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Meta-Capital:
Culture and Financial Derivatives

Abstract

The present worldwide financial crisis has underscored what has long been suspected or known, but what has not always been visible: that the interconnectivity and risk in a global economy have been driven by derivatives, what Warren Buffet once called "time bombs" and "financial weapons of mass destruction." Financial derivatives, seemingly arcane or obscure instruments of global capital markets, have transformed the world in ways seldom understood or analyzed, least of all in cultural studies. Like the commodity in Marx's analysis, the derivative is deceptively simple though ultimately mysterious. Not only are derivatives tools used in the complex networks of globalization, but they are actively driving late capitalism, whose cultural logic, as Fredric Jameson observed, is postmodernism. Although cultural and literary criticism has grappled with social and economic forces of globalization, it has not really attempted to assess these elements of postmodern finance. The current crisis calls for new cognitive maps (to use Jameson's conception) that can register the effects of this meta-capital. In this essay, I examine derivatives, their characteristics and effects, and I argue that the project of contemporary cultural criticism will have to take into account the complex new reality of a global economic system dominated by financial derivatives.

Globalization, whatever else it might mean, refers to a process in which the system of relatively independent nation-states has broken down or been restructured and the floodgates of transnational capitalism have been flung open. Although historians can trace aspects of these developments over a *longue durée*, there is no doubt that something dramatic has happened in recent history. The radical transformations of the global economy in the last 30 to 40 years and the far-reaching effects of those changes are only beginning to be understood. There are good reasons for this. First, the speed with which structural changes to the global financial system have occurred has made a sustained historical analysis nearly impossible, and this has led to difficulties in even recognizing what is happening in the all-too-present. Second, the nature of those changes seems to place the discussion outside of the realm of classical economic discourse, away from the familiar grounds of mode and means of production, and into the less familiar, almost ethereal zones of circulation. Third, the locus of these transformations is the globe itself;

no study of a single national economy can adequately address the issues at play in the global capital markets. Moreover, isolating and analyzing any particular industry, commodity, or locale no longer seems to yield fruitful results, even from the microeconomic point of view: the whole is so much greater than the parts that those parts seem irrelevant at times. Even by the standards of late capitalism -- that is, of so-called postindustrial capitalism, consumer society, or postmodernism -- the political and economic world system today is markedly different from what it was in the 1960s. Its transformations have multiple causes, but the most pervasive (and not always visible) force is the development of ever more complex and flexible instruments of finance capital. A new world order has indeed emerged, but its ties to the order which preceded it are tenuous at best.

A representative symptom, as well as a motor, of this brave new world of finance capital is the financial derivative. Although, in a sense, derivatives are as ancient as contracts themselves, in the last several years the market for financial derivatives has expanded exponentially, booming from near nonexistence in the 1960s to the saturation of almost every area of corporate finance today. In *Capitalism with Derivatives*, Dick Bryan and Michael Rafferty argue that these instruments have entirely transformed capitalism by making it "more dynamic and more fragile; more complex and more integrated."[1] In transforming capitalism, financial derivatives affect nearly every aspect of life in the contemporary world, yet -- because they operate in such obscurity, in the thin air of high finance and in the largely unregulated world of offshore hedge funds or international banking -- they are virtually invisible to all but those who directly trade in them. Any understanding of the world system today, however, will necessarily have to acknowledge the importance of these financial instruments. The current worldwide financial crisis, a crisis largely made possible and exacerbated by the pervasive and global use of derivatives, testifies to their powers.

Not surprisingly, financial derivatives have not really registered in literary and cultural studies. In recent years, globalization has become a key term in these fields, yet perhaps the most telling aspect of the phenomenon of globalization -- the final victory of finance capital to insinuate itself into every nook and cranny on the figured face of the planet -- goes largely unanalyzed. We all know that something has changed, but we do not always know what caused the changes, how they occurred, or what the effects are. Financial derivatives are at once products of the new capitalist world order and engines driving it. They provide concrete, if not always tangible, examples of how the processes of globalization we witness all around us today are different from similar processes at earlier stages of capitalism. As such, an examination of the role and function of financial derivatives is a useful first step in analyzing the cultural conditions of our time.

The problem lies in representation: How does one imagine the system itself, so that one can analyze (and perhaps change) it? In this essay, I will present a brief outline of the problem by examining the derivative form and by looking at the transformation of derivatives from simple contracts in commodities to the very foundation of global finance. I will then look at the effects financial derivatives are having on everyday life and the crises associated with their prominence in the world system. As the embodiment of "postmodern" finance, derivatives now condition, often invisibly, the details of our everyday lives. Following Fredric Jameson's analysis of the postmodern condition, and updating it to include a consideration of the complex realities of high finance, I will argue

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that any form of cognitive mapping or class consciousness will have to grapple directly with this new and virtually incomprehensible world system that now must be understood, at least partly, in terms of the global market in financial derivatives. The cultural critique of the postmodern condition must include the critique of financial derivatives.

The Derivative: 'A very queer thing …'

At the risk of oversimplifying matters unduly, one could define a *derivative* as any contract whose value is derived from something else, an underlying asset or an index, for instance. Indeed, that is all a derivative is, yet, like the commodity, it turns out to be far more complicated than a mere item used and exchanged. In his magisterial discussion of the fetishism of commodity in *Capital,* Marx begins by noting that the commodity first appears to us as "a very trivial thing, and easily understood. Its analysis," he goes on to say, "shows that it is, in reality, a very queer thing, abounding in metaphysical subtleties and theological niceties."[2] This mysteriousness of commodities derives from the labor theory of value, and, specifically, from the way in which the exchange value of the commodity becomes (through market exchange) equated with the labor put into it -- "the distinct social relation between men" -- rather than from anything inherent in the thing itself. To find an analogy, Marx says, "we must have recourse to the mist-enveloped regions of the religious world."[3] Famously, Marx's formulation of fetishism of the commodity reveals that, like a religious fetish, totem, or idol, the commodity is an object which is endowed with subjectivity, the subjective character of its production. It is subjectivity reified. This mystical nature of the commodity offers a microcosmic view of the alienation associated with the capitalist mode of production. The value produced through the alienation of one's labor is embodied in the commodity itself. In this world turned upside down, alienation (in the psychological or existential sense) is tied to the mystery of commodities, inasmuch as one cannot maintain a clear sense of self when that selfhood is cast into a thousand fetishes. Marx's analysis shows how this fetish actually does contain human subjectivity in the form of the labor power represented in it. This is most clear when looking at a discrete, small-scale example of commodity production. However, as Marx himself notes, the demystification of the commodity fetish is easily accomplished at a microcosmic, almost pre-capitalist stage; at the (then) present stage of advanced capitalism, the mystery is compounded. In a society under the sway of the capitalist mode of production, the alienation experienced as a result of the fetishism of the commodity is pervasive and ominous.[4]

If, as Marx insisted, the fetishism of commodities leads to an overall sense of bewilderment for those trying to understand the capitalist system as a whole, how much more bewildering is the global system of finance today? If the world of commodity exchange is mysterious, how much more strange is the world of financial derivatives, in which the value of the thing itself is tied, not only to the underlying labor of human producers from the far flung regions of the globe, but to abstract indices, foreign exchange rates, securities, contracts, and even temperatures? Just as Marx attempted to make sense of the commodity form and the alchemy of exchange-value in order to better grasp the socioeconomic conditions of the nineteenth-century world system, today we need to grapple with the complexities of high finance and its emblematic form, the

financial derivative, in order to understand our condition in the era of late, multinational capitalism.

I do not intend or presume to perform a full-scale analysis of derivatives here, but a general overview of the form is useful for understanding how it is shaping not only the economic system, but human experience in the world.

So, again and perhaps too simply: a derivative is a financial instrument, or contract, whose value derives from something else. Commonly used derivatives include *stock options* (which enable the owner of the option to buy or sell stock at a certain price; hence, the value of the derivative itself derives from the underlying stock), *swaps* (which exchange one asset flow for another, such a fixed for floating interest rates), and *futures* (contracts to set the future price of commodities). In all cases, the buyer of the derivative is interested in reducing risk, using derivatives as a hedge against price fluctuations. The standard definition of derivatives is based on *commodity derivatives* and held true when all derivatives were specialized contracts traded by primary producers, merchants, and exchanges. From their origins in classical antiquity, such derivatives were used in much the same way until the 1960s, as special-purpose contracts used by a few producers and merchants. However, beginning in the 1970s and exploding in the last twenty years, financial derivatives have become the most dominant type of financial transaction in the world.[5] Yet, as with Marx's own analysis of pre-capitalist formations, a brief look at the ancient form provides a clearer understanding of just how much has changed.

In form, the derivative is not a modern phenomenon; futures contracts existed in Ancient China, Greece, and Rome, and were perfected for widespread use by Dutch merchants of the sixteenth century or earlier. The classic example of a derivative, specifically a *commodity futures* or a *forward* contract, looks like this: At planting time, a farmer wishes to lock in a selling price for his grain, which will not even be ready for sale until the harvest many months later. The farmer agrees to sell to the miller for a set price, which would cover the planting costs and perhaps earn a bit of profit. If, come harvest time, the price of the crops in the marketplace at large is much higher than the set price, the farmer loses the additional money he or she might have made and the miller gains by being able to buy at a reduced (that is, below-market) price. However, the farmer still wins something, since the peace of mind, as well as the ability to allocate other resources elsewhere, might have been worth it. Similarly, if at harvest time the market price is lower than the contracted price, the miller would seem to be on the losing end of the deal, but by being able to guarantee a certain price up front, the miller too may have been able to allocate resources in a way most efficient for his own business. To look at it another way, the miller could have guaranteed that he will have enough grain come autumn by purchasing the grain in advance, but that would entail undesirable storage costs plus the inevitable risk of spoilage. The forward contract allows the miller to *own a right* to purchase the grain in the future at an agreed-upon price *without having to take possession of it*. This ownership-without-possession is a key feature of derivatives. In this example, the overall risk of planting grain or purchasing it has been "managed," to use the parlance of the trade, and so the farmer or the miller might remain happy, even with potential lost profits on one side or the other. This win/win aspect of the exchange explains its desirability.

As agricultural markets develop and become more complex, the intermediate role of merchants becomes more important, and active exchanges are established. Typically,

the term *future* refers to an exchange-traded forward contract. That is, rather than having a farmer and a miller agree to trade grain with one another, both the farmer and the miller can deal with a trader in the larger grain market. Moreover, as the derivatives exchanges grow in sophistication over centuries, the actual underlying commodity (in this example, the grain) becomes less directly relevant to the exchange itself, as direct producers (farmers) or end-users (millers) no longer comprise the major traders in these derivative instruments. The participants in such exchanges are likely to be investors and speculators, rather than growers or users of agricultural products.[6] That is, as the derivatives being traded become valuable investments in their own right, investors who have no stake in grain or flour might buy and sell futures strictly as ways of making money, and not merely in order to manage risk in their businesses. As exchanges themselves become the principal site of futures trading (i.e., rather than individual users dealing with on another "over the counter"), the apparent objectivity or "invisible hand" of the marketplace begins to determine the price of the derivatives themselves, amounting to a rather remarkable dialectical reversal in the very idea of the *derivative*. Eventually the overall efficiency of these exchanges -- here, the trade in futures contracts -- leads to a real paradox in the theory of commodity derivatives: the underlying asset, a ton of grain, for example, will be priced according to the price of grain futures at, say, the Chicago Mercantile Exchange. In other words, the "underlying" asset derives *its* value from the value of the derivative! One risks embarrassment in calling such a phenomenon *postmodern*, but there is clearly something strange going on when the derivative instrument, so named because its value is supposed to *derive* from the underlying asset, actually becomes the measure of value for the underlying asset.

Apparently, all that is solid really does melt into air! And vice-versa. The ethereal, insubstantial derivative acquires solidity as the *ground* for the value of the "real" commodity, which -- from the investor's point of view, at least -- has itself no more significance that the notional placeholder, a theoretical entity with little direct bearing on the instant transaction. Once a derivatives exchange evolves beyond a marketplace of commodity-users and once derivatives become the essential commodities themselves, a new form of commodity fetishism (*hyper* commodity fetishism?) is imaginable. Yet, the process here described is still relatively ancient, and even well into the eras of industrial or monopoly capitalism, even into the mid-twentieth-century United States, the exchanges of such commodity derivatives still represented a small fragment of the overall capital markets. Nevertheless, from the simple and prudent hedging of risks by producers and consumers of agricultural commodities, derivatives trading emerged as an important form of primary investment in its own right.

For all of this, however, commodity and exchange-traded derivatives have become increasingly less significant to the overall picture of how derivatives are transforming the world today. Although commodity derivatives are still widely used -- more so than ever before, in fact -- these transactions now make up a tiny slice of the global market in derivatives. Many of the basic assumptions one has with respect to commodity derivatives will not hold up in the world of complex financial derivatives. As Bryan and Rafferty note, "Any definition must now encompass a wide range of financial contracts that perform far more diverse functions than had previously been envisaged. From relatively obscure contracts used by a few primary producers, merchants, and refiners in the 1960s to lock in future prices, derivatives have now become the largest

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type of financial transaction in the world. Quite simply, with derivatives now at the centre of global finance, the old definition is now not only limited, but simplistic and misleading."[7]

The problem with using the ancient and venerable commodity derivative to attempt to comprehend the more complex situation today is that it ignores the degree to which the derivative becomes a form of *meta-capital*, as Bryan and Rafferty call it. Unlike traditional capital, derivatives do not necessarily involve ownership or possession of any underlying asset. For example, a share of stock represents real ownership of part of a company, and a bond represents ownership of a quantity of money, but a derivative need not involve actual ownership at all. Rather, the derivative is meta-capital inasmuch as it functions to bind together and to blend other forms of capital. Derivatives allow one to compare two otherwise separate and distinct kinds of assets (fixed versus floating interest rates, for instance), and they can be used to create hybrid instruments that will tie different assets together. "The capacity of derivatives to convert any form of asset into any other form of asset means that all assets can be instantaneously compared across time and space."[8] This is true in the case of the individual derivative contract, but it becomes much more so given the global system of derivatives that now underlies the world system as a whole. What had appeared "a very trivial thing, and easily understood," turns out to be a very queer thing indeed.

Financial Derivatives and the Global Economy

If derivatives have always been around, why are they so much more significant now? Part of the answer is that, when derivatives went from being prudent hedges to a speculative form of investment in general, the size of the derivatives market expands exponentially. And I mean *exponentially*, not just a metaphor for "a lot": in 1970, the global market in derivatives represented perhaps a few million U.S. dollars. The derivatives market in 2006 represented over 327 *trillion* dollars.[9] Another aspect of this boom is that commodity futures, which once were the primary form of derivatives, play only a small role in the overall derivatives market today. By far, financial derivatives -- that is, derivatives based on other financial instruments rather than on commodities -- dominate the new world of global finance. The dominant role of derivatives plays no small part in the current crisis.

Once one shakes the notion that derivatives are related to deliverable, physical commodities, the world of derivatives expands to a nearly unimaginable level. Essentially, anything and everything can be the subject of a derivative transaction. By the 1980s, financial derivatives dominated the global derivatives market. The most important type of financial derivative was the *swap*. A swap, as the term suggests, involves trading one type of thing for another, most often interest rates or currencies. The "thing" that gets traded is an obligation to repay. In a "plain vanilla" swap, so named because it is relatively simple, a party whose debt is subject to a floating interest rate may want to swap with a fixed-rate debtor, thereby assuring a predicable flow of payments (thus, like the ancient farmer, the party locks in a fixed price). Each party to the swap would have a motive to swap its repayment obligations with the other: "a company may borrow in fixed rate terms in British pounds but, via a swap contract,

convert the repayment obligations effectively into variable rate Japanese yen. It will undertake this conversion with another party that has borrowed in variable yen, but wants exposure to fixed rate pounds. Why will they do this? Because their asset profile gives them a borrowing advantage in the currency / interest rate structure, but their income and expenditure profile make repayment more advantageous in a different currency / interest rate structure. By borrowing in one form, and swapping into another, both parties can gain."[10] As Bryan and Rafferty note, even such a basic swap as this reveals the greater power and complexity of financial derivatives with respect to their ancient, commodity derivative cousins. A swap ties the present to the future like a commodity derivative does (for example, the current price of wheat is bound to the future price), but the swap also blends together different *types* of assets (here fixed for floating interest rates or currencies). At a systemic level, the swap can effectively allow the pricing of virtually anything, since its model allows for any kind of asset to be compared and traded with any other kind. A swap, or any financial derivative like it, thus transforms the system by making fungible virtually anything. This is clearly not just another element of the existing capitalist mode of production, but a transformative and essential aspect of what might appear to be, to risk what may sound like a hyperbolic assertion, a new stage of capitalism.

The boom in financial derivatives is usually attributed to several events or trends, beginning in the 1970s and intensifying in the years since. The collapse of the Bretton Woods agreement and the oil crisis of the early 1970s destabilized international money markets, and financial derivatives proved especially desirable for managing risk. At around the same time, a growing use of international financing to pay for corporate investments and takeovers called for new instruments to facilitate the process. And the internationalization of business in general exposed companies to greater foreign-exchange volatility as more and more financing was accomplished in multiple currencies. The rise of the multinational corporation as the model form of business organization serves as a proximate cause for the newly *essential* role of financial derivatives in the world market. Moreover, all of this is made possible by the intensification and proliferation of communication technologies that allow for instantaneous transfer of information and capital throughout the world at a mere keystroke. It is then easy enough to see how financial derivative transactions both benefit from and actively facilitate the unfolding of globalization. If a company wants to do business in different countries, then interest and exchange rates would create a great deal of volatility, as income generated in one currency might be required to pay debts in another. In the case of multinational corporations, the use of financial derivatives becomes an absolute requirement. Moreover, in the aftermath of "the strong wave of financialization that set in after 1973" (following the collapse of the Bretton Woods, which effectively ended the relative stability of foreign exchange rates in the post-war epoch), widespread deregulation and increasingly "speculative and predatory" practices have simultaneously caused and been made possible by the pervasiveness and aggrandizement of financial derivatives in the global economic system.[11]

As Edward LiPuma and Benjamin Lee note in *Financial Derivatives and the Globalization of Risk*, the derivative not only is an instrument used in the markets, but it is a form that can transform markets and have effects well beyond the sphere of individual commodities or parties. A brief example, showing a typical scenario in

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multinational business transactions, gives an indication of the transformative power of derivatives (here, currency derivatives) in the era of globalization. I paraphrase LiPuma and Lee's example below:[12]

An American corporation (or more accurately, "a corporation that calculates its revenues in U.S. dollars") signs a contract to provide ten million cell phones to a Brazilian subsidiary of a South African corporation for 300 rand per unit over the next five years. Part of the contract requires that the interior architecture of the phones be licensed from a German corporation at 20 Euros per phone. The American company enters into an agreement with a Mexican manufacturer to provide the outer casings for the phone (500 pesos apiece) and a Japanese company will supply components at 2,000 yen each. The American company will assemble the phones. The firm finances all of this by using a line of credit from its bank. Calculating the exchange rates of the various currencies, the company estimates that it can make a 20% to 25% return on its investment. But five years is a long time, and exchange rates today do not remain stable for an hour, much less a month or a year. So the American firm will also "dip into the derivatives market," engaging in a series of financial transactions (most likely through a subsidiary formed for just that purpose) to minimize its exposure in volatile foreign exchange markets. It would almost certainly use a plain vanilla swap, swapping variable interest rates for fixed rates, to guarantee the price of its money; then it would establish positions to fix the exchange rates of the Euro, peso, rand, and yen with respect to the dollar. The price of these derivatives would reflect the risks associated with each. The counter-parties to the derivatives transactions are likely to be banks or hedge funds. Based on the value of the cell phone contract, the American company might need $250 to $300 million in currency derivatives (in nominal value), plus a contract to offset the initial financing costs.

In other words, a manufacturing contract worth $250 million could motivate nearly a half a billion dollars in derivatives trading. The derivatives market, which at first seemed merely a prudent resource for hedging the risks associated with the original cell phone contract actually expanded the economic universe of the transaction. Rather than being a tool used in the market, it has changed the market. "Historically, financial derivatives markets have expanded so globally and exponentially because they produce the condition of their own necessity."[13] Exactly so, as the use of all of these derivatives necessitates the use of more derivatives, and the overarching, global trade in derivatives exchanges becomes an essential aspect of how the world economic system operates.

Appearances notwithstanding, this example depicts relatively simple transactions, of the sort being done every day by large corporations and financial institutions around the world. Indeed, LiPuma and Lee have simplified matters greatly: the example did not take into consideration, as the corporations involved certainly would have, tax implications, telecom regulations, political risk, even the weather, and on and on.[14] But the example does give an indication of just how much has changed in the financial world in the era of globalization. In the 1950s, an American corporation would probably not have bothered to hedge its exposure to foreign exchange and interest rate risk, since rates were relatively stable and transaction costs were high. "This was a reasonable gamble when the metropole fixed or pegged cross-currency rates and domestic interest rates barely fluctuated, and then only very slowly."[15] Thus, the mind-boggling growth of the global market in financial derivatives has transformed capitalism itself. Whereas

globalization names a process that might be traced back centuries under certain models, the specific changes over the last forty years represent a new, more concrete and yet more elusive understanding of the term. As noted above, the widespread use of financial derivatives marks a new stage of capitalism; we have become accustomed to calling this stage *late capitalism* after Ernest Mandel,[16] but it becomes readily apparent that one of the key features that really distinguish this stage from its forebears is the growth and pervasiveness of financial derivatives.

Crisis and Representation

To this point my discussion merely identifies what derivatives are and why they matter. I have not indicated exactly why this system may make things difficult. For most of us who do not work in banks, hedge funds, or the financial services wings of large corporations, derivatives do not impinge on our daily lives in visible ways. Indeed, operating as usual in everyday business affairs, derivatives are safely out of sight and out of mind. Derivatives make news, if at all, in crises, appearing on the front pages of major American newspapers (in the Business sections, at least) only when a financial disaster occurs. For example, in 1994 Orange County, California, one of the wealthiest counties in the United States, was forced to declare bankruptcy (the largest municipal bankruptcy in U.S. history), due to its $1.6 billion losses in derivatives trading. Again in 1998, the spectacular collapse of Long Term Capital Management, a hedge fund whose size and influence were such that its collapse nearly brought down the financial system itself, according to the Federal Reserve, the story was breathlessly reported in the *Wall Street Journal*, but most persons not directly involved in the industry knew little about how close to the brink capitalism found itself. (Besides, Americans had Monica Lewinskys to worry about.) Or consider 2001, with the self-immolation of Enron, a multinational energy firm that was effectively the world's largest hedge fund. And recently, the "sub-prime" mortgage crisis (caused in part by an over-reliance on such derivatives as *credit default swaps* and *collateralized debt obligations*) requiring the trillion-dollar bailouts of Bear Stearns and other major banks, the bailouts or bankruptcies of AIG, Freddie Mac, Fannie Mae, and the disintegration of Lehman Brothers, among other concerns. Although those in the financial services industries insist that derivatives have actually made the business world *less* volatile by spreading around, and hence managing, risk, these well publicized failures have underscored the potential dangers. They have also highlighted an aspect of Marx's original critique, posited in the *Grundrisse* and elsewhere, that understood that the capitalist mode of production operates *by* crisis. Capitalism is always on the brink, and in various ways the crisis of capitalism is merely another way of understanding the nature and culture of capitalism. In the postmodern condition, for better or worse, financial derivatives are emblematic of this system.

The problem of systemic risk lies in the inherent connectivity associated with derivatives. Distant and diverse entities, including companies and countries, become bound together in a complex web of derivative transactions which, when a crisis does occur, may affect many different parties. A financial collapse for one firm extends quickly to many others, and a discrete "triggering event" -- such as the decline in a corporate bond rating -- can set off a chain reaction in which many debts or other

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obligations suddenly become due more quickly than the parties involved can repay them. Such a liquidity crisis occurred when Long Term Capital Management's bets on the Russian ruble went sour, and the Federal Reserve discreetly arranged to have a group of banks bail out the hedge fund so that it could pay its debts rather than allowing the fund, through its network of interrelated derivative transactions, to potentially bring down the banking system as whole.[17] The interconnectedness of the world, so often a cause for celebration by globalization's apologists, can have harmful and often unforeseen effects.[18]

LiPuma and Lee contend that the use of financial derivatives is based on a "self-generating and self-perpetuating circularity" that winds up causing the very market volatility that derivatives are putatively designed to counteract. "The treadmill effect occurs because corporations doing business transnationally employ derivatives to offset the repercussions of currency volatility; the provision of sufficient market liquidity requires the participation of speculative capital which tends to amplify volatility; the amplification of volatility both increases the need for corporations to hedge their currency exposure and the profit opportunities for speculatively driven capital."[19] Financial derivatives are thus not just instruments used in, but the very basis of, the capitalist mode of production in the era of globalization. The extent to which derivatives themselves are risky mirrors the extent to which the entire system is at risk.

Systemic risk lurks in the background of these transactions like an apocalyptic vision, a remote sense that Armageddon might be just around the corner. Any economist or investor knows that crises arise in the course of economic cycles, whether with respect to falling rates of profit or bank failures or stock market crashes. But given the ubiquity and interconnectedness of financial derivatives, a bank failure or a major corporate downturn can lead to collapses across the financial system. As the second half of 2008 and the continuing crisis makes clear, if a major investment bank collapses, the damage worldwide can be catastrophic, as nearly all other banks, investment funds, and major corporations would be directly affected. Presumably everyone in the entire world would be affected, although not always in directly visible ways, by the resulting shock waves to currency and interest rates. Already, one could argue, the ramifications of decisions made in the metropole (such as those to raise interest rates) can cause severe collateral damage in the periphery; derivatives traded by a keystroke in London or New York can affect the price of food and clothing in Kuala Lumpur and Quito. The specter of risk not only haunts those who have no control over -- indeed, no idea of -- what is really going on in the intricate skein of global finance, but it also spooks those who are intimately involved in the sort of transactions that require the use of derivatives. Famously, Warren Buffett, the chairman of the gargantuan insurance and investment company Berkshire Hathaway, has referred to derivatives as "time bombs, both for the parties that deal in them and the economic system." He concluded in 2002 that "derivatives are financial weapons of mass destruction, carrying dangers that, while now latent, are potentially lethal."[20]

Late capitalism, which we can now identify at least in part by its essential, characteristic deployment of a vast array of complex financial derivatives in the global market, maintains itself in a state of perpetual crisis. This will not be news to classical Marxism. Marx and Engels noted in 1848 that "Constant revolutionizing of production, uninterrupted disturbance of all social conditions, everlasting uncertainty and agitation

distinguish the bourgeois epoch from all earlier ones."[21] But the generalized unease is enhanced by the speed and intensity with which financial derivatives have transformed and continue to transform the very system we are still trying to comprehend. The angst occasioned by derivatives, and by this frighteningly intertwined network of global financial relations that is the current world system, is perhaps compounded by its fundamental unrepresentability. Much like the horror film whose dark, unseen terrors fill the viewer with dread a hundredfold more terrible than the most ghoulishly depicted fiend, the gut-feeling that something horrible and completely beyond our control or even our comprehension is happening seems to affect cultural analysis of such a world system. How does one understand, much less fight against, such an overwhelming system, a system that seems both omnipresent and inevitable, as oppressively ubiquitous in its effects as it is minutely efficient, determining the grand shifts of history as well as the most capillary practices of quotidian experience (such as purchasing goods)?

This of course returns us to that crisis of representation that infuses the modern world in which "all that is solid melts into air . . ." If, in Marx's day, it was difficult to discern to true relations among men embedded in the form of the commodity, and if such inscrutability then extended to the inability to find one's place within the world in which commodity production and exchange predominated -- that is, the existential dilemma of interpolating one's self in the world, -- then how terrific is the necromancy of postmodern finance, where the "thing itself" has no use value or may not even exist (at least, its existence matters little to the actual parties involved)? With late capitalism, the crisis of representation that occasions the advent of the modern world reaches shocking new levels. "How does one [even] know about, or demonstrate against, an unlisted, virtual, offshore corporation that operates in an unregulated electronic space using a secret proprietary trading strategy to buy and sell arcane financial instruments?"[22] How indeed? So vast and so nebulous a world market, the trade in financial derivatives seems almost a virtual market, except that it has such devastating real world effects.[23]

Recently it has become somewhat fashionable to say, after Jameson (or is it Žižek?), that it is easier to imagine the end of the world than the end of capitalism.[24] One might add that, from the standpoint of representation itself, it is easier to imagine the end of the world than to get a clear sense of *actually existing* capitalism. The "metaphysical subtleties and theological niceties" of the global derivatives market require totally new levels of demystification, and the task of thinking the system may require renewed efforts to map the increasingly subtle and pervasive effects of the world system and the role of financial derivatives in it.

Cognitive Mapping on a Global Financial Scale

In identifying the peculiarly postmodern crisis of representation, Jameson famously outlined an aesthetic of cognitive mapping as the appropriate way of grappling with it. Combining Kevin Lynch's analysis of alienation and urban spaces in *The Image of the City* with Louis Althusser's recasting of ideology as an imaginary solution to real problems, Jameson invokes a practice of cognitive mapping that would "enable a situational representation on the part of the individual subject to that vaster and properly unrepresentable totality which is the ensemble of society's structures as a whole."[25]

Jameson notes that the alienation -- including a real sense of being lost -- which Lynch had found in the narrower parameters of the modern city becomes much more acute when the individual subject must try to comprehend the larger social totality. Cognitive maps would necessarily be figural, inasmuch as they could not be faithfully mimetic representations of social space, but they would enable one allegorically to make sense of that space. From an existential perspective, such mapping allows the individual to understand his or her place in the otherwise unrepresentable constellation of power relations within this utterly perplexing *Lebenswelt*.

Jameson posits that each stage of capital has produced a type of social space unique to it. For early, market capitalism, such a space adhered to the logic of the grid, "the reorganization of some older sacred and heterogeneous space into the geometrical and Cartesian homogeneity."[26] Foucault's *Discipline and Punish* describes such an early modern landscape, and the cultural processes associated with the Enlightenment -- the desacralization of the world, a scientific revolution, the imposition of "realism" over traditional or mythical structures of feeling -- relates to the new organization of space. With the transition from market to monopoly capitalism or the age of imperialism, Jameson sees a growing contradiction between lived experience and the structures which are the conditions for the possibility of that experience. In pre-capitalist (and perhaps market-stage capitalist) societies, one's daily life is more or less visibly connected to the conditions for its existence; that is, one might not have owned the cow that produced the morning milk, but one probably knew the person who did. In the age of imperialism, the truth of one's individual experience "no longer coincides with the place in which it takes place."[27] An individual's experience of London, say, is bound up with an larger colonial system, where the essence of one's experience might be found in Jamaica or India. "Yet," as Jameson notes, "those structural coordinates are no longer accessible to immediate lived experience and are often no longer conceptualizable for most people."[28] Under late capitalism, where even the nearly unrepresentable system of nation-states has broken down and the imaginary community of the nation-state form is no longer itself the model for organizing social spaces, the situation is all the more confused and confusing. The suppression of distance, the saturation of all remaining empty spaces, and the perceptual barrage of imagery in the high tech, international or global economy of the postmodern era, Jameson concludes, produces new spaces and requires new ways of mapping them.

Taking into account Giovanni Arrighi's theory of "internal stages" of economic cycles in *The Long Twentieth Century*, Jameson has updated his argument on the logic of late capitalism to include a more explicit look at finance capital. Although he does not make reference to derivates, the system he identifies is driven by them:

> Speculation, the withdrawal of profits from home industries, the increasingly feverish search, not so much for new markets (these are also saturated) as for the new kinds of profits available in financial transactions themselves and as such -- these are the ways in which capitalism now reacts to and compensates for the closing of its productive moment. Capital itself become free-floating. It separates from the "concrete content" of its productive geography. Money becomes in a second sense and to a second degree abstract (it always was abstract in the first and basic sense): as though somehow in the national moment money still had a

> content -- it was cotton money, or wheat money, textile money, railway money and the like. Now, like the butterfly stirring within the chrysalis, it separates itself off from that concrete breeding ground and prepares to take flight.[29]

The postmodern crisis of representation outlined in Jameson's broad, historical discussion of spaces of capital can now be seen to be grounded in a global system of financial exchange and circulation that seems to lack any permanent or solid landmarks.

It is clear that one of the distinguishing features of the postmodern condition is the prevalence of new forms of finance, including and perhaps especially the proliferation of financial derivatives that have come to determine the global economic system. If "mapping" the system were difficult when one's lived experience of tea-time in London no longer coincided with the realities of sugar production in Jamaica or tea cultivation in India, how much more alienating and unrepresentable is the condition of a world in which the unregulated, over-the-counter transactions of unknown, offshore hedge funds might determine the value of one's life savings (as has happened in Argentina and elsewhere)? The abstract system in which financial derivatives operate seems particularly unmappable. In fact, as LiPuma and Lee point out, "the culture of derivatives posits itself as a space lying beyond the power of representation."[30] That is, the very people directly engaged in developing and trading in derivatives often view the financial system in which derivatives operate, and which those derivatives also play their part in creating and maintaining, as a *supra*-subjective, almost *natural* set of phenomena, dictated by the impersonal mechanisms of quantification and mathematics, functioning like the laws of physics largely outside of the sphere of human intervention. (Here one might also draw connections to Georg Lukács's analysis of *reification* in *History and Class Consciousness*.)[31] Even worse, such a view promotes a well nigh mystical view of finance, as if magic actually has staged its historic comeback over and against the forces of capitalist Enlightenment that had suppressed it. As noted above, when the derivative becomes the baseline measure of value for the commodities or other items from which *its* value was thought to derive (by definition), perhaps some bizarre necromancy is at work.

"The political form of postmodernism," Jameson had concluded in his original 1984 article, "will have as its vocation the invention and projection of a global cognitive mapping, on a social as well as a spatial scale." Jameson later conceded that *cognitive mapping* was really a code word for a new, more spatialized, kind of class consciousness.[32] To this might be added that the figural representation of one's phenomenological relationship to the global totality (that is, one's cognitive map) must attempt to take into account the vast and seemingly incomprehensible system of financial derivatives. What is also clear is that derivatives are not simply another kind of commodity introduced into a system, but are an integral part of how capitalism works today. Just as outmoded maps are not very useful to the traveler seeking guidance, outmoded views of how the system functions only obfuscate an already unclear picture. Jameson has suggested that "all thinking today is *also*, whatever else it is, an attempt to think the world system as such."[33] This now necessarily involves thinking the global system of financial derivatives, which subtly and often secretly conditions the way in which envision ourselves and our relations with the world.

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Notes

[1] Dick Bryan and Michael Rafferty, *Capitalism with Derivatives: A Political Economy of Financial Derivatives, Capital, and Class* (New York: Palgrave, 2006), 213.

[2] Karl Marx, *Capital: A Critique of Political Economy*, Vol. 1, trans. Samuel Moore and Edward Aveling (New York: Random House, 1906), 81.

[3] Marx, *Capital*, 83.

[4] For a classic analysis of the links between commodity fetishism, alienation, and the theory of value in Marx, see Isaak Illich Rubin, *Essays on Marx's Theory of Value*, trans. by M. Samardzija and F. Perlman (Detroit: Black and Red, 1928). See also http://www.marxists.org/archive/rubin/value/index.htm.

[5] According to the Bank of International Settlements (BIS) Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity 2004 -- Final Result, Basel, 17 March 2005. See Bryan and Rafferty, 40.

[6] For people of my generation, the iconic image of commodities trading is the fictional Duke brothers in the 1984 film, *Trading Places*. As wealthy investors who try to "corner" the frozen orange juice market, they have no real interest in the underlying commodity (with a few screenplay edits, the product could have been coffee, pork bellies, or what not). Investors such as the fictional Dukes represent a far larger segment of the commodity derivatives market than the parties directly involved in using the commodities.

[7] Bryan and Rafferty, 40.

[8] Bryan and Rafferty, 13.

[9] According to the International Derivatives and Swaps Association (ISDA), 2006 Year-End Market Survey.

[10] Bryan and Rafferty, 48-49.

[11] See David Harvey, *The New Imperialism* (Oxford: Oxford University Press, 2003), 147.

[12] See Edward LiPuma and Benjamin Lee, *Financial Derivatives and the Culture of Risk* (Durham, NC: Duke University Press, 2004), 38-43.

[13] LiPuma and Lee, 39.

[14] In my brief experience working in the securitization and derivatives group in an international law firm, I certainly saw more "exotic" derivative transactions. Indeed, the example cited by LiPuma and Lee involves almost entirely "plain vanilla" swaps.

[15] LiPuma and Lee, 40.

[16] See Ernest Mandel, *Late Capitalism*, trans. Joris De Bres (London: Verso, 1975).

[17] See Roger Lowenstein, *When Genius Failed: The Rise and Fall of Long Term Capital Management* (New York: Random House, 2000). Similarly, when Enron's bond rating was lowered, this triggered large numbers of derivative contracts, including those well outside of the energy sector of the economy; the contracts had been tied to Enron precisely because Enron's debt rating seemed stable.

[18] Warren Buffett, in a recent letter to the shareholders, has compared the use of derivatives with the spread of venereal diseases, suggesting that derivatives traders engage in promiscuous, unprotected "sleeping around": "a frightening web of mutual dependence develops among huge financial institutions. . . . Participants seeking to dodge trouble face the same problem as someone seeking to avoid venereal disease: It's not just whom *you* sleep with, but also whom *they* are sleeping with." See Letter to Shareholders of Berkshire Hathaway Inc. (February 27, 2009), 17-18. http://www.berkshirehathaway.com/letters/2008ltr.pdf.

[19] LiPuma and Lee, 39.

[20] See Warren Buffett, Berkshire Hathaway 2002 Annual Report, 13-15.

[21] Karl Marx and Friedrich Engels, *The Communist Manifesto* (New York: Penguin, 1998), 54.

[22] LiPuma and Lee, 2.

[23] Of course, even virtual markets, or markets in virtual goods, have real-world effects. In a recent article, Julian Dibbell describes the life of a Chinese "gold farmer," a postmodern vocation in which Chinese workers play the massive, multiplayer online video game, *World of Warcraft*, in order to collect gold pieces and equipment that can be sold to American and European players for use in their own game play. That is, the grunt-work of traditional role-playing games -- the "grind" as *Warcraft* aficionados call it, whereby the player must collect virtual money by killing enemies (who often drop gold pieces upon death), making potions or weapons, or finding items to sell -- has been outsourced to what the gaming community has colorfully nicknamed "gold farms." This tedious but necessary aspect of the game play requires hours of effort, during which much of the overarching "plot" of the game's narrative – solving quests, killing "bosses" (i.e., what game players call chief enemies), and so on – remains on hold. It is somewhat understandable, therefore, that certain players might prefer to have someone else perform

these tasks and get on with the story with a full coin-purse. But this says something about the culture of the modern or postmodern West; even at leisure, while playing a game for one's own amusement, many in the First World are too busy to play the game the way it is designed to be played. Play itself is too much like work, and that work can be efficiently accomplished by Third World labor. According to Dibbell, this industry employs an estimated 100,000 workers in China, and the real-world trade in virtual money and goods for role-playing games is about $1.8 billion. See Dibbell "The Life of the Chinese Gold Farmer," *New York Times Magazine* (June 17, 2007); see also Alberto Toscano, "From Pin Factories to Gold Farmers," *Historical Materialism* 15 (2007): 3-11.

[24] Of course, it is also important to note the second half of Jameson's observation: "It seems to be easier for us today to imagine the thoroughgoing deterioration of the earth and of nature than the breakdown of late capitalism; perhaps that is due to some weakness in our imaginations." See Fredric Jameson, *The Seeds of Time* (New York: Columbia University Press, 1994), xii.

[25] Jameson, *Postmodernism, or, the Cultural Logic of Late Capitalism* (Durham, NC: Duke University Press, 1991), 51.

[26] Jameson, *Postmodernism*, 410.

[27] Jameson, *Postmodernism*, 411. Franco Moretti has demonstrated how this process can be viewed in the changing social geography of nineteenth-century European literature. See especially his discussion of "village stories" in *Graphs, Maps, Trees: Abstract Models for a Literary History* (London: Verso, 2005), 35-60.

[28] Jameson, *Postmodernism*, 411.

[29] Jameson, "Culture and Finance Capital," in *The Cultural Turn: Selected Writings on the Postmodern, 1983–1998* (London: Verso, 1999), 141-43.

[30] LiPuma and Lee, 65.

[31] See Georg Lukács, *History and Class Consciousness: Studies in Marxist Dialectics*, trans. Rodney Livingstone (Cambridge: MIT Press, 1972), especially 83-110.

[32] Jameson, *Postmodernism*, 54, 418; Jameson's original article appeared as "Postmodernism, or, the Cultural Logic of Late Capitalism," *New Left Review* 146 (July–August 1984): 59-92.

[33] Jameson, *The Geopolitical Aesthetic: Cinema and Space in the World System* (Bloomington: Indiana University Press, 1992), 4.

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