The Sociology of Finance

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Keywords
credit, trust, banking, financialization, disintermediation, performativity

Abstract
The economic crisis of 2008–2010 stimulated an already growing sociological interest in finance. Before the crisis, disintermediation and securitization changed how the U.S. financial system operated, as bank operations shifted from the traditional originate-and-hold model to originate-and-distribute. During the 1980s and 1990s, the overall size and profitability of the financial system grew as deregulation unleashed financial innovation and reorganization. Global shifts toward capital market integration and liberalization created greater global interdependence. Households in the years before the crisis also altered their relationship to the financial system, increasing debt loads and overall exposure to the stock market. Research reveals the importance of politics for many financial market developments, various implications for corporate governance, the continuing significance of social factors within finance, and the role of theoretical and material devices in shaping financial practices. Key directions for future research focus on finance in relation to social inequality, informal sectors, valuation, and social networks.
INTRODUCTION

American bankers used to follow the 3-6-3 rule: take in deposits at 3%, lend the money at 6%, and be on the golf course by 3 PM. Studying such bankers was like watching paint dry. But the boring stability of old-fashioned banking is now gone. Indeed, the entire financial sector has become more dynamic and is characterized by impressive innovation, growing complexity and interdependence, and sometimes dramatic instability. So even before subprime lending and collateralized debt obligations (CDOs) were cast as culprits in the latest economic crisis, sociologists had begun to study finance.

Finance involves an interconnected set of four elements: actors, actions, contexts for action, and rules governing action. The actors consist of individuals, who might be borrowers, lenders, investors, bankers, brokers, traders, and so on. Organizational actors include banks, pension funds, insurance companies, tax authorities, hedge funds, pawn shops, venture capital funds, investment clubs, savings and loans, mutual funds, and credit unions, among others. Sometimes one actor provides the context for others, leading to complex nested relationships among them. The New York Stock Exchange offers an institutional platform on which investors trade equities, for example, and the Federal Reserve System regulates and manages the U.S. financial system.

Other contexts for action include networks (like the informal hawala system, through which international remittances often flow, or the computer systems that link together investment bank trading floors), markets (e.g., the U.S. housing market), the polity (wherein appeared George W. Bush’s “ownership society” initiatives, nineteenth-century populist criticisms of bankers, and recent outrage about bankers’ bonuses), laws and regulations (e.g., usury laws, prohibitions on predatory lending, capital requirements for banks, disclosure requirements for share offerings), and devices (stock tickers, computer screens, credit cards, financial formulas). Financial actions consist of various activities, including simple borrowing, saving, and lending, but also investing, rating, analyzing, arbitrage, origination, taxing, underwriting, regulating, trading, listing, and hedging. Not all actors can perform all actions, and they are selectively paired. For instance, only a member of the New York Stock Exchange can trade on the exchange, and ratings are done by a small number of credit rating agencies. Actions are governed by formal and informal rules, set both privately and publicly. The Securities and Exchange Commission imposes legal disclosure requirements on firms that issue publicly traded securities. But private actors such as the New York Stock Exchange or the Chicago Mercantile Exchange also impose their own rules on market participants. And financial traders often develop informal behavioral norms among themselves.

Promises form the core of finance. One party promises to pay a sum of money to another. Much financial activity involves, one way or another, the design, production, distribution, evaluation, acceptance (or rejection), enforcement, and modification of promises. Promises can be simple or complex. A simple loan involves money paid at one point in time, in exchange for a promise to repay the money (plus interest) later on. In making such loans, lenders have to decide if they trust the borrower’s promise, and there are many ways to make such a determination (Carruthers 2009). Their willingness to lend is tempered by how uncertain they are about the borrower’s willingness and ability to repay in the future and by the exposure entailed by the loan. The evolution of credit decision making has been a key part in the development of modern credit economies, but in general lenders try to mitigate their uncertainty and vulnerability. A CDO is a highly complex financial instrument that combines and structures pieces of many prior promises and issues new promises that are grouped into separate tranches (chiefly distinguished from each other by their seniority). Rating agencies such as Moody’s are in the business of evaluating promises and rating financial instruments, including CDOs but also more ordinary corporate bonds. The economic
significance of promises has become particularly obvious in the recent financial crisis, when so many promises were broken that overall confidence in financial institutions virtually disappeared (Swedberg 2010).

Finance is a renewed topic for sociology, and most research has focused on particular combinations of the four financial elements. For example, Harrington (2008) examines individual investors in amateur California investment clubs. Uzzi & Lancaster (2003) study how relations between bank loan managers and their clients allow each to acquire critical information about the other. Millo (2007) tracks the recent origin of index-based derivatives in a nexus of financial innovation, organized exchanges, regulation, and financial theory. Guseva & Rona-Tas (2001) compare the Russian and American credit card markets, whereas Morgan & Prasad (2009) contrast the development of the French and American taxation systems. Arrighi (2010) views the rise of finance capital macroscopically, as a stage in long-term cycles of capital accumulation that unfold over centuries. Some financial actors (e.g., banks and venture capitalists) have received more attention than others (e.g., pawn shops, credit unions, and bank regulatory agencies). Likewise, there is more research on some activities (e.g., mortgage lending) than others (e.g., borrowing from loan sharks or rating corporate bonds). Despite many gaps, an expanding mosaic of research uses methods ranging from old-fashioned ethnography to high-tech network analysis and draws on many theoretical traditions. Overall, this mosaic reflects a growing appreciation of the sociological significance of financial activities and institutions.

Although interest in finance is rapidly growing, the sociology of finance draws on other research. Most obviously, classical sociologists such as Max Weber and Georg Simmel analyzed banking, money, and finance (Weber 1981, pp. 254–66, 279–80; Simmel 1978). Like economic sociology more broadly, the sociology of finance attends to the institutional foundations for financial markets (Dobbin 2005, pp. 33–40), including law (Swedberg 2003, pp. 189–217; Halliday & Carruthers 2009), and considers the embeddedness of financial transactions in social networks (Smith-Doerr & Powell 2005, Uzzi 1999). Financial institutions play a key role in economic growth and so are relevant to studies of globalization and economic development (Gereffi 2005). Credit functions as a substitute for money, and credit arrangements have been important in sustaining consumer demand and have bearing on the sociology of consumption (Zelizer 1994, 2005).

We start by reviewing the large-scale changes that have recently made finance such an interesting topic for sociologists. We then consider various connections to politics and public policy and discuss how finance affects households. Finally, we turn to the micro contexts for finance: the local settings in which financial activities unfold. It is usual to show how macroscopic processes set the context for small-scale activities, but in finance the reverse also holds. Each of these topics covers an overlapping set of actors, contexts, activities, and rules.

**MACRO FINANCE**

Changes in finance have motivated much recent scholarly attention, and researchers note various connections to macroscopic processes such as globalization, deregulation, financialization, and neoliberalism. The United States plays a leading role in all these changes and so is frequently the focus of analysis. One reason for the attention on finance is simple: By various measures, the financial sector of the U.S. economy has grown significantly in the past several decades (Johnson & Kwak 2010, p. 59). The financial industry’s share of GDP increased from around 15% in 1960 to roughly 23% in 2001, surpassing manufacturing in the early 1990s. Finance’s share of corporate profits also grew substantially over the same period (Dore 2008; Guillén & Suárez 2010, p. 260; Krippner 2005, pp. 178–79), and bank profits were particularly high in the decade before the recent crisis (Tregenna 2009). Some of those extraordinary profits have been (unevenly) shared with employees, and so financial sector wages rose
throughout the 1990s and 2000s (Philippon & Reshef 2009). A job on Wall Street became an increasingly attractive prospect for Ivy League college graduates. Furthermore, nonfinancial firms derived a growing proportion of their overall income from financial sources (Krippner 2005, pp. 185–86). For many years, for example, in addition to building cars, General Motors made money financing car sales through GMAC, and GMAC expanded into other financial services, including mortgages and banking. Many of the largest firms, both financial and nonfinancial, have become more accountable to institutional investors (like pension funds), whose shareholdings have steadily grown. Justified by agency theory and pushed by institutional investors (Dobbin & Jung 2010), shareholder value became a guiding principle in corporate governance (Davis 2009).

Finance represents a leading edge of globalization (LiPuma & Lee 2004, pp. 5–6; Obstfeld & Taylor 2004, pp. 27–28). Global capital markets are highly integrated, capital is mobile, and so financial changes and shocks quickly spread around the world. With little delay, for example, problems with U.S. subprime mortgages crossed the Atlantic to trouble European banks and pension funds. And Wall Street rating agencies pass judgment on borrowers from around the world, including sovereign governments (Sinclair 2005). Global financial markets have also conformed to global policy trends favoring deregulation. The neoliberal orthodoxy embraced by the International Monetary Fund (IMF) and World Bank favored the removal of capital controls, central bank independence, privatization, and financial deregulation (Babb 2009, p. 70; Brune et al. 2004; Polillo & Guillén 2005). Stock exchanges have also spread around the world in the past several decades (Posner 2005, Weber et al. 2009). Even China, which has maintained close political control over its development of a socialist market economy, has dramatically modified its financial system (Yao & Yueh 2009). When coupled with the transition from command to market economies in eastern and central Europe, market governance has become truly pervasive.

Although the United States has never been subject to IMF conditionalities (Babb & Carruthers 2008), a domestic version of neoliberalism unfolded in the 1980s and 1990s (Prasad 2006). Much of the New Deal financial regulatory apparatus was pulled down, piece by piece (Davis 2009, pp. 116–21; Krippner 2011, pp. 60–63, 102–5). Savings and loans institutions functioned as inadvertent crash test dummies in being the first financial institutions to be deregulated en masse. They were also the first to produce an expensive crisis (Calavita et al. 1997; Seabrooke 2006, p. 115), but the lessons of that episode were soon forgotten in an era of triumphal hubris and “irrational exuberance.” Terms such as the Great Moderation signaled the widespread belief that by the late 1990s the U.S. financial system had entered a new era of good governance and rational risk management. The business cycle became less volatile starting in the 1990s (Stock & Watson 2002), and some claimed that macroeconomic stabilization policy had finally succeeded (Lucas 2003). Henceforth, financial markets did not need government regulation because they could self-regulate.

Deregulation unleashed financial innovation and consolidation. Banks grew in size and shrank in number, which mattered because, among other things, large banks tend to lend differently than small banks (Cole et al. 2004). Financial conglomerates moved across formerly inviolable boundaries to merge commercial banking with investment banking, insurance, brokerage, wealth management, and other financial services (Davis 2009, pp. 124–26; Seabrooke 2006, p. 136). Furthermore, a shadow banking system formed as institutions like hedge funds and private equity groups undertook bank-like activities without the regulatory oversight to which banks are subject (Stulz 2007). Investment banks began to create a stream of new financial products and techniques that were heralded as key tools for a new era of risk management (Power 2006), in part because of their exotic complexity and the widespread employment of “quants” (physicists and mathematicians) in their design.
and application (Holzer & Millo 2005). Some financial trading continued to occur on formal exchanges, which offered relative transparency and some measure of standardization and regulatory oversight. But increasingly, other products were traded over the counter through opaque private networks and with little oversight by anyone (Huault & Rainelli-Le Montagner 2009).

Some forms of financial innovation challenged prevailing social norms. In the oil-rich states of the Persian Gulf, modern finance ran up against the strictures of Islamic law, including its ancient prohibition on usury (Warde 2000). Evolving forms of credit that target poor borrowers (e.g., payday loans) frequently raised the issue of predatory lending (Stegman 2007). Quinn’s (2008) study of viatical settlements (a transaction in which a terminally ill individual sells his or her life insurance benefits) points out that some new products appeared morally problematic. Market participants wrestled with sharply conflicting rhetorical framings: that viaticals commercialized the sacredness of death; that they provided much-needed assistance to the dying; or that they are simply mutually advantageous transactions, devoid of moral salience. In general, the moral salience of finance is intermittent and selective, but it never entirely disappears.

Many of the recent changes are subsumed under the terms disintermediation and securitization. Traditionally, banks and other financial institutions acted as intermediaries: taking money from savers and lending it to borrowers. The challenge was to create a profitable spread (lending money out at an interest rate sufficiently higher than what the institutions paid for deposits) and to manage the maturity mismatch (long-term assets versus short-term liabilities). This originate-and-hold model is being replaced by an originate-and-distribute model (Mizruchi 2010, pp. 122–23). Rather than hold loans to maturity, banks increasingly securitize them (Davis 2009, pp. 37–38; Leyshon & Thrift 2007, p. 100). Securitization involves bundling loans together and selling them to investors. On a large scale, it began when the Federal National Mortgage Association (Fannie Mae) bundled home mortgages together and created simple pass-through securities to sell to investors (Stuart 2003, pp. 21–22, 68). But others securitized different income streams (accounts receivable, credit card payments, leasing revenues), and securitization can be done in more complicated ways to create products such as CDOs (Coval et al. 2009, Benmelech & Dlugosz 2009). Either way, banks recover their capital sooner (when the securitized loans are sold) rather than later (when borrowers complete repayment), and so they are ready to lend again. In effect, securitization turns bank loans, which are notoriously illiquid, into marketable securities. It also increases the amount of money available to borrowers because investors who would otherwise not want to lend are often willing to purchase highly rated securitized loans (Johnson & Kwak 2010, pp. 76, 84). It can also, however, undermine a lender’s interest in ensuring that a borrower is truly creditworthy (Immergluck 2009, pp. 100–5). With the originate-and-hold model, the bank directly suffered if it made a bad loan. But with the originate-and-distribute model, banks no longer keep loans in their own portfolio, and thus the investors who purchased the loan suffer if the loan goes sour.

The recent financial crisis has brought several of these trends together. In the early 1980s, banks and savings institutions dominated home mortgage lending, but they were supplanted by market-based lending by the early 1990s (Adrian & Shin 2010, p. 604). Mortgage origination proved to be extremely profitable in the early 2000s, and as the market for U.S. prime mortgages became saturated, lenders expanded into nonconventional mortgages such as Alt-A and subprime. With strong, worldwide demand among investors for highly rated securities (some of it due to regulatory requirements), mortgage lending expanded dramatically and became more concentrated at the same time (Fligstein & Goldstein 2010, pp. 44–45; Rona-Tas & Hiss 2010, p. 146). Foreign investors were assured not only by the high ratings issued by Moody’s and Standard and
Poor’s, but also by the credit default swaps that insured against default. As long as U.S. housing prices kept rising, even marginal borrowers could service their loans long enough to refinance their mortgages and accumulate home equity. But once the housing bubble burst, things fell apart quickly. Mortgage default rates soared, and highly rated, mortgage-backed securities and the CDOs built out of them also began to fail. Rating agencies downgraded so many AAA-rated securities that it became clear their initial ratings were wildly inaccurate. Financial firms were vulnerable to collapse because of how highly leveraged (i.e., dependent on borrowed money) they had become (Guillén & Suárez 2010, p. 267) and because a surprising number held onto some of the financial instruments they produced (Fligstein & Goldstein 2010, p. 32). Thus, losses in subprime mortgages turned into a more general credit crunch (Adrian & Shin 2010, p. 611).

Large public entities such as nation-states have also been affected by financial developments. Researchers have long examined how states extract resources and the fact that the historical development of the state depends on its ability to mobilize resources through various means: taxation, confiscation, and debt. Older comparative studies by Tilly (1990), Goldstone (1991), Centeno (1997), and others discerned different patterns of state fiscal development and the corollary role of public finance in state breakdown. Fears that contemporary globalization would eviscerate the ability of modern nation-states to set their own taxing and spending policies have proven to be overblown, and there has been no simple “race to the bottom” (Swank 2008). Investors do not always migrate to tax havens. Furthermore, evidence from taxation often challenges conclusions about public policy that are based on spending. For example, when looking at expenditures, many contrast threadbare American welfare programs with lavish European welfare states. And yet the United States has long possessed a more progressive tax structure (Martin et al. 2009, p. 15; Morgan & Prasad 2009), and through revenue features such as the earned income tax credit, child tax credit, and mortgage interest deductions, the U.S. tax code functions as a form of social policy (Howard 2009). Kiser & Sacks (2009) claim that contemporary African states could learn from early modern European states about how to organize their tax systems. Kiser & Sacks argue that, with sharp information asymmetries and poor monitoring, African states should decentralize and privatize tax collection, rather than build centralized tax bureaucracies, if they want to raise revenue efficiently. Yet where taxes are concerned, politics often trumps efficiency, and informal rules may be preferable to formal procedure. Martin’s (2008) analysis of recent U.S. property tax revolts suggests that these were largely prompted by the modernization of property tax systems, where formal and transparent rules replaced older, informal systems dominated by favoritism and patronage. Modern tax systems meant market valuations for property, higher taxes, and unhappy voters.

**POLITICS AND FINANCE**

Financial markets are not autonomous or natural, given that they always operate in a political context. Politics clearly played a role in processes of financialization because, as many have noted, deregulation of the financial sector did not happen on its own. The label neoliberalism (and more pointedly, market fundamentalism) has been attached to a package of policy reforms that spread during the 1980s and 1990s and led to capital market liberalization and deregulation in many countries. For example, increasing global flows of foreign direct investment were made possible by the bilateral investment treaties that many countries signed with each other (Elkins et al. 2008). Within the United States, a series of legislative measures dismantled much of the New Deal financial regulatory apparatus and even prevented the extension of surviving regulatory oversight to new financial activities such as credit default swaps (Campbell 2010, p. 79). Supporters of deregulation found powerful intellectual allies in Chicago school economists, who celebrated...
the efficiency and rationality of markets. Growing financial sectors have become powerful interest groups with considerable political clout and ready to wield the threat of capital flight against policies they do not like. Economic sectors that benefit from credit flows can also form a political constituency in favor of particular credit policies. The housing industry, for example, supports the many ways in which the U.S. government steers credit into home mortgages. Corporate finance has also become a new venue for politics. Although companies have long had deep connections to politics (Carruthers 1996), recent decades witnessed the emergence of new political strategies targeting corporate ownership via stock markets (King & Pearce 2010). Various social movements have embraced divestment as a form of collective action, pressuring high-profile investors (such as universities and public pension funds) to divest shares in companies that undertake objectionable policies or produce unwanted outcomes (Soule 2009). For example, in the 1980s several American universities divested their portfolios of the stocks and bonds of companies that did business in apartheid South Africa (Seele 2009, pp. 80–103). King & Soule (2007) find that under certain conditions, protestors targeting corporations can influence investors and affect corporate share prices. Various social movements have also targeted financial institutions, such as mutual funds and pension funds, for their role in supporting policies they find objectionable. Various codes now purport to measure the "social performance" of companies (Chatterji & Levine 2006), although their validity is sometimes questionable (Chatterji et al. 2009). The politics of finance vary with the polity. Although this has been increasingly well documented as an empirical fact, the overall connections are not yet fully understood and depend on whether the state was centralized or decentralized. When local government power was recentered in traditional sectors, a more or less symbiotic relationship developed between local government and traditional economic sectors (Verdier 2001, p. 331). Financial markets are redistributive (in that they take savings from one place and invest them elsewhere), and powerful traditional sectors tried to stop the mobilization of capital away from themselves and toward industry. Their choice of strategy depended on whether the state was centralized or decentralized. When local government power was recentered in traditional sectors, a more or less symbiotic relationship developed between local government and traditional economic sectors (Verdier 2001, p. 331). Financial markets are redistributive (in that they take savings from one place and invest them elsewhere), and powerful traditional sectors tried to stop the mobilization of capital away from themselves and toward industry. Their choice of strategy depended on whether the state was centralized or decentralized.
possessed significant autonomy, traditional sectors used local banks, protected by local government, to retain capital locally.

**CONSEQUENCES OF MACRO FINANCE**

The large-scale changes of the last several decades have directly affected ordinary households. For one thing, financial assets constitute a growing proportion of total assets for households in general, not just for the very wealthy (Keister 2005, pp. 8–11, 71–72). The long-term shift from defined benefit to defined contribution pensions, such as 401(k) plans, has exposed workers’ ability to accumulate assets for retirement more directly to the uncertainties of the stock market (Hacker 2002, p. 153; Shuey & O’Rand 2004). For instance, many retirements were postponed after the stock market decline of 2008, and political interest in privatizing Social Security has diminished. Aside from pensions, households have also increased their involvement in the stock market through direct share ownership or via mutual funds and similar investment vehicles (Davis 2008, p. 15; Dynan 2009, pp. 65–66). Dore (2008, pp. 1106–7) claims that the rise in equity ownership in the United States and United Kingdom became explicit policy goals starting under the Reagan and Thatcher administrations in the 1980s. Regardless of the reason, many people now have a direct financial stake in the stock market, which also gives market performance greater political salience.

American households have recently become more vulnerable to credit market conditions because of their indebtedness (Sullivan 2009). Median household debt relative to income grew from 0.14 in 1983 to 0.61 in 2008, and the median debt service ratio increased from 5% in 1983 to 13% in 2007 (Dynan 2009, pp. 54, 59). Put another way, the personal savings rate fell from an average of about 10% in 1980 to roughly 2% in 2005 (Dynan 2009, p. 51). More so than in the past, U.S. households spend more than they earn, maintaining consumption by accumulating debt. Much of this growth in indebtedness came from mortgage debt (and was tied to rising housing prices), and overall indebtedness increased largely because households with prior access to credit obtained more credit, rather than because households with no credit were able to gain access (Dynan 2009, p. 57). The trend also coincided with increased income volatility (and inequality) and may represent an attempt by households to stabilize consumption in the face of unstable income (Dynan 2010). On the lender side, adopting the originate-and-distribute model put the stress on the volume of loans, and as the prime mortgage market became saturated, originators had to move down the income distribution to maintain loan volumes. Rajan (2010) even suggests that household debts rose because of easy credit policies put in place to ameliorate increased income inequality. Letting poor people borrow may have been more politically palatable than overtly redistributive interventions such as increasing tax progressivity. Others (e.g., Dore 2008, p. 1107) also recognize a broad connection between growing economic inequality and changes in the financial sector, but in truth the exact linkages have not yet been determined. Nevertheless, with higher indebtedness and greater debt service obligations, households have become more vulnerable to decreases in income, unexpected expenditures, or increases in debt payments. Job losses, the expiration of teaser interest rates for a home mortgage or credit card debt, or unexpected health care expenses can easily push a highly leveraged household into a foreclosure proceeding or even into bankruptcy.

Although American households assumed greater debt burdens, access to credit remains unevenly distributed. Not only do racial disparities in wealth and income endure (McCall & Percheski 2010), but people’s ability to borrow money (and on what terms) also varies across groups. The capacity to borrow allows people to anticipate future income and smooth current consumption, and access to credit is absolutely critical for the success of a business. Black-owned small businesses are more likely to be denied credit, compared with
their white-owned counterparts (Blanchflower et al. 2003). Contemporary evidence also suggests that minority applicants are more likely than white applicants to be denied a mortgage, controlling for various economic variables (Pager & Shepherd 2008). Stuart (2003) showed that such disparities resulted from long-standing organizational practices, not just personal animus: Because the ability to obtain a secured loan depended on the value of the collateral, appraisal methods that systematically undervalued minority or mixed-income neighborhoods had a discriminatory effect (pp. 33–34). Access to other financial products, such as insurance, also appears to have been uneven when discretion entered into the underwriting process. In particular, the emphasis placed on the moral character of the applicant invites biased decision making (Glenn 2000).

Various trends in household finance have combined to make the current recession especially difficult for many people. Unlike two previous recessions (starting in 1990 and 2001), the downturn that began in December 2007 involved a simultaneous decline in housing prices and the stock market. And unlike the earlier recessions, the recent drop in household net worth occurred in low- and high-income households and in low- and high-net worth households (Moore & Palumbo 2010, pp. 11–12). With higher levels of indebtedness, particularly mortgage debts, households in 2007 were especially precarious, and so mortgage and credit card delinquency rates and bankruptcy rates have climbed much higher than in past recessions (Moore & Palumbo 2010, figure 3).

Financial innovation has tested the financial literacy of ordinary households. Most people can navigate a world of savings and checking accounts and understand ordinary 30-year fixed-rate home mortgages. But the contractual detail buried in contemporary credit card agreements stymies most nonlawyers, and the financial obligations assumed under something like a floating adjustable-rate mortgage with introductory teaser rate can be hard to predict. Simple disclosure does not solve the problem, and many consumers do not entirely understand their own financial obligations (Warren 2010, p. 402). People often use their social networks for financial information, but poorer households are less likely to get advice from a financial professional (Chang 2005). Consumers may also not perceive how much others’ interests diverge from their own. For example, mortgage brokers are often compensated via yield spread premiums, a payment from the lending institution that depends on the interest rate of a borrower’s loan (Jackson & Burlingame 2007). Although brokers often claim to be seeking the lowest interest rate for their clients, in fact they have a hidden (to the borrower) financial incentive to steer borrowers into higher interest mortgage loans and can take advantage of naive or inexperienced borrowers (Jackson & Burlingame 2007, pp. 349–51).

Burdensome debts trouble both households and firms, but the legal system offers a way out. Personal and corporate bankruptcy proceedings enact failure and provide a form of redemption. An insolvent individual with more liabilities than assets can file for bankruptcy, surrender his or her assets to creditors through a court-supervised procedure, and receive a discharge from the balance of his or her debts. In effect, the debtor is forgiven remaining debts and enjoys a fresh start. Modern laws usually allow debtors to retain certain assets (like personal clothing) and some debts are nondischargeable (i.e., they encumber the debtor even after the bankruptcy proceeding). People cannot escape child-support payments or taxes, for example, by filing for bankruptcy.

Bankruptcy laws, and how they constitute economic failure, are affected by politics. The 2005 amendments to U.S. bankruptcy laws made it more difficult for individuals to discharge their credit card debts, a change long sought by credit card companies. Creditor interest groups had argued that personal bankruptcy rates increased because the stigma of personal bankruptcy had declined, and people had a weaker sense of obligation to keep their promises. Although debtor’s prison no longer awaits the insolvent (as it did in eighteenth-century America), personal
bankruptcy remains a singularly disruptive event with strongly negative connotations (Sullivan et al. 2006; Warren 2010, p. 394). Personal bankruptcies increase when the overall economy worsens, and many consumers have recently felt the effects of the amended law.

Insolvent corporate debtors have two main options: liquidation or reorganization (Carruthers et al. 2001, pp. 102–5). In the former, corporate assets are pooled and distributed to creditors according to certain rules (for instance, secured creditors are paid before unsecured creditors, first mortgages before second mortgages). Then the firm is simply closed down, and employees lose their jobs. In a reorganization, the troubled firm goes through a process of organizational rebirth: debts are renegotiated, costs are cut, and the firm may be shrunk, in order to return to profitable operation. In both options, bankruptcy operates as a distributional exercise that shares losses among corporate stakeholders, and in the proceedings each tries to shift the burden onto someone else. In a reorganization, for example, workers want bank creditors to reduce their interest charges rather than have wages slashed. Some national bankruptcy systems are more debtor friendly than others, and even though lenders structure their loans to adapt to legal differences, credit recovery rates still vary across legal jurisdictions (Davydenko & Franks 2008).

Micro Contexts for Macro Finance

When examined at the global level, modern finance looks exceedingly abstract, impersonal, and disembodied. Huge volumes of almost incomprehensibly complicated, intangible financial contracts with immense notional values are traded at lightning speed through advanced computer networks that link the globe. Many of the transactions involve program trading, and so are executed algorithmically and without a human decision maker. Against this picture of abstraction, however, several scholars point out that contemporary global finance continues to unfold in very local and human-scale settings (Knorr Cetina & Bruegger 2002).

In principle, modern financial transactions can be conducted from anywhere with a computer and Internet access. And yet, despite this technological liberation from geography, modern financial markets cluster in a finite number of communities where people can, and do, meet face-to-face, both in and out of work: lower Manhattan in New York City, the City of London, Marunouchi in Tokyo, Bay Street in Toronto, and so on. Geographical concentration creates a social connectivity that parallels and articulates with the economic connectivity of global finance (MacKenzie 2004; Sassen 2006, p. 27). Although the recent financial crisis was global in scope, many of the key players came from surprisingly small communities: Mortgage originators were heavily concentrated in Orange County, California; hedge fund headquarters congregated in Greenwich, Connecticut, and London’s West End; and investment banks gathered together in New York City and London (Pozner et al. 2010, p. 201).

The overlap of geographic proximity, social connection, structural equivalence, and financial market involvement helps to create well-defined peer groups for market actors. Observers have often noted the prevalence in financial markets of herding and bandwagon behavior, where people follow the crowd, and contagion effects, where an innovation diffuses rapidly through the financial community.
Decision making under conditions of uncertainty can produce widespread emulation, such that decision makers favor whatever course of action peers are currently pursuing. Bankers are more likely to get into subprime lending if “everyone else” is doing it. And network connections within the community are frequently the channels through which innovations and information diffuse. Thus, researchers have found that institutional investors herd both into (buying) and out of (selling) the shares of particular industries (Choi & Sias 2009). Similarly, mutual fund managers are more likely to buy (or sell) the same stock as other managers who are located in the same city (Hong et al. 2005). Wall Street analysts also herd by initiating or dropping coverage of NASDAQ-listed firms when their peers do so (Rao et al. 2001). Cohen et al. (2007) find that mutual funds tend to invest in companies when the mutual fund manager and corporate board member are embedded in the same educational network, in part because of joint access to private information.

Although social connectivity can take many forms, the significance of concrete social networks and relationships remains a recurrent theme of many sociological studies of finance. Venture capital is used to fund small-size high-risk firms (so-called start-ups) operating in highly uncertain markets such as computer software design and biotechnology. For every successful firm like Microsoft or Google, there are a thousand failures. Research documents that Silicon Valley firms and high-tech industries in other areas are highly networked (Castilla et al. 2000, Castilla 2003, Powell et al. 2005, Stuart 1998, Stuart et al. 1999). A dynamic structure of relationships linking together law firms, venture capitalists, universities, and start-up firms allocates capital, propels technological innovation, circulates personnel, and tries to get small firms to the point where they can seek more orthodox funding via an initial public offering (Ferrary & Granovetter 2009). Kogut et al. (2007) show that venture capital networks do not just agglomerate from the bottom up, but rather always involve both local and national connections.

Outside of leading-edge industries, social relationships between bank loan officers and borrowers affect the availability and pricing of bank loans to mid-sized businesses (Ferrary 2003, Uzzi & Lancaster 2003). However, Mizruchi et al. (2006) show that the impact of social relations on financing is contingent: The effect of director interlock networks on U.S. corporate borrowing declined during the 1970s and 1980s. Similarly, Lincoln & Gerlach (2004) document the changing role of large banks in Japanese business groups (keiretsu), which formerly used bank loans and equity ownership to forge the ties holding the group together. In the transitional economies of eastern Europe and China, networks and factions also shape access to capital from external sources, such as foreign direct investment (Bandelj 2008, Stark & Vedres 2006), and from internal sources, such as domestic banks (Shih 2004). Guseva (2008, pp. 86–90) documents the importance of networks in the construction of a credit card market in post-transition Russia, whereas Garvá (2007) underscores the role of social networks in syndicate lottery play in Spain. Relationships continue to matter for finance, but how and why social networks matter remain works in progress.

Modern financial institutions are themselves embedded in networks of extraordinary size and complexity. If institutions are nodes, then the transactions among them, or claims and obligations they have to each other, form the links in a network. Given the very high volume of electronic trading that occurs every day, these networks have an unusually high number of links. Using network analytic techniques originating in sociology, nonsociologists have examined financial networks in Austria (Boss et al. 2004), Hungary (Lablóy 2006), Great Britain (Becher et al. 2008), and the United States (Soramäki et al. 2007), comparing their network structures and drawing out implications for the stability of the overall financial system.

Networks have played a role in shaping the organizational dynamics of financial deregulation. As regulatory barriers weakened in the 1990s, U.S. commercial banks
entered the market for investment banking services, including bond underwriting. Jensen (2003) finds that commercial banks that had preexisting network ties to a debtor firm or that possessed high status (defined in network terms) were more likely to be the lead managers in a bond issue. His results suggest that in some measure network relationships could be transferred from one market to another. Jensen (2008) also found that during the same period incumbent investment banks were less likely to partner with high-status commercial banks in an underwriting syndicate, in part because high-status commercial banks posed more of a threat.

Traditionally, organized exchanges and financial transactions involved mostly face-to-face interactions. The London stock market, for example, started in the coffee houses adjoining Exchange Alley in central London. There was little anonymity or impersonality when trading in small, stable groups. Several ethnographic and qualitative studies have exploited this face-to-face reality to explore the social texture of finance. Ho (2009) studied entry-level hiring and training into contemporary U.S. investment banking, noting the strong tendency for banks to recruit only from elite colleges and business schools. The high social status of candidates and their employers was emphasized repeatedly during recruitment and hiring, cultivating and reinforcing a sense of collective self-worth verging on hubris (Ho 2009, pp. 40, 50, 75). Zaloom (2006) compared face-to-face trading in Chicago’s markets circa 2000 with electronic trading in London. Chicago traders affirmed the importance of personal relations in creating trust and supporting market liquidity (Zaloom 2006, pp. 52–53, 61). Electronic trading, by contrast, engendered a more technical and rational comportment on the part of market participants (Zaloom 2006, p. 112). But it is not that face-to-face trading is social, while electronic trading is anonymous. Rather, the context for trading affects how markets are social. Of course, economists have also tracked the shift to electronic trading, but their focus is more on efficiency and how the transition lowers costs and narrows spreads, among other trends (Stoll 2006).

For both participants and regulators, financial markets are not places only for austere and dispassionate calculation. People trading on the Paris Stock Exchange in the late 1990s routinely displayed the full range of human emotions (Hassoun 2006), an ethnographic observation consistent with the psychological evidence of Lo et al.’s (2005) analysis of day traders and Lo & Repin’s (2002) physiological evidence. According to Pixley (2009), financial organizations operate with emotion rules that stipulate appropriate attitudes and comportment for personnel (including the supreme self-confidence noted by Ho 2009). Abolafia (2005) analyzed the transcripts of the meetings of the Federal Open Market Committee (FOMC), the chief policymaking body of the Federal Reserve System. Although the FOMC has abundant quantitative data and calculative capacity, the face-to-face meetings consisted of collective sense-making, multivocal interpretive work performed by participants to frame the economy and pose plausible and legitimate policy responses. Bandelj (2008) documents a more dispersed form of sense-making by recognizing that foreign investment, like other cultural objects, possesses meaning. Newspaper debates about the significance of foreign investment in Slovenia reveal a complex of multiple and sometimes contradictory understandings.

The micro context for market participants also includes the devices, techniques, and information they use to comprehend and trade. In studying these, some researchers have drawn from prior work in the sociology of science (e.g., Knorr Cetina, MacKenzie) and underscore the importance of distributed cognition (Vollmer et al. 2009). Preda (2009) shows that the nineteenth-century stock ticker transformed how shares were priced and how investors perceived prices. A public market price is a social and technological accomplishment, and Preda notes that the published lists used to circulate price information in the early nineteenth century were unreliable, unsystematic, out of date, and often simply false. In fact,
prices varied over the day, across traders, and between purchases and sales (producing the spread). It was not until 1868 that the *Wall Street Journal* began to publish daily closing prices (Preda 2009, p. 122), and price information diffused slowly at first. The stock ticker, however, gave brokerage offices direct access to prices from the floor of the exchange, in real time, and became the authoritative source of credible price data. Multiple and discontinuous sources of price information were replaced by a single, continuous, nationally distributed stream of prices and price changes (Preda 2009, p. 142). For someone sitting in a brokerage firm in Wichita, Kansas, in 1926, the stock ticker was effectively the stock market.

In contemporary financial markets, the phenomenology of trading is shaped by continuous flows of electronically mediated knowledge and information. Traders typically view multiple computer screens that portray a broad range of information, from prices and trading volumes to headline news. They are connected to each other via phone, email, instant messaging, and text messaging. Looking at their screens, they also monitor the ambient noise on their local trading floor. The foreign exchange traders studied by Knorr Cetina & Bruegger (2002, p. 915) not only traded currencies, but also continuously exchanged information. And their interactions, conversations, and relationships with each other involved various kinds of reciprocity and informal codes of conduct (pp. 924–28, 932, 936). In short, electronic markets did not erase sociability—they facilitated its recreation and redeployment into new forms.

Conceptual devices have had as big an impact on modern finance as physical devices. Financial economics has become highly mathematical, and various proofs, ideas, and formulas were enshrined in the markets as traders adopted and implemented them and designed software around them. Performativity is a key concept in this regard (Callon 2007), and MacKenzie & Millo’s (2003) discussion of the Black-Scholes option pricing model offers an exemplary application (see also MacKenzie 2006). The Black-Scholes model was derived in two 1973 papers to answer the question: What is the value of an option (an option bestows the right, but not the necessity, to sell, or buy, at a given price)? After its introduction, the Black-Scholes model was quickly adopted as a canonical device in options markets (and its inventors received Nobel prizes), although it was partly wrong (MacKenzie & Millo 2003, pp. 127–32). But the insight of the performativity approach is that we should not simply ask if the model was accurate or not. Rather, we should study how the model was enacted, applied, or performed so that it could become more or less true. The significance of Black-Scholes lay in its prescriptive force, not just its descriptive veracity. One finds a similar prescriptive/descriptive duality in the efficient markets hypothesis closely associated with Chicago school economics and institutionalized in numerous index funds (MacKenzie 2006, pp. 29–30, 84–88).

Versions of the performativity idea lie behind other discussions. According to Marron (2007), the development of quantitative credit scoring methods and their large-scale application to consumer credit helped to institutionalize (and not simply measure) particular conceptions of risk. Vollmer et al. (2009) view the quantification of creditworthiness as a larger process of performativity that enhances overall calculability, commensurability, and standardization. The idea of arbitrage is fundamental to financial economics as an intellectual discipline, but it is also a practice that is enacted in concrete social, organizational, and technological circumstances (Beunza et al. 2006). Smith (2007) draws on an older theoretical tradition to argue that markets not only price and allocate goods, but also generate the meanings and shared understandings that govern market practices and participation. And in her comparative study of economics professions, Fourcade (2009, p. 30) provocatively suggests that economic knowledge may be performed differently in different national settings. Nevertheless, the performativity concept has its critics (see Mirowski & Nik-Khah 2007).

Several other cognitive devices, less formally theorized than Black-Scholes, have been widely
institutionalized in the allocation and pricing of credit and include the credit ratings developed for small businesses (Carruthers & Cohen 2010), net present value calculations (Faulhaber & Baumol 1988), and the ratings issued by Moody’s, Standard and Poor’s, and Fitch (Rona-Tas & Hiss 2010, Sinclair 2005). Credit ratings and scores are now calculated for all kinds of individuals and organizations and provide a summary measure of the trustworthiness of debtors. Having spread over the twentieth century, their near ubiquity transformed many types of credit decision making from an application of situated judgment into a more standardized algorithmic exercise (Marron 2007, p. 104). When combined with cheaper information technology, high volumes of algorithmic credit decisions can be performed quickly and at low cost. Although quantification connotes greater objectivity, some lenders still augment quantitative measures with socially based information (Ferrary 2003), and the latter continues to matter in some contexts (Berger & Udell 2002, Cole et al. 2004, Uzzi & Lancaster 2003).

The significance of agency-issued credit ratings was further reinforced when ratings were incorporated into public regulations and private contracts. Their simplicity and ostensibly precision made them extremely portable information. Both in the United States and elsewhere, prudential regulations for pension funds and insurance companies commonly prohibit investments that are too risky, where risk is defined in terms of a privately issued rating. Thus, an insurance company cannot invest in corporate bonds that are below investment grade. Ratings also figure centrally in the Basel II bank standards, in which capital requirements are adjusted by the riskiness of bank assets (Langohr & Langohr 2008, pp. 436–37). Outside of regulation, ratings have been incorporated as triggers in private contracts, so that, for example, a rating downgrade means that a borrower has to post additional collateral or accelerate its repayments. High ratings also protect a fiduciary from legal liability if investments go sour (Coffee 2006, p. 294).

Poor performance by rating agencies figured prominently in the recent financial crisis and prompted scholars and policy makers to wonder how ratings became so central to the operation of modern capital markets. Investment banks securitizing home mortgages worked closely with the rating agencies to secure the highest possible ratings for the securities they produced, and subsequent rating downgrades essentially proved that the initial ratings were overly optimistic (Carruthers 2010, pp. 163–67). Individual credit scores (i.e., FICO scores) are now used to issue credit cards, to issue mortgage loans, and even to price automobile insurance. They pervasively affect a household’s access to credit (Poon 2007) and also played a role in the subprime crisis (Poon 2009).

Other studies have focused less on devices and more on the particular groups who use them. Beunza & Garud (2007), for example, examine securities analysts, who write reports and make recommendations to investors and portfolio managers. Although analysts have ample information, their recommendations are usually made under conditions of uncertainty. Beunza & Garud note their reliance on “calculative frames,” a coherent package of categories, metrics, rhetoric, and analogies, in deciding whether to make a buy or sell recommendation. Zuckerman (2004) also underscores the importance of the cognitive categories used by analysts. Stocks that do not map cleanly onto industry category systems (incoherent stocks) are more vulnerable to conflicting signals, and that vulnerability increases trading volume and volatility.

CONCLUSION

The current crisis accelerated an already growing sociological interest in finance, and it confirmed the importance of the topic. As befits a global phenomenon, the leading research on finance is done by an international group of scholars who engage in genuine intellectual exchange, unlike in many other areas of sociology. Studies of finance have also enabled new conversations between economic sociology and
the sociologies of science, culture, law, organizations, and the professions. And finance offers new ways to develop and extend older, core insights about the importance of social networks and the embeddedness of finance. Much of the research is empirically motivated in the sense that finance has recently changed in interesting and consequential ways. Finance is also central to processes such as globalization and connects directly to the traditional sociological topics of inequality, politics, institutions, organizations, and public policy. For some, the growing salience of technical expertise, combined with finance’s higher status and power, activated sociology’s debunking impulse. In the 1990s, modern finance started to look and sound like the Great Oz, and sociologists sought for the curtains to peer behind. Helpfully, the financial crisis blew those aside.

We characterize current research as a mosaic chiefly because it is more an assemblage of scholarly activity than a sustained, coherent, and unitary enterprise. Topics involve particular clusters of actors, activities, contexts, and rules, and some have been, and will continue to be, more thoroughly covered than others. One group of scholars focuses on corporate governance and how firms became beholden to financial markets and institutional investors, with an emphasis on shareholder value and short-term share prices. Another group focuses on the techniques, methods, and practices of high finance, studying their adoption and spread, and viewing their significance from the perspective of performativity. Several scholars have imported sociology’s traditional focus on social relationships and networks and used this to illuminate many aspects of finance. And, of course, many are now diagnosing the current crisis.

Several directions for future research seem especially promising. On the macro-finance side, the study of income and wealth inequalities, and all that engenders them, should be systematically extended to credit. People gain differential access to purchasing power through the income they receive (earned and unearned), the wealth they possess (inherited and accumulated), but also through the money they can borrow. Credit policies that appear to benefit disadvantaged borrowers, such as subprime lending, may not have that effect (Rugh & Massey 2010). Some progress has been made in studying inequality and borrowing, especially for specific types of credit such as home mortgages, but the topic needs more work. A second issue crosses between macro and micro finance. It is clear, for example, that credit circulates through formal and informal channels, and although formal institutions are easier to study, informal credit is often very significant. This issue concerns finance in relation to law and calls attention to the fact that formal and informal arrangements operate interdependently, not separately. Third, the micro contexts for macro finance call for further work. For instance, much of finance involves routine valuation, calculating the current or future worth of something. At the nadir of the current crisis, key financial actors felt that market prices no longer reflected fundamental values, and a battle ensued over mark-to-market accounting. The plasticity of valuation is also apparent with every accounting restatement, but such episodes do not simply reflect valuation-gone-wrong. Rather, they reveal how much value is a contested and provisional judgment whose complexity lies buried beneath a surface of numbers and quantification. Finally, although sociology already focuses on social relations and networks, and despite the well-recognized importance of networks for finance, how and why networks matter remain open questions. Providing answers will encourage researchers to consider the content and meaning of social ties, in addition to their structure.

DISCLOSURE STATEMENT

The authors are not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.
ACKNOWLEDGMENTS
The authors wish to thank Wendy Espeland and Douglas Massey for helpful comments.

LITERATURE CITED
Callon M. 2007. What does it mean to say that economics is performative? See MacKenzie et al. 2007, pp. 311–57


Dobbin F, Jung J. 2010. The misapplication of Mr. Michael Jensen: how agency theory brought down the economy and why it might again. See Lounsbury & Hirsch 2010b, pp. 29–64


Faulhaber GR, Baumol WJ. 1988. Economists as innovators: practical products of theoretical research. *J. Econ. Lit.* 26:577–600


Haveman HA, Rao H, Paruchuri S. 2007. The winds of change: the progressive movement and the bureau-
Holzer B, Millo Y. 2005. From risks to second-order dangers in financial markets: unintended consequences
of risk management systems. New Polit. Econ. 10:223–45
Hong H, Kubik JD, Stein JC. 2005. Thy neighbor’s portfolio: word-of-mouth effects in the holdings and
trades of money managers. J. Financ. 60:2801–24
Huault I, Rainelli Le Montagner H. 2009. Market shaping as an answer to ambiguities: the case of credit
derivatives. Organ. Stud. 30:549–75
Law Bus. Financ. 12:289–361
Jensen M. 2003. The role of network resources in market entry: commercial banks’ entry into investment
Jensen M. 2008. The use of relational discrimination to manage market entry: When do social status and
Pantheon Books
Cambridge Univ. Press
King BG, Pearce NA. 2010. The contentiousness of markets: politics, social movements, and institutional
See Martin et al. 2009, pp. 183–200
Univ. Press
A. Bingley, UK: Emerald
B. Bingley, UK: Emerald

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