ation of a new form of money and a new mode of temporality. So though the interests, instruments, and subject positions are new socially and historically, they do not appear to be part of a large-scale epochal transformation in the very structure of capitalism. To buyers and sellers—that is, to the market—they are purely economic and specialized responses to changes in the real conditions of doing business in a global, technologized world.

6 The World of Risk

Since the mid-1970s the rapid and unprecedented expansion of speculative capital has produced a new culture of financial circulation that has enormous consequences both for the organization of capital and for the great disparities in wealth and life possibilities between the metropole and the multipolar periphery. What makes this emerging culture of financial circulation new is not the global flow of capital; earlier centuries also witnessed great movements of money. Its newness does not lie in increased levels of technological sophistication and power, though these of course make it easier to carry out nearly instantaneous worldwide transactions. What renders the social relations of financial circulation so historically novel is that they are defined and determined through the quantification and pricing of risk. What we have referred to as the "objectification of abstract risk" relies upon increasingly complicated and sometimes controversial accounting protocols and pricing strategies. Since risk is a relation that objectifies itself in other relations, such as financial derivatives, its function in shaping and stimulating the production of connectivity is inseparable from the moment of objectification. Thus the production of derivatives,

by objectifying and combining context-specific risks in order to model and price them, also objectifies risk in an abstract form. Beyond this, the power of the financial derivatives market compels those in the developing world to not only accept this notion of risk but to assume a substantial and disproportionate share of the risks engendered by the global capital markets.

Operationally, abstract risk appears in two dimensions. The financial community uses the notion of volatility—the speed and degree of price fluctuations—to capture the first dimension. Before the development of modern ideas of risk management (which could also be called "volatility management"), most of financial forecasting was based upon statistical enumerations of concrete risk—essentially directional bets on whether the price of an asset would rise or fall. Insurance companies would make similar decisions based upon statistically compiled histories and appropriate samplings. The breakthrough, initiated by Markowitz's portfolio theory, was to disregard the directionality of specific price swings and focus on their magnitude, measured by statistical notions such as standard deviation. Volatility has become the centerpiece of modern risk management, whether it be in the Black-Scholes equations for pricing options, diversification strategies to minimize risk and maximize return on investment, or volatility-at-risk programs to calculate exposure risk.

One effect of focusing on volatility was to abstract from the concrete risks associated with particular assets. For example, before the development of portfolio theory, the usual procedure was for investors to simply research individual companies and then place directional bets on whether the stock price of these companies would go up or down, given their knowledge of the companies and their estimate of future risks that the companies might face (such as commodity prices, inflation, and strikes). Markowitz argued that the rate of return on an investment was not dependent on the chance that one or more of these concrete risks might materialize but rather on the aggregation of these risks as measured by the stock's volatility. From this perspective, the critical aspect of a stock's risk is not the risks encountered by the issuing company or the risks associated with the particular stock, but its contribution to portfolio risk. In a model that would eventually appear in the pricing of derivatives, Markowitz argued that portfolio optimization turned on a tradeoff between the expected return of individual securities against the contributions of those securities to overall portfolio risk. He reasoned that because markets were efficient at pricing risk, the greater the risk assumed, the larger the potential return. In addition, Markowitz showed that if one considered a whole portfolio of various stocks, one could maximize return and minimize risk by appropriately diversifying. One way of reading his analysis is that if the standard economic assumptions concerning market efficiency and price competition accurately reflect what is going on (markets are perfect; all investors maximize mean and variance utility functions over a common investment horizon and are equally risk averse, all investors have the same expectations about security rewards and risks), then an analysis of abstract risk is more useful than one of concrete risks. William Sharpe (1964) and others refined and broadened Markowitz's insights to show how to calculate the average volatility of a stock relative to the volatility of the market as a whole, thereby laying the foundation for what became known as the capital asset pricing model and the notion of value-at-risk (VAR); at the same time, the refinements and extensions of Markowitz's theory transformed his calculations of the covariances among all the securities in a market to a relation between each security and the whole market. Though it was noted only obliquely, the development of portfolio management distilled the notion that risks can be

socially disembedded and aggregated, in the process crystallizing the notion of systemic risk.

The growing use of volatility in risk management points to the second dimension of abstract risk. With the refinement of volatility measures and the concomitant pricing of risk, abstract risk became a basic category among various financial instruments and institutions. For example, value-at-risk has become the preferred way of assessing corporate risk; it measures the maximum loss in the value of a portfolio over a given time within a certain level of probability. The Basle Accord (1996) for international banks uses VAR for calculating capital requirements; when these requirements are not met because of changes in asset valuations, a bank is required to add equity to cover the risk. At the same time, these assets include derivative instruments whose pricing depends upon volatility measures and which may be used to speculate on the differential volatilities of their underlying assets. The result is to create a circulatory process of capital formation that presupposes abstract risk as one of its constitutive dimensions. Directly implicated are financial institutions such as banks, brokerages, and exchanges; but also included would be governments, pension funds, and business schools.

Corresponding to the two related forms of risk objectified in the derivative are two forms of connectivity. The first is the contextually specific connectivity that is generated by the objectification of particular types of risk in the buying and selling of a derivative product. Thus, for example, a currency derivative linking dollars and yen creates a specific, temporally bracketed connection between the two currencies. The second form of connectivity derives from the objectification of abstract risk. Here, the connectivity created by each derivative appears to be an instance of the global structure of financial circulation. Within the circulatory system, abstract risk thus functions as the means and mechanism of "financial translation" among different contextually specific derivative instruments. It is simultaneously the form of risk that is historically specific to circulatory capital and an objectified form of global social connectivity. In contrast to concrete risk, abstract risk strives toward totalization, producing a directional dynamic in which the sociostructural effect of buying and selling derivatives is to uncouple circulation from production and imbue it with an autonomy unknown to earlier phases of capitalism. The result is that both the mediation of connectivity by abstract risk and the uncoupling of circulation from production have a sufficiently objective character to seem far removed from social determinations. The culture of financial circulation does not seem to be a system that politically interrelates agents, institutions, or nation-states with respect to one another. The risk-bearing derivative, which on the surface is simply an attempt to offset the uncertainties created by globalizing processes such as outsourcing, gives circulation a life of its own, making it appear as though it were independent of the agents and institutions that it interconnects. It follows from this that circulation is evolving into a framing or metasystem that defines the context and the goals and means of financial practice.

The construction of financial derivatives also brings together two levels of practice. On one level, there is a pragmatic determination that is also an act of classification of the varied types of risks that a particular situation produces. On another level, there is a pragmatic determination of which risks should be consolidated within the derivative, thus lending an abstract dimension to the risk-bearing derivative. This abstract dimension of risk has defining features that are part of its natural character. Specifically, the abstract dimension seems to behave in a lawlike, quasi-statistical manner, yet to be wholly impersonal and asocial. It appears to emanate directly and objectively from the situation; those who are re-

sponsible for producing derivatives simply calculate and price the risks produced by the formal dimensions of financial circulation. As long as its maker follows the proper technical principles, the derivative will seem to accurately express the world-given risks. This mode of objectification creates a two-way street, because it conceptually sutures concrete and abstract dimensions, making it appear as though the movement from concrete to abstract implicated no human intervention other than the technical assembly and market distribution of the derivative. But something else is happening: the suturing also works in the other direction, creating the impression that the impersonal, asocial, and lawlike characteristics of the abstract dimension are invariably embodied in, and can be read off of, the derivative. The plurality of incommensurable types of risk is reduced to a singularity. The various concrete, specific types of risk—concrete and specific because they are drawn from real social conditions—are abstracted into a single, homogeneous whole that the financial community may price. It is crucial to appreciate that this process of detachment and reassembly creates the objectification of risk. So however natural the category of risk may first appear, it is deeply social because it is founded on a process that those in the financial world have made in the course of their collective history and acquired in the progress of their personal lives.

The financial community's development of the concept and modeling of volatility was the next step in the objectification of risk. The central idea is that the market can best describe and predict the behavior of abstract risk by measuring its variability over time. The understanding is that the magnitude rather than the direction of change in the values for a specific derivative communicates all the financial information necessary to price it. Note that the measurement of volatility tries to formally reincorporate the contextual social information that had to be removed to produce abstract risk in the first place. The social is reintroduced in, and misrecognized as, the history of a derivative's volatility. The result is that all the complex socio-historical forces that shape the value of the assets underlying a derivative are now simply a pattern of price movements. From the start of portfolio theory, analysts have recognized that the model does not perfectly model "real-world conditions" (Rosenberg 1981). Nevertheless, these realizations were tempered by the belief that the model was sufficiently close to reality to yield useful predictions and that further refinement of the mathematics would bring the model progressively closer to real-world market conditions. Indeed, after almost two decades of subsequent research, the mathematicians Hunt and Kennedy (2000) would argue that "stochastic calculus and martingale theory [a kind of stochastic process that focuses on random variables] were the perfect tools for the development of financial derivatives, and models [derived from physics] based on Brownian motion turned out to be highly tractable and usable in practice" (xv).

As suggested above, the final and continuing dimension in the formal objectification of risk has been its quantification through stochastic formulas, such as those invented by Black and Scholes and advanced subsequently by a growing mathematics of derivatives. All these derivative-pricing models take it as axiomatic that volatility patterns record, reflect, and measure the abstract risk profile captured by any and all derivatives. If we deconstruct the stochastic differential equations used to price derivatives, we find a common assumption that all future events will replicate past events and that the conditions of application are uniform across time and space. Socially speaking, both the design of these equations and the institutional design of the field of mathematics all but guarantee that analyses of derivatives will never scrutinize or call into question the presuppositions about social reality that underwrite the validity of the equations' foundations. That the fi-

nancial community relies so unquestioningly on these equations only serves to proclaim, reiterate, and legitimize the idea that risk is a formal, abstract, and context-insensitive entity.

So what creates the metalevel and makes risk systemic in contemporary circulation is not the truism that it is the common element in all sorts of transnational transactions but rather that once risk exists in an abstract form, it can take on the overarching role of helping to produce connectivity itself. Moreover, because each calculation of abstract risk functions constructively in the same way, the calculations are also instrumental in helping to forge the overall circulatory system. Abstract risk functions systemically because it interconnects the variegated forms of specific concrete risk, defining them as quantifiable through the same mathematics, and also because its character is system-wide and abstracted from all sociohistorical contexts. Viewed from the perspective of circulation as a field of action (such as outsourcing or currency exchange), a concrete risk is particular and also part of a fluid and heterogeneous global circuitry; as abstract risk, however, it is an individuated aspect of a homogeneous and systemic concept that strives toward the production of a circulatory totality. This totality is always out of reach because, as we suggest, it is ultimately impossible to disembed risks from the contexts of their production and consumption. Nonetheless, it is precisely the process of disembedding these risks that provides the directional dynamic of financial circulation, a dynamic that lends itself to the illusion that stochastic models can adequately capture the risk in risky situations.

As much in the financial community as in popular culture generally, mathematics maintains a privileged position. It alone is thought to provide truths that are pure in the sense that they are uncontaminated by politics, great and small, and to do this in an argot that is so far removed from the everyday that it is well beyond the pale of ordinary understanding. Even the intermediate stage of understanding—the ability to apply mathematical models mechanically without any real grasp of their underlying foundations—is thought to be an achievement worthy of awe. In this respect, the mathematics of derivatives consecrates the concept of abstract risk even as this concept of risk makes the math possible. Without an already-existing objectification of abstract risk, the financial community could not have developed or tested its stochastic models of derivative pricing. An important irony in the evolution of this process is that the statistical methods developed in the financial community occurred independently of the field of mathematical statistics. Reading the literature on derivatives, one gets the sense that it is often attempting to reinvent a not always perfectly round wheel. This is important to the present discussion because mathematical statistics has determined that probability is a measure of sets in an abstract space of events, meaning that for real-world problems such as pricing derivatives, analysis needs to identify and specify that space of events for the problem at hand (Salsburg 2001, 301). It can now be understood that for derivative pricing the objectification of abstract risk provides a means of specifying a heterogeneous and often apparently indeterminable space of events.

The distinction between concrete and abstract risk does not imply the existence of two types of risk, but two inseparable dimensions of risk implicated in the construction and circulation of derivatives. The derivative does not embody two types of risk: rather, the forms of risk differ depending on whether they appear as concrete and specific instances of risk or as an overarching objectification of the totality of relations. What is critical about the derivative is that it is this abstract bundle of risks that is priced, sold, and circulated. This abstract quality amplifies the sociality of the object, the derivative, in ways that quite paradoxically mask its sociality by

subsuming, equating, and then quantifying all forms of social relations material to the fact of specific, concrete risks. So the risk that social and political turbulence may precipitate a change of government in a postcolonial supplier, the risk that the economic politics of the central bank may motivate a rise in interest rates and a tightening of liquidity, the risk that a counterparty may use the bankruptcy laws to avoid payment, and more—all may be combined in a single derivative and priced as a package. Although they are necessarily not aware of it, this is what many commentators mean when they say that what characterizes the contemporary financial system is the "commoditization of risk": namely, the wealth of social, economic, and political relations that engender specific risks appear as a singular, homogeneous object. As our analysis has tried to indicate, this commodification does allow the market to unify, quantify, and price these forms of risk, but it does so at a great and hidden cost: it now becomes impossible to price the socio-historical risk that a unique or revolutionary event will occur or to price the systemic risk to the circulatory system as a whole.

The Risks of Circulation and the Circulation of Risks

Whatever else it may do, the use of derivatives objectifies diverse and often unrelated circulations in a single instrument and then distributes the risk to a theoretically unlimited set of buyers. By combining forms of risk that need not be related or commensurable, derivatives engender an abstract form of risk, meaning that what the derivative objectifies is risk itself as opposed to relations intrinsic to the social economy. Where risk is concrete—such as the risk that frost will damage the crops, the chief executive of a company will perish, or a war will impede oceanic transportation—the steps taken to offset that risk are economic, direct, and visible.

By contrast, the objectification, aggregation, and parceling of risk in the creation and sale of derivatives generate a new mode of economic interdependence, in that risk becomes the very basis of systems of circulation capable of defining the immediate future of an entire country (determining whether, for example, it can raise the funds needed to finance low-income housing). So a defining feature of this form of interdependence is that people, especially those on the periphery, have no control over what constitutes risk or which risks the market determines are produced by the character of their political culture, history, or social economy. Nevertheless, the risks that the market assigns to them determine their access to finance capital and their ability to purchase dollar- and ECU-denominated goods, particularly energy and technology. In other words, the metropolitan conception of risk, quite apart from any concrete or specific circumstance, is the basis for derivative-based systems of circulation, such as monetary exchanges.

A sociostructure of financial circulation in which derivatives constitute the general form of the product being circulated catalyzes the independence of the circulatory system from production (technically speaking, it generates a new form of social mediation specific to, and also instrumental in, the growing independence of circulation). As one pundit has put it, "it's no longer the real economy driving the financial markets, but the financial markets driving the real economy" (real, in this case, denoting the production-based economy). The risk-based derivative thus appears to be a historically new way of suturing the circulatory system globally. This way of suturing circulation is compatible with other and older forms of interdependence, even while, as the quote above suggests, it is beginning to direct and dominate their trajectories. In a globalizing circulatory system in which the derivatives market is the largest and most influential, the objectification of

risk becomes an increasingly critical basis for creating and dealing with connectivity. While a specific derivative may help a particular company to hedge its risks, the role of speculative capital insures that the volume of transactions far exceeds the use values of hedging for the particular firms. So the derivative serves on the one hand as a use value for companies engaged in production, while on the other hand as an abstract exchange value for speculative capital. Accordingly, the derivative has a bipolar personality. It is simultaneously the means by which globalizing production capital offsets the risks of connectivity and the author of its own form of connectivity that has nothing to do with the connectivities of outsourcing, for example. In other words, risk has become a very peculiar and particular sociological object: to mitigate specific and concrete risks through the derivative, it must be abstracted and monetized; and, to deal with connectivity, risk must be instrumental in creating a circulatory sphere organized by speculative capital.

This is very different from the concept and character of risk under a regime of production-based national capitalism. In such a regime risk is not organized, it is not commodified, and firms deal with specific risks through specific actions. Foreign currency risk is dealt with by making sure that the bulk of a company's profits come from domestic sources; the risk of lack of product demand is dealt with by increasing the advertising budget and distribution outlets; the risk that a company's suppliers may not stand by it during a recession is dealt with by fostering personal relationships and mutual commitment among the companies' managements; and so on. By contrast, in a postmodern, postindustrial economy in which financial derivatives define the global circulation of capital, firms cannot mitigate the risks created by connectivity solely through direct social action. The result is that as the circulation of capital animated by speculative investment leads to the autonomy of circulation, risk emerges as a principal means, along with the outsourcing contract, by which persons and companies organize global interdependence.

Risk does this by serving as the objective means of organizing social relations within the sociostructures of circulation. Anonymous agents and organizations are brought into relationship by their participation in a circulatory system of risk-based transactions. In ways analogous to and distinct from the function of abstract labor in the sphere of production, risk itself subsumes the forms of connectivity possible through direct economic action. In this sense, a form of risk that it presupposes and produces defines the emerging culture of global financial circulation. So in addition to its usual and concrete function of hedging (an action that guards against a recognized uncertainty), risk in its abstract form is the self-constructive force within a system of circulation. Risk in this abstracted sense specifies the function of risk in the structuring of global connectivity. It is worth pointing out here that in the sphere of production, risk has much the opposite effect: it undermines connectivity by disrupting the logistics and temporalities of commodity manufacturing and distribution.

The Politics of Circulation

A defining feature of contemporary circulation is that it has become its own objective, its institutions and mechanisms seemingly independent of, and unconcerned with, the persons and nations affected by it. The production of a substantive, production-enhancing value, such as that gained from hedging, has rapidly become mostly incidental to the flow of capital and the speculative grasp for new sources of profit. As noted, hedging now makes up less than 5 percent of the value of financial derivatives trading, and that number is only expected to decline. Without large and growing pools of ag-

gressively speculative capital, the complexion and power of contemporary derivatives would be entirely different because there would be no markets to function as reference points for their pricing. There would be no way to establish volatility or price movement of a derivative, even by analogy, as is commonplace in the creation of OTC products. Because of the self-expanding role of speculative capital, circulation has not only become a means to an economic good (the mitigation of uncertainty) that is itself a means, but the means collapses into itself, creating a system in which means dominate ends. Accordingly, the various types of financial derivatives now marketed correspond less to the needs of corporate hedging than to the relentless search by speculative capital for arbitrage opportunities. The characteristics of the market imbue it with a self-expansive character that at a deep systemic level is neither motivated by production nor oriented toward consumption. Essentially, speculative capital subsumes risk, defining its globalization. And as this process develops, the goal of financial circulation increasingly shapes the means of its realization.

The evidence indicates that the metropolitan financial community's globalization of risk generates relations of connectivity that affect citizens, institutions, and nation-states. The risk-bearing derivative is thus politically charged. Risk does not, however, appear in the public sphere in this highly social political capacity; rather, the abstraction, pricing, and globalization of risk appears as an objectifying activity that simply bridges the relationship between specific sets of uncertainties and the derivatives market. Accordingly, though the derivative embodies risk in both its concrete and abstract dimensions, the latter dimension becomes externalized through the relationship between the derivative and the underlying asset: a relationship expressed through the concept of notional value (the amount of capital controlled by a particular derivative at a given point in time). This externalization produces an influential duality. On the surface, a financial derivative is no more than the means of summarizing and pricing the concrete risks that materialize in a specific situation. On a deeper level, the derivative is the objectification of its abstract dimension, the notional amount. And because derivatives externalize that which engenders connectivity, namely abstract risk, they appear to be no more than the human results of naturally occurring needs. This duality thus imparts an objective, seemingly asocial, and politically neutral character to both the concrete risk embodied in the derivative and its abstract dimension as well. In this way the character of risk—a character that apparently is objectively natural—expresses even as it conceals the social construction of risk and its political implications and functions in generating a globalizing circulatory system. Indeed, the analysis presented here underlines that a significant political feature of the globalizing circulation of capital is the contrast between its systemic character and its particular appearances.

So one of the paradoxes of financial derivatives is that those disciplines and analysts adept at understanding their technical aspects and markets are least likely to grasp their political implications and effects. Those working in business economics and kindred fields treat the risks associated with the global circulation of capital as particular appearances flowing from the natural consequences of economic action. They tend to assume that beneath the actions and beyond the consciousness of agents, derivatives are the sum of their formal properties, which one can grasp in an entirely formal way through the methods of mathematical statistics (methods, we have argued, that are strangely de-mathematized in the sense that they fail to specify certain critical mathematical conditions for their production). Such accounts not only locate themselves at the surface of the phenomena but also

implicitly assert that there are no deeper sociostructural and political foundations. Consonantly, these accounts of financial derivatives cannot begin to explain why *risk* in an abstract form came to functionally mediate global connectivity and emerged as a dominant financial category only in the final quarter of the twentieth century. They cannot explain why the quantification of risk entails a necessary and constant process of social disembedding. But most of all, they cannot explain why circulation has taken on a systemic character, thereby engendering the real possibility of systemic or catastrophic risk to the financial circulatory system as a whole. By assuming that risk is always and everywhere the same, these accounts have no way of conceptualizing the present, a present whose perhaps most influential political reality is the ascension of cultures of circulation, especially that of finance.

The surface-level analysis of the risk-bearing derivative offered by the financial community is understandable in the sense that the form suggests the possibility of its misinterpretation. The act of embodying quantified and heterogeneous risks in a financial instrument only makes sense if analysis understands the lumping of the various risks as simply their objectification. There is no other way to make various incommensurable risks, each of which has its own social, economic, and political foundations, transparent to a single, quantified, priced derivative other than to assume that these foundations do not exist. The problem is further that when the financial community focuses on the derivative, the presence of risk is transparent, but not its function in creating a circulatory system. It is easy to see that a given derivative involves, for example, political, liquidity, and counterparty risks, but not that the social imagination of abstract and quantified risk instigates the ascendance of a new form of global financial circulation. The special function of risk in creating circulation does not, and cannot, appear as an attribute of risk per se. By implication, the historically specific function of risk in creating connectivities that deeply influence the lives of people becomes reified, appearing only as the abstract aspect of the numerous kinds of derivatives.

As this occurs, a necessary relationship develops between the production and circulation of derivatives to hedge the concrete risks associated with global connectivity and the emergence of a quasi-autonomous sphere of financial circulation. Under the auspices of speculative capital, abstract risk increasingly defines and infiltrates the contexts of concrete risk. As a result, one of the risks now facing nations, institutions, and firms is that irrespective of the existence of any specific concrete dangers or uncertainties, the derivative markets may turn against them. To put this differently, the culture of capital circulation is reducing the peoples of the periphery to means: for they exercise no control over the forms of circulation that truly control them. Once the sphere of financial circulation exists independently of the political process, then investment banks, hedge funds, and other institutions of speculative capital can decide only which derivatives trading strategies are most likely to generate a profit, while those on the periphery can decide only how they will respond to these trading strategies. Without a politics of circulation, its dynamic is beyond human control.

Systemic Risk

It is an astonishing irony that the culture of financial circulation has itself become the most significant global monetary risk. And it is equally ironic that the culture has fabricated a risk it can neither recognize nor price. Put simply, the risk is that systemic risk will produce systemic failure; that is, the interconnected network of global financial institutions will fall like dominos when an unexpected, because

stochastically unpredictable, catastrophe topples a major institution such as J. P. Morgan Chase, which has trillions of dollars of derivative exposure. This possibility, like the explosion of a nuclear power plant, is simultaneously improbable yet too potentially devastating to ignore. Such systemic failure, produced from a combination of miscalculation and an event that cannot be calculated because it is a historical singularity, would have telling ramifications for not only circulatory capital but production-based capitals as well.

Systemic failure is the risk that because of the global interdependence of the financial system, a catastrophic collapse of one institution progressively engulfs and topples other institutions until the entire system becomes dysfunctional. Under these conditions, the financial structure could no longer allocate capital, provide liquidity, or allow for a coherent monetary policy. While banking systems can and have collapsed before, financial derivatives certainly escalate the breadth and severity of failure. This is all but inevitable because such derivatives lure institutional players to pyramid leverage as a way to enhance speculative returns, the financial system has become interconnected globally, and derivatives operate in a space so unregulated that it is difficult to even determine from where in the metropolitan world such failure might originate.

While a financial winter might structurally resemble other more localized failures, its size and planetary scale could portend greater and possibly catastrophic consequences if it were of such great magnitude that neither international institutions like the IMF nor national federal banks had sufficient reserves and dexterity to serve as lenders of last resort. To date, the closest event to such a meltdown was the fall of Long Term Capital Management (LTCM), one of the world's largest hedge funds, which between January and September 1998 lost upwards of 90 percent of its outstanding value. The losses sustained by LTCM posed, in the words of a study by the General Accounting Office, "potential systemic risk" (1999, 2). Describing the situation, the Bank for International Settlements wrote that the state of global financial markets raised "apprehensions among market participants and policy makers of an imminent implosion of the financial system" because liquidity had evaporated "in both industrial and emerging economies," making it very difficult for borrowers "to raise financing even at punitive rates" (quoted in General Accounting Office 1999, 5). Aware that the failure of LTCM to repay its debt obligations could instigate a chain reaction, the U.S. Federal Reserve decided, contrary to its own well-publicized policy, that it would be imprudent to allow the markets to take their course. Accordingly, the Federal Reserve orchestrated a recapitalization of LTCM.

Since the salad days of LTCM, the financial derivatives market has grown exponentially, become more global, and fabricated more ways to pyramid leverage. LTCM's off–balance sheet holdings of $1.4 trillion with an average leverage ratio of 30 to 1 is now dwarfed by firms, epitomized by J. P. Morgan Chase, whose exposure is measured in tens of trillions of dollars and whose leverage ratios sometimes top 600 to 1. And while it is certainly true that the notional value of a firm's derivative contracts is not necessarily an accurate gauge of its risk exposure (since its positions may be arbitraged), the fact is that neither these firms nor regulators can measure the actual risks by using current modeling techniques. The reason is that these models can only accommodate repetitive as opposed to singular events—what in other circles is called the socio-historical—and they cannot account for, or take account of, systemic risk. The second point is that financial crises have the greatest impact on the least creditworthy firms and nations. This means that a global financial

meltdown would have its most devastating effects on the various points of the periphery. However improbable a financial implosion, such an occurrence would result in extraordinary misery for the peoples and destabilize the governments of Latin America, Africa, and much of South Asia.

7 Derivatives and the Stability of the State

Financial derivatives are a crucial dimension, and their emergence is a critical moment, in the ascendance of circulation. This is, but is also much more than, the amplification of the flows of materials and money across national borders that on the margins were always soft and rather permeable. The centerpiece is a reorganization of the world economy animated by globalizing processes whose main hubs are cultures and sociostructures of circulation in which financial derivatives are increasingly important cogs—important because they add a metalevel to the transnational pulse of capital and because they emanate from the metropole. Powered by the emergence and abundance of speculative capital, the risk-driven derivative has come to exert enormous influence on the global economy by inflecting and deflecting the movements of capital, the ultimate lubricant of commerce.

The explosive rise of derivatives from almost nothing to the planet's largest market is instrumental in, and also expressive of, a world change that challenges virtually all existing accounts of the interrelationship between the economy and the state. Capitalism appears to be transforming from a production-centered, nation-based political economy to a much more cosmopolitan structure in which not only does