Financial Alcoholism: An Institutionalist Analysis of the Repeal of the Glass-Steagall Act and 2008 Financial Crisis

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Dedication

To those who lost their homes, jobs, security, and livelihood from the 2008 Financial Crisis, I dedicate my thesis. Additionally, to my grandmother Chheng Sameth and friend Lukas Koppinger who I lost along the way.

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Introduction

"Men sought not to be persuaded of the reality of things but to find excuses for escaping into the new world of fantasy." - John Kenneth Galbraith, The Great Crash of 1929

Imagine you are a bartender. An alcoholic patron, for whom you are legally responsible, is sitting at the bar already incredibly and unsafely intoxicated. They demand another drink, but, taking your responsibility seriously, you refuse to serve them. You know that the patron will probably go elsewhere for their drink, but you feel obligated to prevent a disaster in the moment. Now imagine that you are the federal government of the United States and the patron is the financial sector. Finance is addicted to speculation and is demanding for deregulation. You can cut it off or feed its addiction. In the case of the Repeal of the Glass-Steagall Act in 1999, we chose to serve the drink and worsen a disaster.

The Financial Crisis of 2008 was famously a creature of the housing bubble that had been developing since the early 2000s. Fueled by rampant securitization of subprime mortgages and derivatives, the financial sector boomed, drawing in millions of people into investment and speculation. In 2008, this bubble burst, causing one of the worst financial crises in recent history.

Treasury Secretary Janet Yellen in testimony to the Senate Banking Committee stated that the repeal of the Glass–Steagall act was not responsible for the financial crisis. Whether or not Yellen believed this or not is a separate issue, but the rhetoric exists amongst those with the highest power over legislation. It is true that the repeal was not the sole cause of the crisis but some economists have argued that it allowed the financial sector to grow exponentially faster than before and empowered banks to operate more dangerously. There is most certainly a debate on the consequences of the repeal.

The extraordinary work of financial historians and historical economics is arguably more useful to understand financial crises than the advanced regression analysis that plagues modern economics today. Economists whose work was successful in predicting or, at the very least, laying out the foundational steps of the 2008 Financial Crisis presented arguments that reflect the nature of financial crises more bound to reality than the purely rational-leaning quantitative methods of econometricians. After the financial crisis, university courses multiplied around the world in economics and finance that attempted to explain the events of 2008 through mainly a neoclassical approach. However, the earlier inventions of John Kenneth Glabraith, Hyman P. Minsky, and Charles Kindleberger are often cited for providing alternative, yet more convincing, explanations of the nature of financial markets, financial crises and depressions. Commonly called the "money view", promoted by the likes of their proteges such as L. Randall Wray of the Levy Economics Institute of Bard College and Perry Mehrling of Boston University, the alternative school of thought emphasizes the often neglected role of financial markets in economic outcomes. Money matters. Given the greater success and accuracy of this "money view" tradition in predicting financial crises than its mainstream counterpart, I will utilize institutionalist approaches to explain that the repeal of the Glass-Steagall act in 1999 was not a catalyst for the 2008 Financial Crisis but contributed to its severity.

The thesis will begin with a revision of Keynes and Minsky's perceptions of the nature of financial crises; followed by an examination of the Glass-Steagall act, a review of its contents, history, purpose, and repeal. The next chapter will review previous research as to whether the repeal had an influence on the events of 2008 and, after, my own analysis will be laid out based on quantitative and qualitative research.

My analysis will come from an institutionalist economic perspective, an interdisciplinary approach focused on exploring how the evolutionary process and institutional changes shape economic behavior. The laws and regulations invented by the government influence how individuals interact with other economic agents. Galbraith, Schumpeter, Keynes, Minsky, and Kindleberger had different ideas of how the capitalist economy operates but all understood how the system changes overtime through its institutions and that an evolutionary theory of the economy is necessary to explain economic behavior. My thesis will emphasize the importance of structural changes to the financial system and how it changes capitalism.

The final remark of my introduction is that my paper will not argue that neoclassical or new-Keynesian economics or econometric analysis are necessarily wrong but are missing both a historical perspective and the importance of the financial system in economic outcomes. Therefore, the "money view" I will use is an attempt to put the financial sector and market irrationality together.

Chapter I: Theories on Instability

"Institutional economics, furthermore, cannot separate itself from the marvelous discoveries and insight of the classical and psychological economists. It should incorporate, however, in addition, the equally important insight of the communistic, anarchistic, syndicalistic, fascistic, cooperative and unionistic economists." - John R. Commons, Institutional Economics

Since the works of Adam Smith, countless economists, historians, and philosophers have constructed their own theories on the existence of economic catastrophe. Karl Marx proposed a theory of a falling rate of profit, Milton Friedman claimed that central bank manipulation of the money supply was at fault, and the real-business-cycle-economists blamed technological change for creating shocks. Today, there are a variety of theories that attempt to explain these phenomena. Mainstream economics has turned towards econometric and general equilibrium models that assume rationality in the financial markets. Rationality, in economics terms, implies not only that economic units are self-serving and logical but that individuals have "precise knowledge of future events [because] all information [is] available about the past and present circumstances" (Skidelsky 2010, p. 34). If rationality and perfect information exist, there is no possibility of large crises that stem from endogenous unforeseen events. Thus, financial crises and instability can only be a result of external shocks such as war, governmental intervention, technological changes, and population fluctuations.

Keynes

After the Great Depression, John Maynard Keynes realized that the existing classical economic theory failed to predict and explain the emergence of the world's worst depression in recent history. His theories stem from the ideas of irrationality, expectations, and uncertainty. Even though he believed people are rational individually, the defining difference between Keynes's economics and neoclassicism is the "difference in the state of knowledge which market participants are assumed to have" (Skidelsky 2010, p. 75). His influential book, *The General Theory of Employment, Interest, and Money*, was an attempt to explain how fundamental uncertainty is a chronic flaw in the capitalist economy and that because agents do not truly know the future, unemployment and instability will persist unless the government steps in. In summary, Keynes believed in an "endogenous theory of the cycle—it is in the nature of capitalism to cycle due to whirlwinds of optimism and pessimism" (Wray 2017, p.58).

Importantly, in Chapter 17, Keynes introduces the idea of thrift into economic theory. While he makes the case that expected proceeds and returns are important factors determining economic activity, he also considers the determinants of the propensity to save and the interest rate. He advances the importance of liquidity-preference as decisions to save or spend are also influenced by expectations of risk. "The mere definition of the rate of interest tells us in so many words that the rate of interest is the reward for parting with liquidity for a specified period of time" (Keynes 1964, p. 167). Keynes provides three classifications of liquidity-preference: the first is the transactions-motive where people or businesses save because they need cash on-hand for common transactions; the second is the precautionary-motive where saving takes place to fulfill a desire for security; and the third is the speculative-motive where money is allocated with the objective of making profit from 'outsmarting' the market. The rate of interest, determined by liquidity-preference now is included into the equation for the inducement to invest and hire more labor: $q - c + l$, where quasi-rents (the expected yield of a capital-asset), the carrying cost of the asset, and liquidity (and therefore the rate of interest), all play parts in the determination of the total return from the ownership of a capital asset.

Keynes concludes that the level of investment and saving in the aggregate of the economy, and, thus, the trade cycle, is determined by uncertainty and expectations of the future. As predictions of the future worsen, people choose to spend less, firms decrease production and hire fewer workers, investors invest less, thus lowering employment and sending the economy into a downturn. The importance of Keynes is that he teaches us that the expectations of returns on investment and how we allocate our savings (the level of speculative activity) is important in determining the stability of the economy. Money matters. The decade before 2008, we saw an explosion of speculation as people began to part from liquidity as risk was seemingly low. Increasingly high profits and returns during this time inspired rampant speculation in the subprime mortgage markets, causing housing prices and derivatives on these mortgages to rise even further. The endogenous operations of the business cycle were taking place.

Minsky

Hyman P. Minsky, drawing from Keynes's work, introduced the financial instability hypothesis, a theory detailing a capitalist economy with destabilizing financialization and endogenous crises. He describes a "money view", contrary to orthodox theory, where the economy is " capitalist [...]

with expensive capital assets and a complex, sophisticated financial system" (Minsky 1992, p. 2). Agents in the financial sector are profiteering institutions just like private businesses. For example, bankers and other financial intermediaries are "aware that innovation assures profits [and] strive to innovate in the assets they acquire and the liabilities they market" (Minsky 1992, p. 6). The profiteering and financial innovation of the financial sector help determine the levels of bank credit and debt-risk in an economy and are dependent on the amount of regulation.

Minsky proposed that there are three financial profiles for economic units indicating debt-risk level: hedge, speculative, and Ponzi financial schemes. These categories of economic units are measured by their income-debt relations. Economic units with income great enough to fulfill their principal and interest payment obligations are operating under hedge finance. This is considered the safest type of activity as there is no risk of default for the debtor. When income covers interest payments but not principal obligations, we call this speculative finance. Economic units operating under speculative finance tend to roll over debt (issuing new debt). As income is too low to meet contractual obligation payments, economic units enter Ponzi finance and must take on more debt to pay off the existing liabilities and will increase their liabilities or sell off assets to meet interest payments.

These financial arrangements are susceptible to a variety of forces that may cause them to shift into different financing schemes. Hedge-financing units are vulnerable to higher costs or falls in quasi-rent or revenue but are not directly affected by interest rates because they do not need to roll over or take on more debt. Both speculative and Ponzi financing units are impacted by changes to the financial market. As interest rates go up, for example, speculative-financing units may need greater revenue to cover cost interest payments or, more likely, have to rollover debt with less favorable arrangements. While also facing risk from the financial markets, Ponzi-financing units' balance sheets "deteriorate as interest or even dividends are paid by increasing debts" (Minsky 2008, p. 232). Thus, Ponzi-finance is unsustainable and may lead to default unless the unit restructures their portfolios. As mentioned above, the risks associated with each profile may force an economic unit into another profile. Over the business cycle, these forces push economic units into greater debt levels until the central bank or another overseeing entity steps in, which is usually too late. The institutions that regulate financial innovation, interest rates, and banking activity serve to reduce the transition into unstable financial schemes. It is this nature of the financial system that Minsky describes as a destabilizing characteristic of the capitalist system. The financial instability hypothesis is important to our investigation because it provides us with an understanding of how the consumer-financial sector relations influence the real economy and how government regulation on the financial sector may impact the transition from one financial profile to another.

Furthermore, according to Minsky, the financial sector is an "accelerator of the business cycle– in both directions" (Wray 2017, p. 31). Expectations of stability will allow for debt expansion during a boom as agents feel confident in taking on more debt. However, as profits fall, private sector surplus shrinks, or expectations decline, economic units who have taken on debt burden may not be able to service their debt payments. As Keynes and Minsky argue, governing forces should attempt to mitigate this cycle.

The institutional design of financial markets is thus important in the stability of the economy. Minsky utilized an evolutionary approach in his analysis of capitalism, recognizing that the system comes in many shapes and forms, evolving from one stage to another, with different regulations and financing schemes and profiles that determined instability. He understood the effects of regulation and financial market-shaping by the government, Federal Reserve or other financial regulators, that he called “circuit breakers”. These institutions determine the stability of the financial system as the acceleration of debt accumulation is dependent on the amount and effectiveness of regulation. Types of regulations can range from portfolio management of banks such as reserve requirements, separating banks that have gotten too big to fail to expanding regulation on shadow banking or limiting the issuing of financial sector credit. We will explore in the following chapters how certain changes have affected the stability of the US financial system in the decades leading to the crisis.

Additionally, Minsky noted that the size of government, measures used to constrain instability, and types of investment and innovation were of high importance in the evolution of capitalism (particularly the primary position-making asset)[1]. Since I will use an institutional approach for this analysis, I will also include government size, other forms of regulation, and the types of innovation to understand how the Repeal of the Glass-Steagall act interacted with these other factors.

For the first, the sectoral balances approach developed by Wynne Godley, a former colleague of Minsky’s at the Levy Economics Institute of Bard College, allows us to see how the size of government, specifically the size of the federal deficit affects private sector security. This is shown through the macro accounting identity:

$$(T - G) + (S - I) + (M - X) = 0$$

[1] Minsky explains in *Stabilizing an Unstable Economy* that the primary position-making asset changes over time to avoid regulation such as reserve-requirements and interest-rate ceilings.

Public Sector Balance + Private Sector Balance - Current Account Balance = 0

Given that the US economy has been in an increasing current account deficit for the past half-century, a public sector deficit ($T < G$) would mean that the private sector would be in surplus ($S > I$). The greater the savings of the private sector whether it be from more government spending or a surplus in the current account balance would mean that a greater amount of investment could come from savings rather than debt or that a greater portion of economic units would be operating under hedge financing than otherwise. A private surplus would create favorable conditions for businesses and derail reliance on debt-financed investment. In other words, “an expansion led by private sector deficit spending (with firms borrowing to finance investment in excess of internal income flows) implies that private debt might grow faster than private sector income” (Wray 2017, p. 63).

The size of government and financial regulation differ in each stage of capitalism. There are at least five stages of capitalism in Minksy's analysis of capitalist development in the United States: merchant capitalism (1607-1813), industrial capitalism (1813-1890), banker capitalism (1890-1933), managerial capitalism (1933-1982), and money-manager capitalism (1982-present) (Whalen 1999). These can also be divided into many more stages. In the nineteenth century, “commercial capitalism” was the main form of finance with a majority of investment coming from commercial banks. With the exception of a number of bank runs that were tamed by the central bank acting as a lender of last resort, financial activity was relatively safe (Wray 2017, p. 37). In the early twentieth century, “finance capitalism” came about, an era where the majority of corporate investment came from investment banks. External debt from both domestic and international financial markets was a growing source of finance for corporations. In the decade leading up to the Great Crash of 1929, investment banks focused their efforts into speculation. As Wray describes in *Why Minsky Matters*, speculation was devoted to financial instruments that the trust subsidiaries of the investment bank issued themselves. As the Great Depression came to an end and the New Deal period began, the size of government and regulation substantially increased. The Keynesian era had begun. Minsky called this “Managerial-Welfare State Capitalism.” The large government deficit and the role of governing institutions provided a more stable form of capitalism. The postwar era was defined by the large government management, oligopolistic markets, and negligible foreign sector (Whalen 1999). In the 1980s, “money manager capitalism” emerged as large repository investors called money managers began to dictate the direction and outcome of financial markets with the single goal of maximizing the value of investment through mainly speculation (Whalen 1999). In consequence, “business leaders became increasingly sensitive to short-term profits and the stock-market valuation of their firm,” increasing a tendency for instability (Whalen 1999). To this day, the United States has been operating in this stage.

In my analysis, I will explore how institutional change through the repeal of the Glass-Steagall Act interacted with changes in the sectoral balances, money manager capitalism, and financial innovation to worsen the 2008 Financial Crisis.

Chapter II: The Glass-Steagall Act

"It is the purpose of government to see that not only the legitimate interests of the few are protected but that the welfare and rights of the many are conserved." - Franklin Delano Roosevelt, Looking Forward

Economic theory has an immense impact on the way economists understand economic events. Numerous scholars have attempted to explain the Great Depression through the lens of rationality, turning to mismanagement of money supply by the Federal Reserve or the widespread insolvency of debtors (Friedman and Schwartz 2008; Bernanke 1983)[2]. I find these explanations unsatisfactory as they do not attempt to explore the crisis outside of the bounds of rationality and do not take into account the evolution of the financial sector. Instead, I propose that through an institutionalist lens we can understand how the design and evolution of an economy affects the rationality (or irrationality) of the financial sector at a greater capacity. Galbraith, in *The Great Crash of 1929*, refutes the monetarist claim that the crash was the fault of "easy money policy," and a restructuring of the rediscount rate from 4 to 3.5 percent (Galbraith 2009, p. 7). He explains that if we assume this to be true, then people "will always speculate if only they can get the money to finance it," and it is rather the fault of the Federal Reserve authorities and not the American people or the economic system for the collapse of the stock

[2] Former Federal Reserve Chair Ben Bernanke was awarded a Nobel prize in economics for a 1983 paper that built upon the monetarist arguments of Friedman and Shwartz's and added that the Great Depression was also the result of incomplete financial markets. Additionally, Bernanke states that Minsky and Kindlerberger depart too far from the assumption of rationality to accept their arguments.

market (Galbraith 2009, p. 7). Galbraith provides a convincing exposition focusing on how there was little to no regulation on risky financial innovations such as lending-on-margin and trusts that emerged and exploded in popularity and how other weaknesses in the economy caused the Stock Market Crash of 1929. He provides an alternative approach, describing how the "speculative mood" occurred during the build up of economic prosperity in the 1920s. He finds five weaknesses in the economy that contributed to the crash: Firstly, there was high income inequality, allowing for the economy to be vulnerable to the stock market. Secondly, economic agents such as holding companies and investment trusts were pushing high levels of leverage, contributing to deflationary pressures. Thirdly, the banking structure was inherently weak due to the large number of banking firms that were operating independently. Fourthly, the foreign trade balance contributed to general distress as United States' credits (including war debts) to foreign countries resulted in defaults. Finally, the poor state of economic intelligence from those such as economists and businessmen who counseled decision-makers who encouraged measures that would exacerbate problems in the economy. Ultimately, an important takeaway from *The Great Crash of 1929* was that a lack of financial regulation was a leading cause of the catastrophe. It affected at the very least the second and third contributions to the crisis by affording the financial sector to expand and burst when economic conditions worsened, causing the Great Depression.

The Life of Glass-Steagall

In 1933, Congress proposed legislation, seeing the need for institutions to protect consumers and reduce instability. Part of the Pecora Commission, the Banking Act of 1933 (now referred to often as the Glass-Steagall Act), introduced by Senators Carter Glass and Henry Steagall and signed into law by President Roosevelt, was an attempt to increase regulation on the innovative yet dangerous financial sector. The contents of which were the controversial establishment of the Federal Deposit Insurance Corporation, and most important to the paper, the implicit separation of investment and commercial banking. The act entailed that banks were given a year to specialize between commercial or investment banking. Along with these statutes, banks were subject to mandatory and frequent reporting to the Federal Reserve. If they were to fail this requirement, they would be fined repeatedly.

Section 16 of the act limited national banks' dealings in, underwriting, and purchasing of specified securities. Specifically, these banks could only invest and trade in securities issued by the local, state, and federal governments as well as federal agencies such as from the Federal Farm Loan Act, Federal Home Loan Banks, or Home Owners Loan Corporation. These are called bank eligible securities. Section 20 barred member banks from affiliating with firms whose operations are primarily in securities activities. Section 21 made it illegal for a financial institution to take part in both holding deposits and investing in securities with the exception of bank eligible securities. Section 38 disallowed for any director, officer, or manager of an investment firm or member bank to correspond with any member bank unless the Federal Reserve Board permits so. Importantly, the provisions of the legislation did not directly address shadow banking or speculation from non-commercial bank entities.

Since its inception, but most intensely in the 1970s and 1980s, lobbies from the financial sector pushed for the act’s repeal (Crawford, 2011, p. 128). After decades of relative stability in the New Deal Era, the Glass-Steagall Act had been abraded by amendments to the laws and provisions and changes in financial markets. Pressure arose throughout the Post-War era from inflation along with worsening economic conditions, reducing the profitability of the commercial banking sector (E. Murphy, Carpenter, and M. Murphy 2016, p. 9). Smaller depository banks found it increasingly difficult to compete in the corporate lending markets compared to larger banks. New financial innovations such as certificates of deposit and commercial paper presented new means of avoiding reserve to deposit requirements to make more profit, thus shifting the importance of deposits onto other instruments (Minsky 2008). Financial pressure on smaller banks and the "declining importance of deposits as a share of the financial sector" supported the push for deregulation of the financial sector (E. Murphy, Carpenter, and M. Murphy 2016, p. 10). Furthermore, statutory changes and judicial interpretations had been implemented that allowed for the deterioration of the act. For example, the Federal Financial Bank Act of 1973 and Housing and Community Development Act of 1974 allowed for Fannie Mae-issued securities and Freddie Mac-issued securities to be added to the bank-eligible securities list utilized for Section 16 of the Glass-Steagall Act. The Bank Holding Company Act of 1956 allowed bank holding companies to own shares of companies whose activities that the Board considers to be so closely related to banking activities that became increasingly similar to investing activities (E. Murphy, Carpenter, and M. Murphy 2016, p. 10). Further attacks on the Glass-Steagall act persisted throughout its lifetime and allowed for increasing speculative activities in commercial banking. In the 1980s, the Federal Reserve reinterpreted the act and afforded securities activities to account for up to 5 percent, and upon later revision in the late 1980s, 10 percent of commercial banks' total revenue (Crawford, 2011 p. 129). In 1987, the Federal Reserve Board voted 3-2 to allow commercial banks to engage in securities underwriting at an even greater capacity (Lardner 2009). In 1998, Federal Reserve Chair Greenspan raised the 10 percent securities-revenue ceiling to 25 percent (Lardner 2009).

Crawford (2011) summarizes of the Glass-Steagall Act debate of the 1980s:

> The Case for Preserving the Glass-Steagall Act:
>
> 1. Conflicts of interest characterize the granting of credit - lending - and the use of credit - investing - by the same entity, which led to abuses that originally produced the Act. 2. Depository institutions possess enormous financial power, by virtue of their control of other people's money. Its extent must be limited to ensure soundness and competition in the market for funds, whether loans or investments. 3. Securities activities can be risky, leading to enormous losses. Such losses could threaten the integrity of deposits. In turn, the Government insures deposits and could be required to pay large sums if depository institutions were to collapse as the result of securities losses. 4. Depository institutions are supposed to be managed to limit risk. Their managers, thus, may not be conditioned to operate prudently in more speculative securities businesses...
>
> The case against preserving the Glass-Steagall Act: 1. Depository institutions will now operate in 'deregulated' financial markets in which distinctions between loans, securities, and deposits are not well drawn. They are losing market shares to securities firms that are not so strictly regulated and to foreign financial institutions operating without much restriction from the Act.
> 2. Conflicts of interest can be prevented by enforcing legislation against them and by separating the lending and credit functions through forming distinctly separate subsidiaries of financial firms.
> 3. The securities activities that depository institutions are seeking are both low-risk, by their very nature, and would reduce the total risk of organizations offering them, by diversification. 4. In much of the rest of the world, depository institutions operate simultaneously and successfully in both banking and securities markets. Lessons learned from their experiences can be applied to our national financial structure and regulation.

In 1999, Congress, weighing these sides, enacted the Financial Services Modernization Act of 1999 (Gramm-Leach-Bliley Act) that repealed parts of the Glass-Steagall act, voting: 362 to 57 in the House and 90 to 8 in the Senate (Labaton 1999). The Gramm-Leach-Bliley Act removed the prohibition of consolidation between commercial banks, investment banks, securities firms, and insurance companies (*Gramm-Leach-Bliley Act* 1999). Additionally, the act did not allow the Securities and Exchange Commission authority to regulate big bank holding companies (SEC 2008).

Partial Resurrection

After the 2008 Financial Crisis, lawmakers pointed their fingers at a lack of regulation of the financial sector. While not exactly a rebirth of the Glass-Steagall Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act) was introduced and passed in an attempt to prevent another financial crisis. Financial institutions with assets worth 50 billion USD or more are regulated in an attempt to increase resilience to financial crises and reduce their potential individual failure or material weakness on the whole financial system (Stackhouse 2017). Most importantly, the act was an attempt to end "too-big-to-fail". Notably in the act is the introduction of the Volcker Rule, the "prohibition on proprietary trading and certain relationships with hedge funds and private equity funds (joint rule-making)" (SEC 2023). In other words, the Volcker rule prohibits banks from proprietary securities activities with hedge and private equity funds.

Overall, the deterioration of the Glass-Steagall Act since its inception in 1933 was pushed for by the financial sector in an effort to deregulate the system. As we shall see in later chapters, this deregulation, including the repeal of the Glass-Steagall Act led, ultimately, to economic catastrophe.

Chapter III: Literature Review

In the pluralist tradition, this section will explore previous analysis on the relationship between the Repeal of the Glass-Steagall Act and the 2008 Financial Crisis. There are essentially two perspectives in the literature: The first, is the belief that the repeal was a leading catalyst for the crisis and, second, is that the repeal had nothing to do with it.

Repeal Was a Primary Cause

Some scholars and policymakers have accused the repeal of the Glass-Steagall Act to be one of the main causes of the 2008 Financial Crisis. There are four main arguments used to support this claim: firstly, that the repeal of the Glass-Steagall Act allowed banks to become too-big-to-fail; secondly, the repeal made the banking culture investment driven; thirdly, it allowed for the rise of shadow-banking; and finally, that the removal of the affiliation restriction between investment entities and commercial banks gave way for underwriting standards to fall.

Too-Big-To-Fail

In 2013, then vice-chairman of the FDIC, Thomas Hoenig, gave a speech on the failure of government policy that led to the 2008 Financial Crisis (Hoenig 2013). He argued that the repeal of the Glass Steagall Act in 1999, along with the extended period of “exceptionally low” interest rates, had allowed credit standards to fall, expanded credit-reliance, and increased financial instability (Hoenig 2013). He pointed out that as the Gramm-Leach-Bliley Act was implemented, government protections were extended to more financial activities and firms. It afforded firms the ability to "access [...] the public safety net to control a much wider array of financial products and activities, and it provided them a sizable advantage over financial firms outside the safety net" (Hoenig 2013). Firms inside the net were able to increase their debt at lower costs while firms that did not have access merged with those within the net to remain in the game. As a result, the creation of a more monopolistic financial sector where "the failure of any one firm threatens the broader economy" (Hoenig 2013). Furthermore, the government subsidy for the financial sector paved the way for an increase in leverage. From 2000 to 2008, leverage utilized by the ten largest firms hit 22-to-1 and in some exceptional cases 47-to-1 (Hoenig 2013). When the panic had started, commercial banks were prompted to deleverage and the financial markets went into mayhem. In other words, the expansion of public subsidies for commercial banks through the repeal of the Glass-Steagall Act allowed them to expand to a point where they became so large that insolvency of one could jeopardize the stability of the entire system. The problem of too-big-to-fail had been reiterated by other notable policymakers such as Ben Bernanke (Bernanke 2010). Altunbas et al (2011) also attributes the development of large financial institutions in the United States to deregulation for the purposes of competing in global financialization and sees parallels with similar policy and consequences in the European Union.

Banking Culture

Hoenig also claims that before the act, commercial banking was practically the intermediation of financial payments and a system that converted "short-term deposits into longer-term loans," thus a win-win culture was cultivated where "the success of the borrow[er] meant success to the lend[er] in terms of repayment of the loan and growth of the credit relationship" (Hoenig 2013).

A win-lose culture came about as broker dealing and trading activities "began to dominate the banking mode" and changed the risk-return trade-off that had previously influenced bank behavior (Hoenig 2013). It changed the banking business model and encouraged riskier behavior at the expense of the borrower. Nobel-Prize-winning economist Joseph Stiglitz emphasized this point, stating that "the repeal of the Glass-Steagall Act played an especial role in the crisis, not just because of the conflicts of interest that it opened up (made so evident in the Enron and WorldCom scandals), but also because it transmitted the risk-taking culture of investment banking to commercial banks, which should have acted in a far more prudential manner" (Stiglitz 2009, p. 333). This is ultimately tied to the first argument as deregulation allowed banks to become too big to fail, and "perverse incentives [were established:] when it's heads I win, tails you lose" (Stiglitz 2009, p. 333). He continued that commercial banks traditionally were not high-risk entities and were to be prudent and careful as depositories (Stiglitz 2008). Alternatively, investment banking traditionally acted as a high-risk activity, meant to manage money of people willing to take big risks for greater returns (Stiglitz 2008). To meet the demand for high returns in the speculative period, high leverage and big risk taking was needed, thus investment banking culture prevailed (Stiglitz 2008). A report by the European Central Bank confirms that the banks with greater risk exposure were greater in size, had less capital, had aggressive credit growth, and relied heavily on short-term market funding (Altunbas, Managanelli, and Marques-Ibanez 2011, p. 8). Too-big-to-fail increased risky behavior and thus instability.

Additionally, another effect that the domination of investment culture in the banking sector argued by anthropologist Karen Ho is that it "help[ed] to create a model for banker actions, and it is a particular cultural model of work relations designed to be lockstep with their ideals of the market that is being imposed" (Ho 2009, p. 187). The corporate sector in response to the influence of investment banking's "culture of crisis" and work relations began to downsize and this contributed to a weakening of the economy during the period (Ho 2009).

Shadow Banking

As the separation between commercial and investment banking affiliation was eliminated, financial holding companies "actively facilitated the rise of shadow banking" (Nersisyan 2015, p. 6). A shadow bank is a non-depository financial institution that does not have access to Federal Reserve liquidity nor public guarantees. Their non-bank subsidiaries, mortgage lenders, and off-balance sheet activities originated loans created specifically for securitization (Nersisyan 2015, p. 6). Shadow banks contributed to the financial crisis "by originating the subprime mortgages, packag[ing] them into mortgage-backed securities, and distribut[ing] them throughout the financial system" (Gelzinis 2019). They were the vehicles that spread risky assets across the economy and threatened the stability of the system. Shadow banking had, in the words of Ben Bernanke, "come to play a major role in global finance; with hindsight, we can see that shadow banking was also the source of some key vulnerabilities" (Bernanke 2010). He also reported that within the four years leading up to the crisis, shadow banking grew rapidly, seeing repurchase agreements of broker dealers rising by 2.5 times (Bernanke 2010). These bank holding companies could not own broker-dealer subsidiaries under the Glass-Steagall Act, so they had to securitize these loans through unaffiliated and independent dealers (Nersisyan 2015, p. 7). If this separation was still implemented, "the incentive to do diligent credit analysis before granting a loan would arguably be higher" but since these bank holding companies controlled both the originator of the loans, broker-dealers, and commercial banks, "the evaluation of the quality of assets could be compromised" (Nersisyan 2015, p. 7). Furthermore, because of their size, interconnectedness, complexity, high leverage, and reliance on short-term financing, they became important institutions in the financial sector (Gelzinis 2019). Therefore, it was not only commercial banks but also shadow banks that were experiencing the problem of too-big-to-fail. The size of the financial institution, as well as credit expansion, lower dependence on customer deposits, and undercapitalization played a large part in increasing risk exposure to these institutions (Altunbas, Managanelli, and Marques-Ibanez 2011, p. 8). The rise of shadow banking and its critical role in the creation and transportation, as well as its importance in the financial sector attributed to the 2008 Financial Crisis.

Underwriting Standards

Another claim made is that mortgage underwriting standards used by financial institutions were worsened by the repeal of the affiliation restriction from the Glass-Steagall Act. It is argued that as banks entered the securities markets, in an attempt to capture initial market share, these banks reduced underwriting standards (E. Murphy, Carpenter, and M. Murphy 2016, p. 21). The Glass-Steagall Act would likely not have prevented independent shadow banks from entering the securities markets but it would have stopped bank-affiliates from doing so (E. Murphy, Carpenter, and M. Murphy 2016, p. 22). A report by the European Central Bank analyzing the underwriting standards over the progressive repeal of the Glass-Steagall from 1985 to 1999 found that the default rate was much greater for fixed-rate bonds underwritten by commercial banks than by investment firms (Focarelli, Marques-Ilabnez, and Pozzolo 2011, p. 14). Moreover, lower-grade issued bonds were particularly alarming as default rates for these instruments were 18.2 percent for those underwritten by commercial banks compared to a 12.8 percent by investment firms (Focarelli, Marques-Ilabnez, and Pozzolo 2011, p. 14). The reason for this is speculated to be the lowering of standards for underwriting caused by both the conflicts of interest as well as the increased competition of commercial banks in the securities markets to attain initial market shares.

Repeal Was Irrelevant

Even though the above arguments are appealing and valuable, there is an abundance of literature that argues that the repeal was irrelevant. There are two commonly posited points: commercial banks could still invest in mortgage-backed securities to some capacity even before the repeal and the failure of banks were not caused by investment bank activities but rather poor business operation.

Provisional Limitations

A frequently cited report by the CATO Institute claims that the repeal had little to no effect on the crisis. It argues the Glass-Steagall Act, according to the report, was never a useful regulatory policy to prevent bank failure and public losses in the first place and that the causes of the financial crisis were irrelevant to the Glass-Steagall Act (McDonald 2016, p. 3, 14). The explosion in subprime mortgage lending was the consequence of policy choices made by the Department of Housing and Urban Development to promote affordable housing (McDonald

2016, p. 15). It also affirms that the growth of banks cannot be blamed on the repeal because "barriers to merging with or acquiring banks in other states were removed by the Riegle-Neal Act of 1994, which led to a rapid increase in interstate banking before [...] 1999" (McDonald 2016, p. 3). Therefore, too-big-to-fail was not the result of the repeal but other policy choices.

Additionally, even though banks could not underwrite or deal in mortgage-backed securities, it did not prohibit commercial banks from purchasing and selling securities for their own investment purposes so banks could buy mortgage-backed securities as investments and "sell them whenever it suited their investment strategy" or to make position (McDonald 2016, p. 4-5). Therefore, commercial banks would still have access to certain securities activities. Wallach (2012) develops a similar conclusion as banking activity before the repeal was still realizable after the repeal. These commercial banks could not before or after 1999 "undertake various classes of risky activities" and, rather, what was changing in provisions was whether bank affiliates could undertake these activities under the same bank holding company (Wallach 2012, p. 8). Other researchers have agreed with this point, stating that the institutions that failed between 2008 and 2009 such as Bear Stearns, Lehman Brothers, Merrill Lynch, and AIG were not under the Glass-Steagall restrictions to begin with (Brook and Watkins 2012). Some take it even further like John C. Dugan (2010), then Comptroller of The Currency, when he testified to the Financial Crisis Inquiry Commission:

> Indeed, had GLBA not repealed key provisions of the Glass-Steagall Act to allow such affiliations, it would have been impossible to handle the market confidence problems associated with Bear Stearns and Merrill Lynch, where mergers with banks restored confidence and stability, and

> Morgan Stanley and Goldman Sachs, where conversions to regulated bank holding companies did the same.

Furthermore, a 2016 Congressional Research Service report argued that the erosion of the Glass-Steagall Act, as well as its repeal, were unlikely a primary culprit for the housing bubble of the 2000s. This is because Glass-Steagall did not prevent banks from “holding whole mortgages on their balance sheets, regardless of whether or not they originated them” or, after the creation of federal entities such as Freddie Mac and Fannie Mae, from holding securitized mortgages issued or backed by these entities (E. Murphy, Carpenter, and M. Murphy 2016, p. 20). Commercial banks were only prohibited from holding privately-guaranteed mortgage backed securities under Section 16. Despite changes to the provision before 1999, the section was not repealed as part of the Gramm–Leach–Bliley Act so the provisions over commercial bank balance sheets of Section 16 were not able to prevent the subprime mortgage crisis. It is therefore inferred that the housing bubble and rampant growth in privately-labeled mortgage-backed securities was not caused by the repeal (E. Murphy, Carpenter, and M. Murphy 2016, p. 20). What’s more, a stronger separation of commercial and investment entities would not have averted the defaults of residential mortgages and it would not have prevented the collapses of commercial banks (E. Murphy, Carpenter, and M. Murphy 2016, p. 21). Withal, the Glass-Steagall act would not have been able to address maturity mismatches or the financial system's vulnerability to a shock to collateral values such as mass default (E. Murphy, Carpenter, and M. Murphy 2016, p. 22). The report also states that the four sections of the Glass-Steagall Act did not directly impact loan qualification standards but concedes, however, it may have influenced the behavior of mortgage originators (E. Murphy, Carpenter, and M. Murphy 2016, p.

21). The act did not address mortgage underwriting practices directly but the separation of commercial and securities issuance potentially allowed “bank lenders that also issue securities backed by loans [to] self-deal or otherwise favor their own interests over the interests of their customers” (E. Murphy, Carpenter, and M. Murphy 2016, p. 21). The result of which may have been the loosening of underwriting standards for mortgage originators. Regardless, though, because the Glass-Steagall act's provisions were limited to commercial banks, it would unlikely have been able to prevent the reduction in underwriting standards for non-depository institutions (E. Murphy, Carpenter, and M. Murphy 2016, p. 21). This is important as shadow banking during the period contributed to the crisis heavily, thus the provisions of the Glass-Steagall would not have helped.

Poor Business Operations

Many claim that the failure of pure investment banks during the crisis was the fault of poor business practices, not the repeal. Bernanke (2010) suggested that private sector risk management and risk controls by both investors and issuers were weak during this period. There was a decline in not only mortgage underwriting standards but also underwriting standards for commercial real estate loans from many institutions that were “neither large nor too-big-to-fail” (Bernanke 2010). Amongst these institutions, there was also an over-reliance on credit ratings, insufficient ability to track risk exposures, and inadequate risk diversification (Bernanke 2010). The same CATO Institute report provides the examples of two of the largest commercial bank failures in IndyMac (whose assets were of 32 billion USD) and Washington Mutual (307 billion USD), and states that investment bank activity played a very little role in their failures and were rather caused by “risky bank lending and abandonment of essential underwriting criteria” (McDonald 2016, p. 15-16). Additionally, before Bear Stearns was impacted by the subprime mortgage market collapse, two Bear Stearns hedge funds failed in June 2007. Later that year, Lehman Brothers' insolvency wrecked the financial system. “It was not the links with commercial banks that caused these investment banks to fail” but rather poor underwriting and credit administrative practices (McDonald 2016, p. 14-15). For instance, 313 of the 414 banks that failed were small banks that held assets worth less than one billion USD, and these failures were mainly caused by overly aggressive, nontraditional growth strategies as well as failing commercial real estate loans (McDonald 2016, p. 14).

Bernanke (2010) also stated that authorities failed to implement policies to strengthen internal risk-management or avert risky activity but did not claim that this was the fault of the removal of commercial-investment bank affiliations. For instance, stress tests were conducted by the Federal Reserve's supervisory capital assessment program and discovered that institutions did not have adequate information systems to provide “timely, accurate information about bank exposures to counterparties nor complete information about the risks posed by different positions and portfolios” (Bernanke 2010). The same program identified internal capital assessment methods to have been weak, and, yet, the regulatory agencies did not address these problems heavily enough to prevent catastrophe (Bernanke 2010). In summary, these sources claim that it is the fault of both the businesses themselves as well as failure to enforce policy measures for the poor business operations such as poorer underwriting standards for financial instruments that allowed financial institutions to fail. According to this view, it was not the fault of the repeal of the Glass-Steagall act.

The Missing Picture

These analyses are interesting, useful, and provide important insights on the impact and limitations of the provisions of the Glass-Steagall Act that influenced the events of 2008. The investigation of this paper will take into concern some of the points brought up in the literature review. However, because they do not utilize the contributions of institutionalist economists such as Keynes, Minsky, and Godley, this thesis will attempt to add a third position to the debate: that the economy was already on track for a financial crisis and that the repeal of the Glass-Steagall act merely worsened the scope of the 2008 Financial Crisis.

Chapter IV: Institutional Analysis

"The difficulty lies not so much in developing new ideas as in escaping from old ones." - John Maynard Keynes

As mentioned in the literature review, most work has focused on either arguing that the repeal had nothing to do with the crisis or it caused it. In a way, this thesis attempts to combine the two arguments by adding in an institutionalist approach. Few economists have argued that the repeal of the Glass-Steagall Act contributed to the scope of the crisis but did not cause it. In particular, there is yet to be research that combines the sectoral balances and the evolutionary theory of the economy in their analysis of the repeal of the Glass-Steagall Act. The first section of the analysis will attempt to prove that the economy was already on a trend towards financial crisis through Godley's seven unsustainable processes in the context of Minsky's money manager capitalism in the 1990s and 2000s. The second section will explain how the full establishment of financial holding companies, the concentration of the banking sector, and shadow banking were consequences of the repeal of the Glass-Steagall Act and how they worsened the scope of the 2008 Financial Crisis.

Crisis Was Already on its Way

Money Manager Capitalism

Money manager capitalism, as mentioned in Chapter 2, is a form of capitalism that is highly unstable as most financial activity is focused on short-term investment while the direction of the economy is controlled by money managers. It is because of this development of capitalism that the stage was set for instability even before 1999. The shift from safer banking practices and larger government to a more neoliberal state allowed for the increasing financialization of the United States' economy in the past fifty years. This era was defined by “highly leveraged funds seeking maximum total returns (income flows plus capital gains) in an environment that systematically under-prices risk” (Wray 2009, p. 809). Minsky attributed the rise in securitization and financialization to monetarists' attempts to fight inflation by increasing interest rates dramatically as it forced many customers to search for funding from money managers (Minsky 1987, p. 3). He provides alternative and complementary reasons for the emergence of money manager capitalism such as the Credit Crunch of 1966 and other “financial turbulence[s]” that incapacitated banks and other depository financial institutions and pushed borrowers towards more risky financial instruments (Minsky 1988, p. 4). The importance of safer funding through commercial banks died down and stock, bond, and other speculative instrument markets from fund managers rose to power (Minsky 1988, p. 4). This changed the behavior of capitalist economies because a large portion of funding became dependent on the “success of the economy in avoiding deep depressions” (Minsky 1988, p. 4-5). On the other hand, Whalen (2012) suggests that Money Manager Capitalism was the consequence of the success of managerial capitalism that existed beforehand. The stability of such a system allowed employers to offer pension plans to greater numbers of workers, meanwhile, financial institutions seized the opportunity to manage these retirement funds (and other funds) (Whalen 2012, p. 257). Prates and Farhi (2015) attributed some of the shift to money manager capitalism to the 1988 Basel Accord (Basel I). This regulatory change set the global goal of risk-weighted capital/asset ratios to eight percent. In an attempt to avoid these regulations, banks turned to securitization and off-balance-sheet operations (Prates and Farhi 2015, p. 570). The transformation of managerial capitalism to money manager capitalism was a consequence of national and international regulation, innovation, and policy choices.

Wray (2011) points out that the systemic changes from managerial capitalism of the New Deal era to money manager capitalism can be blamed on four major developments that occurred prior to the repeal of the Glass-Steagall Act (however, Wray still acknowledges the repeal's impact on the financial crisis).

The first of the developments that took place prior to the repeal of the Glass-Steagall act was the rise of money-managed pension, sovereign wealth, and insurance funds, as well as university endowments and other forms of savings institutions that aimed at maximizing returns (Wray 2011, p. 9). These entities, headed by money managers, competed to maximize their yields and “anyone returning less than the average return los[t] [...] [and] it is impossible for all to be above average”, and, as a result, a tendency of “operating in high risk for high reward” (Wray 2011, p. 9). Essentially, they gamble at high stakes and have incentive to commit fraudulent accounting. These risky funds were an alternative source of funding for commercial lending as firms would rather work with shadow banks with high reward than borrow money from commercial banks (Wray 2011, p. 9). Furthermore, unlike in managerial capitalism when firms had relative independence from their creditors, these money managers have high power over corporate governance and stock value (Whalen 2002, p. 402). The institutional investors could put pressure on businesses to raise short-term stock value through block-trading and fueling acquisitions and buyouts (Whalen 2002, p. 402). Additionally, in the 1980s, 1990s, and 2000s, pension, insurance, and sovereign wealth fund managers increasingly "outsourc[ed]" their operations to Wall Street firms, allowing investment firms to push asset-backed securities and collateralized debt obligations onto clients. The purpose of securitizing credit and off-balance-sheet activities was to allow banks to avert risk of illiquid assets such as mortgages (Prates and Farhi 2015, p. 570). Through sophisticated financial instruments, these investment banks would hide debt and allow clients to build up debt beyond their debt-service capabilities and then bet against them using credit default swaps (Wray 2011, p. 9). The takeover of money managers provided a "a pool of buyers" to acquire their financial innovations, releasing a trend of a number of unproductive financial practices including a rise in stock buybacks, easily done as money managers have the incentive to raise short-term portfolio value (Whalen 2012, p. 258). The rise of financial innovation since the 1970s also caused leverage ratios amongst money managers to rise and allowed money managers to issue volatile liabilities to fund positions in securities and, with this easy credit and more speculation, would further increase their leverage (Wray 2009, p. 821). Rising loan-to-value and loan-to-income ratios were justified by the expansion of lending funneled through financial innovations. The consequence of which was the shift through the financial profiles to Ponzi-financing (Wray 2009, p. 821).

The second development that Wray (2011) identifies was when investment banks went public during the late 1990s "irrational exuberance". The reason for this was because Wall Street partners could only earn fee income and were not able to directly reap rewards from rising stock values during the boom of the Goldilocks years; so they created publicly traded subsidiaries (Wray 2011, p. 12). Money managers moved from revenue maximization of total returns to shareholder value which focused on maximizing dividend payments as well as stock price appreciation (Wray 2011, p. 12). The incentive structure had shifted from traditional banking practices towards securitization.

The third is the mass deregulation of the late 1900s. It was not just the Glass-Steagall Act that had been weakened. Recent acts such as the Commodities Futures Modernization act of 2000 and the Employee Retirement Income Security Act of 2000 contributed to the rise of risky banking activity and deregulation (Wray 2009, p. 815). As supervision deteriorated, financial institutions "concocted increasingly esoteric instruments" that rewarded money managers with capital gains rather than direct income, as manipulating capital gains is relatively easy (Wray 2009, p. 809). It is this development that is related to Galbraith's notion of the predator state, where the large government works in the favor of money managers while disguised as operating under the free market (Wray 2009, p. 815).

Finally, Wray (2011) states that, from the three previous developments, an environment of fraudulent activity emerged. Along with many other curious activities, accounting firms for investment institutions failed to take action against misleading accounting practices including accountants hired by Lehman Brothers (Wray 2011, p. 14). Wray suggests two reasons for this: firstly, that in order to compete for clients and because of the commonness of fraud in the sector, accounting firms would turn a blind eye to these practices; secondly, the regulation and supervision by authorities were so negligent that firms thought they could get away with it (Wray 2011, p. 14).

It is thus the emergence of money manager capitalism which occurred before the 1999 repeal of the Glass-Steagall Act that created instability in the decades after. The institutional investors' reign over the economy is the fault of policy and innovation and leads to risky economic behavior. The Glass-Steagall Act was only a part of the steamroll.

Sectoral Balances

Another reason that the Financial Crisis of 2008 was not directly caused by the Repeal of the Glass-Steagall Act was that macroeconomic policy and financial imbalances were creating instability pressures the decade before. In 1999, Godley released *Seven Unsustainable Processes*, a special report that described how the United States economy was on track for a severe crisis. He claimed that, using the sectoral balances approach mentioned in Chapter 2, the public financial surplus and increasing current account deficit of the 1990s were contributing to a rising unsustainable private sector financial deficit. This section of this thesis will attempt to expand on this approach with more recent data and show that the sectoral imbalances leading to the crisis were the cause of the 2008 financial crisis. The first subsection of this analysis will summarize arguments made by economists using the sectoral balances approach to predict a recession. The second will analyze the financial balances data from 1990 to 2007, primarily focusing on the private sector balance. The private sector balance is a useful measure of the "flow of payments into the private sector arising from the production and sale of goods and services exceeds private outlays on goods and services and taxes, which have to be made in money" (Godley 1999, p. 8). When the private sector is consistently in deficit, it must draw from a limited net source of funds (savings) to pay for expenditures, make-position by selling off financial assets, or increase net borrowing from the financial sector to sustain its deficit (Godley 1999, p. 9). At some point, households and businesses run out of savings or financial assets to sell off or can default on debt.

Despite most economists' claims that the 1990s were a period of strong economic growth and prosperity, Godley identified seven unsustainable processes during the period.[3] A series of work followed in an attempt to use this approach to predict the next crisis. Godley and Wray (2000) claimed that there were two major problems emerging from the period: low household saving and an ever-rising current account deficit (Godley and L. Randall Wray 2000, p. 202). "The deterioration in the balance of payments and a big improvement in the budget were both factors tending to drive private disposable income downward" (Godley 2000, p. 1). The private sector deficit was primarily caused by household consumption at levels that vastly exceed incomes. Additionally, because the United States was and still is a net exporter and the government deficit was decreasing or in surplus, domestic households and firms had to continue to borrow at greater rates to maintain expenditures and growth (Godley and Wray 2000, p. 201). The increasing private deficit during the late 1990s was a cause of concern as it had been "five times greater than anything achieved in the past (relative to GDP) and that has already persisted for twice as long as any past deficit", forcing private debt to disposable income to increase from

[3] "(1) the fall in private savings [...], (2) the rise in the flow of net lending to the private sector, (3) the rise in the growth rate of the real money stock, (4) the rise in asset prices at the rate that far exceeds the growth of profits or of GDP, (5) the rise in the budget surplus, (6) the rise in the current account deficit, (7) the increase in net foreign indebtedness relative to GDP" (Goldey 1999)

1.6 at the end of 1998 to 2.4 in 2000 (Godley and Wray 2000, p. 204). A way to maintain such economic growth and postpone a downturn would be to force the private sector balance to become a surplus by reducing the fiscal restrictions through expansionary fiscal policy or for the private sector to further increase its indebtedness (Godley and Wray 2000, p. 205). For the latter, as explained earlier, the private sector has access to only limited resources and can not sustain such practices.

Godley (2001) reiterated that the expansion of the 1990s was fueled by rising private sector indebtedness and that for the first time since 1952, in 1997, private sector spending exceeded income and had been increasingly separating. Macroeconomists of the time pointed out that massive rises in asset prices had increased the net worth of households despite increasing indebtedness, but as Godley states, assets are not always liquid such as homes and debts must be serviced via cash, therefore at some point, this process will collapse (Godley 2001). The same is seen with businesses as they are relying more heavily on equity and other forms of external funds (Godley 2001). Position-making and debt servicing is limited when expenditures are increasing greater than income.

Furthermore, Godley and Zezza (2006) found that even though the foreign sector balance was increasing (current account balance was decreasing), the expansion continued resting on a wave of returning falls of private savings. Using time-series forecasting models, Godley and Zezza found that, even when utilizing moderate assumptions, the path of debt growth will ultimately lead to an economic crisis in the near-to-medium term (Godley and Zezza 2006, p. 4).

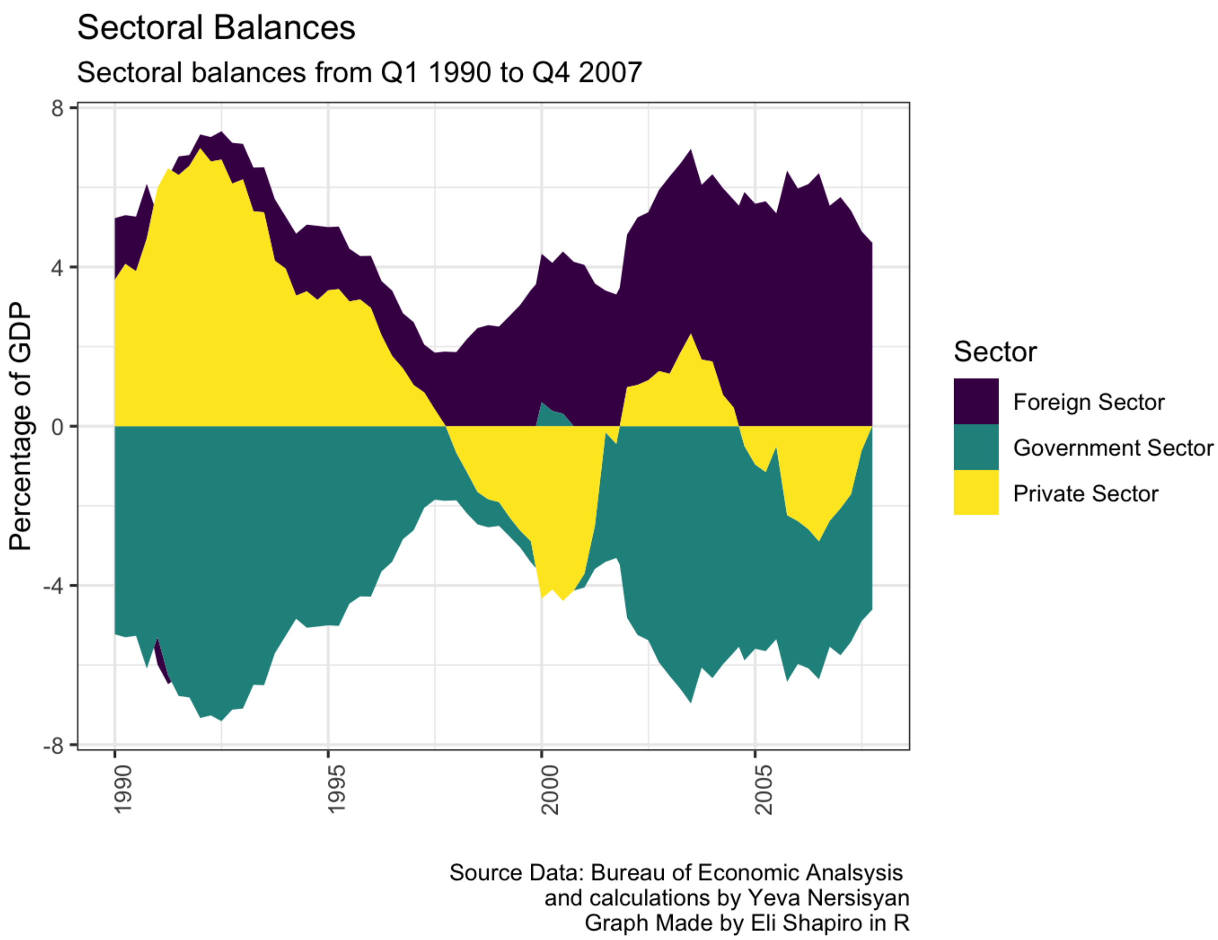

Figure 1: Sectoral Balances

Godley (2012) argues that the federal surpluses during the 1990s had contributed to the rise of a private sector deficit, forcing households and firms to take on greater debt. “The intuition that underlies this [...] is that public deficits and balance of payments surpluses create income and financial assets for the private sector whereas budget surpluses and balance of payments deficits withdraw income and destroy financial assets” (Godley 2012, p. 8). If we look at the sectoral balances from 1990 to 1999, in Figure 1, we find that the public sector deficit had shrunk heavily while the foreign sector surplus grew, forcing the private sector surplus to also shrink by the rules of macro-accounting. The net creation of income and financial assets for the private sector was slowing. From 1997, the private sector realized a negative financial balance, reaching a lowest point of -4.33 percent of GDP in the first quarter of 2000, as government injections further decreased and foreign leakages increased. After a recession hit in 2000, the government was forced to increase its injection into the economy and since then, it has remained in negative balance. However, the current account balance had grown further and private deficits remained until the final quarter of 2001. The financial balance returned to a surplus in the first quarter of 2002 and lasted until the third quarter of 2004, when it reverted back to a financial deficit until the Great Recession of 2008. In total, the financial sector saw a deficit for 28 quarters from 1990 to 2008 and the resulting effect on the economy was an inevitable debt bubble.

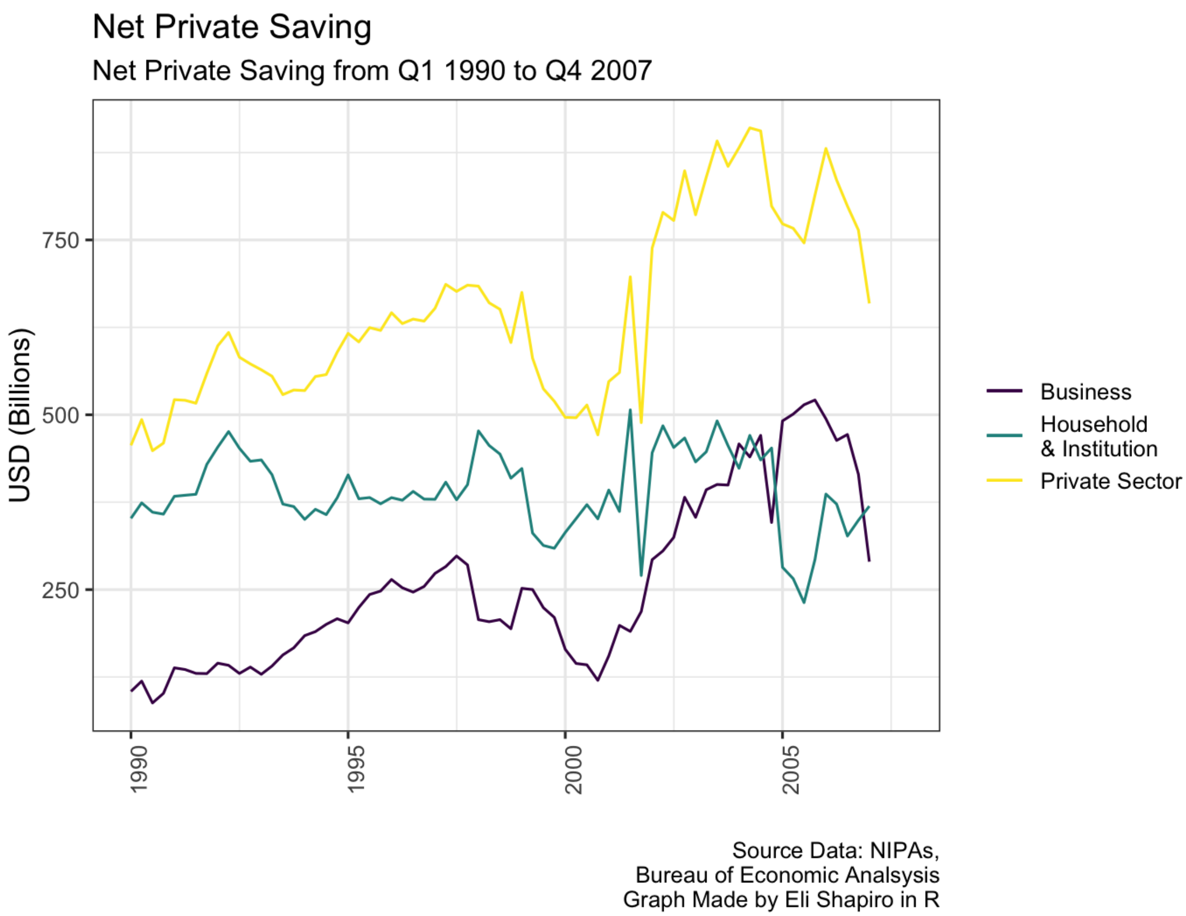

Figure 2: Net Private Saving

Furthermore, NIPA data shows that there were periods during the two decades that the private sector savings had been stagnant or decreasing even though real economic growth had continued. Figure 2 illustrates that private savings grew from 436.4 billion USD in 1990 to 686.5 billion USD in the second quarter of 1997. When the private sector financial balance became negative in 1997, net private savings began to decrease, hitting a local minimum of 495.8 billion USD. Once the private sector balance returned to a surplus in 2002, net private savings rose rapidly to a peak of 910.2 billion USD in the second quarter of 2004. As the private financial balance once again returned to a deficit in the years following 2004, net savings fell again. The relationship between net savings and the private financial balance is clear: if income increases more slowly than expenditures and GDP growth is positive, when more private income and financial assets are destroyed, the more net savings decreases. In other words, even though there was relatively consistent growth during the period, the boom was driven by increasing private sector indebtedness. "Since the end of 1991 [to 2000], private expenditure ha[d] persistently risen more than income" (Godley and Wray 2000, p. 204). Private sector expenditure was the main driver of the expansion while the private sector deficit was mainly driven by borrowing (Godley 1999, p. 9) (Godley and Wray 2000, p. 202).

However, looking deeper, net savings is disbursed between businesses and households. Between the beginning of 1990 and the end of 1997, household net savings remained relatively stagnant at an average quarterly level of 391.4 billion USD while business net savings rose steadily from 104.4 billion USD to 285.3 billion USD, accounting for the overall rise in net savings during that period. In other words, households were not seeing a rise in net saving while GDP was growing, thus private sector net saving growth was fueled by the increasing business saving. Growth from 1991 to 2000 "averaged 3.7 percent per annum, only 0.2 percent faster than the average during the whole post-war period [and] it is the growth of private expenditure, taking consumption and investment together, that has been unusually high, averaging 4.6 percent per annum" (Godley 2000, p. 1). When the private financial balance turned negative from 1997 to 2001, both households and businesses saw decreases in net savings relatively proportionately. Once the private financial surplus emerged from 2002 to 2004, similarly to the 1990 to 1997 period, it contributed to a rapid increase in private savings by 115.2 percent and an rise in business savings from 218.6 billion USD in the final quarter of 2001 to a peak of 470.5 in the third quarter of 2004, 64 percent increase from the end of 1997. Meanwhile, household savings remained similarly stagnant at a quarterly average of 454.9 billion USD, only 16.2 percent greater than the quarterly average from 1990 to 1997. After 2004, when the private sector financial balance was negative again, household savings plummeted to a lowest of 231.4 billion USD while business savings in fact rose to a peak of 521.1 billion USD. In summary, even though economic growth was relatively constant, household savings remained stagnant for most of the period while business savings rose rapidly. The personal sector became increasingly indebted to finance expenditures. Households were in deep trouble.

Household Borrowing and Debt

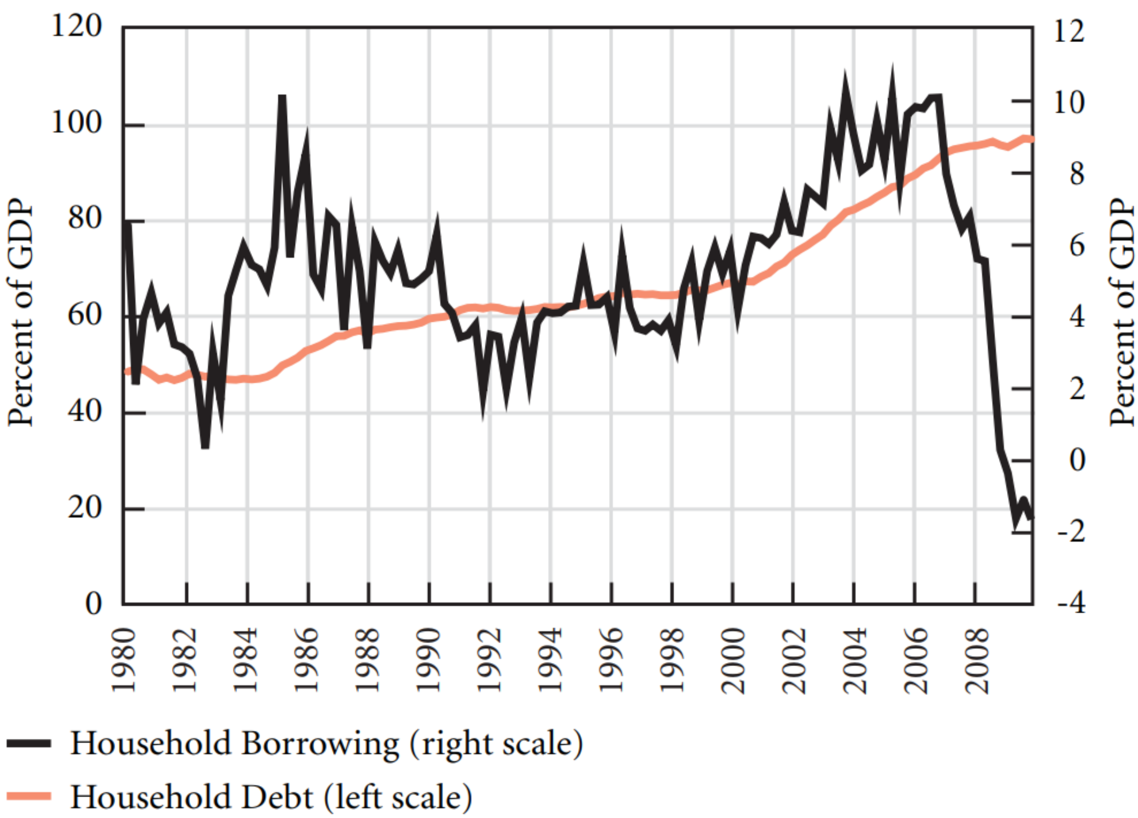

Figure 3: Household Borrowing and Debt

(Source: Papadimitriou, D., Zezza, G., & Hannsgen, G. 2009)

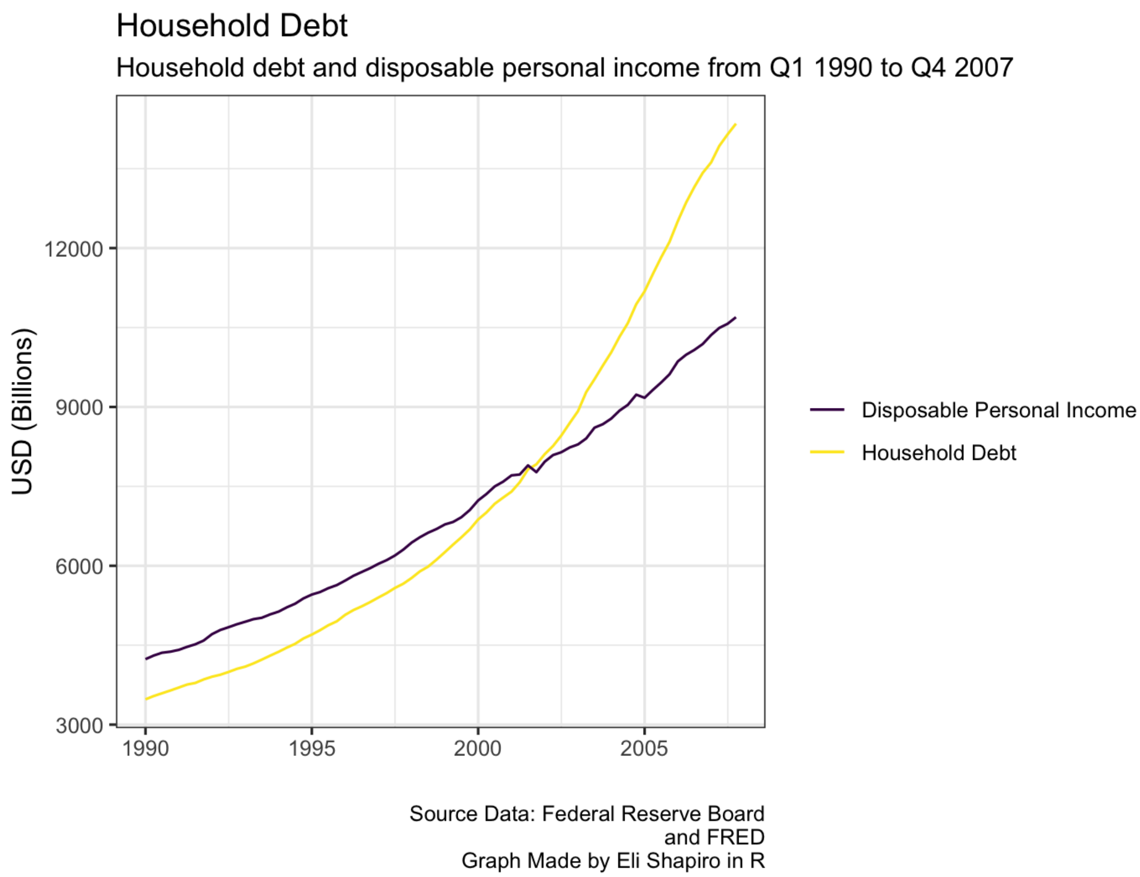

Figure 4: Household Debt and Disposable Personal Income

Figure 3 shows that from 1991 to 2006, household debt had climbed from roughly 60 percent of GDP to just over 100 percent and borrowing from four to nine percent of GDP. Meanwhile in Figure 4, we see that the growth of household debt from 1990 to 2007 had outpaced the growth of and surpassed disposable personal income. As household saving was relatively stagnant during the period, the expenditures of households, implied by the rising household debt, outpaced the growth of sources of income (savings and disposable personal income). Therefore, household expenditures were reliant on borrowing which, again, grew from four to nine percent of GDP during the period. It comes to no surprise that households were unable to sustain borrowing to finance expenditure activities, thus mass default on mortgages occurred, disrupting the housing market and popping the bubble.

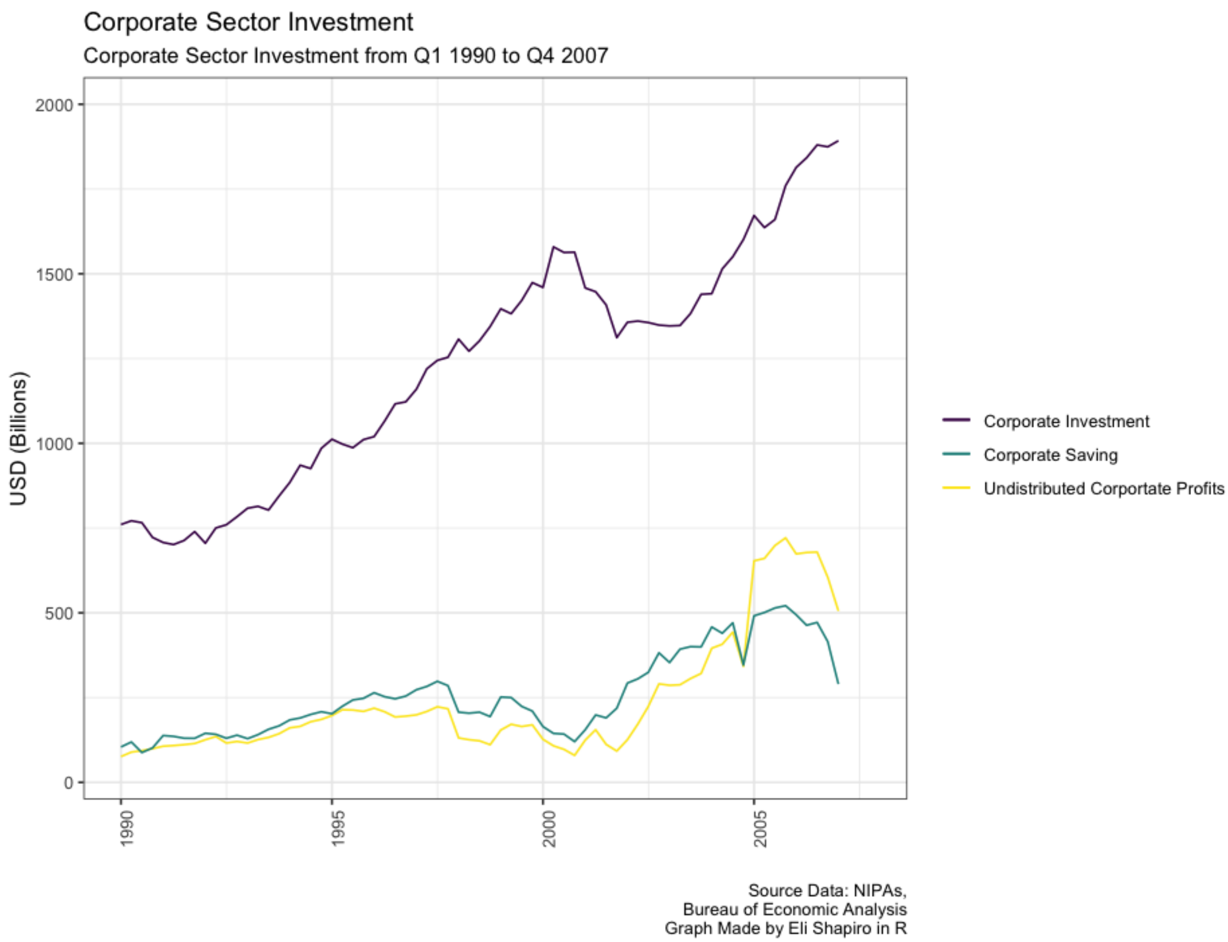

Figure 5: Corporate Sector Investment

Corporate investment from 1990 to 2007, shown in Figure 5, had been increasingly diverging from corporate savings and corporate profits, two forms of funding typically used to finance investment. It was only during the early 2000s recession, when the public sector balance became positive, that this gap decreased. Otherwise, as a whole during the period, business investment had increased at a greater rate than savings, meaning investment was more and more reliant on debt-financing.

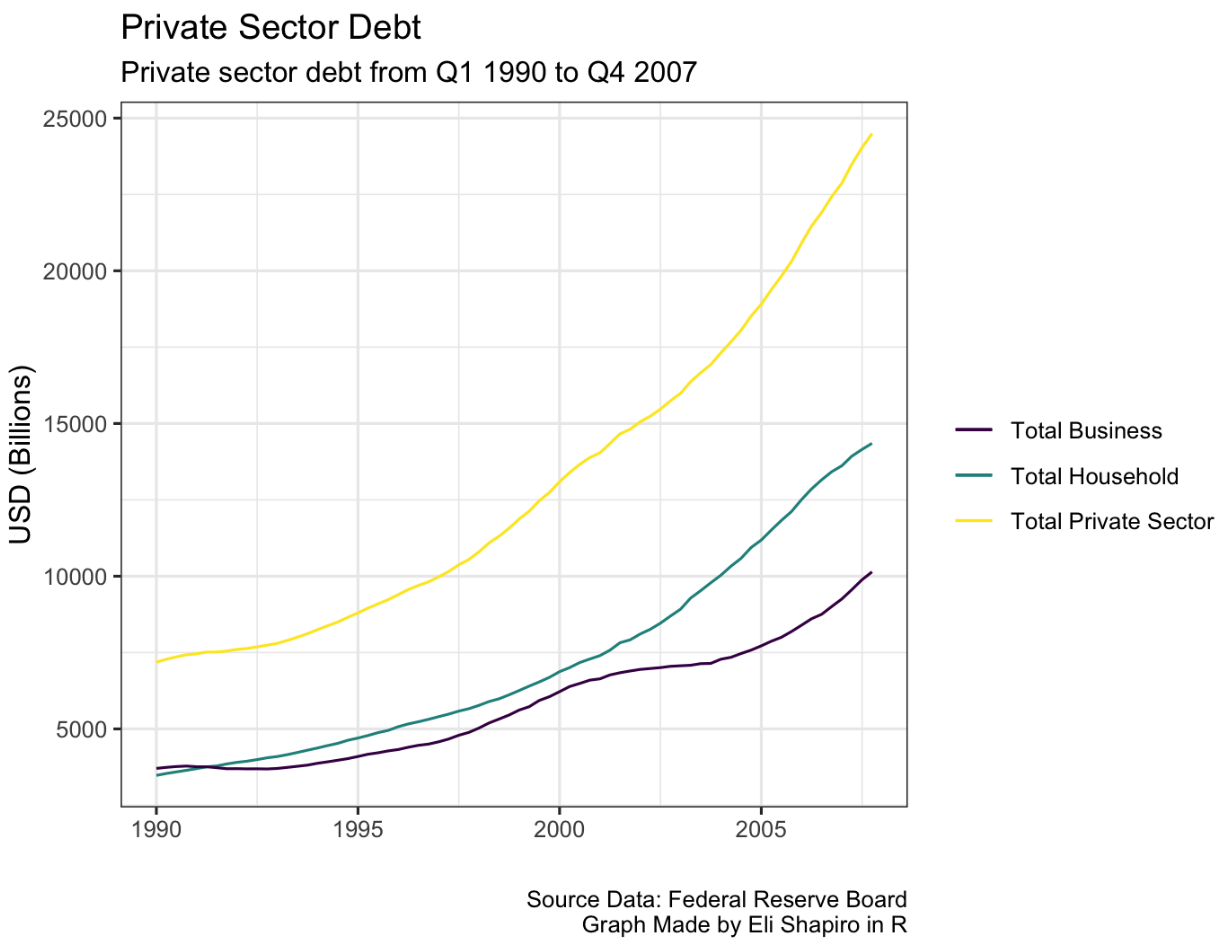

Figure 6: Private Sector Debt

Figure 6 shows that private sector debt had been accelerating throughout the period. Both households and businesses saw rising debt burdens. Households, however, had a greater contribution to the rising private sector debt as seen visually in Figure 6. Overall during the period, debt played a greater and greater role in financing private sector expenditure.

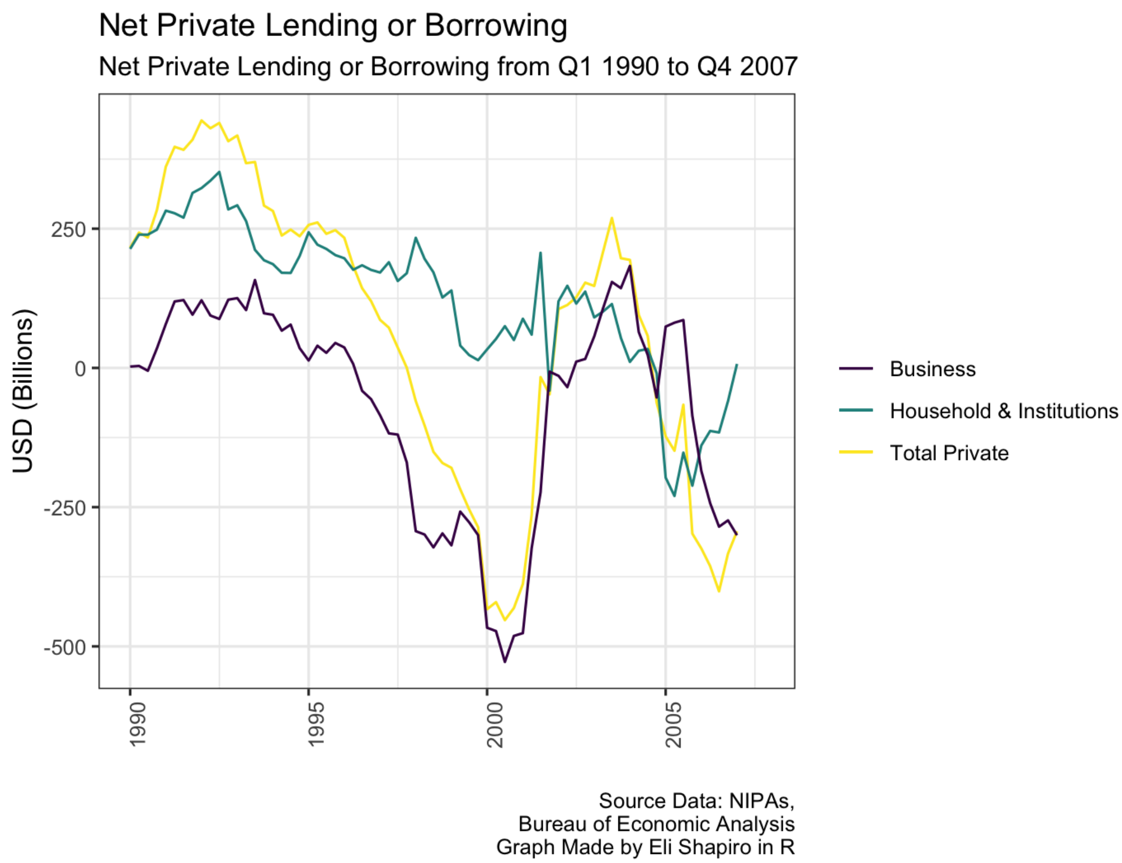

Figure 7: Net Private Lending or Borrowing

Figure 7 confirms this conclusion, showing the net lending or borrowing for the households, businesses, and the private sector as a whole. From 1990 to 1997, the private sector was a net lender, meaning it was as a whole not a net borrower. The surplus, however, was decreasing as the public sector deficit decreased, thus the private sector was increasingly more indebted. It eventually and rapidly became a net borrower in the first quarter of 1998 when the public sector balance became a surplus. Between the private sector's peak net lending, in the second quarter of 1995, of 261.2 billion USD and its lowest of -452.9 billion USD in the third quarter of 2000, there was a fall in net lending of 714.1 billion USD. Households saw a mostly decreasing net lending from 216.1 billion USD in the first quarter of 1990 throughout the entire period with only a sharp recovery to around net zero from 2004 to 2007. Importantly, it became a net borrower in the final quarter of 2001 and between the final quarter of 2004 and final quarter of 2006. The business sector on the other hand suffered worse than their household counterparts having been pushed into net borrowing earlier in the third quarter of 1996 and hit its deepest borrowing with a net lending of -527.9 billion USD in the third quarter of 2000. Unlike households, during the private surplus between 2002 and 2004, businesses saw a temporary net lending positive balance. Once the private sector deficit emerged at the end of 2004, it began a descent into borrower territory. Overall, the private sector was increasingly relying on debt-financing throughout the decades leading to the Financial Crisis of 2008, fueling a boom in the 1990s and low constant growth in the 2000s. Households and firms increasingly shifted from hedge, to speculative, and finally to Ponzi financing. GDP growth had slowed down immensely from 2004 to 2008, and of course alongside a private deficit and large private indebtedness, it unleashed an unprecedented financial crisis.

Levy Macroeconomic Model Forecast in November 2006

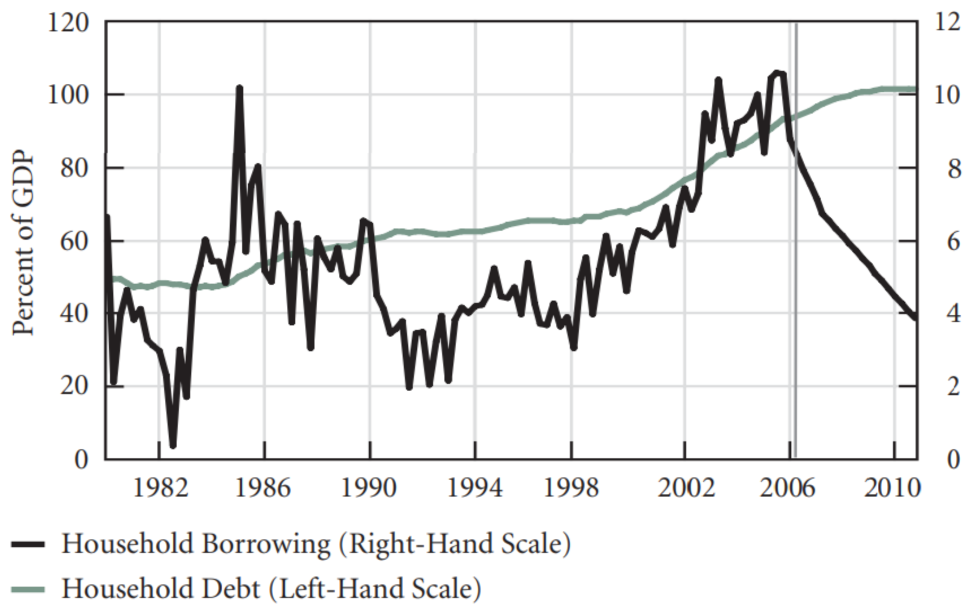

Figure 8: Levy Macroeconomic Model Forecast in November 2006 (Source: Papadimitriou, Zezza, and Hannsgen 2006)

CBO Model Forecast in November 2006

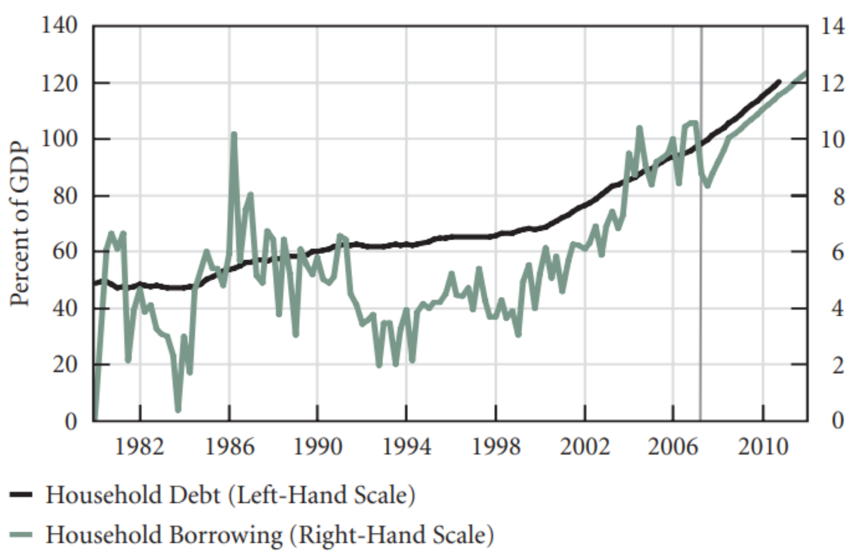

Figure 9: CBO Model Forecast in November 2006

Using the sectoral balances approach through a stock-flow consistent model, Papadimitriou, Zezza, and Hannsgen (2006) predicted the fall of household borrowing almost perfectly. Figure 8 shows their forecast of household borrowing and debt, which was almost identical to the historical data shown in Figure 3. Meanwhile, in the same report, CBO projections in Figure 9 showed an optimistic trend, disregarding the unsustainable processes identified by Godley. According to the CBO growth estimates, household debt and borrowing was sustainable despite stagnant household savings and the previous periods of private sector deficit. If analysis is carried out recognizing the financial sector only as a tool for financial intermediation, then it comes to no surprise that CBO forecasts were so off. With an approach that incorporates sectoral balances and financial sector accounting, perhaps the crisis would have been foreseen.

The Glass-Steagall Act had little to do with the sectoral balances, choices in fiscal policy, and the current account balance. The unsustainable private sector deficit, increasing current account balance without a public sector balance to compensate during an expansion could not continue indefinitely. The sectoral balances, regardless of the repeal of the Glass-Steagall Act, would have caused a financial crisis. These policy choices, as shown through the data, had forced the private sector into unsustainable indebtedness, just as Wynne Godley predicted in 1999.

The Role of the Repeal

The previous section explained why the repeal of Glass-Steagall was not a cause of the financial crisis. This thesis finds that money manager capitalism and sectoral imbalances were more probable causes. These were developments before the repeal that experts and data suggest played leading roles in financial fragility in the 2000s. However, the repeal provided means for the largest banks to expand further and dominate the financial markets, increasing unregulated lending practices (shadow banking) causing greater systemic risk. Commercial bank engagement in shadow banking undeniably played an important role in the Financial Crisis of 2008. But, even though numerous academic journals, congressional and institutional reports, and Federal Reserve speeches outline how rampant shadow banking activity influenced the economic collapse, few point their fingers to the repeal of Glass-Steagall. Many blame the deregulation and liberalization of financial markets starting in the 1980s but do not include the Glass-Steagall Act in their analysis. For instance, the Financial Crisis Inquiry Commission Report's section on shadow banking only briefly mentioned the act when it described policy responses to the Great Depression. Instead, it provides its account of the developments of shadow banking dating back to the Great Depression, highlighting other developments such as financial innovations. Much of the financial innovations involved in the crisis including over-the-counter derivatives and swaps were outside of the Glass-Steagall provisions (Funk and Hirschman 2014). Furthermore, as mentioned in the literature review, the Glass-Steagall Act did not have much to do with the expansion and collapse of Lehman Brothers and other pure investment firms (McDonald 2016). The arguments that investment banks' poor business operations were unrelated to the fall of the Glass-Steagall act are logically convincing but do not explain commercial bank failures that were in fact related to the repeal of the Glass-Steagall Act. Importantly, the repeal did influence the extent to which commercial banks and thus depositors were affected by the run on mortgage-backed securities and other financial instruments. After the repeal, commercial banks began to move into investment banking as the separation between commercial and investment banking. The reasons for the increase in securities underwriting and other investment banking activities in commercial banking operations was to diversify revenue streams, increase profitability, meet the growing demand for investment banking services due to its higher margins compared to traditional banking (Stiglitz 2008). By adding investment banking to their portfolio of services, commercial banks could provide their clients with a one-stop-shop for all their financial needs. On the other side, some investment banks such as Morgan Stanley and Goldman Sachs did the reverse, entering into commercial banking territory to find more sources of capital for their investment. The consequences of such a shift in banking sector activity was that commercial banks were engaging in inherently riskier activity and putting depositors at risk. It will be argued by expanding on the arguments made in the literature review that the institutional changes from the Glass-Steagall Act, mainly the removal of implicit separations of traditional and investment banking, worsened the crisis.

Financial Holding Companies

Bank mergers played a large part in the reach of the exposure of the financial sector. Before the repeal, bank holding companies "compete[d] with investment banks in underwriting debt and equity securities" as the Glass-Steagall act was eroded (Straham 2013, p. 53). For instance, in 1987, the Federal Reserve ruled that bank holding company subsidiaries were permitted limited engagement in underwriting mortgage-backed securities, asset-backed securities, municipal revenue bonds, and commercial paper as it did not break the rules of section 20 (Wilmarth 2018). Once bank holding companies were fully allowed to acquire investment firms in 1999, they began to “expand aggressively into the securities underwriting business by buying stand-alone investment banks” (Straham 2013, p. 53). These mergers allowed for the establishment of financial holding companies, bank holding companies that had ownership of firms specializing in securities underwriting and other previously separated activity. The repeal of the Glass-Steagall Act “legitimized” the financial holding company concept: large banks were allowed to transform their traditional hold-to-maturity process to “a more profitable process of originate-to-distribute model” (Pozsar et al. 2010, p. 24). The acquisitions changed lending practices, morphing the safer model into a manufacturing process of “originating loans with the intention of selling them rather than holding them through maturity” (Pozsar et al. 2010, p. 24). Examples of such defining mergers are the following: In 1998, a year before the repeal, the bank holding company Citicorp merged with Travelers Insurance, which owned Solomon-Smith Barney, an investment firm. In 2006, Wells Fargo & Co. acquired the, at one point, second largest savings and loan institution Golden West Financial. In 2008, JPMorgan Chase acquired Bear Stearns for a fraction of its previous value after it failed due to the fall in mortgage-backed securities markets. In the same year, Bank of America took over Merrill Lynch, another failing investment bank. Meanwhile, these commercial banks merged with other commercial banks: Bank of America merged with NationsBank in 1998, JPMorgan Chase merged with Chase Manhattan Bank in 2000, Wells Fargo merged with Norwest Corporation in 1998, and FleetBoston Financial merged with Bank of America in 2004. There were sixteen financial holding companies that emerged after 1999: Citigroup, JPMorgan Chase, Bank of America, Wells Fargo, Goldman Sachs, Morgan Stanley, American Express, Discover Financial Services, Capital One Financial Corporation, TD Bank Financial Group, BB&T Corporation, PNC Financial Services Group, SunTrust Banks, US

Bancorp, HSBC North America Holdings Inc., and KeyCorp. Each of these financial holding companies, their subsidiaries, and their commercial banks found themselves playing a greater role in aggregate financial and economic activity. If one of these banks were to suffer, their large share of depositors would be at risk and financial catastrophe would be imminent. This is exactly what happened.

Originate-to-Distribute

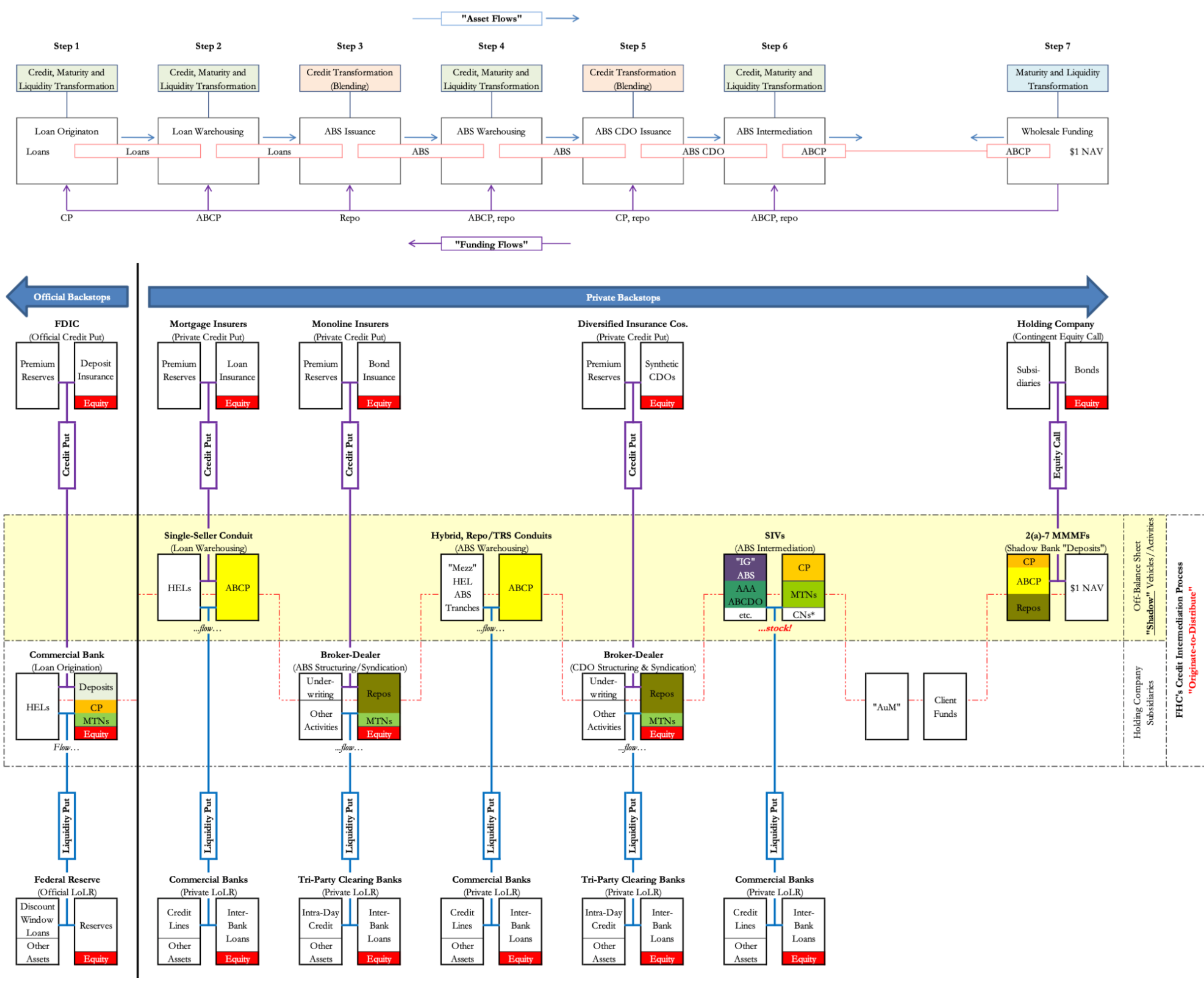

Figure 10: Pre-Crisis Financial Holding Company Shadow Banking Operations, Source: Shadow Banking (Pozsar, Adrian, Ashcraft, Boesky (2010))

The new avenue of shadow banking through the new financial holding companies became a part of the official system. Before the Glass-Steagall Act, the shadow banking system was reinforced primarily through the private financial sector but as the commercial banks engaged in shadow banking through the full introduction of financial holding companies, the public sector entered the scene. As shown in Figure 10, while the private shadow banking sector was still a dominant player in financial holding company operations, FDIC and Federal Reserve benefits of credit and liquidity inputs backstopped the loan origination by commercial banks that were then processed for the rest of the shadow banking world (Pozsar et al. 2010, p. 62). Once the loan had been created, it was packaged and sent to loan warehouses that converted them into asset-backed securities. These asset-backed securities were then warehoused and turned into collateralized debt obligations and eventually wholesaled. Furthermore, Nersisyan (2015) finds that between 2001 and 2007, 42 percent of net loans and leases made by the bank holding companies JP Morgan Chase, Bank of America, Citigroup, and Wells Fargo were loans that were securitized and sold from shadow banking institutions. The commercial banks were then directly engaged with broker-dealers, off-balance sheet conduits, and structured investment vehicles operating together to spread risky assets around the financial system. A run on these subsidiaries terribly impacted the balance sheets of commercial banks. The commercial banks, and thus their depositors, were now connected with the many riskier, privately-insured off-balance sheet financial instruments and operations.

In Combination with Banking Sector Concentration

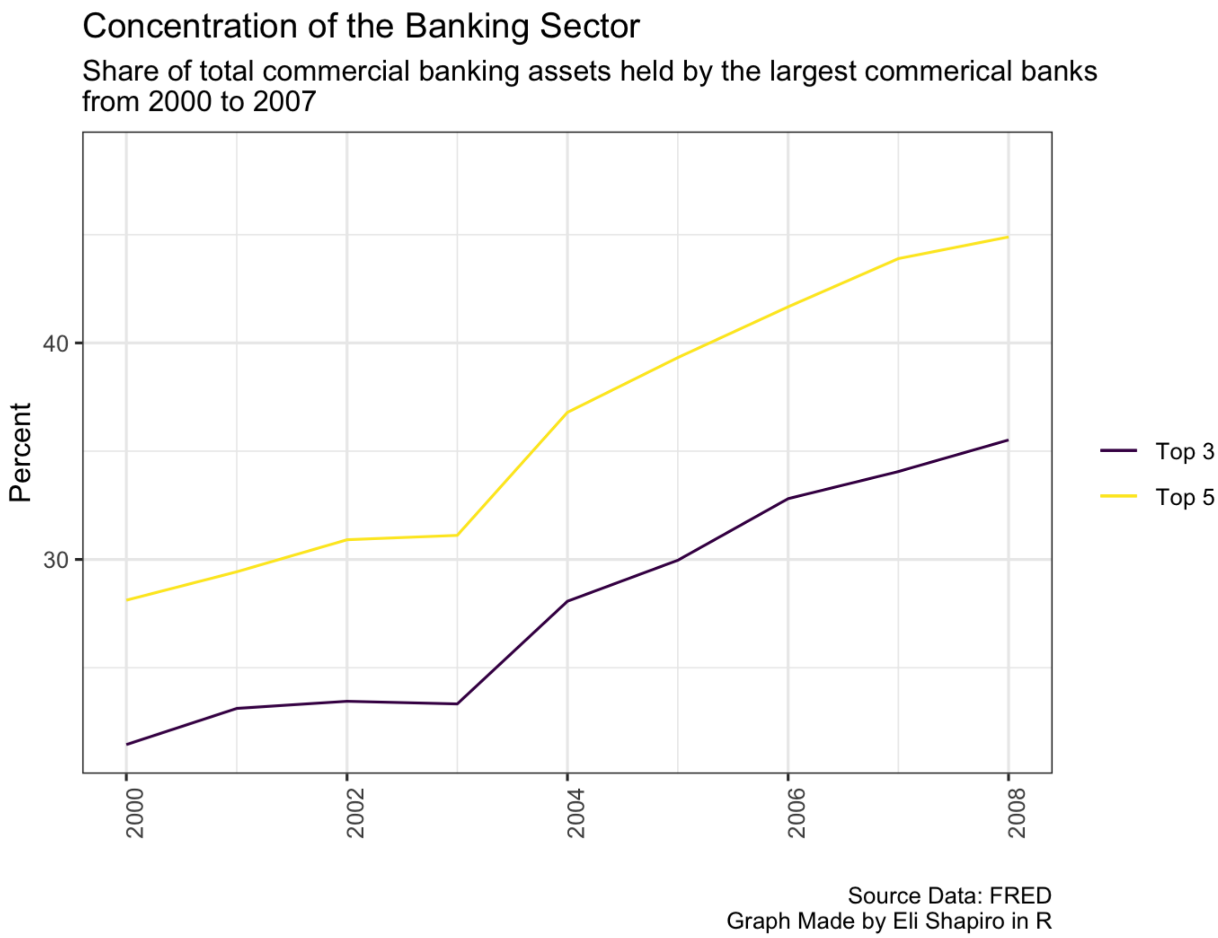

Figure 11: Concentration of the Banking Sector (Total Assets)

The concentration of the banking sector, in combination with the emergence of financial holding companies, exposed a greater number of depositors to risk. In the post-war era, commercial banking was relatively competitive. In managerial capitalism, banks were smaller and more plentiful. The number of commercial banks steeply declined from 14,260 to 7,290 from 1984 to 2007 largely due to the rise of money manager capitalism and neoliberalism.

Meanwhile, the number of commercial bank branches increased from 43,215 to 81,451. Despite decreasing competition during this period, commercial bank assets had risen from 2.5 trillion USD to 11.2 trillion USD. The total growth of bank assets outpaced that of GDP by 88 percent. The result of these trends was a highly concentrated banking sector. Figure 11 shows the share of total assets in the banking sector for the largest three and largest five commercial banks based on asset size. The top three included Citibank, Bank of America, and JPMorgan Chase. The top five included the top three and Wells Fargo and FleetBoston Financial. Between 2000 and 2007, the three largest banks controlled 21.45 percent of total assets and saw their share grow to 34.06 percent. The five largest banks went from holding 28.12 percent to 43.89 percent. By the end of the period, the ten largest banks owned 54 percent. The reason for the top three and top five's share of total assets spiked up in the figure in 2004 was because Bank of America acquired FleetBoston Financial that year. Even though the mergers between commercial banks were not necessarily caused by the repeal of the Glass-Steagall Act, it did allow certain bank holding companies that controlled investment firms to merge with others.

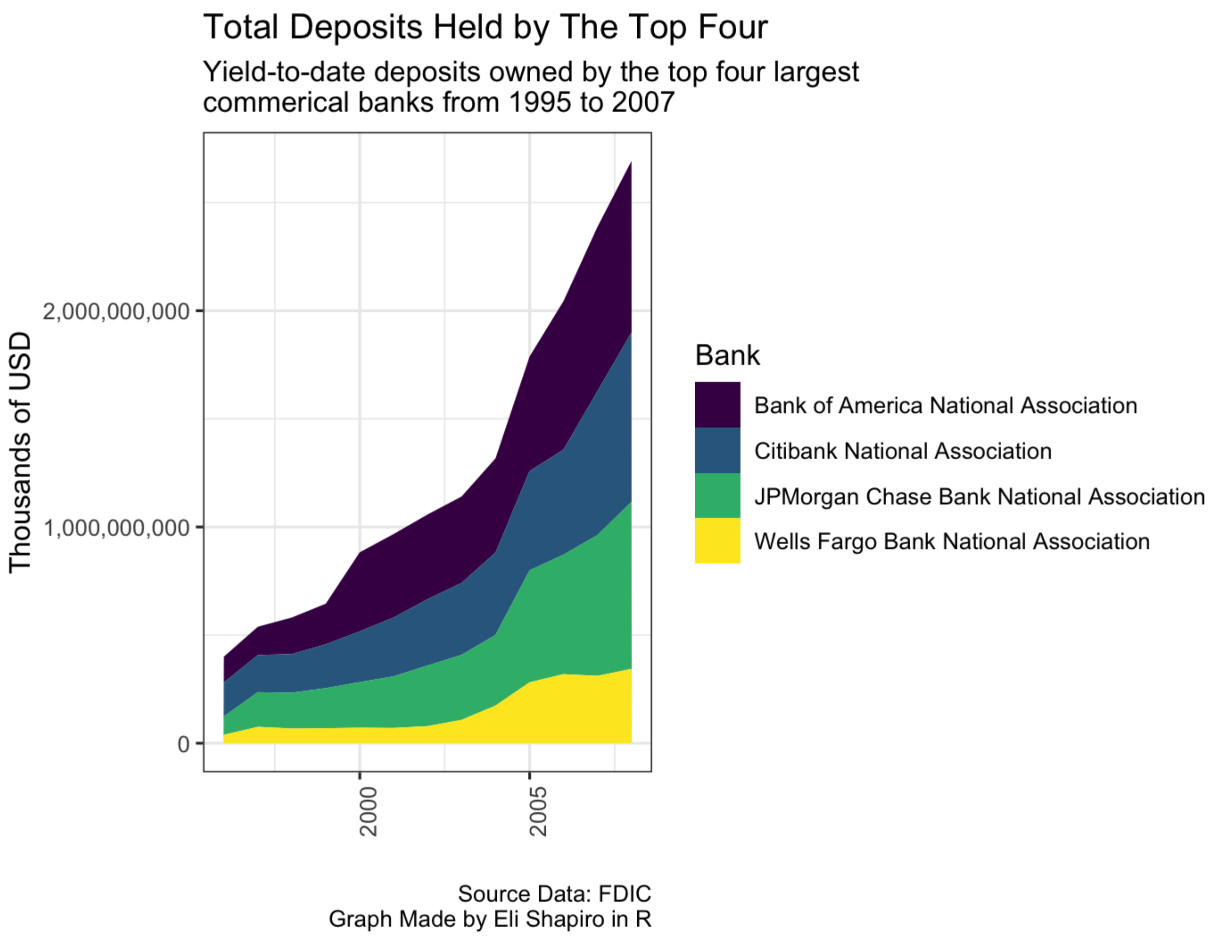

Figure 12: Total Deposits Held By The Top Four

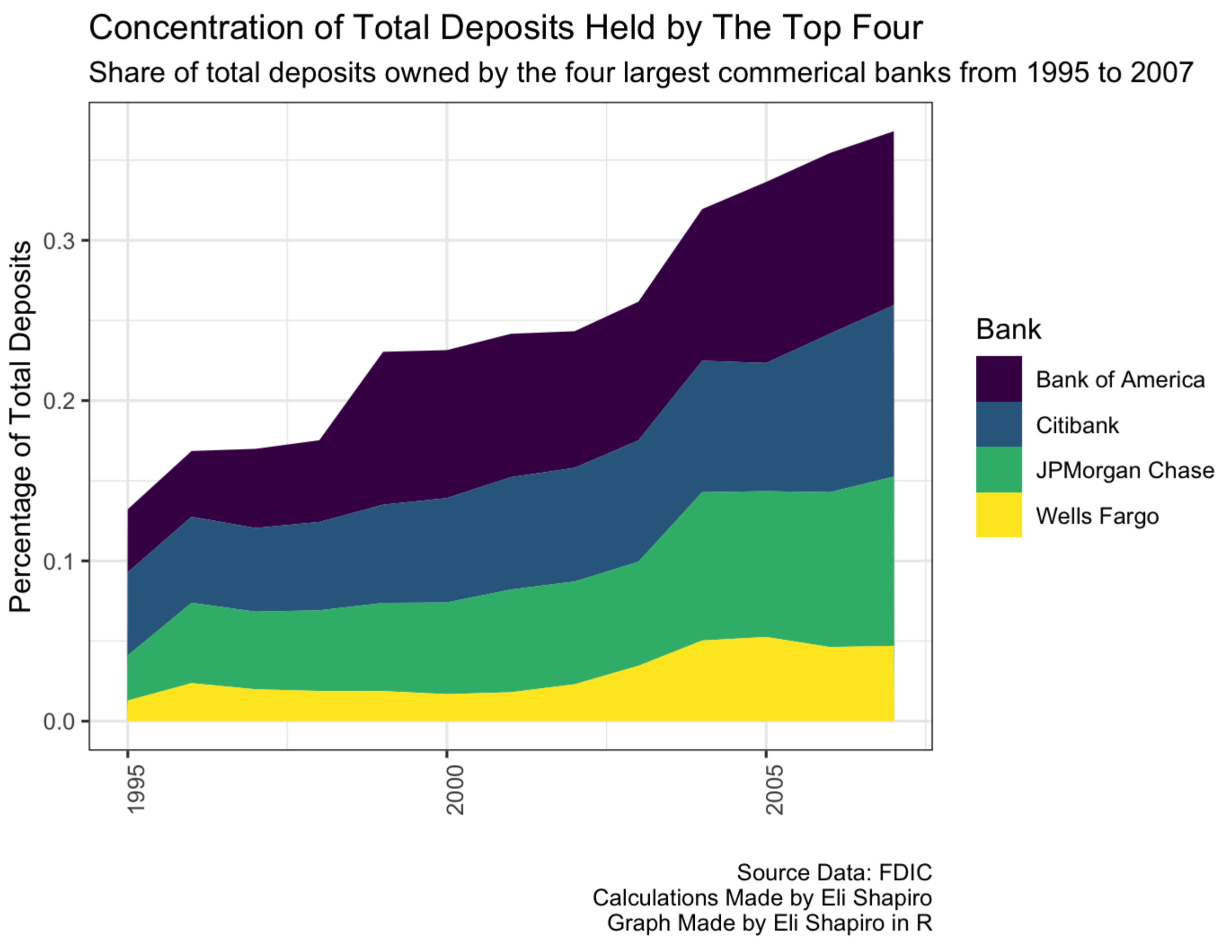

Figure 13: Concentration of Total Deposits Held By The Top Four

Figure 12 displays the value of total deposits by the four largest commercial banks from 1995 to 2007. Total deposits held by the top four were 400 billion USD by the end of 1995 and expanded by 61 percent by the end of 1998, reaching 645 billion USD, averaging 17.8 percent growth annually. From 1999 to 2003, average growth of total deposits was 15.8 percent annually and between 2004 and 2007, the number was 19.9 percent. The reason for the greater average annual growth of total deposits was the flurry of mergers involving the four banks. There were three spikes in the growth of deposits during the period in 1995, 1999, and 2004. Two of which were relevant to mergers. The 36.8 percent growth in 1999 can be attributed to an increase in Bank of America's deposits after a merger with NationsBank in 1998. In 2004 Bank of America, Citibank, and JPMorgan Chase saw a sharp rise in deposits, after a spur of mergers including the Bank of America takeover of FleetBoston Financial (controlling investment banks) and JPMorgan Chase's merger with Bank One (controlling investment banks). Additionally, the share of deposits during this time increased similarly to the top shares of assets. Furthermore, Figure 13 shows the concentration of banking deposits amongst the same four largest banks. Deposit concentration was already increasing before the repeal of the Glass-Steagall Act as, from 1995 to 1998, the share rose from 13.2 percent to 17.5 percent. The concentration of deposits in the banking sector rose sharply in 1999 and 2004 during the same mergers as mentioned above from 23.0 percent to 31.9 percent. By the end of the period, these banks held 36.8 percent of all commercial bank deposits. The combination of rising deposits and concentration of those deposits allowed these banks to control greater and greater amounts of risk on depositors. Their balance sheet operations then had a greater effect on a large portion of businesses and households than without the mergers.

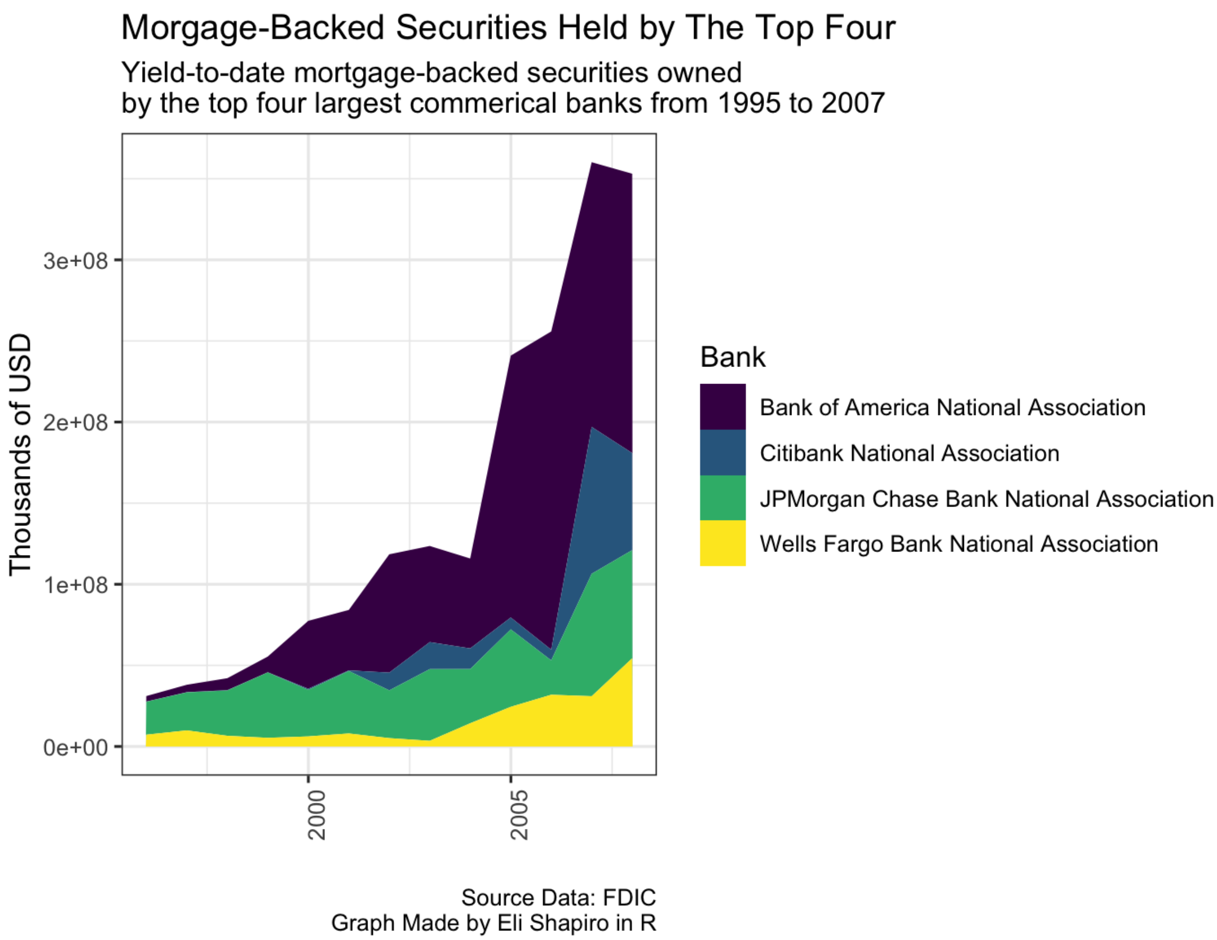

Figure 14: Mortgage-Backed Securities Held By The Top Four

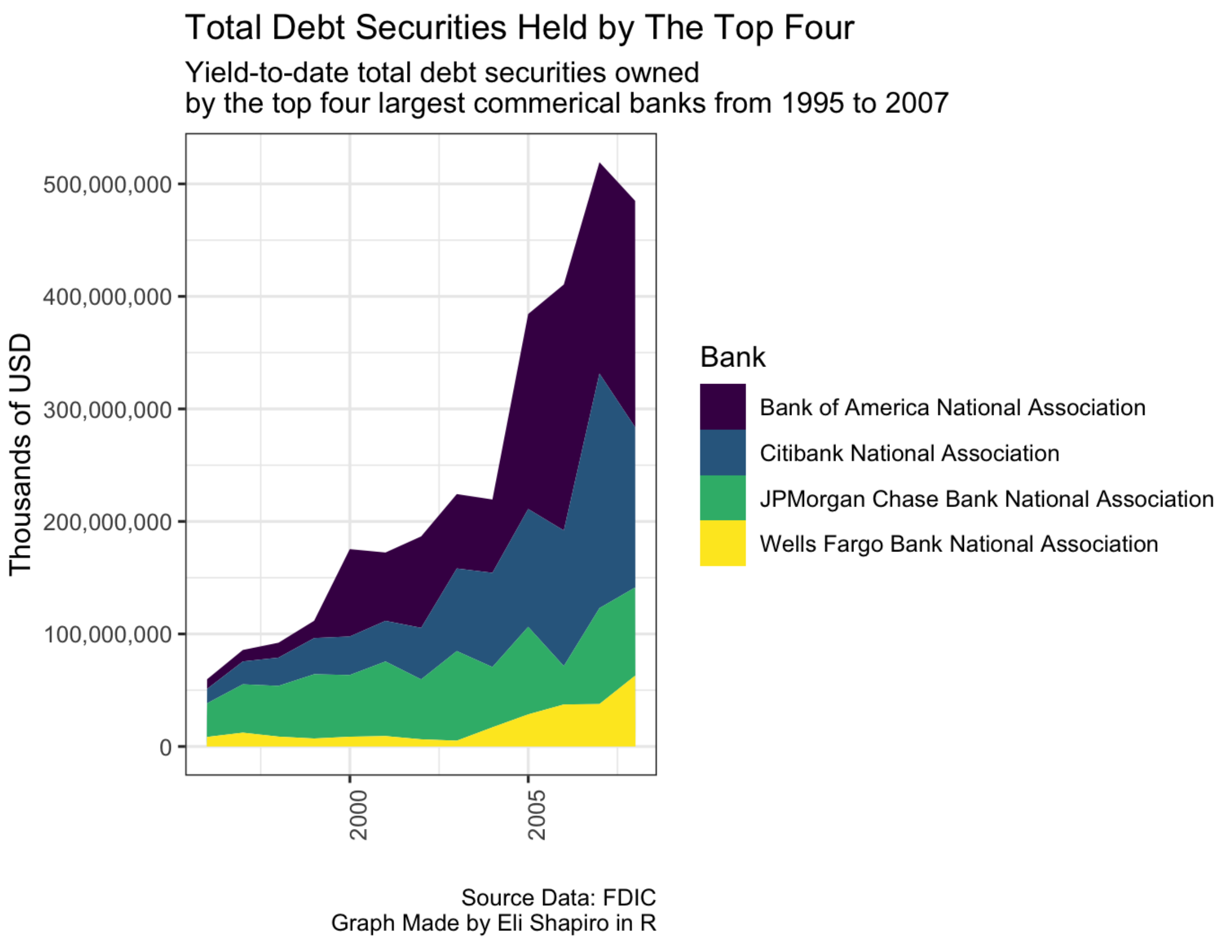

Figure 15: Total Debt Securities Held by The Top Four

As market control of the top four banks grew rapidly, their involvement in securities rose, posing greater risk on their expanding number of depositors. Figure 14 shows the top four's holding of mortgage-backed securities from 1995 to 2007. MBSs held by these banks rose from 31 billion USD to a peak of 360 billion by the end of 2006. The growth of MBS remained relatively constant between 1995 to 1998. After the repeal in 1999, there was a sharp increase by 39.6 percent in MBS in 2000 mainly in the balance sheet of Bank of America and, later again, by 107.9 percent in 2004 and 40.7 percent in 2006. Furthermore, in the same period, debt securities including MBS and other instruments that played an essential role in the 2008 Financial Crisis like collateralized debt obligations and credit default swaps held by the top four followed a similar trend, shown in Figure 15. From 1995 to 2006, total debt securities held by these commercial banks grew from 59 billion USD to 519 billion USD, with a greater rate of increase after the repeal. There were also sharp rises in these securities by 57 percent in 2000, 75 percent in 2004, and 26 percent in 2006 during the years of the previously mentioned.

The mergers allowed by the repeal of the Glass-Steagall Act are not necessarily the sole culprits to the rise in MBS and other debt securities as, again, even before 1999, commercial banks were still allowed to purchase and sell securities for investment purposes. They had already engaged in large amounts of securities investments as the ceiling on total revenue from investment activities allowed had been raised to 10 percent during the erosion of the act. However, after the repeal, these banks were allowed to engage in greater investing activities and affiliate with firms engaged in underwriting and dealing in securities including MBS, CDS, CDO, and other derivatives. These major commercial banks "built their market share in underwriting by acquiring, directly or indirectly, securities firms with significant presence in the various underwriting markets" (Papaioannou 2010, p. 3). The capital-backing of commercial banks were theoretically enough to expand their market share organically but as Papadioannou (2010) finds, the "capital heft was not sufficient" to meet the needs of the commercial plus investment banking model. In fact, the "acquisitive strategy" afforded banks the means to hurdle the barrier to enter the underwriting business at a faster rate and at a cheaper cost (Papaioannou 2010, p. 4). The two largest, Citibank and Bank of America, in particular, can credit their expansions to mergers with non-traditional banks (Grant 2010). These mergers and affiliations allowed commercial banks to add more of these risky and toxic assets to their balance sheets, which put the ever increasing number of depositors at these big banks at greater risk. Once the subprime mortgage crisis occurred, their balance sheets, due to their overexposure to securities markets, fell apart, requiring rescue by the federal government.

After the subprime mortgage bubble popped and assets deflated, these securities flopped. Many of the largest banks suffered significant losses due to their exposure to the subprime mortgage market and related investments. Some of the commercial banks that reported unprecedented losses include Citibank (27.7 billion USD), Bank of America (15.9 billion USD), JPMorgan Chase (2.8 billion USD), and Wells Fargo (2.4 billion USD). These four as well as many others, because of the risk to depositors, required large federal rescue. In particular, Citibank and Bank of America required some of the largest bailouts for commercial banks.

In September of 2008, the Emergency Economic Stabilization Act of 2008 was passed through congress and created the 700 billion USD Troubled Assets Relief Program (TARP). TARP was a federal rescue program run by the United States Treasury that bought toxic assets such as the securities mentioned in the above analysis from banks that were too big to let fail as they controlled such high shares of deposits. To save these banks, the Treasury spent approximately 245 billion USD of the 700 billion USD. Wells Fargo and JPMorgan received "smaller" bailouts of roughly 25 billion USD each. However, TARP's asset guarantee program focused on Citibank and Bank of America. Bank of America initially received roughly 45 billion USD from both TARP and FDIC to cover 118 billion USD in potential losses. Citibank also received 45 billion USD, to help cover potential losses worth 301 billion USD. The large and unprecedented banking sector bailout to the total nine banks that were saved by TARP were required because commercial banks had become too exposed to securities markets that ultimately failed, making the collapse of investment banks such as Bear Stearns and Lehman Brothers (thus and a run on securities) impact commercial banks and depositors to a greater extent. The repeal of the Glass-Steagall Act contributed to the rise in commercial bank exposure to risk and, in the end, allowed for the massive government bailout.

Additionally, the repeal of the Glass-Steagall Act gave permission to once purely investment banks to move into commercial banking territory, requiring the federal government to bail them out despite their role as depository institutions being a small part of their operations. Most notably, Goldman Sachs, Bear Stearns, and Morgan Stanley branched out to commercial banking activities. In 2008, Goldman Sachs, originally an investment firm, converted to a bank holding company to obtain access to funding sources for its activities. The Wall Street Journal reported that Goldman Sachs, between the fourth quarters of 2007 and 2009, lost 13.6 billion USD because of the subprime mortgage crisis. Given their new status as a bank holding company, they were given access to TARP and received 10 billion USD. A similar story is told about Bear Stearns which was acquired by JPMorgan Chase in 2008 which also provided it access for a bailout from the federal government. In 2009, Morgan Stanley converted its subsidiary Morgan Stanley Credit Corporation into Morgan Stanley Bank to obtain additional access to funding sources during the financial crisis. Morgan Stanley, unlike the other two investment banks gone commercial, did not receive aid from TARP but did have access to Federal Reserve liquidity programs in an attempt to save its depositors. Instead of letting these investment banks fail, because of the repeal of the Glass-Steagall Act, the federal government had to spend greater relief on saving these banks.

Conclusion

Financial innovation and speculation are chronic addictions of the capitalist economy. Given the system's tendency to accumulate private debt, governments are obliged to mitigate the economic fall outs of over-speculation. The United States regulators of the 1930s, in response to the worst economic downturn in its history, devised and implemented the implicit separation of traditional and investment banking through the Glass-Steagall Act. While ultimately successful during a period of greater financial regulation, what Minsky calls managerial capitalism, the act was eroded overtime due to the great lobbying by the banking sector and neoclassical economists who argued that the traditional banking sector was losing out on the benefits of competition. The erosion of the legislation took over forty years, first reducing the limitations of the securities that commercial banks could engage in as well as increasing the investment activities of commercial banks. The eventual repeal of the Glass-Steagall Act through the Financial Modernization Act of 1999 removed the implicit barriers between traditional and investment banking. Almost a decade later, the 2008 Financial Crisis, the closest economic disaster to the Great Depression, occurred. This thesis finds that the repeal of the Glass-Steagall Act was not a catalyst for the crisis because the shift towards money manager capitalism had allowed the financial sector to grow and become increasingly under-regulated and the sectoral imbalances preceding the crisis created by fiscal and industrial policy choices allowed for times of private sector deficit during a period of relatively constant growth, forcing the private sector to become increasingly indebted. A bubble was formed because of the financial environment established by institutions such as the federal government and other regulators. However, the repeal of the Glass-Steagall Act was a part of the wave of deregulation and specifically afforded commercial banks the opportunity to expose their depositors to the high-risks associated with investment banking and securities underwriting through mergers with investment banks and the legitimization of originate-to-distribute schemes as part of financial holding companies. Once the housing bubble popped and financial instruments such as MBSs, CDOs, and CDS became toxic assets, the scope of the recovery package including the rescue of the commercial banks and financial holding companies was much greater than it needed to be. If the division between commercial and investment banking existed in the decade leading to the crisis, there is reason to believe that the exposure of toxic assets to depositors would have been much less than it had been, therefore the crisis would have been limited and, perhaps, there would have been less government rescue needed. The financial alcoholism of the banking sector is an addiction we should intervene with, not feed.

The next step is to evaluate whether an updated version of the repeal is appropriate or whether the Dodd-Frank bill is an effective enough tool to reduce financialization and instability of the economy. It has been heavily supported and criticized by both political parties. Michael Barr, a key contributor to the creation of Dodd-Frank recently claimed that further regulations will be needed to reverse the damage done by the Trump Administration to the the stability of the financial services industry by “rebuilding a strong Consumer Financial Protection Bureau and building resiliency in the financial system” through greater capital requirements and otherlike policies (Karoub 2020). Massachusetts Senator Elizabeth Warren, has been on the forefront of calls to establish a 21st Century Glass-Steagall Act to once again separate commercial from investment banking.

Given their recent propositions of greater financial regulation, I want to highlight the importance of institutional approaches and how it is detrimental to recognize the evolution of the financial system. Neoclassical economics, in my opinion, does not achieve this, and thus is missing out of a fundamental insight on how the economy works, its instability, and where it is headed.

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