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Time, Communication, and Financial Collapse

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This article begins with a time-related critique of the financialized capitalism which took shape in the 1980s and 1990s. Financialized capitalism was riven by temporal contradictions and inbuilt uncertainties which were obscured, yet magnified by, mediated fusions of money, information, and economic activity. In this context, I consider the gathering imminence of the 2007–2008 finance collapse. Four interrelated causal factors are identified: the financial-strategic influence of the Wall Street investment bank model, the securitization of Anglo-American household debt, massive trading in mortgage derivatives, and the growing capacity of mass media and the Internet to magnify financial uncertainties. The article next traces the technologically-mediated reflexivity of financial panic. Finally, given a financial world of imminent danger and inevitable collapse, I consider the general myopia of the Anglo American financial media.

The 2007–2008 global financial crisis gives rise to a number of time-related perspectives and explanations. The collapse and/or rescue of major investment banks, the freezing of inter-bank liquidity, and the resulting impact upon stock markets, production systems, national economies, and workforces reveal key developments which are constitutive of epochal time. I refer here to the emergence and proliferation of neo-liberal policy regimes, the globalization of financial activity, the financialization of Western capitalism, and the historic convergence of computer processing, telecommunications, and mass media technologies.

These developments are intricately connected in ways which invoke another time-related perspective; that of time reckoning. Within given epochs, one must ask how is time divided, measured, and otherwise standardized for human use? The global dimensions of this process have been periodized by social theorist Barbara Adam. The growth of industrial capitalism after 1850 positioned clock time as the primary measure of productivity, cost, and profit. Disciplined workers were expected to respond accordingly (Thompson, 1967, pp. 57–97). Bankers, accountants, and retailers instinctively equated clock time with monetary value. And, the standard demarcations of clock time were exported worldwide through

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the establishment of railway and steamship networks (Adam, 2004, pp. 111–117). In 1884, the inaugural International Meridian Conference agreed to standardize time zones across the globe (Adam, 2004, p. 112). However, clock time regimes had to absorb the arrivals of wireless telegraphy, telephony, and radio broadcasting. With these innovations, speed of transmission transcended the durational and sequential properties of clock time.

During the 1970s and 1980s, satellites, computers, and microchip technologies increased the scale and density of electronic communication. From the early 1990s, digitalization precipitated the transformation of print, speech, data, and audio-visual materials into binary code. Sound, information, and imagery could then be routinely transmitted at a speed which transcended the frictions of physical geography and the reckonings of clock time. Accordingly, Adam describes ICT-generated time as instantaneous rather than durational, simultaneous rather than sequential, and globally networked rather than globally zoned (Adam, 2004, pp. 128–136; 2007, p. 41). It was this kind of time reckoning which underpinned the globalization of financial activity and the financialization of capitalist economies.

Manifestations of inter-networked instantaneity and simultaneity, or real time, require a temporally informed critique. Here, temporality refers to the indivisibility of past, present, and future. In this context, one might observe time as a progressive advance from past to future. Within felt life, however, one might experience a flow of time which arises from the future and passes into the present before receding into the past. The ways in which the past is evoked, preserved, or selected is open to change and variation across social groups. Additionally, perceptions of the past, in relation to the present, shape anticipatory imaginings of the future. How these various manifestations of temporality play out, in given circumstances, is the subject of historical-hermeneutic and social scientific research. Crucially, the drive toward inter-networked real time does not allow the past to act upon the present, and it precludes discussion about alternative futures. Detemporalized manifestations of real time, therefore, are inherently myopic and bereft of learning capacity. These are the cardinal features of unregulated, high-speed financial networks.

From these understandings of time, I will historicize the emergence of financialized capitalism and identify inbuilt contradictions and uncertainties. I will illustrate their magnification in the case of Long Term Capital Management (LTCM); a fragile global hedge fund which almost brought down the financial system in late 1998. The second part of this paper traces the gathering imminence of the 2007–2008 financial collapse. Critical writings on the growth of investment banks, household debt securitization, mortgage derivatives trading, and ICT-facilitated financial speculation will inform the narrative. From here, the paper considers the transnational emergence of financial tremors and the technologically-mediated reflexivity of financial panic. Finally, I consider the general short-sightedness of Anglo American financial media as financial collapse became imminent.

Epochal Time, Time Reckoning and Temporality: The Emergence of Financialized Capitalism

During the 1970s, monetarism, public choice theory, supply-side economics, and Hayekian neoliberalism began to influence Western policy elites. Eventually, Keynesianism, full employment, the universalist welfare state, and neo-corporatist class compromise were deemed to be unsustainable. Successive governments had over-regulated the economy, stifled private sector initiative, tolerated unionism, and fostered unrealistic expectations about what the economy could deliver. The countervailing left perspective suggested that the changing requirements of capital accumulation had undermined the prevailing order. However, the emergent orthodoxy espoused by financiers, corporate executives, governing elites, and mainstream journalists was that the prevailing order threatened market freedom. The elections of Margaret Thatcher in the United Kingdom (1979) and Ronald Reagan in the United States (1980) initiated the proliferation of neo-liberal policy agendas committed to the deregulation of national economies, the privatization of state assets, and the commercialization of public institutions (Harvey, 2005, pp. 19–26). In the developing world, International Monetary Fund and the World Bank Group (IMF-World Bank) structural adjustment programs undermined the import substituting, state-led development model. With the collapse of Eastern-bloc Communism after 1989, neo-liberalism delivered full-scale privatization of state assets, reductions in social services, and disinvestment from the infrastructures of electricity, heating, sewage, and railway transportation.

Worldwide, neo-liberalism facilitated the growth of transnational corporations and the globalization of financial activity. These tendencies were intimately related; financial interests were the initial drivers of transnational capitalism. This kind of capitalism was financially structured, inherently volatile, and entirely dependent on the timeworlds generated by information and communication technologies (ICTs). This section will give historical and temporal context to such observations.

ICTs, Real Time, and the Globalization of Finance

The emergence of neo-liberalism activated the mutual expansion of ICT infrastructures and finance capital. This story begins with the United States' 1971 decision to suspend the convertibility of dollars into gold. After dollar convertibility ended, credit expansion was no longer tied to national currency reserves. Internationally, public control over exchange rates and capital movements could not be sustained. Consequently, private financial institutions were able to generate credit beyond state regulation. Furthermore, when the U.S. funded its deficits by pouring dollars into the international financial system, European banks began to accumulate dollar-denominated deposits outside of national jurisdictions. American banks did the same in order to escape federal financial regulations (Beeson, 1998, p. 84). The Eurodollar market which emerged eventually became part of a vast, stateless banking system. The major players offered syndicated loans, international securities, currency trades, forward exchange contracts, options, and futures. Financial institutions, as such, concentrated their wealth, diversified their portfolios, and established branches in cities worldwide. The likes of Citicorp, Warburg, Merrill Lynch, Goldman Sachs, Barclays, and Credit Suisse First Boston exemplified the new forces of global capitalism (Martin, 1994, pp. 253–278).

The globalization of finance capital necessarily depended upon electronic networks. They were created out of satellites, computers, microchip circuitry, and, eventually, the Internet. Ongoing advances in telecommunications (satellite, cellular, optical fiber) extended and accelerated informational and monetary transfers between computer terminals. Specific technological advances included high-speed Internet link-ups enabling stockbrokers, institutional traders, and personal investors to buy and sell shares concurrently in different stock exchanges. Similarly, fund transfers among banks became coordinated by the Society for Worldwide Interbank Financial Telecommunications (SWIFT). This international facility became jointly owned by over 1,000 banks reliant upon interbank funds transfer (Singh, 2000, pp. 11–

33). Together, these advances created an unprecedented economic environment; multiple currency units and complex financial assets worth trillions of dollars became traded globally in real time.

From the mid-1980s, the most important financial innovation was derivatives. Traditionally, these took the form of futures contracts; agreements to buy or sell a stock, bond, or commodity at a future date at an agreed price (Strange, 1998, pp. 29–30). With the disintegration of the Bretton Woods' currency system and the international deregulation of interest rates, currencies and currency relativities became tradable derivatives. Subsequently, different forms of capital asset could also be subject to a derivatives contract. The unfolding price discrepancies between a government bond, a block of shares, a financial security, or a physical commodity could be the raw material for a futures contract (or a related trade) between willing parties. In short, any commodifiable manifestation of capital was tradeable across time and space. After Bretton Woods, derivative-based trading, or hedging, became a routine risk management strategy for transnational corporates, merchant importers, export producers, and financial institutions themselves. As political economists Dick Bryan and Michael Rafferty point out, "The decline of Keynesianism and its way of managing a range of risks permitted greater flexibility into price relations but bought forward the need for means other than the state to fix the future to the present" (Bryan & Rafferty, 2006, pp. 7–8).

Within financialized capitalism, however, fixing "the future to the present" could also be a means of financial speculation. The modeling of price movement parameters across a range of capital assets (bonds, currencies, equities, property) allowed corporate traders, institutional investors, specialist hedge funds, and investment banks to develop lucrative risk-return strategies. The precariousness of speculative trades was heightened by the arrival of credit derivatives in May 1997. These allowed banks to price and sell the risk that a borrower might default. Such deals were usually subject to rules imposed by a clearing house, such as the London International Futures Exchange. They maintained records of transactions between parties, daily trading volumes, price fluctuations, and profit-loss ratios for individual dealers. By contrast, over-the-counter derivatives trading (OTCs) avoided clearing houses and the intrusions of national regulators. Parties to such transactions had to determine market trends and individual debt exposures for themselves (Strange, 1998, p. 32). Speculators favored OTCs because the prospect of windfall profits could be leveraged from an outlay worth less than the underlying asset.

Clearly, the financial technology of derivatives entails probabilistic attempts to model the future. However, as Jakob Arnoldi argues, the future in this context is not simply a yet-to-arrive manifestation of technical knowledge; in a virtual sense, the future is pulled into the present (to be assigned a monetary value). More specifically, the technology of derivatives, as part of the financial system, brings to hand ever more risks and uncertainties. Uncertainty thus becomes a necessary resource for technologized derivatives trading and a constitutive feature of the real-time present (Arnoldi, 2004, pp. 106–107). This creates a dangerous misperception. Uncertainties about the future appear calculable and manageable to market participants, yet the underlying, less apparent notion of uncertainty refers to non-calculable future volatilities that are beyond prediction (Langley, 2008, p. 481).

The Temporal Contradictions of Financialized Capitalism

Contemporary global capitalism contains an inherent contradiction. On one hand, converging digital technologies enable major capitalist enterprises to exploit the capacities of real-time

communication networks. Profit is a function of the drive toward inter-networked simultaneity. Financiers, corporate executives, industrial designers, and marketers seek to reduce or eliminate seguential lags of time. The net result is a contraction in the temporal horizons of profit and a general acceleration of economic activity. On the other hand, capitalism must reproduce itself over time. All capitalist economies, capitalist sectors, and business organizations must acknowledge the temporalities of duration, sequence, planning, and chronological ordering (Hope, 2009, p. 64). This general contradiction was sharpened by the macro-economic impact of neo-liberal policies. The financialized acceleration of profit-making clashed with longer-term processes of capital accumulation. In the latter context, money capital is realized through production, productive capital is realized in commodity form, and commodities are realized as money (Marx, 1970, pp. 148–164). In practice, however, this realization process cannot be guaranteed. Some capitalists may choose to construct their own circuit of profit making. Karl Marx identifies this tendency in Das Kapital, Volume II. The use of money to facilitate commodity exchange (C-M-C) is distinguished from the use of money to make more money via the sale of commodities (M-C-M). The latter sequence is typified by mercantilist business activities. When money lending or financial speculation occurs, M-C-M is reduced to M-M, a sequence which disrupts the capital realization process (Marx, 1970, pp. 146–155; Foster & Magdoff, 2009, pp. 91–93).

The temporal priorities of global finance influenced the structure and operation of non-financial corporations. In the United States during the 1980s, institutional equity investors and share analysts came to assess corporations according to divisional profit rates, quarterly reports, and share price projections, rather than general yearly performance. Hostile takeover firms broke up conglomerates and rearranged component parts according to market valuations. In this environment, the shareholder value calculations of investors and analysts shaped corporate governance and strategy (Zorn & Dobbin, 2005, pp. 269–289). Increasingly, corporate performance depended on whether it could meet or beat profit and share price projections. As with finance culture itself, this represented a collapse of the future into the present; a mode of operation reinforced by the arrival of faster accounting technologies and the trend toward quarterly earnings reports. At the same time, specialist teams of analysts frequently announced buy and sell recommendations. The general result was equities share price volatility and a short-termist culture of corporate governance.

The temporal contradictions of global capitalism are not simply reducible to the formula of finance versus production. Temporal contradictions also play out within capitalist sectors and institutions. Thus, within banking and finance, volatile, time- sensitive M-M circuits of profit maximization have regularly illustrated the need for reliable settlement systems and shared rules of risk management. The Asian currency crisis of 1997, for example, highlighted the necessity for management of the investment banking system. In Koln, Germany, in June 1999, central bank governors and finance ministers at the G7 Summit sought to standardize commercial and investment dealings with hedge funds, regulate offshore financial centers, and contain short-term lending to peripheral economies (Rude, 2005). These measures were central to a proposed international financial architecture designed to make timely information about particular markets and economies available to investors. The reliability of this information would depend on the implementation of codes of good practice for all corporate business activities. This, in turn, would require appropriate standards for the functioning of the private financial system (i.e., accounting, auditing, bankruptcy procedures, insurance payments, and settlement systems). Although these proposals did not

come to fruition, there was at least a general realization among regulators that fast-money profit-making conflicted with the slower accumulation strategies of prudent international banking.

Mediated Fusions of Money, Information, and Economic Activity

Once neo-liberal governments of the 1980s and 1990s deregulated banking, credit flows, and exchange rates, the rapid movement of finance capital blurred with the technological means of that movement in the form of electronic money (Wark, 1994, p. 171; Strange, 1998, pp. 24–25). Increasingly, global finance was mobilized by business information networks which were interconnected with public news networks. During financial booms and crashes, bitstreams of information and imagery would jump from network to network, such that news flows and financial flows overlapped in real time.

Within public news networks, media representations of economic activity helped to constitute that activity. Previously, under Keynesian or developmentalist governments, academic economists, private sector forecasting groups, and public servants provided the referent space of the national economy. News journalists relayed statistical and normative indicators of economic performance, and public debate centered around rival interpretations of growth figures, consumer price movements, trade balances, and employment levels. Once neo-liberal governments opened up national economies to global finance, bankers, traders, investors, stockbrokers, and analysts became the primary sources of economic information. The various agents that served to define, index, and narrate the categories and rules of the (financially driven) economy effectively constituted the economy by providing the flows of information that represented it (Wark, 1994, p. 206). At the same time, the worldwide commercialization and deregulation of national broadcasting systems encouraged the spread of advertising and infomercials which promoted finance and investment culture. In this environment, electronically mediated depictions of financial activity were self-validating expressions of free market ideology.

Meanwhile, as I have indicated, the time world of financial transactions fused with the time world of television-dominated public news networks. These worlds were conjoined by the routine activities of major business-financial news brokers, such as Reuters and Bloomberg. They offered multiple streams of news and information worldwide to the financial press, business magazines, daily newspapers, radio stations, television channels (and their Web sites), and specialist clients (traders, analysts, and investors). Simultaneously, global television news programs presented unfolding information about currencies, equities, bonds, and futures. Such information was also disseminated by specialist business/finance channels in national and pan-regional news markets. During the 1990s, such channels proliferated, merged, and formed strategic alliances with cable networks and terrestrial broadcasters (Arrese & Medina, 2003, pp. 59–76; Shrikhande, 2004, pp. 38–52).

Overall, real-time communication networks conjoin the activities of financial-business journalists, market traders, and market analysts. Interlinked major players across all of these groups respond to financial-information flows which are endogenously generated. As media researcher Peter Thompson has demonstrated, fluctuating price movements across a full range of markets are shaped by the participants themselves. Traders in equities, foreign exchange, derivatives, convertibles, and securities glean information about market trends and the motives of other market actors. This information feeds back into trading or investment decisions which may accelerate or magnify price changes. In this environment, market participants routinely make buy- and sell-decisions based on expectations of future prices. These

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expectations are also shaped by incoming analyst reports and by updating financial news content from specialist media outlets (Thompson, 2003, pp. 34–37; 2004, pp. 14–18).

The real-time feedback loops that proliferate then contribute to the growth and collapse of speculative bubbles. Such was evident during the demise of Long Term Capital Management. This secret hedge fund, established in the early 1990s, attracted large amounts of investment capital and huge loans from major banks in order to buy undervalued futures and sell overvalued futures across a range of assets (bonds, shares, currency relativities, commodity prices). If one part of the portfolio lost value, another would at least gain in proportion. Additionally, LCTM sold derivatives futures/options contracts to counterparties (who were willing to pay more, to insure against unfavorable market movements, than LCTM's models deemed necessary). Over time, losses from short-term market fluctuations would be outweighed by returns as asset differentials converged (when this occurred, profits were gained from riskaverse investors who had paid considerable sums to offload their risk onto LCTM). During 1995 and 1996, LCTM leveraged massive profits from bank loans worth 28 times its collateral base (Thompson, pp. 34-35). From August 1998, LCTM's position deteriorated as follows. First, the collapse of the Russian Ruble and the imposition of temporary foreign exchange controls caused investor panic. Ruble-related derivative positions were offloaded to an extent unanticipated by LCTM's models. Secondly, the prices of those assets and securities which were modeled to diverge converged instead. Other institutions had tried to replicate LTCM's portfolio and strategy. Consequently, the withdrawal from Ruble-related trades became a major global phenomenon. Thirdly, as volatility increased, LTCM had to cover the risk of losses by paying creditors more. This requirement exposed LTCM's over-the-counter derivatives deals to public scrutiny. LTCM's worsening positions were thus globally communicated to creditors and counterparties. The disposal, or rumored disposal, of LTCM-connected assets and securities became self-reinforcing. As Peter Thompson has noted, "the problem here was that high-volume selling of the assets/securities LTCM heldwhether by LTCM or another party-might itself move the market, reducing the value of LTCM's portfolio and bringing the prophecy of its collapse closer to fulfillment" (Thompson, 2003, p. 37).

Eventually, the U.S. Treasury Department and Federal Reserve prevented a full-scale financial collapse. Nevertheless, the LTCM debacle presciently revealed that, in times of financial volatility, "the communication and collective perception of crisis or systemic risk" could become "a constitutive aspect of their reality" (Thompson, 2003, p. 37).

Speculation, Uncertainty and Myopia: Heading Toward Financial Collapse

The preceding account has considered the real-time logic of technologized financial flows, the inbuilt uncertainties of speculative derivatives trading, the temporal contradictions of M-M investment circuits, and the reflexive volatility of an electronically mediated, financialized economy. Together, these tendencies contributed to the Russian, Brazilian, and East Asian currency crises of the 1990s, the LTCM debacle of 1998, and the boom-bust of Internet-media-telecommunication stocks from 1995–2000. Subsequently, financialized capitalism *as such* faced the prospect of collapse. I will now detail this worsening predicament and explain why financial dangers were allowed to accumulate. There are four contributory factors to consider: the power of investment banks, the securitization of household debt, the spread of mortgage derivatives, and the facilitating role of ICTs and the news media.

Investment Banks

Under neo-liberalism, financial deregulation transformed the structure and operations of investment banks. Conversely, the transformation of investment banking drove the financialization of capitalism. In this context, Peter Gowan focuses upon the emergence of a "new Wall Street system" (Gowan, 2009, pp. 7-13). Traditionally, investment banks engaged in lending, funds management, and trading on behalf of clients. Meanwhile, commercial banks eschewed securities trading altogether. From the mid-1980s, investment banks undertook proprietary trading in financial and other assets while lending to other bodies for their trading activities (e.g., hedge funds, private equity groups, special investment vehicles). This lender-trader strategy did not supersede traditional banking activities. However, as Gowan notes, these activities acquired a new significance in that they provided the banks with vast amounts of real-time market information of great value for trading purposes (ibid., pp. 8-9). Trading activity here means buying and selling all kinds of financial and 'real' asset derivatives to generate, and then exploit, unfolding price differentials. This kind of speculative arbitrage became a central focus for investment banks (and for commercial banks, too, once the Glass-Steagall Act was repealed in 1999). In this respect, Gowan identifies a standard Wall Street strategy which became the rationale for top-echelon investment banking worldwide. The steps are to first, enter a particular market to generate a price bubble; second, make large speculative profits; third, withdraw, collapse the bubble, and enter a new market (ibid., pp. 9-10). This sequence accounts for the crucial, underlying role of investment banks in the 1990s currency bubbles (in the United Kingdom, Russia, Mexico, and South East Asian economies), the late 1990s dot-com boom, and the early 2000s housing bubble (especially in the United Kingdom and the United States). Critically, Gowan notes that arbitrage and bubble-blowing required banks to mobilize huge funds by maximizing their leverage ratio. Thus, if the securities and equity held by a bank rose in value relative to its debt. then further debt would be taken on to purchase more securities (so as to maintain the leverage ratio). For the bank, this tactic generated sufficient funds to move markets and shift price differentials in a favorable direction. Alternatively, however, a decline in the value of securities and equity holdings could leave the bank overleveraged and financially vulnerable (ibid., pp. 10-13).

Within the financialized capitalism they had helped to create, investment banks exploited and reinforced systemic asymmetries of commercially sensitive information. As former investment banker Philip Augar revealed six years ago, the major players operated as giant global stock exchanges. All that was "tradeable, conceivable, and legitimate—equities, bonds, derivatives, foreign exchange, commodities and mortgages—flow[ed] through their dealing rooms" (Augar, 2006, p. 107). Because lending, sales, research, underwriting, advisory, brokerage, asset management, and trading activities occurred within the same organization, specialists could work collaboratively to exploit unfolding market trends. Through their corporate advisory departments, banks quickly learned of strategic changes in the thinking of business leaders. Through their brokerage businesses, banks tracked price formation and customer flows as they happened. And, major involvement in consumer credit and insurance-selling allowed banks to anticipate significant changes in the "real" economy (ibid., p. 108). After the 1987 share market crash and the 1990s currency crises, major investment banks regularly drew together their top global traders, analysts, and business heads (including the CEO) for videoconference risk assessment meetings (ibid., p. 112). These meetings encapsulated the symbiosis between intra-organizational global communication networks and dominant market positions.

Overall, investment banking represented the institutionalization of time-sensitive M-M circuits of speculative profit-making. The temporal contradictions involved were revealed by another key facet of financialized capitalism, the shadow banking system. Investment and commercial banks were prime brokers for major hedge funds, private equity firms, and special investment vehicles (SIVs) engaged in speculative arbitrage and OTC derivatives trading. Furthermore, participants in these activities were required to hand over collateral to the banks (which then used part of this collateral to raise funds for their own speculative activities). Within shadow banking, the engineering of increasingly sophisticated financial instruments to leverage credit was designed to circumvent regulations (such as those established by the U.S. Commodity Futures Trading Commission). As George Soros states, "the engineering reached such heights of complexity that the regulators could no longer calculate the risks and came to rely on the risk management models of the financial institutions themselves" (Soros, 2008, p. 64). These observations suggest that the instantaneity and simultaneity of the speculative process, guided by computer modeling, was at odds with the slower temporal requirements of capital adequacy ratios, interbank settlement procedures, and market surveillance practices (undertaken by designated market authorities).

Securitizing Households

The fragilities and myopias of financialized capitalism did not simply unfold at a macro-level. They also shaped the everyday subjectivities and social lifeworlds of ordinary people. Leading into the 2007-2008 financial collapse, middle- and upper-middle-class homeowners throughout Anglo-America routinely internalized particular forms of neo-liberal discourse. Historically, urban or suburban home ownership exemplified the material-ideological imperatives of individualism and personal financial security. During the 1990s, many homeowners and property buyers moved away from intermediated, bank-centered loan services, and toward disintermediated buying, selling, and trading across financial markets. As Paul Langley noted four years ago, this general transition was facilitated by the emergence of Asset Based Securitization (ABS). Here, borrowings to finance the purchase of houses, cars, holidays, and consumer goods appear on lender balance sheets as "assets." Under ABS, designated pools of assets accrued to the lender are transferred to a special purpose vehicle (SPV). This vehicle facilitates the ongoing transfer of assets and issues packages of those assets as tradable securities. They can be sold to third parties under specific conditions at an agreed price. The original lender's capacity to cover the interest and principal on these securities depends upon the cash flows generated by borrower repayments. Between 1993 and 2002, U.S. asset-backed securities issues (excluding mortgage-backed securities) increased by approximately 900% (Langley, 2006, p. 285). Originators of asset-backed securities included automobile manufacturers, commercial banks, pension funds, building societies, and thrift institutions. During the early 2000s, major investment banks became primarily involved in arranging the financial structure of issuable securities and marketing them to investors. All securities were evaluated by credit rating agencies, such as Standard and Poors, Moody's, and Fitch Investors (ibid., p. 286). Amidst these developments, mortgages became the largest asset group subject to securitization. Mortgage-backed securities (MBS) involved the packaging of householder debts into commodifiable, tradable "assets." Within each package, debts were ranked according to the likelihood of repayment (prime, Alt A prime, subprime). During the 1990s, before mortgage-backed securities became vehicles for bank-driven speculation, individual borrowers were subject to credit checks and minimal deposit rules.

Ideologically, the ABS/MBS finance culture positioned upper-middle-class homeowners as neoliberal property investors. As Anglo-American property prices rose, prevailing discourses portrayed the home as an investment asset (rather than as a space of domestic security). Real estate advertising across all media, including property magazines and specialist Web sites, encouraged homeowners to remortgage and release equity in order to profit from the purchase, letting, and/or resale of further properties. Meanwhile, home improvement programs, print features, and supplements did more than promote the aesthetic virtues of renovations and extensions. The likely expectations of future buyers were also emphasized; creative home improvers were therefore potential sellers and entrepreneurs. Improving one's lifestyle was synonymous with the material gains of property investment. In the United Kingdom, mortgage equity withdrawal increased from £1.4 billion in late 1995 to £13.5 billion by early 2003. In the United States, during 2004, 23% of all house purchases were for investment purposes, rather than for owner occupation (ibid., p. 291)

These trends reveal that M-M circuits of speculative investment were built into the lifeworlds of upper-middle-class homeowners. In this milieu, debt was a manipulable investment asset, rather than a financial burden, and financial risk was equated with opportunity, rather than with insecurity. Such an outlook expedited an increase in the uncertainties that the (financial) future might bring. However, collective understanding of this tendency was precluded by the popular, mass-mediated assumption that risk could be profitably managed.

Mortgage Derivatives

Eventually, the securitization of mortgages and the leveraging of household equity converged with the financial practices of shadow banking. During the early 2000s, commercial and investment bankers found new business by converting consumer and mortgage debt into tradable securities. To finance this operation, banks themselves took on more debt, assuming that the return on securities would exceed the cost of borrowing. Between 2000 and 2005, all major investment banks, to varying degrees, set out to originate, package, distribute, and trade mortgage-related financial instruments. Increasingly, mortgage derivatives became a central feature of credit derivative markets. In short, a massive residential property bubble emerged, incorporating massive volumes of household debt. Crucially, mortgage broker salespeople vigorously pushed new subprime loans to individuals and families within Hispanic, African American, and blue-collar white communities. Print, radio, and television advertisements targeted all lower-income earners who aspired to a more comfortable lifestyle (Bruck, 2009, pp. 46–55).

In the United States, subprime mortgages grew from \$160 billion in 2001 to \$600 billion in 2006. Nationwide, the latter figure constituted 20% of all mortgage originations (Blackburn, 2008). This trend was expedited by investment banks. They purchased enormous amounts of prime and subprime mortgage debt and repackaged it into collateralized debt obligations (CDO). Each CDO contained thousands of mortgages which were ranked into ten or so tranches. As mentioned earlier, tranches could be categorized as prime, Alt A prime, or subprime, according to the risk of default. The latter category generated extra revenue from extra risk. Low-income borrowers wanting a foot on the property ladder had to pay an upfront fee, two yearly loan-renewal fees, and higher-than-average interest rates. Banks and mortgage brokers profited from the securitization of these subprime revenue streams. Furthermore, as BBC economics editor Paul Mason notes, "subprime was never confined to the riskiest borrowers: millions of Americans who could have got ordinary mortgages were pushed into taking subprime loans" (Mason,

2009, p. 89). Investment banks maximized subprime-related profit by supplying the mortgage finance required by homeowners, by taking over high-performing mortgage brokers, and by selling off CDOs either directly to bond market clients or via conduits, structured investment vehicles (SIVs), and special purpose vehicles (SPVs) (Brummer, 2009, pp. 38–39). Each of these latter entities, to a greater or lesser extent, formed part of the undeclared shadow banking system. Their commercial and speculative activities did not count against the capital requirements expected of progenitor banks (who could thereby maximize their leverage ratios). Conduits, SIVs, and SPVs were designed to tailor CDOs and component tranches for a range of purchasers, including those involved in credit derivative markets.

Tranches and CDOs were validated by the credit rating agencies. Their judgments were unobjective and unreasonably generous. Financial Times journalist Gillian Tett reveals that investment banks "constantly threatened to boycott the agencies if they failed to produce the wished-for ratings, jeopardizing the sizeable fees the agencies earned from the banks for their services" (Tett, 2009, p. 199). Correspondingly, economics writer Alex Brummer recalls that "at the height of the boom the agencies had conferred the highest AAA (triple A) rating on packages of mortgage backed securities even though they were clueless about the poisonous nature of debt inside these packages" (Brummer, 2009, p. 50). Investment banks insured securitized subprime mortgages with credit default swaps (CDSs). This instrument was variously developed in the 1990s by financial innovators at Merrill Lynch, Bankers Trust, and J.P. Morgan (Tett, 2009, p. 53). Unlike conventional insurance, CDS contracts are not directly regulated, and they can be freely traded without transferring ownership of the underlying debt. During the subprime boom, AIG, the world's largest insurance company, mass-produced CDSes for investment banks and related counterparties throughout the shadow banking sector. Under the stewardship of Joe Cassano, each CDS deal with a mortgage-holding bank could be onsold to any number of third parties. In effect, AIG's CDS division was offering multiple investors an opportunity to gamble on the viability of a single CDO. From 2001 to 2008, Cassano sold more than \$500 billion of CDS protection, of which \$64 billion was subprime-related. Consequently, AIG had insufficient reserves to cover any prospective collapse in the CDS market (Taibbi, 2009).

America's two largest home mortgage companies, Fannie Mae and Freddie Mac, also joined the subprime bubble. Originally, in 1938, Fannie Mae (the Federal National Mortgage Association) was resourced by government to provide prospective homeowners with low-cost loans from commercial banks. Two years after Fannie Mae was privatized in 1968, Freddie Mac (Federal Home Loan Mortgage Corporation) was established as a competitor. Although answerable to shareholders, both companies were expected to maintain the availability of affordable mortgages to American families. As commercial enterprises, Fannie Mae and Freddy Mac developed, sold, and guaranteed creditworthy mortgage backed securities. After 2000, they started to purchase these securities from investment banks (including some from subprime and near-subprime tranches). During 2007, as the subprime bubble stretched to its bursting point, Congress relaxed lending regulations for the two companies. Their reserve capital requirements were lowered, and the level of allowed mortgage purchases was raised. Once the mortgage backed securities market contracted, Freddie Mac and Freddie Mac doubled their market share to 80%, an outcome which severely damaged their financial position (Moseley, 2008, pp. 10–11).

In a world of shadow banking, household securitization, and speculative insurance practices, mortgage derivatives offered numerous profit-making opportunities. All major participants contributed to a precarious financial situation. In this respect, Robin Blackburn notes that the sheer complexity of CDOs

and CDSes "generates new risks: documentation risk, operational risk, ratings risk, counter-party risk, liquidity risk and linkage risk among them" (Blackburn, 2008, p. 76). From a temporal perspective, it is clear that contributors to the mortgage derivatives market collectively magnified uncertainty about what the future might bring. However, within mediated financial environments of simultaneously unfolding transactions, the consequences of growing uncertainty were not fully appreciated. Temporal awareness of accumulating risk and probable systemic risk was not publicly apparent.

ICTs and the News Media

The complex synergies of shadow banking, household debt securitization, and mortgage-based derivatives trading were globally constituted. As Jeff Langley observed in 2006, "mortgage networks have been significantly lengthened such that they typically embrace the residential suburb, high street and a financial centre on the other side of the globe" (Langley, 2006, p. 289). Writing in September 2008, as the financial bubble was collapsing, economist Robert Wade highlighted the unprecedented globality of unfolding events:

... commentators who insist that the present turmoil is simply the latest in a long line of crises driven by bubble dynamics miss the point that this time, the asset bubble was propagated across the world through securitization technology and the 'originate and distribute' model of banking which only came to fruition in the 2000s. The model encouraged high leverage, complex financial instruments and opaque markets all of which put this crisis in a league of its own. (Wade, 2008, p. 11)

The global connectivity of securitization, speculative trading, and credit expansion was reinforced by general advances in financial technology. The spread of algorithmic trading, for example, increasingly allowed computers to place orders without human intervention. A variety of algorithms became routinely employed; some looked for arbitrage opportunities between various economic indicators, others sought to implement longer-term trading strategies in search of profits. Some algorithms were designed to automatically generate trading orders from economic data releases (Chaboud, Chiquoine, Hjalmarsson, & Vega, 2009, p. 1). Elsewhere in the capitalist economy, diffusion of sophisticated Internet technologies led to an explosion of business Web sites and Web-based interactions with customers, suppliers, employees, and investors. Throughout capital markets, proliferating virtual networks of analysts, journalists, and investors reflected the growing range of interactive technologies. Discussion lists and bulletin boards were supplemented by personalizable intranets and extranets, online survey and polling tools, and virtual conference facilities. Most importantly, interactive technologies generated a financial blogosphere. Major blogs contained a mix of information, news, commentary, company analyses, and trading recommendations. Contributors included analysts, journalists, investors, former executives, and academics (Saxton, 2008).

Financial blogs helped to constitute the informational environments of financial print media and business television channels. As I have indicated, these outlets were already interlinked with national and global public news networks. The emergence of financial blogs within a multi-facetted blogosphere further accelerated the 24/7 business news cycle (Rosenberg & Feldman, 2008, p. 172). A recent survey of financial journalists in the United Kingdom found that the availability of online data increased the expectation that material would be published quickly, regardless of print deadlines and broadcast bulletins. In this regard, the editor of a Web-based business news service commented that the entire

production process of news editing, sub-editing, and copy proofing took "about two or three minutes" (Tambini, 2010, pp. 165–166). These pressures exacerbated the problem of uncertainty within financial markets and networks. In the years following the near collapse and rescue of LTCM, the necessary ICT-media infrastructures for a system-wide financial collapse became fully established.

Real-Time Unfoldings of Financial Collapse

Between 2000 and 2007, financialized capitalism eschewed temporal awareness of its own worsening predicament. There were no international efforts to regulate shadow banking or stabilize credit markets. The 2007–2008 financial collapse changed this situation. Initially, a worsening slump in CDO/CDS markets became internationally apparent. Shadow banking practices became exposed, and this threatened the entire business model of investment banks. The failure and rescue of Bear Stearns in February 2008 and the demise of Lehman Brothers in September 2008 disrupted global credit networks and triggered worldwide falls in stock prices. For the central players involved, the experience of financial collapse was intersubjective, reflexive, and inescapable. With these thoughts in mind, let us now trace the real-time unfoldings of the 2007–2008 financial collapse.

The imminence of this scenario was confirmed by a cluster of transnationally linked financial tremors. On August 2, 2007, three German banks declared their exposure to subprime mortgages. IKB Deutsche Industriebank and its affiliates had run up \$10 billion worth of loans from the U.S. mortgage sector. In response, Deutschebank, the Bundesbank, and the state-owned KFW group development bank (which had a 38% stake in IKB) provided €3.5 billion of emergency funds. Over the following months, IKB needed two further funding rescues. Saschen LB, a major player in the European shadow banking system, was the financial guarantor of Ormonde Quay, a Dublin-based investment vehicle exposed to subprime loans. When Ormonde ran into major debt that Saschen LB could not cover, a consortium of banks assembled a €1.7 billion rescue package. The third troubled bank, West LB, was also rescued after reporting difficulties from U.S. subprime mortgages (Brummer, 2009, pp. 58-59). On August 9, French bank BNP Paribas announced that three of its investment funds would be suspended. They held €700 million of subprime-related securities which could not be properly valued or qualified. The suspension announcement immediately affected European stock markets and drove down the BNP share price by 6.5% (ibid., pp. 60-61). For the European Central Bank (ECB), these concurrent financial emergencies indicated a credit flow crisis. They immediately placed a €96.8 billion line of credit into overnight money markets and made a one-day pledge to cover the funding needs of financial institutions. Over four days following August 10, the ECB delivered three extra credit installments worth €76 billion. Meanwhile, as the European credit crisis spread into U.S. money markets, the Federal Reserve put together a two-day \$62 billion rescue package. Of this, \$38 billion was directed at purchasing mortgage-backed securities (to instill confidence in their market value as collateral) (ibid., pp. 62-65).

Media, ICTs, and the Reflexivity of Panic

There was now public evidence of major problems within the Western financial system. As these problems intensified, concurrent events became transparently and simultaneously linked in real time. The plight of British mortgage lender Northern Rock illustrates the process. Founded as a building society in 1965, Northern Rock became a full-fledged bank in 1997, a top-100 stock market listing by 1999, and a prominent mortgage lender/trader by 2006. Its mortgage funds and securitization trades were primarily

sourced from wholesale inter-bank lending markets (rather than retail and business customer deposits). During 2007, as interbank liquidity worsened and wholesale interest rates rose, Northern Rock's business model became unsustainable (Brummer, 2009, pp. 7–15). This became publicly obvious on September 13, 2007, when Robert Peston, business editor of the BBC announced on a news bulletin that Northern Rock had asked the Bank of England for emergency support (Tett, 2009, p. 228). As Gillian Tett observes, this momentous news had immediate and simultaneous repercussions:

Within minutes of the BBC bulletin, consumers began logging on to Northern Rock's Web site and withdrawing their cash. The Web site then crashed, fuelling panic. The next morning Northern Rock savers flocked to the bank's branch offices, and pictures of terrified savers in a long line in front of the bank beamed on to computers, television screens, Blackberries and mobile phones across the world. By mid morning a full scale bank run was under way. Never before had so many terrified consumers and investors seen a bank run in action, in real time. Technology was helping to spread the panic. (ibid., p. 229)

On September 17, 2007, the British government publicly guaranteed all remaining Northern Rock deposits. The Bank of England would ensure the continuation of mortgage lending and assist other banks if necessary (Tett, 2009, p. 230). Eventually, on February 17, 2008, Northern Rock was taken into state ownership.

Meanwhile, on Wall Street, financiers and regulators started to recognize the systemic dangers of shadow banking. Special investment vehicles, for example, routinely issued huge quantities of notes into the commercial paper and short-term money markets without Federal insurance. These notes were backed by subprime dependent CDOs and CDSes. As property values fell and mortgage defaults rose, banks themselves wrote down hundreds of billions in non-performing loans. Inevitably, this trend raised the prospect of bank failure. Attention focused upon lender-trader, mortgage-dependent investment banks with thin capital reserves and no commercial arm to fall back on (Mason, 2009, p. 105). On March 13, 2008, Bear Stearns asked J.P. Morgan-Chase for emergency financial support in lieu of bankruptcy. Usually, Bear Stearns bought money from other investors via short-term repurchase agreements, with mortgage-backed bonds as collateral. Over January and February, raising money in this way became increasingly difficult. In response to news that Bear Stearns was in trouble, hedge funds and other investors with counterparty credit derivative exposure moved to other banks. Furthermore, the cost of purchasing CDSes against Bear Stearns' contracts had increased by 600% (over the previous 12 months). Rumors abounded that the bank was facing default on its short-term loan re-purchases (Tett, 2009, pp. 254–255). Bear Stearns also sought help from Tim Geithner of the New York Federal Reserve. Although he could not legally act as lender of last resort, the situation at hand was globally precarious. As Gillian Tett explains, "the repo market investors who had lent money to Bear included some powerful state backed Asian institutions and they were now threatening to pull their loans to all American brokers if Bear defaulted on its contracts" (emphasis in original) (Tett, 2009, p. 258). In the end, J.P. Morgan-Chase agreed to purchase Bear Stearns at \$2 a share. \$30 billion of their assets would be placed into a special commercial vehicle by the U.S. Treasury and other Federal authorities.

Against this background, William Cohan has detailed the reflexive and communicational dynamics of the Bear Stearns collapse. The trigger point came on March 5, 2008, when respected investor and

analyst Ben Sedacca announced on his Web site that "the great credit unwind is upon us" (Cohan, 2009, p. 3). He explained that banks, mortgage brokers, and hedge funds were using CDOs and CDSes to back counterparty transactions in the overnight repurchase loan markets. Sedacca pointed out that growing subprime mortgage defaults were driving up CDS costs and undermining counterparty trust. The most exposed banks were identified as Lehman Brothers and Bear Stearns. Sedacca's judgment was instantly communicated to the financial world and the broader investing public. Crucially, this created the perception that all mortgage-related assets were suspect, not just those with high default rates. As Cohan remarks, "the very word 'mortgage' was now a synonym for 'toxic waste,' or as one wag wrote, 'Financial Ebola'" (Cohan, 2009, p. 6). This general perception rapidly pervaded financial Web sites, e-mails, cell phone chatter, and the blogosphere. As perception became translated into financial behavior, the financial stability of exposed institutions weakened. And, evidence that mortgage-exposed institutions could not easily raise funds fed back into the general perception that mortgage-related products were toxic. Bear Stearns was the first major casualty of this reflexive feedback loop. On March 6, two postings from the bank's Yahoo! message board declared that insolvency was at hand. Further, such postings were received the next day. One last remnant of myopic optimism appeared on CNBC's Mad Money show. On the evening of March 6, host and hedge fund manager Jim Cramer announced that, regardless of broker sentiment, he was not giving up on Bear Stearns (Cohan, 2009, p. 14). Meanwhile, the rest of Wall Street was seized by rumors that a major European bank would no longer act as a Bear Stearns counterparty on the overnight financing market.

On March 8, a *Barron's* magazine cover story on the plight of Fannie Mae heightened financial trepidations. On March 10, the Bear Stearns stock price fell by 11%, and former CEO Alan Greenberg appeared on CNBC to rebut claims of a liquidity crisis. At this point, such public relations initiatives were entirely counterproductive; announcements that all was well reinforced perceptions that the bank was in terminal difficulty. On the same day, rumors spread that a federal regulator was phoning particular banks and asking pointed questions about their exposure to Bear Stearns. Recipients of these calls told their traders to exit all Bear Stearns-related trades. Furthermore, hedge funds with Bear Stearns exposure placed derivative bets on the likelihood of a falling stock price. Rumors of such trades further pressured the stock price and further increased the cost of CDS protection (Cohan, 2009, p. 21). As I have outlined, J.P. Morgan-Chase and the New York Federal Reserve absorbed and redesignated Bear Stearns assets in the face of threatening Asian creditors. These events pointed to a new global template for financially reflexive feedback loops.

The Bear Stearns arrangement proved to be a short-term palliative. Five months later, a concatenation of financial events almost triggered a massive, system-wide collapse. On September 7, U.S. Treasury Secretary Henry Paulson announced that the Federal government was taking over Fannie Mae and Freddy Mac. They held 50% of the \$12 trillion residential mortgage market. On Friday, September 11, Lehman Brothers reported a \$3.9 billion loss following \$7.8 billion of credit write-downs (Brummer, 2009, pp. 232–233). The likelihood of an enormous financial failure bought together a weekend meeting of senior bankers and regulators. Under the tutelage of Treasury Secretary Henry Paulson, the bankers were, variously, assigned three tasks. They had to measure the capital deficiencies of Lehman's real estate and equity holdings, construct a funding mechanism for the bad assets (so that Lehman could encourage a buyer), and evaluate the risks and consequences of bankruptcy. During these discussions, it was resolved that Bank of America would acquire the ailing Merrill Lynch. Lehman's, however, could find no willing

buyer, despite initial interest from Barclay's bank. The unprecedented magnitude of the problem was keenly appreciated. During the 1998 rescue of LCTM, major banks had contributed \$3.5 billion; Lehman Brothers required at least \$30 billion (Ivy, Harper, & Pittman, 2009, p. C5). On Sunday evening, September 14, the U.S. Treasury and Federal Reserve allowed Lehman Brothers to fail. This decision fatally weakened the financial position of AIG. The world's largest insurance group had insufficient reserves to meet the deluge of CDS claims (from banks exposed to worthless CDOs). Eventually, Federal authorities would provide \$125 billion of emergency support (Cohan, 2009, p. 446).

As a global news event, Lehman's bankruptcy sent panic waves through the multi-billion dollar commercial paper and short-term money markets. Thousands of businesses worldwide relied upon these markets to cover routine expenses, such as payroll and utility bills. When millions of depositors tried to withdraw funds, worldwide business failures appeared imminent (Ivy, Harper, & Pittman, 2009, p. C5). Within 36 hours, collapsing stock markets wiped \$600 billion off global equity prices. The repercussions of Lehman's demise on the U.S. banking system have been itemized by Cohan. Apart from the sale of Merrill Lynch to Bank of America and the Federal rescue of AIG, he lists:

the failure of Washington Mutual; the near-failure of Wachovia; the near-failure of National City Bank; the failure of at least nineteen other financial institutions nationwide; the conversion of Goldman Sachs, Morgan Stanley and American Express into bank holding companies to stave off their demise; and the virtual incapacitation of Citigroup, once the world's biggest, most valuable and most powerful global financial services firm. (Cohan, 2009, p. 446)

Myopic Financial Media?

The demise of Bear Stearns and Lehman Brothers finally revealed the connectivity of investment banking, household debt, and mortgage derivatives. Among the Anglo-American financial media, however, this was a belated realization. Despite historical evidence of boom-bust financial cycles and the inevitability of credit collapses, financial journalists overlooked the system-wide fragility of the subprime housing bubble. This was not a totalitarian condition. As my account has thus far shown, prescient voices and critical commentaries were certainly available. Unfortunately, they were not translated into any proposal for collective action by politicians, regulators, or business journalists. A recent U.S. survey of the Wall St. Journal, The New York Times, the Los Angeles Times, The Washington Post, Bloomberg News, the Financial Times, Fortune, Business Week, and Forbes between January 1, 2000, and June 30, 2007, criticized the absence of "investigative stories that confront directly powerful institutions about basic business practices while those institutions were still powerful" (Starkman, 2009, p. 26). Retrospective evaluations of financial media performance all highlight this concern. Relevant articles and editorials in journalism magazines and academic journals carry the following titles: "Crisis? What Crisis? But it's Great TV" (Wilson, 2008); "Blindness: The Media and the Meltdown" (Starkman, 2009); "When a Watchdog Doesn't Bark" (Harber, 2009); "Credit Crisis: How did we miss it?" (Schecter, 2009); "Five Reasons for Crash Blindness" (Fraser, 2009); and "Waiting for CNBC" (Tkacik, 2009).

According to the preceding literature, financial-business reporters missed the impending collapse because of work pressures associated with the accelerating news cycle. The focus on getting content out before the competition produced episodic, rather than thematic, coverage of the financial situation at hand. At the same time, many financial journalists could not comprehend the growing complexity of financial market activity. Only senior contributors from well-resourced publications and news networks possessed the requisite knowledge of securitization, mortgage derivatives, and shadow banking practices. News sources who understood these areas had vested interests. Thus, corporate executives and bank analysts would divulge information to journalists only if stories were presented in a certain way. Furthermore, well-known figures were able to erase the distinction between news practice and news source influence. CNBC host Jim Kramer, for example, was a former Wall Street insider and founder of an influential business–financial blog, TheStreet.com. Many business-financial journalists in New York and London effectively advanced speculative activity. Matthew Fraser, writing in *The British Journalism Review* made the following judgment, "The uncomfortable truth is that most business journalists were enjoying the upward spiral as much as the investment bankers and analysts whom they counted among their best contacts and lunch companions" (Fraser, 2009, pp. 80–81).

In any case, the ideological precepts of neo-liberalism and self-regulating markets were a defining feature of all financial cultures. In particular, analysts, traders, and journalists believed in the sustainability of MBSes, CDOs and CDSes. In theory, it seemed, such innovations would dissipate risk, so that individual financial institutions would not be in danger of default. The financial coverage provided by television business channels was especially myopic. Maureen Tcakik's evaluation of CNBC for the *Columbia Journalism Review* was caustic:

Watching CNBC one gets the distinct sensation that it is still waiting for Godot. To Buy or Not to Buy (and *what* to Buy)—that simple line of enquiry pervades every minute of programming for 17 live hours a day domestically, and the other seven in Europe and Asia. (Tcakik, 2009, p. 36)

As the preceding observation implies, CNBC was locked into populist promotions of stocks and shares at the expense of financial sector analysis. Bonds and derivatives could not be depicted, live, from an exchange floor or a clearing house. Usually, finance market participants tracked prices on a Bloomberg terminal from their homes and offices. CNBC's coverage of the financial collapse was therefore shallow, belated, and preoccupied with stock market reactions to banking failures.

Conclusion

The reality of financial collapse was officially acknowledged on September 20, 2008, when the U.S. Treasury announced a plan to purchase up to \$700 billion of worthless securities from troubled banks. The initial document was rejected by the House of Representatives and modified by the Senate before passing into law on October 3, 2008 (Wade 2008, p. 9). This was the first installment of the controversial Troubled Asset Relief Plan (TARP), whereby Federal regulators used taxpayers' money to stabilize and reorganize the investment banking system. The spreading credit crisis forced a similar response from the ECB, the Bank of England, and major European governments.

National and supra-national governmental institutions confronted a worldwide recessionary spiral. Financial collapse effectively reduced bank lending and credit lines to large-, medium-, and small-scale firms. Cuts in production, massive layoffs, and increased unemployment drove down consumer spending, which forced all kinds of businesses to close. Reduced credit flows and falling aggregate demand in large Western countries diminished export returns throughout East Asia. China, Japan, Taiwan, South Korea, and Singapore sold less consumer durables, electronic goods, and software products to North American and European consumers (Gumbel & Schuman, 2009, pp. 15–18; Elliott, 2009, pp. 20–21).

As world economic circumstances worsened, financialized capitalism and neo-liberalism became understood in epochal terms. Correspondingly, the 2007–2008 financial collapse and its global consequences invoked historical comparisons with the 1930s depression. Some academics and journalists have drawn from Karl Marx, Maynard Keynes, Hyman Minsky, and Charles Kindleberger to illustrate the inherent cyclicity of financial crises. Others have emphasized the unprecedented global connectivity of finance, production, and consumption. For this article, it is sufficient to conclude that the temporal contradictions and real-time myopia of financialized capitalism are matters of historical record. Within the 2000–2006 credit bubble, investors, politicians, regulators, and the financial media did not fully appreciate the growing uncertainty about what lay ahead. More specifically, evolving financial technologies of speculation, whereby the uncertain future was collapsed into present calculations, obscured the prospect that future happenings might be unpredictable and uncontrollable. When such happenings did, in fact, transpire, the previously unforeseen problem of systemic risk became obvious; financial stability was threatened on a global scale.

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