ For an exposition of this point, see Beckert, *Imagined Futures*.

predestination. Marx identified the “generalization of the commodity form,” brought about by a contingent history of expropriation, “so-called primitive accumulation.” In *The General Theory*, Keynes dated the origins of capitalism to the European price inflation of the sixteenth century (due to the influx of New World silver) that induced European merchants to part with liquidity and invest in durable capital goods. There is much to argue about here. But deductively speaking, there are histories that must have occurred for the capital process to ever begin, for capitalization to become a practical habit.⁷⁷

This is one way to frame the problem of capitalism’s historical emergence. Today, linear modernization narratives—of sharp transition and clean rupture, from precapitalism to capitalism, tradition to modernity, whatever the preferred *sine qua non*—no longer appear to hold much sway. But it may still be possible to trace the necessary prospective conditions, and the slow, sometimes stunted, emergence of the capital process, in many incipient capitalisms, eventually to its principal status in economic life across so much of the globe today—not to pin down the moment of exact transition, but rather as a means of grasping the subsequent unfolding and transformation of capital in quite different settings across time and space.

Here, one might return to the capital/wealth distinction, with respect to many historical forms of capital, like land and slaves. The capital process appropriated both forms of property and wealth, but with limits. As productive property, land long provided access to direct economic subsistence, wealth outside the capital process. Or, landed property was also the bedrock of preindustrial social and political orders. Slaves, because they were human beings, could never be completely subordinated to the capital process, something most every slave-owner, even if to their frustration, came to know. As forms of property, land and slaves doubled as capital but also *not-capital*, which set limits on the emergence of the capital process, blocking the subordination of the production and distribution of wealth towards capital’s ends.⁷⁸ From this perspective, the so-called “capital goods” of the Industrial Revolution represented a historical departure. It became possible to conceive of productive property as capital itself, or wealth fully subordinated to the pursuit of pecuniary income—in other words what economists like Clark branded physical “capital goods,” synonymous with capital itself.

⁷⁷ On this point, see Dipesh Chakrabarty, “Two Histories of Capital,” in *Provincializing Europe: Postcolonial Thought and Historical Difference* (Princeton, 2000), 47–71.

⁷⁸ J. J. Clegg, “Capitalism and Slavery,” *Critical Historical Studies* 2 (Fall 2015): 281–304.

Nonetheless, once in a capitalist economy, the expectations of the owners of capital must be ceaselessly formed and reformed in the face of a radically uncertain future—issues, once again, which cannot be reduced to the physical characteristics of capital goods. And, as Keynes long ago emphasized, the presence of liquidity, or the ability of capitalists to store value in money, as opposed to investing in illiquid, durable capital assets, means that the expectations of the owners of capital will always play a leading, if not unconstrained, role in capital's historical drama. What Keynes called the “state of long-term expectations” determines the volume and character of capital investment in “durable” capital goods, or any other form of capital.

In this register, the history of capitalism contains many “futures past”—histories of past projections of the future that, regardless of whether they ever came to fruition, can greatly influence the course of events under capitalism.⁷⁹ Recently, a number of historians—some deploying capitalism as a category of analysis, some not—have produced a rich body of work on the cultural and institutional history of the future.⁸⁰ This scholarship, much preoccupied with risk and uncertainty, has yet to fully engage the vast economic literature on expectations—from Keynes's notion of “conventions” to later rational expectations theory to current behavioral psychological approaches. But it might.⁸¹

Further, prospective histories may plausibly be deduced from various aspects of the historical record. Scholarship on the role of likely shifts in capitalists' expectations during the Great Depression, in light of sudden shifts in state monetary and fiscal “policy regimes,” is one example.⁸² Or, the reason why the market value of U.S. slaves increased after the U.S. Supreme Court's decision in *Dred Scott* (1857) was likely because new legal assurance about the future of property rights in human chattels made U.S. slaveholders more confident in their expectations of the future profitability of black slavery. Slave

⁷⁹ Reinhart Koselleck, *Futures Past: On the Semantics of Historical Time*, trans. Keith Tribe (New York, 2004).

⁸⁰ See Jenny Andersson, “The Great Future Debate and the Struggle for the World,” *American Historical Review* 117, no. 5 (2012): 1411–30; Walter A. Friedman, *Fortune Tellers: The Story of America's First Economic Forecasters* (Princeton, 2014), esp. 112–15. See also, among other recent works, Edward J. Balleisen, *Fraud: An American History from Barnum to Madoff* (Princeton, 2017); Caley Dawn Horan, “Actuarial Age: Insurance and the Emergence of Neoliberalism in the Postwar United States” (PhD diss., University of Minnesota, 2011); Dan Bouk, *How Our Days Became Numbered: Risk and the Rise of the Statistical Individual* (Chicago, 2015); Jessica M. Lepler, *The Many Panics of 1837: People, Politics, and the Creation of a Transatlantic Financial Crisis* (New York, 2013); Levy, *Freaks of Fortune*; and Mihm, *Nation of Counterfeiters*.

⁸¹ See Isaac, “Political Economy of Uncertainty.”

⁸² Peter Temin, *Lessons from the Great Depression* (Cambridge, Mass., 1991).

prices declined by one-third after the 1860 election of Abraham Lincoln to the presidency, and one does not have to guess why.⁸³

Prospective histories of capital may be visible in the prices of capital assets. But the category is meant to evoke something more than asset prices and their proximate determinants. Late antebellum U.S. slave society, for instance, was invested in black slavery precisely in this larger sense. If capital sought only the most profitable prospective outlets, rationally speaking, much capital would have shifted out of southern slavery and into industry. But it did not. Late antebellum U.S. slave society's investment in slave mastery was economic, but also broadly political, social, psychological, and—since biological reproduction was the basis of slave-capital accumulation—sexual.⁸⁴ That investment was not strictly economically rational. U.S. slave emancipation coincided with the massive shift of capital value into industrial capital goods, the basis of a century-long industrial epoch of U.S. capitalism. But then, during the 1970s, despite declining profitability and productivity, rates of capital investment in the U.S. industrial sector remained level. The managers of industrial corporations, in charge of capital budgets, remained invested in their prerogatives. And U.S. industrial society, by then, was broadly invested in maintaining the industrial, male-breadwinning wage. In reality and image the fixed capital of the factories was the anchor of the reproduction of industrial society—many economists, for their part, clung to the materialist capital concept.⁸⁵ Not until the 1980s did U.S. investment patterns shift, leading to what is today a much higher premium placed upon liquidity. U.S. slave owners of the 1850s, U.S. industrial corporate managers of the 1970s, and U.S. fund managers of the 2000s were all capitalists of a particular time and place, invested in a particular form of capital and requisite political economy and social order. In sum, there may be quite different capitalisms, with depending on the question at hand differences among them as significant as their similarities.

In this total sense, then, it may be possible to distinguish among historical capitalisms by specifying different investment regimes. They would be defined, to a great degree, by the particular form or forms of capital at stake in them. Thus, slave capitalisms are economically

⁸³ Charles W. Calomiris and Jonathan Pritchett, "Betting on Secession: Quantifying Political Events Surrounding Slavery and the Civil War," *American Economic Review* 106, no. 1 (2016): 1–23.

⁸⁴ On the final investment, see Amy Dru Stanley, "Slave Breeding and Free Love: An Antebellum Debate over Slavery, Capitalism, and Personhood," in Zakim and Kornblith, *Capitalism Takes Command*, 119–44; and Berry, *Price for Their Pound of Flesh*.

⁸⁵ On persistent rates of U.S. industrial investment across the 1970s, despite declining profits and productivity, see Robert Brenner, *The Economics of Global Turbulence* (New York, 2006).

invested in human chattel. Industrial capitalisms are invested in so-called industrial capital goods. But slave capitalisms are also, of necessity, invested in some kind of ideology of domination and unfreedom. Industrial capitalisms have all been invested in a massive capitalization of nature—of fossil fuel energy inputs—to expand past the limits of an “organic economy.”⁸⁶ An investment regime determines—in the broadest sense of the word “investment”—which assets get capitalized and under what terms.

There is an important quality of any investment regime that thus far has not been raised by the discussion at all. Investment regimes value, or capitalize, particular objects and forms of activity. But they also devalue. Devaluation, and disinvestment, may be no less important phenomena than capitalization and investment. One thinks of the massive economic devaluation of women’s work across the industrial epoch (an economic devaluation of great ideological value) or, say, the devaluation of unskilled labor in contemporary capitalism.⁸⁷ Capitalization and devaluation work together. Devaluation is not outside capitalism. It is inside.⁸⁸

Next, by contrast to the prospective, there are what may be considered retrospective histories of capital. These are histories not of prospective capital valuation, but of the actual business project of pecuniary-income generation and all of its manifold consequences.

Here, the statistical calculation of historical rates of return on various classes of capital assets is pertinent. Through the work most notably of Thomas Piketty, but also many other scholars, advancements have been made in recent years, establishing rates of return across asset classes and linking them to growth rates, capital/income ratios, and capital/output ratios, as well as trends in wealth and income inequality.⁸⁹ This data does not so much address prospective questions. But it would seem inconceivable that historians of capitalism would not directly engage this important work.

Nonetheless, a full retrospective history of the capital process would include more than statistical calculations of rates of return over time. Retrospectively speaking, to return to a prior example, to successfully

⁸⁶ Thomas G. Andrews, *Killing for Coal: America’s Deadliest Labor War* (Cambridge, Mass., 2008).

⁸⁷ Amy Dru Stanley, *From Bondage to Contract: Marriage, Wage Labor, and the Market in the Age of Slave Emancipation* (New York, 1998); Jeanne Boydston, *Home and Work: Housework, Wages, and the Ideology of Labor in the Early Republic* (New York, 1990).

⁸⁸ See Laura Bear, Karen Ho, Anna Tsing, and Sylvia Yanagisako, “Generating Capitalism,” *Theorizing the Contemporary*, Cultural Anthropology website, 30 Mar. 2015, <https://culanth.org/fieldsights/650-generating-capitalism>.

⁸⁹ Piketty, *Capital in the Twenty-First Century*; and Knoll, Schularick, and Steger, “No Price Like Home.”

capitalize U.S. Steel—to generate pecuniary income from its collection of physical assets—took more than the investors in the New York Stock Exchange agreeing on its capitalization, under conditions of uncertainty. The corporation had to then actually produce steel. It had to organize raw material inputs, employ and manage a mass wage labor force (seeking to unionize), and sell its final product in competitive markets. Retrospective histories would grapple with these familiar but no less important topics.

In principle, any history that worked either with or against the grain of income generation from a capital asset might be at stake in a retrospective history. Some would be more relevant if the task was to economically explain patterns of profitmaking. Meanwhile, other histories would be more relevant if the goal was to understand the pressure that capitalist profitmaking has put on various domains of life under capitalism. Commodification has had consequences for cultures. Industrialization has had consequences for the climate. Deindustrialization had had consequences for sexuality.

Finally, there is another set of retrospective histories, which captures long-term patterns and directionalities characteristic of various capitalisms—and perhaps even capital at the most abstract level. It seems that all preindustrial capitalisms simply hit productive limits. Lately, the Malthusian insight about the limits of the carrying capacity of the land has once again been revisited, to help explain the Great Divergence and the necessary energy conditions for the Industrial Revolution.⁹⁰ Relatedly, only industrial capitalisms first achieved modern economic growth, or self-sustaining increases in GDP per capita, which, not coincidentally, have declined since 1973, with the transition of capital value out of industrial capital goods.⁹¹ Statistical histories that attempt to retrospectively establish the onset of anthropogenic climate change would fall into this category.⁹² So would old debates about the historical tendency of the rate of profit to fall in the manufacturing sector, and new ones about the historical tendency of the rate of return on capital to be greater than the rate of economic growth.⁹³

In sum, these two histories of capital as process—the prospective and the retrospective, and of course, the critical question of their interrelationship—may be placed at the center of a broader conceptualization

⁹⁰ Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy* (Princeton, 2000).

⁹¹ Stephen Broadberry, “The Characteristics of Modern Economic Growth Revisited” (working paper, Nuffield College, Oxford, 4 Feb. 2016), <https://www.nuffield.ox.ac.uk/users/Broadberry/ModernEconomicGrowth6a.pdf>.

⁹² John Robert McNeill and Peter Engelke, *The Great Acceleration: An Environmental History of the Anthropocene since 1945* (Cambridge, Mass., 2014).

⁹³ Brenner, *Economics of Global Turbulence*; Piketty, *Capital in the Twenty-First Century*.

of capitalism. For they address the core economic dynamics of capitalization, which subordinate the production and distribution of wealth. Yet they also make possible a broadening out, to the vast number of histories relevant to the larger unfolding of the capital process across time and space.

Conclusion

I would like to conclude with a word about the political implications of the above theorization of capital and conceptualization of capitalism's history. After all, whether at the moment of its birth, in the hands of left-wing critics, or at the moment of its later appropriation, by right-wing sympathizers, capitalism has always been a politically and ideologically charged term. Not coincidentally, the "new history of capitalism" arrived in U.S. historiography, in the wake of the politicization of American economic life during the Great Recession. Given the moment, attention has been placed on financial volatility, economic inequality, environment and climate, and the racial legacy of slavery's capitalism. But if there is one political implication of capital as process it is to underscore the significance of the prospective work of capitalization—which is, by its very nature, fragile.

Intrinsic to capitalism is a vulnerability to collective efforts to imagine and achieve economic futures different from the past. Might the history of capitalism contribute to that?

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