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# Thrown Together: Credit Union and Commercial Bank Regulation and Competition in the Consumer Finance Industry, 1960-2015

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# THROWN TOGETHER: CREDIT UNION AND COMMERCIAL BANK REGULATION AND COMPETITION IN THE CONSUMER FINANCE INDUSTRY, 1960-2015

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DISSERTATION

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A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in the
College of Arts & Sciences
at the University of Kentucky

By

Grace E. Cale

Lexington, Kentucky

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Lexington, Kentucky

ABSTRACT OF DISSERTATION

# THROWN TOGETHER: CREDIT UNION AND COMMERCIAL BANK REGULATION AND COMPETITION IN THE CONSUMER FINANCE INDUSTRY, 1960-2015

This project seeks to assess whether there are meaningful differences between the stability of the Credit Union and Consumer Banking industries before the 1980s, and how both industries' stability had been affected by subsequent political-economic changes. I also sought to assess if deregulation would make credit union behave at risk levels similar to banks. I initially observed that there was a strong inverse correlation between credit union size and failures, which I argue could be explained by regulatory change. This claim was strengthened by the observation that credit unions had benefitted from certain key forms of deregulation, they were still deregulated to a lesser extent than banks and had still decreased their failure rates. After the early 1980s, credit unions suffered far lower rates of outright failure than banks during subsequent economic downturns.

The project found that regulation works, but while credit unions can eventually come to resemble bank' risk patterns, it has not happened yet. Time series analysis revealed that regulatory change had a greater effect on this than most other model variables, even if they were aggregated into categories of industry-level or economy-level variables. The most telling finding was that banks were able to leverage their market status and political power to deregulate in a way that primarily benefitted them and allowed them to maintain their market position. Conversely, they reduced the level of deregulation permitted to credit unions; credit unions did still gain substantial freedom compared to the postwar years, but still more often faced increases in regulation than banks did. This may have ended up benefitting credit unions the most, as a balanced approach to deregulation allowed them stable growth.

KEYWORDS: Markets, Economic Sociology, Neoliberalism, Finance, Regulation, Social Theory

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April 13, 2020

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# THROWN TOGETHER: CREDIT UNION AND COMMERCIAL BANK REGULATION AND COMPETITION IN THE CONSUMER FINANCE INDUSTRY, 1960-2015

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*To my partner, who loved me kept the trains moving while I couldn't. And fed me.*

*To my three parents and their infinite support, half of whom got to see not only a first-generation college graduate, but a first-generation Doctor. Their choices made this possible.*

*To my sister, to whom I am cosmically linked. She knows everything. Watch out.*

*And to myself. I was more stubborn than the mountain was infinite.*

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| **ABA** | American Bankers Association |
| **ACH** | Automated Clearing House |
| **CCU** | Corporate Credit Union |
| **CNI** | Change in Net Income |
| **CPI** | Consumer Price Index |
| **CU** | Credit Union |
| **DIDMCA** | Depository Institution Deregulation & Monetary Control Act, 1980 |
| **FDIC** | Federal Deposit Insurance Corporation |
| **FDICIA** | Federal Deposit Insurance Corporation Improvement Act, 1991 |
| **FIRE** | Finance, Insurance, & Real Estate |
| **FIRREA** | Financial Institutions Reform, Recovery and Enforcement Act,1989 |
| **FSLIC** | Federal Savings & Loan Insurance Corporation |
| **LN-SH** | Loan-to-Share |
| **NCU** | Natural-person Credit Union |
| **NCUA** | National Credit Union Administration |
| **NCUSIF** | National Credit Union Share Insurance Fund |
| **OCC** | Office of the Comptroller of the Currency |
| **OECD** | Organization for Economic Cooperation & Development |
| **OTS** | Office of Thrift Supervision |
| **S&L** | Savings & Loan Bank/Institution |

# Chapter One: Competitors in Different Games

Since the Industrial Revolution and its attendant human suffering, environmental degradation, and economic & market failures, it has been argued that market capitalism in its various forms cannot reach a balanced (in terms of efficiency and equity) distribution of resources without significant state intervention via regulation (among other things). It is no different in the United States, where debates over whether, how, and how much the state should intervene in the economy have always been heated, and whether those interventions should be in the interest of economic efficiency or equity. This debate can be seen in the American economic traditions that dominated the 20th century to the present – for decades, Keynesian economics and more equity-inclined ideologies dominated policymaking in the US, until Neoliberalism moved from fringe economic theory in the 1960s to the ideological powerhouse it is today. A key element of both of these ideologies is an argument about whether state intervention in economics, especially via regulation, can ever truly benefit a society, how such will affect a capitalist system's balance between efficient and equitable outcomes, and whether a level of regulation even exists which can promote both equitable social outcomes and the consistent growth patterns demanded of a market capitalist system such as exists in the US.

A contemporary stage where the stakes of this debate are clear is that of the American financial industry, particularly in the world of consumer finance. After the industrial revolution made the need for state intervention in economies apparent, in the United States the costs of failing to do so cast a stark shadow in the fallout of the 1929 stock market crash, the effects of which have become a core part of basic American history: The Great Depression. Among many responses to that profound economic disaster was the birth of meaningful financial industry regulation in the United States.

Along with a historical precedent for financial regulation and a slew of policies since, this period also birthed decades of sociological and economic theory finding strong support for the fallibility of markets, and though political debate remains hot, the single most common

conclusion in the sociological literature (and among Keynesian and social economists) has been that regulation leads to more social good than economic harm (Calavita, Tillman and Pontell 1997; Carruthers 2009; Carruthers and Kim 2011; Davies 2014; Dobbin and Sutton 1998; Epstein 2005; Furner 2009; Granovetter 1985; Harvey 1988; King and Pearce 2010; Krippner 2011; Pacewicz 2013; Prasad 2006; Schneiberg and Bartley 2001; Stiglitz 2008; Stryker 2000; Way 2005). Indeed, the massive sociological literature devoted to social welfare programs can largely be understood as a study of capitalism's social costs, as the nature of capitalist systems demands the placement of workers in unlivable circumstances (Block and Somers 2014; Piven and Cloward 1978; Piven and Cloward 1971; Robbins 2005; Somers and Block 2005). In a point supported by numerous researchers since, the widespread suffering from unregulated capitalism could become so great that the market system destroys itself (Block and Somers 2014; Furner 2009; Polanyi 1944; Somers and Block 2005; Stiglitz 2008).

Yet a difficulty in studying the value of economic regulation in financial industries, is that because banking institutions have consistently and effectively fought against regulation over the decades (especially since the late 1970s), there exist few natural experiments allowing for a study of how different levels of regulation affect industry growth and risk to the wellbeing of the general public. Considering this difficulty has led to a surprising discovery: that not only does the opportunity for such a comparison exist, but that it also has not previously been considered by sociologists. Sharing economic space with banks are credit unions: not-for-profit cooperative financial institutions owned by account holders united by a "common bond", such as university affiliation or place of employment.

Despite their standing as a growing and increasingly visible force in consumer finance, virtually no sociological attention has been paid to federal credit unions as a topic of intentional study. This is surprising given their complex position in financial industries and communities, their relatively unique institutional structures, and their supposed mandate to be involved in the communities of their customer bases. Credit unions are well-suited to addressing questions of

market stability because their functions straddle the goals of market competition and community development, with a legally limited customer base (Lune and Martinez 1999; Moulton 2007). Despite wrestling with economies of scale, credit unions tend to be comparatively more stable than banks during difficult times (Glasberg and Skidmore 1997). This may be due in part to their unique regulatory environment, raising questions of whether we can learn from the credit union model to develop more stable financial economic relations. In this case, we can examine how differences in the regulation of banks and credit unions explains differences in their stability and what those dynamics can tell us about how to produce stable, effective, and possibly more equitable financial markets.

**Research Questions**

A core element of this study is to test the broad argument by sociologists that regulation leads to a more stable economy, much theorized but seldom empirically tested. I will also simultaneously test the claim made by Credit Union industry insiders that CUs are less likely to fail than for-profit institutions such as banks. This work will be guided by the research question: *Was there a meaningful difference between the stability of the Credit Union and Consumer Banking industries before the 1980s, and how have both industries' stability been affected by the subsequent political-economic changes?* The first part of this question essentially requires a basic comparison of failure rates and indicators of stability. Initially, I will examine whether there is a substantive difference between not only the frequency of failure of credit unions and banks, but also whether there is a difference between each institution type along several other variables related to stability and failure. These can include measures such as profits, growth in numbers of accounts and loans, loan-to-account ratios, and actual failure or takeover rates.[1] Worth noting, however, is that a finding of no difference in failure or stability measures between banks and credit unions does not necessary derail the study. Rather, given their different regulatory

[1] Specifics regarding methodology, data collection, and variable calculation can be found in Chapter 4.

environments, a potential finding of no difference raises the important question of why regulation seems to have no significant effect on institutional stability, a question that remains under-attended in the field. Not only would this be an interesting direction to explore, but it would also provide a novel counterpoint to sociological assumptions about the function and effectiveness of regulation.

The second part of this research question will constitute the greatest portion of the dissertation project, as it will require developing a more in-depth understanding of the banking and credit union industries. Addressing the second clause of the research question will require examining what accounts for the significance or insignificance of differences between banks and credit unions. This would require more advanced statistical analysis, as I would have to compose regression models testing the relative effects of regulation on stability as compared to other commonly referenced measures of institutional strength, such as an institution's financial size, membership, age, or range of services offered. Also, given how the state of regulation in general has changed over time, most notably with the rise of neoliberalism and financialization, I can customize these models to not only examine the aggregate timeline, but also sets of decades or significant stretches of time.

The second research question for this project asks: *Will the changes in economic ideology and market structure cause credit unions and banks to develop increasingly similar levels of stability?* In the United States there has been a mercurial understanding of the role of state regulation in the economy, a perspective which grew notably negative with the rise of neoliberal ideology in the 1980s. American regulation has developed cyclical patterns of strength and weakness, and faced frequent, powerful opposition. I expect to find that over time, as circumstances change with the spread of free-market ideologies, each industry will face pressure to conform in some way to a changing set of values.

For example, though credit unions have a strong history of valuing the notion of democratic control and community support over profit, they also have historically fought

regulation, and have recently done so with more fervor. At a 2013 Conference for Bank Managers and Directors, Elizabeth Duke, then a Governor of the Board of Governors of the Federal Reserve System, frequently evoked imagery of exhausting and burdensome regulatory changes regarding credit unions:

> "I completely understand how tiring it is to fight a financial crisis and survive a deep recession followed by a weak recovery only to confront what seems to be a tsunami of new regulations. … I was a community banker [in 1991]. We had survived the savings and loan crisis with some bruises, but we were still standing. The Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA) had been followed by the Federal Deposit Insurance Corporation Improvement Act (FDICIA) in 1991. I had more new regulations stacked on my desk than I had employees in the bank. …Frankly, I didn't know how I was going to tackle all that lay in front of us. …Federal Reserve research over the years has confirmed that the burden of regulations falls disproportionately on smaller banks. (Duke 2013, p. 1)"

This is reminiscent of the conflict between banks and credit unions that has existed at least since the first wave of credit union growth in the US (Morman 1920), wherein banks advocated for regulations which made CUs less competitive, and credit unions fought for more lenient treatment. Thus, one question that this project will address via its findings is that if credit unions are safer intuitions, will they be as stable today as in the 1970s before the wave of neoliberal policies began?

As this research progresses, I expect to find a case study of effective financial regulation in action, weakened over time by neoliberal ideology and financialization. I will use this to demonstrate how different regulatory regimes can contribute to economic stability and growth. This project will thus contribute to research which has focused on problems in the banking industry by studying potential solutions on not only the national policy level, but also through the credit union industry, which in the US has been largely ignored by sociologists.[2] It will also

[2] There is a somewhat healthy literature about credit unions and their role in communities in other countries, but American credit unions have seldom ever been the topic of focused study, and certainly not as theoretically meaningful contributors to the sociology of finance, regulation, or economic sociology more broadly. Heather Haveman in the 1980s and 1990s conducted some research on state-chartered credit unions, but that research has not been generalizable and was focused on abstract organizational structures.

provide a test and application of sociological and social-economic theoretical claims (e.g. Fligstein, Polanyi, and Stiglitz) regarding the consequences of regulatory rollbacks, a concept that has not received rigorous empirical analysis.

Economists have argued that markets are self-regulated because of self-interest. Firms will avoid damaging the public good for fear of driving away business (Dobbin and Sutton 1998; Glasberg and Skidmore 1997; Gupta and Lad 1983; Short and Toffel 2010; Stiglitz 2008). Adam Smith argued that by pursuing their own interests, individuals and firms would be led to choices which maximize general wellbeing through efficient distribution of resources (Dobbin and Sutton 1998; Stiglitz 2008). While this remains theoretically possible, sociologists have argued that not only are there countless contrary examples, but "…no one believes that the conditions under which that statement is true are satisfied, (Stiglitz 2008 p.3)" at any point in reality (Epstein 2005; Fligstein and Dauter 2007; Granovetter 1985; Swedberg 1991; Swedberg 2007). This has led sociologically-inclined researchers to conclude that the idea that markets lead to efficient outcomes "has, in short, no theoretical justification (Stiglitz 2008 p.3).

Instead, researchers have argued that because of their basis in social relations and their existence as a field for power struggles[3], markets are inherently unstable and must be regulated; Adam Smith admitted that businessmen rarely gather without conspiring to wield market power against the public interest (Block and Somers 2014; Epstein 2005; Fligstein 2002; Fligstein and Dauter 2007; Granovetter 1985; Harvey 2005; Somers and Block 2005; Stiglitz 2008) These claims have been supported with case studies such as the Enron and 2007 subprime mortgage lending crises, in which it was revealed that firms deliberately engaged in high-risk and questionably legal investment behaviors on an industry-wide level, the scope of which necessitated *some* level of collusion (Campbell 2010; Duménil and Levy 2011; Epstein 2005;

[3] Bourdieu's theoretical work on Fields has been influential here. Fligstein, Neil, and Doug McAdam. 2014. *A Theory of Fields*. New York: Oxford University Press.

Harvey 1988; Krippner 2011; Lounsbury and Hirsch 2010). A point of additional support for this claim from the recent Great Recession is that many of the destabilizing practices engaged in by the lending industry were technically legal, such as the trade of risky, newly-created derivatives, assets whose value depends on the price of another underlying asset (Blinder 2013; Campbell 2010; MacKenzie and Millo 2003; Stiglitz 2010).

Here lay the first of two major inspirations for this study. Between sociologists and social economists there is substantial theoretical reason to be concerned about the stability of markets in capitalist societies. However, there are solutions recommended to mitigate the effects of what appears to be an innate instability, most often in the form of higher state intervention in the form of increased regulation of industries and modifications of tax policy to support the cost of state intervention. The social democracies of Europe even appear to provide good real-world case studies for the effectiveness of such policies. However, in the United States there is a significant socio-cultural and -historical resistance to both arms of this proposed solution, which brings us to the second issue driving this study: the power of ideology.

**Finding Meaning in Markets: The Power of Ideology**

As we transition into some broader topics necessary to understand issues of regulation and consumer finance markets, there are just a few mare points about the broader meaning and purpose of this project. Much of sociology has been directed toward assessing, addressing, and explaining inequalities; and rightly so. Much theory has focused on these issues. However, another segment of the discipline, especially common in the study of organizations, economy, and politics has focused more on *process*. In these subfields, theoretical and empirical work may focus more or how certain processes play out or how systems function but may not at all directly address inequalities. This project lives within that space. It does not directly tie to any issue of equality, but as many sociological topics do, it addresses subjects that, if better understood, would help us, to better understand observed inequalities, their causes, and their effects.

This project operates on the premise that Federal regulation of industry and enterprise is an effective means of curbing the excesses of capitalism. This not only would allow broader groups to participate in markets but would allow more democratic participation in who markets serve and how. Consume markets absolutely play a role in these concerns. It had been well established that marginalized communities are less likely to be given access to credit, a resource which in our economy can be required for home ownership, renting a living space, accessing reliable transportation, and more. Often, one must have a credit history to *get* credit, a paradox that has burned countless low-income individuals and groups. Likewise, discrimination in the consumer finance industry has played a massive role in American racial inequalities, given historical and present practices of redlining in home sales and realty. Further, the development of certain types of derivatives, bought and sold among numerous financial institutions, are made possible because of lax or delayed regulation, which allowed new types of predatory lending targeting and profiting off the financial failure of the poor and racial minorities.

Legislative battles over regulation often end up serving as proxy battles for whether and how markets may be democratized, by giving citizens who do not own the means of production a system dedicated to ensuring that markets do not only serve the interests of those able to wield and manipulate large sums of resources for investment in ways that endanger resources that poorer groups rely on, such as pensions, home equity, or cheap credit. A major factor in deciding these battles is in the prevalence of certain ideological perspectives about the purpose of an economy, who it is meant to serve, and who can influence its behavior and functions.

More specifically, this project examines the effects of dominant economic ideologies on industry health and stability. Take a moment to recall what ideology refers to – an ideology is a collection of ideas, values, and norms that we (as people, groups, or an entire society) use to make sense of the world we live in. Ideologies are often deeply personal, and through they may or may not be swayed by evidence, they are different from theories in that they are neither beholden to, nor dependent on evidence. Thus, an economic ideology is simply a framework of norms,

values, and cultural notions that are used to understand the economic world in which we live. The Protestant Ethic and the Spirit of Capitalism (Weber, 1904) can be understood, for example, as an exploration of the ideological foundations of capitalism – it's a work detailing the development of an economic ideology and how that ideology became powerful.

Marx's view on dichotomies notwithstanding, doing so for this project is useful, especially given the exclusionary demands of market fundamentalist values. There are different means of dichotomizing economic ideologies; the best way to do it for this project is to divide them by whether they aim to produce an *efficient* distribution of resources, or an *equitable* one. Economic ideologies that seek to distribute resources *efficiently* argue that economies are most effective when they reach *Pareto efficiency* (Pareto 1927). That is, when the distribution of scare resources has reached a point where any change is zero-sum: no party can significantly gain resources without another significantly losing resources (Pareto 1927). A situation where all available financial wealth in a county has been distributed to its people, and there is no way to give more wealth to one group without taking it from another. While this definition appeals to notions of fairness popular in US political culture, an important point to keep in mind is that this concept is more concerned about *waste* than equal distribution. At its most reductionist: if all the money is accounted for, it does not especially matter if it all rests with 1% of the population. They also seek to ensure that the maximum possible value is derived from any given economic activity – an example would be a chef who gets the most out of their ingredients and throws little away. They know that the tops of carrots and celery, or outer layers of onions can be thrown into a stock pot to enhance the flavor and value of a beef broth, rather than trashed or even composted.

Economic ideologies that seek a more equitable distribution of resources are more concerned with whether resources are more evenly distributed across a population or industry, even if doing so means that *less* wealth is derived from an activity that *could be* generated (Granovetter 1985; Kreuger 1974; Krippner and Alvarez 2007; Swedberg 1991; Swedberg 2007). They may argue that an industry that rapidly generates wealth is not effective if that wealth

cannot be enjoyed by a broad population. It is more concerned that the distribution of resources be generated or used in a way that maximizes the *scope of their benefits*, rather than the *amount* of benefit. It is this perspective that justifies the existence of welfare programs or investment in arts programs – that there are benefits to distributing resources in a way that will not offer equivalent material returns.

It is the differences between these two ideological positions that both unite and divide the work of sociologists and economists, each of whom have groups which will argue to their last breath that the other fails to consider a *vital* theoretical point that clearly indicates which position is most objectively *true*. This veers into the realm of philosophy and is not the subject of this study. However, it is important to define these differences because of how *powerfully* they figure into the political and social application of economic concepts, policies, values, and norms. A subject of considerable argument is whether these underlying values are diametrically opposed. Though common reason compels a person to argue in favor of distributing wealth *both* efficiently *and* fairly, accomplishing such a societal goal has never managed to move from theory to reality.

The reason that this must be the case serves as the basis for this study – that determining what constitutes a *fair*, *equitable*, and even *efficient* distribution of resources cannot be done without the influence of social values, which themselves are profoundly influenced by the dominant cultural ideologies from which people derive their values. In a reality in which global capitalism can and does exist, few social institutions and their attendant ideologies touch people's lives in more places than that of *Economy*. In the United States, the inability to reconcile the efficient distribution or resources with the equitable distribution of resources is visible everywhere. It is present in the argument between children about who gets to play videogames after school first, in a couple's decision on what portion of whose income is spent on bills in a household, in what a city council decides to do about its resident homeless population. And a person's conclusion about this question powerfully determines if (and for what) a person casts a vote, be it for an elected official, or for a policy.

**The Ideological Imperatives of Neoliberalism**

In the United States, the dominant ideology guiding these large and small conflicts is that of neoliberalism. Neoliberalism is a concept whose precise definition varies depending on how it is being applied. Empirical works primarily using statistical and policy-oriented comparative-historical methods tend to define neoliberalism in terms of its policy outcomes; as an ideological phenomenon characterized by rhetoric and policies demanding reduced taxation, regulation, and government intervention (Krippner 2005; Krippner 2011; Prasad 2006). Theoretical works in the power elite tradition of political economy tend to portray neoliberalism as a hegemonic ideology driven by powerful interest groups seeking to reassert control over global social class struggles (Bourdieu and Nice 1998; Davies 2014; Harvey 2007). A third line of reasoning conceptualizes neoliberalism as a modified form of market fundamentalism, a slightly older ideology which saw market exchange as a natural human behavior and thus regarded the free market as the idea vehicle for self-actualization and resource distribution (Block and Somers 2014; Granovetter 1985; Polanyi 1944; Somers and Block 2005; Stiglitz 2008). While these three conceptions focus on a separate manifestation of neoliberalism, none of these definitions are incorrect; they simply foreground certain aspects of the ideology to emphasize its relevance to a given subtopic or method of study (i.e., comparative-historical works tend to emphasize the theoretical and ideological contexts which led to neoliberalism). Given the variety of interpretations displayed, a useful working definition of neoliberalism could be simply: a politically and economically powerful ideology through which free and competitive markets are seen as the ideal means of resource distribution and resolution of social problems.

Born of Friedrich Hayek's depression-era critique of Keynesian economic theory, neoliberalism was an idea circulating largely among the fringes of economics until the 1960s (Furner 2009; Stiglitz 2008). Neoliberal ideology emerged into the more active world of policy with a series of initiatives posed my Milton Friedman and his "Chicago Boys" (a group of like-minded free-market economists from the University of Chicago) in a response to economic crises

in Pinochet's Chile (Babb 2005; Fourcade-Gourinchas and Babb 2002; Mudge 2008). The proposals resulted in reduced inflation and substantial GDP growth in Chile once implemented. These results drew the attention of American economists (with Friedman's promotion) in the 1970s as the United States developed its own economic crises and was looking for an alternative to Keynesian economic policy (which did not appear able to keep up with the economic fluctuations in a newly globalizing world)(Harvey 1988; Prasad 2006). Its adoption as Ronald Reagan's driving economic ideology in the 1980s was the final push toward neoliberalism's meteoric rise to an apparently hegemonic level of power and has (to varying extents) influenced the economic policy of each subsequent president (Prasad 2006). Neoliberalism also saw additional support through its adoption by Margaret Thatcher's administration in the United Kingdom, and globally through institutions such as the World Bank and International Monetary Fund (IMF) (Babb 2009; Prasad 2006).

The preceding timeline is well established and described by sociologists who have gone on to examine what consequences neoliberal ideology has had for various populations, social groups, and countries. However, little work has examined precisely how neoliberal ideology was able to spread so quickly during a time characterized by strong welfare states. Researchers appear fairly unified in their claim that part of the explanation lays in the 1970s Oil Crisis (among others in that time), the resulting "stagflation" in the United States (a phenomenon characterized by both high inflation and stagnant economic growth), a global recession, and a shaken faith in Keynesian economics (Lin and Tomaskovic-Devey 2013; Mudge 2008). However, these explanations remain incomplete because they fail to explain why some western states turned to neoliberalism for solutions while others remained highly resistant to the austerity measures neoliberal policy demanded of welfare states.

Prasad (2006) has suggested that the difference in state adoptions of neoliberalism can be attributed to whether the previously existing welfare state apparatuses were constructed in concert with business groups, or despite them. She comes to argue that those welfare regimes that were

crafted in a way that portrayed business interests as adversaries to be controlled or defeated resulted in a business-conservative backlash that led to the adoption of pro-business neoliberalism (Prasad 2006). However, her support for these claims (while lauded by the academic community) is not conclusive, as her analysis spans only the 1980s, and her work has been criticized for minimizing the role of race in Reagan's anti-welfare campaigns and for failing to adequately consider competing theories and the role of the state in the neoliberalizing process (Brady 2009).

Another explanation claims that neoliberalism was able to become so powerful in part because it was able to be aligned with neoconservative ideology (Brown 2006). Among the many proposed sources of neoliberal power, few appear as antithetical as a marriage of interests between neoliberalism and America's neoconservative right-wing. Neoconservatism is an ideology which began to gain power during the Vietnam War era in response to a growing postmodernism in the United States, which saw a rise in valuation of individual self-actualization, innovation, the satisfaction of material desires, and moral relativism, in contrast to tradition, religiosity, and unity (Amable 2011; Bell 1978; Fourcade and Healy 2007). While it is seldom the focus of research, much research on neoliberalism has assumed a relationship between neoliberal and neoconservative ideologies. However, the mechanism behind this connection has not been explicitly explored – the literature takes it as an assumption upon which to support other arguments. However, it bears repeating that the assumed correlation between neoliberal business groups and socially conservative values is not in question. Rather, researchers have been too quick to accept the bonding of two very different (arguably opposed in their values) ideologies which has had dramatic effects on both domestic and international scales (Amable 2011; Brown 2006; Fourcade and Healy 2007).

Brown (2006) provides the most direct attention to explaining the sources of the neoliberal-neoconservative bond by outlining how the very theoretical bases of neoliberalism and neoconservative ideology allow for their alliance, among which is that both ideologies call for similar policy outcomes. One example given is that both neoconservatism and neoliberalism tend

to value limits on popular sovereignty (albeit for different reasons). Neoconservatism is strongly connected to values of religiosity and this manifests in an understanding that there should be strong leadership figures who guide the morality of social units (Brown 2006). This can operate on the level of a father guiding a household, or a president guiding a country. As a child might be sanctioned by the family head for immoral behavior, so might individuals be punished for poor choices by the markets in which they operate. Where neoconservatism sees strong moral leadership as the source of justice in social groups, neoliberalism counts on the market to dispense justice to those who do not follow its rules (Granovetter 1985; Polanyi 1944; Stiglitz 2008).

This mutual belief in powerful forces which resolve conflicts and dispense justice (whether in the form of abstract 'market forces' or a materially-existent leader) helps to explain how neoliberalism and neoconservatism can unify through mutual support for limited popular sovereignty. For neoconservatism, favor for limited popular sovereignty takes the form of a belief that once a leader is selected, that leader should be trusted to make expert decisions to benefit their constituents (Amable 2011). This tends to translate into a lack of support for popular social movements, as neoconservatism places a higher value on unity (which movements might threaten) than fairness or equity (Amable 2011; Brown 2006). Further, within neoconservative groups, these value-based expectations are reinforced by semi-religious belief in *absolute truth* driven by inner conviction – a position unassailable by fact or argument (Amable 2011; Brown 2006).

Similarly, neoliberalism delegitimizes collective action in part because social movements commonly look beyond markets for solutions to grievances (often to the state), a violation of the principle that markets should be trusted in their functions (Brown 2006; Fourcade-Gourinchas and Babb 2002; Pakulski and Waters 1996). Social movements are rendered meaningless because neoliberal ideology attributes inequalities to individual failings and so aggrieved parties should look to improve themselves in order to improve their situation (meaning that structural issues

commonly addressed by social movements could not possibly exist) (Brown 2006; Granovetter 1985).

Much like that demanded by neoconservatism, neoliberal ideology requires total belief in the ability of markets to efficiently allocate resources to where they are needed, even when this belief is not reinforced by reality (Davis 2009; Polanyi 1944; Stiglitz 2008). Brown argues that these shared characteristics make neoliberalism and neoconservatism well matched, as they permit cooperation in a variety of policy goals. One example of this cooperation is the attempt to curtail or eliminate public welfare. Neoliberal ideology does not tolerate such systems because they protect people from market forces, can reduce market competition, and can strongly affect the supply of labor (Burt 1995; Kreuger 1974; Pacewicz 2013; Piven and Cloward 1971; Stiglitz 2008). Likewise, neoconservatives oppose such policies because they can be seen as reducing the costs of immoral behaviors (such as laziness, drug use, or willful irresponsibility), thus enabling further violation of neoconservative social values (such as productivity, health, and reliability) (Amable 2011; Brown 2006; Piven and Cloward 1971; Somers and Block 2005).

**From Abstract to Concrete**

Let us consider a case study of how changes in regulation can affect the stability of an industry, and more broadly, the economy: the 1980s Savings & Loan Crisis. Savings and loan banks first appeared in the US in 1831. Modeled on British building associations, they focused from the beginning on providing affordable mortgages by pooling the savings of depositors (Egnal 2006; Haveman and Rao 1997). The story of S&Ls was slow and boring until the appearance of American banking regulation after the Great Depression, during which S&Ls received deposit insurance but remained less regulated than banks (Egnal 2006). By 1965, thrifts provided nearly half of all mortgages (Egnal 2006). While most stayed small, there were a few larger and more diversified S&Ls, much like in the credit union industry (Egnal 2006; Haveman and Rao 1997). The recent history of savings and loans (abbreviated to S&Ls, also known as thrifts) and the way they have been regarded since the 1980s is captured by the observation that,

> "Savings and loans associations seemed a sleepy corner of the financial services world until a wave of failures… rocked the industry and the nation. When the dust settled in the 1990s, almost 1,300 thrifts had closed their doors, and taxpayers were stuck with a bill for $160 billion. (Egnal 2006, p. 2)"

With the stagflation that developed in the late 1970s and early 1980s, the newly neoliberalizing political climate demanded deregulation as a solution for hard-hit thrifts (Egnal 2006; Kim and Miner 2007). After an episode of radical deregulation, and ostensibly emboldened by deposit insurance, S&Ls gained access to national markets. With such a dramatic shift and corresponding growth in the face of deregulation, it became common for thrifts to "…provide full financing for a broad spectrum of investments with little or no down payment.(Bernstein 1994)" This pattern quickly became unsustainable and came to a head in the mid-1980s, with the Savings & Loan Crisis.

With the beginning of the deregulatory trend in the early 80s, S&Ls were not only able to reach a national customer base but were able to offer products at higher interest rates than previously possible (Bernstein 1994). By 1982, interest on their older loans was no longer sufficient to pay the higher interest rates more recently used by thrifts to attract investors, made possible by the pre-repeal softening of enforcement of Regulation Q (Bernstein 1994; Egnal 2006). Once again, the solution was further deregulation. This "…generated hasty, at times foolish, and even corrupt decision making. Operating in unrestricted and almost unknown territory, S&Ls became involved in questionable investment schemes, many of them unsecured, some very risky. (Bernstein 1994, p. 8)" Starting the decade with $800 million in assets, industry assets fell to *negative* $4.1 billion within three years. Despite a brief boost in assets facilitated by early 1980s deregulation, net assets were again dropping by 1985, closing the decade nearly $20billion in losses (FDIC 2000). By the end of the decade, 563 thrifts had failed (compared to 143 the previous 45 years), and there had been more than 1,100 forced and voluntary mergers of struggling and insolvent institutions (FDIC 2000).

Figure 1.1. Number of S&L Banks and Federal Credit Unions in the 1980s

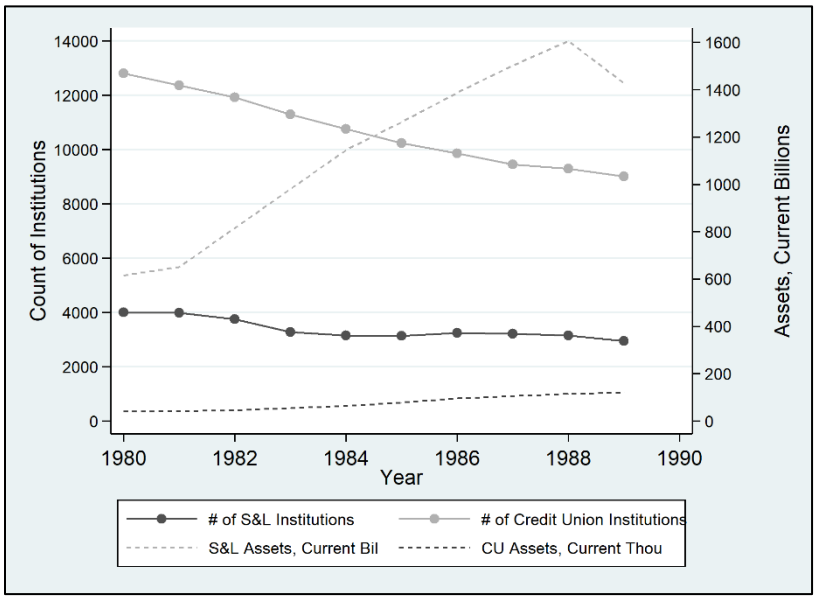
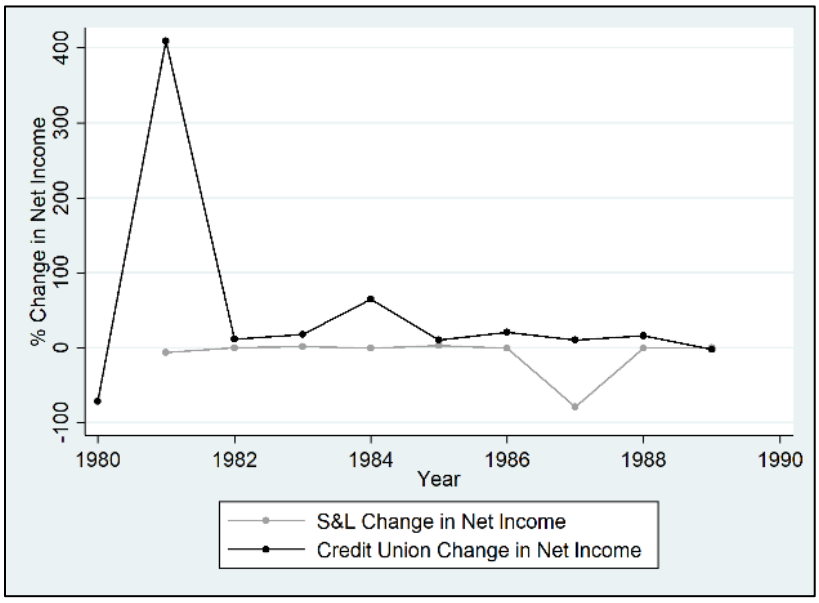



Figure 1.2. Percent Change in Net Income of S&L Banks and Federal Credit Unions




While many S&L banks failed and closed their doors, a comparison of the number of institutions and total assets shows a seemingly paradoxical situation of asset growth simultaneous to institutional decline among both credit unions[4] and savings and loan banks (Figure 1.1).

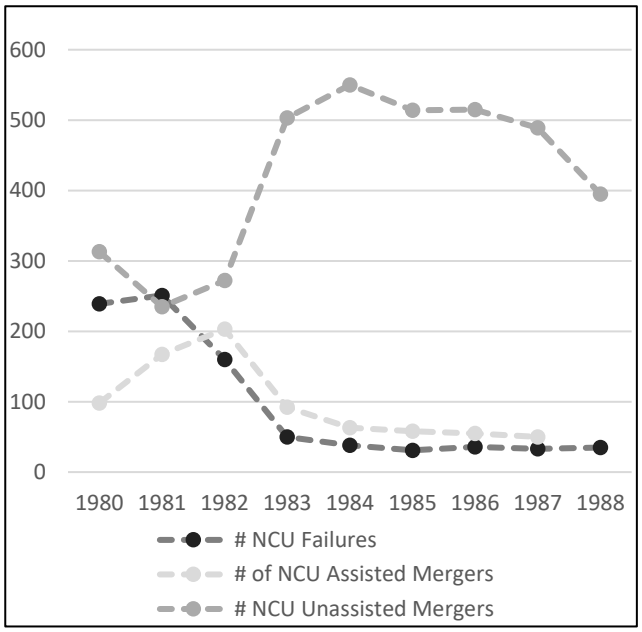
[4] Unless otherwise specified, the phrase "credit unions" will refer to federally chartered natural person credit unions, as opposed to corporate credit unions or state-chartered credit unions.

However, more accurate variables such as change in net income, mergers, and failures gives a more detailed story. Visible in Figure 1.2, percent change in net income for credit unions is generally positive, but more importantly, stable throughout the tumultuous 1980s, the only dramatic change being in a sudden 400% growth of net income in 1981, from -72% in 1980. This is explainable by changes in interest rates, loan activity, and changes in credit union investment activity. In particular, in 1981 credit unions rolled their investments over into shorter-term portfolios to take advantage of the year's higher interest rates (NCUA 1981). Then, nearly one third of credit union income came from investments, up from about 25% in 1980 and 16.5% in 1979 (NCUA 1981).

Savings and loan assets, however, experienced dramatic instability during this period; after all, it was called the Savings & Loan Crisis. Particularly interesting was a nearly 8,000% drop in net income in 1987, likely because in 1986 the crisis came to a head, marking the beginning of the massive failures and liquidations that characterized the crisis. The Federal Savings and Loan Insurance Corporation (FSLIC) closed or resolved 296 institutions beginning in 1986 until 1989, at which point the closures were taken over by the Resolution Trust Corporation (RTC) until 1995 (Curry and Shibut 2000). In keeping with the extent of the crisis, S&L net income (in both percent change and absolute value) fluctuated and fell during the mid- and late-1980s.

For the credit union industry, however, the 1980s was a period of financial growth. This was fueled in part by a multi-decade merger movement in the industry, which explains in part why the number of credit unions decreased despite an increase in assets (Figure 1.2)(Dopico and Wilcox 2009). The latter half of the 20$^{th}$ century overall was a period of massive growth for the credit union industry, as the merger movement allowed for the existence of larger firms with greater economies of scale (following a process of deregulation that allowed for asset growth across all the FIRE industries). Credit unions, despite their relatively higher regulation levels, have not been immune to the process of financialization nor the effects of the savings and loan

Figure 1.3. Number of Failures & Mergers of Institutions




crisis, as Figure 1.3 demonstrates. Though more than 1,000 savings and loan institutions had failed or been liquidated by the end of the crisis, credit unions also had several failures and forced closures. However, unlike for savings and loan banks, the number of these incidents smoothed over the course of the crisis.

The period from 2000 to 2014 saw a continued decline in the number of institutions regardless of fluctuations in income, indicating that both mergers and closures continued with the 2007 financial crisis (Figure 1.4). S&Ls experienced consistent growth until 2005, before plunging sharply through the initial Financial Crisis; an expected change given that most of their business is based on mortgages and other loans. Yet a significant takeaway from these two figures is that while credit unions were not immune to the crisis, they appear more stable; their fluctuations were not nearly so sharp as savings and loans.

Figure 1.4. Number of S&L Banks and Federal Credit Unions 2000-2016

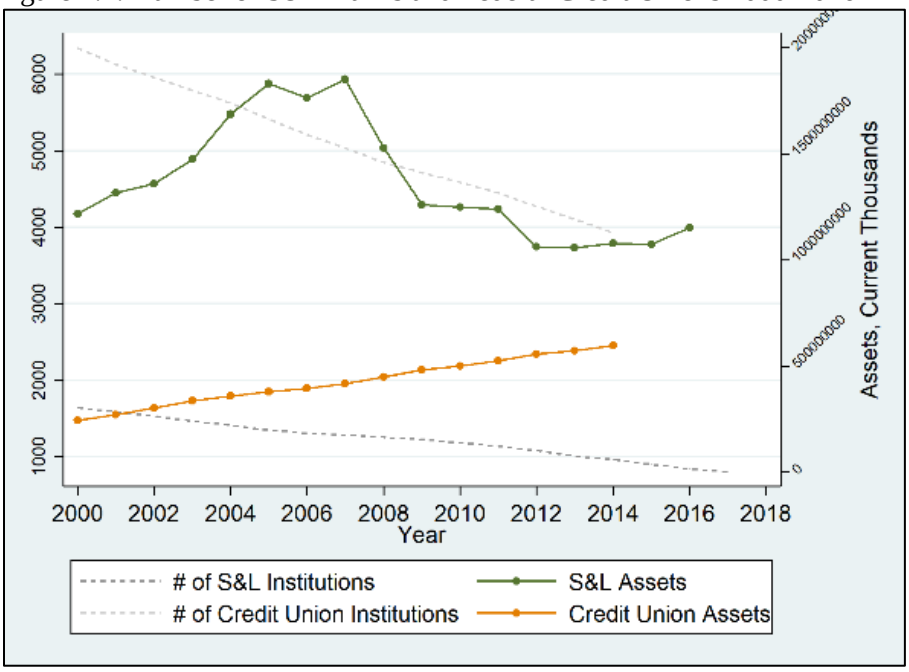
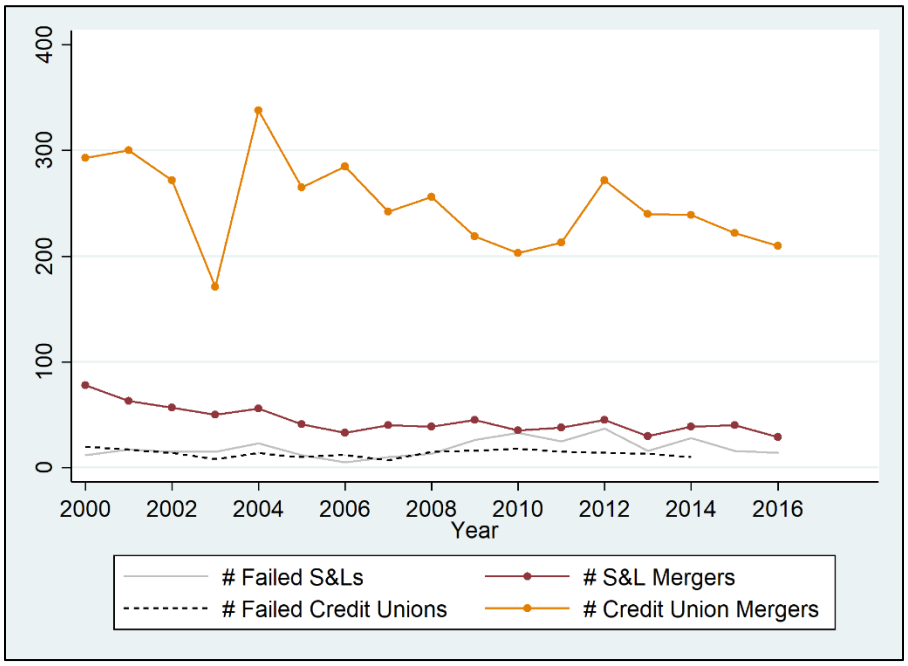



Figure 1.5. Number of Failures and Mergers of Failing or Struggling Institutions 2000-2014




How can we reconcile this conclusion with the data in Figure 1.5, which shows that when counting failures and forced mergers credit unions seem equally unstable as savings and loans? There are a few possible explanations. First, from the 1980s to the present, the number of credit

unions with assets over $500Million has increased, meaning that the common perception of credit unions being small institutions is increasingly inaccurate (Dopico and Wilcox 2009).
This is relevant because when discussing failures during the financial crisis, the general conclusion is that it was mostly very small credit unions which were failing (ABA 2010). The failure of small institutions during economically difficult times is consistent with the idea of economies of scale, and the risks of being a small institution in the semi-periphery of a market field (Negro, Visentin and Swaminathan 2014). Not only do small credit unions have smaller margins of safety and fewer liquid assets to get them through emergencies, but their lack of assets may also place them on a lower priority level to be saved by the NCUSIF than bigger institutions, possibly along the lines of a 'Too Big to Fail' effect.

It is the observation of the development and fallout of the Savings & Loan crisis, the 2008 Subprime Mortgage Crisis and ensuing global recession, and calls to deregulate credit unions that drive the analysis to be included in this dissertation. While the above data was sufficient to identify a trend of Credit Union resilience, the crisis not only heavily damaged the Savings & Loan industry, it also left a mess of regulatory recordkeeping such that it was not possible to collect sufficient time series data to allow Credit Union performance to be compared long-term to that of Savings & Loans. Between1960 and 2015, Savings and Loans saw oversight authority be transferred across at least four government departments and agencies, several of which no longer exist. This left possession of annual reports and other long-term data highly disorganized and difficult to locate, a finding that forced the exclusion of Savings & Loans from the meat of this study. However, an examination of Commercial Banks during the same period showed that while their outcomes were quite different from Savings & Loans, banks experienced similar (if less dramatic) patterns of struggle during economic crises. Given the pressure that Credit Unions are now facing to conform to business patterns resembling those of Commercial Banks, I found that the differences between the stability patterns of banks and credit unions

creates an opportunity for a sort of natural experiment in which I can compare the effect of changes in regulatory policy on both industries.

**Banks and Credit Unions through Crises**

What background does this give us? What were key differences between banks and credit unions during the Savings & Loan Crisis (the effects of which certainly were not limited to S&Ls) and during the 2000s, which include the Subprime Mortgage Crisis? Much like the previous institutional comparisons, both commercial banks and credit unions showed a decreasing number of institutions in the 1980s, compared with increases in absolute values of assets (Figure 1.6). This is consistent with the outcomes of the previously discussed credit union merger movement, along with the similar pattern followed by banks as deregulation allowed banks to offer an increasing variety of services under one roof. Appropriate to the difference in their market share, especially in the 1980s, commercial bank assets are nearly on a different scale as that of credit unions, but in each of these comparisons the patterns are what is revealing.

In Figure 1.7, we see a comparison of credit union and commercial bank failures and mergers during the 1980s. As was visible in Figure 1.3, failures and mergers for credit unions had an inverse relationship throughout the 1980s, due in part to credit unions taking advantage of mergers to resolve the issue of failing institutions, rather than forced liquidation. This pattern, combined with their generally more conservative practices, allowed credit unions to delay and minimize the effects of the Savings & Loan crisis. Commercial banks, however, showed positive correlations between failures and mergers during the crisis – both increased and decreased around the same times. While credit union failures and mergers both decreased from 1983-1989, commercial banks saw consistent increases in both failures and mergers from 1981 until 1989. This shows that their structure and practices led commercial banks to experience the damage of the S&L crisis faster, giving them less time to adjust and minimize losses. Likewise, it shows that banks leverages mergers less effectively than credit unions to minimize failures. From this we can see that while the crisis was not as catastrophic for banks as it was for Savings & Loans (for

Figure 1.6. Count of Credit Unions and Commercial Banks, Assets per Institution ($Thousands), 1980-1990.

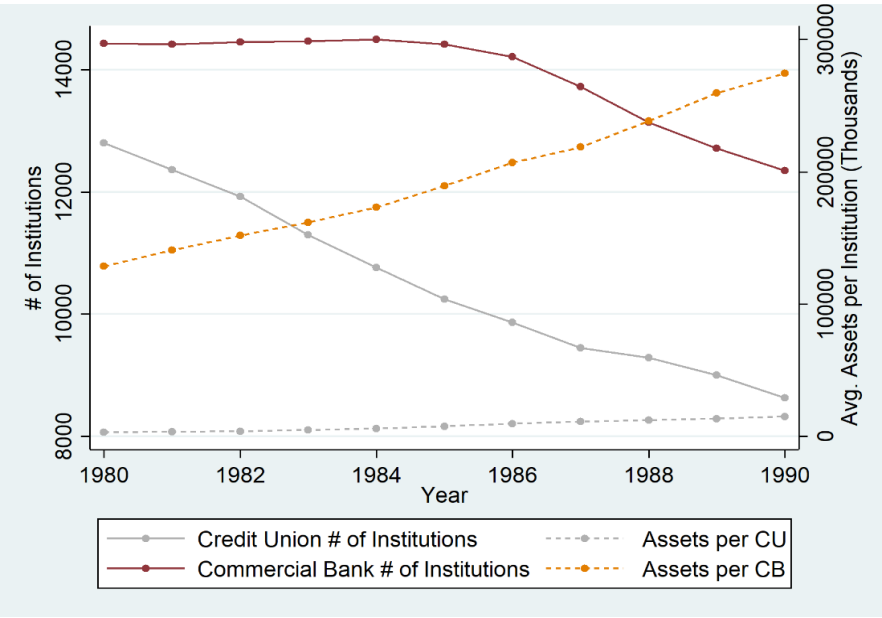
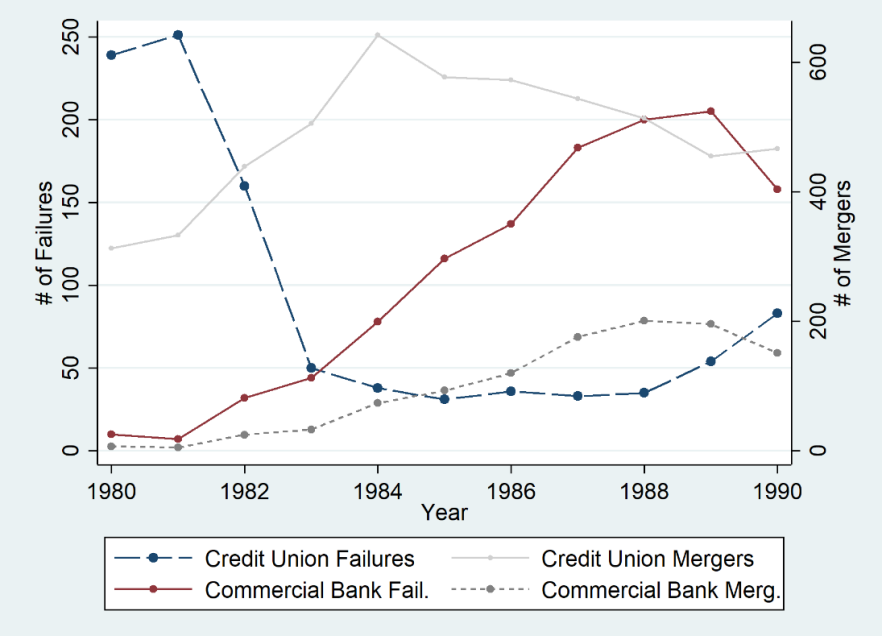
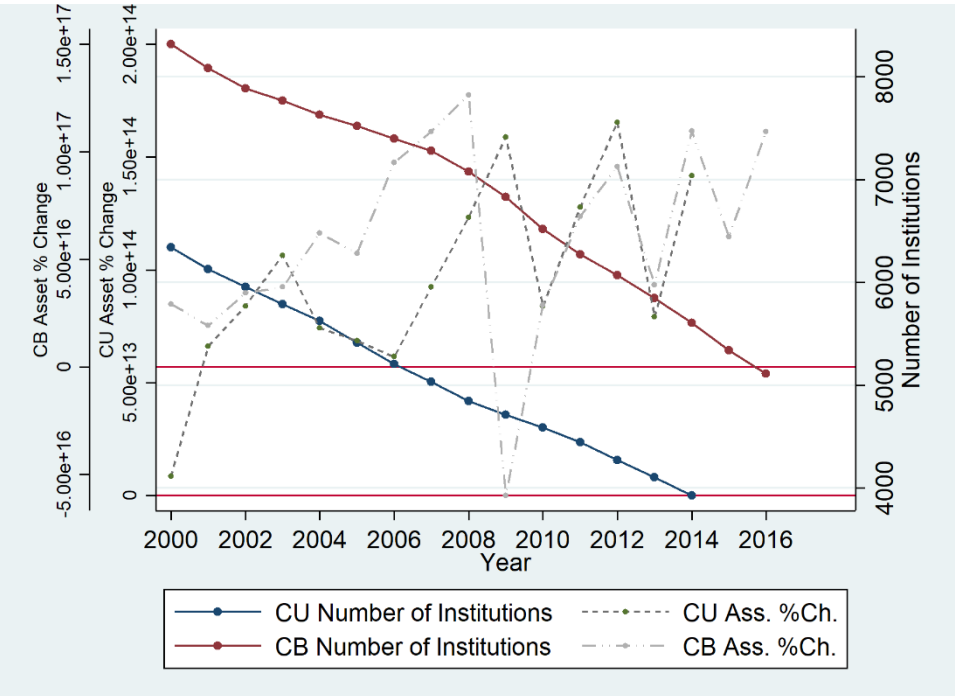



Figure 1.7. Count of Institutional Failures and Mergers, Credit Unions and Commercial Banks, 1980-1990.




which the crisis was named), they suffered its effects to a greater extent early on than credit unions did.

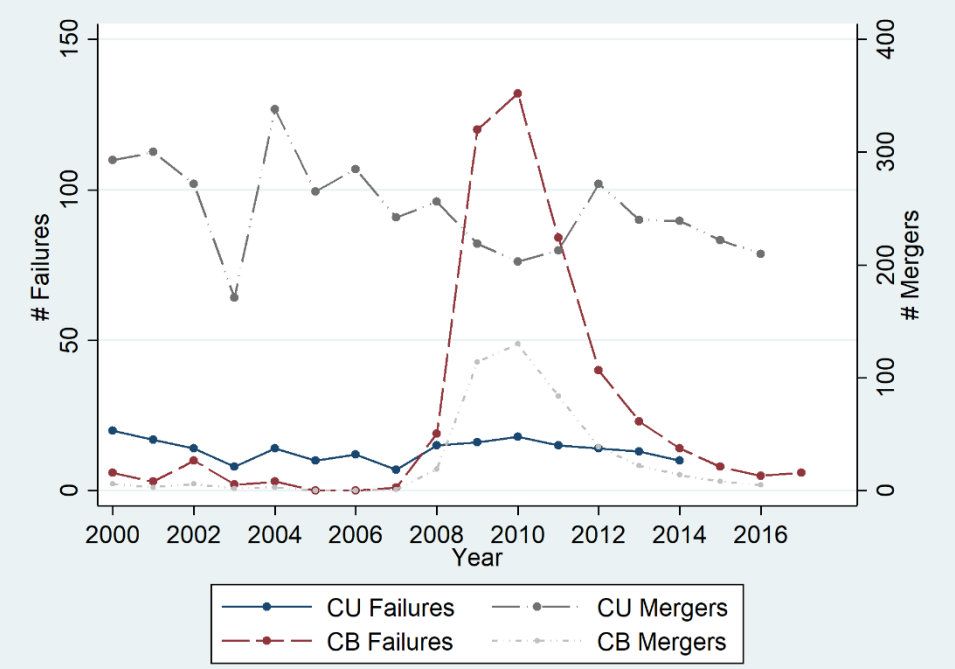
Figure 1.8. Count of Credit Union and Commercial Bank Institutions with Percent Change in Assets, 2000-2014/2016.




Transitioning to the next substantial crisis, the Subprime Mortgage Crisis and subsequent global market failures and recessions, we again see commercial banks follow a similar pattern relative to credit unions. Let us again return to the comparison of numbers of institutions and assets during this period. Figure 1.8 (right axis) shows the continued decline in the number of institutions for both credit unions and commercial banks. Ever since changes in regulatory policy allowed institutions to merge and offer wider services more freely, both types of institutions saw increased industry concentration – fewer institutions with more assets between them, as they became able to serve wider consumer markets.

The left two axes represent percent change in assets for each type of institution. This chart may be confusing, for there are a few things to keep in mind as it is read. The first axis represents change in assets for commercial banks. The second, credit unions. The axis for commercial banks spans a much larger range than it does for credit unions, as commercial banks experienced far more dramatic peaks and valleys than credit unions did, especially as the subprime mortgage crisis took root. The top horizontal red line shows the zero value for

Figure 1.9. Count of Credit Union and Commercial Bank Failures and Mergers, 2000-2014/2016.




commercial banks, demonstrating that not only did their assets growth fall sharply below zero as the crisis began, but they continuously rose and fell close to it throughout the crisis. Compare this to the change in asset growth for credit unions, whose zero value is represented by the bottom red line. Though they too saw sharp peaks and valleys in asset growth and loss, credit unions did not flirt nearly so closely with a zero or subzero value as banks did. However, the fact that they show peaks and valleys such as this demonstrates that deregulation did affect credit unions' stability and outcomes.

The difference in the stability and security of banks and credit unions is also well demonstrated by Figure 1.9, which compares counts of failures and mergers for both types of institutions. The first part that draws the eye are the two peaks toward the middle of the graph. These represent both failures (higher peak) and mergers (lower, grey peak) for commercial banks. Though their annual non-crisis counts of failures were lower than that of credit unions, commercial banks suffered mightily, from when the crisis struck in 2008 until the global recession is generally considered to have ended in 2013. Meanwhile, credit unions saw only a

slightly elevated increase in failures during the period, but this loss was fairly consistent each year across the period – it was a level loss before returning to pre-crisis failure levels. Further, credit unions actually saw a *decrease* in mergers during the crisis period, demonstrating that contrary to their pattern in the 1980s, it cannot be clearly deduced that credit unions were using mergers as an alternative to failures. The effect simply was not the same.

**Meaning and Steps Ahead**

These comparisons show that the commercial banks can be compared to credit unions in a similar way as savings and loans. Banks continue to show sharper struggles during periods of crisis than credit unions, showing that there is something that can be learned from comparing differences in how each type of institution is regulated. Thus, this study will continue with a comparison of changes in regulatory law for banks and credit unions, and how those changes appear to affect their ability to weather economic crises. Why does this matter? For a few reasons. First, markets are generally treated as being guided by natural forces, intervention into which is like dropping a dam in a river without having ever thought of where the water would go. Assessing the extent to which regulation can actually provide stability demonstrates that, to continue the metaphor, we have the means to predict what will happen to the flow of water when a dam is constructed and can do so safely. Second, this can demonstrate that there is a benefit to modifying market and industry functions to protect the people that interact and exist within their bounds, and that an everybody-for-themselves model of regulation is unnecessary and damaging.

Finally, when crises strike, it is often the poorest and most marginalized who lose out first. They may lose their savings, pensions if they have them at all, and are the first to lose their jobs when consumer spending drops, and the first to be denied credit to get themselves through the slump. When regulation is proposed, industries are often quick to claim that they cannot survive under such restrictions, or that having to provide services more equitably would destroy them. Yet when protective and market-opening regulations are in place, some of which require more equitable services for consumers, institutions tend to fare *better* during times of economic

hardship. It is difficult to imagine how, with an unemployment rate over 22%, how much worse the economic damage would be during the COVID recession if banks were allowed to widely foreclose on homes and landlords allowed to evict for lack of rent payment. And as during every crisis, the poor and marginalized are hurt the worst.

This is the driving concern behind this project about regulation and institutions' assets which, on its surface level, has no concern about inequalities or problems facing marginalized groups. Understanding how these organizations are affected by policies that aim to equalize their markets or protect consumers is vital to being able to make arguments *for* policies that will protect the marginalized. To make this case, this dissertation must follow certain steps to assert its validity and make its arguments effectively. To this end, this document will follow the structure outlined below.

The next chapter, "Building an Institution into an Industry," will provide the reader with the basic information needed to understand the rest of the document, beginning with a discussion of the consumer fiancé industry. It will describe the general structure of American consumer finance, and why in some ways, what people do with their basic bank accounts and home loans can matter more than the trading of high value stocks and derivatives. Then, it will discuss the structure of credit unions and their historical forms and development. Important in this section is the discussion of the value systems and social concerns the drove the creation of American credit unions, and how that influenced their structure and long-term functioning.

The third chapter, "Theories of Financial Regulation, Firms, and Institutional Stability," will begin to more clearly advance the argument that regulation protects economic stability. It will involve a more explicit discussion of the theories guiding this research. It will lay out the sociological and social-economic theories about what ensures market stability, and how those theories relate to the consumer finance industry. I will then build on the structure and functioning of the key theory used for this study, expanding into a detailed description of how major regulatory changes have affected credit unions, especially during times of instability. This will

lead to some preliminary comparisons of the effects of some policies on financial outcomes in these industries, which will lay the foundation for the time series analysis.

Chapter 4 will provide details on the manner of analysis I will be using, the variables I will use to measure credit unions' and commercial banks' failure and growth rates. It will also provide the hypotheses I will be testing, and reason behind their selection. This will involve a discussion of the sources of my data, the construction of specific variables, and the reasoning behind how statistical models are specified and altered. Chapter 5 will begin by comparing the different circumstances and stabilities of the credit union and banking industries of the United States. Then I will display and describe the results of the comparative time-series models, showing the substantial effects of regulatory change on both industries, particularly that of regulation meant to open markets. The chapter will conclude with a discussion of how the results can be explained by the Fligstein's cultural model of market function. Chapter 6 will continue this analysis, examining of the extent to which credit unions and commercial banks might have become more similar, and what portion of that change can be explained by changes taking place after 1980. The chapter finds that while they have not yet become substantively similar in function and safe practices, current trends in deregulation may eventually have such an effect, a finding that broadly supports sociological concerns about the importance of regulation in market economies.

The seventh chapter will serve the function of a discussion and conclusion section, and has been titled, "Conclusions & Next Steps for Research." This chapter will review the findings of the time-series models and theory to paint a picture of how ideological conditions have shaped regulatory policies industry behavior through economic crises. It will then discuss what these results could mean for broader populations, and how this may or may not connect to broader economic patterns. It will then end with what should be done with the findings of this study, and how future works may address this relatively under-explored topic.

# Chapter Two: Building an Institution into an Industry

The United States financial industry is a behemoth that often seems beyond the comprehension of the common person. People know that they manage their household finances via deposits at an institution they casually call "the bank", believe that they should be saving more than they do, and perhaps dream of one day investing their money via… probably an investment bank? They will google how that works. They might be a member of a credit union because they heard it can offer better home or auto loan rates, and that they must qualify somehow – probably through their place of employment - to get an account. They almost certainly cannot tell you more about how a credit union is different from a commercial bank.

For much of the American population a shroud of mysticism surrounds the financial industry, and much of what is known is limited to personal day-to-day financial transactions, colloquialisms, and stereotypes. Yet even within the confines of the consumer finance industry, there are meaningful differences between institution types that influence not only the products they offer to consumers, but also their obligations to those consumers, their political clout, and their risk of failure and stability. Because of this common gap in knowledge surrounding finance, it is important to clarify the basic structure and functioning of the US consumer finance industry.

In this chapter I will provide an overview of the consumer finance industry in general, and then narrow down to credit unions' role in that consumer finance industry. I will then briefly describe the historical foundations of each type of institution and its development over time, including key regulatory moments and battles with Banks for market influence.

## Consumer Banking

American consumer banking, also known as retail banking, refers to the grouping of products and services that banks generally provide to consumers and small business through various channels (Clark et al. 2007). Consumer banking services are often organized according to three interrelated dimensions: the customers served, the products and services offered, and how

customers are connected to those services (Clark et al. 2007). Small banks may often offer these services almost exclusively, while large banks such as Bank of America or Wells Fargo typically have separate retail banking business units that have their own management and reporting structures (Clark et al. 2007; Hanc 2004). These services tend to include taking deposits for checking and savings accounts, personal and auto loans, mortgages, certain types of certificate deposits, and sometimes IRA (retirement) accounts. Retail deposits are generally at the core of their business, as they provide a low-cost and stable source of income and are a major source of fee-based income (Clark et al. 2007).

Table 2.1. Systemic and Consumer needs served by Consumer Finance institutions

| | |
|---|---|
| 1. Moving funds between consumers and other actors (payments). | The financial system must provide a mechanism for the transfers of money and payments for goods and services. In the consumer sector, the payments function would include cash, checks, debit cards (including prepaid), credit cards, online funds transfer tools like PayPal, Automated Clearing House (ACH) transactions, etc. |
| 2. Moving funds forward in time (saving and investing). | Functions are embodied in products and services, including savings accounts and CDs, mutual funds, workplace retirement programs, and Social Security. |
| 3. Moving funds backward in time (borrowing and credit). | This function is embodied in household credit, which ranges from shorter-term unsecured borrowing (e.g., credit and charge cards, banking overdraft protection, and payday loans), to longer-term unsecured borrowing (e.g., student loans, person-to-person lending), to secured borrowing (e.g., auto loans, mortgage loans, and margin loans). |
| 4. Managing risk (insurance). | The risk-management function is satisfied through a variety of products and services, including insurance (health, life, property and casualty, disability), the purchase of certain financial products (e.g., put options to protect one's portfolio against declines), precautionary savings, social networks, and government safety nets. |
| 5. Providing information and advice about these decisions. | Organizations that provide consumers with financial advice. Sources include informal social networks, investment clubs, formal media, bankers, salesmen, and security brokers. It has also come to include computerized models (such as Financial Engines®), chat boards, account aggregators (such as Mint.com), and product comparison sites. |

Adapted from Tufano 2009; Ryan, Trumbull, & Tufano 2011).

Consumer banking is vastly different from investment banking (e.g., Goldman Sachs), hedge funds (e.g., Blackrock), and venture capital firms. These latter corporations take very high risks to make high profits, but they are highly specialized in what they do. They generally do not take consumer deposits and engage in checking, and are not the friendly face in thousands of

communities. Nor do they provide mortgages and consumer loans. They are very large investors relying on making money on large ventures. Despite the observation that consumer finance plays a relatively small place in the field of financial economics, its role in the economy itself is far larger. Peter Tufano has argued that the significance of consumer finance in the economy can be assessed along any of four functions he says consumer finance serves (Table 2.1 above). It used to be that these needs were addressed for consumers by financial experts as banks, mutual fund brokers, and so on. However, changes in regulation, taxation, and government policy have shifted responsibility for managing these needs to the consumer, resulting in a concurrent increase in household debts and risk. Ryan, Trumbull and Tufano (2010)note that while rising levels of debt have had benefits (such as increased access to home ownership, transport, and education) they have also identified cause for concern. They identify research which has found that as consumer responsibility for financial wellbeing has increased,

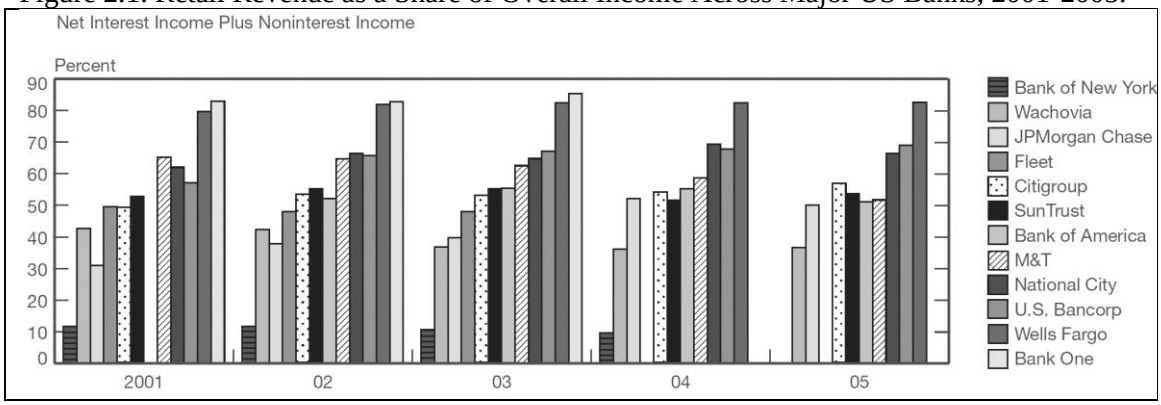
> "…most consumers are ill equipped to make financial decisions that would keep their balance sheets healthy- whether that means having enough money in the bank to handle an emergency (or to expand wealth), or keeping their risk exposure low (by, for example, keeping their debt loads down).(p. 37)"

Such work has confirmed common claims that most Americans fail to grasp basic financial concepts such as calculating interest, understanding the terms of loans and mortgages, and accounting for inflation. Financial institutions have been all too glad to shed this responsibility and are reticent to pick it back up.

Compounding the concerns about consumers adopting higher levels of risk and debt relative to their assets is the consequent risk to the economy should financial institutions begin to struggle and fail – an eventuality in which ever-larger institutions can take consumers and the rest of the economy with them. How big of a chunk of the economy is composed of consumer finance and retail banking? It can be somewhat hard to capture, but, for example, retail banking constitutes for about 50-75% of the revenues at many large bank holding companies, including those *too big to fail* firms. Observe Figure 2.1, which shows Clark & company's estimates of

retail revenue as a share of overall income at some of the US' biggest banks. This is in part because retail banking has been seen as a fairly safe, stable source of income that can help bolster banks against the volatility of riskier items of business such as trading and capital market activities (Clark et al. 2007). Of course, the Subprime mortgage crisis can also demonstrate the consequences of relying too heavily on this arm of finance while shrinking safety margins.

Figure 2.1. Retail Revenue as a Share of Overall Income Across Major US Banks, 2001-2005.




(Clark et al. 2007)

Analyses of consumer banking tends to be divided into the size of banks studied, as community banking is different from credit unions and operates at a smaller level than the large branch networks built by the largest banks, even though all of them offer consumer banking services (Clark et al. 2007; Hanc 2004; Treasury 2017). If the focus of this study were narrowed to community banks, which are generally considered to be banks with less than $1 Billion in assets, economies of scale could quickly come to mismatch credit unions (Treasury 2017). This is because while credit unions are generally thought of as being similar to community banks in size and customer base, the credit union merger movement of the 1970s and 1980s led to dramatic growth in credit union assets, increasing the number of institutions with over $100 million, $500million, and $1billion in assets. However, this is more difficult to capture on a disaggregated level, as credit unions are not significantly organized according to asset size to the extent that banks are.

**Credit Unions: Institutional Form & Function**

Credit unions are not-for-profit cooperative financial institutions owned by account holders united by a "common bond", such as university affiliation or place of employment. Their services are limited to those most used by consumers – savings, loans & mortgages, checking accounts, ATM and online banking access, and certain forms of investments. Appearing at first in the United States as small, cooperative credit organizations in 1909, credit unions (CUs) in the contemporary US have operated through a three-tier system of services (ABA 2010; Croteau 1949). When CUs first appeared in the United States, they were much smaller than banks, and they initially struggled to demonstrate that they had the equity and institutional integrity necessary for dealings with other firms (Bergengren 1937; Morman 1920; Orchard 1938). Under this premise, and to reduce competition from credit unions, banks successfully lobbied to encourage more binding regulations to be placed on CUs, largely limiting them to local functions.

In 1968, the first corporate credit unions were formed, to provide the thousands of existing natural person credit unions (those that directly serve consumers) with interstate services, liquidity, investment opportunities, and services such as ACH deposits and check clearing (ABA 2010; Bergengren 1937; Croteau 1956; Orchard 1938). Shortly after their formation, a need for a central resource for corporate credit unions became clear, and in 1974 the US Central Credit Union was formed. US CCU served only corporate credit unions, and provided higher-level liquidity, certain government-backed investments, and industry forecasting and data, ultimately functioning like a central bank. In the United States, each of these organizations are monitored and regulated by the National Credit Union Administration (NCUA), which fills a role very similar to the FDIC.

In fact, many of these institutions were formed between 1965 and 1985, and time of massive change and growth for Credit Unions. Shortly after the first corporate credit unions were formed in 1968, the NCUA was organized by an act of Congress (1970). At the same time, the National Credit Union Share Insurance Fund (NCU-SIF) was formed, for the first time providing

deposit insurance for credit unions; starting at $20,000 at the time, deposits are now insured up to $100,000, much like with the FDIC (NCUA 2020).

**Credit Unions' US Origin Story**

Historically, credit unions have been small institutions, which meant that while they were fairly stable, that was only noticeable when considered relative to their size and the economies of scale they struggled with. This was not accidental – Credit Unions were initially intended to be relatively small, local entities that supported their communities. Proponents early on, and even today, have often described the growth of credit unions as a *movement*; Roy Bergengren, described as one of the credit union movements' early marketing geniuses (Croteau 1949), argued that,

> "*The credit union seeks to perform a high and important public service*, a service the value of which is all out of proportion to any expenditures of the government for organization work. It seeks to eliminate the wastes of high-rate money lending, turning into new buying power what interest over-charges working people have hitherto paid to high-rate money lenders. …Usury is a great social and economic curse, worse in its effect than many diseases; a curse which the government is warranted in stamping out, but which can be stamped out only by the creation of normal credit resources for the masses of the people. What then is the real job of co- operative finance? *It is to prove that there is a better motivation in human affairs than the private acquisition of things; to demonstrate that the brotherhood of man is good business; that the great service of credit can be developed for average human beings by average human beings working intelligently together.*[5] That was the Raiffeisen conception. That conception is being carried forward faithfully by the credit unions of the United States. (Bergengren 1937, p. 6)"[6]

Early credit unions were both supported and constrained by their early circumstances, and their relationship with regulation was quixotic. Upon their US appearance and legislative definition (beginning in Massachusetts the same year) in 1909, credit unions were already involved in regulatory debates. Based on heavily cooperative models from Germany and Canada (as opposed to similar models developing in Italy and the UK), there were a few key differences.

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[5] Italics added for emphasis.

[6] The earliest institutions to inspire American Credit Unions came from the UK, France, and Germany. Raiffeisenbanks are German cooperative banks that were among that early set, and continue to exist in Austria and (separately) Germany as a group of cooperative banks known as *Volksbanken und Raiffeisenbanken* and derived their name from the credit union 'pioneer' Friedrich Wilhelm Raiffeisen.

Contrary to models in other countries, the 1909 Massachusetts credit union law extended the group membership base to include occupational groups (as well as residential), imposed compulsory inspection by the Bank Commissioner's office, and more precisely defined the work of the various committees intended to run the credit unions (Croteau 1949).

A similar law was passed in New York in 1913 to enable the organization of credit unions in that state, but it introduced several weaknesses to the credit union model. In 1912, it was discovered that President Taft commissioned a study of the institutions, which was possibly going to designate the New York model as "a model of imitation". HW Wolff, a prominent figure in the study of British cooperative finance institutions who actively consulted on the formation of US institutions, drafted a long memo (to later be reprinted in a book of his) protesting the "…excessive regulation of the most minute character" found in the New York law (Croteau 1949). He felt that this indicated that the legislature did not have sufficient confidence in the business model's viability. He also argued that the legislation did not limit dividends (which he considered a violation of true cooperative principles), failed to provide for refunds to borrowers that were proportionate to profits, and failed to provide for investment in a central bank, which could serve as a clearing house for CUs and a link to money markets (Croteau 1949). He particularly argued against seemingly arbitrary limits on unsecured loans and the prohibition of loans to officers who had "presumably…jointed the Union *in order* to be able to borrow. (Croteau 1949)" He also argued that there should be periodic inspections of credit unions by someone authorized by a union of Credit Unions, "whose action is bound to add force to the whole class of institutions, (Croteau 1949)" which by today's logic sounds like an argument for self-regulation by credit union association insiders. While this line of criticism did sway the decision of the commission, which did not end up endorsing the New York Act model, it did not significantly influence subsequent legislation; the Massachusetts-New York acts ended up as the basis for laws passed by 43 states, the District of Columbia, and finally by the Federal government in 1934 (Croteau 1949; Croteau 1956).

Despite these concerns about the level of regulation imposed upon Credit Unions, they largely managed to flourish. By 1947, there were over 8,900 Credit Unions in the United States, with over 3 million members (Croteau 1949). In 2020 dollars, by this time CUs had $6.5Billion in assets and $2.45Billion in outstanding loans. Credit Unions across 44 states and the District of Columbia had developed regional leagues who were associated with the Credit Union National Association (CUNA), an organization similar to the American Bankers Association and is still prominent today (Croteau 1949). At the time, the CUNA was an international organization, also having members in nine Canadian provinces, Hawaii, Jamaica, and British Guiana, and operated on an annual budget of $125,000 (about $1.6Million in today's dollars).

However, it is also worth noting that the rapid expansion of the American Credit Union had several sources. Initially, officers and committee members running credit unions did so with little or no pay; work was largely voluntary. As such, early credit unions benefitted from a base of enthusiastic proponents who were able and inclined to work for free in the name of promoting these organizations (Bergengren 1937; Croteau 1949; Croteau 1956; Orchard 1938). Second, the credit union movement benefitted substantially from promotion by Edward Filene, a wealthy Boston merchant and philanthropist (for whom the industry-prominent credit union think-tank, the Filene Institute, was named), and Roy Bergengren, a Massachusetts lawyer who was able to travel the country, promoting the CU business model in communities and to state legislatures (Croteau 1949).

Third, for the first half-century of credit unions' US history, they had little competition for their particular services. Before the deregulation movement in the 1970s, there were clear lines between the types of depository institutions and the services they offered. Commercial banks primarily offered checkable deposits and made commercial loans; Savings and Loans offered fixed rate savings accounts and made residential mortgages; lastly, Credit unions mostly offered share accounts on which they paid dividends and made consumer installment loans (Kaushik and Lopez 1994).

This relative lack of competition is what allowed for CUs' rapid growth. In 1947, there were a little over 8,900 credit unions. Just over twenty years later, there were 23,866 Credit unions. Yet beginning in the 1970s, financial markets began to change. The dominant economic ideology began to shift from a Keynesian model that supported stronger regulation to a more (politically) liberal that moved away from protective regulation to that which opened markets, if not outright *de*regulation.

**Credit Unions' Contemporary Forms**

In the 1970s began a pattern of legislation resulting in a shift in the nature of financial regulation. Regulations meant to protect the public from the excesses of the market were rolled back, and either replaced with rules ostensibly meant to open markets and promote competition by allowing firms more control over their functions and offerings. Included in these changes were laws allowing previously forbidden mergers, and a substantial relaxing of the "common bond" requirement, which meant that credit unions' potential customer base grew dramatically. Both items will be discussed below, as they both played a role in reshaping the credit union industry and strongly affected their growth in market share.

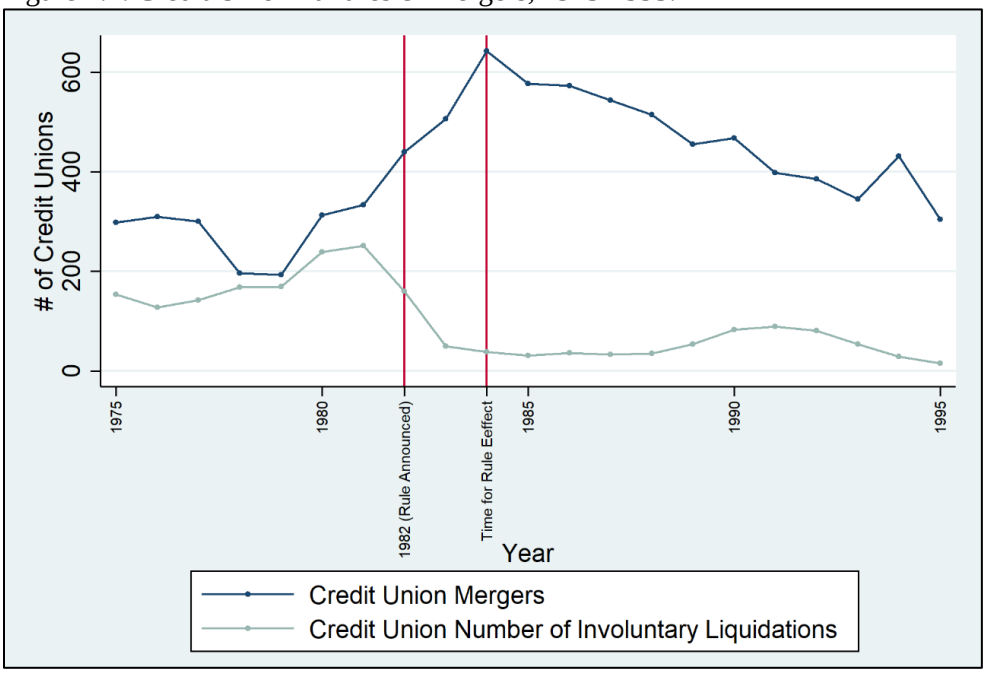
First, let us discuss the mergers. Mergers first began to rise in the late 1970s, not because of legislative change, but economic. The economic downturn of the late 1970s led many employers to shut down or move. However, at the time over 80% of credit unions' membership was occupation-based, which meant that credit unions whose members were limited to that employer were left with few options (Culp 1997). Culp explains that,

> "The NCUA testified that if a sponsor business decided to shut down, relocate, file for bankruptcy, or lay off workers, the credit union had the following options: (i) convert to a community charter; (ii) convert to a state charter if the state had broader field of membership policies; (iii) merge with another credit union with the same sponsor; or (iv) liquidate.(p 5)"

Having recently eased the requirements for mergers, and along with the general pattern of regulatory rollback at the time, in 1982 the NCUA announced that merged credit unions could have multiple Common Bonds in their charter (Culp 1997). This decision had a dramatic effect on

the industry, and both the lead-in and outcome of this decision can be seen in Figure 2.2. In 1981, 251 federally insured credit unions were forced to decide to liquidate, which by nature strained the federal credit union insurance fund (NCUSIF). After 1981, the number of liquidations fell to

Figure 2.2. Credit Union Failures & Mergers, 1975-1995.




160 in 1982 and to 50 in 1983. Conversely, this change in rules allowed many credit unions to instead opt for mergers, as there were numerous institutions who were well matched and had everything they needed to merge, but were prevented by existing regulation from doing so (Culp 1997; Dopico and Wilcox 2009; Wilcox and Dopico 2011).

An interesting outcome of this decision was that credit unions were able to ride out the savings & loan crisis by merging when poorly affected, so they remained in good shape due to their conservative lending practices and the "flight to safety" effect. This also had the effect of obscuring the circumstances wherein CUs might normally have failed due to insolvency. Though the pattern of the 1980s also seems to indicate that if it weren't for the Common Bond requirement forcing CUs to remain aligned with businesses or institutions which could fail, credit unions would have had the size and assets necessary to weather the economic downturn of the 1970s-early 1980s in far better shape.

The easing of the common bond requirement strongly influenced the outcomes observed above and served to inflame the turf war between banks and credit unions. On April 20, 1982, the NCUA announced its policy change in the federal register, which reported that.

> "The NCUA Board has adopted a policy statement clarifying its interpretation of …the Federal Credit Union Act …[to] permit a Federal credit union, which purchases the loans of a liquidating credit union, to offer membership to the borrowers whose loans have been purchased, and (2) authorized the granting of charters, charter amendments, conversions to Federal charters, and mergers to *credit unions which desire to serve multiple occupational groups.* This action was taken in response to interest expressed by credit unions. It is intended to clarify NCUA's policy on membership in Federal credit unions, to make portfolios of loans sold by the National Credit Union Share Insurance Fund more attractive to potential Federal credit union purchasers, and to ensure the continued availability of credit union service.(p 25)"[7]

This change in policy led to massive growth in the industry, though the merger movement meant that the absolute numbers of credit unions dropped. By 1996, nearly half of all credit unions were formed as "multiple-group" credit unions. Together, that held about 78% of the industry's *total* assets, and about 78% of the industry's total loans (held by *federal* credit unions) (Culp 1997).

During the 1990s, beginning about eight years after this common bond revision and the subsequent swell in growth, the banking industry began its fight again the NCUA's new policy interpretation. In 1990, First National Bank in North Carolina sued the AT&T Family Federal Credit Union over its new membership applications. In 1995, in two separate suits, the NCUA was sued by First City Bank in Tennessee, and by a group of banks via the Texas Banker's Association over the same issue. In the latter case, the US District Court for the District of Columbia ruled in favor of the addition of *employee* groups to the credit union membership, but against the addition of *associational* groups (Culp 1997).

This issue ended up being fought on two fronts. The first is via the courts, as the case of First National Bank v. AT&T Family and the NCUA was taken to the Supreme Court, which

[7] Italics added for emphasis.

began hearing arguments in October of 1997 (Culp 1997). The second front was via Congress, as the American Bankers Association (ABA) and other banking associations began heavily lobbying Congress to amend the FCUA (Federal Credit Union Act of 1934) to codify a narrow interpretation of its Common Bond requirement, specifying only one occupational group per credit union (Culp 1997). This effort was also fought by the CUNA (Credit Union National Association) and similar groups, leading to the House sub-committee on Financial Institutions and Consumer Credit holding hearings on the future of the credit union industry. Shortly before and after this session, three bills were introduced to clarify the common bond provision: one by Rep. Martin Frost (H.R. 57, 105th Cong.), one by Rep. Steve LaTourette (H.R. 1151, 105), and one by Rep. Ron Paul (H.R. 1121, 105$^{th}$ Cong.)(Culp 1997). The Credit Union Membership Access Act was enacted on August 7, 1998 (Congress 1998; Culp 1997).

The result is the plainly visible growth of the credit union industry into what we see today. Figure 2.3 shows that after the initial NCUA decision in 1984, there was a noticeable upswing in both the assets and loans outstanding held by the industry. Shortly after the passage of the Credit Union Membership Access Act in 1998, there was a sharper increase in assets and loans, a growth that was barely slowed during the Subprime Mortgage Crisis (particularly for the growth in assets). Figure 2.4 shows that as the number of mergers since 1980 led to a dramatic drop in the count of active credit unions, membership rose by tens of millions over the years. It even appears that growth in members increased during economic downturns, especially during the 80s, 90s, and 2001.

Figure 2.3. Credit Union Assets & Loans Outstanding, 1960-2015.

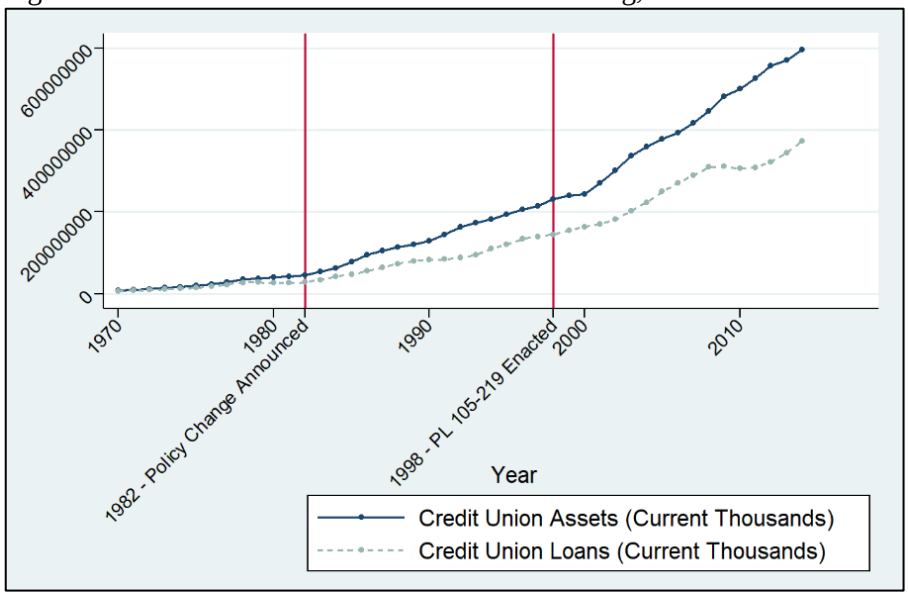
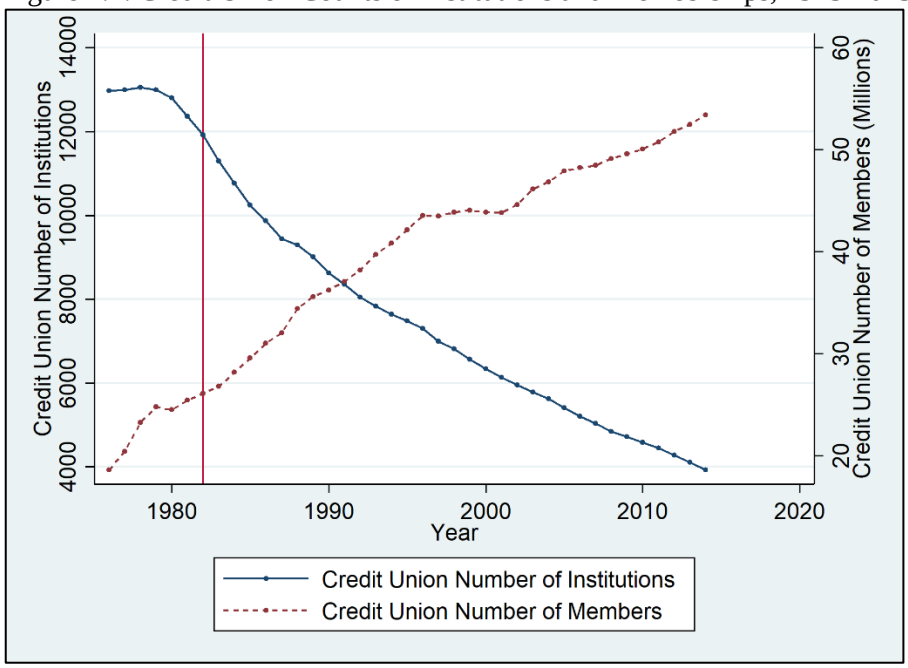



Figure 2.4. Credit Union Counts of Institutions and Memebrships, 1975-2015.

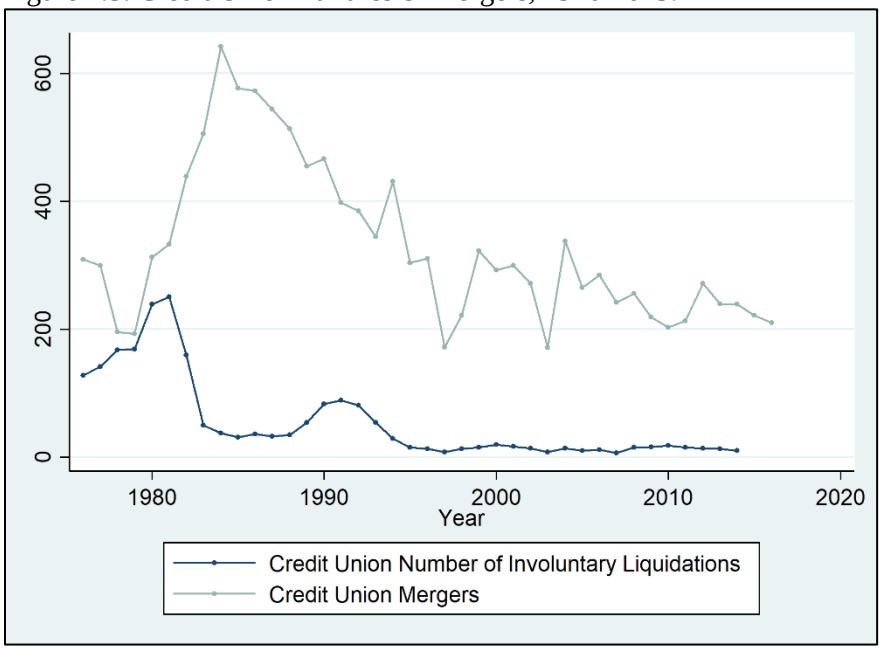


As of 2015, Credit Unions continued their pattern of steady growth, but of also pushing the boundaries of their regulation. The 2015 NCUA Annual report observed that,

> "By the end of the year, membership at the nation's 6,021 federally insured credit unions had grown to more than 102.7 million members, and assets stood at more than $1.2 trillion. …new loans at federally insured credit unions grew by nearly 15.8 percent for the year, reflecting significant growth in auto lending and residential mortgages. (p 16)"

Yet this same report also noted regulatory reduction and simplification as a primary priority, citing a period of economic stability.

Figure 2.5. Credit Union Failures & Mergers, 1976-2015.




A question that has been central to this project is that of credit unions' relative stability long term, and whether they have become more, or less, stable. The second question is why. The answer to the first question is a clear 'yes'. If we treat both liquidation and forced merger as measures of failure, we still have a clearly dropping or leveling trend since the 1980s (Figure 2.5). Having discussed the dramatic growth in the industry, it would seem apparent that this decrease in failures and mergers has coincided with growth in assets and overall size. Yet observing the graphs in Figure 2.6, we see that there is little relationship between credit union size and measures of their stability and failure.

Figure 2.6. Scatter Plots of Credit Union Liquidations (Failures), Mergers, % Change in Net Income, and Loan-Share Ratio with Average Assets (Thousands) per CU.

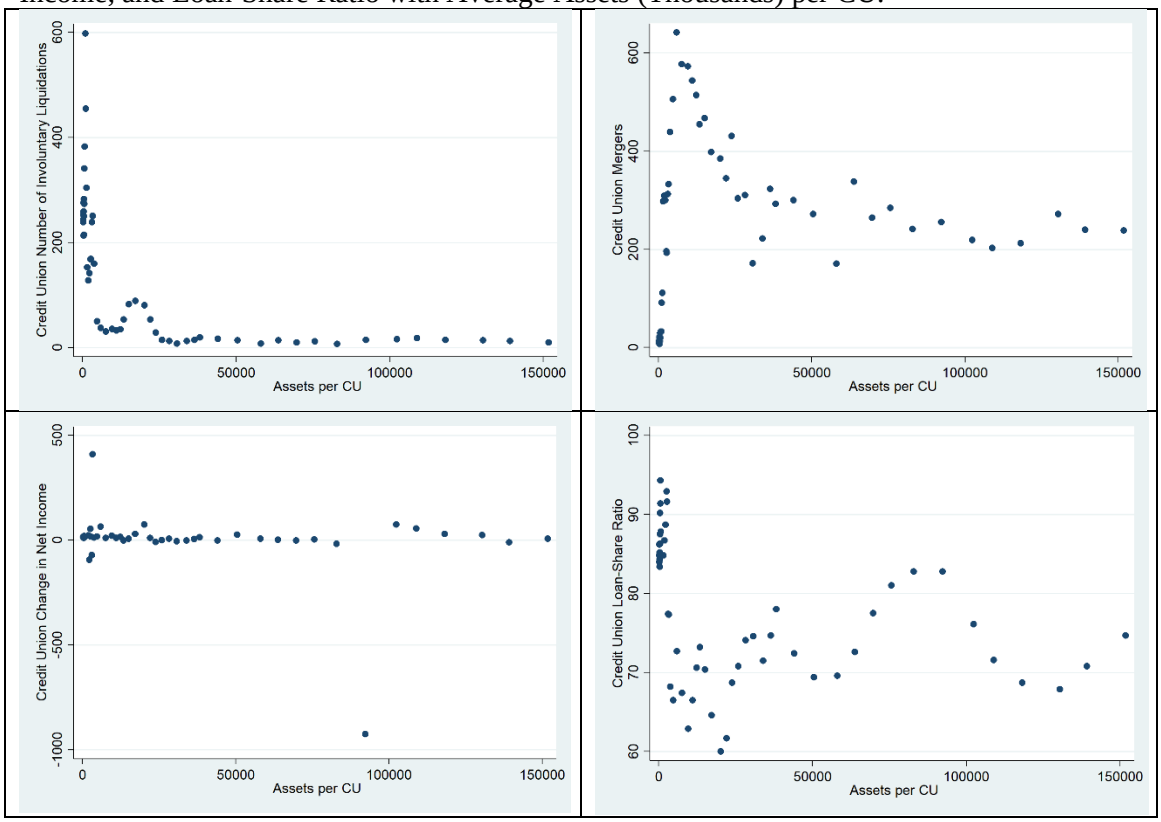



Table 2.2. Correlations between Union Liquidations (Failures), Mergers, % Change in Net Income, Loan-Share Ratio, and Average Assets (Thousands) per CU

| | Average Assets per Credit Union |
|---|---|
| CU Failures | -0.576*** |
| CU Mergers | +0.079 |
| CU % Change in Net Income | -0.202 |
| CU Loan-Share Ratio | -0.312* |

Both Figure 2.6 and Table 2.2 show that while there is a decent, negative correlation between outright failures and credit union size, this relationship does not stand up well when considered with other data. This is made visible by the weakness and lack of significance of related correlations. There is a significantly strong, inverse relationship between mergers and failures. Credit Union failures and mergers have a highly significant correlation of -0.623 (not pictured above). If credit union stability and failures were most strongly affected by credit union size, then given the close relationship between failure and merger, one would also expect size (measured here in average assets per institution) to have a strong, significant relationship with

credit union mergers. Yet that expectation is not borne out here. Table 2.2 shows no significant relationship between mergers and size. In fact, the p-value for that correlation is 0.567, indicating that not only is there no significant relationship, but that it seems very unlikely to be a result of Type II error.

An additional point to keep in mind with these graphs is that they are not biased by a high number of zero cases. Rather, there are many cases on the graphs which appear near-zero because the combination of rapid asset growth with industry consolidation has resulted in a sharp rise in assets-per-institution. In this case, from 1960 to 2015 assets range from an average of $257,000 per institution to over $151million per institution. So, while the top-left graph of Figure 2.6 would appear strong support for the size-makes-stability argument, an examination of my other stability measures would substantially weaken that claim. For example, after an initial spike of mergers, the correlation between mergers and size flattens substantially and narrows slowly. There is virtually no relationship between change in net income and assets per institution (bottom-left), and loan-share ratio fluctuates dramatically with assets per institution to the point that there appears no meaningful relationship. This determination is supported by the correlations reported in Table 2.2.

**Relevant Academic Treatment**

Sociological work on credit unions in the US has been sparse, surprising given the ways in which credit unions have closer institutional ties to their communities than similar institutions and how their services are more closely directed to consumers' daily needs than many banks (Bergengren 1937; Bundt, Chiesa and Keating 1989; Croteau 1949; Croteau 1956; Kaushik and Lopez 1994; Lune and Martinez 1999; Patin and McNiel 1991; Taylor 1971). Instead, this topic has been more consistently addressed by social economists.

A substantial chunk of work on credit unions and their stability appears to belong to the organizational wing of social research, which generally uses them as a convenient but not unique demonstration of existing theory, rather than credit unions being identified as central to the

research itself. Instead, CUs, due often to their small size and local focus, have been used to test theories of how organizations grow and how they might push the boundaries of functions served by other similar institutions, such as savings and loan banks or payday lenders (Barron 1999; Barron, West and Hannan 1994). For example, Barron found that larger credit unions tended to be more stable than small credit unions, a point which supports arguments that the higher equity and liquidity afforded to larger institutions protects them, but also contradicts claims that during the 2007 financial crisis, in both the US and Germany, it was the larger firms that suffered most due to having the ability to invest more heavily in toxic assets (Barron 1999; Detzer et al. 2013; Hüfner 2010; Newman 2010). One explanation for this inconsistency is that both larger and smaller firms may enjoy increased stability, and that it is instead mid-sized firms which exist in a "danger zone" with high failure risk; it can be said that "large organizations capture the advantages of generalism, small organizations the advantages of specialism, and medium-sized organizations the liabilities of both.(Haveman 1993)"

Others have argued that instead of size alone, it is also firms' position within the market and the level of consolidation occurring in their environment which affects their stability (Lune and Martinez 1999; Negro, Visentin and Swaminathan 2014). For example, commenting upon the trend of financial institution consolidation that developed with post-1970s deregulation, Negro and company argued that similar to the style of separation exemplified by world systems theory, markets can also be divided into "fringe", "near-center", and "center" segments based on size and market share, the former segment occupied by firms such as payday lenders, and the latter occupied by larger organizations like large, universal banks (Barron, West and Hannan 1994; Negro, Visentin and Swaminathan 2014; Wallerstein 2011). In this case, credit unions would be said to be less stable than banks due to their smaller size and position in the near-center space (Negro, Visentin and Swaminathan 2014). This results in a higher risk of failure because not only does their smaller size prevent them from leveraging economies of scale, but as banks consolidate and grow larger, they compete more intensely with credit unions, further weakening the unions'

market position (Barron, West and Hannan 1994; Feinberg 2008; Negro, Visentin and Swaminathan 2014).

Another area of credit union research tends to make use of a more institutionalist perspective, in which researchers explore how institutional structures or related constraints drive their behaviors. Much of this research is in keeping with Fligstein's work on market fields, social spaces which involve competitive market-based interaction. In these spaces, actors or firms may occupy different positions which may give them an advantage or disadvantage relative to other firms and which may structure their relationships with other institutions or the state (Fligstein 2002; Fligstein and Freeland 1995; Fligstein and McAdam 2014). Research on this topic includes explorations of how different actors such as the firms themselves, regulators, and competitors seek to find balanced social relations which allow for firms to grow, regulators to work effectively, and competitions to remain stable (Fligstein 2002; Lune and Martinez 1999). While in general practice there tends to be a failure to reach a balance due to a lack of highly organized firm-state relations, researchers continue to explore the role of relationships in governing capitalist institutions, a trend which has largely but not entirely skipped credit unions (Fligstein 2002; Lune and Martinez 1999).

In keeping with these theories, some have found that credit union organizational behavior is influenced by issues such as firm-regulator interactions. Regarding the former point, despite their legal status as non-profit-seeking entities, many credit unions still seek high returns on investments for their members, and still periodically come into conflict with regulators (Bundt, Chiesa and Keating 1989; Lune and Martinez 1999). One observation has noted that despite the variations in common-bond type and complexities of bank credit, regulators and legal entities tend to treat credit unions the same as other financial firms, which may occasionally inhibit growth (Bundt, Chiesa and Keating 1989). Yet this very issue invites questions about whether credit unions, if regulated less heavily, would behave more like banks. For example, credit unions, like other financial institutions, may still attempt to get around regulations through

"…mechanisms [which] include *concealment*, whereby an organization may pretend to comply; *buffering*, whereby an organization may 'decouple' its activities from the sources of the regulatory or normative pressure; and *escape*, wherein an organization will leave the domain entirely.(Lune and Martinez 1999)" Such practices are reminiscent of  and may possibly lead to attempts at regulatory capture, or support for further deregulation.

Instead of size, I theorize that it is instead regulation and its effects on the economy that have allowed credit unions their relative, increasing levels of stability. We see this not only because of the change in regulation associated with a shift in the dominant economic ideology of the US, but because we have recently seen an example of what may happen during times of substantial *deregulation*. I refer, of course, to the previously discussed Savings & Loan crisis of the 1980s and 1990s.  This was a crisis which is largely agreed to be the result of industry deregulation, and likewise, the subprime mortgage crisis of 2008 is often thought of resulting from a mix of deregulation and delayed or under-regulation of new financial commodities such as certain types of derivatives. As it is, the question remains as to what extent regulation has changed for either of these American industries, and how such has affected their stability.

What this chapter accomplishes, then, is to give us a broad overview of the arena under examination: the consumer finance industry, its importance to the economy overall, and credit unions' role and history in that field. Noteworthy is that credit unions in the United States were formed to address social needs. It was known even then that poorer populations might have good reason to need access to credit, and were often rejected by banks, if there even were banks that served their area. While one could certainly investigate moralistic and racial elements of who was served by early credit unions (were farmers looked upon as being more morally worthy than the urban poor? How did racial discrimination look in credit unions?), it cannot be ignored that they sought to give underserved populations access to consumer finance markets, and that their business model was catered to those groups' needs. Thus, the reason why early credit union

promotional materials framed them as emancipatory institutions who were themselves a *movement*.[8]

This also points again to the value of how certain limits placed on financial institutions can cause them to better serve the public good. Such a notion is difficult to truly reconcile with the destructive, or self-destructive as Polanyi (1944) argued, nature of capitalism. Can a system so innately destructive ever be brought to heel? Varieties of capitalism theories seek to explore this possibility, and such is certainly compatible with the theoretical perspective I intend to employ. This perspective explores how markets exist as social structures where, as happens in capitalist systems and as argued by conflict paradigms, groups compete for finite resources. In this case, credit unions and banks, though initially serving separate groups, came to share the same competitive space, and thus had to compete for limited market share and consumer groups. The role of regulation in this change is important for what it says about who even *can* reasonably be served by markets, and if capitalism *can* be made into something more equitable.

[8] As an aside, this raises the interesting question of whether the "credit union movement", if a movement at all, could be considered to be among the earliest "Astroturf" social movements.

## Chapter Three: Theories of Financial Regulation, Firms, and Institutional Stability

Though the topic was left largely to economists until the 1980s, most of the sociological work on economic and market stability is focused on invalidating the foundational premises of free market theory a la economists such as Adam Smith, Friedrich Hayek, or Milton Friedman (Bourdieu and Nice 1998; Burt 1988; Granovetter 1985; Gupta and Lad 1983; Keiman and Teles ; Lie 1991; Lie 1997; Stiglitz 2008; Stiglitz 2010). Regarding free-market theories grounded in Adam Smith's works, sociologists have strongly rejected the claim that humans are rationally self-interested, isolated decision-makers whose natural inclination is to barter (Polanyi 1944; Smith 1776; Stiglitz 2008). This claim has led modern economists to the conclusion that markets must be the most natural form of exchange, justifying the alleged social benefits of unregulated (free) markets (Granovetter 1985; Hayek 2014; Polanyi 1944; Stiglitz 2008).

Instead, sociologists argue that markets are innately embedded in non-individual human social relations; that markets originate from, are driven by, and cannot exist apart from, human interaction, cultures, and other social contexts (Block and Somers 1984; Granovetter 1985; Lie 1991; Piven and Cloward 1971). Because of this, we see no valid justification for markets being the 'natural' form of exchange, nor for market societies to be humanity's truest inclination. Ample sociological, historical, and anthropological research has found that, predating and existing alongside markets, there have been systems based on redistribution of resources and reciprocal exchange (Fligstein 2002; Fligstein and Dauter 2007; Granovetter 1985; Polanyi 1944; Stiglitz 2008). This stands in contrast to the economists' treatment of exchange in markets being determined by material needs rationally assessed by humans seeking to maximize benefit and minimize cost (Polanyi 1944; Stiglitz 2008; Stiglitz 2010). Thus, freeing markets based on their supposed 'natural' origins is unsupported theoretical reasoning.

This line of criticism leads directly into assessments of whether markets in a capitalist society are inherently stable or unstable, an assumption which necessarily undergirds discussions of regulation. It is worth keeping in mind at this point that there is a difference between economic

stability and market stability, though the two concepts here are innately closely linked as the United States is home to a market-based economy. Broadly speaking, a stable economy is one that has consistent and sustainable GDP growth, relatively steady and predicable price changes, low inflation, and does not experience dramatic swings in supply or demand of the assets upon which it is most dependent. In the United States, among others, the economy is highly dependent on stable financial markets. Market stability is assessed along similar lines; it is not necessarily the total lack of failure, which even capitalist values indicate is impossible and undesirable. Rather, institutions in stable markets would have relatively low, somewhat predictable failure or merger rates. They should provide relatively stable prices, or price changes that follow moderate patterns, such that actors are able to conduct their business with confidence. These actors may include business owners, managers, investors, and consumers. The idea is that entities will engage with markets that satisfy their needs for some level of security out of self-interest.

**Hyman Minsky's Financial Instability Hypothesis**

In keeping with the criticisms of free market stability, social economist Hyman Minsky developed what he called the financial instability hypothesis, a variant of Keynesian theory which argued that neoclassical theories of market function fail to account for the economic, political, social, and psychological relations which influence market behaviors. Minsky's theory finds its socio-institutional elements from his concern about time as a variable (Minsky 1984). As he noted in 1978,

> "An economy with a Wall Street cannot be static. Yesterday's debts and capital asset acquisitions must be validated by today's cash flows; today's cash flows are largely determined by today's investment; today's investment will or will not be validated depending upon the cash flows that are generated tomorrow. Therefore, the economic theory that is relevant for an economy with a Wall Street cannot be static; it cannot abstract from time. (Minsky 1984, p. 105)"

It is thus debt, this exchange of money today for money later, which renders markets social, because the passage of time innate to lending and repayment processes allows for changes in investor confidence or interest, workers' saving and spending behaviors, and the state's

regulatory apparatus. That is, the pull of money today being influenced by the history of investment in turn causes changes in social behaviors which will affect market behaviors.

As the passage of time affects social behavior in investing, any of three investment systems develop, all designed to achieve socially and economically pressured relationships between cash flow and debt acquisition. Minsky labels these three investment types as:

1. **Hedge**
2. **Speculative**
3. **Ponzi**

In hedge financing, firms can fulfill their contractual debt obligations with their existing cash flows; banks or governments with floating debt tend to demonstrate hedge financing (Minsky 1984, p.92). Speculative units are those that can meet their commitments by 'rolling over' their liabilities – that is, by taking out new loans to pay other, current debts, an option justified by anticipated cash flows that can cover these accumulated debts (Minsky 1984; Minsky 1992). For Ponzi type systems, however, cash flows from operations aren't enough to cover debts or the interest on those debts – they can only meet their commitments by either selling their assets, or by borrowing more money, leading to cascading problems over time as their equity plummets while their future income evaporates before it is earned because of debt obligations (Minsky 1984; Minsky 1992).

Being aware of these investment types and their associated risks can help us to consider how, for example, CEOs may make financially risky moves in the name of profit, rather than simple greed or corruption. Minsky notes that any capitalist system depends on the ability to finance business operations via either cash flow from normal operations, or through debt (Minsky 2008). He states that, "A capitalist economy is characterized by a layered set of payment commitments that are stated in financial contracts", which codify the conditions and expectations between lenders and borrowers (Minsky 2008). and the ability to borrow money is dependent on

both lenders' and borrowers' expectations that future income will be able to meet the conditions of repayment. Let us consider an example.

From the perspective of borrowers, such as large firms, the shareholder value system demands ever-increasing profitability, often measured via equity and the value of company assets. Not only do CEOs face pressure from shareholders but given how frequently they are paid in stock in the same company, their short-term success is closely tied with the growth of their firm. As such, they are incentivized to always provide a positive quarterly outlook through the balancing of debt, investment, and other assets.

If the amount of borrowing is within a safe margin of expected future returns, mostly within the realm of hedge financing, this system works well. During periods of extended economic stability, both investors and borrowers become very confident that in the long run, the business will continue to turn a good profit. This confidence is based on the previous experience of lenders and firms: projections of future cash flows are based on previous cash flows, the margin of safety is estimated based on the adequacy of margins in the past, and the willingness to depend on refinancing as a source of emergency funds depends on how well refinancing markets have performed in the past (Minsky 2008). This is also the reason that this system has proliferated so well. Many CEOs comfortable with higher-risk systems jumped eagerly into this system, and for however long profited enormously. For those CEOs feeling more conservative in their choices, the massive profits realized by their peers substantially increased pressure for them to follow the same pattern, as to shareholders, failing to take advantage of these opportunities when risk seems so low would look like poor leadership or worse, a mis-reading for the markets. And CEOs unwilling to do what it takes to ensure consistently growing quarterly profits are easily replaced with those who *were* willing to take what initially appear to be small risks.

However, such assumes that sociopolitical or socioeconomic conditions are either static or that they follow rigid patterns. As both lenders and firms begin to feel secure, they are willing to make investments with narrower margins of safety, allowing speculative or Ponzi structures to

develop (Minsky 2008). Not only do CEOs need to demonstrate increasing rates of profit and growth, and thus are incentivized to make riskier investments, but investors become secure enough to support this incentive. Thus, we begin to see patterns of risky lending appear and proliferate, as groups on both sides of the exchange of funds become overconfident in market performance.

As any of these three investment schemes proliferate, the proportion of the economy ruled by each changes, a development which Minsky argues is what makes capitalist economies innately prone to cyclical patterns of stability and instability. If hedge financing dominates, then the economy should be stable for a time, even possibly reaching the equilibrium which neoclassical economists say is the natural tendency for markets (Minsky 1992). However, the longer the period of stability, the greater the urge to engage in speculative or Ponzi investments, as in the example above. As these schemes proliferate and come to constitute larger portions of the economy, that economy will become unstable under the weight of risky investments.

Recall that the riskiness of these investment types comes from how, having borrowed money, the borrowing firm can make its loan payments. Under speculative and Ponzi systems, especially the latter, the ability to continually take out loans to finance current activities eventually dries up, and if the necessary cash flow has not appeared, the only way to make payments is to either sell assets or seek a bailout. Once a firm is forced to sell assets to keep up with its payments, investors and lenders quickly lose confidence in the solvency of the institution, and either demand more immediate repayment, or pull their support. In the case of smaller businesses, they may just quietly shut down. If this happens to larger firms, the failure of one large business or institution may lead to the failure of others, resulting in a market failure. If the market constitutes a sufficient portion of the economy, collapse becomes possible. It is this cyclical pattern of stable and unstable periods and investment schemes which demands the stabilizing presence of a state which can either impose a stronger regulatory regime (reducing the

frequency and scope of risky investments) or serve as an efficient lender of last resort to avoid financial crises and possible economic collapse (Minsky 2008).

What makes this a social theory is the extent to which this stabilizing and destabilizing process is driven by human and interfirm relations, industry structure, and confidence and risk. The conditions under which risky investment is encouraged or discouraged are determined by institutional and market structures which are mediated by government intervention (or lack thereof) and by assumptions about market function. Yet these assumptions are not made only by executives in board rooms, but also by modes of institutional and economic data collection and interpretation, behavioral precedent, and group interpretations of market conditions and regulatory changes. It is the combination of these factors which makes this set of theoretical assumptions relevant to this dissertation project, as it ties a very specific set of economic processes to also-specific social processes, all of which can be observed in the consumer finance industries.

### The Sociological Perspective on Self-Regulation: Illusory Agreements, Blue Moons, & Related Squabbles

While the criticisms of free market economics and its claims about self-regulation are largely based in theoretical problems, empirical work has also assessed the plausibility of self-regulation. Defining self-regulation is important here, as the term can have subtly different, but substantively important distinctions. For example, Gupta & Lad define self-regulation as a "…process whereby an industry-level, as opposed to a governmental- or firm-level, organization (such as a trade association or a professional society) sets and enforces rules and standards relating to the conduct of firms in the industry. (Gupta and Lad 1983)" They go on to elaborate that this doesn't imply a complete replacement of direct government regulation with industry-controlled regulation, as more often the two coexist. However, they say that the distinction is that the main responsibilities for the creation and enforcement of standards rest with industry bodies rather than government agencies (Gupta and Lad 1983). Another interpretation of the term self-

regulation is defined as “the systematic undertaking by private, regulated organizations of governance responsibilities traditionally allocated to government regulators, including standard-setting, compliance monitoring, and enforcement.(Short 2013)” In this case, self-regulation is understood to absolutely coexist within a government-led regulatory regime, with a more even balance between industry-led compliance and government oversight.

Regardless of the balance between government and industry cooperation in self-regulation, research so far likens successful implementation to be possible under only certain “blue moon” conditions; rare, but realistically occurring (Short 2013). These conditions for self-regulation appear only when regulators and regulated actors or industries have a shared basic understanding of what norms underlie regulatory goals and agree about the foundational values of the regulatory regime, resembling a more collegial structure (Prasad 2006; Short 2013). “Blue moon” conditions would also require close firm- or industry-level monitoring by government regulators and one in which firms believe they and their competitors are unlikely to get away with breaking the rules, thus encouraging compliance while also assuring firms that compliance would not place them at a competitive disadvantage (Short 2013; Short and Toffel 2010).

Short condenses these and similar circumstances into three requirements for effective self-regulation to develop: reasonably shared understanding and consensus between regulators and regulated entities about those rules; appropriate resources for government regulators to implement and enforce those rules; and adequate judgment on the part of regulators to practice restraint in the use of those rules and refrain from forcing companies to adopt self-regulating procedures (Short 2013). Prasad has made the latter requirement in her work, in which she argues that regulatory systems based on adversarial relations between the state and business can result in anti-regulatory backlash (Prasad 2006; Prasad 2012; Short 2013). Yet self-guided responses on the part of firms in anticipation of regulatory crackdowns are certainly not impossible. Dobbin and Sutton have observed that anticipated changes in regulation can produce early changes in firm behavior, though it is questionable whether such can truly be called self-regulation (Dobbin

and Sutton 1998). In short, self-regulation must still exist within a strong regulatory regime, a requirement far outside the conditions set by free market theory.

However, these ideal "blue moon" conditions seldom develop, leading to issues of noncompliance. Instead, self-regulation usually appears when these regimes are lacking, creating a "regulatory void" (Short 2013). Short identifies three types of these voids, all of which can derail attempts to foster self-regulation: knowledge, political, and institutional voids (2013). Knowledge voids may appear in the circumstances identified as a major flaw in free-market theory: the limited availability of information and the strategic use of informational inequities (Short 2013). An activity must be observable, known, and understood to be regulated. Such a lack of knowledge can cause the failure of a regulatory regime altogether, arguably what occurred in the 2007-2008 financial crisis. As Short describes,

> "Regulators often lack sufficient information, understanding, and foresight to regulate effectively. When regulators lack information, do not fully comprehend the problem to be regulated, or neglect to anticipate and adapt to changes in circumstances, regulation may fail to solve the problems it sought to address, it may exacerbate those problems, or it may create new and unanticipated problems (Anthoff and Hahn 2010 in Short 2013, p 7)."

This perfectly describes many of the conditions that led to the crisis.

**Into the (Regulatory) Void: A Crisis Waiting to Happen**

Regulatory voids can also be political when they come from the active contestation of the norms governing the behavior of regulated industries (Short 2013). Politics can "… prevent the enactment of law or the articulation of clear rules or standards when there is a lack of consensus among the relevant actors about the nature or existence of a problem and what rules should govern it.(Short 2013)" When the US economy faced economic crises from several fronts in the 1970s, the dominant pro-regulation Keynesian economic policies of the time were blamed. Pro-market groups who were impressed by Milton Friedman's policy prescription for Chile were able to use the stagflation of the 1970s to gather increased support for the liberalization and deregulation of the US economy. Their efforts began to see results in the 1980s when neoliberal

policy preferences were adopted by Ronald Reagan's economic policy advisors, and then by Reagan himself (Prasad 2006). Thus began a line of neoliberal policy changes, few of which had so great an effect on long-term economic stability as the slow dissolution of the Glass-Steagall Act, which resulted in the deregulation of the FIRE industries (Krippner 2011; Prasad 2006).

The Glass-Steagall Act is the colloquial term for two pieces of legislation: the first Glass-Steagall Act of 1932 and the much more extensive Banking Act of 1933 (Bell 1978; Duménil and Levy 2011; Krippner 2011). Though the legislation was far-reaching, particular provisions of these acts prohibited companies from: engaging in both commercial and investment banking; outlawed payment of interest on checking accounts and certain other deposits; restricted speculative uses of bank credit; and severely restricted the roles banks could play in brokering loans for themselves or other parties (Davis 2009; Duménil and Levy 2011; Sorkin 2010).

The piecemeal dissolution of these regulations which took place over the 1980s and 1990s are what led to the Savings and Loan crisis, as well as an explosion of corporate mergers and acquisitions which were previously outlawed by Glass-Steagall (Davis 2009; Reinhart and Rogoff 2009). With the repeal of these key provisions came a slew of other deregulatory campaigns. The rise of the internet in this deregulated environment made new types of financial transactions, commodities, and speculation possible, from freer speculation on derivatives to the exchange of credit default swaps before the 2007-2008 financial crisis (Blinder 2013; Davis 2009; Reinhart and Rogoff 2009). Households were encouraged to reimagine their skills as capital to be developed at their jobs, while their financial capital accumulated; by the end of the 1990s, over half the population of the United States were shareholders, a new line of common practice that benefitted the FIRE industries and developed a greater constituency demanding deregulation (Davis 2009; Krippner 2011). During this period of deregulation, neoliberal ideology continued its spread into mainstream economic training and reasoning, giving rise to the Shareholder Value model of corporate governance (Callinicos 2003; Carruthers and Kim 2011; Davis 2009). This model meant that CEOs were expected to maximize profit and the value of

company shares (stocks) for the benefit of shareholders who received dividends from those profits (many of whom are also elites) (Keister 2002; Keister 2005; Keister 2014). The increased focus on short term profits fed the ideological resistance to regulation, as it by nature put a cap on profit growth rates.

**Regulatory Capture & Disablement: Killing with Kindness & Strangulation**

These circumstances can also lead to regulatory capture, as regulation's idealized goal of reducing public externalities is often overwhelmed or distorted by how political imperatives might differently motivate and constrain regulators (Short 2013). According to capture theory, business has the greatest "organizable" interests in controlling or co-opting regulation, and when there is great political contestation over the goals of regulation, business interests can infiltrate regulating organizations. As lobbyists for powerful and rich firms provide politicians with the most technically sophisticated analyses and drafts of laws, these rich firms then go beyond 'drafts' to actually employing former employees of the regulating firms. Since firms can pay more (in the American context) than government agencies, regulating employees anticipate later careers working as lobbyists in the private sector, creating a 'revolving door'. Under capture, the regulating agency becomes very hospitable to the policy recommendations of big business. From the consumer's point of view, the public's interests are too diffuse to make a difference. As a result, the regulatory agencies' staff or commission members become aligned with rich firms (Laffont and Mortimer 2002; Levine and Forrence 1990; Stiglitz 2000).

Some may refer to this as corruption, but even in advanced democracies with high levels of transparency and media freedom, the complexities of these regulatory commissions favor large firms. NGOs representing the public may add a complication of more public representation, but the argument is that they will never have the resources that large firms can command. Only during crises when media scrutiny becomes intense, may large firm advantage be neutralized for a short period of time, resulting in possible bursts of regulation (e.g., the Glass-Steagall and other

acts in the 1930s, and the Sarbanes-Oxley Act, the Dodd-Frank Act and other acts more recently). But after the crisis, the capture theory reasserts its power and slowly takes over again.

Disablement theory related capture theory, but it is both more political and less recognized. Evidence shows that "…since the late twentieth century, there has been a concerted political movement in the United States and elsewhere to defund administrative agencies and derail regulatory initiatives, creating gaping and persistent voids in the regulatory state. (Short 2013; Short and Toffel 2010)" In this case, a federal regulatory agency is composed of appointees from two or more political parties. The party of business can disable the regulatory agency by opposing most measures of regulation. As a result, votes on implementing regulations can be easily disabled by tie votes. A variation of disablement concerns many agencies but especially those that rely on appointed staff such as the National Labor Relations Board (NLRB). In this case, appointments of an unfavored party are held up in Congress so the board is understaffed and largely cannot function.

**…Or Maybe the System is Simply Built to Fail**

This model is reminiscent of elite theories such as those forwarded by William Domhoff (2014) and George Stigler (1975). A government regulator faces pressure from businesses and electoral pressure from consumers, a relationship initially consistent with Fligstein's market theory. In this case, the business pressure is always more powerful, and as a result, regulations are only passed only for the benefit of large firms. Regulation can benefit business in through two different mechanisms: direct subsidies, or protection from regulation. Subsidies may encourage new entrants into the market, but protection against new entrants is more desirable from the business point of view. Subsidies are more effective when a business can pit governments against each other when promising new jobs (e.g., large corporations locate plants in states that give them subsidies and tax relief). Small firms will be unable to leverage state governments in this way and consumers will generally be ignored. Domhoff's approach is based on power resources in that firms that control large amounts of revenues, profits and jobs will get their way since politicians

depend upon their support. Stigler proceeds from public choice premises in that (1) large firms are a small and homogenous group and can act as a collectivity more easily, while small firms will have collective action problems, and (2) consumers will not organize because they face even greater collective action problems and low potential benefits (free rider problems). In a sense, this theory combines contrary bedfellows.

Finally, institutional problems can lead to regulatory voids when, regardless of the presence of shared values or norms, institutions lack the capacity or competence to enforce regulations (Short 2013). They may be entirely absent, or lack the resources and skills needed for monitoring and enforcement, such as was seen with the EPA of 1996-1998, which it was only capable of inspecting 1% of facilities subject to major antipollution rules (Short 2013). It was been argued that the United States continues to face substantial problems in this respect, as whenever markets are given opportunities to self-regulate, as the idea of the invisible hand and proper institutional structure implies they should, events such as the 1980s Savings and Loan Crisis, Great Recession, or European Sovereign Debt crisis occur (Calavita, Tillman and Pontell 1997; Epstein 2005; Glasberg and Skidmore 1997; Glynn 2006; Haveman 1993; Minsky 2008; Stiglitz 2008; Stiglitz 2010). By contrast, in Germany there has been a tradition of strongly organized employer and trade union federations regulating the welfare state with the government as a third party. This form of "self-management" pervades many bureaucratic agencies. As a result, the German state has a tradition of strong regulation in many different areas of society (OECD 2012). For instance the *Stadesamt* (Office of Vital Statistics) regulates the first names that can be given to a child (e.g., rejecting Whoopis), and  regulates shopping hours in general and the location of big-box stores in particular so much so that Walmart withdrew from Germany after a ten year presence (Christopherson 2007). from the American perspective, Germany is an odd combination of democracy (self-administration, co-determination of corporate boards, and works councils), but with a state with strong powers and an elite bureaucracy.

Given the issues endemic to self-regulation in a capitalist society, the reasons to leave the largest portion of regulatory authority to the state become much easier to process. The state is broadly considered the most effective regulatory authority once the above issues in self-regulation are considered and controlled for. While the specific reasons that the state is the best regulator vary somewhat widely, there is a broad understanding, even among businesses, that the state is better equipped to impose market-stabilizing rules than often irrational firms, brokers, or investors (Furner 2009; Pacewicz 2013). Not only have firms themselves demanded regulation to restore confidence in the event of crises, but research on the democracies of western and northern Europe indicate that there does exist a balance of higher government intervention which allows for increased economic stability, along with enough flexibility to allow for economic growth (Brady, Kiser and Beckfield 2005; Dobbin and Sutton 1998; Huber and Stephens 2001; Majone 1994; Pacewicz 2013; Prasad 2006). But, consistent with Short's argument, the combination or sociopolitical circumstances in each market-regulatory situation necessitate a balance between actors in determining regulatory capacity. Recently, Prasad (2012) focuses more intently on regulation and includes a Wilenskian tax backlash, or neo-Skocpolian theory of backlash. Harold Wilensky (2002; 1965) focused on visible taxes such as income tax causing government backlash, and non-visible taxes like the value-added tax avoiding backlash. Theda Skocpol (1995) indicated that the US developed overly generous welfare systems with the Civil War pensions and Mothers Pensions. A backlash developed, especially from the south that was ineligible for pensions since they were the rebels and lost the war.

First, Prasad argues the regulatory system creates strong adversarial laws, and as a result, the US state overreacts to crisis with very strong regulatory policies implemented by aggressive bureaucrats (Prasad 2006). However, business and society lash back against this overreach with capture and then anti-state policies that then severely cut back on regulations with a mantra of keeping the state out of the affairs of the market and people's lives. Second, the US tax and regulatory system also overreacts with very high personal and corporate income taxes (not

relatively invisible value added taxes), and the backlash comes in terms of tax avoidance (backstage evasion) and neo-liberal attempts to advance tax cuts (front stage protest and power)(Prasad 2006). and third, the US and Europe differ because of 'demand.' In the US, the overabundance of production results in a consumption focus on taxing the rich and helping the poor mainly through access to credit, which solves conflicts by enabling the purchase of more products and houses. Reducing production raises prices and by implication the income of (for example) farmers, serving as a form of income control or protection (Prasad 2012). In Europe, the focus is on production and consumption comes from improved competition in world markets with the state providing a social wage. Essentially, these are 'demand' and 'supply' theories of regulation and policy. Prasad's theory is a dual theory of stage one policy of demand versus supply and then stage two policy of tax and regulatory backlash in the US (but not in Europe). Though she does not say it, this theory is cyclical: adversarial policy leads to backlash policy leads to adversarial policy leads to backlash policy.

Within this framework, and given such governmental fragmentation of power, business is quite privileged. Critiques of state incompetence, largely due to fragmentation and constraints, then portray the private business sector as inherently competent and fair. During the few times that consensus can be reached about regulation (i.e., during economic crises or massive fraud like Enron), the American response is to create strong laws that tend to be later reversed (Prasad, 2012). The result consists of low status bureaucrats trying to enforce strong laws while facing private sector firms with armies of lawyers and very large amounts of resources (not to mention access to politicians). Business largely controls regulation by capture, or it waits out the crisis until it can return to normal. A process that makes this easier is the 'cooptation' of leading politicians and regulatory bureaucrats by firms employing them as lobbyists in the process called "the revolving door" (OECD 2014; OpenSecrets.org 2014).

An additional point to consider is the nature of power relation in regulation. Given that every time we follow the speed limit while driving or enjoy a cup of non-toxic coffee, we are

experiencing effective regulation at work (Ford 2013). Such examples demonstrate the finding that regulation itself usually works invisibly and often, and is most often problematized when it is the subject of a power struggle (Silbey 2013). The regulation that we most often study used instead to selectively favor certain social or economic groups, such as in the legislative battles between banking and credit union regulation (ABA 2010; Bergengren 1937; Croteau 1949; Croteau 1956; Silbey 2013). The issue is increasingly often less about how much regulation than what kinds of regulation, and their contents and effects (Carey 2013; Ford 2013; Gupta and Lad 1983; Pacewicz 2013; Reichman and Sefiha 2013; Sampson and Bloor 2007; Schneiberg and Bartley 2001; Short 2013; Short and Toffel 2010; Silbey 2013). Sociological works have historically treated regulation as a zero-sum game; to regulate or not to regulate, the corporations win, or the people win. However, we now need to note how regulation as a process is subject to power struggles as with any social phenomenon, not only between businesses and citizens or workers, but also between firms and industries (Desmond 2013; Pacewicz 2013; Way 2005).

**The Political-Cultural Theory of Markets & Its Connection to Regulation**

Having recognized a dearth of sociological theory focused on market creation and function, Neil Fligstein developed what he called the Political-Cultural theory of markets, intending to provide an explicitly sociological approach to a traditionally economics-based topic. The core claims of how markets function according to this theory are available in Table 3.1. With reference to Bourdieu and McAdam, Fligstein's theory, consistent with D'Aunno, Succi & Alexander (2000), argues that markets are fields in which firms and other groups interact, act out power struggles, and seek to guarantee their stability. He discusses several factors within fields and within individual firms that can endanger a firm's survival, which can include uncooperative suppliers, price competition, interpersonal conflicts and intra-firm politics, and the ever-present possibility that products may become obsolete (Fligstein 2002).

Table 3.1. Core Claims of Political-Cultural Theory of Markets

| | |
|---|---|
| **1.** | At the beginning of a new market, the largest firms are the most likely to create a conception of control and a political coalition to control competition. |
| **2.** | Power struggles within firms are over who can solve the problem of how to best organize the firm to deal with competition. The winners of the struggle impose their organizational culture and design on the firm. |
| **3.** | Through intended and unintended actions, states can thwart the actions of firms to create stable conceptions of control. |
| **4.** | The liability of newness in new markets reflects, in part, their lack of social structure and a conception of control; that is, it reflects participants' inability to control competition. |
| **5.** | New markets borrow conceptions of control from nearby markets, particularly when firms from other markets choose to enter the new market. |
| **6.** | In markets with stable conceptions of control, market participants widely agree on the conception of control and the status hierarchies and strategies it implies. |
| **7.** | Incumbent firms pay attention to the actions of other incumbent firms, not challenger firms, while challenger firms focus on incumbents' behavior. |
| **8.** | Firms in stable markets continue to use the governing conception of control, even when confronted with outside invasion or general economic crisis. |
| **9.** | Market crisis is observed when incumbent firms begin to fail. |
| **10.** | Transformation of existing markets results from exogenous forces: invasion, economic crisis, or political intervention by states. |
| **11.** | Invaders are more likely to come from nearby than from distant markets. |
| **12.** | When firms begin to fail, the intraorganizational power struggle heats up, leading to higher turnover of top personnel and greater activism by boards of directors and non-management shareholders. New sets of organizational actors attempt to reconstruct the firm along the lines of the invaders. |

These uncertainties drive firms' efforts to achieve dominance and security in their field, guided by their *conceptions of control*, which he defines by noting that,

> "Markets create local cultures that define who is an incumbent and who is a challenger and why (i.e., they define the social structure). They prescribe how competition will work in each market. They also provide actors with cognitive frames to interpret the actions of other organizations. (Fligstein 2002, p.18)"

The conception of control is one of the driving concepts behind the entire theory, as it captures the reason for institutional struggles within and between markets.

**Market Incumbents & Transformations**

According to this theory, for example, when a new market is formed, it is the largest firms which are likely to create the baseline conception of control, and to use their political power

to control competition and protect their vision of the market's function (Fligstein 2002). However, these conceptions of control are not necessarily stable, and are frequently explicitly unstable. It often takes state intervention via a strong regulatory regime to establish a stable conception of control to guide the behavior of incumbent and challenging firms (Fligstein 2002). However, when a stable conception of control is established, market participants are likely to agree on the corresponding hierarchies and strategies that that conception demands. This means that firms will consistently use this conception of control to govern their behavior even when confronted with market invasions or economic crises (Fligstein 2002; Short 2013). This perspective is like that espoused by Short (2013) and Ford (2013), in that it finds markets to be stable when mutually agreed-upon and recognized rules are followed.

This framework is not limited to a static view of stable markets, however. Markets are likely to face instability not only because of flaws in their conception of control, but possibly because they lack one altogether as can happen in new markets (Fligstein 2002). This can lead to more direct power struggles between firms or market crises in the case that incumbent firms begin to fail (Fligstein 2002). Beyond issues of internal stability, however, Fligstein identifies three exogenous forces that can transform markets: invasion by outside firms or markets, economic crises, or political intervention by states. Invasion is more likely to occur from nearby markets and can happen when a firm begins to fail. This increases intra-organizational power struggles, "…leading to higher turnover of top personnel and greater activism by boards of directors and non-management shareholders. (Fligstein 2002)" New organizational actors appear and attempt to rebuild the firm according to the visions of the invaders.

Economic crises can powerfully affect a market in multiple ways. They can lead to shifts in demand, create openings for invading firms, or force state intervention, all of which would challenge or change the dominant conception of control. Further, firms in any given market are dependent on suppliers, availability of capital, labor markets, customers, and the flexibility of various state rules (Fligstein 2002). These changes are largely outside the control of individual

firms. Yet because of the possibility of state intervention, there is constant interaction between market and state actors which can cause problems for an existing conception of control (Fligstein 2002). These can "…undermine existing agreements by threatening …firms, either by withholding resources or through the direct invasion of firms from nearby markets. (Fligstein 2002, p. 84)" This means that the constant interplay between states, markets, and firms can lead to a number of exogenous shocks that could lead vulnerable firms open to failure or invasion, either because of an economic crisis or a change in conception of control to which a firm cannot adjust. This is more likely when the initial conception of control was based on unstable norms or behaviors, such as in a regulatory void.

**Policy Domains & the Role of Regulation**

Because the conception of control established in a new or existing market may be predicated on unstable behavioral patterns, the state plays a substantial role in Fligstein's theory of markets. This is where the Political-Cultural theory's explanation of regulation comes in. Rather than making use of the profit-maximization model of social behavior, this framework requires the consideration of firm survival as the driver of market relations.

The financial market field is a space with numerous actors who are all trying to achieve dominance over that space (Fligstein 2002). Doing this requires the establishment of a culture which guides social relations between actors in much the same way it does in any social setting (Fligstein 2002). As this culture allows actors to continuously interpret the meanings of the actions of others, recall Minsky's argument that lenders are continually reviewing the history and behavior of firms in order to determine the most profitable, safe financial relations possible (Fligstein 2002; Minsky 2008). Some actors will be better benefitted by cultural arrangements than others, and will use those acceptable cultural rules to reproduce their power in the face of challenges (Fligstein 2002).

According to the Political-Cultural theory of markets, regulation, and the economic outcomes it has for a given market is determined by the structure of the *policy domain* in a

market. Policy domains are a facet of an existing social order where a given set of actors claim the power to make and enforce the rules by which all of the other actors must behave (Fligstein 2002). Simply put, policy domains are where the rules for fields are made and enforced and are usually but not necessarily dominated by states. Given the increasing power leveraged by business, it can be said that economic outcomes in a market field are driven by the structure of policy domains: whether they are built around the state's capacity to intervene in and mediate the economy, or around a social groups' (in this case, firms') power to dictate the terms of that state intervention (Fligstein 2002). The outcomes possible in a market field, such as widespread profitability or stability, are determined by whether the firms make the rules, or whether the state makes the rules. Just as Minsky's theory leads to support for regulation, so comes the basis for Fligstein's call for state regulation of the economy.

Fligstein is one among many social theorists who supports the argument that, left alone, capitalist systems are self-destructive. Because market fields are inherently competitive and conflictual, they create instability for both producers and consumers. With the increase of unregulated economic exchange, and as prices begin to be set through this relatively unregulated exchange, "social relationships are up for grabs;… in order to stabilize the existence of a given firm, its owners and managers will do anything to control others…" which can lead to monopolies or investment schemes that lead to market failure or economic crises (Fligstein 2002, p. 19). This problem of stability is what pushes firms toward dependence on the state. Highly unstable markets can threaten the survival of all the firms they contain (Fligstein 2002). Depending on the size of a collection of markets, and how interconnected firms are within and between those markets, the failure of one can lead to economic failure. Thus, the state is required to intervene to create and enforce stability-producing rules.

**Credit Unions, Banks, and the Lobby**

How does the theory described above map onto the development of credit unions, and what can it tell us about the future of credit unions and the consumer finance industry overall?

The political-cultural theory of markets is useful to explain the interrelation and outcomes of the CU and CB industries in a few ways. First, it proposes an explanation of the firm-government relations that affect and justify regulation in a way that is sensitive to the ideological changes observed during the 1980s. Second, it justifies the argument that credit unions belonged to either a) a separate, smaller market than consumer banks operated in, or b) existed within a niche of the same market, such that they were not regarded as competition to Commercial Banks. Third, it can explain why credit unions' outcomes changed so dramatically after the 1980s. In the following sections, I will elaborate on the above points.

First, I will discuss how this theory can be applied to explain the change in the United States' guiding economic ideology. While I do not test this portion of the theory directly, such is not necessary. There has been ample research and writing on how the United States has changed the way it approaches economics and all of the cultural trappings of such, and it is a nearly universal observation that the 1980s were a profoundly influential part of that process. However, the results of my analyses should demonstrate outcomes consistent with this ideological shift that are consistent with its general dictates. Second, I will use this theory to justify my claim that credit unions operated essentially [9] in a separate market from commercial banks, and that it was the combination of economic crisis and subsequent government action that changed the structure of these markets. Lastly, I will explain how this theory can explain the change in credit union outcomes after the 1980s, relative to those of commercial banks. Though I cannot directly test each step of that process with the data available, the outcomes of my models should be consistent with the predictions this theory should provide. If not, it would be an indication that my data was either mis-specified, or that the theory requires revision, a normal part of the scientific process.

**The Political-Cultural Theory on Financialization, Neoliberalism, and their Significance for Regulation**

[9] This word is chosen deliberately, and not used as a figure of speech.

A point to keep in mind regarding policy domains is that they can change. A comparison of the pre-Reagan regulatory era with the present indicates that we have likely seen a shift in the dominant policy domains over the past 40 years. Between the 1960s through the 1990s, we have moved to a policy domain dominated by a coalition between capitalists and the state. This has been made possible by the parallel developments of neoliberalism and financialization which must be understood in order situate them in the Political-Cultural theory.

*Financialization*

Perhaps one of the most succinct definitions of financialization comes from Lin & Tomaskovic-Devey (2013) who describe it as "two interdependent processes…the rising dominance of the finance sector…[and] the increasing participation of non-finance firms in the financial services and investment markets." An example of the former process is that in 1950, only 0.5% of world exports came from funds raised on international financial markets. By 1996, that number increased to *exceed 20% of world exports* (Baker, Epstein & Pollin 1998 in: Epstein 2005). The latter process is sometimes more striking, yet less studied: the amount of income that non-financial firms got from financial activities (such as investments) rose from 20% of profits in the 1970s to anywhere between 40% and 60% of their *total profits* by 2010 (Lin and Tomaskovic-Devey 2013). Within forty years, the share of profits derived from financial transactions in non-financial industries at least doubled. Another broader definition of financialization refers to the general primacy and ascendancy of the finance industries, financial markets, financial institutions and financial motives in domestic and international economies (Epstein 2005).

A common theme in the sociological literature ties financialization to the rise of neoliberal policy in the 1970s and 1980s. As previously discussed, neoliberal ideology promoted seeking market solutions to social problems, rearranging regulation to protect markets and businesses instead of citizens, and resulted in the dissolution of depression-era restrictions on financial industries (Krippner 2011; Prasad 2006; Prasad 2012). However, the beginning of financialization itself is often placed between the late 1980s and 1990s and is certainly agreed to

have been affecting the American economy by the time that the Dotcom bubble[10] burst, leading to the early-2000s financial crisis. Krippner argues that Financialization was the largely coincidental result of attempts to shift political responsibility for citizen welfare from politicians to the market, and while it was made possible by neoliberal policies, it may not necessarily have been an "intentional part of any political project (Krippner 2011)".

*Neoliberalism*

While neoliberalism's founding ideas date back at least to the 1930s and 1940s, it was brought to prominence by certain groups of economists, including Milton Friedman and the Chicago School (Davies 2014; Fourcade-Gourinchas and Babb 2002; Furner 2009; Harvey 2007). In fact, two events can demonstrate how the ideology began to show politically significant effects by the early 1970s. The first occurred in the wake of anticommunist and anti-collectivist sentiment within the business community, which saw the distribution of the Powell Memorandum within the US Chamber of Commerce, calling for a concerted effort among businesses to aggressively promote neoliberal policies (Powell 1971). The second was Milton Friedman and the Chicago School influence in liberalizing Chile's economy after Pinochet's military coup (Davies 2014; Furner 2009; Stiglitz 2008). While they were able to bring the economy to a state of consistent GDP growth, it came at the cost of dramatic increases in poverty and suffering amongst the poor (Furner 2009). Before Chile's economy ultimately crashed, neoliberal policies had already been hailed for the aggressive growth and profit they produced. The idea had taken root.

By the 1960s, neoliberal ideology had already reached influential actors and had become a process of collective action guided by belief in the 'free market'. As neoliberalism gained political support in the 1960s and 70s, the United States saw cultural shifts with roots in the

[10] A speculative bubble which ran from about 1997-2001, fueled by investment and rapid growth in the internet and related tech industries.

contemporary values of modernism and economic liberalism that paired well with neoliberal ideology, propelling it further. Many of the cultural changes occurring over the last 40 years were anticipated by many social scientists concerned about newly looming economic realities, including Daniel Bell, David Harvey, and Pierre Bourdieu (Bell 1978; Bourdieu and Nice 1998; Granovetter 1985; Harvey 1988; Piven and Cloward 1971).

The latter half of the 20th Century saw dramatic increases in values such as individualism, self-fulfillment (as opposed to fulfilling community interests), and personal success measured by net worth. These were also accompanied by growing preferences for expanded access to credit and the belief that the solutions to life's problems (and the source of the problems themselves) originate from individual decisions (Bell 1978; Fourcade and Healy 2007; Krippner 2011; Mudge 2008; Prasad 2012). These ideals, many of which have long been associated with modernism and an American aesthetic, took on a new tone with the added element of market fundamentalism (a key underpinning of neoliberal ideology). The result was an implicit belief that personal troubles originated with (and could only be solved by) the individual and that social issues originated from and should be solved by markets (Bell 1978; Block and Somers 2014; Mills 1956; Mills 1959; Mudge 2008; Somers and Block 2005)[11]. A problem could not exist that could not be explained by personal failures or market failures, a perspective that virtually invalidates structural inequalities.

As these ideological shifts permeated powerful groups and were disseminated to the public enough to become 'common knowledge', political support grew for policies which were in line with neoliberal creed. When trying to consider how this enabled financialization, we can think of Krippner's argument regarding risk. She argued that intentionally or not, much of the regulatory changes that made financialization possible were the result of politicians trying to shift

[11] For further reading on this topic, I would recommend *Brown, Wendy. 2015. Undoing the Demos: Neoliberalism's Stealth Revolution: MIT Press.* and *Block, Fred, and Margaret R. Somers. 2014. The Power of Market Fundamentalism. Boston, MA: Harvard University Press.*

responsibility for social welfare and public provisions onto the market, thus avoiding making potentially unpopular political decisions (such as raising taxes or modifying welfare policy directly)(Krippner 2011; Krippner 2014). This directly deferred political responsibility for social problems to the market, and relied on market fundamentalist arguments to justify any positive or negative outcomes, thus avoiding any risk to a politician's electoral goals (Krippner 2011). This would not have been possible without the establishment of a widespread, politically supportable claim of the primacy of market solutions for public problems. Today we continue to see market solutions provided for numerous social problems in the United States (from health insurance access to incarceration and mental health)(Block and Somers 1984; Block and Somers 2014; Somers and Block 2005).

*The Political-Cultural Application*

Financialization and the ascension of neoliberalism caused a change in policy domain because they changed the rules in a way that powerfully advantaged commercial banks. It came to pass that when an issue concerned financial markets, the policy domain came to be dictated by the largest financial firms, usually commercial and investment banks. Though the state remained the enforcer of rules, agents of the financial industry increasingly came to write those rules. Thus, their principles, the largest investment and commercial banks, came to dictate the terms of state intervention.

Recall the timeline of these events: neoliberalism rose to primacy in the United States between the 1970s and 1980s. Financialization developed in the wake of that period of deregulation, appearing between the late 1980s and 1990s, and was an empirical reality by the time the Dotcom bubble burst between 2000 and 2001. By 2002, Fligstein observed that "The United States is the purest case of a society in which capitalist banks are able to use the policy domains of the state for their own interests." This is because the events previously discussed led the dominant policy domain of the United States to change to one that minimized state power

over markets (especially financial markets) and defined the success of a business to a very narrow set of bounds focused on maximizing shareholder profit. Consider the details below.

Since the changes in policy leading up to the 1990s, the Government is usually unable directly intervene in markets, and when it does so, it is regulatory. However, regulation of financial markets has become minimal, rules almost always advantage banks, and regulatory policy is often heavily influenced (if not outright written by) the leading banks in the sector. Before the neoliberal wave of deregulation, US competition laws prevented cooperation between banks, thus decreasing their ability to control markets directly. After these rules were relaxed, US banks could enter joint ventures with their major competitors. The combination of deregulation allowing for massive banking mergers and increasing coordination among the largest banks led directly to the development of commercial banks that, during the Subprime mortgage crisis, were deemed "too big to fail". That is, major US banks had become so big, so interdependent, and managed the assets of so many people, businesses, and government entities, that economists predicted that their failure would cause a full US economic collapse. Such a thing was simply impossible with the financial rules that existed before the wave of neoliberal deregulation.

With these changes came financialization, which included changes in the cultural norms driving financial and non-financial markets. This included the rise of the shareholder value model, in which businesses' success came to be measured by their quarterly profits, not just in terms of their absolute value or growth, but in terms of an *increasing rate of growth*. It was no longer enough that they be more profitable – they now had to generate profits at an ever-increasing *pace*. These events and the changes they represent perfectly align with the definition offered of a *policy domain*, and thus indicate that, without question, the policy domain changed.

Credit unions were by no means immune to this shift in the policy domain guiding the financial industry and the many markets it contained. Credit Unions are organizations composed of humans, many of whom could have had careers that included any number of types of financial entities before they joined the credit union industry. Thus, the change in policy domain that began

in the early 1980s meant that over time, credit unions began to face powerful internal and external pressures to modify their traditional structure and imitate banks. They had already long fought regulatory limitations on their activities, and now had many of those limitations lifted. They now faced political and cultural pressure to show ever-increasing growth that resembled a neoliberal pattern, even if they were not-for-profit entities. Their success and stability were still assessed with many of the same measures as banks, meaning that if they wanted to claim to be stable, successful institutions, they had to play the same game as their competitors. Yet given their historical and structural difference from banks, how was it possible for credit unions, almost universally imagined as a financial resource for rural farmers, to ever compete with *commercial banks*? Remember that Fligstein identified three external factors that can transform markets: economic crises, political intervention by states, or invasion by outside firms or markets. In the 1980s, all three factors came into play. And Credit Unions rode the wave.

**Credit Unions: A Case Study of Colliding Markets**

When Credit Unions arrived on the scene in the US, the consumer finance environment was very different than it is today. Credit Unions did not compete with commercial banks. The state of financial regulation meant that credit unions and commercial banks simply offered different services, and thus worked within different markets. Such was especially true after the Glass-Steagall and Banking acts of the early 1930s, passed in response to the Great Depression. The services that credit unions offered at the time, basic deposit-taking, small loans, mortgages and the like, were more generally offered by cooperative banks (similar but structurally different institutions from CUs) or builder's associations (precursors to Savings & Loans).

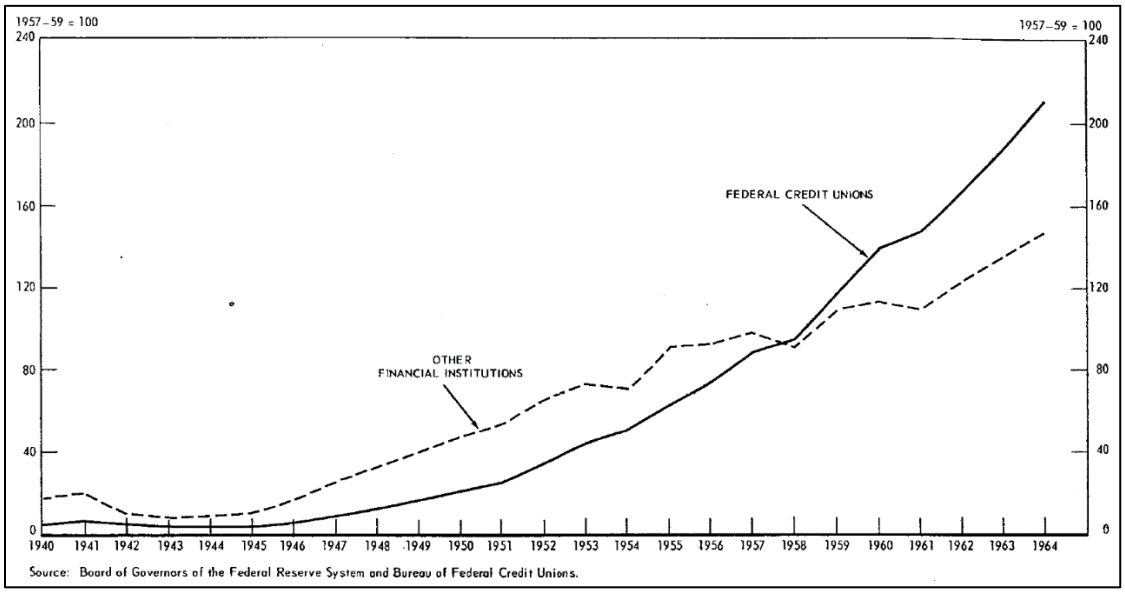
With the passage of the Federal Credit Union Act in 1934 was the establishment of the Federal Credit Union Division, under the authority of the Farm Credit Administration. This agency was responsible for the chartering and management of federal credit unions. In 1942, the FCU Division was transferred to the FDIC, six years after which it was moved from the FDIC to the Federal Security Administration and renamed the Bureau of Federal Credit Unions (BFCU).

Moving one more time to the newly created Department of Health, Education and Welfare, the Bureau became self-sufficient over the next seventeen years, as it came to be financed by fees on federal credit unions. In 1970 the NCUA was formed by congress and replaced the Bureau, a circumstance lasting to today.

This bit of history is relevant because even before the NCUA was formed, and before they came to become real competition for banks in the consumer finance industry, credit unions were growing fast. Many of the initial arguments for the close regulation of credit unions, and the limitation of their services was based on arguments about their small size and ostensibly high risk. From the 1940s onward, CUs sought to establish their place in the market and become a meaningful competitor to incumbent firms. In 1964, the BFCU demonstrated this point. While noting that the absolute value of assets and loans was still far below that of Commercial Banks, by that point, banks had become a target. In the 1964 Annual Report, the BFCU noted that Credit Unions were growing fast, with their growth rates beginning to outpace those of Banks in the late 1950s (Figures 3.2 & 3.1). With this growth in size, and in reach beginning with the deregulation of the 1980s, credit unions and their relationship with banks began to demonstrate the macro-level processes identified by Fligstein.

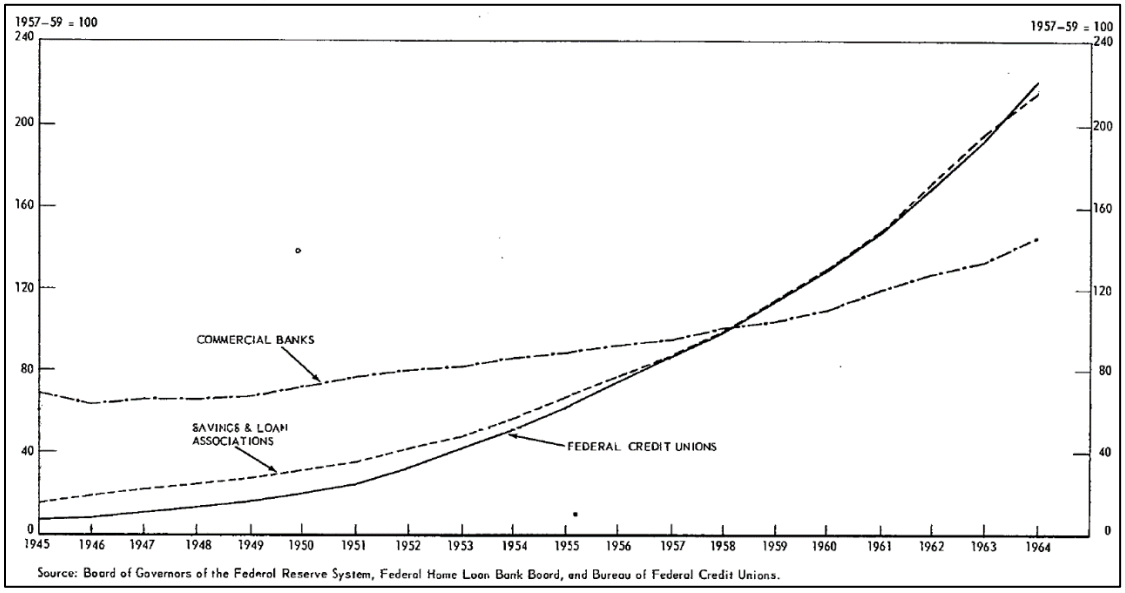
Before the 1960s, credit unions and commercial banks served different markets. Credit Unions navigated and quickly became incumbent (though not necessarily dominant) in incredibly narrow market fields – they served either specific 1) associational or occupational groups, or 2) very narrow geographic locations. For these narrowly defined groups, they provided narrow consumer finance services: they took deposits, they made installment loans, and perhaps very small business loans. In rural and low-income areas, upon which they made a priority of serving in the early 20$^{th}$ century, they had virtually no competition. This allowed them to spread quickly – they became entrants, rather than invaders, in literally thousands of marginally neglected markets across the country. By 1935, 38 states and the District of Columbia had enacted credit union laws (NCUA 2020).

Figure 3.1. Growth in Consumer Installment Loans made by Federal Credit Unions and All Other Financial Institutions, 1940-64.




*Source: BFCU Annual Report, 1964, p.23; https://www.ncua.gov/news/annual-reports*

Figure 3.2 .Growth in Total Assets of Commercial Banks, Savings and Loan Associations, and Federal Credit Unions, 1945-64.




*Source: BFCU Annual Report, 1964, p.24; https://www.ncua.gov/news/annual-reports*

It was on June 26, 1934, with the enactment of the Federal Credit Union Act by President Franklin D. Roosevelt, that federal charters could be offered for Credit Unions. On October 1st, Morris Sheppard FCU in Texarkana became the first federally chartered credit union (NCUA 2020). With the federal charter came the possibility of more uniform regulation, increased legitimacy, and a more prominent voice in advocating for and expanding the industry. It was with the former goal in mind that the first head of the Federal Credit Union Division, Claude Orchard, worked to further develop laws and regulations governing credit unions for the next 19 years. This was a substantial win for the development of a credit union industry, for while the various federal agencies managing federal charters could not lobby congress, they provided a means for advocates to more directly engage federal agencies on behalf of credit unions, and a more direct avenue through which they could seek to grow the industry.

The 1970s were the beginning of a broad expansion of CU services, abilities, and growth opportunities, continuing into the mid-1990s. The decade was set off well with the establishment of the NCUA, and the less-discussed NCUSIF (National Credit Union Share Insurance Fund), which provided Federal and qualifying state credit unions with deposit insurance, for a mandatory fee. Legislation passed in the mid-1970s granted credit unions extensions to qualify for that insurance, involvement with student loans, increased merger options, flexible regulation of interest rates, and share draft accounts.[12] They also gained the authorization to act as fiscal agents of the state, which meant they could offer services such as taking bonds and money orders, cashing out bonds, and accepting federal deposits (PL 95-417 1977).

With the passage of major deregulatory laws in the 1980s, particularly the DIDMCA (Depository Institutions Deregulation & Monetary Control Act) of 1980, Garn-St Germain Depository Institutions Act of 1982, and the Secondary Mortgage Market Enhancement Act of

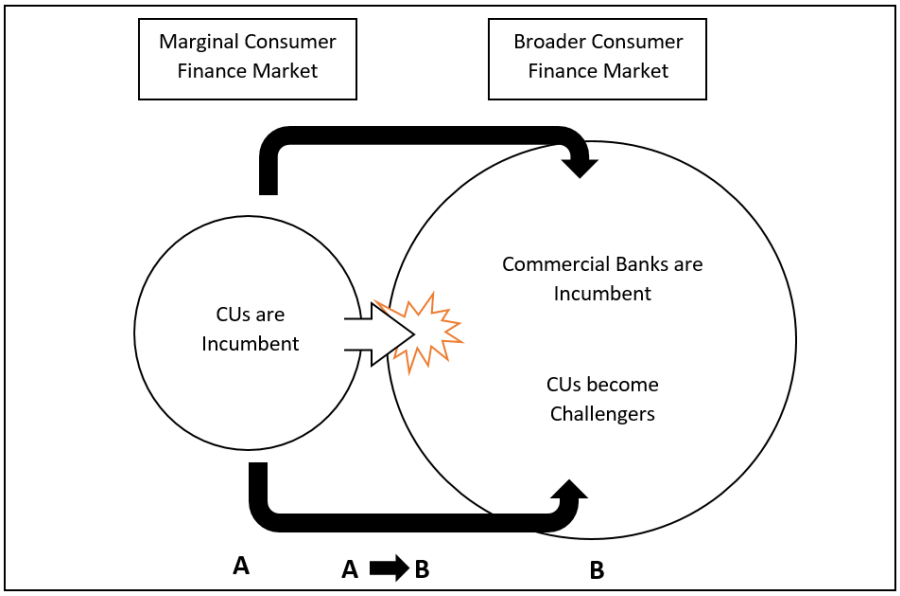
[12] PL 91-206 Amendment to the Federal Credit Union Act; PL 91-468 Credit Union Share Insurance Act; PL 92-318 Education Amendments of 1972; PL 93-383 Housing and Community Development Act of 1974; PL 93-495 of 1974, PL 96-161 (replaced by DIDMCA in 1980, but key effect retained).

1984, Credit Unions gained numerous abilities and benefits, which included interest rate deregulation, broadened merger options, and access to mortgage-backed securities.

These regulatory changes boosted credit unions growth. While other consumer financial institutions also got a boost during this time, the difference was that credit unions took only a small fraction of the damage that came to banks and S&Ls during the Savings & Loan crisis. As financial institutions sought to climb out of the trough of the S&L Crisis, in 1994 came the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994. This allowed financial institutions opportunities for interstate branching and mergers, an ability that was granted to credit unions as well. This 25-year stretch constituted Credit Unions' shift from being an entity in a neighboring market, to an open challenger. But rather than credit unions invading commercial banks' markets, their fringe market was absorbed into a broader consumer finance market.

Following the form of Fligstein's Political-Cultural Theory of Markets, we can clarify the process that took place. Looking to Figure 3.3, we can see two markets. Market A represents a Marginal Consumer Finance Market (Circle A). It represents the aggregated, tightly limited regional and associational markets in which Credit Unions traditionally had to operate. This

Figure 3.3. Market Field Expansion and Absorption, with Market Incumbents Meeting.



market is deemed marginal because the consumers in this market are those which the broader consumer finance market (Circle B in Figure 3.3) considers unappealing or inaccessible: too specialized to target specifically (i.e. Detroit Railroad Company employees, or UK students), too poor or unreliable to make money from (urban working-class communities in Minneapolis, or small farmers), or too spread out to market to or conduct business with (such as rural areas where it takes 45-minutes to drive *anywhere*). Yet Credit Unions, builder's associations, savings & loans (earlier in their history), and cooperative community banks thrived in these markets in the early-mid 20th century. As Credit Unions grew swiftly between the great depression and into the 1970s due to their conservative financial practices, competitive savings & loan rates, and lack of access to risky investments, they were able to become well-established incumbents in these markets. They were known and recognized among their target consumers and established a good reputation via their non-profit models and community investment & education practices. They played well into the conception of control that dominated these markets, along just those lines.

However, unlike community banks who sought only to serve customers within their well-defined region, credit union philosophy was based on a set of more universalist ideals. This is well demonstrated in the article "Coöperative Consumer Credit" written by Claude Orchard, named head of the newly formed Federal Credit Union Division in 1934:

> "As the credit unions became established they grew to serve another purpose which, in the eyes of many, outranked even the credit service in importance. This was the promotion and encouragement of thrift. …[However,] the chief usefulness of the credit union really lies in a function which includes both these laudable services but which goes much beyond them. …Anyone who has studied the problems of living of the American man will appreciate that much discord and deprivation of his existence comes from failure properly manage his finances. Partly he has never known a different practice and partly through the lack of facilities, the working man all too simply lives from pay day to spending between times. It is a mode of life which contrasts strongly with that which he might achieve for himself through a reasoned management of his personal finances. …Not uncommonly the beginning of regular saving, opening up possibilities of broader future activities, has marked the beginning of a whole new outlook for the worker's narrow life.(Orchard 1938)"

It was these universalist notions, the idea that they had a responsibility to provide "the beginning of a whole new outlook for the worker's narrow life", rather than the traditionally capitalist value of profit that made early credit unions seek to grow beyond their initially limited base. This almost philanthropic vision may not have survived to today, but it was enough to push credit unions to fight to expand their markets, reduce their limitations, and to eventually compete with banks for a growing slice of the broader consumer finance industry. Fligstein noted that "Incumbent firms pay attention to the actions of other incumbent firms, not challenger firms, while challenger firms focus on incumbents' behavior. (Fligstein 2002)" It is clear that since at least as early as 1960 (though likely far earlier), Credit Unions could fit either side of this statement; either as incumbents in a market monitoring their neighboring incumbents, or as the lines between the markets began to dissolve, as a challenger focusing on the behavior of the incumbent. In its 1964 Annual Report, the BFCU recognized that the difference in their collective assets made credit unions a far cry from being a serious competitor of commercial banks. Yet there was good reason to include banking data in credit unions' annual reports: they knew who the big fish was, and they wanted its pond.

It was with the deregulation of the 1970s to the mid-1990s that it happened that "Through intended and unintended actions, states [thwarted] the actions of firms to create stable conceptions of control (Fligstein 2002)." By deregulating the consumer finance industry in its broadest sense, the US State apparatus increased the size of both credit unions' *potential* customer base and commercial banks' interest in a portion of the consumer finance market that they had previously largely written off. This led to the A→B portion of Figure 3.3, wherein 1) the Marginal Consumer Finance market was absorbed into the broader consumer finance market, and 2) Credit Unions, who would have become invading firms had the merge not happened, went from a neighboring incumbent straight into the challenger position. Either way, the result was that an additional player entered a newly expanded market just before a crisis, weathered the crisis

better than its new peers, and was presented with new opportunities for growth without having to undergo a substantial recovery period.

However, while credit unions as an industry broadly weathered the crisis well, the story is a bit more complicated. It is worth noting that Credit Unions were able to accomplish this by two means. First are their previously discussed structure: credit unions had less incentive and less ability to participate in the risky investments that dragged banks and savings & loans into deep troughs from which many never returned. The second means are the result of deregulation allowing something relatively novel for credit unions: they were able to take a page from commercial banks' book. Another reason that failures were low was because of a newly possible flood of mergers, which allowed the industry to avoid substantial losses in both assets and membership, both of which grew during the S&L crisis (See Figure 3.4). However, such was accomplished arguably because they took a note from banks' books – the NCUSIF, much like the FDIC's reserves, was decimated (Figure 3.5). Insurance losses increased just before the S&L Crisis tipped off due to economic conditions causing numerous businesses to fail, many of which

Figure 3.4. Credit Union Assets and Membership across the Savings & Loan Crisis, 1975-1995.

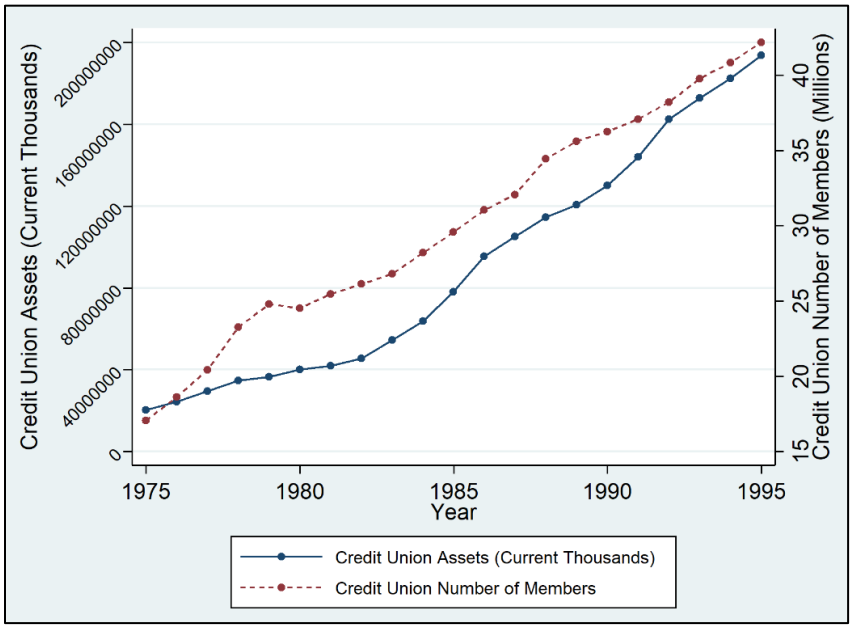
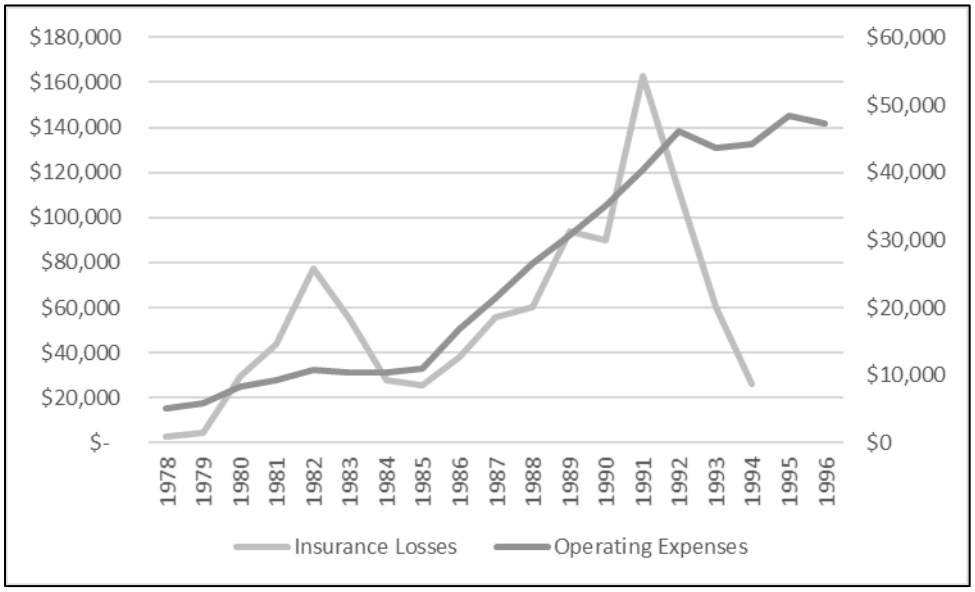


Figure 3.5. National Credit Union Share Insurance Fund, Losses & Operating Expenses in Current $Thousands, 1978-1996.




*Source: NCUA Annual Report, 1987 & 1996.*

sponsored credit unions. Such a circumstance forced credit unions to either change their charter to a new "common bond", which could cause a massive loss of membership, or to fail by liquidation. This resulted in the NCUA beginning to loosen the Common Bond requirement, an issue discussed in Chapter 2.

Fligstein also noted that "Transformation of existing markets results from exogenous forces: invasion, economic crisis, or political intervention by states. (2002)" In this case, a market transformation absolutely took place, due certainly to economic crisis and political intervention. The result was a substantially larger, more open market. And credit unions, like any challenger firm, aligned with the dominant conception of control, despite that such conflicted openly with credit unions' stated values. It also happened that during the 1980s, the dominant conception of control was changing.

The changes in FIRE industry regulation during the 1980s and 1990s have expanded market access for credit unions, allowing them to challenge banks for a greater share of the consumer banking industry. This challenges the dominant conception of control, as the theory places command over the conception of control at the hands of the incumbent firms (Fligstein

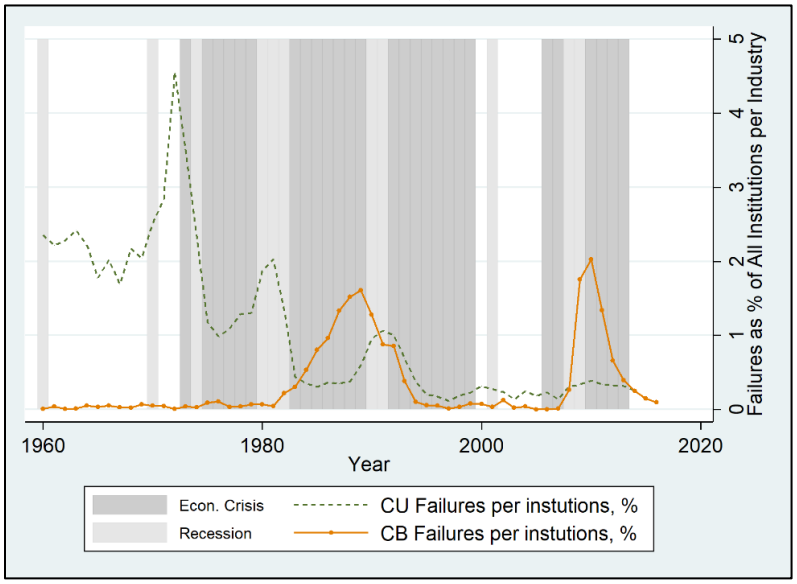
2002). However, the increase in market competition changes firms' sense of security, for both incumbents and challengers (as any challenge of an incumbent carries risk)(Fligstein 2002). While the increase in competition did allow for credit union growth, it also placed pressure on credit unions to take advantage of the regulatory environment to grow during a time where the shareholder value ideology was taking root. As that ideology demands quarterly increases in assets and profits, credit unions faced increasing pressure to show that they were keeping up. With the shift in the policy domain that was occurring at the same time, the opportunity was ripe for credit unions to push the boundaries of regulatory compliance.

**What Happens at the Intersection of a Changing Policy Domain and a Market Collision?**

A question that bridges this section on theory and the empirical work to follow is that of how this shift can be captured empirically and be used to chart a causal argument. The answer to that question is regulation and industry stability. As the consumer finance industry was shaken up by the market crises of the S&L Crisis, the stagflation of the 1970s, dramatic drops in regulation (especially those involving investment, interest rates, and mergers), followed by technological change, both credit unions and banks had opportunities for meteoric growth, and risky behavior.

From the late 1970s to approximately 2000, there was a nearly solid blanket of domestic crises, recessions, or international crises affecting US firms. And while these periods certainly saw spikes in failures and mergers for both commercial banks and credit unions, there are notable differences. First, as can be seen in Figure 3.6, Credit Unions had consistently decreasing failure rates. Second, based on changes in failure rates, the credit union industry recovered from shocks more quickly than banks, and took much longer to begin to suffer during crises than banks (see 1983-1990 and 2007-2015). Third, while failure rates did increase during serious crises, after the regulatory change of the 1980s, credit union were not nearly so affected as banks, which have since been more diversified in their product and investment involvements. It is worth asking whether this regulatory change allowed credit unions to grow as they so quickly have, yet the differences maintained between them and banks has prevented them from experiencing the same

Figure 3.6. Credit Union and Commercial Bank Failures Mapped over Economic Crises and Recessions, 1960-2015.




sharp spikes in failure as banks have during crises. This raises the question of whether the trend of deregulation has led to banks experiencing relatively more instability than credit unions as they have been freed to a greater extent than credit unions. Likewise, as credit unions have been granted more freedom, and clearly benefitted from it, is there any indication that this could lead to longer-term stability issues?

These are the questions that the next chapters will seek to answer. It appears reasonable to assert that according to this theoretical perspective, we should see credit unions become more like banks in terms of asset patterns, failure rates, and growth in income. We should see that regulatory change over the course of neoliberalism's ascendancy should transform credit unions into more profitable, if potentially less stable forms. The next chapter will describe how I will measure these patterns, to demonstrate how the data reflects the changes wrought by a neoliberal policy domain and the accompanying trend of financialization.

## Chapter Four: Methods & Data

In this chapter, I will detail the methods I will use to assess the consequences of the Policy Domain shift toward a neoliberal system where the state values large firms and relative market freedom. First, I provide a reminder of the specific research questions guiding this study, and how those have informed the hypotheses I will use to conduct the statistical analysis. I will also briefly discuss the sources used to build the data set and challenges faced in doing so. After this will come a detailed discussion of the variables, including their calculation where appropriate, and the substantive meaning of their values. This will be done for both dependent and independent variables, with brief attention given to controls. Last, I will specify the ways that I have used and will use the data collected, and the type of statistical analyses that will follow. This will involve a description of the form that the models will take via linear equations for each set of hypotheses.

### Research Questions and Hypotheses

Research Question 1 reads: *Was there a meaningful difference between the stability of the Credit Union and Consumer Banking industries before the 1980s, and how have both industries' stability been affected by the subsequent political-economic changes?* This question is the most important of the two because it addresses the most fundamental claims of the project. The first is an observational claim: Credit Unions experience failure and stability in a way that is fundamentally different from commercial banks. This claim has already been largely confirmed via a discussion of descriptive statistics, but the *how* or *why* of it has not been. That is where my first hypothesis comes in:

> ***$H_{1.1}$:*** *The effect of regulations on credit unions' and banks' stability & failure will be greater than some of the effects of institutional size, spread, or market share.*

This hypothesis not only seeks to directly test the first research question, but it also is phrased to acknowledge two sets of alternative hypotheses. First are two implied null hypotheses: that regulation as I have measured it will have no significant effect on credit unions and bank

failure rates, and that the effects of regulation would be comparatively smaller than other significant drivers of failure, such as insufficient market share or assets. It also seeks to acknowledge that while this project applies the study of neoliberalism and markets to a novel topic, it should still be conducted in conversation with the pre-existing organizational literature on credit unions.

Research question 2 reads: *Will the changes in economic ideology and market structure cause credit unions and banks to develop increasingly similar levels of stability?*

The hypotheses for research question 2 would rely more heavily on interrupted models. I expect that the failure & instability of credit unions will be, on average, lower than that of commercial banks, but the failure & instability of credit unions will increasingly resemble that of banks for each subsequent decade after 1980 as credit unions gain increased access to and challenge markets dominated by banks. Thus, **as *Credit Unions' markets converge with those of Commercial Banks and they become market "Challengers":***

> ***$H_{2.1}$:*** *As their Challenger status solidifies (measured by increased market share), Credit Unions will experience increased growth similar to Commercial Banks beginning 1983.*
>
> ***$H_{2.2}$:*** *As their Challenger status solidifies (measured by increased market share), Credit unions will experience decreased rates of instability and failure similar to those of Commercial Banks beginning 1983.*

**Data Sources for Time Series Analysis**

Given the date range of the project, getting quality time-series data has been a challenge; most major sources of internationally comparative data, such as the OECD (Organization for Economic Cooperating and Development) and the Bureau of Economic Analysis, do not supply easily downloadable data sets that extend earlier than the 1980s or 1990s. Because the necessary functioning of time-series regression with lagged variables reduces the number of cases included in regression models, quantitative data collection extended as far back as 1960 where possible, to protect model quality and power. Because of these requirements, most statistical data has come from historical annual reports of various government agencies, industry and related professional

associations, and similar organizations, most notably the National Credit Union Administration, the Federal Deposit Insurance Corporation, and the St. Louis Federal Reserve's FRED database. These reports have been collected from the websites of the agencies themselves.

An unfortunate hinderance to data collection was access to time series savings & loan data, which resulted in dropping S&Ls from the study. This difficulty was largely due to the large number of regulatory agencies that were assigned to Savings & Loans from 1980 to 2011, many of which are now defunct. That has made location of records, completion of annual reports, and determining online access very time intensive. Savings & Loans would have been dropped from the study months earlier, but I came into contact with a very prominent scholar of savings & loans who enthusiastically offered me full access to their decades' worth of quantitative and historical data (some of which included records which did not exist anywhere else), which is located in Alabama. Unfortunately, after months of attempting to arrange a travel date and receiving no responses, I had to make the practical decision to move on with the data that I did have. Unfortunately, the Savings & Loan data that I had collected without this help had too many substantial gaps to make it useable for this project.

**Data & Variables**

Dependent Variables

The most important dependent variables will measure incidences of institutional failure and signs of institutional instability, both of which are easier to measure as national-level aggregates than for the entire FIRE industry. Some annual reports for regulatory agencies include statistics for, specifically, number of firm failures, mergers mandated by regulators due to impending failure often termed "assisted mergers", or charters closed for sometimes specified reasons for the types of organizations under their purview. For organizations such as the NCUA, this data by nature relates only to credit unions, but includes failures, assisted mergers, and unassisted mergers.

For this specific study, I have been able to locate specific variables for *liquidations, mergers, (percent) change in net income,* and the *loan-to-share/savings ratio*. These constitute the dependent variables for this study, along with a count of charter cancellations for Hypothesis 2 models. For credit unions, these variables were provided directly by the NCUA's Annual Reports, which are generally reported in five- or ten-year tables. For banks, these variables were collected via annual tables from the FDIC's webpage for historic banking statistics. Change in net income for banks was collected via the FRED (Federal Reserve Economic Data) from the St. Louis Federal Reserve. These will compose the measures of solvency, liquidity, and failures.

*Institutional Failures*

Given this study's focus on measures of instability and failure, failure as a dependent variable is among the most important. While locating most credit union data was straightforward via the NCUA's Annual Reports, it was much harder to find for banks, to the point that I had to consider functional equivalents. For credit unions I used an annual count of involuntary liquidations - the number of credit unions who, due to imminent failure, were forced by the NCUA to liquidate their assets and close their charters. While this is a useful direct measure, it was insufficient as the sole dependent variable for this study for three reasons: first, most often, credit unions do not fail – they merge. This was especially true during the merger movement of the 1970s but remains a frequently used option for struggling credit unions. Second, the NCUA annual reports do not track *Voluntary* liquidations, possibly because the distinction between the two is that in voluntary liquidations, the failing credit union can fund its own liquidation from its reserves, while involuntary liquidations require cash assistance from the NCUSIF to cover "member share payouts and other liabilities of the credit union.(NCUA 1987)" Third, while values were available for a given year in that year's annual report, values for 1960-1974 had to be collected from the 1977 report. This presented a difficulty because before 1977, NCUA reports did not distinguish between voluntary and involuntary liquidations. While my connection in the Filene Institute (a think tank devoted to credit unions) has stated that this distinction is not

substantively meaningful, there is a possibility that numbers of failed credit unions may be inflated prior to 1975.

For commercial banks, long-term failure data was difficult to track down. I eventually located it among a set of FDIC Historical Banking Statistics in a separate part of their website from most other data. This measure was based on a combined count of "assisted mergers" (which means they were funded and facilitated by the regulator) and "payoffs", in which a bank is closed and its assets sold off by the regulator to pay its debts. Both were designated by the FDIC as measures of failures. Together, these two variables convey a part of the broad notion of failure and instability – these are the institutions whose conditions were such that they could not be safely or practically merged with other institutions without the aid of the federal regulator.

*Mergers*

Credit Union mergers were collected directly from NCUA reports. Similar to failures, Credit unions do not generally merge (as counted by NCUA reports) unless they face the threat of failure. Thus, mergers constitute another portion of the measure of failure. In this case, the variable is the total of both assisted mergers (funded by the NCUA) and unassisted mergers (facilitated by the NCUA, but not requiring financial assistance). This not only because they are functionally equivalent for the purposes of this study, but also because NCUA annual reports did not distinguish between assisted and unassisted mergers until 1981.

Commercial Bank mergers, like failures, were collected from FDIC tables and are considered officially to be a form of failure. However, this set of mergers is distinct from those included in the Failure variable because they are "mergers, consolidations or absorptions entered into as a result of supervisory actions" by the FDIC or other regulator, not because of risk of failure per se. Thus, partially a reason that this variable could not have simply been folded into the Failure variable but was worth measuring separately. This is considered to be functionally equivalent to the CU Merger variable because these institutions were not necessarily doing so

poorly that they had to be liquidated, but because their performance or instability was such that they could no longer be permitted to run themselves.

*(Percent) Change in net income (CNI)*

The Net Income of a consumer financial institution balance between the institution's operating revenues and its expenses. Put most simply, net income is leftover profit after costs and expenses have been deducted. Net income is commonly used by investors to ascertain the health of an investment because it shows the extent to which incoming money is exceeding expenses. Thus, *change* in net income can help us to see the beginnings of a trend of losses for institutions, or to possibly spot trouble coming before profit actually hit a negative – slowing growth in net income can indicate difficult times or an institution. It can also help investors or consumers to identify patterns of more sustained growth. But it can also be used to help identify bubbles, especially if the change in net income is positive and sharply increasing. Because of these factors, Change in Net Income is more a measure of stability than failure. For both Commercial Banks and Credit Unions, Change in Net Income was acquired directly from the FDIC and NCUA, respectively.

*Loan-to-share (CU)*

Much like CNI, Loan to savings ratios (or shares, which are the credit union's functional equivalent to savings) are indicators of institutional and industry health. The LS ratio is an indicator of whether an institution will have enough money to cover a sudden train on its resources, such as a creditor calling a debt. A high LS ratio is regarded as risky because it indicates that an institution might not be able to handle a sudden shock. On an industry level, such as is represented by my data, a broadly high LS ratio could indicate a pattern of risk-taking behaviors, as a large portion of institutions are not preparing for unexpected problems. For this project, ratios for both credit unions and commercial banks were copied directly from the NCUA and FDIC.

*Convergence Variables*

An additional set of dependent variables for this study are those meant to indicate the extent to which Banks and Credit Unions are becoming more alike, and whether that trend (or lack thereof) is being affected by change in regulation. These variables exist for each category of dependent variables: institutional failures, mergers, and change in net income. Because credit union and banking industry convergence is unexplored within the sociological field, I kept this measure simple. For each category of dependent variables (failures, mergers, and change in net income), a convergence variable was calculated thusly:

$$\%\ Convergence\ in\ Failures\ Ratio = \frac{(CU\ Failures \div \#\ CU\ Instituions)}{(CB\ Failures \div \#\ CB\ Institutions)}$$

$$\%\ Convergence\ in\ Mergers\ Ratio = \frac{(CU\ Mergers \div \#\ CU\ Instituions)}{(CB\ Mergers \div \#\ CB\ Institutions)}$$

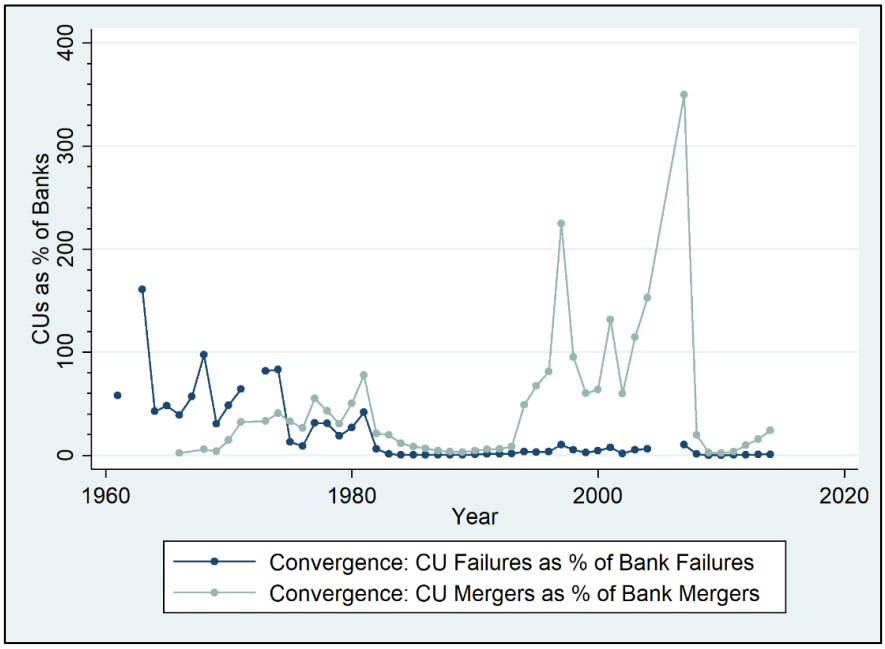
$$\%\ Convergence\ in\ CNI\ Ratio[13] = \frac{CU\ Change\ in\ Net\ Income}{CB\ Change\ in\ Net\ Income}$$

Figure 4.1 shows the convergence in Credit Union and Commercial Bank Failures and Mergers. In these variables, a value over 100% would mean that the credit union failure or merger rate was higher than that of banks. So, *high convergence* for these variables would mean a value close to 100%. *Divergence* would be a value very far above *or* below 100%. So, a convergence ratio close to zero, as we see in many cases below would mean that *regardless of their actual individual failure or merger rates*, credit unions rates were far below those of banks. An interesting observation stemming from this graph is that convergence in failures was so low during the Subprime Mortgage Crisis and Great Recession because there were far more bank failures than credit union failures. However, the opposite can be said for mergers; credit unions merged at a *far* higher rate than banks during the crisis. This can be observed more directly in

[13] Because Change in Net Income was already in the form of a ratio rather than a count variable, no initial conversion to a rate/ratio was necessary.

Figures 4.2 and 4.3, wherein you can see the convergence variables alongside the rates from which they are calculated.

Figure 4.1. Convergence in CU and CB Failure and Merger Rates, 1960-2015




**Missing values out outliers: 1960=308.7%, 1962= 299%, 1972=625%. Other gaps represent missing data.*

Figure 4.2. Convergence in CU and CB Failures with Count of CU and CB Failures, 1984-2015.

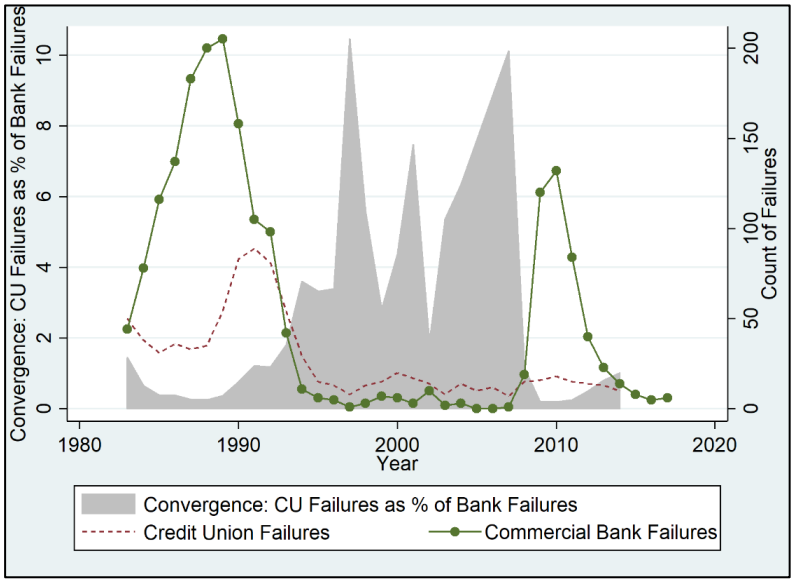
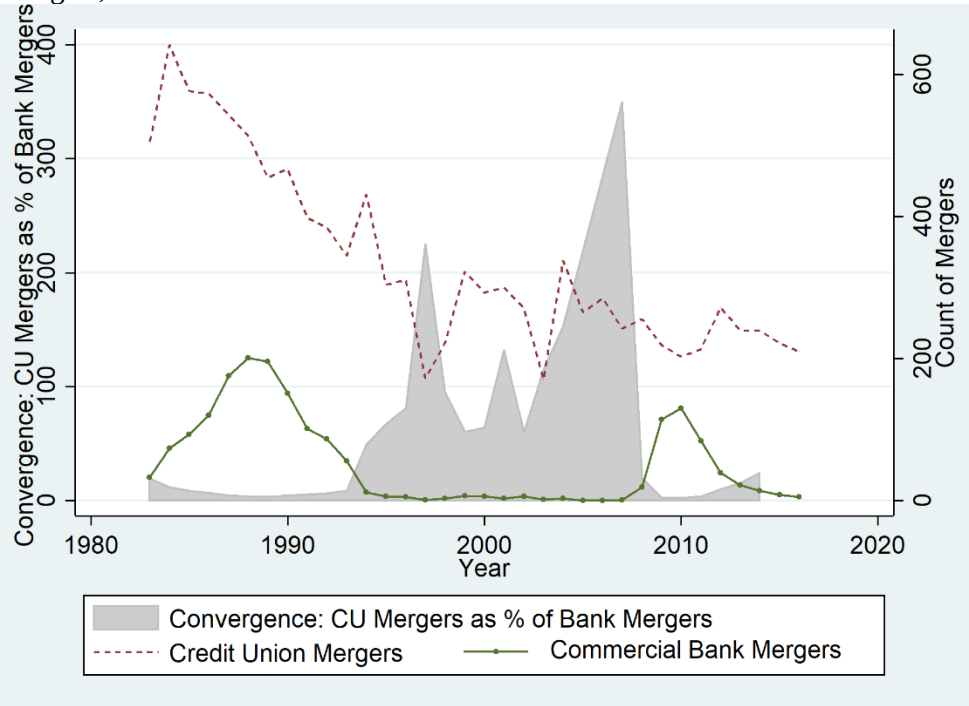


Figure 4.3. Convergence in CU and CB Mergers with Count of CU and CB Mergers, 1984-2015.




Independent Variables

*Regulation*

*Regulation* is the most important explanatory variable to this study, and the hardest to measure effectively. It is used in this study to capture the change in economic ideology that occurred between the 1970s and 1990s, and most strongly during the 1980s. This is because a necessary consequence of this specific ideological change requires a different perspective on the role of regulation in the economy, and thus necessitates a change in regulation. As such, the models contained in Chapters 5 and 6 capture and control for the changes in regulatory regime caused by the ideological shift, and thus reflect its consequences for Credit Union growth and stability.

The simplest measure would be a count of numbers of regulatory rules whose purview includes Credit Unions and Banks, respectively. In the United States, these can be gathered from the Federal Register, and can be compiled along the lines used by Carey (2013). However, given the findings of Ford (2013), Silbey (2013), and Pacewicz (2013), the most effective measures of

regulation will be those that consider the purpose of a given set of rules. Ascertaining the portion of regulation meant to protect markets, open them, or protect competition requires careful work. To compute the final variables, major regulatory legislation was collected for both banks and credit unions from 1960 to 2015, only using the final forms of the laws as signed into effect. These were examined to isolate sections that concerned credit unions and/or banks (respectively), which were compiled into an annual count, including any documented delays in implementation. For example, a section of a 1991 law requiring increased disclosures would *be* counted but would be counted as beginning in 1993 if the law specified "this section shall take effect two years from the date signed into law".

The initial result was a large set of variables, each showing the number of regulatory sections active in each law each year. See Figure 4.4 for an example, taken from a subset of the Credit Union Social Protective variable. Each year before a law was signed into effect has a zero value. If that law had 15 sections affecting credit unions, but was repealed after ten years, then it would have a value of 15 for ten years, before returning to zero. These laws were then summed across each year, forming the final regulation counts. Four separate variables were calculated this way: a count of market-opening sections applying to credit unions (*cumocnt*), a count of sections

Figure 4.4. Example of calculation of Protective Regulation for Credit Unions; "cuercnt" variable.

| Law Number | PL101 647 | PL102 242 | PL102 550 | PL103 160 | PL103 322 | PL103 325 | PL104 208 | PL105 164 | PL105 219 | PL108 458 | PL109 351 | PL111-22 Sec. 204 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Law's Effective Date | 11/29/1990 | 12/19/1991 | 10/28/1992 | 11/30/1993 | 9/13/1994 | 9/23/1994 | 9/30/1996 | 3/20/1998 | 8/7/1998 | 12/17/2004 | 10/13/2006 | 5/20/2009 | - |
| Year | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 88 |
| 1988 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 88 |
| 1989 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 214 |
| 1990 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 214 |
| 1991 | **52** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 266 |
| 1992 | **52** | **19** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 285 |
| 1993 | **52** | **20** | **33** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 319 |
| 1994 | **52** | **20** | **33** | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 320 |
| 1995 | **52** | **20** | **35** | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 322 |
| 1996 | **52** | **20** | **35** | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 322 |
| 1997 | **52** | **20** | **35** | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 322 |
| 1998 | **52** | **20** | **35** | 0 | **1** | 0 | 0 | **2** | 0 | 0 | 0 | 0 | 324 |
| 1999 | **52** | **20** | **35** | 0 | **1** | 0 | 0 | **2** | **13** | 0 | 0 | 0 | 337 |
| 2000 | **52** | **20** | **35** | 0 | **1** | 0 | 0 | **2** | **14** | 0 | 0 | 0 | 338 |
| 2001 | **52** | **20** | **35** | 0 | **1** | 0 | 0 | **2** | **14** | 0 | 0 | 0 | 338 |
| 2002 | **52** | **20** | **35** | 0 | **1** | 0 | 0 | **2** | **14** | 0 | 0 | 0 | 338 |
| 2003 | **52** | **20** | **35** | 0 | **1** | 0 | 0 | **2** | **14** | 0 | 0 | 0 | 338 |
| 2004 | **52** | **20** | **35** | 0 | **1** | 0 | 0 | **2** | **14** | 0 | 0 | 0 | 338 |
| 2005 | **52** | **20** | **35** | 0 | **1** | 0 | 0 | **2** | **14** | **1** | 0 | 0 | 339 |
| 2006 | **52** | **20** | **35** | 0 | **1** | 0 | 0 | **2** | **14** | **2** | **-2** | 0 | 338 |
| 2007 | **52** | **20** | **35** | 0 | **1** | 0 | 0 | **2** | **14** | **2** | **-2** | 0 | 338 |
| 2008 | **52** | **20** | **35** | 0 | **1** | 0 | 0 | **2** | **14** | **2** | **-2** | 0 | 338 |
| 2009 | **52** | **20** | **35** | 0 | **1** | 0 | 0 | **2** | **14** | **2** | **-2** | **9** | 347 |
| 2010 | **52** | **20** | **35** | 0 | **1** | 0 | 0 | **2** | **14** | **2** | **-2** | **9** | 347 |

seeking to protect the public the activity or failure of credit unions (*cuercnt*), and a set of the same for banks (*cbmocnt* and *cbercnt*).

The resulting variables seek to measure three things: the number of regulations being passed, whether they are meant to protect the public or promote business (or both), and the relative strength of the pro-business or pro-public sections. While this variable is more sophisticated than Casey's (2013) method and does begin to capture in important distinction in the purpose of regulation for which Pacewicz (2013) argued, it does have several shortcomings that reflect the difficulty in effectively measuring regulation. First, because the variable required the examination of specific sections of laws, it was quite labor and time intensive. One consequence of that is that even though I had the information necessary to do so, it was not feasible to establish a baseline regulation level prior to 1960, which meant that my count had to begin at zero. This essentially turns the variable into an index using 1960 as a reference year, evaluating regulatory change since then.

A second shortcoming is that given the number of laws passed each year, it was not feasible to conduct an exhaustive search of laws potentially influencing Credit Union and Banking regulation. This is especially true given the somewhat common practice of including "riders" on some pieces of legislation that affect policy on very different subject areas. The result was that I narrowed my focus mostly to significant pieces of legislation for credit unions and banks, though there are exceptions. An unfortunate result of this limitation is that this variable serves as a conservative measure of the effects of a sample of major legislative acts but falls far short of an aggregate measure of the regulatory environment. The selection of Banking legislation came from a list provided by the FDIC, while a list of Credit Union legislation came from the Filene Institute. There was overlap between these lists, especially for legislation passed during economic crises. The lists were also supplemented by a small handful of relevant laws I located during fact-checking.

*Institutional Size*

Institutional size is a simple calculation which contain the average assets per institution each year. It is a literal calculation of industry-level assets divided by count of institutions. It is meant to serve as one of two measures of industry growth (for the second, see Market Share below), in this case capturing growth in the size of institutions made possible in part by innovation in product and the breakdown of regulations limiting institutional growth. For credit unions, this data came from the NCUA's annual reports, which consistently feature this information. For Commercial banks, this data was collected from the FRED database, but was not available prior to 1984.

*Market Share per Industry*

For this variable, I have calculated (for commercial banks and credit unions, respectively) market share measures by dividing the income of each industry by the total assets of the US financial industry, less Federal Reserve banks. I have also calculated a ratio variable measuring the gap between the market share of each industry. Though better measures of market share do exist, due to the time constraints I worked with this variable does an acceptable job of reflecting the relative size of the credit union and commercial banking industries relative to each other and other institutions vying for financial industry dominance. Industry income was collected from NCUA Annual Reports for credit unions, the FDIC's historical banking statistics for commercial banks. Aggregate financial industry assets were collected from the St. Louis FRED.

Control Variables

Control variables include measures of the percent change in GDP and dummy variables for recessions, economic crises, and levels of risk present in the financial industry. *Recession* is a binary variable based on the National Bureau of Economic Research (NBER)'s recession indicator as available via the St. Louis FRED (FED 2020c). It itself is a measure of business cycle expansions and contractions data, where a value of 1 is a recessionary period, and a 0 is an expansionary period (FED 2020c). Likewise, *Economic crisis* was computed from a list of major

economic crises of the 20th and 21 centuries, which was then cut to include only domestic US crises or those that significantly affected the US (such as the 1997 Asian financial crisis and the "eurozone crisis" of the 2010s). See Table 4.1 for a list of crises included in the measure. I controlled for *market tightness*, which is a concept meant to capture risk present within financial industries – "tight" financial conditions indicate high risk and lower levels of credit and leverage available within financial markets. Put simply, a high value means a riskier market environment (Fed 2020a). This was measured using the Chicago Federal Reserve's Financial Conditions Index and was collected from the St. Louis FRED (FED 2020b). I also controlled for political variables via an index I calculated of the partisan composition of Congress, the Senate, and the Presidency.

Table 4.1. Economic Crises included in the binary econcris variable, 1960-2015.

| Year | Crisis Name |
|---|---|
| 1973 | 1970s Energy Crisis: 1973-1980 (OPEC oil shock, 1979 crisis) |
| 1983 | Savings & Loan Crisis: 1983-1996 |
| 1997 | Asian Financial Crisis: 1997-1999 |
| 1997 | Dotcom Bubble 1997-2001 |
| 2006 | US Housing Bubble: 2006-2012 |
| 2007 | US Financial Crisis: 2007-2009 |
| 2008 | US Auto Industry: 2008-2010 |
| 2009 | European Sovereign Debt Crisis: 2009-2013 |

**Methods, Theoretical Lags, & Model Estimation**

Quantitative data for this project accomplishes several purposes. First is to provide descriptive statistics to demonstrate temporal transformations in industry variables. This project also uses several multivariate graphic data visualizations in the building of this narrative and will make use of quantitative data to conduct time-series analysis. Time-series analysis provides a few advantages to relying solely on narratives or cross-sectional regressions. First, time-series analysis provides a more precise analysis by looking at political and economic variables as they change from year to year (Janoski and Hicks 1994). It can protect the quality of a narrative argument by analyzing the time-order in series of events and their effects upon each other.

Second, time-series analysis of the type I use involves 'lags', which allow my equations to account for the time delay between the passage and implementation of new regulations or related policies (Janoski and Hicks 1994). This method also allows an equation to compute more theoretically complex distributed lags (X = .25Xt-1+.50Xt-2+25Xt-3). For this study, initial lags were estimated for their practical realism and relevance to the Socio-Political Theory. Within these boundaries, the decision for the best lag per variable and model was made based on how it affected overall model quality and stability, the primary drivers of that decision being 1) the level of autocorrelation captured in a model with a given realistic lag and 2) whether a change in a lag produced an extremely high or low adjusted R-squared, as such would indicate a severely mis-estimated model. Then, before being finalized, a given lag was again evaluated for its fit with my theoretical arguments, the bounds of reality, and alignment with the nature of the given independent variable, the dependent variable, and the number of cases available.

Within a given trio of models, this resulted in a range of 0-2 years for industry variables, 1-2 years for economic variables, and 2-3 years for political variables. lags for market-opening regulation were kept shorter (0-2 years), as this regulation is generally desired and fought for by industries, and they tend to prepare in advance for the perceived benefits of such policies. Lags for social protective regulation tended to range from 2-4 years, as industries generally resist these legislative changes, and anticipate that lobbying will at least slow down enactment, if not stop it altogether before potential repeal (the Dodd-Frank Act of 2008 being a key example).

For example, it is commonly understood that it can take 2-3 years after a new political administration comes into power before the full effect of their policies can be observed. Thus, a lag of 2-3 years for a "(left or right) party power" is common. However, this is an observed tendency – there is no solid rule for this observation. Thus, if a two-year lag for party power introduces untenable levels of autocorrelation into the model, it is theoretically reasonable and practical to consider a three-year lag. There is an arguably very broad range of theoretically plausible lags for regulatory variables – though I attempted to keep them to a short 0-4 years,

arguments can be made for lags as many as ten years for far-reaching legislation. Exploring such was impractical for the amount of data I have, and many market-level effects of the regulation I observe can be reasonably expected to appear within a few years.

Third, time-series analysis considers an additional error term in that what happens in one year affects what happens in the next year (i.e., a violation of independence in regression assumptions). This autocorrelation can be controlled in a number of ways through lagged dependent variables that eat up considerable variance from the explanation that a true causal variable could explain without it, or MLE methods that do this internally through various STATA programs (Janoski and Hicks 1994).

For this project, I used the Prais-Winsten program for time series regression in Stata (command *prais*), with Cochran-Orcutt estimation to test each model for autocorrelation. These methods provide a much more rigorous test of whether causal relationship exists over time, or whether variables are trending together (i.e., autocorrelation and/or multicollinearity), thus strengthening any evidence supporting or refuting existing theory. One advantageous element of this method is the post-estimation statistic that is included with any basic *prais* model: the Durbin-Watson statistic. The Durbin-Watson is a test for autocorrelation in the residuals of a regression model, which returns a value between 0 and 4. A score 2 indicates no autocorrelation. Below two indicates positive autocorrelation, and above two indicates negative autocorrelation. Levels between 1.5 and 2.5 are generally considered normal and acceptable. Because this project can be divided into major time periods, I have also used interrupted time series analysis to identify major periods in which political circumstances have shaped major policy.

Model Estimation for Research Question 1

My first research question requires a mix of descriptive statistics and predictive models. As a reminder, the question asks*: Is there a meaningful difference the stability of the Credit Union and Consumer Banking industries, and how have both industries' stability been affected by regulatory change?* The first sentence clause of this research question has been verified via

descriptive statistics. Ideally, this descriptive analysis would be supplemented by a method of means-comparison such as a T-Test or ANCOVA. Unfortunately, time-series data (especially when assessing policy change) is not well suited to methods such as t-testing because of its predilection for non-stationarity, seasonality, and autocorrelation (Lagarde 2012; Box & Tiao 1975). Non-stationarity refers to a "natural" trend (such as an upward slope) that can exist in data independently of other events. This complicates attempts to compare means because a variable's mean value (and variance) naturally change over time, leading to bias in results (Lagarde 2012). Most significant are the issues of autocorrelation and seasonality. It is well known that autocorrelation present in data violates one of the assumptions driving OLS analysis, leading to inaccurate p-values for coefficients – even when dividing data by time periods (Lagarde 2012; Box & Tiao 1975). While this mathematical problem is addressed by the regression models I am using for my broader analysis, it renders methods such as t-testing and ANOVA inappropriate for this data. Finally, seasonal effects in data (in my case, something like a business cycle) can cause inconsistent variance patterns in a variable and requires controls to be included in an analysis. This is possible in my *prais* models, but not in common means-testing methods. Such can be accomplished via ARIMA but doing so was not practical given the context of this study.

To demonstrate how both industries' stability been affected by regulatory change, a time series analysis was required. Keeping in mind the general regression model to be employed is:

$$y_i = a + ß_1 X_{i,\,t\text{-}z} + ß_2 X_{i,\,t\text{-}z} + ß_3 X_{i,\,t\text{-}z} + ß_4 X_{i,\,t\text{-}z} \ \ldots \ ß_n X_{i,\,t\text{-}z} + e$$

where:

$y$ = dependent variable
$a$ = constant
$ß_1$, $ß_n$ =independent variable coefficients
$X_1$, $X_n$ = any given independent variable
$t\text{-}z$ = the level of lag present for any variable in the time series regression
$e$ = both the error term innate to regression and the additional error term present in time series regression.
$i$ = industry type (credit unions or commercial banks)

Hypothesis one reads,

***$H_{1.1}$:*** *The effect of regulations on credit unions' and banks' stability & failure will be greater than some of the effects of institutional size, spread, or market share.*

This hypothesis was tested with the following equation, applied to each dependent variable:

$$\textit{Stability/Failure} = a + \beta 1\ \textit{RegulatoryChange}_{t-z} + \beta 2\ \textit{MarketShare}_{t-z} + \beta 3\ \#\textit{Firms}_{t-z} + \beta 4\ \#\textit{CharterTerminations}_{t-z} + \beta 5\ \textit{Recession}_{t-z} + \beta 6\ \textit{MarketTightness}_{t-z} + \beta 7\ \textit{RightPartyPower}_{t-z} + e$$

Once these base models were composed, they were separated into interrupted time series models based on significant events, major legislative changes, or other major time periods. Because of its historical significance in terms of both ideological and regulatory change, iterations of these models were run which began in each iteration between 1982 and 1986. Both descriptive statistics and model patterns show that 1983 was the year in which these crucial changes were beginning to affect economic outcomes. As such, interrupted models have been specified to include years greater than 1982, to assess the extent to which the changes specifically tied to the 1980s affected their outcomes. This was done with interrupted models instead of a dummy variable because the number of factors was greater than could practically be conveyed via binomial variables.

As a reminder, Research Question 2 asks whether changes in regulatory policy over time would cause credit unions and banks to develop increasingly similar levels of stability. This led to the following hypotheses:

***$H_{2.1}$:*** *As their Challenger status solidifies (measured by increased market share), Credit Unions will experience increased growth similar to Commercial Banks beginning 1983.*

***$H_{2.2}$:*** *As their Challenger status solidifies (measured by increased market share), Credit unions will experience decreased rates of instability and failure similar to those of Commercial Banks beginning 1983.*

These can be thought of as *convergence* hypotheses, so called because I anticipate that a consequence of the regulatory changes of the 1980s will result in credit unions facing pressure to

compete more openly with commercial banks, possibly in part by emulating their practices. Though I cannot directly test whether they adopted the operational norms of commercial banks, I can assess whether the changes that took place after 1982 led to credit unions more closely resembling banks in terms of stability and growth rates. I do this by running models testing whether regulatory and market change focusing on credit unions has led to a reduction of the differences in their outcomes. Thus, the model is specified as:

$$\begin{aligned} \textit{Convergence:} \quad &= a + ß1\ RegulatoryChange_{t-z} + ß2\ MarketShare_{t-z} + ß3\ \#Firms_{t-z} \\ &\quad + ß4\ \#CharterTerminations_{t-z} + ß5\ Recession_{t-z} \\ &\quad + ß6\ MarketTightness_{t-z} + ß7\ RightPartyPower_{t-z} + e \end{aligned}$$

Having discussed the variables, model specification, and origins of the data used, it is now time to proceed with the analysis itself. The analysis will begin sequentially with a test of the first research question, with particular attention given to comparing the effects of regulation with the effect of broader economic, political, and industry variables. I will then explain the significance of the first set of findings. Chapter 6 will focus on the second research question, that being the assessment of whether regulatory or other variables are leading to industry behavioral convergence and then as an abbreviated analysis to assess the significance of legislative changes occurring after 1980.

# Chapter Five: What Has Driven Credit Union Change?

A foundational claim justifying this project is that credit unions have significantly different rates of failure and instability than banks. A second claim guiding this project is that of previous sociological research on Credit Unions, which has argued that organizational variables are most important in determining an industry's stability – variables including things such as institutional age, size, and assets relative to its competitors. The importance of economies of scale, for example, is well demonstrated. But the question remains: to what extent can these factors be overruled by regulatory change?

This has driven the specific phrasing of my first research question, which asks whether there is a meaningful difference the stability of the Credit Union and Consumer Banking industries, and how have both industries' stability been affected by regulatory change. My hypothetical answer to this question was that there would be a substantive difference caused by regulation, and that the effect of that regulation would partially outweigh some of the effects of institutional size, spread, or market share. The models below empirically test that claim. All regression models presented have been found to have acceptable measures of autocorrelation, and correlation tables have been run for every equation (including lags). In the interest of constructing the most valid and reliable models possible, any sources of collinearity have been checked for their effects on the models and removed where appropriate. Where some variables could have been removed with little effect on the models' outcomes, they were kept because of both their theoretical importance and to situate this work within a larger empirical context.

## Regulation as a Primary Determinant of Industry Stability

The first hypothesis states that *the effect of regulations on credit unions' and banks' stability and failures will be greater than some of the effects of institutional size, spread, or market share.* Dependent variables for these models can be placed into two categories – variables measuring *failure* and variables measuring *stability*. The first two sets of models use measures of

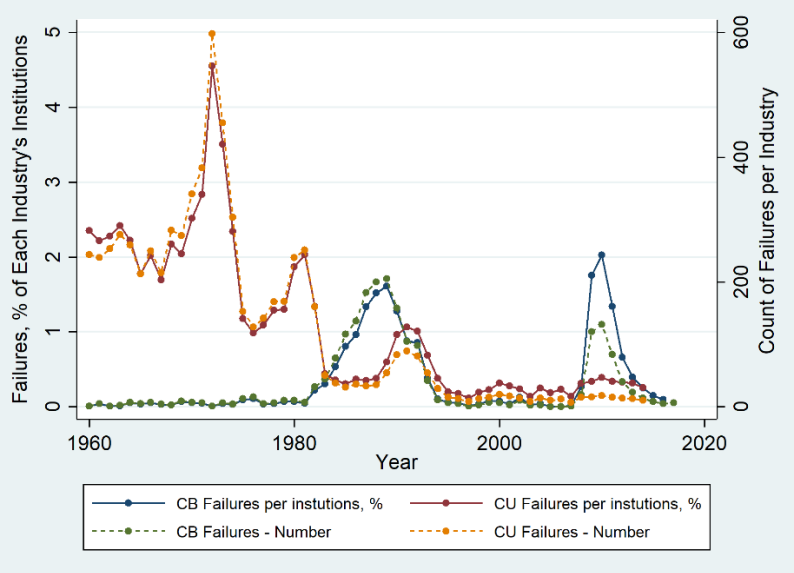
failure as their dependent variable, those measures being counts of institutional liquidations per industry, and mergers per industry (as the mergers captured by this data largely include forced mergers involving institutions who would otherwise fail). The contents of Tables A and B discussed below use these as their dependent variables.

**Model 1: Industry & Economy-Level Factors Influencing Institutional Failures**

In Figure 5.1, you can see a connected plot of each of these variables over time. These graphs demonstrate a few important points. First, before the mid-1980s, the gap between these two industries was very large, with credit unions showing a higher absolute number of failures. Second, by 1983, this gap has not only nearly vanished, but during crises the number of failures is substantially smaller than that of banks. In the absence of any more rigorous analysis, this would lead one to conclude that *credit unions have consistently shown reduced failure rates since the 1990s, coming to compete and occasionally better banks' failure rates.* Hold this thought, as we will return to it.

Model 1 of Table 5.1 shows a baseline regression for the effects of industry, economic, and political factors affecting bank failures. This model shows that while financial industry market share has the single greatest effect on number of institutional failures, the cumulative

Figure 5.1. Annual Number and Percentage of Failures for Credit Unions and Banks.



effect of industry variables versus economic variables is roughly equivalent. Financial industry market share accounted for .778 standard deviations of change in the number of bank failures, the size of this effect is about 169% of the size of the next largest effect, that of the Effective federal funds rate. However, it is interesting to note that the Federal Funds rate had a diminishing effect on the number of institutional failures, growth in market share appears to increase the incidence of failures. The effects of charter terminations, levels of risk present in the economy, and right party power are all between .3 and .4 standard deviations. From this baseline then, we can see that the cumulative effects of industry variables and economic variables is nearly equivalent, followed by a relatively smaller effect of right party politics.

Introducing Market-opening regulations, shifts this balance, but not as strongly as expected (Model 2). By far, market-opening regulations has the greatest effect of all other factors – over twice that of Market Share, whose effect fell only to 0.45 standard deviations, showing that regulatory change had a greater effect than market share. In the face of the effect of market-opening regulations, the power of institutional factors as a group gives way completely to the influence of economic and political variables. Aside from market share, only Charter terminations had any near-significant effect, with a beta coefficient of .269. However, when considering the effects of economic and political variables, we see the federal funds rate at lead with a failure-decreasing effect of -.458 SD, followed by the similarly strong damaging effects of Financial industry risk with a beta of .463, followed by right party power at 0.313. From these results, we can observe that the consideration of the effect of market-opening regulation boosts the relative significance and power of economic variables. Let us keep this in mind as we proceed.

The introduction of protective regulations goes even further to transform the previous relationships, to the point that the pattern of strongest relationships reverses. While for model two the effects of industry characteristics fell far short of the effects of political-economic factors, in model three we see a clear dominance of industry factors in affecting bank failures. First, while

Table 5.1. Effects of Industry, Economic, & Regulatory Change on Commercial Bank & Credit Union Failures, 1972/1977-2015

| VARIABLES | (1) CB Failures | (2) CB Failures | (3) CB Failures | (4) CU Failures | (5) CU Failures | (6) CU Failures |
|---|---|---|---|---|---|---|
| # Market- Opening Regulations $_{t-0}$ | | -0.981** | | | -0.894** | |
| | | (0.0461) | | | (0.239) | |
| # Social protective Regulations $_{t-4}$ | | | -0.581* | | | -0.477 |
| | | | (0.0353) | | | (0.0182) |
| Average Institutional Size (Assets per Institution) $_{t-2}$ | -0.0683 | 0.141 | 0.505 | 0.0396 | 0.356 | 0.0290 |
| | (2.60e-05) | (2.41e-05) | (3.25e-05) | (0.000678) | (0.000451) | (0.000596) |
| Financial Industry Market Share $_{t-2}$ | 0.778* | 0.450 | 0.692* | 0.224 | -0.0152 | 0.158 |
| | (282.9) | (274.9) | (260.2) | (13,058) | (11,179) | (13,911) |
| # Charter Terminations $_{t-2}$ | 0.360* | 0.269+ | 0.356* | -0.280* | -0.267* | -0.306* |
| | (0.0255) | (0.0239) | (0.0244) | (0.0505) | (0.0500) | (0.0520) |
| Binary: Recessions $_{t-1}$ | 0.0400 | -0.0228 | 0.0310 | 0.158* | 0.0366 | 0.115 |
| | (10.56) | (10.18) | (10.15) | (12.16) | (14.47) | (13.37) |
| Binary: Economic Crises $_{t-2}$ | 0.102 | 0.0729 | 0.110 | 0.165+ | 0.0761 | 0.158+ |
| | (11.19) | (10.27) | (10.70) | (14.04) | (15.12) | (14.22) |
| Chicago Fed Financial Risk Index (High = Higher Risk) $_{t-1}$ | 0.372** | 0.461*** | 0.346** | -0.0628 | 0.0996 | -0.0186 |
| | (8.917) | (8.414) | (8.610) | (9.334) | (12.60) | (10.14) |
| Right Party Power $_{t-3}$ | 0.304** | 0.313*** | 0.317*** | -0.122 | -0.0657 | -0.125 |
| | (6.451) | (5.858) | (6.176) | (7.877) | (9.361) | (7.997) |
| Effective Federal Funds Rate $_{t-1}$ | -0.458** | -0.490** | -0.415* | 0.216 | 0.267 | 0.156 |
| | (2.571) | (2.339) | (2.482) | (2.778) | (3.090) | (2.976) |
| Binary: CU Merger Movement $_{t-0}$ | | | | -0.272 | 0.131 | -0.214 |
| | | | | (32.80) | (35.40) | (32.70) |
| **Constant** | **(83.00)** | **(101.2)** | **(76.92)** | **(103.8)** | **(57.93)** | **(142.6)** |
| **Observations** | **41** | **41** | **41** | **39** | **39** | **39** |
| **R-squared** | **0.484** | **0.471** | **0.50** | **0.24** | **0.653** | **0.24** |
| **Durbin Watson** | **1.51** | **1.67** | **1.65** | **1.56** | **1.76** | **1.63** |

Beta Coefficients reported – standard coefficients available in the appendix. Standard errors in parentheses. Lags reported with variable names. *** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Social Protective regulations have a strong, significantly negative effect on bank failures (with a beta coefficient of -0.581), this effect was outweighed by the failure-inducing power of financial industry market share by a decent margin. Beyond this, the two variables most strongly affecting number of bank failures are the number of charter terminations (with a beta coefficient of .356) and financial industry market share (-0.415). Lastly, we do find that in Model 3, an increase in the federal funds rate appears to lead to a .415 standard deviation *decrease* in the number of bank failures. So, from Table 5.1's models 1-3, we can conclude that the effects of industry variables are far less consistent than those of broader economic factors. Controlling for market-opening regulation boosts the effect of broader economic variables on failures, while controlling for social protective effects slightly increases the model power of industry-measuring variables.

Moving onto the credit union models shows a marked difference in model outcomes. Model 4 of Table 5.1 shows the baseline model for credit unions without controlling for regulation. There we see that the only variables significantly affecting credit unions failures are recessions, crises, and indirectly, charter terminations. Yet the low R-squared for the model rightly indicated that there are factors beyond what is measured here that likely play a bigger role in determining credit union failures. One of these factors appears to be market-opening regulation. In Model 5, we again introduce this first regulatory variable, but for credit unions the variable strength and significance does not group itself the way it did for banks. Here, Market-opening regulation was highly significant and had the model's strongest effect on bank failures, one of only two significant results. The only other significant variable was that of Charter Terminations, whose model strength was nearly a third of the other variable's; a beta coefficient of only -0.27 SD. This allows the conclusion that aside from charter terminations, there is no substantial difference between the effects of political-economic or industry variables on credit union failures once market-opening regulation is factored into the equation, which itself shows the strongest effect.

Model 6 introduces the social protective variable to the model, and again the outcome is different from that of banks. This model did not generate widely significant results, though it did follow some predictable trends. Charter terminations continued to have a significant effect on failures, Social protective regulation did not have a significant effect on credit union failures in this model; in this case, consistent with general economic expectations, economic crises increased credit union failures by a factor of about .15 standard deviations.

From the preceding discussion of Table 5.1, an initial conclusion would be that these results largely support my first hypothesis, that being that the effects of regulation will ultimately outweigh those of industry or broader economic variables. When not controlling for regulation, industry variables have little substantive effect on institutional failures, while the bulk of effects comes from macroeconomic factors. Considering collinearity between industry variables, it is possible that the scales would normally tip a bit further in support of industry influence on institutional stability. When controlling for market-opening regulation, we see a shift in the models *toward* broad economic variables having a larger effect on bank failures. When controlling for protective regulations, we see instead a shift wherein industry-based measures have a slightly larger cumulative effect on bank and credit union failures per model, but not an effect greater than that of macroeconomic factors.

This pattern is not replicated in the models of credit union failure – instead we see, across each model, a more even distribution of political-economic and industry-related factors influencing credit union failure. One finding to note as it relates to my hypotheses (see Table

Table 5.1.1. Summary of Effects of Regulation Types on Number of Institutional Failures, Annual, 1972-2015.

| | **Beta Coefficients** | |
|---|---|---|
| | **# Commercial Bank Failures Per Year** | **# Credit Union Failures Per Year** |
| Market-Opening Regulation | -0.981** | -0.894** |
| Social Protective Regulation | -0.581* | -0.477 |
| | **Unstandardized coefficients** | |
| Market-Opening Regulation | -0.130** | -0.737** |
| Social Protective Regulation | -0.075* | -0.222 |

5.1.1 for model summary) is that nearly across the board, regulation had a substantially more powerful effect on both banking and credit union failures than any other variable in the models (Protective regulations were a close second in their influence on commercial bank failures). Yet while both sets of regulations has strong, significant correlations with reduced incidences of institutional failure, the strength of these effects differs substantially across industries.[14] In Table 5.1.1 are the beta coefficients reported with the models, and then below are the original model coefficients (full models with unstandardized coefficients can be found in the appendix). For both Banks and credit unions, protective regulations have a highly significant, but relatively small effect in reducing institutional failures. Market-opening regulation an even smaller though similar effect for banks. Yet for credit unions, market-opening regulation had a substantially larger effect on the annual count of failures – there is an almost near 1:1 ratio of regulatory law sections and individual institutions kept from liquidation.

This outcome was unexpected. Credit unions have been kept small due to relatively heavier regulatory restrictions than banks. A broad shift toward market-opening regulation (generally perceived as deregulation) since the 1980s has allowed credit unions a wider variety of services and greater access to membership. Most significantly perhaps, has been the ability to merge, leading to a notable drop in the count of institutions coinciding with a leap in industry-wide assets (Figure 5.2. An additional question to consider as we move on to the next set of models, the influence of the same factors on credit union and bank *mergers*, will be whether we see these same patterns emerge.

Since the mid-1970s, Credit Unions have consistently shown a larger number of mergers than commercial banks (Figure 5.3). Prior to 1983 the size of this gap can be explained by the occurrence of a large merger movement in the credit union industry from approximately 1970 to

[14] As an aside, it is worth noting that Table 5.1.1 also demonstrates why one cannot compare beta coefficients across models!

Figure 5.2. Count of Credit Union Institutions and Assets, 1960-2015.

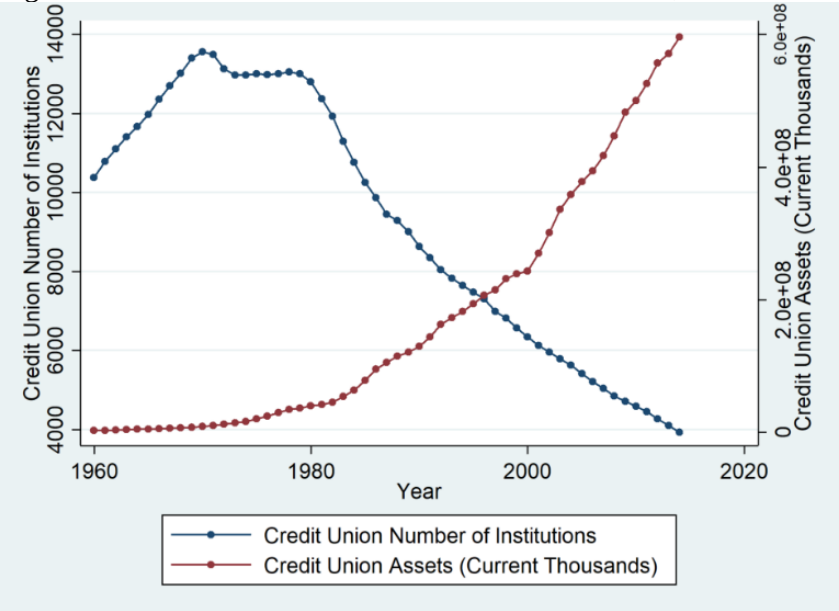
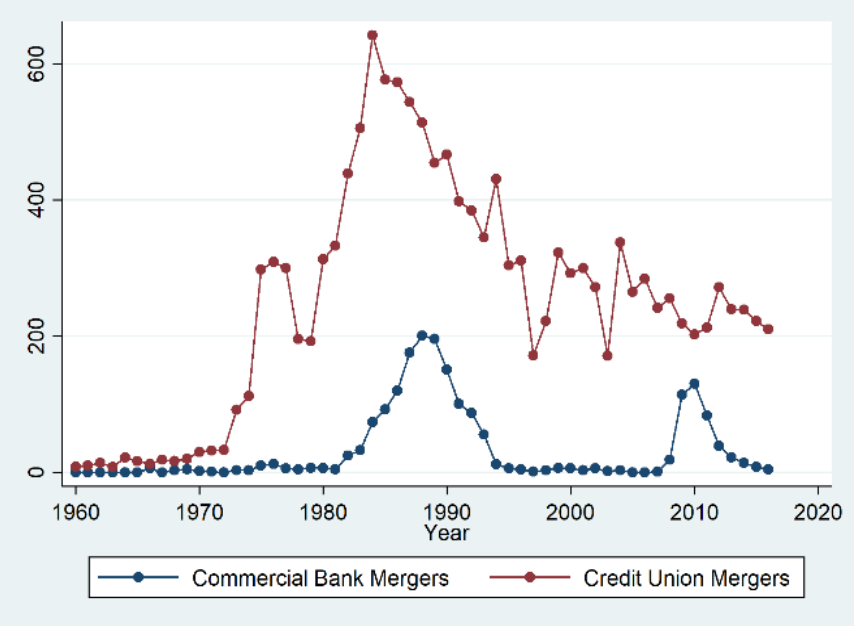
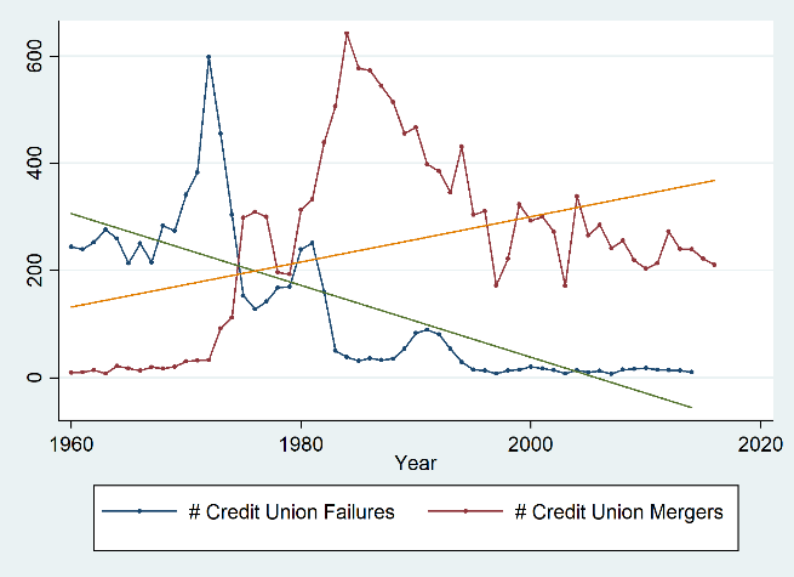



Figure 5.3. Commercial Bank and Credit Union Mergers, 1960-2015.




1983. After 1983 the gap between the number of credit union mergers and commercial bank mergers immediately begins to diminish, with credit unions' numbers of mergers decreasing even during times where banks experienced increased numbers (late 1980s and 2007-2010). However, the number of mergers clearly remains substantially higher than they were prior to the mid-1970s. This may partially explain both the dramatic drop in failures and why market-opening regulation

Figure 5.4. Credit Union Liquidations (Failures) and Mergers, 1960-2015.




has such a strong effect on failures – this merger movement was made possible by market-opening regulation, and led institutions that would otherwise fail to instead merge with healthy institutions. Even though the count of mergers remains substantially high, there are two other possible observations: the number of mergers is declining, but also varies substantially from year to year. Combined with a count of failures (Figure 5.4), it appears that mergers have largely replaced liquidation as a means of handling failing institutions. However, assessing the true impact of regulation on mergers will depend on the results below.

**Model 2: Industry & Economy-Level Factors Influencing Institutional Mergers**

Table 5.2 shows the effects of our political, economic, and industry measures on the annual count of commercial bank and credit union mergers. An examination of our baseline Model 1 shows a nearly-even split in the cumulative influence of political-economic and industry variables. Of the three industry variables, two showed significant, strong, positive effects on the annual count of bank mergers. Financial Industry market share again had the strongest effect on mergers, by a factor of nearly 0.69 standard deviations. Next in its effect strength (third overall for the model) was the number of charter terminations, an increase of which led to a corresponding increase of 0.414 standard deviations in the count of mergers.

The second-strongest effect in the model came from the Effective Federal Funds rate, which had a negative effect of .451 standard deviations on the annual count of bank mergers. The Chicago Federal Reserve's Financial Risk index also showed that the levels of risk present in the financial industry had a positive, significant effect on bank mergers as well, along with right party power.

Table 5.2's Model 2, much like Table 5.1, introduces the effects of market-opening regulation on mergers, and its results are, substantively, nearly identical. Once again, market-opening regulation has a significant, reductive effect on mergers, and with a beta of -0.788 it is nearly twice the strength of the model's next significant variable, Financial Industry Risk Index. While Charter terminations does significantly affect mergers, one can also see that like Table 5.1's first model, political-economic variables significantly affects bank mergers, with the greatest influence coming from the Financial Risk Index and the Federal Reserve Funds Rate. Thus, ultimately, we can say that Models 1 and 2 have a virtually equivalent effect on both bank failures and mergers.

Model 3 also follows a pattern much like Table 5.1's third model. Social protective regulation continues to have a significant, negative effect on mergers, by a factor of nearly 0.425 standard deviations, an effect that far outweighs the others in the model except for financial industry market share (0.596). Charter terminations, financial risk levels in the economy, and right-party power all had positive, significant effects on the number of banks mergers by a beta range between 0.3 and 0.41. Conversely, an increase in the federal funds rate had an equivalent.

Moving on to credit unions, the baseline Model 4 shows a broader range of highly significant, relatively strong effects than was observed in the first two baseline models for banks. Compared to the other variables in the model, credit union mergers appear most strongly affected by the economic factors of financial industry risk levels with a highly significant beta coefficient of 0.793 (which is linked to increased mergers) and correlated with charter terminations, with a beta of 0.760 standard deviations.

Table 5.2. Effects of Industry, Economic, & Regulatory Change Commercial on Bank & Credit Union Mergers, 1972/1974-2015

| VARIABLES | (1) CB Mergers | (2) CB Mergers | (3) CB Mergers | (4) CU Mergers | (5) CU Mergers | (6) CU Mergers |
|---|---|---|---|---|---|---|
| # Market- Opening Regulations $_{t-0, t-4}$ | | -0.788* | | | -0.464+ | |
| | | (0.0456) | | | (0.372) | |
| # Social protective Regulations $_{t-1, t-4}$ | | | -0.552* | | | -0.425* |
| | | | (0.0326) | | | (0.163) |
| Financial Industry Market Share $_{t-2}$ | 0.691* | 0.425 | 0.596* | 0.416*** | 0.291* | 0.182 |
| | (280.0) | (282.6) | (254.8) | (14,116) | (17,039) | (18,318) |
| # Charter Terminations $_{t-1}$ | 0.414** | 0.308* | 0.412** | 0.760*** | 0.629*** | 0.639*** |
| | (0.0250) | (0.0251) | (0.0239) | (0.0680) | (0.0856) | (0.120) |
| Average Institutional Size (Assets per Institution) $_{t-2}$ | -0.0844 | 0.0580 | 0.460 | -0.494 | 0.238 | 0.0707 |
| | (2.51e-05) | (2.40e-05) | (3.40e-05) | (0.000311) | (0.000568) | (0.000438) |
| Binary: Recessions $_{CB\ t-1,\ CU\ t-2}$ | -0.00614 | -0.0669 | -0.0197 | -0.324*** | -0.291** | -0.0212 |
| | (10.31) | (10.59) | (9.997) | (26.35) | (26.12) | (24.18) |
| Binary: Economic Crises $_{CB\ t-3,\ CU\ t-2}$ | 0.0950 | 0.114 | 0.106 | -0.0522 | -0.0644 | -0.0989 |
| | (11.48) | (10.95) | (11.11) | (17.23) | (17.38) | (23.04) |
| Chicago Fed Financial Risk Index (High = Higher Risk) $_{CB\ t-1,\ CU\ L2}$ | 0.381** | 0.462*** | 0.361** | 0.558*** | 0.532*** | 0.122 |
| | (8.150) | (8.125) | (7.892) | (15.86) | (15.61) | (18.82) |
| Right Party Power $_{t-3}$ | 0.283** | 0.310*** | 0.301** | 0.291** | 0.215* | 0.0968 |
| | (6.135) | (5.866) | (5.923) | (13.27) | (14.17) | (17.85) |
| Effective Federal Funds Rate $_{t-1}$ | -0.451** | -0.474** | -0.403* | -0.0792 | 0.106 | 0.0571 |
| | (2.346) | (2/227) | (2.289) | (3.563) | (4.612) | (5.839) |
| Binary: CU Merger Movement $_{t-0}$ | | | | -0.223* | -0.566* | -0.490* |
| | | | | (33.02) | (64.01) | (55.93) |
| **Constant** | **(79.52)** | **(83.17)** | **(72.74)** | **(111.8)** | **(167.3)** | **(184.8)** |
| **Observations** | **41** | **41** | **41** | **40** | **40** | **40** |
| **R-squared** | **0.410** | **0.472** | **0.467** | **0.913** | **0.912** | **0.860** |
| **Durbin Watson** | **1.41** | **1.75** | **1.61** | **2.04** | **2.11** | **1.98** |

Beta Coefficients reported – standard coefficients available in the appendix. Standard errors in parentheses. Lags reported with variable names. *** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Worth noting are the moderately strong effects of financial industry market share and average institutional size. For every percentage point increase in market share, we see an increase Credit Union mergers by 0.416 standard deviation, while an increase in the average assets per institution has a slightly larger but opposite effect on mergers – for every $1,000 increase in average assets, we see a .494 standard deviation *decrease* in the annual number of credit union mergers.

Introducing the effects of market-opening regulation (Model 5) surprisingly does not narrow down the number of significant influences on credit union mergers, indicating some interesting findings. As in previous models, market-opening regulation has a significant effect, though in this model leading to a decrease in mergers by only about 0.464 SDs. Both Market Share and Charter terminations continue to have significant, positive effects on the number of credit union mergers, though to a lesser extent than in model 3 (0.291 and 0.629, respectively). The financial risk index and right party power are virtually unchanged from Model 3 – both correlated with an increase in the count of credit union mergers. Model 6 had much simpler outcomes – protective regulation has a negative effect on the count of mergers, though it was not the strongest effect of the significant variables. Like in Model 5, charter terminations have a significantly positive effect on mergers, the only other key variable showing significance.

A safe, second preliminary conclusion then, is that the first hypothesis is only partially confirmed by this model – that both credit union and bank mergers were most strongly affected by regulation than industry. Second, is that for commercial banks, there is little substantive difference between the effects of our models upon commercial banks' failure *and* merger occurrences. In both cases, both types of regulation had negative effects upon the number of bank failures and mergers, and market-opening regulation appeared to increase the influence of economic variables, while increases in protective regulation tended to boost the effects of industry-based variables. However, models for credit unions did not yield such a clear result. Credit unions tended to be affected consistently by variables from each category at any given

time, and differences between the effects of variables tended to be less stark than for banks. This indicates that perhaps while credit unions are still strongly influenced by regulation, they are also more likely to be weakly influenced by a larger range of factors, as opposed to following the banks' pattern of fewer factors but greater effects. As analysis continues, we will return to this point.

One way the outcomes of the Merger models differ from those of Failure is in the absolute size of the effect of regulation on mergers. While the models' beta coefficients make it appear that regulation had a smaller effect on mergers than failures, it is important to keep in mind that this difference is *relative to other variables in the same model*. This means that while regulation still had a much larger effect on mergers than economic or industry factors within the same models, the gap between regulation and these same factors *within the same models* is smaller than it was for failures. However, if we again compare the models' beta and unstandardized coefficients for regulation's effect on mergers, we see more telling details.

Table 5.2.1 shows both beta and unstandardized coefficients for the effects of regulation on mergers, and here we can identify some interesting differences between these models and those of regressions on failure. Most notably, though the absolute effect of regulation on commercial banking failures was relatively small, the coefficients in Table 5.2.1 show that when controlling for the industry and economic factors present in both sets of models, *both* types of regulation had a smaller effect on commercial banking mergers than failures. Yet as predicted in my discussion of Table 5.1, both types of regulation had a substantially smaller effect on Credit

Table 5.2.1. Summary of Effects of Regulation Types on Number of Institutional Mergers, Annual, 1972-2015.

| | **Beta Coefficients** | |
|---|---|---|
| | **# Commercial Bank Mergers Per Year** | **# Credit Union Mergers Per Year** |
| Market-Opening Regulation | -0.788* | -0.464+ |
| Social Protective Regulation | -0.552* | -0.425* |
| | **Unstandardized coefficients** | |
| Market-Opening Regulation | -0.100* | -0.700+ |
| Social Protective Regulation | -0.068* | -0.377* |

Union mergers than failures. As expected, market-opening regulation had a very strong effect on mergers. Unexpected based on the Table 5.1 discussion, but predicted by my hypotheses, Market-opening legislation *reduced* the number of mergers, to the point that for every two sections added to market-opening laws, three fewer credit unions were forced into mergers. If mergers were simply replacing failures due to market-opening regulation, one might expect instead a positive regression coefficient. Yet while the number of mergers does seem to have supplanted the number of failures, the strong negative effect of market-opening regulation implies that if not for the regulation, that the number of mergers would be higher.

Thus, between the sets of models in Tables A and B, we can arrive at a set of more developed, but still tentative conclusions. First, *both market-opening and protective regulations reduced the number of failures and mergers in both the credit union and commercial banking industries.* Second, *both types of regulation had a stronger role in reducing banking failures and mergers than for credit unions.* Third, controlling for other economic and industry factors, *market-opening regulation had a greater aggregate role in reducing credit union failures and mergers than protective regulations*. These findings will no doubt have to be adjusted for the findings of upcoming models, but they provide a foundation upon which to form broader, more final conclusions.

For now, we can consider a different type of dependent variable, but one still commonly associated with institutional stability – change in net income. Net income is often used to assess whether and by what margin an institution can meet its financial obligations and still make a profit. Change in net income reflects the same, but also shows whether an institution is maintaining a consistent pattern of *growth* over a given period, as capitalist values demand not only consistent profit, but consistent growth in the amount of profit. Though credit unions have a lower incentive for profit given their not-for-profit status, variables like this are still used to measure institutional stability. The same can be said for loan-savings or loan-share ratios, the latter of which are tested in Table 5.4.

**Model 3: Industry & Economy-Level Factors Influencing Industry-Level Change in Net Income**

Table 5.3 shows the effect of our previously constructed models upon the cumulative change in net income across the Commercial Banking and Credit Union industries. As before, models 1 & 4 serve as baseline models representing the common means by which institutional stability is assessed. In that spirit, Model 1 shows that market share has the greatest, positive effect on commercial banks' change in net income, a finding consistent with much of the previous literature (beta = 0.417). This effect is followed only by that of right party power (beta= 0.310). This makes sense, as the American Republican Party has leaned heavily toward growth models for most of the time span of this study.

Model 2, introducing market-opening regulations, shows a mixed result compared to many of the previous models. While it does have the expected negative effect, Market-opening regulation shows a beta coefficient of only .382, showing that it comes third to that of Charter terminations (-0.395), and right party power, which correlated with an increased change in net income by a factor of 0.427 standard deviations. Model 3 shows a slightly more muted outcome, wherein protective regulations come in second place in their effect size with a near-significant coefficient of 0.274, nearly half that of Financial industry market share (beta = .592**).

The credit union models (4-6) show a similarly soft pattern, though in this case, nearly no industry variables yield significant results. Model 4 shows no significant effects from Industry variables for credit unions. The strongest influences come from right party power, which for credit unions *reduced* change in net income for credit unions. This effect has a stronger, negative effect than even economic crises (-0.256) and from recessions (beta = -0.384) as they occur.

Table 5.3. Effects of Industry, Economic, & Regulatory Change on Commercial Bank & Credit Union % Change in Net Income, 1975/1979-2015

| VARIABLES | (1) CB CNI | (2) CB CNI | (3) CB CNI | (4) CU CNI | (5) CU CNI | (6) CU CNI |
|---|---|---|---|---|---|---|
| Δ # Market- Opening Regulations $_{t-2, t-0}$ | | -0.382* | | | -0.143 | |
| | | (98.73) | | | (212.7) | |
| Δ # Social protective Regulations $_{t-1, t-2}$ | | | 0.274+ | | | 0.488** |
| | | | (50.17) | | | (189.5) |
| Δ Financial Industry Market Share $_{t-2}$ | 0.417* | 0.275+ | 0.592** | 0.146 | 0.140 | 0.0600 |
| | (1.751e+06) | (1.562e+06) | (1.905e+06) | (9.756e+08) | (9.786e+08) | (8.516e+08) |
| Δ # Charter Terminations $_{t-1}$ | -0.222 | -0.395* | -0.247+ | 0.174 | 0.160 | 0.181 |
| | (1.258) | (1.287) | (1.213) | (1.263) | (1.275) | (1.110) |
| Δ Average Institutional Size (Assets per Inst.) $_{t-1}$ | -0.0299 | 0.0481 | -0.0121 | -0.291 | -0.322 | -0.248 |
| | (2.08e-08) | (1.89e-08) | (2.01e-08) | (7.87e-06) | (7.99e-06) | (6.60e-06) |
| Binary: Recessions $_{t-2}$ | 0.214 | 0.185 | 0.297+ | -0.384* | -0.389* | -0.622*** |
| | (69.32) | (62.27) | (69.26) | (68.32) | (68.44) | (65.66) |
| Binary: Economic Crises $_{t-2}$ | 0.218 | 0.251* | 0.244+ | -0.256* | -0.229+ | -0.258* |
| | (56.65) | (50.49) | (54.95) | (47.33) | (48.84) | (39.14) |
| Chicago Fed Fin. Risk Index (High=High Risk)$_{t-1}$ | 0.287 | 0.380+ | 0.182 | 0.446+ | 0.470* | 0.568** |
| | (47.90) | (42.45) | (47.52) | (42.36) | (42.76) | (36.38) |
| Right Party Power $_{t-3}$ | 0.310* | 0.427** | 0.261+ | -0.415* | -0.442** | -0.303* |
| | (29.42) | (27.81) | (28.82) | (29.12) | (29.68) | (24.90) |
| Effective Federal Funds Rate $_{t-1}$ | -0.0895 | -0.266 | -0176 | -0.160 | -0.205 | -0.277 |
| | (13.03) | (11.88) | (12.68) | (11.95) | (12.17) | (10.11) |
| Binary: CU Merger Movement $_{t-1}$ | | | | -0.339+ | -0.275 | -0.237 |
| | | | | (76.17) | (82.39) | (63.86) |
| **Constant** | **(108.4)** | **(97.80)** | **(104.7)** | **(91.86)** | **(93.04)** | **(70.98)** |
| **Observations** | **40** | **40** | **40** | **39** | **39** | **39** |
| **R-squared** | **0.343** | **0.455** | **0.394** | **0.294** | **0.291** | **0.490** |
| **Durbin-Watson** | **2.11** | **2.23** | **2.12** | **2.22** | **2.21** | **2.35** |

Beta Coefficients reported – standard coefficients available in the appendix. Standard errors in parentheses. Lags reported with variable names. *** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Model 5 yield some surprising outcomes, as market-opening regulation has no significant effect on credit union change in net income. Instead, this model also continues to be ruled by macroeconomic forces. Once again, recessions are shown to decrease change in net income (beta = -0.389), while financial risk increases it by a margin of 0.470 standard deviations. Interestingly, right party power again appears to have a depressive effect on growth.

In Model 6, we see virtually the same patterns. Social protective regulations did have a fairly significant effect in supporting growth in net income, by a beta of .488. This comes second to the significant effects of recessions (-0.622) and financial market risk (0.568). As in the previous model, macroeconomic factors continue to heavily influence the model, indicating that while protective regulation in most models has shown to be an important variable in showing industry stability, this outcome implies that when it comes to a variable that can change as quickly as net income, the similarly fast-changing conditions of markets may yield a more substantial effect.

Reflecting upon the models present in Table 5.3, we can answer the question of whether and to what extent these models support Hypothesis 1.1. Regarding the question of *whether*, the answer is no. Not only did both types of regression *not* have the strongest effect on either industry's change in net income, but in one case, had nearly the smallest of all significant effects (Table 5.3, Model 5). However, it is interesting to note that while market-opening regulations helped to reduce institutional mergers and failures, when it comes to CNI, a measure of *stability*, market-opening regulation correlates with *negative* change in net income for both banks and credit unions. That is, more market-opening regulation appears to reduce *failures*, but also dramatic growth in income. The next set of models will go farther toward exploring this relationship, but it is worth tentatively holding onto for now.

It is also worth noting that protective regulations continue their trend to both reduce failure and increase stability (or at least this measure of it). Yet if regulation has not had the

Table 5.3.1. Summary of Effects of Regulation Types on Change in Net Income (CNI), Annual, 1972-2015.

| | **Beta Coefficients** | |
|---|---|---|
| | **Commercial Bank CNI** | **Credit Union CNI** |
| Market-Opening Regulation | -0.382* | -0.143 |
| Social Protective Regulation | +0.274+ | +0.488** |
| | **Unstandardized coefficients** | |
| Market-Opening Regulation | -235.20* | -185.15 |
| Social Protective Regulation | +98.94+ | +600.87** |

Table 5.4. Effects of Industry, Economic, & Regulatory Change on Credit Union Loan-Share Ratios, 1976/1977-2015

| **VARIABLES** | **(1)**<br>**CU LN-SH** | **(2)**<br>**CU LN-SH** | **(3)**<br>**CU LN-SH** |
|---|---|---|---|
| Δ # Market- Opening Regulations $_{t-4}$ | | 0.0720 | |
| | | (4.335) | |
| Δ # Social protective Regulations $_{t-0}$ | | | 0.110 |
| | | | (2.962) |
| Δ Financial Industry Market Share $_{t-2}$ | -0.0285 | -0.0567 | -0.00420 |
| | (2.466e+07) | (2.60e+07) | (2.360e+07) |
| Δ # Charter Terminations $_{t-1}$ | -0.00259 | 0.0132 | 0.0359 |
| | (0.0176) | (0.0184) | (0.0174) |
| Δ Average Institutional Size (Assets per Institution) $_{t-2}$ | 0.474** | 0.485** | 0.451 |
| | (3.09e-07 | (3.10e-07) | (3.12e-07) |
| Binary: Recessions $_{t-2}$ | 0.0100 | 0.0322 | -0.0177 |
| | (1.749) | (1.803) | (1.641) |
| Binary: Economic Crises $_{t-2}$ | -0.0488 | -0.0309 | -0.00631 |
| | (2.025) | (2.058) | (1.958) |
| Chicago Fed Financial Risk Index (High = Higher Risk) $_{t-2}$ | -0.661*** | -0.671*** | -0.556 |
| | (1.214) | (1.220) | (1.144) |
| Right Party Power $_{t-2}$ | 0.256* | 0.263* | 0.302 |
| | (0.967) | (0.971) | (0.924) |
| Effective Federal Funds Rate $_{t-0}$ | 0.586** | 0.599** | 0.562 |
| | (0.334) | (0.336) | (0.320) |
| Binary: CU Merger Movement $_{t-1}$ | 0.567** | 0.520* | 0.465 |
| | (3.709) | (3.821) | (3.818) |
| **Constant** | **(3.001)** | **(3.080)** | **(3.037)** |
| **Observations** | **38** | **38** | **38** |
| **R-squared** | **0.542** | **0.661** | **0.560** |
| **Durbin Watson** | **1.59** | **1.64** | **1.55** |

Beta Coefficients reported – standard coefficients available in the appendix.
Standard errors in parentheses. Lags reported with variable names.
*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

largest effect on short-term stability, what does? In the models presented in Table 5.3.1, it appears to be those variables which can change quickly and have short-term effects (dramatic or not). These have most often been variables such as recessions, financial market risk, and recessions.

**Model 4: Industry & Economy-Level Factors Influencing Average Loan-Share Ratios**

The final model set applies the same independent variables to credit unions' Loan-Share ratios (Table 5.4). Unfortunately, I was not able to obtain sufficient data to allow for a comparison to commercial banks, but the credit union models alone show interesting results. Of initial interest in Model 1 is that the only significant industry variable is that of average institutional size (0.474**). This effect is outweighed substantially by that of the financial industry risk index (-0.661) and the federal funds rate (0.586).

In both Models 2 and 3, the introduction of the regulatory variables has little direct effect. In their respective models, the regulatory variables do not reach significant at the .05 level. For model 2, the strongest effects are the same as in model 1. Model 3 yielded no significant outcomes.

**Conclusion: Models of Regulatory Change & Factors Competing for Influence**

Having generated and examined the broad-level tests of the effects of regulation on Commercial Bank and Credit Union industry failures and stability, controlling for and in comparison to broader industry, economic, and political forces, there remains the task of summarizing the results of these 21 regression models. First, let us begin with the most technically relevant question: did these models confirm or falsify my first hypothesis? In Table 5.5, we see that with those dependent variables measuring forms of institutional failure, there is mixed support of this hypothesis. In most cases, regulatory variables did not outweigh all industry variables. However, worth noting is that while regulatory factors were nearly always significant and moderately powerful, only occasionally did more than one industry variable reach significance. Given that these variables were tested for collinearity before and during model

Table 5.5 Comparison of models' support of Hypothesis 1.1, by regulatory variable and industry.

| Conceptual Category | Dependent Variable | Market-Opening Regulation | | Social Protective Regulation | |
|---|---|---|---|---|---|
| | | CB | CU | CB | CU |
| Failure | # Institutional Failures | Y | Y | N | N |
| | # Institutional Mergers | Y | N | Y | N |
| Stability | Change in Net Income | N | N | N | N |
| | Loan-Share Ratio | - | N | - | N |

construction, this would indicate that regulation remains a substantial element of financial institution and industry stability.

The take-home message here appears to be that regulation works. However, an important point to keep in mind is that the nature of linear regression requires that results be interpreted as, *for each [unit] increase in x, y increases by [coefficient unit]*. We see that an increase in regulation leads to a decrease in failures, and mergers, and had mixed effects on change in net income per industry. But regulation does not infinitely increase, despite the claims of some politicians. What actually happened?

This is where theory can help us to make sense of the results. What happened is that after the 1980s, change in regulation slowed, but despite banks and credit unions coming to share a market, regulatory change did not equally apply to both institution types. Perfectly fitting the theoretical model of incumbents (banks) versus challengers (credit unions), banks were able to leverage their market status and political power to push for continued deregulation that, if not always consistent, allowed them to maintain their market position. More importantly, they were able to keep the new fish in their pond at least somewhat constricted. While credit unions did still gain substantial freedom compared to the postwar years, they still more often faced increases in regulation than banks did.

However, it is worth noting a distinctly decreasing trend in the level of regulation credit unions are facing, indicating two things. First, Credit Unions are beginning to win some legislative battles, despite their challenger position and relatively *very* small slice of the broad consumer finance market. Second, if credit unions are winning legislative battles, those battles are

allowing them to expand in ways that may make them more vulnerable ways similar to banks, such as to economic shocks and working within smaller safety margins.

*Big Picture: Emancipatory Institutions Fight to Be…Less*

What does this mean? Credit Unions are playing an increasing role in the world of consumer finance, and growing via assets, membership, and market share. Though the average member may not fully understand what separates their credit union from a bank, they have still chosen to rely on these institutions' financial services, stability, and some notion of representation via the common bond requirement. The influence of these institutions is growing, and the factors that make them both alike and different from banks will become more significant in their effects on the public as they become more massive. Despite having started as financial institutions dedicated to serving the underserved, over the last half-century credit unions have fought to lighten the restrictions that in some ways provide the stability that they are known and lauded for. As they have become moderately successful in doing so, they have come to compete for a more general portion of the consumer finance market, raising questions of whether they are coming to value the norms of big business more than the older notion of thrift. With the current head of the NCUA making no secret of his desire to allow credit unions to adopt more profit-based models, the idea of a convergence in the behavioral patterns of credit unions and banks is a concept worth testing. This is exactly what the Chapter Six attempts to do.

## Chapter Six: Are Banks and Credit Unions Becoming More Alike? An Analysis of Convergence

One of the fundamental premises of this project are that Credit Unions have long been regulated more heavily than banks. Analysis and discussion so far has demonstrated that is more accurate to say that Credit Unions were bound more by protective regulation, with less market access that would have been gained from Market Opening regulation. Yet over time, with the change in political ideologies guiding regulatory policy, we have also seen a shift in which Credit Unions and banks are becoming increasingly similar. Given the way shifts in political-economic ideology drive policy choices, this justifies the second research question guiding this project: *Will the changes in economic ideology and market structure cause credit unions and banks to develop increasingly similar levels of stability?* Given the established convergence of credit union and commercial bank stability and income patterns, it remains to be seen what role regulatory change has had in this process, as regulation is itself influenced by ideological changes.

An important point to keep in mind regarding each model with convergence as a dependent variable is that a higher value (more alike) does not necessarily mean that both institutions are failing/merging at a higher rate. It simply means that credit unions are doing *something* (failing, merging, or experiencing change in income, depending on the model) at a rate close (*whatever that may be*) to banks. That is, perfect convergence would be a value of 100%. A value very far above *or* below 100% would be a divergence. This means that (for example) Convergence in Failure Rates can only increase so far before the credit union failure rate exceeds that of banks and begins to move away from the level experienced by banks.

**Convergence in Failure Rate of Credit Unions with That of Banks**

Table 6.1. Effects of Industry, Economic, & Regulatory Change on Convergence in Commercial Bank & Credit Union Liquidations, 1983-2015

| VARIABLES | (1) Convergence Rate of Failures Per Industry |
|---|---|
| # Market- Opening Regulations: CU $_{t-3}$ | -0.765* |
| | (0.0682) |
| # Social protective Regulations: CU $_{t-6}$ | 0.852+ |
| | (0.0474) |
| Binary: CU Merger Movement $_{t-3}$ | -0.335 |
| | (15.33) |
| Average Institutional Size (Assets per Institution): CB $_{t-1}$ | -0.0915 |
| | (2.68e-09) |
| Average Institutional Size (Assets per Institution): CU $_{t-0}$ | 0.148 |
| | (1.86e-06) |
| Financial Industry Market Share: CB $_{t-0}$ | 0.964 |
| | (175.7) |
| # Charter Terminations: CB $_{t-0}$ | 0.272 |
| | (0.00842) |
| Financial Industry Market Share: CU $_{t-0}$ | -0.335+ |
| | (3,340) |
| # Charter Terminations: CU $_{t-2}$ | 0.202 |
| | (0.0189) |
| Binary: Recessions $_{t-2}$ | 0.214 |
| | (4.988) |
| Binary: Economic Crises $_{t-2}$ | -0.306* |
| | (5.557) |
| Chicago Fed Financial Risk Index (High = Higher Risk) $_{t-0}$ | 0.250 |
| | (2.983) |
| Right Party Power $_{t-2}$ | -0.207 |
| | (2.984) |
| Effective Federal Funds Rate $_{t-1}$ | -0.439 |
| | (0.832) |
| **Constant** | **(47.90)** |
| **Observations** | **38** |
| **R-squared** | **0.842** |
| **Durbin Watson** | **2.13** |

Beta Coefficients reported – standard coefficients available in the appendix.
Standard errors in parentheses. Lags reported with variable names.
*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

The first convergence[15] model to consider is that of Liquidations, a form of failure. The question driving this model is, "Which (if any) of the factors in our models are making credit unions' number of failures closer to that of banks?" In Table 6.1, there are not many strong relationships. Only four variables had any significant effects: both regulatory variables, Credit Union market share, and the control for economic crises. Interestingly, an increase in the latter two variables tended to make credit union and commercial bank failure rates *less alike*. This can explain the significance of the economic crisis variable – it indicates that banks and credit unions fail at very different rates during times of economic hardship. Credit Union market share also has this diverging effect. A final observation regarding this model is that we see an interesting result in that market-opening regulation has a divergent effect on the failures of these two industries, while protective regulations bring them more closely into alignment.

Returning to the results concerning economic crises and market share, there are some interesting observations to note. Looking at some measures of model fit via Figures 6.1 and 6.2 can clarify this finding a bit. Figure 6.1 shows the absolute count of CU and Bank failures during economic crises (light shading) and recessions (dark shading). This figure shows that though Credit Union failures were at their highest value prior to about 1975 (relative to those of Banks and in absolute terms), the model's prediction does not start until about 1974, meaning that some of the largest variance is not captured in the model. This is largely because of the Market Share variables, for which data was not sufficiently available before 1973. Additionally, Economic crises have tended to develop during periods of lowest convergence.

[15] A reminder: a value over 100% would mean that the credit union failure or merger rate was higher than that of banks. So, *high convergence* for these variables would mean a value close to 100%. *Divergence* would be a value very far above *or* below 100%. So, a convergence ratio close to zero, as we see in many cases below would mean that *regardless of their actual individual failure or merger rates*, credit unions rates were far below those of banks.

Figure 6.1. CU and CB Convergence in Failures with Economic Crises and Recessions shaded, 1960-2015.

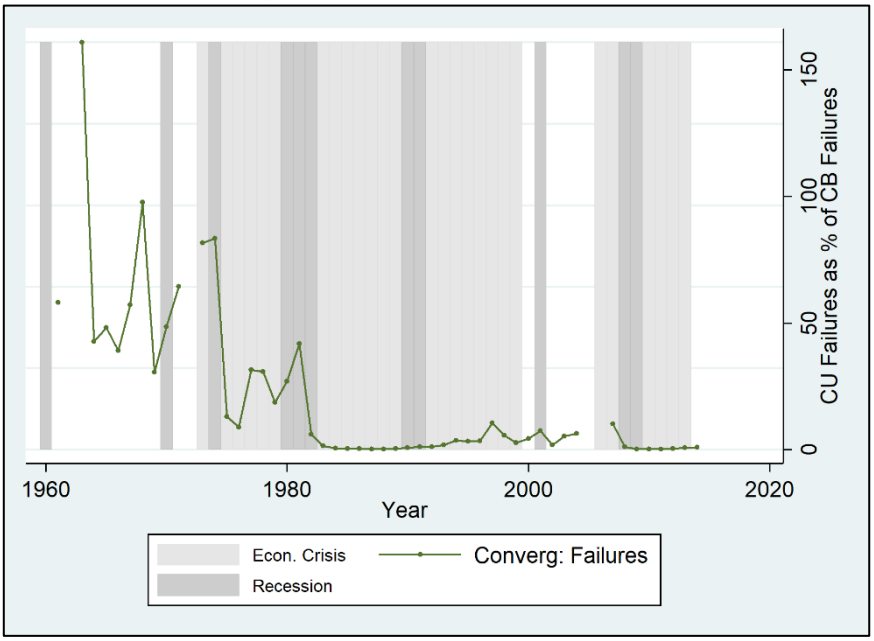
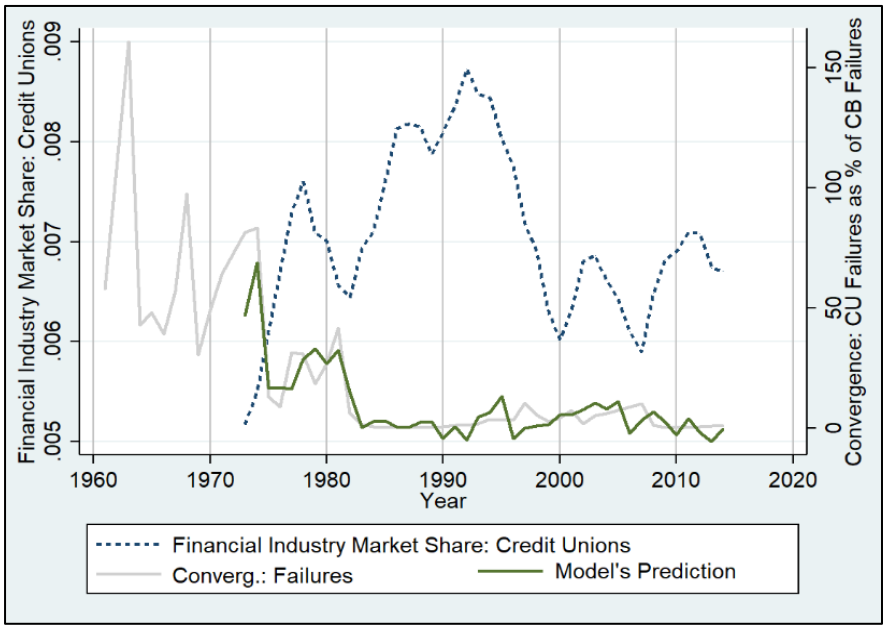



Figure 6.2. CU and CB Convergence in Failures with CU Market Share. 1960-2015.



This numerical outcome makes sense when you also consider the patterns shown in Figure 6.2. In this we see that during economic crises, the gap between the number of failures experienced by banks and credit unions is often at its widest. In the latter half of the 1970s, credit union failures were still coming down due to the changing trend toward mergers, while the Savings & Loan crisis had not yet come to hit banks. Yet as the savings & loan crisis *does* approach from the mid-1980s to the end of the decade, credit unions have developed the patterns that allowed them to handle the crisis in better shape than banks, thus resulting again in a larger gap during a period of crisis. And in the final largest block of the crisis variable, which includes the subprime mortgage and eurozone crises, commercial banks again fared much worse than credit unions.[16] Thus, we can see why the model would identify economic crises as reducing convergence. Finally, as a point of interest, Figure 6.3 shows a nearly inverse correlation between the convergence variable and credit union market share, as it appears that credit union market share has been able to grow during periods of high bank failure. This is likely a result of two simultaneous factors: the failure of banks making previously inaccessible markets available, and the "flight to safety" experienced by credit unions during the 1980s and 1990s crises due to their traditionally more conservative practices.

[16] Though it is worth noting that there were credit union failures at this time, the majority being due to fraud, 'one-person shops', or failures of large Corporate Credit Unions, which are not reflected in this data and are fewer in absolute number.

Table 6.2. Effects of Industry, Economic, & Regulatory Change on Convergence in Commercial Bank & Credit Union Mergers, 1981-2015

| VARIABLES | (1)<br>Convergence Rate of Mergers Per Industry |
|---|---|
| # Market- Opening Regulations: $CU_{t-1}$ | 2.033***<br>(0.355) |
| # Social protective Regulations: $CU_{t-2}$ | -0.278<br>(0.275) |
| Binary: CU Merger $Movement_{t-1}$ | 0.883**<br>(34.25) |
| Average Institutional Size (Assets per Institution): $CU_{t-2}$ | -1.553**<br>(0.000612) |
| Financial Industry Market Share: $CB_{t-4}$ | -0.383<br>(657.5) |
| # Charter Terminations: $CB_{t-1}$ | -0.948***<br>(0.0382) |
| Financial Industry Market Share: $CU_{t-2}$ | 0.698**<br>(14,206) |
| # Charter Terminations: $CU_{t-0}$ | -1.150**<br>(0.114) |
| Binary: Recessions $_{t-2}$ | -0.0417<br>(17.33) |
| Binary: Economic Crises $_{t-2}$ | -0.352*<br>(20.35) |
| Chicago Fed Financial Risk Index (High = Higher Risk) $_{t-1}$ | -0.774**<br>(12.43) |
| Right Party Power $_{t-2}$ | 0.124<br>(10.11) |
| Effective Federal Funds Rate $_{t-1}$ | 1.188**<br>(4.664) |
| **Constant** | **(159.9)** |
| **Observations** | **34** |
| **R-squared** | **0.892** |
| **Durbin Watson** | **2.36** |

Beta Coefficients reported – standard coefficients available in the appendix. Standard errors in parentheses. Lags reported with variable names. *** p<0.001, ** p<0.01, * p<0.05, + p<0.10

**Convergence in Merger Rate of Credit Unions with That of Banks**

Table 6.2 has results more consistent with previous models. In this case, we see that the independent variables in these models have a far more significant effect on convergence in merger rates than failures.[17] Market-opening regulations are shown to have a dramatic role in

[17] A reminder: a value over 100% would mean that the credit union failure or merger rate was higher than that of banks. So, *high convergence* for these variables would mean a value close to 100%. *Divergence* would be a value very far

making Merger rates more like those of banks with a highly significant beta coefficient of 2 (standard deviations), even when controlling for the 1970s Credit Union merger movement. Protective regulations ended up having no significant role, but as credit unions broadly grew in asset size, they were less likely to align with the merger patterns of banks, by a margin of 1.5 standard deviations. Likewise, the federal funds rate also had a strong, significant effect on the gap between bank and credit union merger rates. It is unclear why this might be the case, but one possibility is that as the federal funds rate increases, troubled banks are less likely to be able to afford to borrow money to weather unexpected shortfalls. Such an occasion would increase the odds that troubled institution would be forced to accept a merge with a healthy institution.

**Convergence in Change in Net Income of Credit Unions with That of Banks**

Table 6.3 seeks to assess these models' effects on the gap between credit unions' and commercial banks' change in net income. Though the magnitude is smaller than in previous models, market-opening regulations for both credit unions and commercial banks are closing the gap in the industries' average change in net income. This means that as markets are opened and business facilitated further and further, these institutions' income patterns are becoming more and more consistent. Protective regulations have a similar effect, though somewhat weak. This convergence is also positively affected by right party power, not a surprising result given their generally pro-market stances. The strongest effect in this model came from the measure of financial risk, whose negative orientation makes sense, given that change in net income could be quite sensitive to quick changes in markets, especially as they result of a heightened risk environment. This can also explain significance of factors such as credit union market share, recessions, and economic crises, all of which bring credit unions and banks closer together in this measure.

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above *or* below 100%. So, a convergence ratio close to zero, as we see in many cases below would mean that *regardless of their actual individual failure or merger rates*, credit unions rates were far below those of banks.

Table 6.3. Effects of Industry, Economic, & Regulatory Change on Convergence in Commercial Bank & Credit Union Change in Net Income, 1977-2015

| VARIABLES | (1)<br>Convergence Rate of CNI Per Industry |
|---|---|
| Δ # Market- Opening Regulations: CU $_{t-0}$ | 0.612***<br>(13.89) |
| Δ # Market- Opening Regulations: CB $_{t-0}$ | 0.232*<br>(5.914) |
| Δ # Social protective Regulations: CB $_{t-2}$ | 0.187+<br>(2.734) |
| Δ # Social protective Regulations: CU $_{t-2}$ | -0.180<br>(12.80) |
| Binary: CU Merger Movement $_{t-0}$ | 0.468*<br>(6.372) |
| Δ Average Institutional Size (Assets per Institution): CB $_{t-0}$ | -0.261<br>(2.25e-09) |
| Δ Average Institutional Size (Assets per Institution): CU $_{t-1}$ | 0.316<br>(1.07e-06) |
| Δ Financial Industry Market Share: CB $_{t-0}$ | 0.106<br>(125,359) |
| Δ # Charter Terminations: CB$_{t-0}$ | -0.233+<br>(0.0781) |
| Δ Financial Industry Market Share: CU $_{t-0}$ | 0.164+<br>(4.787e+07) |
| Δ # Charter Terminations: CU $_{t-1}$ | 0.0190<br>(0.0682) |
| Binary: Recessions $_{t-2}$ | 0.189*<br>(3.165) |
| Binary: Economic Crises $_{t-2}$ | 0.408**<br>(4.578) |
| Chicago Fed Financial Risk Index (High = Higher Risk) $_{t-0}$ | -0.861***<br>(2.670) |
| Right Party Power $_{t-1}$ | 0.429*<br>(2.935) |
| Effective Federal Funds Rate $_{t-1}$ | 0.214<br>(1.107) |
| **Constant** | **(6.219)** |
| **Observations** | **38** |
| **R-squared** | **0.865** |
| **Durbin Watson** | **2.49** |

Beta Coefficients reported – standard coefficients available in the appendix. Standard errors in parentheses. Lags reported with variable names. *** p<0.001, ** p<0.01, * p<0.05, + p<0.10

**Initial Results: Has Regulation Led to Convergence?**

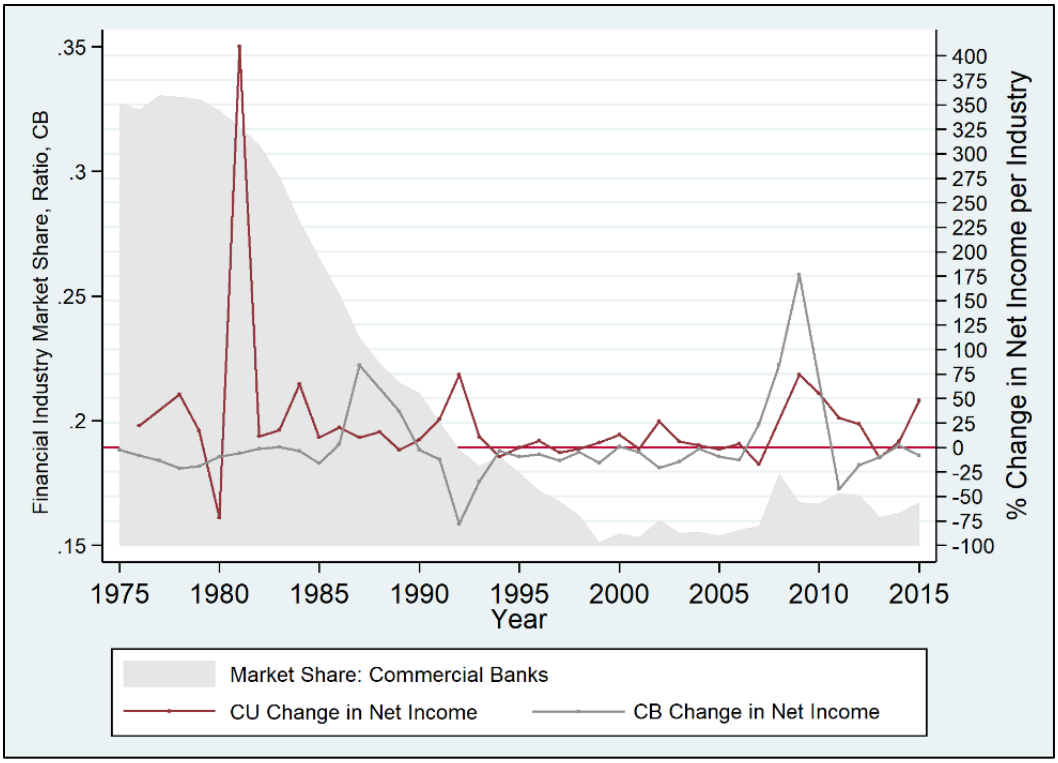
Let us take a moment to assess the meaning of the Convergence model results. I have posited that regulatory change, particularly that targeting credit unions, has had a key role in bringing the behavior of these two institution types closer together. Tables 6.1-3 showed that compared to other model variables, Regulatory change absolutely has that effect, though in an unexpected way. Table 6.4 summarizes the results of the preceding Convergence models and shows the extent to which regulation has led change in convergence.

Table 6.4. Comparison of Effects of CU and CB Regulatory Variables on Convergence Dependent Variables.

| | | Institutional Failures | Mergers | Change in Net Income |
|---|---|---|---|---|
| Beta Coefficients | CU Market Opening | -0.765* | 2.033*** | 0.612*** |
| | CU Social Protective | 0.852+ | -0.278 | -0.180 |
| | CB Market Opening | - | - | 0.232* |
| | CB Social Protective | - | - | 0.187+ |
| Unstandardized coefficients | CU Market Opening | -0.147* | 1.376*** | 66.32*** |
| | CU Social Protective | 0.097+ | -0.107 | -18.91 |
| | CB Market Opening | - | - | 12.41* |
| | CB Social Protective | - | - | 5.27+ |

The rows for CU Market-opening regulation has led to exactly the type of change expected – while it slightly correlates with *an increased gap* between credit union and banking failures, it correlates with a substantially increased convergence in mergers, a means of managing failures that preserves a greater portion of assets and financial industry-level market share. Increased CU Market-opening laws can also bring Change in Net Income for Credit Unions closer to that of banks, a pattern that is notably concurrent with a fall in commercial bank market share (Figure 6.3).

Figure 6.3. Credit Union & Commercial Bank % Change in Net Income, with Commercial Bank Market Share shaded, 1975-2015




**Interrupted Models: Has the Policy Domain Shift Changed the Sources of Financial Instability?**

An important element to this study is to also consider to what extent these patterns are attributable to a shift in the ideologies driving politics and economics, as Fligstein's theory asserts. To do so, I have also run interrupted forms of the models present in Chapter 5, limiting the years under observation to those since 1983, the point at which the ideological shift toward neoliberal economics begins to yield observable changes.

**First Interrupted Model: Causal Factors of Failures in Intra-Neoliberal Period**

As with the models in Chapter 5, this set of models evaluates the effects of political & economic factors on annual institutional failures since 1983. Model 1 (Table 6.5) is again the baseline model, and you can see that there is little difference in *what* is significant, except for the federal funds rate and charter terminations, both of which did lost their significance. However, Market Share had a substantially more powerful effect on commercial bank failures, with a beta

coefficient of 1.126 and very high significance. The next most powerful effect in the model comes from level of risk in the financial industry, with a very significant coefficient of only .313.

The interrupted Model 2 follows a similar pattern to its aggregated equivalent in Chapter 5, but with a few notable differences. Market-opening regulations in this model are near-significant (with a beta of -0.409), but their effect is now second to that of Financial industry market share, which positively correlated with failures by 0.798 SDs. This finding indicates that from 1983 onward, as commercial banks started to dominate the credit industry, they began to have larger numbers of failures. This is almost certainly affected by the Savings & Loan crisis, but it also controls for the deregulation of the time. Levels of financial risk in the economy had a similar effect as previously, with a highly significant, positive effect of 0.313 standard deviations.

Model 3, however, did end up with some different outcomes. Much like the model containing the full range of years, protective regulations did continue to significantly reduce failures. This time its effect was about 150% the strength of the full model, with a beta of -0.712 standard deviations, which renders its effect greater than that of market-opening regulations. Instead, this model shows more influence by industry-level variables, all of which significantly increased the annual count of failures. Notable is the effect of market share, which positively correlated with bank failures by 0.993*** standards deviations. The only economy-wide variable to have a significant effect was the level of risk present in the economy, which continued its positive correlation with failures.

Turning our attention to the Credit Union models (4, 5, and 6), there are several observable differences. Model 4 follows a pattern of significance very similar to its Chapter 5 counterpart (Table 5.1), and of its significant relationships, all have a positive correlation with institutional failures. Model 4 shows that increased market share has a greater effect on

Table 6.5. Effects of Industry, Economic, & Regulatory Change on Commercial Bank & Credit Union Failures, 1982/1983-2015

| VARIABLES | (1) CB Failures | (2) CB Failures | (3) CB Failures | (4) CU Failures | (5) CU Failures | (6) CU Failures |
|---|---|---|---|---|---|---|
| # Market- Opening Regulations $_{t-0, t-0}$ | | -0.409+ | | | -0.497 | |
| | | (0.0393) | | | (0.118) | |
| # Social protective Regulations $_{t-3, t-3}$ | | | -0.712* | | | -0.939** |
| | | | (0.0366) | | | (0.0558) |
| Average Institutional Size (Assets per Institution) $_{t-2, t-0}$ | 0.106 | 0.179 | 0.625* | 0.0298 | 0.350 | 0.0337 |
| | (1.31e-05) | (1.30e-05) | (2.24e-05) | (0.000157) | (0.000184) | (0.000156) |
| Financial Industry Market Share $_{t-2, t-0}$ | 1.126*** | 0.798** | 0.993*** | 0.476* | 0.322 | 0.278 |
| | (221.3) | (333.8) | (203.2) | (5,860) | (6,149) | (5,926) |
| # Charter Terminations $_{t-1, t-0}$ | 0.194+ | 0.156 | 0.194+ | 0.537** | 0.514** | 0.557* |
| | (0.0223) | (0.0218) | (0.0203) | (0.0299) | (0.0290) | (0.0246) |
| Binary: Recessions $_{t-2, t-1}$ | 0.0537 | 0.0465 | -0.00975 | 0.154+ | 0.174* | 0.146 |
| | (8.240) | (7.963) | (8.819) | (4.959) | (4.843) | (4.036) |
| Binary: Economic Crises $_{t-3, t-3}$ | 0.118 | 0.0954 | 0.0774 | -0.0958 | -0.108 | -0.110 |
| | (11.01) | (10.75) | (10.38) | (6.940) | (6.701) | (5.819) |
| Chicago Fed Financial Risk Index (High = Higher Risk) $_{t-1, t-2}$ | 0.313*** | 0.312*** | 0.270*** | 0.288* | 0.274* | 0.261** |
| | (8.313) | (7.989) | (8.240) | (4.315) | (4.178) | (3.301) |
| Right Party Power $_{t-3, t-3}$ | 0.185** | 0.188** | 0.0550 | 0.0535 | 0.0344 | 0.0127 |
| | (5.587) | (5.366) | (7.264) | (3.355) | (3.258) | (2.822) |
| Effective Federal Funds Rate $_{t-1, t-0}$ | -0.106 | -0.159 | -0.211+ | 0.328 | 0.339 | 0.0924 |
| | (2.707) | (2.677) | (2.645) | (1.755) | (1.691) | (1.617) |
| Binary: CU Merger Movement $_{t-0}$ | | | | 0+ | 0+ | 0* |
| | | | | (20.87) | (20.22) | (14.95) |
| **Constant** | **(51.29)** | **(103.8)** | **(53.36)** | **(52.41)** | **(62.20)** | **(41.34)** |
| **Observations** | **33** | **33** | **33** | **31** | **31** | **31** |
| **R-squared** | **0.792** | **0.812** | **0.833** | **0.39** | **0.435** | **0.487** |
| **Durbin-Watson** | **1.61** | **1.43** | **1.60** | **1.52** | **1.87** | **2.02** |

Beta Coefficients reported – standard coefficients available in the appendix. Standard errors in parentheses. Lags reported with variable names. *** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Failures by nearly a half standard deviation. As could be expected, higher levels of financial market risk and charter cancellations also correlate with higher numbers of failures, the former by over half a standard deviation. The introduction of market-opening regulations to the model (5) changes little in the distribution of effects from Model 4. Market-opening regulation itself had no significant effect on failures. This in comparison to average institutional size, which *increased* failure by a slightly smaller .514 standard deviations, and the level of risk in the financial industry, which increased failures by 0.274 standard deviations.

Model 6continued to follow the pattern of significance outlined by models 4 and 5, with one key difference. Protective regulations had a fairly significant, reductive effect on institutional failures by a substantial -0.939 standard deviation margin. Unlike market-opening regulations, protective regulations also yielded the strongest effect in the model, followed by the count of charter terminations (0.557) and levels of financial industry risk (0.261).

Altogether, our first set of interrupted models shows that from the mid-1980s onward, market share and levels of risk in the financial economy began to correlate significantly with instability. Models 1-3, focusing on influencers of banks' failures, showed consistently that as commercial banks dominate a larger portion of financial industry, they face larger numbers and rates of failures though the true meaning of this finding is more difficult to ascertain because of substantial industry concentration allowed by market-opening regulatory changes. In fact, a consistent pattern across each of these models is that change in economic factors is leading to substantial change in levels of failure, and in these cases, growth appears correlated with struggle. To put it more simply, with market power, opening and deregulation, industry subgroups become less stable. A point of great importance for future research would be to look at the path dependence of these models, as market-opening regulation itself has strongly affected both industry saturation and failure. While testing on these models showed that this point of collinearity did not substantially alter the outcome of these models, a meaningful path analysis of these relationships was unfortunately beyond the capacity of this study.

**Second Interrupted Model: Causal Factors of Mergers in Intra-Neoliberal Period**

Table 6.6 applies our model to the incidence of credit union and commercial bank mergers but again restricts the period from the early 1980s onward. In Model 1, Financial industry market share has an outsized effect on commercial bank mergers, with a highly significant beta coefficient of 0.965 standard deviations. The remaining significant effects all have betas below the 0.3 standard deviation level; Charter cancellations have a positive, near-significant effect on the count of mergers with a beta coefficient of 0.220, similar to the strength and significance level of right party power (0.163*). Second to the effect of financial industry market share comes the Financial Risk Index, with a highly significant beta of 0.292. None of the variables in this model were shown to reduce bank mergers

The introduction of the Market-opening regulation variable substantially moderates the strength of Market Share, though it remains one of the strongest effects in the model (and retains its positive correlation). In Model 2, the three strongest effects all have beta coefficients between 0.3 and 0.6, shared by the financial risk index (0.307), average institutional size (0.445), and Market share (0.611). However, of all significant effect in the model, none reduced bank mergers; market-opening regulations had a negative effect on the count of commercial bank mergers, but its p-value was just short of significance. It is interesting to note, however, that this model shows stronger effects coming from banking industry factors than economic. The third model, which introduces the effect of protective regulations, yielded no significant effects on bank mergers, including by protective regulation.

As with previous tables, Models 4-6 apply the same questions and variables to the credit union industry. Serving as our baseline, Model 4 shows that while nearly all factors industry and economic considered significantly affect the annual count of CU mergers (except for average institution size, Economic Crises, and the federal funds rate), when not controlling for regulation the greatest effects have come from indicators of macroeconomic instability. This is quite different from what we saw when this model included the entire time span of study, rather than

from the 1980s and onward. This model's two strongest effects come from charter terminations and the financial risk index, both of which positively correlate with Credit Union mergers. The next-strongest effect comes from Recessions, which surprisingly *negatively* correlated with the number of mergers by 0.365 standard deviations.

Adding social protective regulation does not meaningfully change the pattern of significance and effect strength. In Model 5, Social protective regulation reduces the count of Mergers by a fairly significant 0.801 standard deviations. Recessions continue have a reductive effect, though of just over one-third the effect-strength of market-opening regulation. As in the previous model, nearly every variable has a positive effect (except for regulation and recessions), but none of the other variables in the model had effect sizes greater than 0.5 standard deviations.

Model 6 follows virtually the same pattern as models 4 and 5. Protective regulations has a significantly negative effect on the count of credit union mergers, serves as the strongest effect in the model, with a beta coefficient of -0.671. As previously, both institution size and charter cancellations had significant effects on the count of mergers, with beta coefficients of -0.317 and 0.472, respectively. Both recessions and the federal funds rate significantly reduced the count of mergers, the latter being the second-strongest effect in the model with a beta of -0.482. Both levels of financial risk in the economy and right party power failed to yield significant effects. From this segment of analysis, it is clear that again, during and after the 1980s, the state of the consumer finance industry was such that stability variables, themselves likely influenced by regulatory change, affected commercial bank and credit union stability far more then general economic and industry factors. Growth in industry variables was only mildly correlated with increased counts of mergers, an outcome to keep in mind as we move into the final, broader project analysis.

Table 6.6. Effects of Industry, Economic, & Regulatory Change Commercial on Bank & Credit Union Mergers, 1982/1984-2015

| VARIABLES | (1) CB Mergers | (2) CB Mergers | (3) CB Mergers | (4) CU Mergers | (5) CU Mergers | (6) CU Mergers |
|---|---|---|---|---|---|---|
| # Market- Opening Regulations $_{t-0, t-1}$ | | -0.417+ | | | -0.801** | |
| | | (0.0355) | | | (0.535) | |
| # Social protective Regulations $_{t-3, t-4}$ | | | -0.432 | | | -0.671*** |
| | | | (0.0246) | | | (0.160) |
| Financial Industry Market Share $_{t-1, t-2}$ | 0.965*** | 0.611* | 0.823 | 0.318+ | -0.0125 | -0.102 |
| | (258.8) | (356.6) | (238.3) | (25,567) | (25,032) | (20,534) |
| # Charter Terminations $_{t-0, t-0}$ | 0.220+ | 0.213+ | 0.232 | 0.646*** | 0.459* | 0.472* |
| | (0.0239) | (0.0227) | (0.0220) | (0.160) | (0.162) | (0.166) |
| Average Institutional Size (Assets per Inst.) $_{t-4, t-2}$ | 0.314+ | 0.445** | 0.662 | -0.199 | 0.245 | -0.317* |
| | (1.70e-05) | (1.74e-05) | (2.23e-05) | (0.000819) | (0.000768) | (0.000504) |
| Binary: Recessions $_{t-2, t-2}$ | 0.160** | 0.152** | 0.156 | -0.365*** | -0.339*** | -0.170* |
| | (8.301) | (7.959) | (7.667) | (30.45) | (26.06) | (24.69) |
| Binary: Economic Crises $_{t-3, t-2}$ | 0.142+ | 0.121 | 0.159 | -0.0130 | 0.0850 | 0.0608 |
| | (11.66) | (11.22) | (10.75) | (32.56) | (26.41) | (19.91) |
| Chicago Fed Financial Risk Index (High = Higher Risk) $_{t-1, t-2}$ | 0.292*** | 0.307*** | 0.257 | 0.425** | 0.350** | 0.102 |
| | (9.053) | (8.641) | (8.819) | (27.56) | (23.16) | (22.68) |
| Right Party Power $_{t-3, t-3}$ | 0.163* | 0.177** | 0.139 | 0.198+ | 0.153+ | 0.0716 |
| | (6.001) | (5.759) | (5.589) | (18.51) | (15.17 | (14.01) |
| Effective Federal Funds Rate $_{t-0, t-2}$ | 0.219 | 0.209 | 0.205 | -0.0874 | -0.136 | -0.482** |
| | (2.904) | (2.759) | (2.669) | (8.863) | (7.079) | (6.121) |
| Binary: CU Merger Movement $_{n/a, t-2}$ | | | | -0.0369 | -0.00420 | 0.0397 |
| | | | | (63.31) | (54.46) | (53.26) |
| **Constant** | **(54.85)** | **(95.01)** | **(50.89)** | **(232.9)** | **(277.5)** | **(223.1)** |
| **Observations** | **32** | **32** | **32** | **31** | **31** | **31** |
| **R-squared** | **0.765** | **0.796** | **0.810** | **0.773** | **0.892** | **0.947** |
| **Durbin Watson** | **1.60** | **1.47** | **1.73** | **1.89** | **1.90** | **1.89** |

Beta Coefficients reported – standard coefficients available in the appendix. Standard errors in parentheses. Lags reported with variable names. Charter terminations omitted from Model 5 due to collinearity issues. *** p<0.001, ** p<0.01, * p<0.05, + p<0.10

**Third Interrupted Model: Causal Factors of Change in Net Income in Intra-Neoliberal Period**

Table 6.7 shows the effects of my models on change in net income for both Credit Unions and Banks since 1983. Model 1's results are virtually identical to those in the original, extended Model 1 in Table 5.3. There are no changes in the direction of any significant correlations, showing that the baseline effects of industry, political, and economic variables on change in net income for commercial banks remains accurate when adjusting the time range of the study, a minor victory for the accuracy of model fit. In this case, the only substantive change is that Financial industry market share has lost its significance to commercial bank charter terminations, which appear to significantly reduce change in net income by 0.445 SDs. The same can be said to an even greater extent for Model 2, which is substantively identical to its counterpart in Table 5. 3. In this case, the only substantive difference is again in charter terminations, which negatively correlate with change in net income for banks, with a highly significant beta of -0.497.

Model 3, however, does have a few changes worthy of comment. Protective regulation maintains its significant effect on change in net income, but this time, negative. However, this time the only industry variable to significantly affect Banks' change in net income was charter cancellations, which reduce change in net income by a beta of 0.320. Levels of risk present in financial industries continue to increase change in net income by a margin of about 0.38 standard deviations but fall just short of significance.

While little change can be seen between Models 1-3 of Tables 5.3 and 6.7, the same cannot be said for Models 4-6, our credit union models. In this case, we see a set of circumstances where Credit Unions appear much more affected by broader economic patterns after deregulation began in 1983, rather than industry or political variables. In Model 4, Credit Union industry variables have no significant effect in reducing change in net income. The model's one strong, significant effect comes from risk levels in financial markets, in which market risk suppresses

Table 6.7. Effects of Industry, Economic, & Regulatory Change on Commercial Bank & Credit Union CNI, 1982/1984-2015

| VARIABLES | (1) CB CNI | (2) CB CNI | (3) CB CNI | (4) CU CNI | (5) CU CNI | (6) CU CNI |
|---|---|---|---|---|---|---|
| Δ # Market- Opening Regulations $_{t-1, t-2}$ | | -0.373** | | | -0.406* | |
| | | (139.8) | | | (321.3) | |
| Δ # Social protective Regulations $_{n/a, n/a, t-0, n/a, n/a, t-2}$ | | | -0.307* | | | -0.563* |
| | | | (49.98) | | | (311.9) |
| Δ Financial Industry Market Share $_{t-3, t-3}$ | 0.113 | 0.0259 | 0.109 | 0.198 | 0.0739 | 0.361* |
| | (2.308e+06) | (1.869e+06) | (2.054e+06) | (9.913e+08) | (1.136e+09) | (9.351e+08) |
| Δ # Charter Terminations $_{t-1, t-0}$ | -0.445* | -0.497*** | -0.320* | 0.245 | 0.111 | 0.343* |
| | (1.978) | (1.621) | (1.831) | (1.285) | (1.194) | (1.135) |
| Δ Average Institutional Size (Assets per Inst.) $_{t-2, t-0}$ | 0.294 | 0.339* | 0.191 | -0.0435 | -0.0336 | -0.0201 |
| | (2.84e-08) | (2.30e-08) | (2.58e-08) | (8.18e-06) | (8.04e-06) | (7.03e-06) |
| Binary: Recessions $_{t-2, t-1}$ | 0.129 | 0.0577 | -0.0356 | 0.295+ | 0.198 | 0.523** |
| | (107.6) | (85.62) | (102.6) | (66.41) | (71.73) | (71.08) |
| Binary: Economic Crises $_{t-1, t-0}$ | 0.239 | 0.276* | 0.247+ | -0.119 | 0.0178 | -0.0598 |
| | (66.03) | (47.49) | (55.63) | (60.51) | (62.76) | (52.75) |
| Chicago Fed Financial Risk Index (High = Higher Risk) $_{t-2, t-0,}$ | 0.220 | 0.269+ | 0.326+ | -0.538** | -0.558** | -0.741*** |
| | (63.98) | (48.25) | (56.81) | (60.58) | (61.32) | (61.33) |
| Right Party Power $_{t-3, t-1}$ | 0.268+ | 0.426*** | 0.342** | -0.148 | -0.107 | -0.196 |
| | (41.06) | (32.47) | (35.84) | (35.56) | (35.33) | (30.25) |
| Effective Federal Funds Rate $_{t-1, t-1,}$ | -0.0350 | -0.220 | -0.0842 | 0.134 | 0.0967 | 0.422 |
| | (15.17) | (11.83) | (13.14) | (14.71) | (14.45) | (14.05) |
| Binary: CU Merger Movement $_{n/a, t-2}$ | | | | 0.159 | 0.273+ | -0.0375 |
| | | | | (92.45) | (106.1) | (93.08) |
| **Constant** | **(109.9)** | **(96.07)** | **(96.58)** | **(107.1)** | **(106.1)** | **(97.92)** |
| **Observations** | **33** | **33** | **33** | **31** | **31** | **31** |
| **R-squared** | **0.347** | **0.594** | **0.479** | **0.385** | **0.422** | **0.548** |
| **Durbin-Watson** | **1.97** | **2.21** | **2.02** | **2.00** | **2.02** | **2.29** |

Beta Coefficients reported – standard coefficients available in the appendix. Standard errors in parentheses. Lags reported with variable names. *** p<0.001, ** p<0.01, * p<0.05, + p<0.10

change by a beta of -0.538. Far weaker but worthy of note is that recessions have a near-significant effect on increased change in CNI, by 0.295 SDs. This pattern is nearly exactly duplicated for Model 5. Though this model introduces the effect of market-opening regulation, and this variable does suppress change in net income, it comes in second to the effect of financial risk in the economy (-0.406* for regulation, compared to -0.558** for risk).

Model 6 is far less like Models 4 and 5. Model 6 is ruled by the effects of regulation, industry power, and financial market risk. The most substantial change between this set of interrupted models and the original models present in Chapter 5 is that Credit Union change in net income was much more strongly influenced by macroeconomic and regulatory factors than by developments within its own industry or direct legislative party makeup. This implies that as Credit Unions have experienced substantial growth and industry concentration during this period, they have become more vulnerable to short term macroeconomic changes. This would support my arguments about how as neoliberal ideology becomes more rooted in policy, that a regularly occurring pattern will be massive growth, massive profit, and increased vulnerability to shocks.

**Final Interrupted Model: Causal Influences on Average Loan-Share Ratios in Intra-Neoliberal Period**

Finally, Table 6.8 shows changes in the Loan-Share ratio model when it is restricted to years after 1982. Doing so does demonstrate a few changes, but the core finding is that regulatory effects take a back seat to industry growth and broad economic risk and economic risk. The baseline, Model 1, shows that average institution size has the most substantial effect in reducing the loan-share ratios of credit unions by a margin of -0.57 standard deviations, an outcome which remains virtually unchanged with the inclusion or either regulatory variable. Otherwise, Model 1 shows that levels of risk present in financial industries correlate with an increased loan-share ratio, an effect that also holds in both significance and magnitude across all 3 models. Finally, Financial industry market share also has a consistent effect across all three models, as it tends to reduce the loan-share ratio by 0.330-0.390 standard deviations. In effect, this means that as credit

Table 6.8. Effects of Industry, Economic, & Regulatory Change on Credit Union Loan-Share Ratios, 1984-2015

| VARIABLES | (1) CB Mergers | (2) CU LN-SH | (3) CU LN-SH |
|---|---|---|---|
| Δ # Market- Opening Regulations $_{t-0}$ | | 0.147* | |
| | | (5.130) | |
| Δ # Social Protective Regulations $_{t-4}$ | | | -0.116+ |
| | | | (2.800) |
| Δ Financial Industry Market Share $_{t-0}$ | -0.336** | -0.364** | -0.390** |
| | (2.655e+07) | (2.462e+07) | (2.595e+07) |
| Δ # Charter Terminations $_{t-2}$ | -0.0401 | -0.0656 | -0.0519 |
| | (0.0173) | (0.0163) | (0.0160) |
| Δ Average Institutional Size (Assets per Institution) $_{t-2}$ | 0.566* | 0.592** | 0.581* |
| | (3.30e-07) | (2.95e-07) | (3.31e-07) |
| Binary: Recessions $_{t-2}$ | -0.191+ | -0.162+ | -0.158+ |
| | (1.340) | (1.256) | (1.260) |
| Binary: Economic Crises $_{t-3}$ | -0.315+ | -0.348* | -0.225 |
| | (2.107) | (1.956) | (2.001) |
| Chicago Fed Financial Risk Index (High = Higher Risk) $_{t-0}$ | 0.355** | 0.379** | 0.337** |
| | (1.626) | (1.501) | (1.530) |
| Right Party Power $_{t-2}$ | 0.156 | 0.178 | 0.164 |
| | (1.103) | (1.020) | (1.029) |
| Effective Federal Funds Rate $_{t-1}$ | 0.390 | 0.439+ | 0.486* |
| | (0.438) | (0.403) | (0.422) |
| Binary: CU Merger Movement $_{t-2}$ | -0.00802 | -0.0357 | 0.0253 |
| | (4.459) | (4.120) | (4.091) |
| **Constant** | **(3.423)** | **(3.103)** | **(3.510)** |
| **Observations** | **31** | **31** | **31** |
| **R-squared** | **0.462** | **0.554** | **0.516** |
| **Durbin Watson** | **1.91** | **2.05** | **1.78** |

Beta Coefficients reported – standard coefficients available in the appendix. Standard errors in parentheses. Lags reported with variable names. *** p<0.001, ** p<0.01, * p<0.05, + p<0.10

unions grow and market influence, there is less room between the balance of loans and savings for credit unions, giving them less ability to handle shocks or crises. Introducing market-opening regulation to the model (Model 2) does make a few changes. Market-opening regulations do increase the loan-share ratio as predicted, but only by a margin of about 0.15 standard deviations. However, another change seen in this model is that when market-opening regulation is considered, Economic crises come to have a more significant effect in *reducing* loan-share ratios.

Model 3's outcomes better resemble Model 1. Like Model 2, protective regulation has the smallest comparative effect on credit unions' average loan-share ratio, and only nears significance. average institutional size, as discussed previously, still has the strongest effect in the

model, reducing loan-share ratios by a margin of about -0.58standard deviations. Both average institutional size and financial market risk have nearly the same effects in Model 3 as they did in Model 1. In this case, the only remaining difference is that positive changes to the federal funds rate correlate with an increased loan-share ratio, by a significant factor of 0.49 SDs.

**Conclusion: Have Banks and Credit Unions Converged in their Levels of Stability?**

Twenty-one model summaries later, what do these interrupted models tell us that the models dedicated to changes in regulation did not? If we focus on those models' priorities and do a direct comparison, one interesting thing. Table 6.9 does just that. There we can see that across each set of models, removing the first decade of results appears to serve only to blunt the effects of regulatory change for commercial banks, but we do see that regulation played a far greater role for Credit Unions' outcomes than in the aggregated models. There is virtually no change in the direction of effects except in the last of each model set models: that of the Credit Unions' industry's average loan-share ratio.

Table 6.9. Comparison of Effects of CU and CB Regulatory Variables on Convergence Dependent Variables. Beta Coefficients.

| | | Institutional Failures | Mergers | Change in Net Income | Loan-Share Ratio |
|---|---|---|---|---|---|
| ~1973-2015 Models | CB Market Opening | -0.981**$_1$ | -0.788*$_1$ | -0.382*$_3$ | - |
| | CB Social Protective | -0.581*$_2$ | -0.552*$_2$ | +0.274+$_3$ | - |
| | CU Market Opening | -0.894**$_1$ | -0.464+$_4$ | -0.143 | +0.0720 |
| | CU Social Protective | -0.477 | -0.425*$_3$ | +0.488**$_2$ | +0.110 |
| 1983-2015 Models | CB Market Opening | -0.409+$_2$ | -0.417+$_3$ | -0.373**$_3$ | - |
| | CB Social Protective | -0.712*$_2$ | -0.432 | -0.307*$_3$ | - |
| | CU Market Opening | -0.497 | -0.801**$_1$ | -0.406*$_2$ | +0.147*$_5$ |
| | CU Social Protective | -0.939**$_1$ | -0.671***$_1$ | -0.563*$_2$ | -0.116+$_5$ |

*Superscript indicates ranking of the variable's beta coefficient relative to other **significant** model variables, where 1 indicates the strongest effect, 2 the second strongest, etc.

However, this type of focus obscures what I think is the more meaningful story that can be found in this data. The first set of interrupted models clearly shows that from the mid-1980s onward, market share and size began to correlate significantly with instability. If these models'

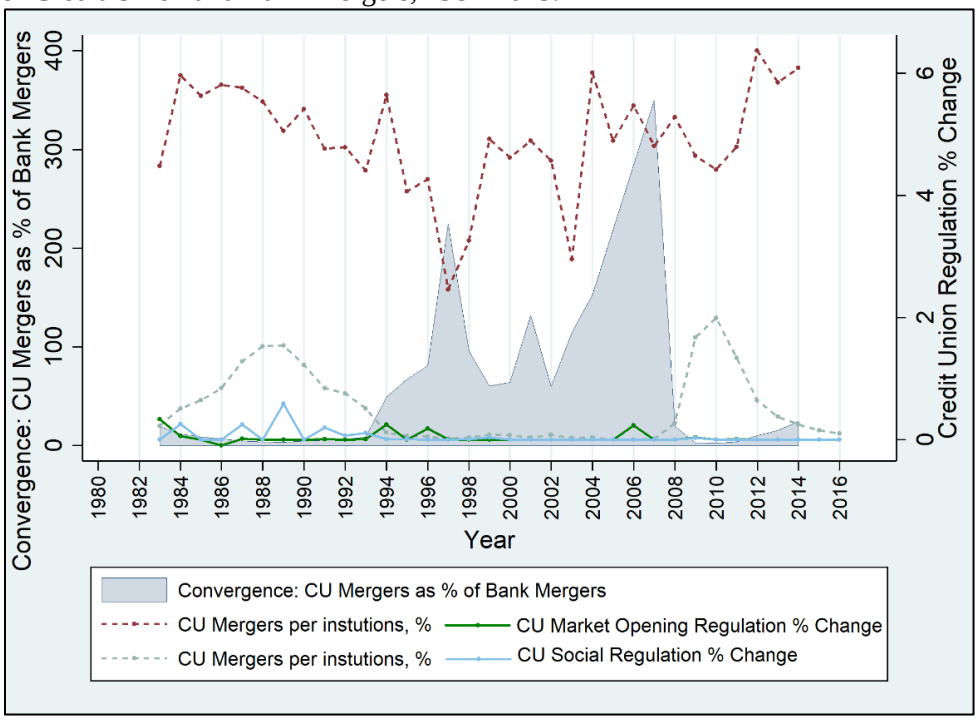
predictions were to be accurate, then as industries dominate a larger portion of the consumer finance market, they would inevitably face larger numbers and rates of failures. This was a consistent pattern across each of the banking models: change in industry-based factors is leading to substantial change in levels of failure, and growth appears correlated with struggle. Credit unions have not yet shown this pattern definitively, however, instead showing increased vulnerability to macroeconomic forces. This could be due to their still relatively small average size, but if that were the case, we would have expected a more similar result from the models in Chapter 5. Instead, I suspect that it is a combination of factors – diminutiveness, yes, but also growth. I think that the credit union is currently situated in a sort of middle-area where many are still small enough to wrestle with some economies of scale, but a substantial portion of the industry is large enough to be affected by a different class of economic variables.

Given this growth, the question about the level and nature of convergence remains. Here I have brought back Table 6.4 (Table 6.10 here), because while it shows interesting results, by itself it does not capture the full story of credit union and commercial bank convergence and divergence. These models show that Social regulation significantly correlates with convergence in failures, but that the association is fairly weak. The same can be said of change in net income. This make sense when we once again consider the prediction of this model, which assumes a

Table 6.10. Comparison of Effects of CU and CB Regulatory Variables on Convergence Dependent Variables.

| | | Institutional Failures | Mergers | Change in Net Income |
|---|---|---|---|---|
| Beta Coefficients | CU Market Opening | -0.765* | 2.033*** | 0.612*** |
| | CU Social Protective | 0.852+ | -0.278 | -0.180 |
| | CB Market Opening | - | - | 0.232* |
| | CB Social Protective | - | - | 0.187+ |
| Unstandardized coefficients | CU Market Opening | -0.147* | 1.376*** | 66.32*** |
| | CU Social Protective | 0.097+ | -0.107 | -18.91 |
| | CB Market Opening | - | - | 12.41* |
| | CB Social Protective | - | - | 5.27+ |

Figure 6.4. Credit Union Mergers as a Percentage of Bank Mergers, with Counts of Credit Union and Bank Mergers, 1982-2015.




linear increase, with a reality in which policy change seldom follows linear patterns. So, *if an increase in x (regulation) leads to a corresponding amount of change in y (Credit Union failure, merger, or CNI as a % of Banks')*, what does this look like when in reality, regulation fluctuates?

In the case of our strongest relationship, we get a result like that seen in Figure 6.4. What we see is that the proportion of actual change in regulation is quite small, thus showing that while regulation may have a significant effect on convergence, if there is little change, then ultimately, the effect on convergence scarcely matters. In this case, there remained substantial difference in the merger rates of credit unions and banks. This may relate more to a measurement validity issue with the convergence variables, something worth pursuing in future research. Ultimately, this chapter has found that while the occurrence of convergence is an open question, there are indicators that regulatory change can influence such an event, and that without a doubt, regulatory change since the 1980s has changed the way that credit unions' failure and stability are influence by market and industry forces.

**Broad Significance and Meaning**

Considering these findings, what can we conclude in the broader context of this project? At the end of chapter five I commented that despite a history of placing a high value on serving underserved populations, credit unions also appear to be fighting the policies that transformed that value into a reality. Credit unions still have more of a role in community service than other financial organizations; every year's NCUA includes sections on serving low-income populations and other community initiatives. However, the data covered in this chapter indicated that while they are not necessarily becoming more bank-like, credit unions are beginning to experience a few of the risks associated with increased size and decreased restrictions.

If we were to continue with the metaphor of credit unions and banks suddenly thrown into the same pond in which they must now compete for the same resources, a few things can become clearer. While they are definitely keeping an eye on the market incumbent (to use Fligstein's terms), credit unions have not yet fully conformed to the incumbent's style of operations. While there is evidence of their interest in doing so, there is not yet evidence showing that they have done so or what the impact of those choices will be on the future of credit unions as alternatives to banks.

What does this say about credit unions? So far, despite the decrease in that regulation, the general pattern and system of regulation that historically and recently set credit unions apart from banks and similar institutions does render them more stable than their competition. They demonstrate that financial regulation does work, that it can allow for economic and institutional growth, and still protect the people who count on that institution for their financial wellbeing. Likewise, the quick rise in size and market share of credit unions since their appearance in the United States has shown that serving low-income and marginalized groups without exploitative practices can still be profitable. These are important points that refute many widespread ideas about how markets and institutions *must* function under capitalist systems, and they provide important evidence that introducing democratic controls and influences into market systems can

still allow for growth and forestall collapse. It also shows that regulation can be done in ways that allow innovations to be created and used, in terms of internal functioning or commodities to sell, as credit unions too have come to offer more services over time (though their investment options are still very limited).

The limited findings of the convergence models are not necessarily problematic or meaningless either. Though they did not find evidence of convergence currently occurring, there is much to be said for the idea that *if current trends continue*, convergence can happen. In this case, "current trends" include the practice of widespread deregulation. While real events show regulation rising and falling, there has been a general, well-documented downward trend in protective regulation and somewhat in market-opening regulation. If this trend were to continue, then within the next century we likely would see little distinguishable difference between credit unions and banks. However, it is important to keep in mind that because support for regulation waxes and wanes and in the United States is often a partisan issue, there are *many* factors that can influence the direction of regulatory policy. In short, the idea that *if current trends continue* is theoretically useful, but we must remember that the conditions required to satisfy that statement are unlikely, especially over a span of a hundred years. Yet there is plenty that can be done with these findings. They are empirically useful for future work and theory, they demonstrate that there is a potentially very valuable field of research that has been under-utilized by those seeking to understand how market functions and ideologies affect the people and societies in which they occur.

# Chapter Seven: Conclusions & Next Steps for Research

At the beginning of this dissertation, I posited the question, "Is there a meaningful difference between the stability of the Credit Union and Consumer Banking industries before the 1980s, and how have both industries' stability been affected by subsequent political-economic changes?" I expected to find a case study of what began as effective financial regulation in the credit union industry, weakened over time by the rise of an economic ideology which advocates for the removal of that regulation. By exploring this topic, I hoped that I would contribute to research that has focused on solving problems in the banking industry by studying potential solutions.

Initially, I explained the basic functioning of the consumer finance industry and the credit union industry itself, from its inception to present. Through this exploration of industry history, I noted that there was a strong inverse correlation between credit union size and failures. However, I suspected that the relationship was spurious and instead theorized that the correlation could be explained by regulatory change. This claim was strengthened by the observation that while credit unions had benefitted from certain key forms of deregulation, they were still deregulated to a lesser extent than banks and had still decreased their failure rates. After the early 1980s, credit unions suffered far lower rates of outright failure than banks during subsequent economic downturns.

The analysis revealed two things: regulation works, but while convergence under current conditions can eventually happen, it has not yet. Regulatory change had a greater effect on convergence than most other model variables, even if they were aggregated into categories of industry-level or economy-level variables. This effect was especially strong in reducing failures overall, and significantly affected stability (CNI and Loan-Share ratios), especially for Banks. The most telling finding was that when mapping these results onto the historical record, you could see that banks were able to leverage their market status and political power to push for continued deregulation. If not always consistently, this deregulation primarily benefitted them

and allowed them to maintain their market position. Conversely, they were able to reduce the level of deregulation permitted to credit unions; credit unions did still gain substantial freedom compared to the postwar years, but still more often faced increases in regulation than banks did. This may have ended up benefitting credit unions the most, as a balanced approach to deregulation allowed them stable growth.

Further study revealed a downward trend in the level of regulation credit unions are facing. This indicated that Credit Unions are beginning to win some legislative battles, despite their challenger position and relatively very small slice of the broad consumer finance market, hinting that if credit unions are winning legislative battles, those battles could be heading in the direction of bank-like levels of regulation. Yet while that eventuality could be coming, it has not arrived. The decrease in new regulatory legislation, though noteworthy, is not the same as active *de*regulation. Theoretically, credit unions may have solidified their challenger status sufficiently to reduce the burden of new rules, they have not yet become powerful in the consumer finance industry to actively *relieve* the expectation of regulation. That is, they have not yet become incumbent firms capable of setting the rules to which the broader industry must conform.

The convergence models showed that increases in regulation (especially market-opening regulation) can lead credit unions to meet and even proportionally surpass commercial banks in the consumer finance industry. However, the inconsistency of *actual* regulatory change requires me to conclude that while convergence *is* possible under certain conditions, those conditions have not been met. This makes theoretical and historical sense, as we can plainly observe that while there is increased similarity between these institutions, they are still by no means the same.

A key argument Fligstein made in the development of the Political-Cultural theory of markets is that growth is not just a matter of freeing up prices and markets. It is necessary to create rules of stable interaction. This is driven by the dominant policy domain and a collective understanding of what seems to have worked in the past. In the United States context, it seemed that the diminished growth of the 1970s was best addressed by policies that favored deregulation.

Though the savings and loan crisis Indicated that hypothetically some sort of balance is required, ever since then, "…in the United States, every economic crisis calls forth the response to deregulate and to reduce government in worker influence.(Fligstein 2002)" When this was done as the lead-in and response to the Savings & Loan crisis in the 1980s and early 1990s, deregulation opened up previously unavailable or unappealing markets for both Credit Unions and Commercial Banks. This caused their two industries to collide – suddenly they were both vying for overlapping consumer groups. Though commercial banks were unquestionably larger than credit unions, credit unions were incumbents in their own areas. Thus, they were able to manage to compete with banks on CUs' home turf, while credit unions were able to market to a broader consumer population.

**Theoretical Significance and Substantive Meaning**

The findings of this project support the theoretical claim that government intervention is necessary to produce more stable market outcomes. However, the current policy domain mediates that intervention through the interests of markets incumbents. In this case, regulatory intervention appeared in the wake of economic crisis, but each time the accompanying policy change was planned and implemented frequent feedback from banks. An interesting detail is that as credit unions grew and became more prominent, they began to also become involved in this process. This matches well onto the theoretical assertion that the policy domain that was established in the 1980s was one that expected the state to have a smaller role in making the rules and limit itself more to enforcement. But what this substantively mean?

Fligstein's Socio-cultural theory was markets was meant to provide a framework by which to understand that like anything else related to humans, markets too are social systems that are governed by rules of social interaction. And as with anything else social, culture and ideology provide and constrain opportunities and perspectives, and their outcomes remain social. There has been a large volume of theory discussing the importance of government intervention into markets, yet in the United States it is common perception that such intervention can only ever do more

harm than good. Using the framework of Fligstein's theory to consider how market transformations have changed the landscape of the consumer finance industry over the last 50 years, this study has found compelling evidence that not only does regulation ensure more stable and equitable outcomes, but that the removal or lack thereof causes distinctly worse outcomes. Such natural experiments are rare, yet this has been clearly shown by the preceding analysis.

An additional point to bear in mind is that historically, credit unions framed themselves (admittedly generously) as an emancipatory social movement meant to provide financial opportunity and literacy to those who were underserved or ignored by existing financial institutions and markets. For a field as concerned with inequalities as Sociology is, the lack of attention to the development of a system with such lofty goals (however well they may or may not have been met) is surprising. This study reveals that credit unions are institutions worthy of study, not just within the theoretical or empirical subfields of institutional research or organizations, but also for how they may serve as case studies for economic cultural and ideological change, community organizations with conflicting goals, and as shifting bridges between capitalist or federal and communal interests. How long did it take for these "financial institutions for the man of small means" take to serve the needs of nonwhite populations? Or female populations? Are they more or less likely to assign LBGT households the same financial privileges assigned to heteronormative families? Did they also participate in racist discriminatory policies before and in the wake of the subprime mortgage crisis? What was the role of credit unions in redlining policies?

**Implications & Future Research**

From this study, it seems apparent that we can learn much more about change in regulation and its effects from the study of credit unions. Sociologists have studied credit unions for their interest as organizationally unique institutions (Haveman on State-chartered credit unions in the 1990s), or for the community engagement performed by CUs outside the United

States. Yet credit unions have not been assessed for their regulatory significance in the US by sociologists, meaning that this dissertation had to break some new ground. Doing so has placed me in a position to make several recommendations for future study.

First, the loosening of requirements of the credit union industry and subsequent effects on stability needs to be assessed with greater attention to credit union sizes. While my measure of average assets per institution provides a decent though heavily aggregated measure of industry-level size. However, credit union stability and failure has varied *heavily* with credit union size. In the wake of the subprime mortgage crisis, for example, the greatest financial losses came from corporate credit unions, a much larger class of institutions that had much broader permissions for investments. Conversely, the greatest number of NCUA-forced liquidations came from the smallest institutions, which were found to have not-insignificant issues with fraud, many of which could be described as "one-person shops". While NCUA statistics do not divide liquidations or mergers by institution size, they do often report basic numbers such as assets, shares, and loans by institution size category, which can still be useful in a study of regulatory effects. Likewise, detailed information on corporate credit unions is hard to find, and there has been even less research on *them*, but the NCU-SIF does provide some aggregate data which can be used to situate them as players in a broader credit union industry. Given their massive losses and failures in the subprime mortgage crisis and Great Recession, including the failure and closure of US Central Credit Union (which functionally equivalent to the failure of a central bank), these are institutions that must be examined.

One accomplishment of this dissertation is that it was able to study the substantive differences between market-opening and social regulation, and important direction for future sociological research into regulation in a broad sense (and particularly for the financial industries), more work needs to be done on differentiating and clarifying these concepts. In this and select other studies, market-opening and social regulation have essentially been treated as function equivalents to the concepts of *deregulation* and *regulation*. However, my results indicate

that market-opening regulation is not only *not* inversely proportional to social regulation, but that a *decrease* in market-opening regulation could possibly have similar outcomes to deregulation as broadly conceived by the literature. That is, market opening regulation is still regulation, and should not be treated as *deregulation*. This differentiation can have substantial implications for how regulation is treated in sociological research. I would strongly recommend future researchers work to clarify these concepts and to refine potential measures of them. I suspect that the regulatory literature will be much better for it.

The question of what policy recommendation could come from this is a difficult one, not because solutions aren't apparent, but because policy recommendations must by nature have some level of feasibility, and within the constraints of American political culture, the solutions implied by this project are not. One important finding from this project is the confirmation that allowing institutions room for growth is good for them. While the idea that such a finding is novel is laughable, it does serve as some small indicator of validity, that this study has not found that credit unions should stay as small as possible. For the natural-person credit union, growth has largely been good.

However, it appears that the reason that growth has been good for credit unions is that it did *not* come with a long-term pattern of massive deregulation. While there was a measure of deregulation in the 1980s, there was more *market-opening* regulation. This made it easier for credit unions to flourish in the newly merged consumer finance markets, while still being prevented from participating in the toxic assets that have repeatedly hurt commercial banks and savings & loans. Corporate credit unions suffered substantially in the subprime mortgage crisis because they *did* have access to investments in toxic assets, so this is an area worth continued examination. A simple policy recommendation would be to once against separate consumer banking services from investment services, requiring firms to do one or the other. However, given the way that large institutions have come to rely on income from consumer banking, and the 'too big to fail' outcome of financialization, it is not clear how such a project could be accomplished,

of what institutions would look like after such a change. That alone would be a topic worthy of study.

One lamentable element missing from this study that I would most encourage researchers to pursue in the future is that of culture. While this study asserts that a cultural change has occurred, and assess its outcomes, it was unable to directly measure that cultural change at the industry and firm levels. On some level, this may be required to truly assess the level and extent of convergence occurring, on an ideological level if not practical. There is some evidence that this is happening, as the current group of NCUA officials are seeking policy changes that would narrow the behavioral gap between credit unions and commercial banks.

Finally, given the solidly global nature of financial markets, it is fair to ask why this project did not engage with the research on globalization. There are a few reasons. First, for most of their history, and arguably for much of the time that globalization has existed as an observable reality, its connection to American credit unions has been minimal. That is not to say that they have been untouched by the phenomenon – I am not convinced that that argument could be made convincingly about most topics. However, when we think of global finance, the assets most thought of are stocks, derivatives, and a broad array of large of complex investments known as securities. As communally owned institutions, credit unions have not been closely involved with or even allowed to make some of these types type of investments until relatively recently. When they first appeared as commodities, credit unions were not able to work with mutual funds. Today they are permitted to invest in a range of securities, but generally must do so through corporate credit unions, much like how people usually must go through an investment firm to purchase stakes in such investments. Further, the average person-level credit union is still restricted in its investment options. Thus, there are fewer connections to global financial markets. This lack of connection is also maintained by their still relatively conservative financial practices, which served them well during the more recent crises.

A major factor insulating American credit unions from globalization is their common bond requirement – because all members must have something in common, they are usually regionally bounded, either by being *defined* as a regional credit union, or because the association of their members is innately geographically limited. For example, even though people who do not live in Kentucky might be members of the UK Federal Credit Union because of their alumni status, there is not a sufficiently large eligible population outside Kentucky to justify substantial expansion for the UKFCU. An additional reason that this project did not engage with globalization is a matter of scope and comparability. Credit Unions in the US are different from credit unions in Germany, credit unions in Italy, and credit unions in France. This is in terms of structure, value system, membership, and regulation. While a comparison is certainly interesting and worth pursuing, doing so was far outside the practical scope of this project.

This project was inspired by the 2008 US financial crisis, which led me to ask why some types of financial institutions fared better than others, and how that might lead us to more stable financial markets. It was driven by a concern about the prevalence of anti-egalitarian arguments about how institutions *had* to function to survive. To better understand the issue, I studied existing literature to find that there are substantive criticisms of the innate instability of markets, and that empirical evidence supports the efficacy of regulation to mitigate market risks. Having confirmed that regulation is a key element in market stability, I sought a theoretical approach that allowed me to take a politically, economically, and historically holistic view of the personal finance industry. I applied this perspective to an analysis of the consumer finance market, focusing on banks and credit unions, from the 1970s to the present.

I found that the development of a capitalist-centered policy domain allowed market-based ideologies to flourish and shape the outcomes of credit unions in such a way that they could become less stable over time, but that time has not yet come. However, I also confirmed two conflicting developments, both consistent with the political-cultural theory of markets. First, regulation is required to maintain industry stability, a finding consistent with the large volume of

theoretical work on the topic. Second, also consistent with both the political-cultural theory and other sociological works, the United States is not moving in that direction, at least not for the consumer finance industry. This indicates that the US will continue to see cycles of bear and bull markets, punctuated by cyclical recessions for as long if it maintains its current economic-ideological orientation.

This research is important beyond the existence of a clear gap in the literature. Scholars across disciplines have observed with concern the apparently increasing incidence of stock market crashes, panics, and crises since the postwar years (1950-1970), including the increasing occurrence of stock market volatility in response to social and political events (Minsky 2008, Minsky 1984, Minsky 1992). It is my hope that this project may help sociologists to better identify ways to control these patterns of economic instability, while still permitting tenable industry growth.

Glossary of Terms

**Capital** - Wealth in the form of money or other assets owned by a person or organization, which may be available for investing.

**Capital Asset** – (For businesses) An asset with a useful life longer than a year that is used to generate revenue, that is not intended for sale in the regular course of the business's operation. An example would be a computer used to track inventory in a business.

**Conception of Control** – A cultural framework which defines who is an incumbent and who is a challenger and why (i.e., defines the social structure); prescribes how competition will work; and provides actors with cognitive frames to interpret the actions of other organizations.

**Derivative** - An asset, such as a future or option, the value of which depends on the price of another, "underlying" asset (MacKenzie and Millo 2003).

**Equity** – (1) On a balance sheet, equity represents funds contributed by the owners (stockholders) plus retained earnings or minus the accumulated losses. (2) Net worth of a person or company computed by subtracting total liabilities from the total assets. In case of cooperatives, equity represents members' investment plus retained earnings or minus losses (BusinessDictionary.com).

**Exogenous Shock** - An unexpected or unpredictable event that that occurs from outside a particular market, industry, or economy, which affects that market, industry, or economy either positively or negatively.

**Field** – A social space in which Collective actors try to produce a system of domination via a local culture that defines social relations between actors.

**Firm** - A firm is a for-profit entity that sells goods and/or services for profit and includes all business structures and trades. In economics, a firm might be differentiated from a business in that a firm would primarily provide services, whereas business may be oriented more towards commodities and goods.

**Floating Debt** – Short-term debt that is continually refinanced, renewed, or rolled over to meet ongoing operational requirements (BusinessDictionary.com).

**Free Market** - an economic system in which prices are determined by unregulated competition and exchanges between privately owned businesses and/or consumers.

**Future** - A standardized exchange-traded contract in which one party undertakes to buy, and the other to sell, a set quantity of an asset at a set price on a given future date (MacKenzie and Millo 2003).

**Ideology (Economic)** - A framework of norms, values, and cultural notions that are used to understand the [economic] world in which we live.

**Lagging indicators** - Economic and financial-market indicators which tend to change only after an economy has already changed or has begun to follow a pattern or trend. They trail behind (usually by six months) the overall economic cycle instead of moving with it (as coincident indicators do) or moving ahead of it (as leading indicators do). Major lagging indicators include the unemployment rate, outstanding consumer loans, outstanding business loans, business spending, business profits, book value of business inventories, unit labor costs, and consumer price index (CPI) (BusinessDictionary.com).

**Leading indicators** - materialize before a recession is officially declared. Perhaps the most common leading indicator is contraction in the stock market. Declines in broad stock indices, such as the Dow Jones Industrial Average (DJIA) and Standard & Poor's (S&P) 500 index, often appear several months before a recession takes shape (Investopedia 2017).

**Not-for-Profit** - Not-for-profit organizations are types of organizations that do not earn profits for its owners. All the money earned by or donated to a not-for-profit organization is used in pursuing the organization's objectives and keeping it running.

**Options** - Contracts that give their holders the right, but do not oblige them, to buy – or, in an alternative form of the contract, to sell – an asset at a set price on, or up to, a given future date (Benuza, Hardie and MacKenzie 2006; MacKenzie and Millo 2003).

**Recession –** two consecutive quarters of GDP decline, supplemented by two types of indicators: leading indicators and lagging indicators (Investopedia 2017).

**Regulatory Regime** - A system in which agencies are created to enforce general rules and markets but do not decide who can own what or make wet investment.

**Regulatory Void** - Spaces in which government regulation is perceived to be deficient. Free-market proponents claim that self-regulation will appear to fill the space, while pro-regulation arguments say that a failure to impose regulation in these spaces will result in a market failure.

**Short selling** - Selling an asset one does not own, e.g., by borrowing it, selling it, and later repurchasing and returning it (MacKenzie and Millo 2003).

**Solvency** - Solvency is the ability of a company to meet its long-term debts and financial obligations. Solvency is essential to staying in business as it demonstrates a company's ability to continue operations into the foreseeable future. Not to be confused with liquidity, which related to the ability to assemble funds needed in the short term.

**Stock-Index Future -** A contract that yields a pay-off that follows the prices of the stocks making up the index.

**Volatility** - The extent of the fluctuations of a price, conventionally measured by the annualized standard deviation of continuously compounded returns on the asset (MacKenzie and Millo 2003).

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Curriculum Vita

Grace E. Cale

## Education

***University of Kentucky***, Lexington, Kentucky
**Graduate Certificate in Social Theory** May 2015
**Master of Arts in Sociology** May 2014

***Berea College***, Berea, Kentucky May 2012
***Bachelor of Arts in Sociology***

***George Washington University***, Washington, District of Columbia Summer 2011
Semester in Washington Politics Program: Coursework in Electoral Politics, Practicum in Political Management.

***Western Kentucky University***, Bowling Green, Kentucky June 2009
Kentucky Institute of International Studies: Poland and Ukraine Study Abroad Program

## Professional Positions Held

***Data & Reporting Specialist*** Fall 2018-Present
US Sponsorship Operations, Save the Children Lexington, Kentucky

***Instructor*** Fall 2012-Spring 2018
Sociology Department, University of Kentucky Lexington, Kentucky

***Instructor & Teaching Assistant*** August 2012-May 2018
Sociology Department, University of Kentucky Lexington, Kentucky

***Administrative Assistant*** April 2015-August 2016
Elswick Chiropractic & Associates Lexington, Kentucky

***Café Associate*** Summer 2012
Panera - Palomar Bakery & Café Lexington, Kentucky

***Senior Communications Consultant*** August 2010-May 2012
Center for Transformative Learning, Berea College Berea, Kentucky

***Research Intern ("CREW's Most Corrupt", "Family Affair" Reports)*** Summer 2011
Citizens for Responsibility and Ethics in Washington Washington, DC

***Teaching Assistant*** Fall 2010
Sociology Department, Berea College Berea, Kentucky

***Senior Technician*** August 2008-May 2010
Information Systems and Services, Berea College Berea, Kentucky

## Scholastic & Professional Honors

### Editorial Experience

Editor, ***(dis)Closure: A Journal of Social Theory*** Spring 2014-Spring 2015
***Issue 24: Market Failures, Famines, & Crises***

### Committee Nominations & Participation

Univ. of Kentucky Graduate Council, Student Representative Fall 2014-Spring 2015
Univ. of Kentucky Graduate Student Congress 2013-2014
Executive Committee, Technical & Policy Officer
Eastern Kentucky Heritage Monument Advisory Board, Student Representative 2007-2008

### Conference Selection

**Society for the Study of Social Problems** August 17, 2014
*Neoliberalism's High Tide: Tracking the Effects of a Political-Economic Wave*
**North-Central Sociological Association** April 4-7, 2013
*What's the Point?: Political Cynicism and Disillusionment Among Poor College Students*
*Mistrust, Cynicism, and the Government: Would You Still Vote?*
**American Sociological Association Annual Meeting** August 17-20, 2012
*What's the Point?: Political Cynicism and Disillusionment Among Poor College Students*
(Honors Program)

### Awards & Scholarships

Innovation & Excellence in Performance Awards of Save the Children US, Chairman of the Scholarship Committee of the Alpha Sigma Xi Mortar Board Chapter, President of the Alpha Sigma Xi Mortar Board Chapter (Spring 2012), Award for Outstanding Service in Mortar Board, Dallas and Betty T. Johnson Sociology Award, Lyman T. Johnson Fellowship (2012-2014), American Sociological Association Honors Program (2012), Howard M. Beers Summer Research Fellowship (2013)