

The background features several thick, flowing red lines that curve across the top and bottom of the page. In the lower-left quadrant, there is a blue line graph with a vertical y-axis and a horizontal x-axis. A red line is plotted on this graph, showing a series of peaks and valleys, with the final segment trending upwards. The title text is positioned in the upper half of the page, to the right of the graph.

The Social Life of Financial Derivatives

Markets, Risk, and Time

Edward LiPuma

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of Financial Derivatives**

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For my daughter, Laura; my wife, Susan;
and my friend and inspiration, Randy Martin

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I am entirely responsible for the text but not for the ideas. What follows, both theoretically and thematically, is the ongoing result of my participation in the Cultures of Finance Group, which as I will relate was far more than what academics normally mean by a group. What defines and animates the finance group is an intellectual entwinement of the deepest order. Each idea is forged in and through its involvement with the ideas of the other members, such that every concept would have had a different and lesser shape if developed separately. Incorporated into the root of each new idea or theme are the vision and insights of the group. It is an assemblage that cannot be deconstructed or decomposed into its original elements because the process of incorporation centers on what can only be called a dialectical fusion. From Benjamin Lee, my collaborator and friend, I continue to learn the radiant value of thinking across the grain, more relationally than I would do on my own; from Randy Martin I learned the importance of ideas as a form of play and to never abandon the political uptake and power of social thought; from Robert Meister I learned a new way of thinking about finance some fifteen or so degrees removed from my usual reality; from Arjun Appadurai I learned the importance of keeping in contact with my anthropological roots; and from Robert Wosnitzer I learned that for theory to stay grounded it can't stray too far from practice. I would like to thank my wonderful friend Moishe Postone, whose theorization of production-centered capitalism was the ground I pushed against to create an exposition of circulatory capital. In the end as in the beginning, good theory is like the neutron of an atom, whose existence and value depends on its engagement with the protons of practice and the intellectual enlightenment from the encircling electrons. For collaborations at their highest constitute the most majestic form of plagiarism.

Prefacing a Theory of the Derivative

Crises seem to arrive from another dimension, somehow beyond what we know or can remember. At first, only fragments register, and then even when the crisis unfolds and destroys, its inner design can remain withheld for a long time. — EDWARD LIPUMA 2015

If nothing that has happened these past seven years or so [2008–2015] has shaken any of your long-held economic beliefs, either you haven't been paying attention or you haven't been honest with yourself. — PAUL KRUGMAN 2015

The financial crisis of 2008 inspired this book. It is thus, on that account, about derivatives. For derivatives not only motivated the 2008 crisis, they are instrumental in transforming the character of crisis itself. More in a moment about the dimensions of contemporary crises: for now simply note that the crisis speaks that finance is replacing production as the dynamic of capitalism. Not everyone thinks so, either that derivatives animated the crisis or that crisis itself represents something new owing to the ascension of circulatory capitalism. That is, capitalism with derivatives as ushering in a turning in the character of capital itself which, as it makes this truth our reality, tells us that we need to construct a better theory of financial capital. This project entails a more socially informed playbook—beginning with the construction of an articulate social theory—for grasping the derivative, its markets, and the agency of those who drive it. We need this heightened sociality as a condition of self-understanding the economy of the present and its politics. That is the message of the crisis; though most Marxisms and all of neoclassical economics disagree.¹ Even through a certain embarrassment, both feigned and genuine,

about having no theoretically real account of the crisis, and, more importantly, no account of the derivative and the ascension of speculative capital. And thus the motivation for offering an approach that shades into an experimental practice of the present. Whatever one's views, the reality, our reality, is that derivatives matter greatly because they are constitutive of the economics that matter to the politics of the present and trajectory of our collective future. Especially the left needs to remember that a politics of condemnology, however warranted, however just, is not a substitute for a bone-deep theoretization of the derivative.

The book has a narrative arc. Though the results unfold cumulatively like a set of transparencies that, one laid over the other, produce a composite so that the succession of chapters throw light on one another and the themes and counterthemes weave a more encompassing composition. In this composite image, the derivative represents, and is the exemplar in the financial realm, of the emergence of a transformed form of the social. *The argument is that derivative-driven capitalism, as exemplified by the financial markets, is reproduced by the transformed form of the social that it is instrumental in producing.* A dynamic, historically specific and directional, has been set in train in which the social that engenders the derivative is transformed by it. A transformed dynamic to capital, to the production of culture and knowledge, to the institutions of finance, and to the design of subjectivity has now entered the house. On an even larger scale, derivative-driven capitalism introduces a transformed form of capital which is redesigning the formula for social reproduction. Social theory was not ready for this revolution and it is unprepared for its revelation. But then again, a revolution (be it industrial or derivative) takes on the appearance of clear, linear, ordained process only when, in the work of creating a retrospective narrative that will serve as a foundational fiction of their success, the winners remove the contingency, artifice, and violence. Then set in gear a re-history machine that recasts the revolution. In the revised storyline, which naturalizes all that is social, the derivative materializes as the natural destiny of an economy in which the market is the arbiter of our reproduction.

But no matter the ideology, there is the crisis that years later won't let go of our economic reality. Luckily, such crises have a peculiar quality: they illuminate the hidden sociality of a market, which moves the participants to apprehend the crisis by reference to the sociality they've worked so hard to repress. Crisis can also allow the discovery of a social unknown: herein, the performativity of the market. That the social remains off-stage is itself social: it codes how the culture of capitalism presents the social in cameos so veiled and so misrecognized that

they are invisible to the financial eye. In normal times that is. Normal meaning when volatility still has the bit in its mouth, the pricing models hum, and the participants have faith in one another and in the markets. In the throes of crisis, however, financial markets tend to resemble nothing so much as a medieval carnival in which, for a circumscribed time, the world's inverted, forcing the participants' reflections to probe like instruments into a wound they illuminate the more they fulminate. First of all for plausible answers as to why the markets imploded and then to reassure themselves that the state of emergency has passed. And finally, to summon the spirits of absolution and amnesia, and to announce that reason's resurrection has lifted the spell of recklessness and that, on closer inspection, it turns out that nothing that terrible ever really happened. Thus, the logic of the claim—what lawyers refer to as a theory of the case—that underwrites the suit filed by American International Group (October 2014) to recover money it paid the government for its bailout.

The reciprocal evolution of capitalism and science means that the production of knowledge about the economy has become inseparable from the science of how it works. Until the crisis the only official economic theory was that systemic failure is impossible (Friedman 2012), a prognostication made on the grounds that markets are efficient and self-correcting. Systemic failure is supposedly a seven, eight, nine sigma event (a sigma being a standard deviation), meaning that it is as improbable as winning nine or ten state lotteries consecutively (or having a Marxist like David Harvey receive the Nobel Prize in Economics). Until the crisis, the official Marxist theory was that systemic crisis is all but inevitable, though only through the mechanics of production in that financial circulation is supposedly parasitic of the production of value and thus the contradictions inherent in its reproduction. But reality eventually has its say and the history of science reports that this assuredly is not the first time that “could-not-happen events” have undermined established paradigms, even as that history confirms that adherents never see, let alone anticipate, the gathering storm. This history also reveals that when the life of a theory—and with it the livelihood and self-esteem of its advocates—depends on the integrity of the theory's assumptions this generally leads to a suspension of critical judgment. In its place flowers a religious like fervor, disguised as scholastic commitment, to defend the assumptions against theoretical critique and deflect the insults instigated by damaging evidence. As Fyodor Dostoevsky observed, “it is difficult to change Gods” (*The Possessed*). Nevertheless, crises create openings; in this case at hand, an invitation to entertain an approach founded on circulation and the social. Because neoclassical economics and Marxism have traditionally

marginalized the sphere of circulation, the question required by our present predicament is what would a social theory of the derivative look like?

The crisis head-slapped those still in doubt that the flow of capital is more than an assistant of production, more than a monetary bridge between what we produce and what we consume. The crisis illustrated that finance was now about more than allocating capital to enhance commodity production: increasingly, finance was fixated on speculation, the deployment of opportunistic and nomadic streams of capital, the creation of derivative instruments to game risk, and above all the violence of systemic collapse. Indeed, the crisis generated an extraordinary *violence*, in people's dispossession of their jobs, homes, life savings, retirements, and their hopeful vision of their future. Families were disfigured, communities dismembered, and thus our basic human security compromised. Sometimes the effects of violence are more violent than the original insult, exemplified by the financial crisis. Few images are more stark than row after row of abandoned houses in cities like Detroit or Cleveland, the bodies of the homeowners having moved on, the boarded up houses take on the appearance of so many decapitated heads, whose slow decay will poison the community for years to come.² From an economic and political standpoint, and again from the standpoint of a collective moral conscience or the creation of a desired society founded on emancipatory justice, it is thus important to try our best to grasp the character of the derivative markets that set off the destruction. And may do so again. No matter how remote from the ordinary they appear, no matter how distant from the conventional array of disciplinary concerns. The claim is a judgment: that social science has a moral obligation to hone its analytical weapons on the derivative markets. And that this obligation entails an investigation that drills down into the sociostructures of derivative finance. An investigation that cannot be reduced to clean linear narratives, the simplifying idea that an untimely release of our "animal spirits" derailed an efficient market, a morality play of good against bad, the solipsism of the moral hazard, or readily digestible oppositions such as the oft repeated one of "Wall Street versus Main Street." But above all, an analysis that cannot be reduced to a language that refuses to be socially analytical to the point of demanding our full concentration.

This book is not easy. It asks for your sustained attention on the promise I'll do everything in my power to make the social ground and implications of the derivative more visible. This book contains a series of analyses of the derivative and its markets from the perspective of social theory. To gain this perspective there's no way to avoid the stilts of elevated language: notions like

performativity, objectification, and, above all, sociality are critical to the work's conceptual architecture. For they allow us to treat ordinary actions as portals through which the investigation can access a social world that is free of binaries but bountiful of deeply configured relationships. I will seek to follow the advice of Wislawa Szymborska, the luminous Polish poet who, in writing about the political economy of her homeland, observed that it was first necessary to “borrow weighty words” and then labor mightily so that they become lighter and clearer.³ And so I have borrowed, retooled, and sometimes invented new concepts to help us assemble and theorize a social theory of the derivative. The concept of a *social theory* is, above all, a currency that speaks a willingness to engage, to theorize, what is social about our collective life and our experiences as people.

The social theoretical approach advanced here differs from conventional economic analysis, but also from analyses emanating from Marxist, postmodern, and science studies perspectives. Given the distance that needs to be covered, I will stop and spell out the differences only when—as is the case for neoliberal economics—they help illuminate the derivative by illuminating the scientific ideology that underpins technical models and state governance. Even on this issue, my goal is less to critique neoliberal economics for blinding itself to the sociality of the market than to theorize and thematize the social grounding of the derivative. Each chapter speaks to the issues derivatives present to make sense of how derivatives are structured, how their markets work, and how and to what effect the logos of the derivative inflects the lives of households everywhere. I see the account as a theoretical montage, a process of constructing a composite perspective by suturing together elements of social theory wherever and whenever they prove useful. I see the approach as an enlightened materialism: by which I mean respecting objective sociostructures without adopting an objectivist theory of objectification (which elevates structure over agency and production over circulation). Correlatively, this entails an abiding respect for the work of the subject without succumbing to a love affair with agency (which cannot help but privilege interactions and networks over sociostructures). By this concept of montage, I point toward a theory of derivative-driven capitalism grounded in contemporary social reproduction. Such a theory would apprehend that the way we are producing culture, knowledge, and subjectivity is bound up with derivative-driven capitalism. Inexorably and intrinsically so. The centering view is that the derivative is the form of value production and derivative markets a machine of accumulation commensurate with circulatory capitalism. Especially for many working-class households—meaning

those households who survive through the sale of their members' labor (be it physical and/or intellectual) rather than from a return on assets—these new forms of value and accumulation appears as a financialization of life.

History matters even if this account does not focus on the history of the derivative markets. The social conditions that led to the ascension of the derivative and cradled the financial crisis did not arrive full born. They evolved unevenly but cumulatively, like the intermittent and explosive lava flows from a volcano, until a new terrain took shape. They originate in the early 1970s with the demise of Bretton Woods, the extraordinary escalation in petroleum prices, and establishment of derivative markets. These markets gained their full momentum in the realization of the 1987 crash when it became clear that derivatives can engender the volatility that they trade. So there arose capital markets driven by derivatives, designed to disassemble and reassemble capital itself, leveragable beyond anything formerly imaginable, founded on the newly minted notion of abstract risk, animated by speculative, nomadic, opportunistic pools of capital whose ties with production had been severed, and inhabited by hedge funds, nonbank banks, and other speculative investment vehicles like proprietary trading desks.⁴ Few things are more distinctive of derivative markets than the immediacy, rapidity, and creative impulse of their evolution. Most remarkably, a directional dynamic toward the fabrication of a regime of labor/work founded on employing risk driven capital assemblages, i.e. derivatives, to make speculative wagers on market volatility in a self-valorizing pursuit of monetary and symbolic profits. To do this, finance would be driven to innovate new ways to disassemble and reassemble capital, the impulse power of creative destruction, what capitalism said was its source of perpetual economic growth, all too easily becoming self-destructive creativity.

As noted, the overtext for the analysis is the 2008 crisis and its seemingly eternal aftermath, though the ultimate objective is to help fire a conversation on the creation of a sociotheoretical approach to finance capital and, more broadly, a capitalism whose driving dynamic is circulation. The crisis is central for four reasons: (1) it is continuing to cause enormous damage to working-class households as it denudes them of their wealth and simultaneously increases their risks and precarity; (2) the crisis exposes the sociality that the financial field renders invisible on condition of its reproduction; (3) the crisis opens the reinforced door that has sealed off finance as the exclusive dominion of neoclassical economics; and (4) the crisis begins to point the way towards an account of capitalism that links the financial crisis to the crisis of work.

Indeed, though the echoes are already fading, the seemingly impossible volatility of finance markets and their near death experience resonated across the spaces where the scientization of the market and the market's use of science cohabit. A social reading is that beyond the manifest aspects of crisis and rescue what has happened to us has laid bare the underlying social foundations of the derivative and its markets, in the process calling into question the formal models that academics had canonized as settled science and most practitioners had taken as the only scientifically approved operational paradigm. But a social reading is neither orthodox nor does it have institutional uptake. The almost religious like orthodoxy (See Merton 1992; Fama 1991) was (and is) that free markets are so inherently efficient and self-correcting that theorizations that postulate the possibility of market failure (Minsky 2008) can be safely dismissed.⁵ Going into the crisis this was the viewpoint of the academe, financial market-makers, and government regulators, these three statuses deeply intertwined as federal regulators are almost always recruited from orthodox economic departments and prominent investment banks. It is no accident that Goldman Sachs has contributed a slew of Treasury secretaries, who after their tenure in public office, returned immediately to the financial workplace. This regime of incestuous circulation of personnel became institutionalized in the 1970s when the primary axis for the global money markets became the Treasury, the Federal Reserve, and Wall Street. A culture and mechanism of circulation emerged in which individuals would rotate between economic positions at major universities, in government posts, and in financial institutions, in the process all but effacing the difference (in missions and dispositions) between those who regulate and those who are regulated. The outcome was a financial system manned by neoclassical economists and neoclassically trained MBAs⁶ who were convinced that derivatives were the creative way to offset risk and that systemic failure is impossible.⁷ But the real is that markets did fail systemically and the crisis that ensued continues to impoverish us economically and to diminish us politically. And so the matter of derivatives could not be more important to any discussion about wealth and power.⁸

Crisis and Wealth

The crisis points to a politics of wealth in which, for many, the only thing that is abundant is scarcity. Indeed, and here the indeed measures the deed not done: the politics of wealth we have refused to embrace defines us more than the one we have settled for. The accumulating crises underline the need for a

theory that is sufficiently beyond economic convention that it must construct most of its own concepts, starting from circulation, the derivative, and the centrality of the social and including a kind of conversion machine that translates high-kiting scholastic treatises into practical accounts that live much closer to the ground. The analytical aim is not to sell or celebrate the derivative and its markets but to delineate them as analytical objects. Few things are ever more political or more secretively powerful than the (mis)construction of social objects. Though I couldn't help but put this scholastically, it does help to remember that this is why the financial sector works so hard to "public-relation" us into seeing it as a certain kind of object: one that in fairly rewarding individual achievements is beneficial to us all.

In the light of our compromised security, it is possible and necessary to locate and inventory the crises (in the plural) that confront us. The economic backdrop is that the production of an increasing array of commodities has been shifting to Brazil, India, and especially China. In the process, derivative markets specializing in the allocation of capital became capitalism's largest market. The derivative markets are the way in which capitalism assigns value to capital at risk when it evolves a new platform for self-expansion whose mainspring is the circuitry of capital itself. This ascent of derivative markets marking a remarkable transformation in the substance and politics of wealth: the proportion of EuroAmerican wealth held in financial as opposed to physical assets (e.g. real estate) is increasing dramatically. In significant part owing to the financialization of what were once physical assets. The financial implications of this shift is that from 1973 on the market for derivatives has grown from nearly nil to hundreds of trillions, as reported by the Bank for International Settlements (2013). More, the velocity of its growth at increasing levels of complexity are outrunning state and international regulatory regimes, the popular capacity to imagine such astronomical numbers and the force they portend, the medias wherewithal to portray the full character of the crisis, and the political power that increasing wealth has bequeathed to the financial sector.

There is, first of all, a crisis of everyday life. Its framework is the progressive "subsumption" of labor to the logos of the derivative in that the activities instrumental to the reproduction of the household have increasingly come under the "calculative imperatives of finance" (Bryan, Rafferty, and Jefferis 2015:318). This appears in what is referred to as financialization: of education, medical care, retirement, epitomized by the transformation of houses into assets. That finance will educate us to use our house as an ATM machine. Financialization has turned what was once sources of security—our homes, schooling, and

retirement—into perilous investments, an education little more than a call option on future employment that may expire worthless, a retirement portfolio increasingly resembling a put option on not living too long. In addition to their day jobs, everyone needs to become an investor: knowledgeable about the ins and outs of a financial system founded on secrecy, complexity, and the power of large numbers. With some steel-cold irony, Dick Bryan (2014) refers to this as a hedge fund of your own life. The meaning is that to fund our lives, from educating ourselves and our children to retiring with security, depends on knowing how to speculate/invest in financial assets. This is coded as *financial literacy* as though fluency in finance and the mechanics of the market is equivalent to the skill of the enlightened life, whereby we learn to read so we can read to learn. But it turns out that for most people, financialization is an end posing as a means—and too often a dead end at that.

There is a crisis of financing production in that the basic mechanisms of capital accumulation and allocation—what underlies capitalism as a political economy—remain dysfunctional. Exemplified by the worldwide shortage of liquidity and collateral and the inability of the Federal Reserve and European Central Bank to right the problem despite interventions greater than were once fathomable (even by John Maynard Keynes). The commercial paper market, a generally unknown but core source of funding for the everyday operations of production, flipped over during the crisis year and then struggled mightily to right itself. Especially for smaller and medium-sized production companies, commercial loans have been difficult to obtain, which, among other things, impairs their expansion and thus new job formation. As late as March 2015, Gershon Distenfeld, a leading bond manager at Alliance Bernstein, told *CNBC* that the key problem in the bond market is the continuing absence of liquidity, which means that the only firms that can easily access the bond market are those (exemplified by Apple) that are sitting on a mountain of cash.⁹ The drop-off point for this evaporation of liquidity, as indicated on a liquidity chart discussed by Distenfeld, was the bankruptcy of Lehman Brothers. On top of this, the US Federal Reserve and the European Central Bank (ECB) have been unwilling to forcefully stimulate bank lending.

This speaks to a crisis of governance. Specifically in respect to the economic responsibility of the government towards those who are governed. Until the ascent of the derivative markets, a principal of government was to provide all those goods and services deemed essential to our social reproduction but did not have a home in the private market economy. Chief among these were the provision of infrastructure, consumer protection, regulation of the currency

and commerce, and the fostering of economic security (e.g. unemployment insurance and housing loans). Increasingly, however, the mission of the government has transformed from preserving our economic security to that of financial institutions and markets. So increasingly governance is about keeping the financial markets solvent and liquid. Note that both the original bailout, the Troubled Asset Relief Program (TARP), and the massive program of quantitative easing orchestrated by the Federal Reserve injected an extraordinary amount of liquidity (upward of \$300 billion) into the financial system without including any provision to ensure that the financial system would use this additional liquidity to bolster the production based economy of working class households (as opposed to padding their own balance sheets). The US government has effectively become the debtor of last resort for the financial system.

In the political register, there is a crisis of peoplehood in that Americans seem to be abandoning their founding constitutive vision—a vision that said we, as a people, have an unbreakable and mutual obligation to stand by one another and to do what is good for the common good. Where the celebration of citizenship once trumped our divisions, nowadays these divisions are increasingly who we are and what we stoop to fight for. The wealthiest disowning their commitment to the common good and then turning around and portraying themselves as another oppressed minority. But even more, those possessing and possessed by power and wealth want to convince the working class majority that the abandonment of our founding covenant is who we really are. That covenant tells us that we should listen to the voices of those dispossessed, that its timbre resonates our present turmoil. It tells us that many working-class rural towns and urban neighborhoods are fast becoming posthumous places, where poverty, desperation, and joblessness have become so presupposed that the residents describe their future in the past tense (“Our son won’t find work cause the bank [fore]-closed on the factory; took everything right down to the tiles on the floor”). And then there is the legion of demagogues who claim that immigrants searching for work and safety are the cause of our malaise, and that if we could only band together to exile them we would solve the crisis of work.

To these crises we added a crisis of scientific understanding. In the analysis of our predicament, the production centric models that scholars had relied on since the birth of capitalism can no longer get the job done by themselves. This is not because production is somehow becoming less important—the total quantity of commodities being produced and circulated continues to increase—but because the sociohistorical form of circulation now ascendant adds a radically new logic to capitalism that production based models can-

not encompass. A new logic founded on a different mode of instrumentation (the derivative), a redefined directional dynamic (toward the amplification of risk), and a new mode of social mediation (through the abstraction of risk). So much so that in an article entitled *After Economy?*, Randy Martin (2013) proposes that “by abstracting capital from its own body, carving it up into more or less productive aspects that can be applied toward gain or loss, dispossessing any given capital of those attributes” (e.g. its interest bearing) which can be isolated into speculative bets, “derivatives do to capital what capital itself has been doing to concrete forms of money and productive conditions like labor, raw materials, and physical plants” (p. 89). The suggestion is that when a principal capitalist activity consists in the derivative disassembling and reassembling of capital itself, this turn requires a path of understanding that can apprehend that what was once *the economy* is becoming something increasingly different. Nothing signifies the difference more than a crisis originating in the systemic immobilization of the markets responsible for capital’s circulation: that is, a crisis originating in the destruction of capital as opposed to a long history of economic crises originating in the character of the commodity markets: the destruction of demand or the contraction of supply. Analyses that see nothing unusual here—the present crisis simply a reincarnation of past financial lapses—are no longer contemporaneous with themselves. Regardless of their pedigree.

This book is also necessarily about what the financial field and its ally neoliberal economics are sure the crisis could not be about: namely, capitalism as a sociohistorically specific form, currently in a highly transformative phase owing to the ascension of circulation (illustrated by the collapse of the distinction between national monies and global capital); capitalism as created within, and constitutive of, a form of social life that is intrinsically laminated to a more encompassing social; a rising culture of financialization that broadens, deepens and valorizes a speculative ethos sequestered in our imagination since the birth of capitalism that in the name of securitization and financialization has taken flight; a space of derivative markets that is evolving and canonizing a new dimension of subjectivity (a monetization of the self and other); a disarticulated worldview that visualizes the world contradictorily as hyper-consistent yet subservient to sudden random misfirings of human behavior (as inscribed in the contradictory view that economically rational agents were so besotted by greed that they behaved irrationally to the point of mutual self-destruction); a derivative logos that is remaking the world (including that of productive labor) as temporary assemblages of deconstructed parts, exemplified

by the decline of unions and the rise of the independent contractor who, instead, serially “swaps” a service for a sum (see Bryan and Rafferty 2013 for an analysis of the logic); and a realist account of economic reason able to discern the conjuncture of the imbricated and embodied logics of practice. To phrase this as transparently as possible: for analysis to say something real about the financial crisis, the analysis must be about the real as it is constituted. Now, here, in the midst of the practices which define our lives.

The financial of 2008 crisis has more to tell us than it can imagine. Though not if we concentrate on what the financial field says about itself. Its own powers of revelation are shallow, such that self-understandings that emanate wholly from within finance are of only derivative value. For they begin and end with the surface forms of circulatory capital, the derivative conflated with its appearance as though it moved and thought and behaved independently of the social world it must necessarily presuppose. On the financial view, the derivative is simply another new specie of commodity, imbued with thingly properties that endow it with an objective existence independent of social life. The propensity of finance economics and the field’s own forms of technical analysis is to naturalize and individualize the markets and their participants. Naturalization and individualization are realized through analytical schemes that treat collectively-created relational objects (e.g. credit, liquidity, debt) as though they are simply singular concrete object types that have a life of their own in respect to economic individuals. From its perch, markets are preconstructed and thus so eminently natural that everything required to produce and reproduce them seems to require no work at all. This viewpoint wipes away the collective works of the participants, including the work of the scientists whose labors include their construction of the derivative, the market, and risk as an analytical object. Inside the walls of finance there’s no way to imagine that these “objects” in crisis are not objects at all, the term a metaphor suggested by the design of English (Lee 1997:35), but rather relational constructs working within socially imaginary ones.¹⁰ Missing literally in action is that agents’ individual acts crystallize as a collective relation, which reproduces or endangers a *derivative market*. The financial view has no view of the crisis because by removing the sociostructural all that is left are wayward individuals and the inexplicable one-off event. And, of course, the pain and violence.

The rapid response is to reinstate the social that finance has redacted. The social is imagined here as the fugitive familiar whose return to the scene of the crisis will help us understand. Especially why bad things happen to good people as well as bad. This move is sometimes referred to as bringing the social

back in—as though the social was waiting on the back porch for the invitation to enter the economic house. Rather than always already a constitutive dimension of finance’s sociostructure. This solution is also its own problem if analysis does not consider that the social that is already there is socially transforming. This appears, first of all, in the reality that the financial crises inspired by derivatives are fundamentally different from those animated by the withdrawal of deposit capital from the “traditional” banking system. Epitomized and emblazoned historically as depositors’ runs on standard banks. Or a collapse of exchange values, as when a national currency experiences hyperinflation (the Argentinean peso in the late 1990s) or the capital allocated to a class of things (e.g. tulip bulbs or internet stocks) evaporates and prices collapse. Crises authored by derivatives are animated by the way in which capital itself is dissembled and reassembled. Financial derivatives rip capital apart, apart from any reference to production. They then technically reassemble the dismembered attributes according to a very competitive, deeply inculcated, and treadmill like logic that serves to heighten the possibility of systemic destruction. To grasp the derivative and its capacity to destroy the economy requires an investigation of the sociospecific forms of structure and agency that define its markets and market-makers. An analysis of this order is, from my perspective, necessarily grounded and enframed by a concept of *the social*. The concept is critical because it moves us beyond approaches, that founded on reification of the economic, cannot begin to honor the complex socialities constitutive of finance.

The Concept of the Social

While this concept of the social is foreign to finance economics—at least in its contemporary incarnation—it has a history that traces back to the pioneering work of Emile Durkheim and Max Weber and several entwined lineages of successors who have materially refined the idea. A concept of the social is also an undercurrent in the economics of John Maynard Keynes and the entire generation of theorists who had suffered through the Great Depression.¹¹ The social has a specific reference. It constitutes the unmarked term that encompasses all of the ways in which concrete human actions enacted within sociospecific practices (such as executing a derivative trade) are the product of the organization (both objectively through the institutions of the financial field and subjectively in the dispositions inculcated in its participants)¹² of deeply imbricated community, economic, political, and moral/ethical dimensions of contemporary

life. The concept of the social seeks to capture the reality that, at the level of concrete human actions, these dimensions of our contemporary existence are intrinsically interwoven. Such that foregrounding one dimension or another is inherently a kind of action on the social which, in turn, influences deeply the way we apprehend the world.¹³ This notion of the social foregrounds the reality that human action is intrinsically collective. Concretely, this means that the buying and selling of a security, speculating on its forthcoming value based on the participants' willingness to assume an unknowable amount of abstract risk, is possible only for agents who have already acquired dispositions geared to the plural and entwined species of rationality that course through the financial field (i.e., maximizing profits, producing subjects' self-esteem, competitive dynamic, speculative ethos, and even a sense of nationalism). Concretely, this also means that the dispositions that motivate each and every trade serve to combine a past (history) and a forthcoming; they speak to the relationship between the organization of agents' dispositions constitutive of the financial habitus and the structure of possibilities (e.g., wagering on credit default swaps) constitutive of the financial field at a given point in time. Concretely, the structures of the financial field and the specific markets are built into the cognitive and generative schemes that the agents implement to apprehend the financial field and its markets. From this perspective, the real-world dynamic founded on the relation between the structure of agents' dispositions and that of the financial field and its markets is always the outcome of multiple competing determinations. The true point, which is beyond the ken of economic accounts, is that financial actions have determinations but are never the result of purely rational cognitive decision making (even in the case of program trading) because they originate in the encounter between dispositions, schemes, and truths shaped by the financial history from which they spring and the potentialities of the financial field and markets going forward. That said, the genesis and ascension of the structures of circulation, in finance and beyond, always with a global orientation that imbricates spaces of difference (such as nations), require a revised social theory. The social theory that once did a good day's labor cannot be counted on to get to the heart of the crisis because the finance it references has moved on, finance after 1973 progressively becoming a transformed form of what it was in the pre-derivative days of production-directed capital. Accounting for this transformation requires that we read the crisis three turns removed from conventional approaches. While the uptake of these theoretical revisions will become fully apparent only in the context of the larger investigation, it is worth providing an overview to indicate the trajectory.

Three Theoretical Turns

Although their value (and judgment on that value) will become apparent only in the course of the analyses, I would like to preview the three theoretical turns that orient what follows. The first turn is ontological: that we grasp the financial crisis through a theory and thematic that annuls the privileging of production that has underpinned the entire spectrum of accounts from the most neoclassical to the most resolutely Marxist. This ontological equilibration of production and circulation will touch off a chain reaction, leading to other levelings of the theoretical (and methodological) field that, in turn, will lead to a reconceptualization of what a social theory of finance should look like. Perhaps equally a reconceptualization of what social theory confronting the transformed social of circulatory capitalism should embrace as its conceptual architecture. Note also that the centrality of production has been accompanied by a privileging of structure or totality at the expense of agents' practice and performance. What is more, neoclassical and Marxist theory both seem to visualize capitalism in territorial and systemic terms, such that "the economy" names the structure of production articulated by a national and/or class-based populace. But this too is a theoretical hindrance to the apprehension of modern derivative markets. Instead, an entirely different account for the reproduction of capital markets will emerge once we put the objectification of totality and the performativity of practice on equal footing.

The second turn is epistemological: that we transition from a theory founded on directional and oppositional categories to a theory founded on the notion that the categories unfold as *spread* phenomena. There is a powerful in other words here: namely that we will apprehend the realities of financial practice as spread phenomena on the grounds that this provides a more accurate analytic. The spread will allow us to understand the real as being intrinsically relational. Critical if the objective is to apprehend anything as relational and as animated as real-time trading. So spreads are relational spaces that allow for movement in multiple directions simultaneously. These movements across the space and in respect to the spread appear temporally as intervals, times of revaluing, defined by differences in velocity, volatility, and valorization. This "spread" approach replaces understandings of the social predicated on immobile configurations of points and positions, agents versus structure, or opposing spheres of social life. It replaces approaches that apprehend the social world as ensembles of preassembled systemic forms, forms that disciplines can then grasp in substantialist, linear, deterministic terms.

Thinking the world through the spread approach, there can be no opposition between production and circulation, material wealth and financial assets, pricing models and the real recalibration of prices, investing versus speculation, because they are all mutually imbricated dimensions of capital. What have so often appeared as conceptual oppositions reappear as historically generated spreads. And thus mutually implicated in the creation of the economic conjuncture. Indeed, a spread transcends the opposition that it stages as a condition of its resolution. So the real production of a derivative that circulates, replicated at a real price in wealth-creating money, speculating on the investment even as the participants invest in speculation, whose outcome inflects the real economy by inflecting the design and flow of capital and permeating our reproductive logos will necessarily fold the oppositions into one another. By the same token, the ascent of finance does not bespeak a directional shift from commodity production to financial circulation, but, alternatively, the circumstantial foregrounding of one aspect of the spread that runs from production through circulation to consumption or final demand. The question of the derivative has to do with the contemporary dynamic unfolding of this spread in respect to the deep structure of capital. And more specifically, the transformative effects of the ascension of the derivative markets on this structure.

The question of how derivatives work structurally is inseparable from the question of what kind of work is necessary to reproduce them practically. And to trade them on a global scale as a matter of institutionalized practice. This work and workplace are not an accidental occurrence, nor do they emerge as a determination of corporate rules and norms or from some inevitable exfoliation of the logic of capitalism. Rather, the work and workplace of finance unfolds as the dynamic creation and enactment of a sociostructure, that is, in respect to the encounter between a spectrum of possibilities delimited by the force of constraints and the agenda of the participants. The workplace opens a space that enframes the activity of trading, then provisionally closes this interval of space-time (or spread), only to animate it again repeatedly in what appears to be a mime of the dynamic and nonlinear replication that characterizes the derivatives markets. The flywheel of openings and closings is important because it compels agents to bring their other interests and logics into the workplace and to export the derivative logic into other spheres of social life. Conceptualizing the making and replication of markets as a spread phenomena is significant because, as we will see, the conventional logic that habitually opposes work with play and both with ritual impedes an understanding of how the workers who make and trade derivatives make derivatives work. We will

eventually reach the concept that a spread is a specific instantiation of sociality that mobilizes ritual/play/work to resolve the certainty of uncertainty inherent in the real-life unfolding of financial practice.

The third turn is toward a more immanent understanding of science inasmuch as an analysis of the markets must attend to the scientific means and methods that agents use instrumentally to construct those markets. Critically by conceptualizing science (a science of finance in its disciplinary version as finance economics and also its secular forms) as a sociospecific vision that, having become part of the real relations of the production of the economic, is partially constitutive of the financial field, markets, and the present crisis, and simultaneously as the source of a more reflexively creative theory that can apprehend and reinsert the full and founding sociality that its own ideology exteriorizes. Note that modern derivative markets are unique in that they grew up in the house of science, nurtured by its analytical tools of evidence and argumentation, habituated to its use of numbers and mathematical calculation, its sources of renewable legitimacy deposited in science and the rationalist thinking that scholastic reasoning celebrates, and, most of all, to its tendency to conceptualize analysis as a physical science of natural types (a physics of finance). To understand derivative markets it is necessary to interrogate the embrace of science that these markets embrace as a condition of their existence—this use of science methods appearing in derivative-pricing models, product innovation, the divination of technical indicators, the development of trading platforms, the analytics of (quasi)historical patterns, and so on exponentially.

A Social Theory of Finance

One question sometimes asked of me is why should financial derivatives interest anthropologists? How did I come to see my intellectual calling to be an illumination of the derivative? One answer is that since the inception of the discipline, the calling of most anthropologists has been to illuminate the social practices of tribes living outside of EuroAmerica. But the world has transformed socially and economically, not least with the ascension of a culture of financial circulation, and thus the need to turned our attention to the tribes that occupy lower Manhattan and Canary Wharf. A kindred answer is that I do not visualize myself as an anthropologist in the conventional sense even if the investigation does incorporate its traditions such as ethnography and a concern for the social. Perhaps more important, I think of anthropology with a small a, meaning that the approach taken here is intellectually omnivorous

in its willingness to appropriate whatever concepts and insights illuminate the material. Be these concepts and insights from sociology, economics, finance, linguistics, or anyplace else.

There is a reason for this. A remarkable fact about the world now unfolding, a reality seemingly magnified on a daily basis, is that our technology, culture, and economy are transforming faster than the institutions designed to understand and monitor them. They are transforming faster than our ability to render them strategically intelligible to citizens and policymakers. This lag is especially true with respect to the social sciences. The various disciplines have resisted coming to terms with the reality that their differences do not simply reflect differences in their objects of investigation. They more reflect a cultural politics of investigation that inculcates different concepts, desires, and dispositions in their respective academic communities. The propensity has been to translate academic boundaries into boundaries of knowledge production. Even more, this repressed politics tends to fabricate putative differences in their objects of investigation through the valorization of filtration processes that screen out much of what is critical to grasping the world (of finance) as it is currently evolving. It is for this very reason that Emanuel Derman, one of the founders of quantitative modeling and a former managing director at Goldman Sachs, observed that his practical experience of the “efficient market model” revealed that it is “driven as much by ideology as by the facts” (2011:109).

It is hard not to concur with Derman’s view, which is ultimately rooted in this understanding of mathematics. And because few things are more social than ideology his observation points to the necessity of an alternative theorization that grasps finance as inherently social and transdisciplinary. The derivative and its markets are going to test our collective ability to play with others. Indeed, from our perspective, the gulf dividing the disciplines is much broader and deeper than the separation—if there is one—between the dimensions of social life. There seems to exist a reality-magnifying and very misrecognized complicity between the scientific fields and their analytical objects: the social practices, methodologies, and institutional structure of the disciplines all too easily suppressing the constructive character of their relationships to their analytical objects even on those rare occasions when it becomes visible as artifice. That these divisions have no epistemological foundation is nowhere more evident than in the study of finance, especially markets that are collapsing from an acknowledged crisis of faith. Disciplinary divisions, however seemingly natural, have only a social foundation; they exist and are reproduced only insofar as the contemporary history of the academe has canonized and institutionalized

them. The main argument is that we can grasp globally enmeshed cultures of financial circulation only by dissolving or at least ignoring this authoritarian division of disciplines because it is no longer contemporaneous with itself. Whatever the merits of the EuroAmerican tradition of the institutional division of disciplines, it is an impediment in grasping the present structure of financial circulation. Either the divisions will dissolve or the financial world will not be understood.

The focus of the account seems simple enough: what kind of work do these tribes do? How, as the longstanding and rather quaint phrase goes, do they make a living? Hunting and gathering money is the answer, though there is, of course, more to this economy than any encapsulating description. Indeed, it turns out that we will need to draw upon all of the intellectual and theoretical resources at our disposal to explain how the financial field is constituted, what are the social practices of a species of work that centers on acquiring and allocating speculative capital to place risky bets on market volatility, what are the existential dimensions of a form of work that involves decision making under uncertainty? The intellectual and theoretical resources called on will include quite a bit about what we have distilled from studying tribes more remote than our own. Hopefully, I can construct a perspective that is able to apprehend the sociostructures and socialities that enframed and encouraged the derivative-driven financial crisis.

It is not only the public and its representatives who appear to possess very little understanding of modern finance. Academic scholarship has also failed to theorize and thematize the ascent of the derivatives markets and the culture of financial circulation. While a library of popular accounts is quickly taking shape, they center almost exclusively on the sequencing of events and the personalities involved not on the underlying structure. Nonetheless, it is clear that to apprehend the present and evolving structure of capitalism it is necessary to grasp the deep structure of financial circulation, which is EuroAmerican in genesis and arcane in its architecture, but global and pervasive in its implications. My view is that the character and a cause of the crisis is a financial field and markets whose social complexity is so deeply buried in their molecular structure that their appearance, and how the participants portray their own appearance not only publicly to the camera but also importantly to themselves in their practice of constructing their own subjectivities, tends to flatten out this complex terrain. This observation is important analytically. It reminds us why is necessary to break with participants' ordinary experience of the financial markets in order to account for their experience. This separation

is necessary because everyday experiences invariably arise from specific positions within the financial field. Participants cannot help but to see and grasp the financial field from the particular positions that they occupy, resulting in a real but only partial picture of the encompassing structure of relations that generate their actions. To give an example that our analysis will return to: traders on the proprietary trading desk who are speculating daily with enormous sums of an investment bank's money have a different experience and vision of the financial field from the mathematically trained quants who reside on a different floor of the building, both of which are more often than not distant and segregated from the views and capacities of upper management. This reality means that an analysis that exposes the sociostructures that found the field will cut against the grain of both scholastic and insider understandings.

In essence, the view is that to be scientifically rigorous in the investigation of the financial crisis entails a methodology that grasps how the objects of finance are doubly constructed and dialectically so, through the mediated relationship between the field's participants and the scholars who analyze what they do. I have sought to harness all of the resources gained from studying both primitive and derivative economies and systems of circulation to put this methodology into practice. Let it equally be noted in the interests of honesty that there is never going to be a productive dialogue between the silence of abstractionism and the investigation of concrete social relations: for on the one side are unchanging natural laws and neural pathways, on the other the meanings and values that collectivities attach to themselves and the fields they create. Pierre Bourdieu tells us that this "deliberately selective apprehension of the real" necessarily consists in "bracketing off the economic and social conditions of rational dispositions (in particular those of the calculating dispositions applied to economic matters) and the economic and social structures that are the condition of their exercise . . ." (1998:94–95). It will thus require a new species of finance economists—a species who care enough about wealth and the power of the derivative to genuinely care about the social.

And thus the aim of the book in its entirety. The derivative is about wealth in motion, although differently from before in that the rapidity, global reach, and sum of the wealth circulating is ushering in a transformed form of capitalism. And with that, a transformed political economy. For these reasons, I want to introduce the you that is the reader to an alternative language for thinking about finance, and about thinking through the challenges financialization is now presenting. I want to do this in a way that pays no attention to the entrenched segregation of disciplines or the convention that what validates

scholarship is discussions of the “inside-baseball” (or “inside-cricket” if you will) debates that fill the disciplinary journals. I want to inject a new ensemble of concepts, such as rituality, the performative objectification of totality, cultures of circulation, the dynamics of volatility and liquidity, how the spread of possibles (prices) across an interval (the time until a contract’s expiration) creates a specific kind of agency, and the habitus of financial practice—into theorizations of the derivative. This social reading of the derivative is, and can only be, preliminary. That said, my hope is that by the book’s end a new optic for visualizing the derivative begins to come into focus.

One nonconcluding observation. Like a swift river against soft rock, the financial industry has gradually but relentless eroded the safeguards (e.g., Dodd-Frank) put in place as a consequence of the crisis. Behinds the backs of the citizens, though with the complicity of politicians whose overriding concern is getting reelected, systemic risk is again on the rise. Omnivorous dark pools of speculative capital that circulate all sorts of derivatives on underground markets are getting larger and larger. Proprietary trading desks are back in principal, even if they operate under assumed names. And while few things in finance are guaranteed because the future is always up for grabs, a betting man or woman not afraid to speculate would lay odds on another financial crisis. This is not a prediction simply a real possibility. If some year in the future resembles 2008, we should be dismayed but not that surprised. For the real lesson of the crisis is that a desire for profit will trump politics, governance, and our mutual well-being.

Means and Methods

Analyses are judged by the logical coherence of the theory but also by their correspondence to the world. This second term of judgment means that a key question in evaluating an analysis that purports to be about the world (of, for example, finance) is how researchers know what they know, socially and scientifically. For finance, what is the methodology in the larger sense of the term, this expansion necessary because finance, in contrast to how it is mapped by neoliberal economics, actually references an open, uncertain, generative universe.

Anthropologists, especially as it constitutes a key element of their heritage, but other disciplines also, have a concept of ethnography. By ethnography is meant fieldwork whose objective is the extended on-the-ground study of a community and its way of life. In this investigation, I have drawn upon this

methodology. And so what follows is based on direct observation, dozens of formal interviews, and innumerable other occasions, such as wine tastings, interacting with derivative traders who were interacting with each other. Without succumbing to the positivist fetishism of “data”—which cannot help but conflate data, information, and knowledge—I have used this field experience to help build a picture of derivatives, their markets, and their market-makers. This observational platform is necessarily interpretative: as the overt behavior of the participants rests on concepts, dispositions, embodied sensibilities, institutional contexts, and practices that are hardly visible the way a building or mountain is visible. What renders this task somewhat quixotic is that the analyst resides among those who, absorbed in their work and the machinations of the field, will habitually dismiss (as philosophical or worse metaphysical) any mention of that which is foundational. Nonetheless, this must be done and so I have sought to conscientiously shuttle between empirical data and interpretative frame.

I have also been shaped by my own trading experiences and have incorporated into the analysis. For the past two decades, I have traded derivatives for my own account, mostly exchange-traded derivatives but even there it is entirely possible to conjoin several “vanilla” instruments (e.g., simple options) into a more complex and more opaque position. Trading derivatives entails placing one’s own money on the line which in turn imbues a sense of the market, of the game, and their affective pull. It is one thing for someone to tell you about speculation, volatility, and the double-edged sword of leverage. It is quite another to have a sickening feeling bubble up from the pit of your stomach as a position deteriorates by a substantial sum in just a few minutes, and you are now compelled to make a decision as to whether to further leverage the bet when (but also if) the volatility swing bottoms or whether to accept the price of failure and exit the losing position before the loss becomes catastrophic. On the more analytical side, there is the singular experience of making the calculation that this particular derivative at this price is worth speculating on. All the while aware that this decision-making under uncertainty could easily go south if unexpected or unimagined events occurred. Many of the insights about the feel of the trade derive from conversations with traders and my own experiences of trading. This is central because the phenomenology of trading arises from the carefully calculating body. The zone of practical practice is a place where mind, memory, and body are indistinguishable.

There is a politics that assists my method of understanding. My objective is not to condemn the derivative the way evangelicals condemn abortion: as an

evil in and of itself so inherently malevolent that no good can ever come of it. Rather, my aim is to understand the derivative in order to harness its power and then turn that power toward the interests of the collective good. In this vein, I have been contemplating with Robert Wosnitizer (also a member of the financial group) on how we might design a derivative whose purpose is to assist finance education by shifting the tuition risk of investing in schooling from students to market speculators. Creating a derivative is one way of getting to know them.

In addition, I have recorded and then analyzed literally thousands of hours of broadcasting by the financial media. This includes the stories reported on CNBC and Bloomberg, their analyses of the internal and exogenous forces that shape domestic and foreign markets, and the interviews they conduct with hedge fund managers, corporate leaders, politicians, presidents of the Federal Reserve banks (e.g., the New York branch), institutional investors, buy-side analysts, economists, and, of course, money center banks and pivotal derivative mainstays such as JP Morgan, Goldman Sachs, and Morgan Stanley (e.g., their mandatory reports for the US Comptroller of the Currency). My analyses combine this dimension of practice fieldwork based information with a reading of journalist accounts in respect to the technical literature on strategies for trading derivatives and the mathematics of financial models.

Through no intention or merit of my own, I am in a very good position to assess the financial markets. Beginning in 1973, the foundational year in the genesis of derivatives markets, I began my study of economics at the University of Chicago. I studied substantivist economics formally and neoliberal economics informally but diligently, thus getting a handle on the mainstream theorization of noncapitalist and capitalist societies. Economics was just beginning to image itself as physics such that my penchant for math made this turn both interesting and puzzling. More, when I arrived in Chicago I roomed with my cousin who was one of the pioneering traders discovering their way on the fledgling Chicago Board Options Exchange (founded in 1973). My cousin and his fellow traders taught me about options, although I considered them little more than a curiosity at the time. Nonetheless, this experience alerted me to derivatives and as their markets expanded exponentially and thus also their importance to an increasingly globalized political economy, so too my interest. The point of convergence was that societies once driven by their own internal design were now being encompassed by the derivative markets. The initial expression of this interest was the collaboration with Benjamin Lee on several articles (LiPuma and Lee 2002) and a book *Financial Derivatives and the Globalization of*

Risk (2004). This book is an extension and development of its conclusion that to comprehend the present we need an adequate theorization of the social life of derivatives. This book is intended as a contribution to that project.

The Plan of the Book

Each of the chapters of the book is a self-contained analysis, and can thus be read independently. Nonetheless, they are intended to have a cumulative effect as each chapter develops a specific theme in pursuit of the social analysis. The opening chapter sets out the question of what a derivative is and how it works. Not just what a derivative names contractually, but what it says about speculation and the organization of time set against its historical origins. At issue is the way in which the logos of the derivative leads to markets predicated on innovation and the abstraction of risk. The second chapter focuses on the conditions of the crisis and how derivatives have an especially intricate relationship to the production of knowledge about them. If science has any mission it is to know. If Herman Melville were writing this chapter and his subject was the London whale and the derivative transactions that impaled the finances and reputation of JP Morgan he would probably put a banner under the chapter title that read: How Finance Thinks about Derivatives. Being a Meditation on the Production of Knowledge and Ignorance. For the life and power of the derivative is inseparable from the knowledge created and circulated on its behalf. The third chapter sets out the problems that confront a project whose objective is to apprehend the financial field socially. It explores the theoretical and thematic ground of these problems, underlying how the systemic crisis that rocked the markets in 2008 and beyond affords a privileged opportunity to map a social approach to finance. The fourth chapter examines the temporality of the financial field and derivative markets. Its primary concern is to trace the historical ascent of a culture of financial circulation, to reveal the operations of a “treadmill effect” that causes derivative markets to become increasingly unstable over time, and to illustrate how the derivative deals with the future’s inherent uncertainty. Time is critical to the social approach developed here because the reintroduction of time foregrounds the social’s constitutive power in the making and reproduction of derivative markets. The fifth chapter details the foundations of the social process by which derivative markets are produced and reproduced. It argues that there is a problematic that is hidden from our view by an economic approach: namely that *a market enacted as a continuous set of transactions functions (i.e., remains liquid) because its agents*

presuppose the market as a(n imagined) totality, even as the very existence of that totality depends upon the continuity of those transactions. The sixth chapter shows that the market-making process emanates from the concrete social relations of the agents who participate in and are invested objectively and subjectively in these markets. The analysis here focuses on the dynamic between the objectification of a market as an imagined totality that frames economic action and the performativity of these actions in objectifying a market (and also *the market*). This dynamic that is the basis for dynamic market replication derives from a progressive set of social mediations that need to be defined. The key to understanding this dynamic turns out to be a rituality, secular in character and anything but transparent, that underwrites the circulation of derivative contracts. The seventh chapter examines the speculative ethos that has come to simultaneously permeate the derivative markets, and through the culture and economy of financialization, the life of ordinary citizens. What is interesting and transformative about the speculative ethos is that, although the propensity to speculate is intrinsic to capitalism's motivating and cognitive structures, and has thus been present as a cultural form since its inception, the present ethos is new in its willingness to attach to objects formerly considered outside the sphere of speculation. Notably, housing and education but also an increasing ensemble of other objects. The eighth chapter treats the financial habitus by developing an account of the cognitive and motivating structures that underpin trading and the fabrication of investment vehicles. I develop the notion of the *monetized subjectivity* to take the analysis beyond the simplistic narrative of greed and hubris run amok in a permissive environment. The ninth chapter returns to the interplay of the naturalistic hypostasized model with the concrete sociality of real markets. It focuses on the multiple missions of the Black-Scholes equation, deconstructing its mathematics to reveal the underlying sociality that the equation itself must presuppose to generate the markets that the model attempts to model. The analysis focuses on the character of the interval and spread between the mathematical pricing model and what derivative traders, caught up in the swirl of socially generated risks, actually do. All of the chapters speak to the structural and abstract violence engendered by financial markets and circulatory capitalism. Not least its corrosive effect on the covenant of mutual cooperation and prosperity that once upon a time defined who we aspired to be.

This account, like all others, situates itself somewhere on the spectrum from life to learning, between the power to hone a lingua franca of finance and the irregular pockmarked reality out of which all finance, and all narratives

about finance, arises. Capturing this reality requires a way of speaking that desires to include all of the determinations that shape the financial field and derivatives markets. The crisis of 2008 is a good place to start but the destination has to be an understanding somewhere up ahead of exactly what finance and the derivative are turning us into. The goal, in other words, is to analyze the spread between capitalism and capitalism with derivatives. Perhaps if analysts do their job then maybe the interpassivity that has descended like a veil across the electorate will be lifted. In its place hopefully a strategic intelligibility that allows for a narrowing of the breach between the beneficiaries of risk and those who shoulder it. This intelligibility would encourage our matriculation from an economy of innumerable meaningless choices to a politics of just optionality. It is one thing to be able to choose from among several hundred breakfast cereals, quite another to restore the covenant by which we can continually roll over the option to participate in the wealth of society.

I am dismayed by the fact that economic theorists are generally willing to settle for so little. In its stead should be a hunger, as deep as the social itself, to grasp the circulatory economy that contributes both the ink and the wording of the transformation we are now undergoing. The derivative shows us that when we encounter a transformative reality, understanding rests less on picking a new assortment of concepts than on picking a new intellectual self to inhabit that reality. In this choice, I am much guided by my friend and co-contributor, Randy Martin (1957–2015), who said that politics is not a fixed form we labor to know, but something that we know by continually tearing it down and rebuilding it to our collective good.

Notes

Prefacing a Theory of the Derivative

1. See, for example, the claim by Anastasia Nesvetailova (2010) that the notion that derivatives can create either money or wealth is nothing short of an “illusion” (p. 17–23). Or the claim by Maurizio Lazzarato in *The Making of Indebted Man* (2011) that it is necessary to organize a critique from the standpoint of production owing to the “speculative, parasitic, usurious character of financial capital” (p. 61). Or, the claim by Steve Keen (2011; 2013) that derivatives only appear real because the fictitious world they create is so hegemonic and encompassing that it escapes our powers of comprehension. The headline is that traditional Marxisms do not have the theoretical tools to deal with the derivative and the ascension of circulatory capitalism. That said, there are other social theorists, exemplified by Dick Bryan (Bryan and Rafferty 2013) and Randy Martin (2013; 2015), who are forging a path that analyzes the financial markets without dissolving the critique of capitalism emanating from the Marxist traditions. Given the political importance of derivatives, I remain astounded about how many Marxists take a certain pride in the fact that they know nothing about how markets operate.

2. Because for so many middle-class families in the United States their house is the embodiment of wealth accumulation and of self-investment, the onset of a deflationary housing spiral opened a continent of hardship that went far beyond their economic distress. A minister in a black Baptist church in South Florida put it thusly: “foreclosure not only takes the houses of my parishioners, it breaks their families and their spirits.” What this means is that the effects of the crisis will ripple through generations, especially in poor communities. Most subprime foreclosures in African American communities in South Florida were on homes these families had lived in for decades. A report by HUD and the Treasury revealed that more than 80 percent of subprime mortgages were refinancing, that in 60 percent of the cases the borrower pulled out cash, and that rarely did the borrower understand what they were paying for the refinancing or what the subsequent debt burden would be in respect to their incomes. Socially economically, the unregulated securitization of mortgages in collaboration with predatory mortgage lending was the centerpiece of a great transfer of wealth from those poor in income, education, and life chances to those already well endowed. Remember this is a zero-sum game. Hedge funds and other financial actors can only extract differentially higher returns because, especially those with low incomes, pay for these returns with comparably poorer or even negative returns on what, for them, is the investment of the only kind of capital they possess: human capital.

3. From the poem “Under One Small Star,” in *The Collected Poems of Wislawa Szymborska*.
4. On the desk of a principal in a derivative trading firm was a plaque that laid out its corporate philosophy. The engraving said: Principle number one is to make as much money as possible; principle number two is that if you suffer any doubts about the ethics of your behavior consult principle one.
5. The crisis also reverberated through the Marxist community; for it undermined their view that it was possible to bracket or dismiss the derivative markets, and the culture of financial circulation more generally, because they were external to the “*real*” economy. The crisis clarified that the derivatives market could extract painfully high rents from the productive sector, and inflect monetary and fiscal policies in ways that reshaped the trajectory of the political economy on many scales from national to global.
6. In more than a few instances, Alan Greenspan being a case in point, an individual circulates among and is mutually involved with academic economics, financial institutions (e.g., being a board member or consultant), and federal regulatory agencies. The same is true of Larry Summers. Or consider R. Glenn Hubbard. He is a neoclassical economist who was dean of the Columbia Business School. At the same time he continued to receive a salary from Goldman Sachs and JP Morgan Chase, coauthoring a paper in 2004 with William Dudley, the chief economist at Goldman, that sung the praises of CMOs in offsetting housing risk. During the presidential campaign of 2012 he agreed to be Mitt Romney’s go-to economist in exchange for the position of Treasury Secretary if Romney was elected with the further intention of imposing his economic vision on the world by becoming the head of the IMF (Segal 2012:4).
7. There were dissenters, important economists who argued that markets can be inefficient and that economies could enter into disequilibrium. Nonetheless, the heterodox position coexists with the orthodoxy owing to the character of heterodoxy in economics, which is viewed less as an alternative theorization and more as a diagnostic of those phenomena the orthodox positions still needs to shore up.
8. The rise of Donald Trump as a presidential candidate is unthinkable without the financial crisis. His base of support is essentially those who have been crippled first by the crisis of labor, which led to diminishing job prospects and incomes, and the jeopardy that the crisis placed on their primary asset, their house. Trump’s message which is virulently anti-immigration and anti-establishment capitalism touches both of these themes for this audience, which is precisely why they support him irrespective of whatever else he does.
9. Interview with Brian Sullivan on “Power Lunch” segment, CNBC, March 19, 2015.
10. Think of the relational forces of buying and selling that take place within a market that buyers and sellers have socially imagined, such *capitalist capital markets* only coming into existence through their imagination in sixteenth century Protestant Europe followed by centuries of development and institutionalization. The streamlined idea of a financial field composed of markets is a kind of conceptual shorthand for this process.

11. It turns out that those who witnessed the extraordinary suffering of the Great Depression and Nazi Germany's attempt to exterminate one of the most educated and entrepreneurial segments of its own populace could not conceivably contemplate the notion that economies are efficient or that economic agents are rational.

12. It is also worth noting that Emanuel Derman, a quant who formerly was a managing partner at Goldman Sachs, has, in his attempt to grasp financial behavior, come upon a similar concept through his invocation of Spinoza's notion of intuition, which was one of the earliest accounts of action as combining mental and dispositional elements (Derman 2011).

13. Taken to its limit, this concept of the social means that the inscription of the social is agent's presence at that moment when truth, things, values are constituted for them because they are collectively constituted; that the social reverberates with a nascent logos that teaches agents, apart from all dogmas and intellocentric views, the true conditions of objectivity itself; a social that summons them to all of the tasks of knowledge and action done in the name of subjectivity.

Chapter 1: Originating the Derivative

1. Financial commentators and analysts implicitly acknowledge the difficulty of giving a definition or a definite description of the derivative when they sidestep the issue. The most common trope is to simply introduce *the derivative* as though anyone attuned to the media would know from experience what it is (e.g., Morgenson and Rosner 2011; Geithner 2014; El-Erian 2008; Evanoff, Kaufman, and Malliaris 2011; Das 2011). Or, to introduce the derivative through reference to straightforward stock options: puts and calls.

2. The Russian case is instructive about the transformation underway. By the end of December 2014, the ruble had fallen disproportionately greater than oil prices, and continued to fade even as oil prices stabilized. Most nations that experience a currency crisis—think of Argentina in 2002 or earlier Indonesia in 1998—do so by running a trade deficit, the public and private sectors borrowing money in dollars and euros to pay for imported goods. However, this scenario does not fit the Russian situation. Russian manufacturing produces many of the products that its citizens consume and Russia has run up a significant trade surplus. In other words, from the standpoint of production and trading in commodities, the ruble should have remained strong. Indeed, many standard foreign exchange models developed for production centered capital were forecasting an upper limit of 30 rubles to the dollar when in fact there were more than twice that amount. But the new reality is that the price of money is no longer tethered to the production system, but is determined by the flow of speculative capital which profits not from stability but from volatility. By mid-January 2015, the Russian Central Bank had already purchased some eighty billion dollars' worth of borrowed rubles from hedge funds, the vast majority of purchases at 35 to 45 rubles to the dollar, resulting in an enormous transfer of wealth from the Russian Central Bank to these speculative investment vehicles.