# 8 Incomplete Control: The Circulation of Power in Finance

*Erin Lockwood and Stephen C. Nelson*[1]

Consider two views of the power of finance. From one perspective finance is in the driver's seat. The residue of the sector's control power can easily be glimpsed in the capture of the regulatory and lawmaking processes in the United States by the major players in the financial sector – an achievement made possible by finance's sheer material resources and by the revolving door that brings regulators out of the government and into the sector (and sends former employees of financial firms back into the regulatory organizations).[2] An important byproduct of finance's highly concentrated political power, in this perspective, was the construction of an incomplete and insufficient regulatory system riddled with loopholes even before the crisis of 2008 – and the production of an even more woefully inadequate regulatory system after the collapse that took the world economy into the biggest crisis in seventy years.[3]

Power in finance appears much more fleeting from an alternative vantage point, however. The players in financial markets that look, to many industry outsiders, like all-powerful "masters of the universe" are in fact constantly engaged in struggles to stay afloat in complex environments rife with ambiguities and incalculable uncertainties. For an experienced market player like George Soros, radical uncertainty is an ever-present condition of modern finance and participants can never fully uncover the "hidden generators" that move market sentiments.[4]

The players in sophisticated financial markets face both risk *and* uncertainty. The past distribution of returns in different markets can be relied upon for predictive purposes only insofar as the generating process for those returns will continue to operate into the future. Players in the markets for financial assets, subject as they are to episodic crises and innovative breakthroughs that permanently shift the means of the distributions, impose a (often illusory)

[1] For helpful comments and encouragement we wish to thank Rawi Abdelal, Jacqueline Best, Aida Mozic, Miles Kahler, Kate McNamara, Mark Nance, Dan Nexon, Len Seabrooke, the other contributors to this volume, and – in particular – Lucia Seybert and Peter Katzenstein.

[2] Johnson and Kwak 2010. [3] Admati and Hellwig 2013. [4] Soros 2009; Blyth 2006.

sense of stability by relying on market conventions.[5] Financial markets are, in Zuckerman's words, *open* rather than "closed system(s) whereby investors repeatedly encounter the same or highly similar problems of valuation ... Investors must repeatedly manage the uncertainty generated by events that defy categories of existing models."[6]

The pervasiveness of uncertainty and the fleeting nature of the control power possessed by players in finance are leitmotifs in many of the recent ethnographies of financial markets produced by economic anthropologists.[7] The pressure on market players to innovate radically new strategies to beat their competitors is intense. Chong and Tuckett, based on numerous interviews in 2007 and 2011 with professional money managers in the United Kingdom, the United States, France, and Singapore, contend that players in financial markets need to be convinced about the "profitability of the uncertain opportunities for future gain they hypothesize to exist." "Conviction narratives," sharing similar characteristics, become the social conventions upon which managers "depend to feel committed to their beliefs and to manage dependency on the uncertain future. They can then promote themselves as skillful and survive in the industry."[8]

In contrast to conventional views focusing on which actor has more control over the other, we contend that a richer conceptualization of power – one that goes beyond simple dyadic relationships of coercion and control – is indispensable for understanding power dynamics in contemporary globalized financial markets. Like other domains explored in this volume, the financial markets that we discuss are realms of deep, "Knightian" uncertainty. Yet the institutions and conventions that serve to stabilize expectations sometimes lead market players and regulatory authorities to experience their environments as domains of measurable risk. As Lawrence Lindsey, former member of the Federal Reserve's Board of Governors, observed about the run-up to the 2008 crisis: "we had convinced ourselves that we were in a less risky world. And how should any rational investor respond to a less risky world? They should lay on more risk."[9]

Complete control in finance, however, is illusory. Uncertainty cannot be fully eliminated and thus there is space for improvisational and innovative practices by agile actors; these practices, in turn, can generate unpredictable protean power effects.[10] In the next section, drawing on the work of Marglin and Scott, we explore how different systems of knowledge can help us to understand the conditions under which protean power-generating practices can emerge. Financial markets are realms in which there are ongoing struggles to exert control by both private and public actors (each seeking to impose greater stability and predictability on markets), but these attempts to impose

[5] Abdelal and Blyth 2015; Nelson and Katzenstein 2014. [6] Zuckerman 1999: 1411.
[7] Ho 2009; Riles 2011. [8] Chong and Tuckett 2015: 310. [9] FCIC 2011: 61.
[10] Streeck 2016: 25.

https://doi.org/10.1017/9781108597456.009 Published online by Cambridge University Press

control on an open system can generate unanticipated consequences, serving as an endogenous source of uncertainty within financial markets. At the same time, actors who experience markets as more radically open and uncertain than manageably risky devise innovative strategies that confound efforts to "close" systems.

For illustrations of how different configurations of power-generating practices produce unanticipated outcomes and have unpredictable consequences for actors' power potentialities, we look at the markets for over-the-counter (OTC) credit derivatives and sovereign debt contracts. These markets are, in some important ways, a study in contrasts. Credit derivatives markets are massive, largely unregulated, highly innovative, and extraordinarily complex. By comparison the international sovereign debt market – the size of which is still in the multitrillion dollar range – is significantly smaller, less complex, and – given that governments are by definition participants in the market – more politicized. And while the markets for credit derivatives and international bonds issued by sovereigns overlap to a degree (sovereign bondholders can and do offload credit risk by entering into credit default swaps (CDS) with counterparties, paying fees to the CDS dealers who then assume the risk of default on the bonds), the sovereign debt market has been distinguished by its long-standing "reputation as relatively safe, staid, and conservative."[11] Both markets, however, share a key feature: they are realms characterized by quantifiable risks *and* by irreducible uncertainty. Unlike the market for hydrocarbons (Chapter 7),[12] neither sovereign debt nor credit derivatives are material assets, making valuation far less certain and expectations more dependent on stabilizing market conventions. Our analysis of these markets thus helps to illustrate the power-generating effects of practices employed by financial market actors grappling with uncertainty – practices that can often subvert the instruments of control power and that produce surprising outcomes.

## Uncertainty, Knowledge, and Incomplete Control in Financial Markets

Viewed through the analytical lens of financialization, the balance of power between the financial sector and the state resembles a seesaw that has, over the past thirty years, tipped away from the "postwar settlement"

[11] Dyson 2014: 340.

[12] While the problem of valuation is more acute in financial than in product markets, contracting nonetheless plays an important role in each as a means of stabilizing actors' expectations in an environment of uncertainty. Indeed, this is precisely why commodity derivatives were initially developed in agricultural markets as both farmers and grain buyers sought greater predictability in future grain prices.

arrangement in which finance, "controlled by the state and the rules of the Bretton Woods system," was relatively weak, and toward a new arrangement in which "financial institutions have become increasingly powerful and influential" – a power shift that necessarily involved a significant loss of public control. "The powers and capacities of the financial sector," Morgan observes, "have clearly varied over time according to the degree to which the state has managed to control and regulate its activities and processes."[13]

By focusing exclusively on the struggle for control and domination, the conventional perspective provides only a partial view of power dynamics in financial markets, however. Other scholars of power in finance make similar claims. Nesvetailova, for example, observes that the complexity and uncertainty of globalized financial systems calls for a process-centered understanding of power; as she notes, "it would be mistaken to present the financial industry as some cohesive or unified force that is able to control outcomes . . . The industry's power [lies] less in its ability to control the agenda and more in its ability to adapt and innovate in a way that it [is] not harmed by agendas set by others."[14] Likewise, in Woll's comparative study of bank–government relations during the 2008 global financial crisis, thinking about power as a resource that financial actors hold, store, and strategically deploy misses the heart of the story; far more important are the *processes* by which finance enrolled, convinced, and enlisted "people who perform social relations defined in the interests of the financial industry."[15] The protean power framework is better placed to understand innovations that allowed financial players to evade control by outside actors arising from what Johal et al. describe as "a kind of practical bricolage which responds to changing circumstances by mobilizing whatever means are to hand and thereby adds both new capacities and unintended consequences."[16] By bringing the protean power approach to the analysis we can better account for both the specificity and unpredictability of agile actors' navigation of open and uncertain environments *and* the structural consequences that result from the efforts by both private and public authorities to alternately facilitate and crack down on agile players' power-generating practices.

### *Systems of Knowledge in Financial Practice and Governance*

Financial market players' improvisational and innovative practices are purposive responses to environments that are often experienced as highly

[13] Morgan 2016: 211–12. [14] Nesvetailova 2014: 547. [15] Woll 2014: 55.
[16] Johal, Moran, and Williams 2014: 400.

https://doi.org/10.1017/9781108597456.009 Published online by Cambridge University Press

uncertain; those practices, however, can change the environment itself in unpredictable ways, triggering responses by other actors that must adapt their own practices to (illusorily) re-establish control in a world they experience primarily as risky – thus contributing to new structures and systems of meaning. To better understand these issues, we turn to the work of Marglin and Scott (writing separately), for whom the existence of distinct systems of knowledge plays a central role in analyzing relations of power and resistance. These forms of knowledge, we contend, underlie the forms of power theorized by Seybert and Katzenstein (Chapters 1, 2, and 13).

Marglin invokes these forms of knowledge to explain "the odd mixture of resistance and accommodation with which workers have received technical changes that have undermined their autonomy."[17] In trying to understand why workers in advanced industrial countries were often complicit in the reorganizations of production that ultimately enhanced managers' control power, Marglin makes the case that dominant "shared cultural assumptions" elevated one form of knowledge (*episteme*) over another, putatively inferior knowledge system (*techne*), allowing management "to restructure production so as to separate conception from execution, the better to bring execution under their control."[18]

Marglin's claim about the socio-cultural underpinnings for the disempowerment of workers is less important for us than the dynamics he associates with each "knowledge system." *Episteme*-type knowledge, in Marglin's ideal-typical conceptualization, is logically deduced from first principles (it is axiomatic); it is decomposable, analytic, impersonal, incremental, and often lays claim to universality. This type of knowledge is geared to external verification, though possession of *episteme*-type knowledge is a key way in which "insiders" are distinguished from outsiders. According to Marglin, "*episteme disenfranchises* those outside. From the universalistic claim of *episteme* it is an easy and direct step to the view that those lacking in *episteme* are lacking in knowledge itself."[19] *Episteme* is suited for (and indeed often presumes) a world of calculable risks.

*Techne*-type knowledge, by contrast, is practical, personal, and non-decomposable. It is geared much more to unpredictable processes of creation and discovery. "Opposed to the small steps of *episteme*," Marglin argues, "are both received doctrine and the imaginative leaps which all at once enable one to fit the jigsaw puzzle together."[20] The dynamics of *techne*-type knowledge are unpredictable and difficult to control: "the underlying structure of technic innovation, like the *techne*

[17] Marglin 1990: 251. [18] Ibid.: 232. [19] Ibid.: 234, 236–37. [20] Ibid.

it modifies, is often hidden from the innovator itself."[21] *Techne* is suited for (and contributes to) worlds of incalculable uncertainties. Scott terms this form of practical, adaptive knowledge *mētis*, ascribing to *mētis* the same phronetic and non-systematic qualities Marglin identifies with *techne*. *Mētis* is, in Scott's words, "the mode of reasoning most appropriate to complex material and social tasks where the uncertainties are so daunting that we must trust our (experienced) intuition and feel our way."[22]

While Marglin and Scott both identify *techne* with traditional, locally embedded forms of knowledge, and position it in contrast to (though simultaneously co-complicit with) modernizing capitalist projects, we expand this concept to apply to highly technologically sophisticated, delocalized financial actors. While financial markets certainly depend on *episteme*-type forms of knowledge for their existence and development (e.g., through standardized contracts and risk models), the irreducibly adaptive and innovative aspects of finance strike us as consistent with this less systematic, more intuitive system of experiential knowledge.

For Marglin, the success of workers' resistance to changes in the organization of production that reduced their autonomy was built on the *techne*-type knowledge that could not be automated or replicated with "scientific" management principles. The devaluation of *techne* and the elevation of *episteme* in the culture of manufacturing work in the United States was a key element in workers' greater willingness to accommodate management's promotion of labor-saving (and autonomy-sapping) changes in production processes. But the two forms of knowledge are ultimately intertwined; the "*techne* of coping with uncertainty" persisted "as a distinct, complementary system of knowledge and basis for action ... *episteme* can never be a self-sufficient system for organizing thought, much less action."[23] The control power of management was enhanced by the systematic effort to crowd out *techne* in favor of *episteme* – but *techne*'s ineradicable nature meant that the protean power-generating effects of workers' improvisatory and innovative practices were always latent. The inseparability of the forms of knowledge privileged by wielders of control power and effective agents of protean power is similarly well captured by Scott's insight that "formal order, to be more explicit, is always and to some considerable degree parasitic on informal processes, which the formal scheme does not recognize, without which it could not exist, and which it alone cannot create or maintain."[24]

We see evidence of a similar dynamic in the world of finance. From the late 1970s up to the crisis of 2008 the struggle for control power in the

[21] Ibid.: 236. [22] Scott 1998: 327. [23] Marglin 1990: 242, 251. [24] Scott 1998: 310.

American financial system often, but not always, tipped in favor of the industry's representatives and against the public officials in the bureaucratic regulatory institutions. There is a parallel between the struggle for control over the regulation of finance and Marglin's argument about the elevation of *episteme*-type knowledge over *techne* in industrial production. Self-regulation often meant that market players and regulators alike came to rely on mathematically sophisticated risk models to (illusorily) transform uncertainty into risk.[25] *Episteme*-type systems increasingly provided the instruments of control, as model-based risk estimates supplanted case-by-case judgments. And as in Marglin's domain of production, the effort to squeeze *techne*-type knowledge out of the discussions of finance and its regulation in favor of *episteme* laid the groundwork for greater accommodation of finance's control power by public authorities. Finance's insiders jealously guarded their superior knowledge. "Anyone who questions the mystique (of finance) and the claims that are made," Admati and Hellwig observe, "is at risk of being declared incompetent to participate in the discussion. The specialists' façade of competence and confidence is too intimidating."[26] As one financial specialist told Woll, "the people talking publicly don't know what they're talking about. The people who do know aren't talking."[27]

While the elevation of *episteme*-type knowledge by financial market actors helped to insulate the sector and, by enrolling public authorities in the project to expand finance's reach, increased financial actors' capacity to exert control power, uncertainty in financial markets was not fully transformed to manageable, insurable risks and the agile, improvisatory practices associated with *techne*-type knowledge continued to circulate within financial markets, generating surprising adaptations, innovations, and disruptions.

At the same time as effective control depends on informal processes, financial markets depend on the exercise of control power in order to even function. Processes of commensuration and categorization constitute an essential part of the bedrock upon which *all* markets (not just those for financial assets) rest.[28] But control power in sophisticated financial markets is always incomplete. The instruments of control (such as pricing and risk models) did not actually transform uncertainty into quantifiable risk, though that was the market convention and experience of many actors for some time. Much as Brigden and Andreas observe in the case of migration (Chapter 5), historical data is often an unreliable indicator of future success; like border-crossing strategies, risk management strategies

[25] Abdelal and Blyth 2015; Lockwood 2015; Nelson and Katzenstein 2014.
[26] Admati and Hellwig 2013: 2–3. [27] Woll 2014: 53. [28] Lamont 2012.

often generate a process analogous to what Donald MacKenzie terms "counterperformativity."[29] That is, a strategy for controlling the future, once used, destabilizes future outcomes. For example, derivatives contracts, once used to hedge investments and reduce risk, in fact, produce systemic risk when they trade at sufficiently high volumes.

*Techne*-type knowledge could never be fully eliminated from financial markets. Tacit, practical, personal knowledge remained essential in the activities of financial market players, ranging from those involved in arbitrage trading to risk modelers and managers, whose decisions continued to involve a strong subjective component based on experiential knowledge, to the legal technicians responsible for assigning collateral to derivative contracts.[30] The practices of market players grappling with deep uncertainty subverted control efforts better suited to risky environments, producing breakthrough innovations, new sources of profits, and unintended effects that exacerbated markets' fragilities. The interaction of *episteme* and *techne* as distinct systems of knowledge at work in the governance and practice of finance touches off new and unpredictable dynamics and opens up new possibilities for the exercise of power.

## Illustrative Evidence from the Market for Over-the-Counter Derivatives

The recent history of OTC credit derivatives illustrates how utterly unpredictable power-generating effects can emerge when the conventional control-oriented practices that enable some actors to experience their environment as more risky than uncertain confront radically disruptive strategies from agile players, under enormous competitive pressure to innovate, who experience their environment as highly uncertain. This section of the chapter traces collateralization practices in OTC markets from the self-regulation of the 1990s and early 2000s, through the 2008 global financial crisis, to the post-crisis regulatory requirement that requires OTC derivative contracts to be cleared through central counterparties (CCPs). Although the mandated shift to central clearing was intended to restore a measure of public oversight and control to a market that was constituted by near-constant innovation, complexity, and opacity, to date the central clearing mandate has been prone to unintended consequences and has itself been a source of uncertainty for market actors.

Derivatives are financial assets, the value of which is derived from an underlying asset or source of risk, such as a bond or interest rate, and

[29] MacKenzie 2008: 19. [30] Riles 2011.

https://doi.org/10.1017/9781108597456.009 Published online by Cambridge University Press

which effectively allow asset-holders to insure or hedge against the risk of future price changes in the underlying asset. The development of financial derivatives can itself be understood as an illustration of the effects of protean power. Although commodity derivatives have existed in various forms for centuries, the development of financial derivatives can be dated back to the emergence of currency swaps, in which the underlying asset was not a tangible commodity, but rather the risk of future changes in currency values, in the early 1980s. The first of these deals was between the World Bank and IBM, with Salomon Brothers acting as an intermediary. This form of financial exchange was an unanticipated innovation, and one that disrupted not only foreign exchange markets, but also financial markets more generally as the underlying methodology quickly spread to other forms of financial risk such as interest rates and, eventually, to credit risk. As Gillian Tett writes, "This new form of trade quickly spread across Wall Street and the City of London, mutating into wildly complex deals that seemed to give bankers godlike powers."[31] The novelty of these products allowed them to elude controls; they did not fit clearly into existing regulatory categories, which allowed banks to persuasively argue that swaps were neither futures nor securities nor loans and could not be regulated under the regulatory regimes for any of those product classes.[32]

The market for OTC derivatives was largely unregulated by public authorities prior to the 2008 crisis. The categorical ambiguity of swaps and derivatives contributed to this self-regulatory outcome, but public regulators, especially in the United States under the leadership of Alan Greenspan, also took an intentionally hands-off approach to regulating the market for these products in the first decades after they were developed and became widespread. Regulatory intervention was thought likely to distort the efficient allocation of risk, and regulators argued that market actors had sufficient incentives to manage counterparty risk on their own. Alan Greenspan's 2003 address at the Conference on Bank Structure and Competition illustrates this regulatory attitude toward derivatives markets: "Market participants usually have strong incentives to monitor and control the risk they assume in choosing to deal with particular counterparties. In essence, prudential regulation is supplied by the market through counterparty evaluation and monitoring rather than by [public] authorities."[33] Although Greenspan recognized that the limited number of market participants in the OTC derivatives market risked creating concentrations of counterparty risks, "rais[ing] the specter of the failure of one dealer imposing debilitating losses on its counterparties, including

[31] Tett 2009: 12. [32] Funk and Hirschman 2014: 671. [33] Greenspan 2003: 5.

other deals, yielding a chain of defaults," he asserted that "derivatives market participants seem keenly aware of the counterparty credit risks associated with derivatives and take various measures to mitigate those risks."[34] While perhaps most dominant in the US regulatory culture, the pro-self-regulation view was also shared by the Basel Committee for Banking Supervision, the main international public actor to take up the issue of transnational market regulation. The Basel Committee's recommendations for national regulations included the "[promotion of a] better foundation for self-regulation."[35]

The lack of public regulation of derivatives did not, however, indicate an absence of control power in market governance. Prior to the crisis, the risk of counterparty default was addressed through a series of conventional practices, intended to measure and control risk, and rooted primarily in private authority structures – most notably the International Swaps and Derivatives Association (ISDA), an industry coordinating and lobbying group, as well as the credit rating agencies. ISDA supplied parties to derivatives deals with a standard contract known as the Master Agreement that could be modified to fit the specifics of individual derivative dealings. The ISDA Master Agreement outlined provisions for terminating contracts in the event of counterparty default, most notably permitting parties to "net out" all of their transactions with each other, rather than undertaking a series of payments back and forth that the defaulting party might not be able to complete.[36] Regulators lauded the provision as an example of market-based initiatives to reduce counterparty risk.[37] The Master Agreement also includes an Annex (the Credit Support Annex) that was widely used to govern collateral agreements between counterparties, intended to reduce the risk of large losses in the event of counterparty default.

In addition to the ISDA Master Agreement and its termination and netting provisions, derivatives dealers relied heavily on credit assessments from credit rating agencies to calculate counterparties' creditworthiness. Credit rating played a particularly important role in the market for credit derivatives, which are contracts that protect investors against the risk of default and depend on an estimation of securities' creditworthiness for their value.[38] Finally, derivatives market participants relied on standardized risk and valuation models to accurately price contracts, taking the risk of default into account.

[34] Ibid.: 4. [35] Tsingou 2006: 177.
[36] Zepeda 2014. ISDA netting rules, however, disproportionately benefit derivatives dealer banks over other creditors in situations of insolvency. Carruthers 2015: 390–91.
[37] See, for example, Hendricks 1994. [38] Partnoy 2006: 73–80.

The inadequacy of these private forms of counterparty risk management through control power was starkly revealed during the 2008 financial crisis, when waves of defaults by insufficiently collateralized counterparties spread through the derivatives market. The system of bilateral private contracts was recognized as overly complex and severely lacking in transparency, as contracts were unwound rapidly and without sufficient liquidity in the system to ensure full repayment. As Andrew Haldane of the Bank of England observed in early 2009, "The financial system is . . . a network, with nodes defined by the financial institutions and links defined by the financial interconnections between these institutions . . . When assessing nodal risk, it is not enough to know your counterparty; you need to know your counterparty's counterparty too."[39]

In response to this financial contagion and to systemic risk more broadly, the G20 and the Financial Stability Board called for a series of substantial reforms of the OTC derivative market, most notably decreeing that "All standardized OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at the latest."[40] While not all of the G20 proposed reforms have been implemented, public regulators in the United States and the European Union mandated a system of central clearing of most OTC derivatives through central counterparties – private clearing houses that would serve as immediate counterparties to all derivatives transactions. Central clearing was a key component of both the Dodd–Frank Wall Street Reform and Consumer Protection Act (Dodd–Frank) in the United States (section VII) and of the 2012 European Markets Infrastructure Regulation (EMIR) in the EU, which authorized the European Securities and Market Authority to impose clearing obligations on certain classes of OTC derivatives. These reforms were intended to make Haldane's complex networks of counterparties more transparent and to allow for centralized risk management: since each derivatives buyer and seller has the CCP as a counterparty, netting and collateralization are multilateralized and market actors' net exposures are more readily apparent. Although relatively recently implemented, the central clearing requirement has already had a significant effect. By 2016, 62 percent of all OTC contracts were conducted through CCPs, and the Bank for International Settlements estimated that the rate of clearing for interest rate derivatives had more than doubled (and perhaps even tripled) between 2008 and 2016 as a result of the clearing mandate.[41]

[39] Haldane 2009: 5. [40] G20 2009.
[41] Bank for International Settlements 2016: 22–23.

It is tempting to read this as a straightforward story of weakly regulated markets running amok, followed by the reassertion of control power by authoritative actors. The move to central clearing is undoubtedly rooted in a post-crisis consensus not just among public actors, but also among many private market participants that the OTC market is an appropriate object of public regulation.[42]

But we contend that we can better understand the tremendous power of the financial industry before and after the crisis, as well as the instabilities and uncertainties that continue to characterize financial markets, by looking at interactions between control power and protean power effects. In our narrative of three moments of the recent history of derivatives – pre-crisis, during the crisis, and its aftermath – we observe innovation by agile market players, to which other market players respond, and which triggers responses to uncertainty generated by protean power by actors seeking to re-impose a degree of control. New forms of control, however, breed new forms of adaptation in the market, with unpredictable consequences.

In the pre-2008 period, the market for OTC derivatives was largely unregulated by public authorities, but intentionally so, as the *lack* of public control was essential to the continued profitability of the market and to ensure the efficient distribution of risk. Greenspan's claim ("the benefits of derivatives, in judgment, have far exceeded their costs") is illustrative of this attitude.[43] Derivatives were seen as important tools to enhance economic performance through the global financial system, and this economic performance was directly tied to more traditional forms of state power. It is possible to read public regulators' accommodation of finance's power as a form of financial statecraft, an attempt to, if not harness, at least capture and direct some of the unpredictable but undeniable power of unfettered global capital.

Examining the forms of knowledge operating in the pre-crisis derivatives industry reveals further points of interaction between market practices. Financial markets are often characterized in terms of *techne*, spheres of activity that are systematically structured to reward practices that make use of specific local knowledge deployed in highly uncertain contexts – the kind of knowledge on which arbitrage trading has historically depended. The constant development of bank-specific product classes, portfolio composition techniques, and trading and risk management strategies are sources of profit-making that depend on superior information, gained through experiential knowledge of the market and asset values.

[42] Helleiner and Pagliari 2010: 74–90. [43] Greenspan 2003: 6.

At the same time, however, financial markets should also be understood as structured by standardized, widely diffused forms of knowledge and associated practices that are better geared to risk-based contexts. While *episteme* is often equated with state control, *all* financial markets require some level of standardization to establish the basis for price discovery and adequate liquidity, and private regulation played a key role in the development for the market for OTC credit derivatives. ISDA's Master Agreement (as detailed above) was a key innovation in creating a liquid global market for derivatives. Standardized contracts, basic pricing and risk models, and electronic trading platforms are all innovations that have imposed a measure of standardization and centralization on derivatives markets. Credit rating, which is explicitly intended to render assets and creditors comparable, is a constitutive financial market practice that is clearly in the realm of *episteme*, rather than *techne*, even as it allowed assets to be combined in new and innovative ways. It is precisely these private forms of governance that have served as permissive conditions for the protean power-generating effects of financial market innovation to flourish.

The application of *episteme*-type knowledge to financial markets, shot through with uncertainty and complexity, requires forms of knowledge more akin to *techne*. For instance, while ISDA's Master Agreement structured derivatives deals in a predictable and comparable way, the actual processes through which collateral agreements were reached were in fact sites of considerable uncertainty, stabilized through negotiations by legal technicians and conventional "legal fictions."[44] Although often represented (by market actors) and interpreted (by regulators) as a realm of technical, objective problem-solving, the techniques embodied in the Master Agreement and actually enacted by market participants are a politically consequential mode of private financial market governance.

Examining the pre-crisis market for OTC derivatives through the lens of power reveals a fractal-like pattern, where each interaction of control and protean power-generating practices touches off another dynamic in which seemingly opposing forms of knowledge and power again come together, often in unpredictable ways. Rather than enhancing real economic performance, the assiduous accommodation of the purveyors of control power to the unfettered protean power-creating practices of innovative financial market players was ultimately cited as magnifying the subprime crisis in devastating ways.[45] With this analysis in hand, we are better equipped to make sense of the ambiguous consequences of the move to central clearing.

[44] Riles 2011. [45] Kirshner 2014.

While ostensibly a move by public regulators to reclaim a measure of control over financial markets, the central clearing requirements in the EU and the United States have struggled to do just that. Rather than centralizing a market formerly seen as overly complex and decentralized, central clearing requirements have produced regulatory fragmentation, as different jurisdictions have imposed different clearing requirements on different timelines, a development that risks a reduction of liquidity in the global market for derivatives. This market fragmentation has been accompanied by significant uncertainty on the part of derivatives end users about what central clearing means for banks' profitability.[46]

Similarly, analysts and market observers have raised questions about the ability of CCPs to effectively mitigate systemic risk. For example, ISDA's then-chair Stephen O'Connor's recent remark that the two major clearinghouses, LCH.Clearnet and CME "probably" have enough capital on hand in case of widespread default of their members.[47] Other commentators have observed that risk is becoming increasingly concentrated in CCPs, raising the possibility that these institutions will become, in effect, too big to fail. Announcements in 2015 by the European Central Bank and the Bank of England that they would backstop CCPs in crises fueled concerns that some of the same problems of moral hazard and excessive risk-taking on the part of investment banks that were cited as conditions of possibility for the financial crisis have merely been transferred to a new set of private financial actors.[48]

Finally, some commentators have observed that large volumes of trading do not even qualify for central clearing. Not all OTC derivatives have large enough trading volumes to ensure the liquidity necessary for centralized clearing and are exempted from the clearing requirements of Dodd–Frank and EMIR. Perhaps more significantly, so-called dark pools of capital continue to be unregulated at the public level.

The shift in regulatory thinking from viewing derivatives as an area in which authorities should not obstruct the protean power-generating innovations pursued by actors on the frontiers of the market to a view shared by influential regulators in the EU and United States that the market for derivatives is an appropriate object for at least some measure of state control is a significant one. Nonetheless, state actors have struggled to assert control over a sphere of social interaction that is constituted by irreducible uncertainty – and thus is a realm of breakthrough innovation by adaptable, agile actors. Having legitimized these forms of privately governed social activity in the 1990s and early 2000s, recent attempts to put the genie back in the bottle have instead touched off new practices

[46] ISDA 2015. [47] Rennison 2014. [48] See, for example, Jones 2015.

that subvert efforts at bringing the system under control and that have unpredictable effects on actors' power potentialities.

## Illustrative Evidence from the Market for International Sovereign Debt

The international market for sovereign debt provides additional illustrations of the dynamics of control and protean power in finance.[49] Control power in the international sovereign debt market manifests in several ways. Certification of the creditworthiness of prospective borrowers is tightly controlled by a small number of key players. As in derivatives markets, three rating agencies (Fitch, Moody's, and S&P) dominate. In addition to the credit-raters who grade sovereign borrowers, an elite group of investment banks serve as the "underwriters" for the issuances. The few "primary dealers" in the market rake in huge fees paid by the issuing governments to arrange the deal with money managers; the market underwriters work with prospective buyers to gauge demand, organize countries' auction schedules, and bring in the lawyers from elite international firms to write the debt prospectuses. Gatekeeping by the elite, market-making primary dealers is intended "to promote liquidity, predictability, and stability in sovereign bond markets."[50] Flandreau et al. identified forty-three different banks that served as underwriters in the sovereign debt market between 1993 and 2007, but the top three primary dealers – JP Morgan, Citi, and Deutsche Bank – handled nearly 40 percent of the deals during the period.[51] Control is highly concentrated in the international sovereign debt market.

Control power is also exercised in the sovereign debt market through the classification schemas employed by market players to differentiate borrowers. The market devices that sort sovereigns into "developing/frontier," "emerging," and "advanced" categories are powerful instruments of control.[52] The so-called "currency clauses" in sovereign debt contracts, for example, systematically differ depending on whether an issuer is considered an "advanced" country or slotted into a different category of borrower. For the advanced borrowers, the denomination of payment to bondholders is typically the same as the national currency; for issuers in the emerging and developing categories, by contrast, the currency clause in the prospectus requires repayment using one of the

[49] This section draws from Nelson 2016. [50] Dyson 2014: 341.
[51] Flandreau et al. 2010: 60.
[52] A publicly traded corporation, MSCI, generates the annual country classifications that are widely used by international money managers. See at: www.msci.com/market-classification.

https://doi.org/10.1017/9781108597456.009 Published online by Cambridge University Press

handful of "hard" currencies issued by the governments in the global financial centers. Sovereigns in the emerging and developing categories are also obliged to include another clause in their debt contracts: they select a foreign legal jurisdiction (almost always New York or London) under which the transaction will be registered (and which becomes the site for adjudication if the bondholders and issuer get into a dispute).[53] Dominant classification schemas in the market for sovereign debt also govern the term structure of debt issuances: historically, only the countries in the advanced club could float long-dated bonds (exceeding thirty years) on the international market.[54]

The contractual arrangement between the sovereign and private creditor, spelled out in the debt prospectus that accompanies the "coupon" purchased by the bondholder, is clearly a locus for the exercise of control power in the market. But control power, as in other financial realms, is incomplete, and contracts have in recent years become the key instrument for a massive disruption of the market engineered by aggressive, protean power-generating players in the international market for sovereign debt.

The disruptive innovators in the market are newer, more litigious specialized firms ("distressed debt funds," colloquially known as "vulture funds") that set out "to buy defaulted debt at large discounts with the aim of extracting the best possible settlement."[55] Their disruptive capacity springs from three sources: the deepening of the secondary market for sovereign bonds; the erosion of the principle of sovereign immunity; and, most importantly, the contractual terms that we (following Riles) interpret as "legal fictions" that market players employ primarily as a way to deal with Knightian uncertainty endemic in all but the simplest of financial markets.

Riles' work directs our attention to the way in which seemingly arcane, technical, and (ostensibly) apolitical contractual clauses serve as "legal fictions" that enable the transacting parties to act "as if" the ambiguity about what will happen in the (unknowable) future has been mapped out so that the deal can be completed. Legal fictions do not resolve the fundamental uncertainties that parties to a financial market transaction actually face. Rather, the contractual clauses sweep uncertainty – at least for the moment – under the rug.[56] Market participants may not believe in or even fully understand the meaning of a "placeholder" that appears in financial market contracts.[57]

[53] Weidemaier and Gulati 2015. [54] Dyson 2014: 340.
[55] Panizza, Sturzenegger, and Zettelmeyer 2009: 656. [56] Penet and Mallard 2014.
[57] Riles 2010; 2011.

The *pari passu* clause in sovereign debt contracts is a prototypical legal fiction that, were it not the wellspring for a massively disruptive innovation hatched by a "vulture" fund that many believe is "systematically harmful . . . to the market for sovereign bonds," would be of little interest to anyone outside market specialists.[58] In English "*pari passu*" means "in equal step." The clause is typically a single sentence occupying several lines of text, and it appears "in most cross-border credit instruments."[59]

The *pari passu* clause can be interpreted as a means of preventing borrowers from "ranking" debts, such that in a debt rescheduling event one outstanding obligation could not be paid before the others. But the *pari passu* clause certainly has a fictional quality, since "almost no one knows what it [really] means."[60] The fictional element of the *pari passu* is that a bondholder's rights and obligations are clearly defined and enforceable. Rather than resolving uncertainty, the clause introduces other ambiguities: if the sovereign borrower's legislature passes a law preventing the government from paying "holdouts" that do not participate in a debt rescheduling but the debt was issued in a different jurisdiction (in New York, for example), which legal system applies? What happens if the sovereign borrower violates the clause? What constitutes a violation of the covenant?

The clause does not reduce the uncertainty that the bondholder faces; rather, it describes the exchange as a relationship involving rights and obligations of the contracting parties. The *pari passu* clause does nothing to clarify the probability of default or the price of the instrument, nor does it involve making predictions about what will actually happen in the future; rather, it generates the possibility of moving the discussion to the realm of law, and in doing so it empowers some actors and disempowers others. As in Reus-Smit's case of human rights revolutions (Chapter 3), the contractual clause that enabled vulture funds to innovate their disruptive strategy is chiefly characterized by *meaning indeterminacy*. The clause requires interpretation, and since meaning is fundamentally uncertain, space is opened for "contractual arbitrage" in which an

[58] Gulati and Scott 2016: 42.

[59] Buchheit and Pam 2004: 871. Gulati and Scott's careful studies of the history of the clause show that there are several different versions that appear in sovereign debt prospectuses over time. The "toughest" version of the clause (in the sense that it is most vulnerable to the legal interpretation that we describe in the next pages) became the most common and now appears in 74 percent of bonds issued by developing and emerging countries (Tomz and Wright 2013: 256). Gulati and Scott's extensive interviews with market players, however, indicate that there was "no bargaining between the issuer and the creditors over the type of *pari passu* (or any other clause that would be used)" (Gulati and Scott 2016: 47). Standardization of the contract is the name of the game in the sovereign debt market.

[60] Gulati and Scott 2013: 3; see also Buchheit and Pam 2004; Varottil 2011.

opportunistic player advances "an interpretation not contemplated by the parties in the *ex ante* drafting process."[61] But activating the clause's latent capacity to function as a politically potent form of private governance requires the willingness and means to pursue a highly improbable legal strategy.

The uncertain gamble that would shock the world of sovereign debt originated with a small fund specializing in distressed debt, Elliott Associates L.P. The fund's now-legendary legal arbitrageur, Jay Newman, was one of the very few in the market who actually read bond contracts.[62] He and the other partners at Elliott identified the obscure *pari passu* clause as the fulcrum in a strategy to extract payment from sovereigns that had fallen into difficulty paying their debts.

In the late 1990s, Elliott Associates sued a Peruvian bank (Banco de la Nación, the issuer) and the government of Peru (the guarantor of the debt) for repayment of bonds the fund had purchased at steep discount just before Peru wrapped up restructuring its external debt under the auspices of the Brady Bond plan spearheaded by the US Treasury. Elliott Associates won its case in a New York court and was awarded a $57 million judgment – but winning a case against a government and collecting on the judgment are two different problems, and the former is easier to solve than the latter.[63] To ensure that it would be paid, Elliott's lawyers constructed a legal argument, built on law professor Andreas Lowenfeld's interpretation of the *pari passu* clause in the Peruvian debt contracts as requiring *ratability* of payments, to prevent any other bondholder (including the vast majority of bondholders that participated in the Brady negotiations) from being paid if Elliott was not also paid in full.[64] Instead of the conventional interpretation of the clause as meaning that a borrower could not accumulate *new* debt that would be paid before the previously issued debts in a restructuring event, Elliott's lawyers argued that "a debtor not yet in bankruptcy that has accepted a *pari passu* covenant must *pay* all its equally-ranking debts equally."[65] In September 2000, a Belgian court ruled in favor of Elliott over Peru, and it ordered the Euroclear system through which the first Brady payments were to flow to European bondholders to freeze Peruvian payments. Caught between two horns – give up its case against the "vulture fund" or miss the Brady bond payment and fall into technical default – the Peruvian government chose to settle with Elliott for over $56 million.[66] Other distressed debt

[61] Choi, Gulati, and Scott 2016: 1–2. [62] Gulati and Scott 2016: 55.
[63] Panizza, Sturzenegger, and Zettelmeyer 2009: 657; Varottil 2011: 227–28.
[64] Buchheit and Pam 2004: 877–78. [65] Ibid.: 879.
[66] Panizza, Sturzenegger, and Zettelmeyer 2009: 658.

funds noted the extraordinary interpretation of the clause in the Brussels court and a number of similar lawsuits were launched.

Buchheit and Pam lay out a series of criticisms of the Belgian interpretation of the *pari passu* clause.[67] The decision strengthened the position of holdout creditors and worsened coordination problems involved in organizing debt restructuring among far-flung bondholders with different preferences. The decision also conflicted with a long-standing convention in the sovereign debt market: the debt owed to "official" creditors (the IMF, World Bank, and other international financial organizations) is, by custom, senior to privately held debt. The "ratable" interpretation of the clause threw this practice into question. Varottil distills the critical view of the decision: "The overwhelming number of arguments against the judgment in *Elliott* confirms that the court's interpretation cannot stand. The market should therefore be expected to react by clarifying the language in sovereign debt documentation to avoid similar results in the future."[68]

That is not what happened. Instead, the *pari passu* clause was retained in post-September 2000 sovereign debt contracts without any significant alterations.[69] The clause was at the center of the legal case brought by NML Capital (a subsidiary of Elliott Associates) against Argentina. The Argentine government refused to redeem NML Capital's holdings of bonds, purchased on the secondary market at bargain-basement prices, because doing so would contravene the 2005 "padlock" law that prevents the government from paying bondholders that were not party to the country's debt restructurings.[70] In 2011, a judge in New York ruled that the 2005 law was a violation of the *pari passu* clause and moved in 2012 to freeze the country's payments to its creditors, raising the specter, as Peru experienced in September 2000, of another (this time involuntary) default on its international debt. And indeed Argentina did fall into a "technical default" in July 2014 after the US Supreme Court rejected the Argentine government's challenge to the New York court's decision. Argentina was unable to make payments to any of its creditors; as a consequence, the country was locked out of the international debt market, and as the central bank's reserves dwindled the threat of a serious balance of payments crisis loomed.[71]

The major players in the international market for sovereign debt tried to write off the Belgian court's September 2000 interpretation of *pari*

[67] Buchheit and Pam 2004: 883–90. [68] Varottil 2011: 229.
[69] Gulati and Scott 2013. [70] Gulati and Scott 2013: 170–71.
[71] In March 2016, Argentina's newly elected center-right government paid $2.3 billion to Elliott (on top of the $2.35 billion it paid to other holdout creditors) – a settlement that amounted to a 369 percent return on Elliott's initial investment in Argentine bonds.

*passu* as an aberration. But the New York court's decision in the *NML* v. *Argentina* case threw the market into a panic. In Gulati and Scott's estimation, "the almost universal assumption of the sovereign debt community of lawyers, academics, and government officials was that the Second Circuit Court of Appeals – traditionally, the pre-eminent court in the country on business law matters – would . . . repudiate the pro rating sharing interpretation of pari passu."[72] When the court affirmed the "aberrant" interpretation of *pari passu* (and the US Supreme Court declined to hear Argentina's appeal) the potentially catastrophic consequences of the fact that Elliott's gamble had paid off began to sink in: given that every issuance in recent decades includes the clause and that a large proportion of emerging market borrowers (and, increasingly, advanced countries) would need at some point to restructure their outstanding debts, the holdout strategy could tie up the market in a welter of lawsuits. The standardized contract in sovereign debt had gone from instrument of market control by a few powerful players to an engine of uncertainty and ambiguity, upon which the newer, smaller players in the market, the distressed debt funds, thrived (while the old guard reeled). As in the case of rights revolutions (Chapter 3), a novel legal interpretation was the source of transformation, illustrating both the incompleteness of the law as a form of control power, as well as the potential for creative interpretation of ostensibly fixed and standardized rules to serve as a generator of protean power effects, with unpredictable consequences for actors' power potentialities. Formerly peripheral players in the sovereign debt market – the vulture funds – have shown that they can use legal arguments about the meaning of boilerplate clauses in debt contracts to hijack debt restructurings and extract large settlements. Sovereign states that cannot fully repay their debts, meanwhile, are likely to have a more difficult time mounting a defense against litigation brought by private creditors – though the Argentine ruling "leaves behind a confused and contested jurisprudence, which will take years to sort out." But one lesson from the episode is clear: "not suing is the one sure path for a creditor to be left out in the cold."[73]

## Conclusion

We conclude by reflecting on lessons from the analysis of power in our illustrative cases for two important questions. What drives the high degree of accommodation by political and societal actors to financialization, a

[72] Gulati and Scott 2016: 8–9. [73] Gelpern 2016: 73.

https://doi.org/10.1017/9781108597456.009 Published online by Cambridge University Press

process that has increased the financial sector's material power while simultaneously rendered markets more unpredictable and fragile? And, second, why are financial markets prone to ruptures that surprise insiders and outsiders alike? The empirical sections of our chapter suggest two complementary answers to these questions.

In the OTC derivatives case, we argue that political and societal actors came to regard the innovation and adaptation that fuel the market for derivatives as legitimate, and indeed as socially beneficial, economic activities. The traditional holders of control power have, in effect, carved out a sphere in which *techne*-type knowledge circulates freely – and with unpredictable effects. In one sense, the story of accommodation of finance is the inverse of Marglin's account of accommodation in production: rather than devaluing *techne* in favor of (inevitably incomplete) *episteme*-type knowledge, conventionally powerful actors have recognized and authorized the power of financial actors' creativity – and inevitably, its potential for disruption and crisis. Nonetheless, the imperatives of commensurability and risk management for purposes of price discovery and profitability, even (or perhaps especially) within a highly uncertain market, brought *episteme* back into the picture, wielded first by private regulatory actors such as ISDA and, following the crisis, increasingly by public actors. When confronted with the forms of adaptive and innovative knowledge that partially constitute derivatives markets, however, these attempts at imposing control have not only been incomplete but have, in the case of central clearing, perpetuated uncertainty. The protean power of financial actors represents a likely insurmountable challenge to wielders of control power, even when financial actors' creativity is not directly aimed at subverting control.

The evidence from the sovereign debt market pushes this argument a step further. Disruptive "legal arbitrage" strategies pursued by vultures have not been legitimated or authorized by the traditional wielders of control in the market. The effect of protean power-creating practices in the sovereign debt market has generated responses, in the form of the IMF's recent efforts to get contract writers to use a narrower version of the *pari passu* clause and the UN General Assembly's endorsement of a global set of principles for debt restructurings. But attempts to impose greater control in irreducibly uncertain environments are not only necessarily incomplete, but in fact serve as conditions of possibility for improvisatory and innovative practices that have unpredictable power effects. In sovereign debt, as in OTC derivatives, a market has developed in which risk and uncertainty are central economic objects. The attempt to reckon with the uncertainty of bondholder rights in the future event of debt rescheduling by means of the *pari passu* clause can be read as an effort at

asserting control over an uncertain future by means of deploying *episteme*-type knowledge. The clause was intended to move this uncertainty into the standardized, transnationally applicable world of law. However, because the underlying uncertainty linked to the interpretation of the clause was not eliminated, vulture funds were able to leverage this uncertainty to their benefit. And there are other conventional clauses of indeterminate meaning in debt contracts that vultures may use to pursue legal cases against sovereigns.[74] While the particular form of market disruption could not have been anticipated by Seybert and Katzenstein's approach (Chapters 1, 2, and 13), their framework nonetheless attunes us to the possibility that protean power-creating practices, followed by agile, innovative actors operating in contexts marked by incomplete control under uncertainty, can be *endogenous* forces that push financial markets into conditions that are experienced by all – including people with otherwise indirect connections to the markets – as destructive crises.

[74] Choi, Gulati, and Scott 2016.

https://doi.org/10.1017/9781108597456.009 Published online by Cambridge University Press