

Demand for credit, international financial legitimacy, and vulnerability to crises: Regulatory change and the social origins of Iceland's collapse

Erik Larson

Sociology Department, Macalester College, Saint Paul, MN, USA

Abstract

By analyzing how credit in Iceland expanded to culminate in the country's 2008 financial collapse, this article advances theories about financial crises, regulatory change, and the role of credit. It also complicates popular accounts of Iceland's collapse that focus on the actions of unrestrained bankers by examining the larger context that facilitated these banking practices. After financial liberalization, Icelandic businesses and households had strong demand for credit as a result of: (i) the institutional meaning of credit, (ii) an emergent growth strategy of aggressive international expansion, and (iii) increasing consumption. Incorporating business demand for credit extends demand-side theory of crises and shows how dominant strategy and shared government and business orientation toward opportunity shaped credit expansion. Credit-based consumption also stabilized social relations despite increasing inequality. Notwithstanding warnings of risk, regulation did not restrain risky leverage. International market reactions reinforced beliefs about Icelandic success to limit regulatory reach, as Iceland's international financial legitimacy produced market-based measures that leaders interpreted as signals of economic success.

Keywords: credit, financial crises, Iceland, international finance, regulatory change.

1. Introduction

Beginning in the 1990s, Iceland embarked on a major liberalization effort, privatizing its financial sector and reorganizing regulation. The resulting highly concentrated banking sector refocused on investment banking and international operations, while businesses, consumers, and the finance industry itself borrowed heavily. In October 2008, Iceland experienced a spectacular financial collapse: all Icelandic commercial banks became insolvent; the stock market index fell by 77 percent in a single day, eventually declining approximately 95 percent; over one-fifth of large corporations were restructured or liquidated; popular protests forced the government to resign; and Iceland became the first developed country in over three decades to rely on International Monetary Fund (IMF) loans (Boyes 2009; IMF 2009; Rannsóknarnefnd Alþingis 2010; Benediktsdóttir *et al.* 2011).

This article analyzes Iceland's path to financial crisis to build theories about how credit is institutionalized in an economy after regulatory change. In the context of market-based regulation, political and business strategies drew on, reproduced, and extended socio-cognitive

Correspondence: Erik Larson, Sociology Department, Macalester College, 1600 Grand Avenue, Saint Paul, MN 55105, USA. Email: larsone@macalester.edu

Accepted for publication 11 September 2013.

orientations that facilitated robust credit growth while impeding effective prudential checks on an emergent financial sector. Affinities between government policy and private sector strategy produced both strong demand for credit and a belief that regulation involved a minimal process of compliance. Iceland's experience shows how the prominence of market-based indicators – exchange rates or credit default swap prices – as measures of risk pose challenges to regulators. When such indicators show improvement, regulatory efforts become more difficult to justify; when they reach critical levels, it may be too late for effective regulatory intervention.

Explanations of the recent global financial crisis and twin financial and currency crises emphasize speculation, cheap credit, and risky lending, causing asset bubbles that create vulnerability to decreased confidence and withdrawal of liquidity (Kaminsky & Reinhart 1999; Schiller 2008; Campbell 2010). Many accounts of crises begin by noting that innovation attracts money to the financial sector, which provides firms the opportunity to invest in these funds and increase leverage (Davis 2009; Gorton 2009; Fligstein & Goldstein 2010; Swedberg 2010; Ó Riain 2012). International expectations and currency collapses intensify crises. During an economic boom, banks increase liabilities backed by poor-quality assets, while the currency may remain strong as government indicators could signal relatively stable macroeconomic conditions (Kaminsky & Reinhart 1999). When events demonstrate that underlying asset prices and assumptions about economies and borrowers are unrealistic, investors' confidence collapses. Non-renewal of short-term financing consumes banks' reserves cascading into a financial crisis, as firms are unable to raise liquidity by selling assets whose market value has substantially declined (Gorton 2009; Stiglitz 2010). The ambiguity of the situation causes investors to lose confidence; resulting capital outflows can trigger a currency decline (Spanjers 2008).

These accounts explain the chain of proximate causes of financial crises, but they leave unanswered questions about how regulatory change influences the likelihood and sequence of events that lead from vulnerability to crisis. Prasad (2012) offers a promising theoretical framework that explicates the demand side of credit-driven asset bubbles, proposing that the nature of the welfare state shapes the role of credit in particular countries. In ideal typical form, governments can support consumption either through a welfare state with extensive public provision or by encouraging the use of credit for private consumption. From this credit-welfare trade-off perspective, limited public provision regimes engender greater demand for expanding credit. In these countries, regulatory change and financial innovation could lead to greater and more rapid expansion of leverage, explaining why they would be at the center of financial crises. Prasad's theoretical perspective integrates well with two additional strands of sociological theories of the recent crisis: political-institutional theories that trace government policies that spurred credit expansion, and socio-cognitive theories that explicate market processes that institutionalize orientations toward risk and opportunity. This integrated perspective connects state and market processes to more enduring regimes in countries, but attention to two further details provides a more complete account: (i) how firms demand and mediate the provision of credit, and (ii) the international dynamics of credit.

Accordingly, this article examines and interprets the origins of the crisis in Iceland in light of theories about regulatory change, the state, and economic activity. In addition to the substantive rationale for focusing on the case, Iceland is well situated for extending theories. Its political economic model lies between United States and Nordic models and the country is part of the European Economic Area, but not the European Union (Jónsson 2009). Its history can also provide insight into the challenges emerging regulators face. Similar to other countries that liberalized and established new regulatory agencies (Gilardi *et al.* 2006), Iceland established the *Fjármálaeftirlitið* (FME, Financial Supervisory Authority) in 1999, modeled after the UK's

Financial Services Authority. The FME took over bank regulation from the Central Bank and insurance regulation from a former government agency. It also regulated securities markets (Fjáramálaeftirlitið 2000).

Analyzing Iceland as a critical case study, the article focuses on the continuities of the 2008 collapse in Iceland with earlier crises in 2006 and 2000–01. It uses both documentary and ethnographic data as evidence. Documentary data include international financial institution and government reports, ministerial speeches, and accounts from memoirs and journalists. Ethnographic data come from four months of field research in Iceland's financial sector in 2001, during which I spent time at the stock exchange, brokerage firms, and the FME. The paper presents these data thematically, first examining the institutional foundations of and the processes through which credit expanded, and then examining why prudential regulation did not restrain this expansion of leverage.

Theoretically, the analysis shows the value of integrating demand-side theories of credit institutionalization with approaches that emphasize political-institutional and socio-cognitive processes and new forms of regulation. Firms' use of debt in high-credit regimes demonstrates that governance of credit access influences vulnerability to crises. Additionally, external financial legitimacy may constrain regulation. Because market-price measures can denote the likelihood of international investors renewing liquidity, these measures become indicators of risk and shape the prospects for regulatory action.

Empirical accounts of Iceland's crisis often emphasize that the enlarged banking sector – the growth of which is frequently traced to privatization and deregulation – swamped government's ability to serve as a lender of last resort (Carey 2009; de Michelis 2009; Wade 2009; Benediktssdóttir *et al.* 2011; Schwartz 2011). Although privatization and limited government resources were important, this paper examines the deeper institutional origins of the crisis. The orientations of firms, government, and individuals toward private-sector debt and shared understanding of regulation and markets shaped the course of the financial sector's growth. Domestic political institutions refracted international warnings about the risk of the increased leverage. Iceland convinced international investors – and reinforced political and business leaders' beliefs – that the country's economy was unique. The resulting perception that all firms in Iceland were connected made the eventual crisis more precarious.

2. Explaining social origins and dynamics of financial crises

Liberalization changes the nature of regulation, as governments delegate decisionmaking to regulated entities and private-sector organizations take on rulemaking functions (Braithwaite 2008; Parker & Nielsen 2009a). Regulatory weakness, some authors contend, contributes significantly to financial crises (Mayes 2009; Wade 2009; Campbell 2010; Stiglitz 2010). Regulatory changes reduce oversight, they argue, and thereby increase the supply of low-quality credit and inflate risky asset bubbles. Arguing that demand for credit plays a key role in explaining crises, Prasad (2012) notes that Europe had financial regulation less restrictive than the US; deregulation in the US simply brought that country in line. Credit demand, Prasad emphasizes, varies cross-nationally based on how governments institutionalize support for consumption. Some states emphasize public provision, while others emphasize private financing. The importance of credit – and demand for credit – vary between these countries.

Despite differences in emphasis, both accounts provide key elements to explain financial crises. Prasad's account shows that the larger context of regulation shapes the effects of regulatory change, while research on emergent forms of regulation demonstrates that the means of

controlling access to credit affects how demand for credit is met. Economic sociologists complement these accounts by focusing on two causally important elements that bring together the explanations: political-institutional processes that influence nationally dominant financial practices and socio-cognitive processes that create orientations toward risk and opportunity.

Liberalization's political origins can shape subsequent economic priorities and financial practices. When broader shifts in the institutional logic guiding policy transfer governance to markets, firms may deploy new strategies, resulting in contestation and disruptive dynamism (Davis 2009; King & Pearce 2010). Historical analyses of financial crises emphasize these features of markets and politics. For example, in the US, policy decisions drove movement toward securitization and expansion and loosening of credit; the government created market-based allocators of capital to decrease Congressional expenditures and exposure to providing credit. As a result, finance took on a greater role in economic governance (Fligstein & Goldstein 2010; Krippner 2010; Quinn 2010). Liberalization also affects the wider regulation of national economies in areas such as credit and foreign exchange. When government liberalizes rationing, the private sector mediates access to finance, in turn influencing control over consumption (Krippner 2011). Implementation and institutional legacies shape the consequences of liberalization (Schneiberg & Bartley 2008). Hence, the private sector mediates access to finance in two ways. First, liberalization may lead to strategies for allocating credit that affect the actors' ability to express and meet demand for credit. Second, both household and business demands for credit are relevant to a demand-side account of a credit-based asset bubble.

Institutionalized understanding and belief about how markets work – cognitive frameworks – shape decisionmaking by relating information, symbolic meaning, and schematic ways to process information (DiMaggio 1997; Zelizer 2002; Wherry 2012). Cognitive frameworks answer questions about what causes economic growth, what types of events move markets, and what attributes distinguish successful actors from others. They guide actors' attempts to uncover opportunities (Beunza *et al.* 2006). They are also part of regulation. Government decisions not only influence but also reflect dominant institutional logics (Rubtsova *et al.* 2010), as demonstrated by policymakers' belief in markets as self-regulating bodies (Abolafia 2010). Such assumptions can limit government regulators' scope of action; regulators may internalize institutionalized power relations, becoming less likely to intervene in markets (Snider 2009). Because social and political processes can institutionalize evaluative frameworks, regulatory change could stimulate further development of cognitive structures (Fourcade 2009, 2011).

Cognitive judgment can take institutional form as financial ratings, shaping information processing and decisionmaking. Ratings integrate markets by simplifying decisionmaking and enabling comparison of disparate instruments (Carruthers 2010; Rona-Tas & Hiss 2010; Ó Riain 2012). They “regulate actions and become means of governance” (MacKenzie 2011, p. 1784) because regulations often specify minimum ratings for holdings. Borrowers and issuers seek to present themselves in ways to elicit favorable ratings because ratings determine access to capital (Rona-Tas & Hiss 2010).

These more fine-grained analyses illuminating political-institutional and socio-cognitive processes shed new light on how demand for credit mediates regulatory change. Together these theories explain why political and economic leaders in some countries might adopt a strategy of stimulating private-sector credit expansion; ideas about credit's role in an economy can reflect taken-for-granted understanding about how markets and consumption should and do work (Fourcade 2009). These decisions can feed back into the behavior of economic actors, shaping subsequent evaluation, policy, and patterns of regulation (Prasad 2005; Conley & Gifford 2006).

Socio-cognitive work also reveals market-based elements of crises. Differences in the demand for credit may shape both perceptions of appropriate risk levels and rating procedures' influence as scripts for subsequent action (Rona-Tas & Hiss 2010). Actors in an economy with higher demand for credit would seem more likely to put forth greater effort reacting to credit ratings to increase access to credit. Similarly, economies in which consumers widely use credit to support consumption may have very different risk assessment than economies in which credit plays a smaller role.

Finally, ideas about equality and consumption – and credit's role in supporting households – may influence credit dynamics after liberalization. Both firms and households demand credit, but liberalization can increase inequality (Brady 2009; Ang 2010), potentially magnifying the role of credit in supporting household consumption. If a population predominantly sees its members as economically equal, expanding credit to households could mitigate the effects of increased income inequality and stabilize social relations, much like how home ownership can minimize class conflict and neutralize inequality (Conley & Gifford 2006, pp. 56, 59). From this perspective, Prasad's conception of credit and welfare state transfer payments as distinct ways to support consumption recalls Marshall's (1950) analysis of how social citizenship in advanced welfare states stabilizes society despite rising inequality. Expanding credit to households may similarly stabilize societies experiencing increased inequality by facilitating consumption, maintaining belief in society's fundamentally middle-class character. The increase in inequality itself may spark expenditure cascades by households as frames of reference for typical consumption shift (Frank 2005; Levine *et al.* 2010). As more households take on greater debt and face challenges to rein in consumption, credit-based consumption could increase crisis severity.

Research on regulatory capitalism offers additional insights into the dynamics of post-liberalization crises in light of the regulatory shifts toward private-sector organization and global actors. We can better understand how vulnerability to crises develops by examining how regulatory change affects credit expansion, how organizations mediate these changes, and how international connections affect these dynamics.

First, analysis can identify the actions and mechanisms linking regulatory change to credit expansion, as firms increasingly regulate access to credit. For instance, strong demand for credit encouraged institutional entrepreneurship in the US thrift industry, changing the relative status of firms and dominant models and logics of operation in the field (Haveman & Rao 1997). Early innovation may generate success that rapidly diffuses, resulting in new, taken-for-granted assumptions about successful practices (Pozner *et al.* 2010). Examining *how* credit expansion occurs – who is involved, to whom credit is extended – sheds more light on how it alters an economy. If economic growth follows credit expansion, policymakers may deem credit expansion a policy success, reinforcing cognitive understandings of how the economy works, creating a positive information feedback loop (Wade & Sigurgeirsdottir 2012).

Second, socio-legal studies show that organizations mediate regulatory change (Suchman & Edelman 1997; McBarnet 2008). Cognitive frameworks in fields influence responses to regulation (Baldwin & Black 2008; Parker & Nielsen 2009b); practitioners' institutionalized understandings of regulation influence market behavior (Larson 2004; Gilad 2011). Firms may perceive regulatory change as an opportunity for institutional innovation, but their orientations toward regulation will shape how they determine which types of innovation are appropriate. Although liberalization certainly raises issues of whether and how private firms comply (Parker & Nielsen 2009a), it is equally important to consider what actors and regulators believe compliance entails. In a field characterized by orientation toward minimal compliance with the letter of the law, deregulation may open up myriad opportunities. In contrast, in a field oriented

toward regulation as defining a set of prescribed and proscribed principles and outcomes, actors may take a more cautious approach. These institutionalized understandings of regulation can also limit regulators' influence in a field (Black 2008).

Finally, globalized regulation heightens the importance of attending to how national economies, governments, and firms are connected to actors and events outside a country (Braithwaite & Drahos 2000; Levi-Faur 2005). International lenders rely on proxy signs for creditworthiness (Swedberg 2010), such as sovereign debt ratings, currency strength, or ratings of other companies domiciled in the same country. Because liberalization relies more on market-based logics, states create regulatory agencies to show that their markets are credible and well functioning (Vogel 1996; Levi-Faur 2005; Gilardi *et al.* 2006; Snider 2011). Accordingly, international investors' understanding of a particular country's financial status – that country's international financial legitimacy – may influence the country's vulnerability to financial crises. Domestic actors may also forge international connections as they engage in foreign operations. Because networks influence foreign trade and investment (Bandelj 2003; Erikson & Bearman 2006; Kim 2006), forays into international markets may bring along other domestic actors.

Taken together, these insights offer an account of how cross-national variations in the place of credit and in prudential oversight of credit provision affect vulnerability to crises. Firms, government, and global processes should regulate prudential risk, but political and socio-cognitive processes can impede these efforts. Orientations toward regulation – how rules apply, who should interpret ambiguous rules – direct domestic actors. If actors understand rules as minimal prohibitions, rather than broad behavioral standards, these orientations may effectively limit prudential regulation. States and firms may seek to build external financial legitimacy in ways that refract global regulatory processes. In credit-dependent economies, in which access to credit influences more economic activity, financial crises can create negative feedback as a result of constraints on funding consumption and business investment. Additionally, shared understandings may impair accurate perception of problems and conception of solutions outside dominant policy logics (Dobbin 1994), making responses to crises slower and less effective.

3. The high-leverage case of Iceland

Based on the preceding theoretical ideas, this section describes Iceland's path to crisis. (Table 1 provides a timeline of key events.) It first considers the context of regulatory change, examining the institutional roots of Iceland's vulnerability. Then it considers how credit expanded after liberalization, examining emergent firm strategies and dominant financial practices. Reflecting Iceland's political and institutional legacies, firms and households had strong demand for credit and control over credit was highly valued. An affinity between government policy and private sector strategy – centering on beliefs about how markets reward nimble action and the character of Icelandic society – provided the foundation for aggressive international expansion funded by increased borrowing. As inequality grew, households increased borrowing to support consumption. Orientations toward regulation and external financial legitimacy inhibited regulators' capacity to rein in these risky practices. Because actors saw regulation as hindering innovation and requiring nothing more than refraining from prohibited practices, domestic regulation had a minimal role. Making the case that its economy was distinct, Iceland cultivated international financial legitimacy, refracting sources of regulation. Reliance on market performance as a risk metric exacerbated these processes, as improvements were taken as evidence of Icelandic success, enabling increased leverage and vulnerability.

Table 1 Summary of key events in Iceland's liberalization and crisis

| | |
|--------------|--|
| 1960s | Partial economic liberalization; government retained control over credit and finance |
| Early 1990s | Start of credit liberalization; launch of equity trading on Iceland Stock Exchange |
| 1998 | Reorganization and partial privatization of state-owned banks and investment funds |
| 1999 | Establishment of FME (<i>Fjármálaeftirlitið</i> , Financial Supervisory Authority of Iceland) |
| 2000–01 | Rapid depreciation of the Icelandic króna resulting in inflation and tight liquidity |
| 2002 | Full privatization of state-owned banks |
| 2003 | Reduction in banks' reserve requirements |
| 2004 | Mortgage liberalization, including increased allowable loan-to-value ratios and maximum loan size |
| 2006 | Money market loans to Icelandic banks not renewed, resulting in sharp declines of the króna and Icelandic financial markets |
| October 2008 | Icelandic bank Glitnir unable to fund a loan payment. Central Bank of Iceland does not grant request for a loan, announcing intention to partially nationalize the bank. In the face of weakened capital positions and confidence by foreign retail savings account customers, the UK freezes accounts of Icelandic banks Landsbanki and Kaupthing. All three banks effectively out of business, causing connected companies to become insolvent |

Sources: Honjo & Mitra (2006); Hunt, Tchaidze, and Westin (2005); Ólafsson (2011a); Wade & Sigurgeirsdóttir (2012).

3.1. Institutional roots of Iceland's vulnerability

After independence in 1944, Iceland's political economy emerged as regulatory statist, corporatist, and clientelist (Ólafsson 2011a; Wade & Sigurgeirsdóttir 2012). Emphasizing individualism, the center-right Independence Party dominated politics, holding the senior position in government for most of the post-independence period (Ólafsson 2011a). Party leadership maintained close ties with a business group that controlled many of the largest, most influential companies (Ólafsson 2011a; Wade & Sigurgeirsdóttir 2012). Iceland's regulatory statism included credit rationing and foreign exchange control, so the state (which controlled the banks) had leverage over consumption and investment. Firms and households often relied on political connections to access credit (Ólafsson 2011a; Wade & Sigurgeirsdóttir 2012). Liberalization opened the financial sector to new practices, but it did not generate fundamental change in the meaning of credit.

Multiple practices demonstrate the continued valorization of control over credit-granting institutions and the capital that enabled expansion of credit: the privatization process, secondary trading on the stock exchange, and banks' strategies after privatization. One, during the final phase of bank privatization, the government reversed plans to sell majority shareholdings to the citizenry, instead selling near-majority shareholding to two separate Icelandic groups. Prime Minister Davíð Oddson and Foreign Minister Halldór Ásgrímson intervened to restructure the privatization process, even sitting on the committee that selected final bidders, gaining greater control over which actors could control the banks. They did so to avoid the experience of the initial privatization phase, in which rivals sought to accumulate substantial shareholdings by buying negotiable privatization subscriptions from individuals (*Euromoney* 2002; *Iceland Review* 2005; Thorvaldsson 2009; Rannsóknarnefnd Althingis 2010). The final bidders for the two banks – a family company and investment group – participated in international business and investing, but had little experience in commercial banking. For both transactions, each bank funded the other's purchase (Gylfason 2010). Two, secondary trading on the stock exchange provides

further evidence of the value placed on control over assets. New business challengers emerged, offering opportunities for traders. During participant observation, a broker explained a greenmail-type trade with particular relish: “[They] did a very good trade. This is beautiful. [The broker brought up the chart on the computer screen]. They bought the stock up to here.” After having accumulated a sizable position, the buyer realized its strategic value and shopped the position around to multiple parties, including a new entrepreneur. “Just because of politics, [the majority owners of the company] bought it [back at a higher price]. They could not stand [the possibility of rivals] owning the shares.” Three, each of the banks pursued strategies to concentrate control over financial assets, purchasing significant stakes or outright control over investment companies, savings banks, and insurance companies.

Both businesses and households continued to seek credit. The center-right's political dominance and cultural emphasis on individual independence limited Iceland's welfare state (Jónsson 2001; Ólafsson 2003a,b, 2011c). The Icelandic state has provided a narrow, means-tested safety net with less generous support benefits (Ólafsson 2003a, 2011c). Instead, state policy has focused on “economic tasks such as the development of the economic infrastructure, active industrial policy in support of agriculture and the fisheries, and *the provision of credit for the expanding economy*, not least in order to ensure a high level of employment so that individuals could earn their own livelihood” (Jónsson 2001, p. 250, emphasis added). Government policy emphasized credit provision and self-help, suggesting that both businesses and households have responsibilities to expand economic activity by creating (and filling) jobs and consuming.

Similar to the US, Iceland's population prides itself on being middle class (Ólafsson 2003a). Iceland has much higher rates of homeownership than other Scandinavian countries. Government policy, however, has focused on supporting lenders' financing, rather than individual home owners: “Iceland has one of the lowest levels of government support for homebuyers through the tax and welfare system compared with other advanced countries” (Hunt *et al.* 2005, p. 29). As a result, households typically borrowed up to the maximum allowed values for home purchases. Such borrowing was an important source of financing because government transfers (which could support consumption more directly) in Iceland have remained below 10 percent of gross domestic product (GDP) since 1980, compared to averages of over 15 percent of GDP in both EU-15 and EU-Commitment countries (Tchaidze *et al.* 2007, p. 11).

3.2. Government cedes control of finance to private sector: Cognitive affinities lead to expanding credit

Iceland's institutional foundations and accompanying shared beliefs about Icelandic society and markets fueled demand for credit from both businesses and households. Liberalization not only alters how financial firms are regulated, but also shifts the regulation of credit and consumption from government control to mediation by private-sector financial firms. In the liberalized environment, emergent business strategy shapes demand for credit and may foster new challengers to incumbent sector leaders (Fligstein 2001). Lenders and their business clients may venture into new fields together and, consequently, share similar assessments of opportunity and risk, thereby concentrating vulnerabilities (Beunza & Stark 2012). At the same time, dynamics of inequality and societal ideology may shape households' demand for credit. Following liberalized access to credit, the populace could use credit to increase consumption, particularly if rising inequality threatens a belief in the egalitarian, middle-class nature of society.

The political leaders who shepherd regulatory change sought to unleash Iceland's economic potential, based on an understanding that markets reward nimble, intelligent action.

Corresponding to socio-cognitive beliefs that efficient organization, quick decisionmaking, and intelligence generate market success, these leaders viewed Iceland as uniquely advantaged in global investing. They believed that regulation and taxation had held back the dynamic forces of Iceland's economy by limiting individuals' pursuit of diverse, productive initiatives.¹ Such constraints were particularly harmful, the leaders believed, because Iceland's educated, small population was poised to capitalize on market opportunities globalization had unleashed. Leaders contended that Icelandic firms' small size was advantageous; these leaner, more efficient enterprises could aggressively seize opportunities that others could not. "Iceland is different," then-Prime Minister Ásgrímsson stated. "[T]here are so few of us. The Icelandic companies . . . are after all not that big. It is a well-known fact that smaller companies tend to be more focused and can escape from endless administration layers and long decision-making processes. Consequently, Icelandic companies act quickly when the business opportunity reveals itself. And, as we know, when the competition is fierce, acting quickly can determine 'the making or breaking of deals' " (2006).

Business and finance actors shared these socio-cognitive understandings and put them into practice, pursuing a common strategy for aggressive international expansion: *útrás* (literally, outward attack) (Jónsson 2009). The strategy generated substantial demand for credit expansion. Analysts and traders extolled the country's educated population and relative small size as providing Icelanders with unique abilities to recognize opportunities. They pointed to Pharmaco's investment in Bulgaria as an opportunity that companies from bigger markets simply would not have seen. During 2001 field research, a research analyst explained that companies expanding abroad had greater opportunities for growth. Iceland had a population of only 300,000, so external expansion held much greater opportunity for growth. The underlying rationale – use a small base to pursue much larger opportunities – reflects the logic of leverage – borrow money to expand from a small equity base. Consistent with this orientation, one fund manager explained, "I want to see companies that will expand abroad – Baugur, Kaupthing, Össur. I can see all of these on other markets in five years. The problem at the moment is the króna. The more business they have overseas, the less country risk there is." The "problem" was a rapid, short-term currency depreciation affecting all companies in Iceland; expansion abroad (and foreign currency earnings) was a solution.

From 2000, spurred by this belief, Icelandic firms accelerated outbound foreign direct investment, primarily through equity purchases. Such investment increased particularly rapidly from 2004 to 2007.² These investments accounted for much of the sizable expansion in Icelandic corporate debt (IMF 2008b). Icelandic corporations have two to three times higher leverage than other Nordic companies after controlling for industry and size (Hunt *et al.* 2005). Figures 1 and 2 show that Iceland started the decade in line with other European countries, but its domestic private-sector credit increased at rates comparable to small, post-Soviet transition economies. By mid-decade, Iceland's private-sector credit was larger than any other European country and growing at a rate among the fastest in Europe. Drawing on Iceland's legacies of credit-based clientelism, the new financiers maintained close ties with and participated in businesses to which they lent. Consequently, lenders and businesses pursued similar strategies, such as buying foreign companies and borrowing in lower-yield foreign currencies, reflecting similar understanding of opportunities (Honjo & Mitra 2006).

To finance such expansion, Icelandic banks also bought securities and sold them forward to customers, which required less regulatory capital than lending customers funds to purchase shares (IMF 2008b, p. 21). Such lending also continued, however, and left banks highly exposed to loans collateralized by "shares in the companies in which these customers had invested the

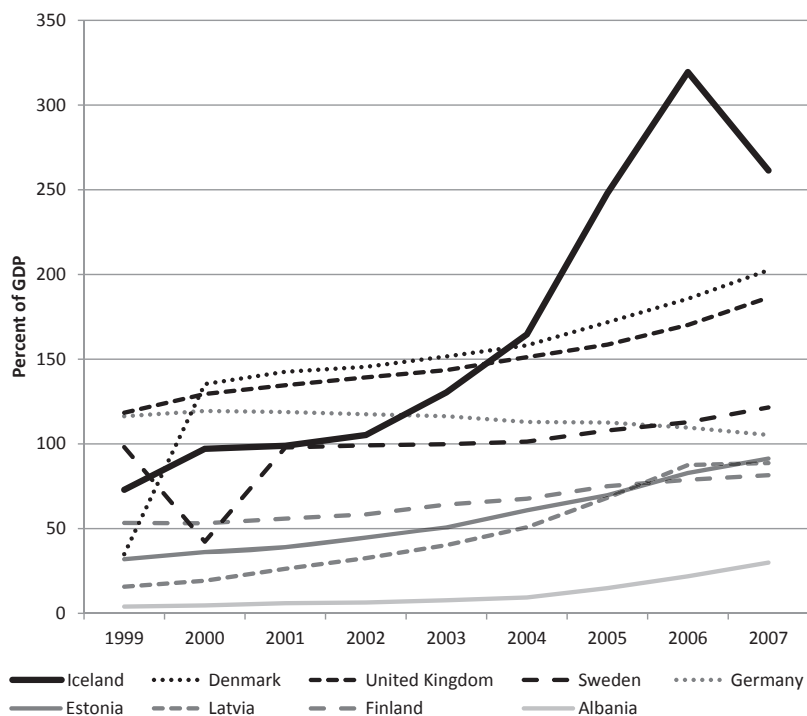


Figure 1 Private sector credit as a percentage of gross domestic product (GDP), 1999–2007.
Source: Author's compilation of World Bank (2011) data.

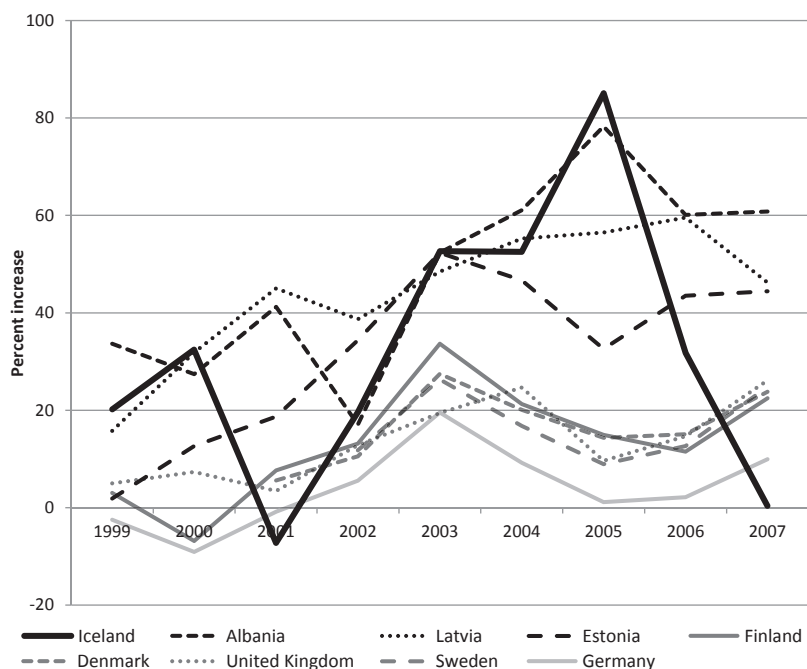


Figure 2 Percentage change in credit to private sector, 1999–2007.
Source: Author's compilation of World Bank (2011) data.

funds borrowed" (Jännäri 2009, p. 30). Moreover, some of the largest borrowers had borrowed from multiple banks; if one failed, each bank would be exposed to sizable losses. In addition, cross-holding of bank shares meant that trouble in one bank could quickly spread through the financial system. The Central Bank (CBI) became the primary provider of liquidity for Icelandic banks' domestic operations; its domestic lending grew eight-fold from December 2003 to February 2008. By 2008, banks borrowed from CBI to meet foreign currency obligations (IMF 2008b, pp. 30–31).

Political leaders viewed these investment flows as vindications of liberalization and as evidence that regulatory changes freed Icelandic businesses to expand.³ There was, therefore, affinity between the cognitive frameworks that guided company strategies, market valuation, and government regulation. These investments did not appear as particularly risky because actors believed that Iceland had unique advantages and that overseas expansion benefitted its companies. Other companies' actions validated and amplified the strategy.

Such leveraged investment had the potential to increase inequality and destabilize social relations. Yet expansion of consumer credit, accompanied by government policy to stimulate the economy, enabled increased consumption even in the face of rising income inequality (Jónsson 2011). At a policy level, government provided stimulus by cutting income taxes and investing in infrastructure to encourage international companies to expand domestic aluminum production. Constructing these aluminum facilities increased foreign exchange entering Iceland, enabling cheaper consumption of imported goods (Hilmarsson 2003; IMF 2003; Hunt *et al.* 2005). During this same time, mortgage liberalization allowed increased loan-to-value ratios and expanded maximum loan size. Announcing these changes, the Social Affairs Minister emphasized that the policy would enable young families to purchase homes sooner. He also stated that competition had produced efficiency that lowered interest costs for borrowers, freeing funds for other expenses (Magnússon 2004a,b). Accordingly, households significantly expanded borrowing in proportion to income, using proceeds to support consumption (Eliasson & Pétursson 2009).

Between 1995 and 2007, yearly household expenditure in Iceland more than doubled (both in total and on communications, furnishing/household equipment, health, housing, and transportation); compared to 1995, as a proportion of total expenditure communications, housing, and transportation had all increased by more than two percentage points.⁴ Housing expenditure reflects both the increased cost of housing and greater housing purchases: the number of housing units in Iceland increased 30 percent between 1997 and 2007 – twice the rate of population increase. The number of summer houses increased even faster (45 percent).⁵ During the middle part of the decade, consumption increased twice as fast as disposable income (OECD 2008); households took out purchase mortgages and home equity loans and purchased vehicles with loans denominated in foreign currency (Ólafsson 2011b). Between 2003 and 2007, household transportation spending increased by 80 percent. Despite significant increases in income inequality (Ólafsson & Kristjánsson 2010; Ólafsson 2011a), the ratio of annual household consumption *narrowed* between the top quartile and bottom two quartiles between 2003 and 2007, as shown in Table 2. Increased household debt facilitated that consumption. "[P]eople saw themselves as fully independent at last as they consumed with abandon, mitigating the effects of increasing inequality" (Wade & Sigurgeirsdóttir 2012, p. 136).⁶ The IMF concluded: "Icelandic households are among the most indebted in the world" (Hunt *et al.* 2005, p. 39); in 2004, household debt was just shy of 100 percent of Iceland's GDP and 178 percent of disposable income. Continued loosening of lending standards further expanded household indebtedness. By 2007, household debt was 226 percent of disposable income, compared to 90 percent in

Table 2 Ratio of average yearly household expenditure between income quartiles, Iceland, 2003 and 2007

| | 2003 | 2007 |
|---------------------------|------|------|
| Top (4th) to bottom (1st) | 1.65 | 1.42 |
| Top to 3rd | 1.47 | 1.34 |
| Top to 2nd | 1.25 | 1.29 |
| 3rd to bottom | 1.31 | 1.11 |
| 3rd to 2nd | 1.17 | 1.04 |
| 2nd to bottom | 1.12 | 1.06 |

Source: Author's compilation of data from Hagstofa Íslands, Rannsókn á Útgjöldum Heimila (Statistics Iceland, Household Expenditure Survey)

Luxembourg, the highest among Eurozone countries (Honjo & Mitra 2006, p. 28; IMF 2008a, p. 28).

3.3. Market-based constraints on regulatory restraint: Orientation toward law and international financial legitimacy

After liberalization, demand for credit, rooted in Iceland's institutions and affinities between beliefs about how markets work and Icelandic character, generated a massive expansion of debt. From early on, foreign currency loans financed much of this lending, a troubling practice because "a significant share of foreign currency loans has been extended to the service and household sectors, which do not have fully matching sources of foreign exchange income" (Alexander & Errico 2001, p. 7). Additionally, three large commercial banks held a large and increasing share (from 75 to 88 percent) of all assets of Iceland's credit institutions – far higher than comparable banks in Europe (Alexander & Errico 2001; Honjo & Mitra 2006). By 2007, banks held 29 percent of the market capitalization of the Iceland Stock Exchange as collateral for loans, many of which were to companies or individuals connected to the banks (Tchaidze *et al.* 2007). Finally, banks' shareholding brought risks to financial stability: banks held shares in companies to which they also had loan exposure, so company weakness could decrease the value of both loans and shares (Alexander & Errico 2001; Jännäri 2009).

Three potential sources of prudential regulation – firms' self-regulatory risk management, Icelandic governmental regulation, and international regulatory processes – failed to decrease banks' exposure and Iceland's vulnerability to crisis. At least as early as 2001, domestic and international actors noted key concerns, so a lack of perception of the problems does not explain this failure. Yet each component of the country's vulnerability grew during this period. Domestic regulation failed because dominant Icelandic beliefs encouraged flexible reinterpretation of law and regulatory standards and relegated regulatory authority to a minimal status. International financial legitimacy refracted regulatory concerns, as market-based information reinforced arguments for Iceland's exceptionalism. At each turn, perceptions of economic success reinforced the validity of rejecting more vibrant regulation, leaving regulators with a minimal role and limited voice.

Financial sector actors and political leaders understood regulation as a minimal process of explicitly proscribing certain behaviors, rather than a set of broadly applicable guiding principles. This understanding corresponded with their beliefs about market operation and Icelandic character. The view of regulation as minimally following rules sought to decrease bureaucratic burdens and to free actors to enable them to nimbly take advantage of opportunity. Prime

Minister Ásgrímsson (2006) stated that liberalization and regulatory change “transformed the Icelandic economy” and increased valuation of publicly held companies, enabling these firms to obtain more credit and “to take more risks in their investments.” Banks, viewing law as a set of minimal, technical requirements, seized on new operating environments to expand the provision of credit. As Kaarlo Jännäri, former director general of the Financial Supervision Authority of Finland, noted in his report on banking oversight in Iceland: banks used the “legalistic tradition” and limitations in the Basel and EU guidelines designed to facilitate local, small-scale lending to justify “highly leveraged international” loans (2009, p. 30).

Beyond formal law, banks' risk managers reinterpreted technical requirements associated with their quantitative modeling, narrowing the models' scope and undermining the effects of self-regulation. These changes compounded the problems associated with such modeling (Lucas 2001; Krawiec 2009). A risk manager explained during an interview that the job involved saying “what is the maximum expected loss.” The models are “mostly based on a developed market, where they do not have problems with liquidity and other things small markets have to deal with . . . [M]ost work well enough, but there are problems when getting close to the extremes . . . We stay away from extreme confidence levels. It does not matter if it is in the outliers. We make a sensible cut-off that we use as a measure of risk, rather than how much there is to lose. We compare to see if the risk level has increased or decreased.” Asserting that some of the model's underlying assumptions did not fit Iceland, risk management widened the tails (lower frequency, atypically large price movements), while discounting the actual size of tail events. Consequently, instead of using the models to assess risks of outsized losses, banks used them as a tracking device for distinct position sizes for individual traders and funds.

The FME faced challenges as it came into being after the entities it regulates had been operating for a significant time. Early on, the FME sought to expand its staffing, expertise, and authority, particularly to better investigate and monitor banks' cross-holdings and connected lending (IMF 2003). The IMF recommended expanding the FME's authority to regulate lending when banks were connected to borrowers and to block foreign acquisitions that could undermine the ability to supervise banks effectively (Alexander & Errico 2001). But the FME was in a weak position to oppose concentration of bank ownership because of its limited discretionary authority, as well as lobbying and the precedent of parliamentary approval of the bank privatizations (Jännäri 2009). These obstacles notwithstanding, the FME increased its banking sector oversight (IMF 2007, p. 15; Jännäri 2009).

Yet the shared understanding of regulation as a limited set of proscribed and prescribed behaviors, rather than a set of principles that market participants internalize and that regulators could use to address emergent situations, suppressed the effectiveness of this increased authority and prioritized banks' freedom to engage in new activities. A senior manager at the FME noted during field research in 2001 that banks had become active in seeking profit from equity trading.

[T]hey are going nearer to the limit of what a credit institution should be doing and not doing, in terms that they have been making ‘strategic investments’ in companies that are in different sectors, doing something entirely different from what the credit institution is doing. We see investments in telecom and the IT sector that have been announced to be ‘strategic investments.’ Therein underlies the question: when is a credit institution as a large shareholder engaging in activity that affects the soundness of the credit institution? We have provisions in legislation that underline the thought that credit institutions should be doing financial service, nothing else. It is not defined exactly how a participation through shareholding should be viewed in terms of these provisions.

This FME manager was both aware of and skeptical about banks' activities; however, his comments show how law was interpreted in ways to increase ambiguity ("not defined exactly") and limit regulatory authority.

This manager shed further light on the process of developing new market rules; as part of the Forum of European Securities Commission, the FME was to present standards for securities regulation. The manager explained that the FME was part of a committee including the Ministry of Finance, Central Bank, and market participants. "In this committee, we discuss how criteria fit into the Icelandic market. We come to a conclusion in broad terms following the standard, but taking account of the situation of a very small market like Iceland. It's a technical, financial, and political discussion that comes to a conclusion that is based on the [European] standard but takes note of the situation in the country." This characterization fits Iceland's political legacy, in which it would be "natural" for the financial industry to "tell the government what it wanted and the government would oblige" (Wade & Sigurgeirsdottir 2012, p. 135) and demonstrates a tendency to refract international standards to fit a set of beliefs about the country being distinct.

International financial actors, particularly the IMF, can play important regulatory roles by consulting with government and regularly assessing financial stability and systematic risk. In Iceland, IMF assessments noted sources of risk during periods of more acute manifestations, such as tight liquidity or sharp exchange rate declines (2001, 2006, and 2008). After the immediate impetus had passed in 2001 and 2006, however, financial market indicators (exchange rates and bank liquidity) demonstrated that Iceland and its banks had international financial legitimacy and considerably eased concerns. In 2001, when rapid currency depreciation decreased liquidity and raised concerns about indebted firms' and households' ability to repay loans, the IMF warned of "significant vulnerabilities" in Iceland's financial system (Alexander & Errico 2001). By 2003, the currency had strengthened. Even though the underlying debt structures and vulnerabilities to depreciation remained (and were starting to accelerate), a 2003 IMF update stated that Iceland's banking sector was better controlling risk (Kupiec 2003).

Developments in 2006 and 2007 illustrate how international markets generate evidence about international financial legitimacy, evidence that in turn can influence the extent to which international financial institutions exert regulatory force. In 2006, some global investment banks did not renew loans to Icelandic banks, raising worries about Icelandic banks' liquidity. The IMF issued reports sounding notes of concern (Honjo & Mitra 2006). In the ensuing months, the Icelandic government borrowed money to increase foreign reserves and Icelandic banks offered retail savings accounts in the UK and continental Europe as a new source of funds. The summary of IMF's 2007 Article IV Consultation Report for Iceland stated, "the banking sector appears well-placed to withstand significant credit and market shocks" (2007, p. 1). Importantly, the report noted that confidence in the Icelandic economy and banks – as indicated by improved exchange rates and spreads on credit default swaps on the Icelandic banks – reflected changing perceptions. The report stated that confidence in the banks "may also be due to a *greater understanding in international capital markets of Iceland's unique circumstances*. The banks have done a better job of explaining their business model and emphasizing that the size of the domestic economy can distort the picture suggested by standard ratios to GDP" (p. 7, emphasis added). International investors, therefore, distinguished credit cross-nationally, but needed to be convinced that these differences were legitimate.

International investors' responses, as communicated through market prices, played a central role, as illustrated by an early 2008 Organisation for Economic Co-operation (OECD) report: "the banks have continued to perform well and the financial system has remained stable. Several observers have concluded that the funding problems of the banks [in 2006] reflected a lack of

transparency concerning their business model and activities, as the concerns about market risk were shown to be exaggerated. The confidence returned and refunding problems of financial institutions were resolved as investor concerns were addressed" (OECD 2008, p. 29). A supplemental IMF report noted that international investor perceptions improved as the banks learned "to better manage perceptions" by "clarifying custody services versus actual shareholding in related companies" and "improving the dissemination of information to the market about the measures taken and *explaining the unique macroeconomic situation in Iceland*" (Tchaidze *et al.* 2007, p. 19; emphasis added). Such accounts of Iceland's purported exceptionalism excused the divergence of the country's indicators and garnered international financial legitimacy. This legitimacy yielded favorable market outcomes, but left banks (and Iceland's economy) vulnerable to a credit crisis. International financial institutions' reports were evidence that this leveraged structure could succeed in Iceland. International acceptance reinforced beliefs among certain Icelandic leaders that not only was the country different from Europe, it was superior to it (Wade 2009).

International legitimacy explains how banks were able to continue to increase leverage even though Iceland's debt level was significantly outside the parameters of other European countries. Iceland and its banks convinced international investors that its economy was unique, which increased Iceland's external financial legitimacy. International reports noting this difference fueled the Icelandic government and financial sector's confidence in their activities and reinforced Icelandic beliefs that it need not adhere to standard ratios of prudent debt levels. This success, however, further increased risk. International actors viewed Iceland and its banks as a single entity, sharing common characteristics; so when one bank failed, it became a proxy for the creditworthiness of the other banks and the country, accelerating the crisis.

4. Conclusions

Despite the magnitude of Iceland's 2008 financial collapse, the country's crisis followed a familiar pattern. After liberalization, the financial sector significantly expanded while firms and households increasingly accumulated debt. Yet Iceland's crisis was rooted deeply in the country's social and political institutions. As early as 2001, reflecting institutionalized political and social practices, the proximate causes of the crisis were in place: connected lending, international expansion, high leverage, and foreign debt. Private sector and government leaders shared a belief that markets reward nimble action and that Iceland was comparatively advantaged for such action. If independent decisionmakers – those not inhibited by government policy – could identify and pursue opportunities, Iceland would flourish. Financial liberalization changed the regulation of credit; in this context, the emergent private sector's aggressive expansion strategy set the country on a pathway to vulnerability. The expansion of household credit further increased aggregate leverage and facilitated the belief in Iceland's success. In the wake of increasing inequality, households increased consumption and differences in consumption across income levels decreased. These practices made the economic system reliant on (and vulnerable to a withdrawal of) international liquidity.

Regulation failed to check this concentration of risk. Socio-cognitive and political processes constrained effective prudential oversight by firms, government regulators, and global regulatory forces. Avarice certainly suppressed the efficacy of financial firms' internal risk management, but sincerely held understandings of how markets work and what regulation required also limited the extent and effectiveness of oversight. Shared beliefs about market operation and Icelandic character correspond with orientations toward regulation that involve only minimal compliance.

Although international and domestic actors (IMF and FME) diagnosed the financial system's potential risks, their policy recommendations were domestically refracted to sustain the view that Iceland had successfully harnessed internationally leveraged liberalization for growth. As market indicators subsequently improved, Iceland's international financial legitimacy grew, further limiting regulators' ability to act.

This single case study facilitates theory building and in-depth insight, but its scope and retrospective evidence limit the conclusions one can draw. Comparing this account with alternative explanations and considering other data sources can highlight insights and identify extensions of these ideas. For instance, exploring counterfactual questions could illuminate the distinct ways that demand for credit, institutional political legacies, firm strategy, and international financial legitimacy interact and shape vulnerability to crises and regulatory prospects: Would weaker household demand for credit result in greater questioning of banking practice? Would a change in orientation toward regulation (whether through incentives, professional identity, or cultural change) alter oversight? Would a divergence between firm strategy and government policy decrease international financial legitimacy? Iceland's history provides few relevant counterfactuals to address these questions, so such advances will likely come from comparative evidence.

Icelandic leaders' proclamations of exceptionalism and the country's success in convincing international financial actors that the country was unique echo the common refrain that "this time is different" (Reinhart & Rogoff 2009). The account offered here demonstrates that beliefs about markets and international ratings generate such conclusions of difference. The idea that markets develop suggests that as markets mature, firms and investors become more informed and stable, decreasing inherent risk. (Or, as a risk manager in Iceland put it in 2001, "If we use historical data three years back, it is not the same market as today.") Additionally, market-based governance creates such differentiation. Market-produced measures (interest rates or credit default swap spreads) replace absolute measures (debt-to-GDP ratio), as measures of acceptable risk. These indicators signal a particular market's or country's status, garnering financial legitimacy and demonstrating the likelihood of continued investment. These measures also enable a socio-cognitive financial world that transcends national boundaries, increasing credit flow between countries (Ó Riain 2012). Additional evidence concerning how Iceland's banks served as both lenders and borrowers could illuminate how lenders rely on these market-produced measures to determine creditworthiness. The evidence in this article is consistent with a correspondence between public statements and private decisions; such additional evidence could provide more fine-grained insight about how market-based risk assessment influences credit expansion at both individual and aggregate levels. Such evidence may also reveal the extent to which actors attribute financial success to their own intelligence (Toporowski 2009), enabling comparison between public rhetoric and private decisionmaking and identifying potential limits of self-regulation.

The expansion of leverage and lack of effective oversight in Iceland might suggest arguments that financialization can allow private interests to capture regulatory authority and the benefits of credit and profit expansion (Baker 2010; Froud & Williams 2007; Johnson & Kwak 2010). Such arguments, however, would have to account for the evidence that the affinities between government policy and private sector action pre-date and continued after privatization, despite conflict among business leaders. In addition, an approach more helpful than stretching the concept of capture to include "intellectual and cognitive capture" (Baker 2010, p. 653) is to examine cognitive orientations as generating sincerely held beliefs, which leaves open the possibility that regulatory authorities may perceive problems, but may lack authority in the field of social action. More detailed evidence on the origins and inner workings of the FME throughout the relevant period could uncover the extent to which its limited scope of action reflects intentional design or

beliefs about law and markets. Such evidence could also show how regulators processed information, discerned problems, and identified potential solutions as Iceland became increasingly vulnerable.

The article's account of Iceland's vulnerability to crisis offers additional insights that build theory. The analysis of how and why Iceland expanded credit extends Prasad's (2012) demand-side explanation by showing how credit's role in a country relates both to political strategies and to ideas about appropriate economic risk. Credit liberalization prompted financial innovation to support business expansion and household consumption. Even though government and business leaders clashed about who should control firms or lead government (Thorvaldsson 2009), they shared basic orientations about risk, attracting foreign capital, the role of credit, and the nature of regulation. In this respect, the case demonstrates how political-institutional and socio-cognitive processes reinforce the place of credit and can expand it.

The analysis also expands demand-side explanations by incorporating business sector demand. Typically, explanations of variations in debt–equity ratios of companies cross-nationally focus on bank centrality and the tax treatment of forms of capital (interest on debt and taxation of dividends and capital gains). These considerations are important, but they neglect other essential elements of the causal story: the broader meaning of business imperatives and the connections between businesses and the financial sector. Businesses placed a high value on maintaining deep connections to or even controlling financial firms, showing the importance of access to credit in Iceland. We may not conceptualize of a welfare state for businesses, but in a credit-dependent, self-help regime and in emergent regulatory capitalism, businesses may be the front-line providers of opportunity (e.g. hiring former public assistance recipients in exchange for tax credits). When firms play a greater role in providing credit-financed employment, decreased liquidity may exacerbate crises.

This enhanced demand-side explanation is particularly salient for countries Schwartz (2009) labels as the “Americanized rich:” those witnessing a combination of business-related external foreign direct investment and consumer demand related to housing or other credit-based consumption. This explanation – by attending to the meaning of credit in an economy, the processes through which domestic firms and households expand leverage, and the relationship between consumption, inequality, and social stability – offers an account for how vulnerability may differ across countries and time. Future research may consider whether increased consumption may decrease political contention and inhibit calls for regulation.

Additionally, the analysis highlights how international financial legitimacy can sustain increased leverage. Such legitimacy may derive not only from policy and firm behavior, but also from households' access to credit (Seabrooke 2006). Beyond mobilizing household resources, increasing consumption by the bottom half of households could provide stability and legitimacy and demonstrate economic success. Further evidence about how financial actors assess a country's financial status could establish how countries build such legitimacy.

Finally, the analysis shows how market-based regulation may result in ineffective prudential supervision. In Iceland, regulation failed not because the government regulator or international bodies were oblivious to the underlying problems. Rather, market-produced indicators narrowed the grounds for regulatory action. In the context of self-regulation, actors' ideas about appropriate information may hide important facts (such as a risk manager discounting the size of tail events). But when market outcomes serve as risk metrics, regulators' ability to act is further constrained. The reality-making character of market outputs poses challenges to financial regulators who seek to ensure prudent behavior; market participants themselves and their perceptions of opportunity and risk shape market outcomes. That is, the political-institutional

legacies and socio-cognitive elements that foster risky behavior can produce market outputs that do not accurately signal risk. In Iceland, regulatory change did not produce incompetent regulators. Nor did financial firms and government leaders simply ignore regulators. Instead, the structural change in regulation foreclosed opportunities to voice and heed regulatory cautions about persistent underlying vulnerability, as market prices falsely signaled that those cautions were unwarranted.

Acknowledgments

The US National Science Foundation and University of Minnesota provided funding for some of the research underlying this paper. Previous versions of this research were presented at the annual meetings of the Council for European Studies and the Midwest Sociological Society. I thank Joshua Rubin for assisting with location and compilation of World Bank data on private sector credit. I am grateful for comments and assistance provided by the Editors, anonymous referees, Mara Aussendorf, Amy Bergquist, David Blaney, Andrew Latham, Sean Ó Riain, and Patrick Schmidt.

Notes

- 1 Oddsson claimed that “The whole of society flourishes and becomes more diverse when each and every one of us keeps more of what we earn and can dispose of it as we please” (Oddsson 2004a). In this and other speeches (e.g. Oddsson 1999, 2004b), he attributed Iceland's economic growth in the 1990s and early 2000s to liberalization, regulatory change, and decreased taxation that enabled the educated Icelanders to establish business ventures to capitalize on opportunities from global and technological change.
- 2 Iceland moved from a net position of greater inbound foreign direct investment (FDI) of 8.5 billion Icelandic Króna (ISK) in 1998, to a net position of greater outbound FDI of 23.9 billion ISK in 2000. By 2003, the net outbound position was over 90 billion ISK. Despite more balance in net FDI flows, outbound FDI spiked from 180 billion ISK in 2004, to 648 billion ISK in 2007. FDI figures derived from *Sedlabanki Íslands* (Central Bank of Iceland): *Bein Fjárfesting Erlendra Aðila á Íslandi* and *Bein Fjárfesting Íslendinga Erlendis*. [Last accessed 10 October 2013.] <http://www.sedlabanki.is/nanar/2012/09/10/Bein-fjarfesting/>.
- 3 Oddson saw Iceland's increasing overseas expansion as “a very positive development which shows beyond all doubt the enormous force unleashed when the state entrusts individuals with freedom of action” (2004a).
- 4 Household expenditures compiled from *Hagstofa Íslands* (Statistics Iceland), *Rannsókn á Útgjöldum Heimila*. [Last accessed 10 October 2013.] http://www.hagstofa.is/pages/1517/?src=../vorulyisingar/v_transporter.asp?filename=V01031.htm.
- 5 Housing data are from *Þjóðskrá Íslands* (Registers Iceland) (“Fjöldi Íbúða á Íslandi eftir Sveitarfélögum í Árslok Hvers Árs frá Árinu 1994 til og með 2010” and “Fjöldi Sumarhúsa eftir Landshlutum frá Árinu 1997 til og með 2010”). [Last accessed 10 October 2013.] <http://www.skra.is/Markadurinn/Talnaefni>. Rates of growth were fastest from 2003 until 2007. During this time, Iceland's population increased 15 percent. See [Last accessed 10 October 2013.] <http://www.statice.is/Statistics/Population/Overview>. For comparison, housing units in the US increased 14 percent during this period, while population increased 13 percent. See US Census Bureau's “American Housing Survey,” “Population Profile,” and annual population estimates.
- 6 The stabilizing effect of this debt-fueled consumption on Icelandic society is further demonstrated by the counterfactual: during the crisis, consumer goods became more expensive and sources of financing consumption dried up, which is when popular protest emerged.

References

- Abolafia MY (2010) The Institutional Embeddedness of Market Failure: Why Speculative Bubbles Still Occur. *Research in the Sociology of Organizations* 30B, 177–200.
- Alexander WE, Errico L (2001) Iceland: Financial System Stability Assessment. IMF Country Report 01/85. International Monetary Fund, Washington, DC.
- Ang JB (2010) Finance and Inequality: The Case of India. *Southern Economic Journal* 76, 738–761.
- Ásgrímsson H (2006) Icelandic Investments in the UK – an Invasion? Speech by the Prime Minister of Iceland at the Millennium Hotel, 22 February 2006, London. [Last accessed 10 October 2013.] Available from URL: http://eng.forsaetisraduneyti.is/minister/Speeches_HA/nr/2254.
- Baker A (2010) Restraining Regulatory Capture? Anglo-America, Crisis Politics, and Trajectories of Change in Global Financial Governance. *International Affairs* 86, 647–663.
- Baldwin R, Black J (2008) Really Responsive Regulation. *Modern Law Review* 71, 59–94.
- Bandelj N (2003) Particularizing the Global: Reception of Foreign Direct Investment. *Current Sociology* 51, 375–392.
- Benediktsdóttir S, Danielsson J, Zoëga G (2011) Lessons from a Collapse of a Financial System. *Economic Policy* 26(66), 183–235.
- Beunza D, Stark D (2012) From Dissonance to Resonance: Cognitive Interdependence in Quantitative Finance. *Economy and Society* 41, 383–417.
- Beunza D, Hardie I, MacKenzie D (2006) A Price Is a Social Thing: Towards a Material Sociology of Arbitrage. *Organization Studies* 27, 721–745.
- Black J (2008) Constructing and Contesting Legitimacy and Accountability in Polycentric Regulatory Regimes. *Regulation & Governance* 2, 137–164.
- Boyes R (2009) *Meltdown Iceland: Lessons on the World Financial Crisis from a Small Bankrupt Island*. Bloomsbury, New York.
- Brady D (2009) *Rich Democracies, Poor People: How Politics Explain Poverty*. Oxford University Press, New York.
- Braithwaite J (2008) *Regulatory Capitalism: How It Works, Ideas for Making It Work Better*. Edward Elgar, Northampton, MA.
- Braithwaite J, Drahos P (2000) *Global Business Regulation*. Cambridge University Press, New York.
- Campbell JL (2010) Neoliberalism in Crisis: Regulatory Roots of the U.S. Financial Meltdown. *Research in the Sociology of Organizations* 30B, 65–101.
- Carey D (2009) Iceland: The Financial and Economic Crisis. OECD Economics Department Working Papers, No. 725, OECD, Paris. [Last accessed 10 October 2013.] Available from URL: <http://dx.doi.org/10.1787/221071065826>.
- Carruthers BG (2010) Knowledge and Liquidity: Institutional and Cognitive Foundations of the Subprime Crisis. *Research in the Sociology of Organizations* 30A, 157–182.
- Conley D, Gifford B (2006) Home Ownership, Social Insurance, and the Welfare State. *Sociological Forum* 21, 55–82.
- Davis GF (2009) *Managed by the Markets: How Finance Re-shaped America*. Oxford University Press, New York.
- DiMaggio P (1997) Culture and Cognition. *Annual Review of Sociology* 23, 263–287.
- Dobbin F (1994) *Forging Industrial Policy: The United States, Britain, and France in the Railway Age*. Cambridge University Press, New York.
- Eliasson L, Pétursson TG (2009) The Residential Housing Market in Iceland: Analysing the Effects of Mortgage Market Restructuring. *Housing Studies* 24, 25–45.
- Erikson E, Bearman P (2006) Malfeasance and the Foundations for Global Trade: The Structure of English Trade in the East Indies, 1601–1833. *American Journal of Sociology* 112, 1601–1833.
- Euromoney* (London) (2002) Questions over Landsbanki's New Shareholder. 1 Nov.
- Fjáramálaeftirlitið (2000) *Arsskýrsla*. Fjáramálaeftirlitið, Reykjavík.

- Fligstein N (2001) *The Architecture of Markets: An Economic Sociology of Twenty-first Century Capitalist Societies*. Princeton University Press, Princeton, NJ.
- Fligstein N, Goldstein A (2010) The Anatomy of the Mortgage Securitization Crisis. *Research in the Sociology of Organizations* 30A, 29–70.
- Fourcade M (2009) *Economists and Societies: Discipline and Profession in the United States, Britain, and France, 1890s to 1990s*. Princeton University Press, Princeton, NJ.
- Fourcade M (2011) Cents and Sensibility: Economic Valuation and the Nature of “Nature”. *American Journal of Sociology* 116, 1721–1777.
- Frank RH (2005) Positional Externalities Cause Large and Preventable Welfare Losses. *The American Economic Review* 95, 137–141.
- Froud J, Williams K (2007) Private Equity and the Culture of Value Extraction. *New Political Economy* 12, 405–420.
- Gilad S (2011) Institutionalizing Fairness in Financial Markets: Mission Impossible? *Regulation and Governance* 5, 309–332.
- Gilardi F, Jordana J, Levi-Faur D (2006) Regulation in the Age of Globalization: The Diffusion of Regulatory Agencies across Europe and Latin America. In: Hodge G (ed) *Privatization and Market Development: Global Movements in Public Policy Ideas*, pp. 127–147. Edward Elgar, Cheltenham.
- Gorton G (2009) Information, Liquidity, and the (Ongoing) Panic of 2007. *American Economic Review: Papers & Proceedings* 99, 567–572.
- Gylfason T (2010) From Boom to Bust: The Iceland Story. In: Gylfason T, Holmström B, Korkman S, Söderström HT, Vihriälä V (eds) *Nordics in Global Crisis: Vulnerability and Resilience*, pp. 137–166. The Research Institute of the Finnish Economy (ETLA), Helsinki.
- Haveman HA, Rao H (1997) Structuring a Theory of Moral Sentiments: Institutional and Organizational Coevolution in the Early Thrift Industry. *American Journal of Sociology* 102, 1606–1651.
- Hilmarrsson T (2003) Energy and Aluminium in Iceland. Platts Aluminium Symposium, 12–14 January 2003, Phoenix, AZ. Landsvirkjun.
- Honjo K, Mitra S (2006) Iceland: Selected Issues. IMF Country Report 06/297. International Monetary Fund, Washington, DC.
- Hunt B, Tchaidze R, Westin AM (2005) Iceland: Selected Issues. IMF Country Report 05/366. International Monetary Fund, Washington, DC.
- Iceland Review (Reykjavik) (2005) Privatization of Banks Draws Heavy Fire. 31 May.
- IMF (International Monetary Fund) (2003) Iceland: Staff Report for the 2003 Article IV Consultation. IMF Country Report 03/266. Washington, DC.
- IMF (International Monetary Fund) (2007) Iceland: Staff Report for the 2007 Article IV Consultation. IMF Country Report 07/295. Washington, DC.
- IMF (International Monetary Fund) (2008a) Iceland: 2008 Article IV Consultation – Staff Report. European Department. IMF Country Report 08/367. Washington, DC.
- IMF (International Monetary Fund) (2008b) Iceland: Financial System Stability Assessment – Update. Monetary and Capital Markets and European Departments. IMF Country Report 08/368, Washington, DC.
- IMF (International Monetary Fund) (2009) Iceland First Review under Stand-by Arrangement and Requests for Extension of the Arrangement, Waivers of Nonobservance of Performance Criteria, and Rephasing of Access. European Department IMF Country Report 09/306. Washington, DC.
- Jännäri K (2009) *Report on Banking Regulation and Supervision in Iceland: Past, Present, and Future*. Prime Minister's Office, Reykjavik.
- Johnson S, Kwak J (2010) *13 Bankers: The Wall Street Takeover and the Next Financial Meltdown*. Pantheon Books, New York.
- Jónsson Á (2009) *Why Iceland? How One of the World's Smallest Countries Became the Meltdown's Biggest Casualty*. McGraw-Hill, New York.

- Jónsson G (2001) The Icelandic Welfare State in the Twentieth Century. *Scandinavian Journal of History* 26, 249–267.
- Jónsson G (2011) Boom and Crisis in Iceland through the Prism of Consumption. Presented at Crisis & Renewal: Welfare States, Democracy, and Equality in Hard Times, June, Reykjavík. [Last accessed 10 October 2013.] Available from URL: <http://renewal.hi.is/wp-content/uploads/2011/05/Boom-and-crisis-in-Iceland-through-the-prism-of-consumption.pdf>.
- Kaminsky GL, Reinhart CM (1999) The Twin Crises: The Causes of Banking and Balance-of-payment Problems. *American Economic Review* 89, 473–500.
- Kim B (2006) The Effect of Social Structural Factors on Foreign Market Entry. Dissertation Abstracts International 66(8A), 3116. (UMI No. 3187305.)
- King BG, Pearce NA (2010) The Contentiousness of Markets: Politics, Social Movements, and Institutional Change in Markets. *Annual Review of Sociology* 36, 249–267.
- Krawiec KD (2009) The Return of the Rogue. *Arizona Law Review* 51, 127–174.
- Krippner GR (2010)) The Political Economy of Financial Exuberance. *Research in the Sociology of Organizations* 30B, 141–173.
- Krippner GR (2011) *Capitalizing on Crisis: The Political Origins of the Rise of Finance*. Harvard University Press, Cambridge, MA.
- Kupiec P (2003) Iceland: Financial System Stability Assessment (FSSA) Update. Monetary and Financial Systems and European Departments. IMF Country Report 03/271. International Monetary Fund, Washington, DC.
- Larson EW (2004) Institutionalizing Legal Consciousness: Regulation and the Embedding of Market Participants in the Securities Industry in Ghana and Fiji. *Law and Society Review* 38, 737–767.
- Levi-Faur D (2005) The Global Diffusion of Regulatory Capitalism. *Annals of the American Academy of Political and Social Science* 598, 12–32.
- Levine AS, Frank RH, Dijk O (2010) Expenditure Cascades. SSRN, 13 September 2010. [Last accessed 10 October 2013.] Available from URL: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1690612.
- Lucas A (2001) Evaluating the Basel Guidelines for Backtesting Banks' Internal Risk Management Models. *Journal of Money, Credit, and Banking* 33, 826–846.
- McBarnet D (2008) After Enron: Corporate Governance, Creative Compliance, and the Uses of Corporate Social Responsibility. In: O'Brien J (ed) *Governing the Corporation: Regulation and Corporate Governance in an Age of Scandal and Global Markets*, pp. 205–222. John Wiley & Sons, Hoboken, NJ.
- MacKenzie D (2011) The Credit Crisis as a Problem in the Sociology of Knowledge. *American Journal of Sociology* 116, 1778–1841.
- Magnússon Á (2004a) Félagsleg Húsnæðismál á Íslandi. Speech at Housing Nordic Conference, 2 September 2004, Reykjavík. [Last accessed 10 October 2013.] Available from URL: <http://www.velferdarraduneyti.is/radherra/raedur-og-greinarAM/nr/1619>.
- Magnússon Á (2004b) Fjórðungsþing Vestfirðinga. [Last accessed 10 October 2013.] Available from URL: <http://www.velferdarraduneyti.is/radherra/raedur-og-greinarAM/nr/1620>.
- Marshall TH (1950) *Citizenship and Social Class*. Cambridge University Press, New York.
- Mayes DG (2009) Did Recent Experience of a Financial Crisis Help in Coping with the Current Financial Turmoil? The Case of Nordic Countries. *Journal of Common Market Studies* 47, 997–1015.
- de Michelis A (2009) Iceland: Challenging Times for Monetary and Fiscal Policies. OECD Economics Department Working Papers No. 726, OECD, Paris. [Last accessed 10 October 2013.] Available from URL: <http://dx.doi.org/10.1787/221000115525>.
- Ó Riain S (2012) The Crisis of Financialisation in Ireland. *The Economic and Social Review* 43, 497–533.
- Oddsson D (1999) Policy Statement. Speech to the Alþingi, 4 October 1999, Reykjavík. [Last accessed 10 October 2013.] Available from URL: <http://eng.forsaetisraduneyti.is/minister/speeches-and-articles/nr/309>.

- Oddsson D (2004a) Iceland's Economic Performance. Address at the American Enterprise Institute, 14 June 2004, Washington DC. [Last accessed 10 October 2013.] Available from URL: <http://eng.forsaetisraduneyti.is/minister/speeches-and-articles/nr/1391>.
- Oddsson D (2004b) Outside the EU: The Case of Iceland. Speech at Linacre College, 27 April 2004, University of Oxford, UK. [Last accessed 10 October 2013.] Available from URL: <http://eng.forsaetisraduneyti.is/minister/speeches-and-articles/nr/1323>.
- OECD (Organisation for Economic Co-operation and Development) (2008) OECD Economic Surveys: Iceland 2008. Volume 2008/3 (February). OECD, Paris.
- Ólafsson S (2003a) Contemporary Icelanders: Scandinavian or American? *Scandinavian Review* 91, 6–14.
- Ólafsson S (2003b) Welfare Trends of the 1990s in Iceland. *Scandinavian Journal of Public Health* 31, 401–404.
- Ólafsson S (2011a) Icelandic Capitalism: From Statism to Neoliberalism and Financial Collapse. *Comparative Social Research* 28, 1–51.
- Ólafsson S (2011b) Iceland's Financial Crisis and Level of Living Consequences. Working Paper, 3:2011. Þjóðmálastofnun, Social Research Centre, University of Iceland. [Last accessed 10 October 2013.] Available from URL: http://thjodmalastofnun.hi.is/sites/thjodmalastofnun.hi.is/files/skrar/icelands_financial_crisis_and_level_of_living.pdf.
- Ólafsson S (2011c) Iceland's Social Inclusion Environment. Working Paper, 2:2011. Þjóðmálastofnun, Social Research Centre, University of Iceland. [Last accessed 10 October 2013.] Available from URL: http://thjodmalastofnun.hi.is/sites/thjodmalastofnun.hi.is/files/skrar/icelands_social_inclusion_environment_0.pdf.
- Ólafsson S, Kristjánsson AS (2010) Income Inequality in a Bubble Economy: The Case of Iceland 1992–2008. Presented at Luxembourg Income Study Conference, 28–30 June 2010, Luxembourg. [Last accessed 10 October 2013.] Available from URL: <http://www.lisdatacenter.org/conference/papers/olafsson-kristjansson.pdf>.
- Parker C, Nielsen V (2009a) The Challenge of Empirical Research on Business Compliance in Regulatory Capitalism. *Annual Review of Law & Social Science* 5, 45–70.
- Parker C, Nielsen V (2009b) Corporate Compliance Systems: Could They Make A Difference? *Administration & Society* 41, 3–37.
- Pozner J, Stimmler MK, Hirsch PM (2010) Terminal Isomorphism and the Self-destructive Potential of Success: Lessons from Subprime Mortgage Origination and Securitization. *Research in the Sociology of Organizations* 30A, 183–216.
- Prasad M (2005) Why Is France So French? Culture, Institutions, and Neoliberalism, 1974–1981. *American Journal of Sociology* 111, 357–407.
- Prasad M (2012) *The Land of Too Much: American Abundance and the Paradox of Poverty*. Harvard University Press, Cambridge, MA.
- Quinn S (2010) “Things of Shreds and Patches”: Credit Aid, the Budget, and Securitization in the Postwar Era. Unpublished manuscript, University of Washington.
- Rannsóknarnefnd Althingis (2010) Aðdragandi og Orsakir Falls Íslensku Bankanna 2008 og Tengdir Atburðir. Reykjavík.
- Reinhart CM, Rogoff KS (2009) *This Time Is Different: Eight Centuries of Financial Folly*. Princeton University Press, Princeton, NJ.
- Rona-Tas A, Hiss S (2010) The Role of Ratings in the Subprime Mortgage Crisis: The Art of Corporate and the Science of Consumer Credit Rating. *Research in the Sociology of Organizations* 30A, 115–155.
- Rubtsova A, DeJordy R, Glynn MA, Zald M (2010) The Social Construction of Causality: The Effects of Institutional Myths on Financial Regulation. *Research in the Sociology of Organizations* 30B, 201–244.
- Schiller RJ (2008) *The Subprime Solution: How Today's Global Financial Crisis Happened and What to Do about It*. Princeton University Press, Princeton, NJ.

- Schneiberg M, Bartley T (2008) Organizations, Regulation, and Economic Behavior: Regulatory Dynamics and Forms from the Nineteenth to Twenty-first Century. *Annual Review of Law & Social Science* 4, 31–61.
- Schwartz HM (2009) *Subprime Nation: American Power, Global Capital, and the Housing Bubble*. Cornell University Press, Ithaca, NY.
- Schwartz H (2011) Iceland's Financial Iceberg: Why Leveraging Up is a Titanic Mistake Without a Reserve Currency. *European Political Science* 10, 292–300.
- Seabrooke L (2006) *The Sources of Financial Power: Domestic Legitimacy and International Financial Orders*. Cornell University Press, Ithaca, NY.
- Snider L (2009) Accommodating Power: The “Common Sense” of Regulators. *Social & Legal Studies* 18, 179–197.
- Snider L (2011) The Conundrum of Financial Regulation: Origins, Controversies, and Prospects. *Annual Review of Law & Social Science* 7, 121–137.
- Spanjers W (2008) Loss of Confidence and Currency Crises. *International Journal of Economic Research* 5, 219–237.
- Stiglitz JE (2010) *Freefall: America, Free Markets, and the Sinking of the World Economy*. W.W. Norton, New York.
- Suchman MC, Edelman LB (1997) Legal Rational Myths: The New Institutionalism and the Law and Society Tradition. *Law and Social Inquiry* 21, 903–941.
- Swedberg R (2010) The Structure of Confidence and the Collapse of Lehman Brothers. *Research in the Sociology of Organizations* 30A, 71–114.
- Tchaidze R, Annett A, Ong LL (2007) Iceland: Selected Issues. IMF Country Report 07/296. International Monetary Fund, Washington, DC.
- Thorvaldsson A (2009) *Frozen Assets: How I Lived Iceland's Boom and Bust*. John Wiley & Sons, Chichester.
- Toporowski J (2009) The Economics and Culture of Financial Inflation. *Competition & Change* 13, 145–156.
- Vogel SK (1996) *Freer Markets, More Rules: Regulatory Reform in Advanced Industrial Countries*. Cornell University Press, Ithaca, NY.
- Wade R (2009) Iceland As Icarus. *Challenge* 52 (3), 5–33.
- Wade RH, Sigurgeirsdottir S (2012) Iceland's Rise, Fall, Stabilisation, and Beyond. *Cambridge Journal of Economics* 36, 127–144.
- Wherry FF (2012) *The Culture of Markets*. Polity Press, Malden, MA.
- World Bank (2011) World Development Indicators. [Last accessed 10 October 2013.] Available from URL: <http://data.worldbank.org/data-catalog/world-development-indicators>.
- Zelizer V (2002) Enter Culture. In: Guillén MF, Collins R, England P, Meyer M (eds) *The New Economic Sociology: Developments in An Emerging Field*, pp. 101–125. Russell Sage Foundation, New York.