

**REPUBLIC OF TURKEY
YILDIZ TECHNICAL UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
ECONOMICS MA PROGRAMME**

M.Sc. THESIS

**FINANCIAL REGULATION
IN THE AFTERMATH OF THE
GREAT RECESSION**

**B. BARIŞ EROĞLU
15729004**

**THESIS ADVISOR
Prof. Dr. ENSAR YILMAZ**

**İSTANBUL
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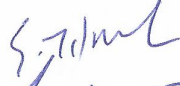
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**İSTANBUL
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ÖZ

BÜYÜK DURGUNLUK SONRASI FİNANSAL REGÜLASYON

B. Barış Eroğlu
Temmuz 2019

Piyasalara devlet müdahalesi, ekonomik teorilerin başından itibaren tartışmalı bir konu olagelmıştır. 1970’lerden itibaren veya finans tabanlı birikim rejiminin ortaya çıkışı ile devlet müdahalesi tartışmalarının önemli konularından biri finansal regülasyon olmuştur. Bu dönem boyunca defalarca ortaya çıkan finansal krizler bu tartışmaları daha da ateşlemiştir. Bu metinde ekonomik sistem analizlerine bütünlükçü bakış açısına sahip olma ortak paydasında olan ve farklı perspektifler sunan Fransız Regülasyon Okulu, Ordoliberaler ve Minsky’nin konu üzerine düşüncelerini inceledik. Sonrasında, Büyük Durgunluğu takip eden süreçte ABD’de yürürlüğe giren Dodd-Frank yasasını, ele aldığımız düşünürlerin sunduğu bakış açıları üzerinden inceledik. Genel finansal indikatörler üzerinden yasanın etkinliğine baktık. Yasada uygulamaya geçen önerileri ve etkinliklerini analiz ettik. Yasanın önemli eksikleri olmasına rağmen, geniş çerçeveli ve etkin olduğunu gördük. Ancak regülasyon çerçevesinin politik belirlenimden kaçamayarak, gevşetildiğini gördük. Dolayısıyla Dodd-Frank yasasının, hem işler bir regülasyon çerçevesinin varlığının hem de birikim rejimine gömülü güç ilişkilerinden bağımsız bir etkin regülasyonun mümkün olmadığına önemli bir göstergesi olduğu sonucuna ulaştık.

Anahtar Kelimeler: Finansal Regülasyon, Finansal Krizler, Dodd-Frank Yasası, Fransız Regülasyon Okulu, Küresel Ekonomik Kriz, 2008 Krizi, Büyük Durgunluk, Ordoliberaler, Minsky, Batamayacak Kadar Büyük, Gölge Bankacılık, Türev Piyasalar

ABSTRACT

FINANCIAL REGULATION IN THE AFTERMATH OF THE GREAT RECESSION

B. Barış Eroğlu

July 2019

State intervention is a contentious subject from the beginning of the economic theories. Beginning from the 1970s or the rise of the finance-led accumulation regime, one of the main reflections of this discussion among thinkers has been the financial regulation. Throughout this period, financial crises that occurred several times provoked the discussion even more. In this paper, we examined three approaches, namely the French Regulation Approach, Ordoliberalism and Minsky on the subject as a diverse bundle of point of views. Afterwards, the act of Dodd-Frank which is implemented in the aftermath of the Great Recession as a response in the US is analyzed in relation to the frameworks introduced. In other words, the suggestions of the different perspectives above are traced in the act. The effectiveness of the law is evaluated by using macroeconomic and financial indicators and the adequate and inadequate results are discussed accordingly. The advice of the financial regulation proponents followed in the act and appear to be working for a stable financial environment is pointed out whereas the missing core suggestions that seem to be still the reasons behind the fragility is analyzed too. Issues of transparency and the 'too big to fail' problem along with the power imbalances shaping the relationship between the financial sector and the regulators are analyzed through the mediation of the Act. We found that, although the act has serious insufficiency areas, it is well designed and mostly in line with the suggestions of the scholars. However, the years following the declaration of the act became a battleground between the regulator and the financial incentives showing evidence on determinism of underlying power relations. We conclude that a proper regulation scheme cannot be implemented without a structural change in the accumulation regime.

Keywords: Financial Regulation, Financial Crisis, Dodd-Frank Act, French Regulation School, Great Recession, Ordoliberalism, Minsky, Too Big to Fail, Shadow Banking, Derivatives

ÖN SÖZ

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B. Barış Eroğlu

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İstanbul; July 2019

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ABBREVIATIONS

ABCP	: Asset Backed Commercial Product
ABS	: Asset Based Securities
BIS	: Bank of International Settlements
CDS	: Credit Default Swaps
CFPB	: Bureau of Consumer Financial Protection
CFTC	: Commodity Futures Trading Commission
CRA	: Credit Rating Agency
EDS	: Equity Default Swaps
FDIC	: Federal Deposit Insurance Corporation
FHA	: Federal Housing Agency
FHFA	: Federal Housing Finance Agency
FRA	: French Regulation Approach
FRED	: Federal Reserve Bank of St. Louis
FSOC	: Financial Stability Oversight Council
G-SIB	: Globally Systemically Important Banks
GDP	: Gross Domestic Product
MBS	: Mortgage Backed Securities
NCUA	: National Credit Union Administration
NRSRO	: Nationally Recognised Statistical Rating Organization
OCC	: Office of the Comptroller of the Currency
OCR	: Office of Credit Ratings
OFR	: Office of Financial Research
SEC	: US Securities and Exchanges Commission
SIFI	: Systemically Important Financial Institution
SLR	: Supplementary Leverage Ratio
TBTF	: Too Big To Fail

1. THE RATIONALE BEHIND THE REGULATION ARGUMENT

1.1 Introduction

State intervention is a contentious subject from the beginning of the economic theories. Beginning from the 1970s or the rise of the finance-led accumulation regime, one of the main reflections of this discussion among thinkers has been the financial regulation. Throughout this period, financial crises that occurred several times provoked the discussion even more. In the First Chapter, we will analyze three approaches, namely French Regulation Approach (FRA), Ordoliberalism and Minsky on the subject as a diverse bundle of point of views. We choose these three approaches, because all three have a holistic comprehension, with diverse orientations. FRA analyzes the financial markets with a framework of the underlying accumulation regime shifts. Accordingly, they develop the proper tools for better understanding the intrinsic hierarchies of the ongoing structure. Moreover, they are among the traditions that worked the most on financial regulation. Ordoliberalism is chosen because they are a multidisciplinary school, including economics, law and political science. Also, they introduce a framework of both aggrandizing the market forces, at the same time, loudly defending a strong but well-defined state intervention. Lastly, Minsky is included giving a perspective with both the behavioral and structural roots of the financial markets. Introducing the cycles of financial markets, he also gives a much weaker role to the financial regulation, underlying alternative solutions to 'stabilize instability'.

Firstly, the rationale behind the regulation argument on each perspective will be analyzed. In other words, we will try to figure out the projected structure of the financial markets, that leads to a need for regulation. Secondly, for each school of thought, we will extract the guidelines of a proper and efficient working financial regulation. As the last part of Chapter One, a debate of the three approaches is introduced.

Finance-led accumulation regime introduced structural shifts. Beginning from the 1970s, a regime change accompanied by a deregulation process can be traced. The Second Chapter will begin with an analysis of the structural mechanisms that forced deregulation beginning from the 1970s. Deregulation timeline with the effects leading to the Great Recession will be discussed briefly. In the US, a strong and comprehensive regulatory response is given to the Great Recession, with its full name 'Dodd-Frank Wall Street Reform and Consumer Protection Act'¹. The Act will be analyzed according to the perspectives introduced in Chapter One. The matches and weaknesses will be discussed along with the evaluation of the effectiveness of the Act. Finally, we will try to answer if a proper, working and effective regulatory architecture is possible or not.

1.2 Different argumentations on regulation

1.2.1 French Regulation Approach on Financial Markets and Financial Regulation

French Regulation Approach (FRA) takes its roots from the 1970s via the works of French theorists Michel Aglietta, Robert Boyer, Alain Lipietz, Bob Jessop et al. As a heterodox school, FRA has been investigating the economic relations in a structural framework that grasps the economy, state and civil society in a much more closely related manner. And also, they criticized the heterodox schools' deterministic approach or hierarchy defined between economy and political superstructure (Boyer & Charney, 1990). Financial markets reflect the common wealth generated in a capitalist society. The flow of finance is a public matter where embedded power relations are crystallized. Theoretical roots of FRA gives the proper toolbox to grasp the financial structure. Similarly, the regulation discussion cannot be analyzed without examining the power relations within society. The theoretical framework of FRA, that can be traced to Gramsci, Althusser, Marx and Polanyi (Jessop & Sum, 2006), has a strong theoretical spectrum which puts the power relations in its proper place. In this section, FRA's

¹Long title: 'An Act to promote the financial stability of the United States by improving accountability and transparency in the financial system, to end "too big to fail", to protect the American taxpayer by ending bailouts, to protect consumers from abusive financial services practices, and for other purposes.'

framework will be briefly defined, then the explanations of the recent crisis will be discussed and finally, their regulation discussions will be handled in detail.

A stable period of capitalism is defined as the mode of development by FRA. Mode of development consists of two main regimes, accumulation regime and the mode of regulation. The organization of production and distribution of value and surplus value constructs the accumulation regime. Mode of regulation in own words of Jessop & Sum (2006) can be defined as "an ensemble of rules, norms, conventions, patterns of conduct, social networks, organizational forms and institutions which can stabilize an accumulation regime". Five main dimensions define the mode of regulation. The "wage relation" defined by the organization of work, labour markets, wage bargaining system; "enterprise form" which is the organization and source of profits, competition structure; "monetary regime" as banking and credit system, monetary policy; "the state" as the form of intervention and finally "the international forms" of trade, investment, capital flows, currency systems and international political arrangements (Hein et al., 2014). The crisis and the changes in the modes of developments occur in this framework mainly throughout asymmetric changes in the institutions and relations that are categorized under the mode of regulation and accumulation regimes.

The financial regulation can be interpreted as redefining the control and power of finance, limiting its reach to certain areas, redesigning its scope and limiting its ability of destruction. To analyze the FRA's regulation arguments, we will first define the accumulation regime, mode of regulation and mode of development in the finance-led world. The relations that give finance the ability to control, or in Gramscian terms the underlying mechanism that puts the finance in the "hegemonic bloc" have to be well understood for a proper design of financial regulation.

As briefly schematized in Figure 1.1, the crisis of the Fordist accumulation regime along with the advances in transportation and communication led to increases in international trade, financial liberalization, introduction of new financial instruments and highly deregulated labour markets, and followed by a totally weakened labour bargaining power. This was the forerunner of a change in the ongoing wage relation defined mainly between managers and wage earners (Boyer, 2013). The labour was getting excluded from the decision-making process leaving its place confronting managers to financial markets. This also contributed to increase labour's reliance on

credit, again strengthening the control of finance over society. This was the procedure of excluding labour from the hegemonic bloc and conversion of their prominent feature as consumers.



Figure 1.1 : The underlying systemic changes leading to the hegemony of finance.

Simultaneously finance was introducing itself in the hegemonic bloc. As Aglietta & Breton (2001) specify, three financial mechanisms are at work on the way to squeeze managers. It was gaining control through debt via banks or bank-based financial systems, but more the important mechanism has been the control by the security market and through shareholders. As gaining power in an almost totally deregulated atmosphere, finance strengthened its position in the hegemonic bloc of the society.

According to Boyer (2013), this passage to the new accumulation regime had some mode of regulation incompatibilities that led to the Great Recession. In his earlier work, Boyer (2000) developed a formal macroeconomic model for the finance-led accumulation regime. He also pointed out four different possible types of accumulation regimes. Among these four possibilities, two of them were unstable, whereas the other two can become well developed provided that a proper regulation accompanies. Nevertheless, Boyer updated his theory towards a structurally unstable perception after the dot-com bubble and the Great Recession (Boyer, 2013). Boyer emphasizes three main sources on the Great Recession. Firstly, the stagnation of real incomes increased the financial fragility. Exclusion of labour from the core decision making processes of the society served the rise of inequalities of incomes. This chain was the background of this stagnation. Secondly, the financial innovations that are highly automated and computerized give the possibility of extreme types of investments. The relatively slow growth of incomes together with these untested financial instruments constructed a mystic but direct link between households and the huge global financial players. As

encouraging households to a somewhat Ponzi scheme, this also boosted the fragility of the system. Finally, the global integration of the system introduced a strong spillover effect. Here Boyer also includes a crucial note that this is a crisis of the accumulation regime (Boyer, 2013, p.15). In other words, apart from a cyclical one he addresses the end of the credit-led regime.

When we analyze key factors underlying both the finance-led accumulation regime and the Great Recession through the Boyer's viewpoint, we can deduce that the rising unrestrained hegemony of finance is the essential node. Accordingly, to get a proper context of regulation, Boyer tries to demystify the power of finance. He examines it by four cross sections, revealing the six legs constructing the power of finance summarized in Figure 1.2.

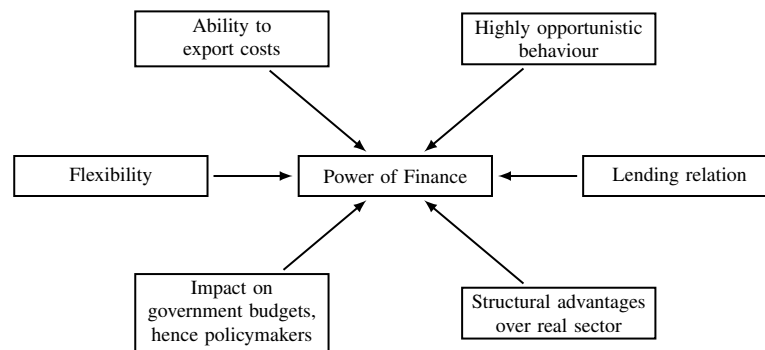


Figure 1.2 : Characteristics of finance leading to unrestricted hegemony.

First of all, lending relation, beginning from the first one throughout history has an embedded power relation. To better illustrate this fact by an example in the finance-led regime where banks are the main lenders, consider if a borrower faces some difficulties on repayments, banks have the right to require bankruptcy.

For the second cross-section, three intrinsic abilities of finance are given by Boyer. These aspects of finance give it the opportunity to design other economic relations. The huge difference of flexibility between the financial markets and the other markets is the first and the most important feature of the finance, as it is also responsible for the next two aspects. Secondly, originating from the forcing speed of the financial markets, financial agents have to behave opportunistically. Thus, opportunistic behaviour of the financial markets gives the ability to impose strategies to the firms. Aside from

the financial markets, product and labour markets have lags to adopt new information and correct wrong decisions. As the third and the last aspect, finance can easily take advantage of these positions with leaving a worse cost for the other markets (Boyer, 2013).

For another cross-section regarding the political framework, Boyer introduces the globalization and the liberalization. Along with the three mechanisms above, globalization and liberalization processes have increased the power of finance over not only the product and labour markets but also the governments. A global framework with a flexible structure enhances the control of financial markets on governments via the ease of relocation. Additionally, highly specialized financial agents and the introduction of sophisticated financial products, result in huge information asymmetries between these agents and the governments. In most of the cases governments cannot evaluate the risks of the financial interactions properly.

For the last cross-section, Boyer analyzes the relationship between finance and productive capital. Although productive capital and finance are too much engaged, they have heavy conflicts. Finance, especially in a digitalized money setting, is extremely instantaneous whereas productive capital has integrated inertia. This result in a smooth and easy response for a shock in the financial atmosphere in contrast with a highly irreversible situation for the productive capital case. Also, finance has a global scope whereas productive capital has a localized scope. Lastly, finance gets the benefits from opportunism, whereas productive capital makes its gains from cooperation (Boyer, 2013). Therefore, we must point out that the regulation problem is also a question of the adoption of two different structures properly, if possible.

Another key member of FRA on regulatory architecture is Michel Aglietta. Aglietta supports the policy advice of FRA by introducing quantitative methods and introduces detailed specific regulatory designs. In line with Boyer, Aglietta addresses the main problem of regulation as the willpower necessary to implement the decisions against the financial institutions (Aglietta & Scialom, 2010).

In his detailed examination on the motive behind the regulation, he first tries to analyze what was wrong before the Great Recession on the regulatory structure. General

structural weaknesses are summarized in Figure 1.3, we will try to explain these titles in detail next.

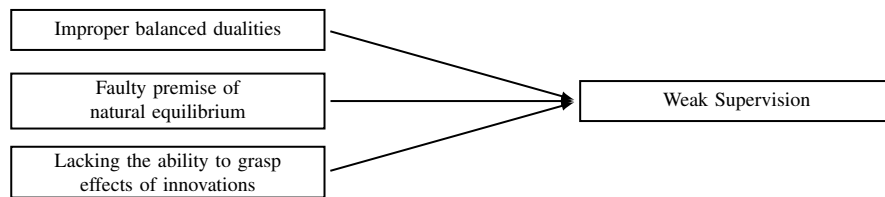


Figure 1.3 : General sources of weaknesses of the ongoing regulatory framework.

Aglietta addresses two improper balanced dualities (Figure 1.4) as the theoretical base for the inefficiency of the regulation. These dualities are solvency versus liquidity and economic capital requirements versus regulatory capital requirements.



Figure 1.4 : Two improper balanced dualities of micro prudential approach leading to ineffective regulation.

Beginning from the 1980s, the base of the regulation was capital requirements. The aim was to keep bank solvency to protect creditors, especially small depositors, where strong information asymmetries were embedded. Capital requirement buffer was defined on risk valuation which became sophisticated over time. Although risk valuation became much more sophisticated over time, asset-based approach remained the same. This led to a sharp distinction between solvency and liquidity and regulatory architecture remained focused on solvency. As a result, the shadow banking system emerged leading to a division of banks and non-bank financial institutions. The shadow banking system that depends entirely on market liquidities for funding became an efficient mechanism for regulatory capture.

The financial crisis during this period showed us that this solvency based fragmented framework didn't work. During stress times, the dynamic interaction between the liquidity and solvency resulted in an easy and strong spillover from liquidity to solvency issues. This chain of events is not only a brief explanation of the financial

innovations that are liable for the fragility but also gives the path of the workaround of regulation.

For the second improper defined relationship, economic and regulatory capital requirements form the base of discussion. Economic capital requirements are mainly on behalf of shareholders. They are calculated according to value at risk, aiming to cover the possible losses. On the other hand, regulatory capital requirements are designed to protect taxpayers or the whole financial system. That is the minimum capital required to keep the financial system stable. Therefore, calculations of this requirement strongly need the inclusion of the spillover effects or the negative externalities generated endogenously. Throughout the evolution of the regulations towards the Great Recession (for example Basel I and Basel II), the regulatory capital requirements get more and more engaged with the economic capital requirements and get fully engaged in the mid-1990s. The claim of the major banks which tried hard for these changes on the regulatory framework was the "best practices" of sophisticated optimization of risk management should naturally lead to financial stability. Aglietta & Scialom (2010) underline that this micro prudential mechanism is highly prone to risks where the individual decisions of the financial institutions have the potential to undermine the overall system, similar to bank runs.

After this criticism of micro prudential regulation framework, Aglietta & Scialom (2010) try to explain the rationale behind the macro prudential approach. First of all, they use a confidence design to show the coordination failure. They recall the Cooper and John's game theoretical structure to prove there exists multiple Nash equilibria (Cooper & John, 1988). This proposition, which is also in accordance with the theory of cycles of Minsky (1986), supports the point that micro prudential framework together with the market efficiency equipped with qualified risk calculations will not necessarily achieve the best equilibrium.

The second opposition from Aglietta & Scialom (2010) to the micro prudential context comes from the coordination failures embedded within the system. Aglietta states that the shift from a better equilibrium to a worse one is not a result of exogenous shocks, instead, as Minsky emphasized, it is endogenous (Aglietta & Scialom, 2010; Minsky, 1986). Noting the impossibility on constructing a model that captures all the interactions that are leading to a financial crisis, they slice the structure to

capture the systemic risks. They adopt a class of models from sociological research which are developed mainly to grasp the changes in public opinions. The results captured from the theoretical models show the structural instability in the banking system. Also, results coincide with the fluctuations of the Great Recession (Aglietta & Scialom, 2010, p.41). However, the depth of the actual banking crisis far more exceeds the synthetic results. The authors address the shadow banking system for this inconsistency.

As a third and the last structural inadequacy of the ongoing regulatory framework, Aglietta & Scialom (2010) point to the vicious interplay of financial markets. In this "innovative" "originate and distribute" model, credits are structured products that are produced within the closed system of intermediaries. This results in an oblivious (unable to calculate the generated risks properly, therefore unaware), extremely high leverage ecosystem. Accordingly, the system lacks a self-adjustment mechanism which was claimed by the agents within the system. The critical and dangerous loop can be defined as follows: asset prices rise, leading to lower risk perception, increase in supply and demand or credit expansion follows, which in the end raises the asset prices even more, and the cycle follows.

As we summarized the analysis of the Regulation School via some leading scholars of the school on the rationale behind the regulation, the next part will be their suggestions on financial regulation.

Boyer (2013) clearly points out that the struggle between the defenders of free markets and the proponents of state intervention is useless in the manner that the intervention or a mixed design is a rule of thumb. The problem is deciding where to place the intervention on the spectrum. Boyer gives his answer to the question regarding financial regulation in four main titles (Figure 1.5). To reach a proper regulatory framework and a stable economic ecosystem, macroeconomic control of finance, reconfiguration of stock markets, redefining the concept of finance as a public utility and finally, ex-ante public control over financial innovations are essential from the point of view of Boyer (2013).

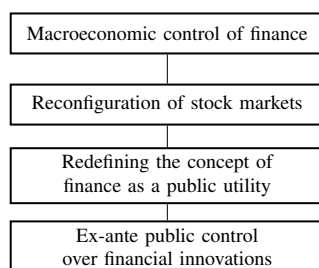


Figure 1.5 : Regulation guidelines of Boyer.

To gain macro control of finance, an agency that is designed to check overall stability via diffusion of bubbles, speculation and adverse macroeconomic shocks needs to be constructed. This agency needs the ability to grasp the early signs of rising risks and should be able to implement early precautions such as increasing requirement rates. For a supplementary monetary policy, screening of unusual acceleration of asset prices equipped with interest rate tool is also necessary. As a last macro prudential intervention, the fiscal policy should be designed to reverse the incitement from credit to saving.

To reconfigure the stock markets, handling the costs of risks have to be readdressed properly to the main generators of the risks, namely financial agents. In line with Aglietta & Scialom (2010), Boyer (2013) also underlines the need for an accounting reform heading towards a fair value accounting. As returning to the conventional measure of profit as value creation, accounting tricks to hide losses and costs have to be forbidden strictly. Additionally, the risk calculation models have to be updated where greater probabilities of shocks and endogeneity of bubbles have to be included. Finally, to achieve the above gains, the coordination asymmetry between the markets and the regulatory framework has to be calibrated properly. In other words, it is not possible to regulate integrated commercial and investment banks where the regulatory structure is fragmented monitoring the two piecewise.

Redefining finance as a public utility comes with a wholistic redistribution of power scheme. The governance structure in financial institutions should include credit holders, depositors, wage-earners, citizens communities and the state. Additionally, on the labour level, to prevent the credit mechanism to substitute real incomes the labour

share should be strengthened. However, we must not forget that for these cautions to work we need an international regulatory mechanism.

To justify the need for ex-ante regulation clearly, Boyer (2013) gives examples from other sectors which are tightly regulated, such as medicine, air transport, construction etc. where innovation has to be tested several times before circulation. As in the case for these sectors, an untested innovation can cause serious harms to the overall well being of the public (as experienced in the crisis periods). Bank runs can now be prevented with contemporary proper regulations; therefore, we can prevent toxic behaviours and instruments with ex-ante interventions. For example, myopic transfers of risk to less informed agents should not be allowed. Additionally, like in the commercial banks, innovations have to be transparent and accompanied by an explicit mechanism that would avoid systemic risks (Boyer, 2013).

As Boyer (2013) marks the key points from the perspective of French Regulation Approach in a theoretical manner, Aglietta & Scialom (2010) bring much more concrete discussions and suggestions on the subject (Figure 1.6). On macro prudential policies, they claim that the financial stability target has to be added to the duties of central banks. To achieve this, central banks should be equipped and empowered with proper tools which will be explained next.

As stated before, to achieve financial stability, we need to prevent excessive credit growth. But then two questions arise: how to define the benchmark for excess credit and how we should intervene? Aglietta & Scialom (2010) give the first answer by referring to an article on the subject produced by the Bank of International Settlements (Borio et al., 2001; Aglietta & Scialom, 2010). The excess credit can be defined as the cumulative positive gap between actual credit expansion and the cumulative expansion that has occurred if credit growth had followed the path that sustains a steady state regime consistent with a given rate of potential GDP growth. The credit growth has to be tracked in relation to the potential GDP growth. On the second question of how to control credit expansion, Aglietta & Scialom (2010) underline the crucial role of liquidity cycles in regard to the systemic risks. They suggest liquidity management as a powerful tool for macro prudential policies. In other words, they suggest implementing microeconomic tools that are designed to achieve macroeconomic results.

Aglietta & Scialom (2010) offer two frames in order to embody the problem of liquidity management: defining the perimeter of the financial entities and designing the instruments to be used. To define the scope of liquidity management, they compose a bundle named systematically important financial entities. All the entities that generate or transmit endogenous risks in financial markets, whether due to its size, interconnections or its leverage should be included. Now to regulate these systemically important financial institutions, they suggest a risk capture structure with three bases. The main objective is to estimate the contribution of each entity to systemic risk. Firstly, modelling of balancing sheet interdependencies is crucial. Secondly, macroeconomic stress testing (which has begun the application in 2009 by FED) with three main objectives should be implemented: improving the quality of capital, narrowing down the information asymmetries and strengthening the state on decisions. Third and the last branch of risk valuation is CoVaR method which measures the effect of deterioration in an individual financial institution on the losses of others.

Along with these liquidity management tools, a new perspective on accounting is also inevitable according to Aglietta & Scialom (2010). Mark-to-market accounting, where maturities are not reflected, is also a mechanism that hides the real ratios of risks. This unfair valuation on the balance sheets imposes big trouble on liquidity management. In order to grasp the systemic risk better via supervisor, a new design of accounting should be implemented. Basically, short-term assets can still be allowed to mark-to-market accounting whereas long-term assets should be priced by a discount based on time value. This fair valuation has to be calculated by supervisors to prevent manipulations.

Since we know that the history of financial regulation is full of regulatory captures and workarounds, after redefining the requirements and liquidity management framework, Aglietta & Scialom (2010) present some guidelines on the application process to avoid regulatory capture. Working and effective regulation should have three characteristics. Firstly to avoid the pressures from the market, the process has to be automated in order to leave the least space on subjective decisions. Secondly, the execution process should be progressive to intervene early enough the toxic cycles before transforming into systemic risks. Lastly, the tools have to be simple; therefore, transparency and independence from the supervisor should be possible. Aglietta & Scialom (2010) state

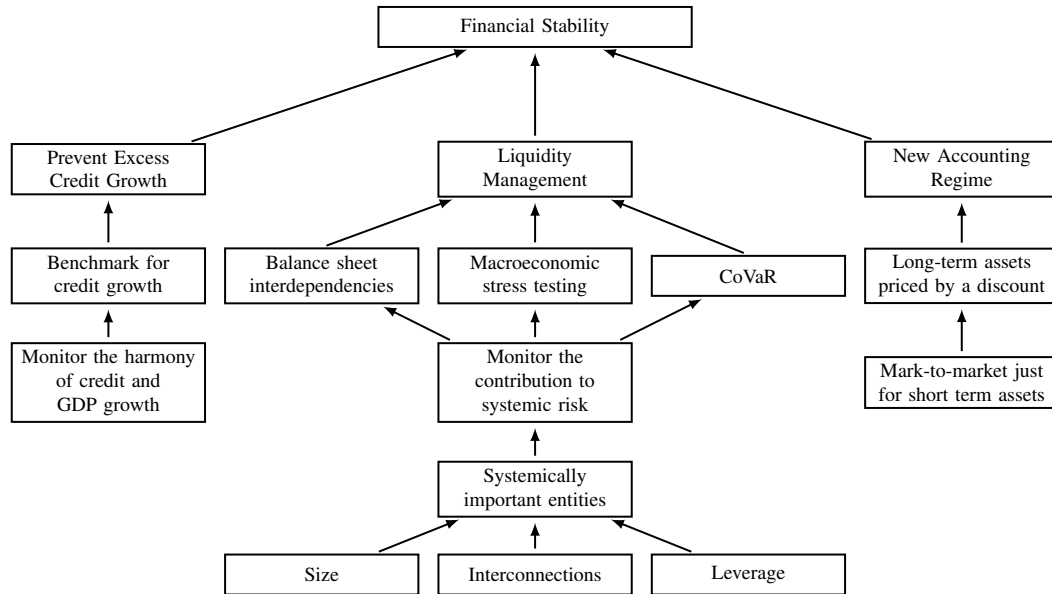


Figure 1.6 : Regulatory architecture advice of Aglietta & Scialom (2010) on financial stability.

that US banking supervision introduced in 1991 is a landmark to be developed further to achieve the above targets.

1.2.2 Ordoliberalism on Financial Markets and Financial Regulation

Ordoliberalism takes its roots back from the 1950s with its leading scholars Walter Eucken, Franz Böhm, Wilhelm Röpke, Hans Grossman-Doerth et al. Ordoliberalism is a joined multi-disciplinary team critical to methodological individualism. Neoliberals consider regulation as a cost factor. They claim that regulatory 'burdens' decrease the profits and therefore savings and investments, both decreasing efficiency and profits. Ordoliberal grasp of regulation is different from the mainstream approach of a cost factor, rather as a socio-economic and political issue, which can be considered as a pioneer on modern regulation theories (Siems & Schnyder, 2013). A search for a balance between the state intervention and free market, with an underlying effort to put the pieces in place by sorting goods and bads of both sides, is another reason for this school to be included in regulation discussions.

The basic claim on the gathering of this school is the need for adequate state intervention for the markets to function properly (Siems & Schnyder, 2013). Hence they impose a positive role both on markets and state. Supervision has to be very

well designed in order not to interrupt the positive progress emerging from the market, but need to control the problems arising from market power (Röpke, 1950). Three fundamental market forces have to be protected: Tendency to reduce costs, tendency to reduce profits in the long run, tendency to increase profits in the short-run by reducing costs (Foucault, 2004). They believe that competition is both socially and economically the most efficient order. It is socially the most efficient thanks to coherence with social and political goals of a free society. It respects and promotes freedom of movement, freedom of choice, private ownership. It is economically efficient because it is the only way of optimal resource allocation. This order also brings a natural flow towards the harmonization of private and general interests. However, these positive aspects cannot be established on its own (Broyer, 2001). The problem about the market forces being the tendency towards monopolies followed by a concentration of power results in a deterioration of the progressive flow. For Ordoliberals, the scope of state intervention has to be well defined, whereas, within its boundaries, the state has to be powerful enough on enforcement (Röpke, 1950).

Another core claim of Ordoliberals is about the need to redefine the relation of the economy with the rest of the social relations (Röpke, 1946). They reject the hierarchy that positions the economy to a higher level within the society. They emphasize, with own words of Röpke (1946), that "market economy constitutes a narrow sector of the social life only". Hence they criticize the provision of universal welfare. In particular, they also reject "purely material" social policies and instead put forward "*vitalpolitik*" aiming to improve living standards not just through cash transfers, but by including a transformative structural societal policy (Siems & Schnyder, 2013). To recall, all these policy advice are to achieve a stable natural order of society where market forces are a part of.

Ordoliberals give significant emphasis on the concepts responsibility and liability. Liability draws the borders of state intervention. It should not give comfort to the market forces (such as 'too big to fail' companies) to walk away from responsibilities emerging from their own faults. On the other hand, the same liability concept is loaded such as state should also not conform the labour to escape from work. A market structure where liabilities fully embedded in every transaction and assured by the state should be implemented (Siems & Schnyder, 2013).

Depending on Eucken, European Central Bank Executive Board member Jürgen Stark (2008) lists the Ordoliberal principles that state should implement to achieve financial stability on six titles: The primacy of price stability, the promotion of perfect competition on all markets, the protection of property rights, the freedom of contract, unlimited liability and finally stability-oriented economic policies. Also, he reminds that Eucken emphasizes the simultaneity of these principles as these orders are strongly interdependent. He also adds international order should be added to achieve stability in contemporary conditions where Eucken normally hasn't mentioned. These principles should be timeless, independent of policy changes.

To achieve this efficient competitive order, four guidelines on general regulation can be introduced regarding Ordoliberals (Broyer, 2001, p.112). Firstly, an independent office should monitor monopolistic tendencies and guarantee the competition. Secondly, a fiscal policy aiming for direct redistribution of income should be implemented. But this should not affect the propensity to invest or reduce savings. Ordoliberals aim to fine tune resource allocation failures arising from profit rate imbalances. Thirdly, freedom of planning should be limited in some spheres. Since it is not possible for individuals to foresee all the outcomes of their plans, negative externalities can occur. In particular, these negative externalities can occur both in monopolies and competitive markets. Lastly, the labour market must be observed in order to prevent deformations arising from demand fluctuations or productivity gains.

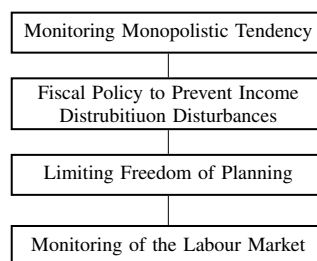


Figure 1.7 : Regulation guidelines of Ordoliberals.

These were some selected key points defining Ordoliberals in regard to our subject. Financial markets evolved too much after the Ordoliberals claims on markets. If we project these key points to the contemporary financial markets with the help of current

followers of the Ordoliberal school, we will face five main critical points which can be summarized as follows:

1. As the last decades show us, financial markets have a much more intrinsic tendency towards generating "too big to fail" companies. Ordoliberals are strictly against monopolistic deformations of market competition. They suggest limiting market power from the beginning, hence it would be discussed that in an Ordoliberal environment it would not be allowed for companies to become so big, also they should definitely allow them to bail out.
2. Highly laissez-faire market structure of financial assets are also not aligned with the idea of '*ordnungspolitik*'; an active 'ordering' of the market and politics. A 'weak state' that is prone to pressures from interest groups is not acceptable from this viewpoint.
3. Fully transparent market structure is needed for the proper and continuous state intervention. Yet last three decades of financial innovations showed us, unlike real sectors, it is hard to impose transparency to financial markets.
4. Another point strongly emphasized by Ordoliberals is the "liability" issue. Proper assignment of liabilities to market factors is vital for the Ordoliberals. Besides, financial markets have a highly flexible structure giving them the ability to transfer the negative consequences of their own actions to third parties, usually to the shoulders of public and real sectors.
5. Conversely, Ordoliberals celebrate the financial markets on enhancing access to the free market by individuals. They claim that the system should grant people maximum freedom and, as Foucault (2004) and Bonefeld (2012) discussed, one of the main goals of the system, as defined by Ordoliberals, is to embed entrepreneurialism as a character trait in the society broadly. Financial markets not only contributes to this aim by inviting all units to get involved but also forcing all units to behave accordingly. Financial markets have a tremendous role in the deepening of the market through society.

With the given scope of reflecting Ordoliberal key concepts in regard to the financial markets, we can move on to regulatory pathways that are suggested by the aforementioned school. The liability principle (*haftungsprinzip*) tells us a lot

on financial markets and possible regulation frameworks. To reassess the principle, Ordoliberals underline that those who benefit from a particular position should also be liable for the negative results. Therefore financial innovations should be constructed or regulated accordingly. The derivatives should be carefully constructed such as the arising risks should also be handled by the generators of the risks themselves (Richter, 2010). As a consequence, the innovations that are designed to escape from liabilities should not be allowed in an Ordoliberal ideal design of financial markets. Therefore transparency is essential within this approach. Another caution related to the liability issue should be higher capital requirements. Proactive supervision should also be listed in this manner.

As an additional point, international regulation is also suggested by some contemporary Ordoliberals whereas cannot be easily traced back to the former scholars (Asslander, 2011; Conrad, 2005). Some scholars argued an international economic constitution is necessary.

1.2.3 Minsky on Financial Markets and Financial Regulation

In the search for a more just and stable economy, the theory of crisis plays a central role. Throughout the expansion and explanation of the regulation argument, different schools of thought naturally relate it with the crisis theories. Minsky (1986, p. 18) asserts that crisis is embedded in the financial system itself and it cannot be prevented. He argues that financial innovation continually occurs especially during the boom periods, preventing the regulation institutions from taking the necessary precautions. As a result, Minsky gives a weak role for financial regulatory organizations on the way towards financial fragility. He underlines the need for a big government, strong central banks and (just as a contributory mechanism) regulation institutions with certain properties in order to achieve the ideals of a good society. In his own words "...even though all capitalisms are flawed, we can develop a capitalism in which the flaws are less evident than they have been..." (Minsky, 1986, p. 329). Therefore, regulation should be a discussion of whether institutions are amplifying or attenuating the instability. Similar to Ordoliberals, he draws the border of regulation and intervention on the competitiveness of the markets, addressing a need for limiting the market power.

Moreover, he criticizes efficiency focused economic design, as allocational efficiency may be stability inefficient.

Therefore Minsky (and followers (Hein et al., 2014)) cannot be considered as defenders of regulations. On the other hand, arguments on the structural weaknesses of the regulatory efforts place crucial questions to answer for the scholars that are defending regulations.

Instead of equilibrium theory, Minsky (1986, p.197) defines the core problem of the economy as the instability and addresses it to the financially driven long run cycles towards instability. According to Minsky, investment behaviour schemes underlie these cycles. He clearly emphasizes that to understand financial instability theory we must clarify determinants of the investment.

The crucial positioning of investment in Minsky's theory is resulting from the behavioural approach to the cycles (Hein et al., 2014). As investment is a kind of bond where it is "money-now-for-money-later" exchange, the expectations are embedded. In constructing the architecture of his financial theory Minsky relied on Keynes and Schumpeter mainly. He implemented expectations via investment coming from Keynes in his framework but he criticized expectations in Keynes as being too much static and not giving the central role it is deserving. For Minsky, Keynes explains the crisis periods as capitalizing the expected profits. Therefore the crisis is also contained in the expectations (Minsky, 1986, p.146). In other words, expectations were already determined long before the collapse. However, the dynamic response of the expectations to the given conditions is the key point of the process that carries the economy to a fragile state. Minsky addresses this dynamism to Schumpeter and Marx.

This mechanism is working through the systemic two different sets of prices: the prices of the current outputs and the prices of capital assets. These two prices are directly linked, however they are determined by different markets, which have different economic structures. Three stages of financial cycles originate from these price schemes. The first stage, where a relatively tranquil period following a crisis is prevalent, is safe financing. In safe financing period, income exceeds the interest and principal payments. Because of the safe moves floating on the heritage of the crisis period, expectations are realized in this first stage, resulting in a decrease in the

risk perception. Moreover, this optimism not only captures borrowers and lenders, but also the regulators². Speculative financing follows the safe period, where income becomes enough for interest payments but not enough for principal payments. Final stage towards financial instability is Ponzi financing where income is insufficient even for interest payments (Figure 1.8).

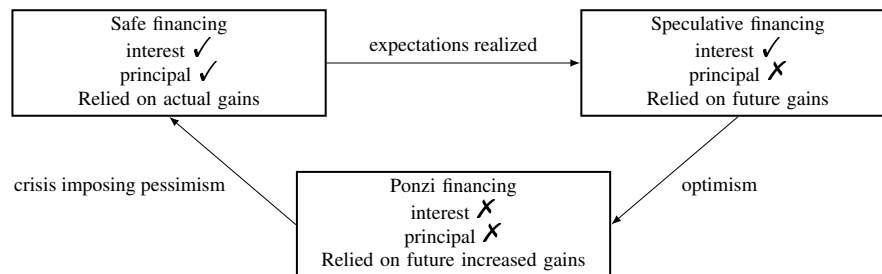


Figure 1.8 : Structure of unstable cycles theory

Along with this analytical framework, Minsky perceives the problem of the system as a structural one. He emphasizes almost like a law that stability generates instability. Despite addressing the inevitable instability as deep as human nature, he points out that we can restrain it, in his own words we cannot fully eradicate but stabilize instability. Furthermore, as the institutional framework evolves, the paths or the cycles that economies follows also evolve throughout time.

Another significant emphasis in the theory is the endogeneity of the cycles. The vulnerability of the system is determined by the share of external finance in investments, the liquidity of the system, and the proportions of the three financing schemes that are explained above. Therefore, the crisis does not originate from wars, oil shocks or monetary surprises. In the end, the collective behavioural aspects lacking the proper economic policy are making the economy fragile for Minsky (Figure 1.9).

²Bernanke's most speech's after 2001, for example, "I'm a great believer in great moderation hypothesis" (2004)

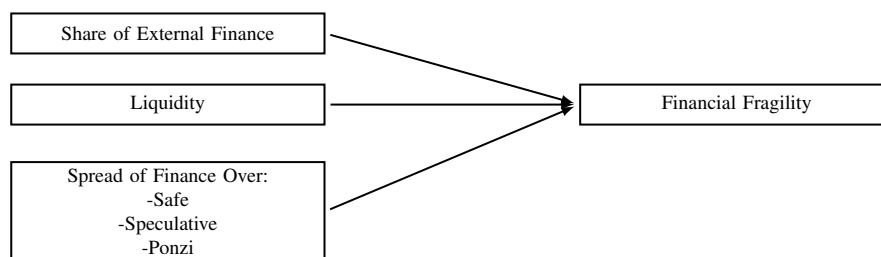


Figure 1.9 : The origins of fragility in the system.

A brief examination of the complex financial structure from the point of view of Minsky, reveals that the mechanism depends on leverages that make available borrowing at a lower rate than the assets earn. In order this carry to be realized, liquidity premiums should be embodied. Without interrupting financial difficulties, these financial instruments raise their values without losing any liquidity value. However, the increase in dependence upon these instruments by financial institutions and firms leads to vulnerable prices for capital assets. They become vulnerable to a possible change in liquidity component of the liabilities, which in turn raise market interest rates, reducing the ability of the turnover of the system. Minsky (1986, p. 277) gives the example of the shocks of the late 1970s and early 1980s as an example of this cycle, where we can easily add the Great Recession in the name of Minsky.

Minsky (1986) addresses the instability potentials that are generated via banks to the central banking and deposit insurances. He claims that this perfect protection atrophies the pressures of customers and experts, leading to revealing the embedded market barriers on bank expansion. A move to reduce the monetary growth from the authorities during an expansion imposes a risk of a financial crisis. This potential forces the authorities to protect the stability of the banking system by the infusion of reserves to the banking institutions. However, this infusion exceeds the rate that is compatible with noninflationary economic expansion. Therefore, this mechanism ties the hands of the monetary authorities. Minsky (1986, p.272) states that to control this disruptive mechanism, proper leverage ratios and limitation of the growth of bank equity that is aligned with the noninflationary economic growth is needed. In particular, he questions the ongoing emphasis on capital requirements, suggesting an emphasis on leverage ratios. Besides, Minsky (1986) recalls that, as new financial

instruments are designed to capture profit opportunities, it will be hard to practically apply these guidelines.

More on banking regulation, Minsky (1986) suggests a regulatory architecture that is structured to encourage smaller banks. In order to small banks to function properly, the designation of investment and commercial banks should be valid for large banks yet not valid for small ones. He also supports the argument of easing requirements for smaller banks.

In order for assets to meet the expected cash flows, the general framework of the financial structure has to function in an appropriate way. For a cash flow to a bank to be realized, debtors must fulfil the expected payments. But it is highly dependent upon the gross profits which are tied directly to the currency, or a government debtor's repayments depend on the tax expectations etc. Therefore, the macroeconomic framework has also a deep effect on the soundness of the banking system.

Minsky emphasizes the need for a big government to stabilize instability, he gives particular importance on the problems related to the "giant financial institutions" of which are called 'too big to fail'. He clearly states that (Minsky, 1986, p. 9) the TBTFs should be reduced to more manageable dimensions in order to achieve stability as well as efficiency. Without such regulation, examiners will lack the power to constrain the credit policies, even if they catch problems.

Minsky (1986) suggests a regulatory institution to handle bankruptcies of TBTFs. He suggests breaking TBTF into parts such as the ones that can survive and the ones that should be liquidated conspiratorially.

There are points that Minsky (1986) emphasizes on the inadequacies of regulations. Structurally, regulation is unavailable to keep up with financial innovations. From the point of view of regulators, it is a never-ending effort. Therefore, the regulation design should rather focus on the leverage ratios. Another point in a proper regulatory design is to keep the requirements not subject to change. In particular, the regulatory authorities should be granted enough power and pertinacity. Similar to Boyer (2013), Minsky (1986, p.325) also gives particular importance to the public dimension of the financial structure. He suggests economic issues to be discussed widely and transparently. Moreover, public control over TBTFs is essential for Minsky.

Minsky criticizes both the dominant schools and the regulation institutions (which are shaped accordingly to those schools) by the inability to grasp the nature of the financial crisis. Without taking into consideration the natural tendency towards instability they cannot restrain the crisis. In other words, the regulation institutions must be aware of the optimism trap and take precautions. Referring to conventional Keynesians and monetarists he continues:

"Neither of these two competing schools of analysis and policy advice accepted that there were economic processes at work within a capitalist economy with a sophisticated financial system that tend to generate first an inflationary expansion and then conditions conducive to financial instability." (Minsky, 1986, p. 51)

Minsky (1986), relying on evidence from the 20th-century crisis, claims that big government capitalism is more stable. This is because of the counter-cyclical intervention capability of the big government rising from the deficits. When the crisis begins to deepen, a big government have the ability to intervene by deficit so as to achieve price, employment and profit stability. Moreover, if a big government has a properly designed tax and spending structure, it can also prevent potential inflation. But then the question 'how big?' arises. Minsky (1986) defines, as big enough to ensure that swings in private investment can be counterbalanced by swings generated by government deficit so as to keep profits and employment stabilized. In particular, the government have to be able to confront the investment volume.

This framework puts employment in place of the investment as a stabilization target. Minsky (1986) questions the investment target that, it will lead to a fostering of financial structure, increasing a potential instability even more. Thus, employment target has structural benefits over investment, plus it is a movement oriented toward "economic policy ideals of a good society" (Minsky, 1986, p.9).

To summarize Minsky's arguments on stabilization, we can list four main titles: Big government (to stabilize unemployment and cash flows), strong and voluminous enough Federal Reserve System (as a last resort for lending to prevent deepening of the crisis), manageable dimensions for private power (to achieve stability and efficiency), and Regulation Institutions that are designed accordingly the unstable nature of the financial markets.

1.2.4 Debate of the Three Approaches

Regarding the base structure of capitalism, all three approaches address structural instabilities. FRA, based on Marxian traditions, relies on class conflicts to explain the inherent instability. Social institutions that form "mode of regulation" for a particular "accumulation regime", are required in order to achieve stability. Conversely, Ordoliberals appreciate market forces on a conditional basis. They reject both the theory of embedded conflicts and the neoliberal theory of market fetishism. Instead, in order to market forces to work efficiently, a strong state as a guarantor of order is necessary. They see the tendency of monopolization deteriorates the market forces. They also criticize the state as an economic actor. It can be claimed that the source of instability for Ordoliberals is an issue of government. On the other hand, Minsky addresses the instability to financial economies. The investment itself, depending on expectations, defines the instability tendency of the system. Behavioural roots of investment and finance generate long run cycles.

Regarding the sources of systemic changes, FRA seeks for a lack of harmony between the mode of regulation and the accumulation regime. Technological change and falling rates of profits can be listed as the roots of the inconsistency from the perspective of FRA. As explained above in the related section, the crisis of profitability led to a decrease in investments and growth, resulting in a change of axis from manager-worker compromise to investor-manager compromise. Ordoliberals are not into analyzing systemic changes. They define an ideal order and explain the current structures accordingly. The emphasis on the interdependence of the orders of society gives possible explanations of crisis. Minsky explains the passage to "money manager capitalism" as a gradual process. As he underlines stability breeds instability, it is necessary to locate the current stage on the long run cycles in order to explain the systemic change. This increased risk appetite period of money manager capitalism takes its roots from the stability of paternalistic capitalism.

Regarding the structure of the financialized economy, FRA characterizes the period by deregulation and liberalization of finance, deregulation of labour markets. A change of the hegemonic bloc of the society with the exclusion of labour and

inclusion of finance is another characteristic property of the finance-led accumulation regime. Short-termism, increased household and public debts, increased dependence on financial markets globally, consumerism can be listed as main characteristics of finance led accumulation regime from the point of view of FRA. Minsky contributes to the characteristics of the era by emphasizing the role of leverages in the cycle of safe-speculative-Ponzi financing.

To begin a debate of the three approaches on financial regulation, all three clearly agree on the limitation of the power of financial institutions over public institutions, with different emphasis nodes. There is no optimal equilibrium point that can be reached on its own or via the financial market dynamics. All approaches agree on structural instability, however, Minsky rejects the possibility of reaching a stable state. Instead, he claims it can only be made smoother. On the other hand, Ordoliberals claim structural adjustments can be possible to cope with structural instability. They claim that market structure results in systematical coordination failures. FRA introduces the problem to be handled in relation to the historical context of the accumulation regime. Their main contribution is that we need to figure out if the problem is a crisis of accumulation regime or a crisis of the mode of regulation. Here Minsky can put forward his theory that instability lies deeply in human nature, hence cannot be changed. Besides Ordoliberals can claim that history is full of eliminated coordination failures of human nature and with a conscious and proper collective state intervention this can also be overcome. Minsky does not suggest to leave the system on its own, he differs from the others slightly that the cycles are inevitable but can be made smoother. In the effort to achieve a better financial environment Minsky and FRA have similar suggestions. Both emphasize the careful monitoring of liquidity and excess credit growth.

To better control the power of finance, different approaches have different emphasizes. Minsky underlines the need for a strong Reserve and Government, where Ordoliberals agree with both. Empowering of the central banks is another common core point for the three. FRA suggests that financial stability target should be added to the targets of central banks, where Minsky underlines the necessity of a large enough reserve system. The Ordoliberal principle that “societal goals should be imposed on the economic actors” is totally in line with the central bank target update argument. Minsky and

Ordoliberals both support a strong government but from different perspectives. The design of the big government for Minsky is an economically big government and reserve system which in turn can intervene unemployment etc., whereas Ordoliberals step back from the economic power of the state. They rather suggest a politically strong and independent constitutional economic order. The Ordoliberal state is not guided by quantitative results, it is an order-rule oriented state. Minsky defines the need for a large enough reserve system to construct a strong lender of last resort. However, the liability problem occurs in this proposal. Ordoliberals are strictly against the bailout recoveries. Both schools suggest preventing the markets from generating “too big to fail” institutions. A similar conflict should rise on Minsky’s suggestion on governments to ease unemployment problems during the crisis periods. However, this time we can not clearly deduce a rejection from Ordoliberal point of view. We can clearly claim that this external intervention on employment is again prone to moral hazard and liability problems. Yet, it can also be considered as a move towards “common good” or “societal goals” that are mentioned from the Ordoliberal perspective.

From a totally different position, FRA addresses the root of the problem as the power relations that emerge from the ongoing accumulation regime. As a result, to redefine the hegemonic bloc of the society, a change in the accumulation regime is necessary. Their theoretical design of instability underline the clash of the mode of regulation and accumulation regime and a resulting movement of history towards a new set is not independent from the class conflicts.

2. GREAT RECESSION AND REGULATORY RESPONSE

In this chapter, we will try to analyze the regulatory response to the Great Recession, namely, "Dodd-Frank Wall Street Reform and Consumer Act", on the scope that is introduced by the discussions and suggestions in Chapter 1. We will try to cover how much does Dodd-Frank cover the key points of suggestions on regulatory architecture. Also, we will try to clarify if these regulations are effective to prevent another Great Recession after ten years of the turmoil. Inline with these discussions, we will try to figure out the origins of the weaknesses of the regulatory structure, trying to figure out if the inadequacies of regulations are systemic to the regime of accumulation or originating from the improper design of the regulatory framework. In other words, we will try to answer if a proper regulatory framework is possible or try to define the boundaries of regulation.

In order to achieve a sound analysis, we will begin with the background of the way towards the Great Recession. We will try to explain briefly both the systemic flow and as a result of that flow, the deregulation steps that led to instability. Then we will go on by the key steps of Dodd-Frank. The titles of the Act will be filtered by their relationship with the suggestions that are covered in Chapter 1. The regulatory institutions established or redefined and general aspects of the act, banking regulations, shadow banking precautions, leverage ratio rearrangements, 'too big to fail' precautions, credit rating agencies, consumers and supervisory regulations will be our focused issues of the Act. As a final part regarding Dodd-Frank, rollbacks will be summarized. For the final part, the shortcomings or accomplishments of the Act in regard to the suggested structure of regulation will be discussed. Moreover, we will discuss the effectiveness of the Act to achieve financial stability trying to address the potential fragility of the system, along with the question if a proper design of regulation is possible.

2.1 Deregulation process between 1970-2008

Short after the 1929 crisis, US financial markets entered a long period of financial stability. Several regulations put into work during this relatively tranquil period. Beginning from the 1970s first signs for a change in the accumulation regime appeared. Several macroeconomic problems began to appear overall in the world. We will not go into detail of these problems or their backgrounds, besides we will try to trace the mechanisms that empowered finance in the US, which, in turn, forced deregulations.

The domestic markets and the ongoing Fordist accumulation regime came to its limits of productivity, resulting in slow growth. This forced an era of financial globalization to seek productive regions. Decreasing profits plus empowered wage earners thanks to welfare state regimes was another rising conflict area. The resulting high inflation decreased the real interest rates leading to sharp decreases in deposits. This mechanism forced the banks towards financial innovations and consumer credits. The position of the labour changed on the way towards a new accumulation regime, wage earners transformed into consumers. Stagnation of real incomes followed, resulting in more reliance on credit. Simultaneously, the introduction of petrodollars in the global financial market and several financial innovations followed by a significant rise of power of financial institutions through the system. All these transformations and mechanisms imposed a strong pressure on the deregulation of the financial system (Figure 2.1) (Orhangazi, 2014; Boyer, 2013).

As a result, several deregulations followed, beginning from the 1970s towards 2008. The key deregulations timeline and respective explanations can be found in Appendix A.1. We can consider the end of Bretton Woods as the first significant deregulation move as it made free financing possible. Complete elimination of usury rate ceilings in South Dakota and Delaware and opportunity to export usury ceilings nationwide is given by the Supreme Court decision of *Marquette v. First of Omaha* in 1978. Total cancelling of interest rate ceilings on deposit accounts are established by the Depository Institutions and Monetary Control Act. In 1982 thrifts are deregulated and commercial lending with the possibility of investments in junk funds are allowed by the Garn-St. Germain Depository Institutions Act.

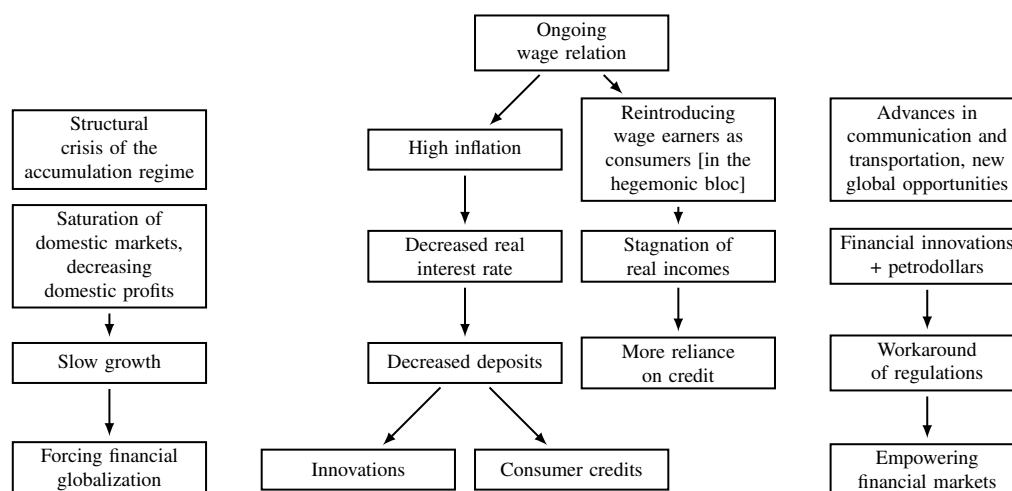


Figure 2.1 : Structural flows pushing towards deregulation.

Financial Institutions Reform and Recovery Act is followed creating Resolution Trust Corporation, which is responsible to resolve failed thrifts, easing banks on taking more risks. Financial Modernization Act in 1999 paved the way for increased diversification of financial activities. After long pressures, Glass-Steagall Act imposing the separation of investment and commercial banks repealed totally in the same year. Next year Commodity Futures Modernization Act opened a free playground for the credit default swaps (CDS) and equity default swaps (EDS). The same year, Amendment to Employee Retirement Income Security Act is also signed allowing pension funds to buy mortgage-backed securities and asset-based securities, resulting in an increase on demand for aforementioned products, therefore an increase in the overall risk. During this time period, there were also some developments that are considered to be positive such as Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 and also some other minor deregulations. We select the ones that are significant or believed by economists to be directly responsible for the crisis. These key deregulation steps fitted on a timeline can be seen in Appendix A.1

Also, we need to add that throughout this formal deregulation process, informal deregulation was also at work in two ways. Firstly, the pressures of the market and the aforementioned power relations made some of the actual regulatory constraints inapplicable. For example, following the Enron Scandal United States Congress declared the irregularities found within the SEC (Biedermann, 2012). Secondly, through innovations, fast transformations occurred in the financial markets, where

supervisors should not be able to properly track the real effects of the transactions. As one last point, the role of credit rating agencies that are defined and trusted to be nationally recognized agencies can be considered as a hidden or indirect deregulation. In particular, these agencies are funded by the financial system itself which implies a voluntary self-regulatory mechanism. With this design that has begun establishing from the mid-1970s, the monitoring of the system is done by plugging it to itself.

2.2 Dodd-Frank Act: Aims and Actions Taken

It's clear that Dodd-Frank Wall Street Reform and Consumer Protection Act is written under the heavy effects of the Great Recession. In line with all the regulatory actions taken before, Dodd-Frank also aims to prevent another financial crisis at first. Most of the precautions embedded in the act are directly linked to the problems and discussions followed the crisis. The Act made the most significant changes since the Great Depression. Signed in 2010 and implementation still going on¹, Dodd-Frank effected almost all of the financial entities². A new resolution mechanism for large financial institutions, integration and coordination between regulatory and supervisory agencies, tighter regulatory capital requirements, regulation of over the counter derivatives, regulation of credit rating agencies are just a few significant titles included in the act. We will go into details of these with trying to briefly classify the act according to subjects of regulation and try to trace the results of the act by relevant data. Our focus will be on systemically the most important titles and the ones that can be directly related to the discussions on the first chapter. Therefore, some minor or irrelevant titles will be omitted here.

2.2.1 General Framework and Banking

The fragmental and micro-focused structure as discussed in chapter one was one of the main structural weaknesses of the regulatory structure. To better identify, monitor and eliminate risks, to establish a coordination and collaboration mechanism a new council, namely Financial Stability Oversight Council (FSOC) is established. The

¹For a detailed timeline of implementation refer to the Appendix A.3, and for the up to date situation: <https://www.sec.gov/spotlight/dodd-frank.shtml>

²The changes imposed by Dodd-Frank in relation with the ongoing regulatory framework can be found in Appendix A.2

chair of the council is Treasury, and voting members are the heads of the Treasury, Federal Reserve, Office of the Comptroller of the Currency (OCC), U.S. Securities and Exchanges Commission (SEC), Commodity Futures Trading Commission (CFTC), Federal Deposit Insurance Commission (FDIC), Federal Housing Finance Agency (FHFA), National Credit Union Administration (NCUA) and the Bureau of Consumer Financial Protection (CFPB) and an independent member appointed by the President and confirmed by the Senate. Before going on with the details of the duties of the FSOC, we need to name another office, Office of Financial Research (OFR), established by Title 1 of Dodd-Frank. OFR is designed to support FSOC through data collection and research. Here we need to underline that the director of OFR has subpoena power³ and has the authorization to request any data from any financial institution.

Financial Stability Oversight Council collects the necessary information to describe the risks within the system and directs the Office of Financial Research on research areas accordingly. FSOC monitors the financial market to better control stability and efficiency. Council also eases the information exchange and coordination between the member agencies and overall financial regulatory structure. General priorities regarding financial risks are imposed by the Council to the member agencies. Council is also responsible to identify and prevent the gaps within the regulatory framework giving way to regulatory captures and workarounds. It enforces supervision of the Federal Reserve in case of financial distress for nonbank financial institutions. Council is also supposed to prepare an annual financial stability report to the Congress. To better cope with the macroeconomic risks rising from the liquidity, credit or other risks that have the potential of spreading, the Council has the authority to implement heightened prudential standards for nonbank and large interconnected bank holding companies. The Council is also responsible to identify "systemically important financial institutions"⁴(SIFI) which are subject to higher regulatory standards that we

³An administrative subpoena under U.S. law is a subpoena issued by a federal agency without prior judicial oversight. Critics say that administrative subpoena authority is a violation of the Fourth Amendment to the United States Constitution, while proponents say that it provides a valuable investigative tool.

⁴Title VIII: Payment, Clearing, and Settlement Supervision - Payment, Clearing, and Settlement Supervision Act of 2010 - (Sec. 803) Defines "systemically important" and "systemic importance" as referring to a situation where the failure of or a disruption to the functioning of a financial market utility or the conduct of a payment, clearing, or settlement activity could create, or increase, the risk of

will detail later. Another important duty of the Council is to make recommendations to the Federal Reserve and other regulators on concentration limits.

SIFI's are subject to higher standards of supervision, including the tools of capital requirements, leverage ratios and liquidity standards which are in line with the Basel III standards. All the systemically important financial institutions will be supervised by Federal Reserve regardless of their legal position. Title VIII of the act authenticates Federal Reserve for the supervision of risk management standards for the SIFI's. Title II introduces the Orderly Liquidation Authority (OLA) and Orderly Liquidation Fund (OLF) which are designed to solve the problems related to the so-called 'too big to fail' problem. In case of a failure, the SIFI's are subject to new resolution mechanisms supervised by OLA along with the obligatory preparation of resolution plans. This design aims to divert the risks and possible losses from taxpayers to shareholders, creditors and financial industry. We may consider this design as an effort to solve the liability issues.

Title III, "Enhancing Financial Institution Safety and Soundness Act" of Dodd-Frank aims to enhance the efficiency of the banking regulation structure. It reduces the overlaps and competition between different regulatory agencies.

Title VI introduces one of the most discussed regulations, the Volcker Rule, where FSOC limits the activities of banks, aiming to protect consumers and financial structure. The rule diversifies the allowed activities of banks and nonbank financial institutions. It prohibits banks from proprietary trading⁵ activities as well as limits the total hedge funds or private equity funds investments to 3% of Tier 1 capital. The rule also defines and limits strictly the financial activities that are permitted for banks. For example, financial transactions cannot exceed the reasonably expected near term demands of customers. In order to offer a private equity fund or a hedge fund, the bank cannot exceed 3% ownership of the fund. The rule, trying to prevent the moral hazard issues of managers, prohibits the purchase of an asset from, or sell an asset

significant liquidity or credit problems spreading among financial institutions or markets and thereby threaten the stability of the U.S. financial system.

⁵Proprietary trading: engaging as principal for the trading account of the banking entity or nonbank financial company in any transaction to purchase or sell, or otherwise acquire or dispose of, any security, any derivative, any contract of sale of a commodity for future delivery, any option on any such security, derivative, or contract, or any other security or financial instrument that the appropriate federal agencies may determine.

to, an executive officer, director, or principal shareholder of the insured depository institution, or any related interest of such person, unless the transaction is on market terms. To enforce transparency, if the transaction represents more than 10% of the capital stock and surplus of the insured depository institution (or bank), the transaction has to be approved in advance by a majority of the members of the board of directors of the insured depository institution who do not have an interest in the transaction. Another caution imposed by the rule is counter-cyclical capital requirements, such that, the capital requirements increase in times of economic expansion and decreases in times of contraction. Besides, nonbank financial institutions that are allowed to involve in proprietary trading or hedge funds are also subject to additional capital requirements and limits.

Volcker Rule draws the limits of permitted activities by prohibiting the activities that (1) result in a material conflict of interest for the banking entity; (2) result in a material exposure for the banking entity to high-risk assets or high-risk trading strategies; or (3) pose a threat to the safety and soundness of the banking entity.

As general indicators of the soundness of the banking system, Figure 2.2 and 2.4 show equity ratios and the ratio of bank regulatory capital over risk-weighted assets⁶. From Figure 2.3, a rise in total assets of commercial banks, which is the denominator of the equity ratio, is observed. Then the increased equity ratio implies an even greater increase in total equities of banks. Therefore a significant and permanent improvement can be observed following the Great Recession. However, these facts do not imply a direct Dodd-Frank effect.

2.2.2 Shadow Banking

During the crisis, the failures of the nonbank financial institutions had an enormous impact on the spread and deepening of the crisis. These nonbanks were based on short term funding mechanisms such as repo transactions, mortgage-based securities, securities lending etc. As examples of shadow banking, these institutions reached enormous leverage ratios. As we explained in the previous chapter, shadow banking was at the center of the systemic risk generated on the way towards crisis. Shadow

⁶For definitions and mathematical expressions of the concepts introduced please refer to the Appendix A.5

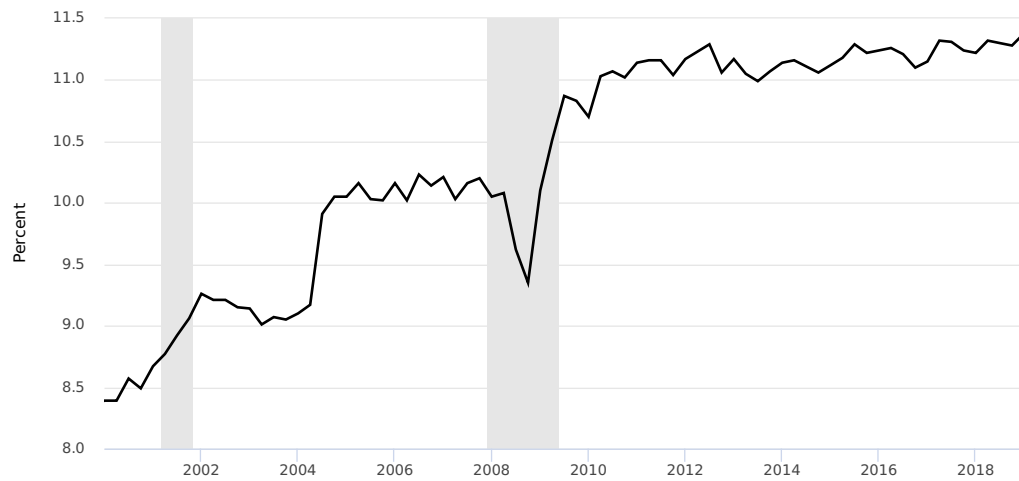


Figure 2.2 : Total Equity to Total Assets for Banks

Source: Federal Financial Institutions Examination Council, FRED.

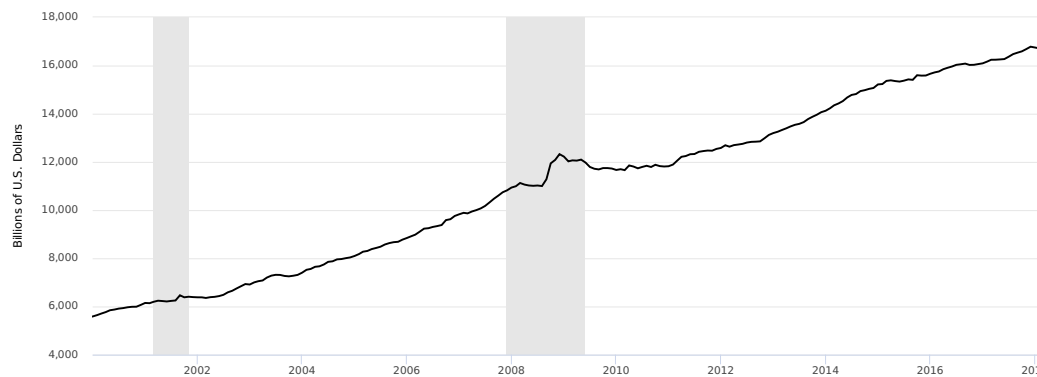


Figure 2.3 : Total Assets of all Commercial Banks

Source: Board of Governors of the Federal Reserve System, FRED.

banking is expanded through the motive of a runaway from regulatory burdens that impose additional costs to the banking system with the help of financial innovations. Hence, regulatory architecture targeting shadow banking is a key point in achieving financial stability. Dodd-Frank tries to impose two different mechanisms on regulating shadow banking, first one focusing on entities, second on activities (C. Kress et al., 2018). On the entity based level, Dodd-Frank authorizes FSOC to designate SIFI's in order to encompass all the financial actors in the regulatory framework, regardless of their title or privileges. Similarly, hedge funds must now register with the SEC. As mentioned above SIFI designation brings several regulatory requirements

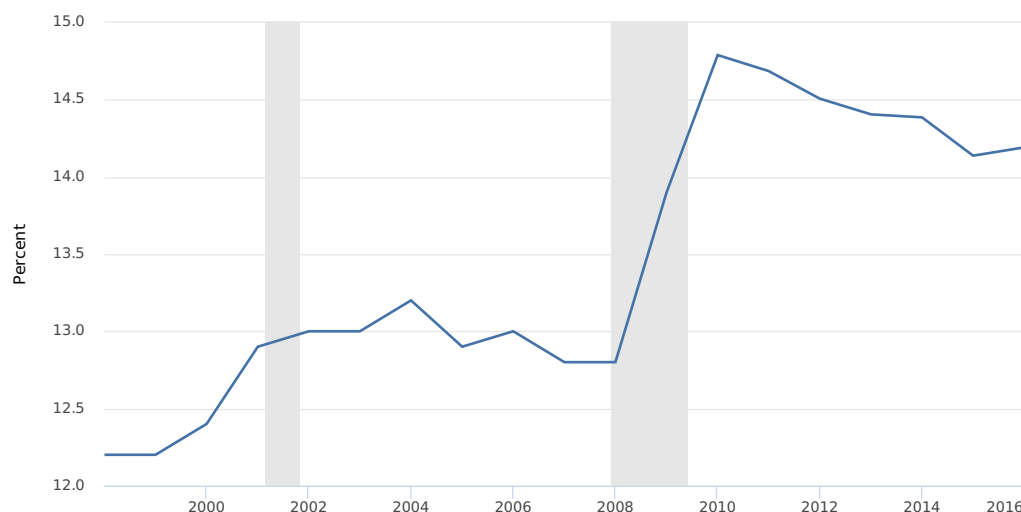


Figure 2.4 : Capital Adequacy Ratio: Bank Regulatory Capital to Risk-Weighted Assets

Source: World Bank, FRED.

including capital requirements and resolution plans. Focusing on entities also eases the challenges for the regulatory agencies, arising from the complex structure of the shadow banking.

On the activity based mechanism, Dodd-Frank introduced the regulation and transparency of derivatives by standardizing derivatives traded on centralized exchanges. CFPB is also another leg of the activity based regulatory framework, watching and regulating the end products of the system. The credit risk retention rules as proposed in Dodd-Frank section 941(b) specifically apply to asset-backed commercial paper (ABCP) conduits. The sponsors of conduits have to hold a minimum of 5% horizontal tranche of the conduit on the balance sheet. This rule has implications for capital requirements and is closely tied to accounting treatment. Hedge funds must now register with the SEC, much over-the-counter derivatives trading will be moved to exchanges and clearinghouses. Retail lenders will now be subject to consistent, federal-level regulation through the CFPB within the Federal Reserve.

During the beginning years of the Dodd-Frank Act's enactment, a relatively balanced and powerful action was taken on these two branches of the architecture. FSOC designated four large nonbank companies as SIFI's. Also, money market mutual funds have been added to regulatory insight during this period. When Dodd-Frank

Table 2.1 : Contemporary Number of SIFI's

SIFI Banks (Original Threshold)	38
SIFI Banks (Loosened Threshold)	9
G-SIB with Capital Surcharges	8
Nonbanks with assets more than \$50 billion but non-SIFI	43

Source: FED (2018)

first enacted there were four designated nonbank SIFI's, however, as an evidence of the rollback of the Act, last nonbank SIFI lost its label on June 2018. As a result of these rollbacks, SIFI leg of the regulation of shadow banking dropped totally, leaving only activity-based architecture.

Although the achievements gained through the activity focused regulations, without the entity based part an efficient regulation seems not possible. First of all, shadow banking is generating risks because financial innovations originate in the shadows. With tracking pre-defined activities, it may not be possible to capture the newly introduced activities or the risks generated through. In other words, firms can easily elude the rules imposed. As a result, activity focused regulatory architecture lacks the ability of ex-ante regulation and is backwards-looking. We explained in detail the role of the financial innovations on the Great Recession in the previous chapters. Secondly, eliminating entity based regulations eliminates the ability to impose different regulatory requirements determined through risk-based calculations. Thirdly, the risk management provisions require managers of a SIFI to establish mechanisms to better monitor activities themselves. As a result, entity-based approach strengthens activity based one. These advancements put forward the key role of the SIFI architecture introduced by Dodd-Frank to address and stabilize the potential risks generated by shadow banking.

In Table 2.1 we can see the numbers of SIFI's, Global Systemically Important Banks (G-SIB) of US and more importantly the number of nonbanks with assets more than \$50 billion but not designated as SIFI⁷. Additionally, Figures 2.5 and 2.6 show the increased volumes of nonbank financial assets as a percentage of GDP, demonstrating the flow of assets to non-SIFI institutions.

⁷For detailed list of banks and detailed score tables on designation of a SIFI with 2017 data, see Appendix A.2

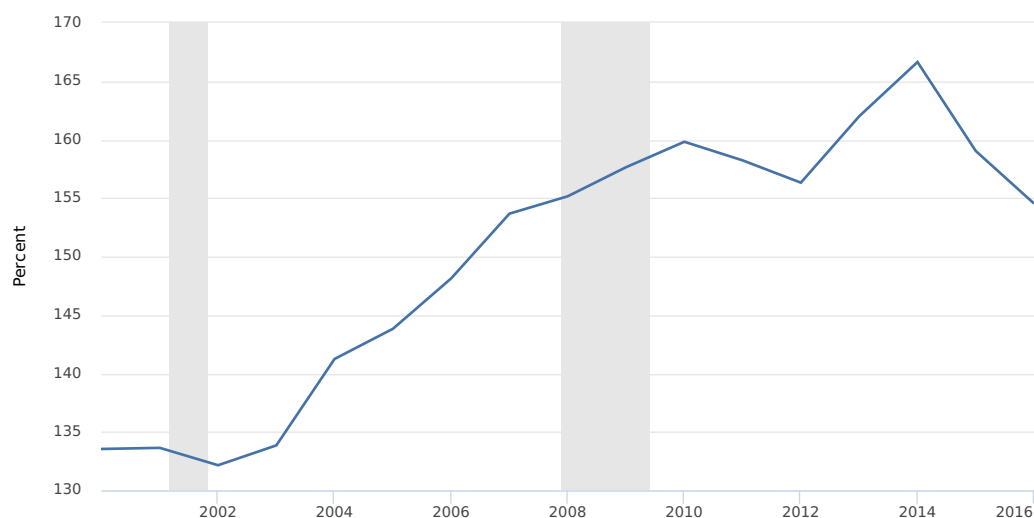


Figure 2.5 : Nonbank Financial Institutions' Assets to GDP

Source: World Bank, FRED.

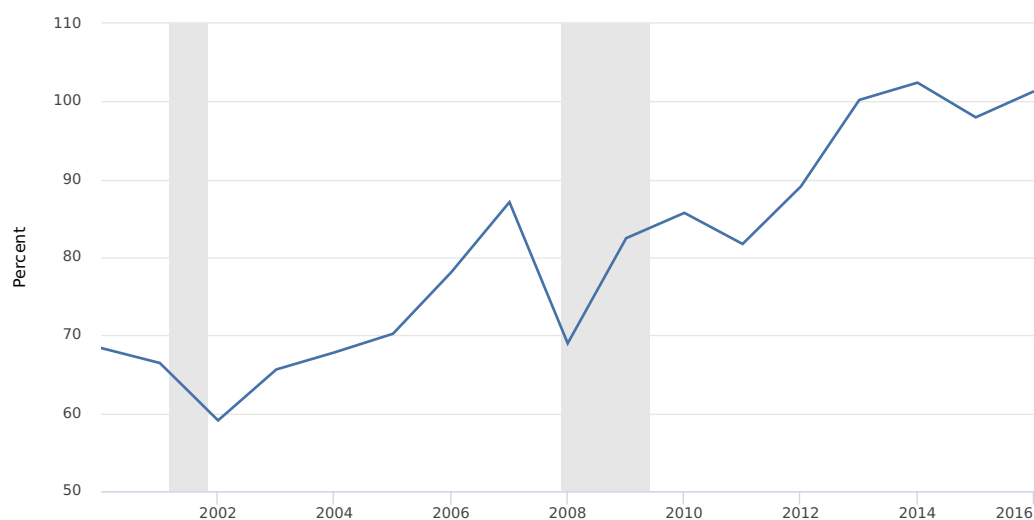


Figure 2.6 : Mutual Fund Assets to GDP

Source: World Bank, FRED.

Another crucial point in regulating shadow banking is mortgage loans. The share of nonbanks in mortgage servicing has come to pre-crisis levels of 31%⁸. Dodd-Frank introduces two different regulatory regimes for banks and nonbank institutions on mortgage loans. For the banks' capital regime, mortgage servicing is considered to

⁸In Federal Housing Agency (FHA) mortgage market, serving the riskier portion of the population increased even more to 75% levels(Buchak et al., 2018).

be highly risky with an additional minimum of 250% risk weight up to a threshold and higher over it. Resultant high costs encouraged banks to decrease positions in mortgage servicing. In Table 2.2, we can see the high portion of mortgages that come from FHA on shadow banks. FHA mortgages are contracted to less income portion of the society, exposing more risks. Hence, we can observe the push of risky assets towards less regulated region (Buchak et al., 2018). On the other hand, Dodd-Frank set a requirement of a minimum net worth of 6% of total assets on all mortgage servicing nonbank institutions. Apart from this base requirement, an additional 200 basis-point liquidity requirement for non-performing loans is also implemented as an early sign and caution for bailouts.

Table 2.2 : Residential Mortgage Lending: Traditional versus Shadow Banks

Panel A: Loan types based on 2007-2015 HMDA					
	All Lenders	Traditional Banks	Shadow Banks	Shadow Banks	
				Non-Fintech	Fintech
<i>% Conventional</i>	78.8%	82.7%	67.01%	63.9%	72.4%
<i>% FHA</i>	13.6%	10.9%	21.71%	22.7%	20.0%
<i>% Other</i>	7.5%	6.3%	11.18%	13.3%	7.5%
<i>Count</i>	28,075,783	21,149,870	6,925,913	4,388,723	2,537,190

Panel B: Loan disposition based on 2007-2015 HMDA					
	All Lenders	Traditional Banks	Shadow Banks	Shadow Banks	
				Non-Fintech	Fintech
<i>Not Sold</i>	19.07%	23.68%	5.03%	4.00%	6.80%
<i>Sold To:</i>					
<i>Fannie Mae</i>	28.94%	28.68%	29.73%	26.10%	36.01%
<i>Freddie Mac</i>	19.03%	20.48%	14.59%	16.48%	11.32%
<i>Ginnie Mae</i>	13.91%	12.03%	19.64%	20.86%	17.52%
<i>Private Securitization</i>	0.48%	0.55%	0.28%	0.29%	0.26%
<i>Commercial Bank</i>	3.35%	0.70%	11.42%	12.05%	10.33%
<i>Ins/CU/Mortgage Bank</i>	3.10%	1.09%	9.26%	5.29%	16.12%
<i>Affiliate Institution</i>	8.13%	10.78%	0.06%	0.09%	0.00%
<i>Other</i>	3.99%	2.02%	10.00%	14.84%	1.63%
<i>Count</i>	28,075,783	21,149,870	6,925,913	4,388,723	2,537,190

Source: Buchak, G., Matvos, G., Piskorski, T., and Seru, A. 2018. Fintech, regulatory arbitrage, and the rise of shadow banks. **Journal of Financial Economics**, vol. 130, no. 3: 453–483., HMDA.

Figure 2.7 shows the ratio of bank's non-interest income ratios. We can see a significant decrease after the Great Recession, showing an increase in interest incomes. Non-interest related income includes net gains on trading and derivatives, net gains on

other securities, net fees and commissions and other operating income. Accordingly, a slight runaway from shadow banking activities for banks can be observed.

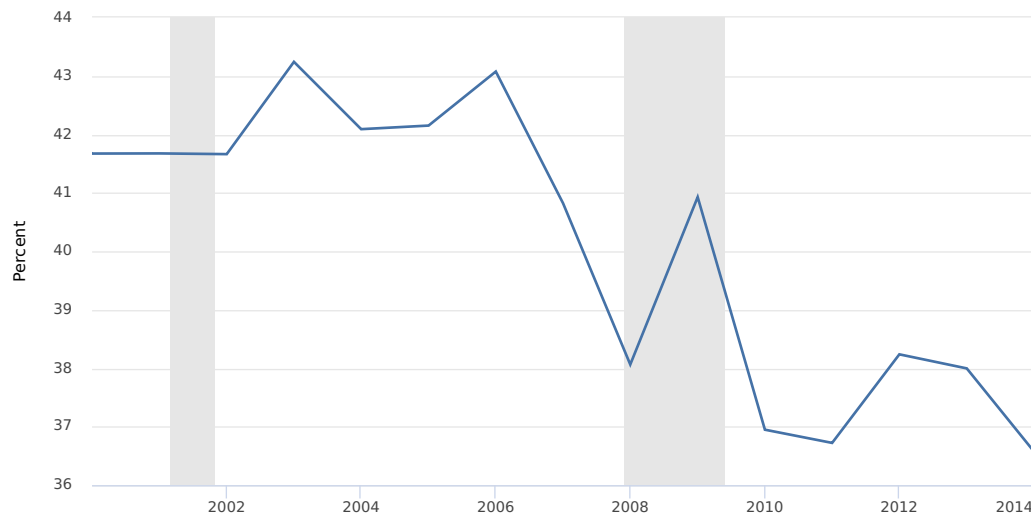


Figure 2.7 : Bank's Non-Interest Income to Total Income

Sources: World Bank, FRED.

2.2.3 Leverage Ratios

Dodd-Frank imposes leverage ratio requirements in accordance with the Basel III requirements. Tier 1 leverage ratio is calculated by Tier 1 capital divided by total exposures of the bank. Total exposures include consolidated assets, derivatives and certain off-balance sheet exposures consisting of commitments to provide loans, standby letters of credit, acceptances and trade letters of credit. Basel III imposed a minimum of 3% with guidance on a higher level for systemically important ones. Dodd-Frank implemented 3% condition with an additional adjustment by OCC and FDIC in 2014 regarding large institutions. According to this update (effective from the beginning of 2018), bank holding companies with having more than \$700 billion in consolidated total assets or more than \$10 trillion in assets under management have to reach 5% leverage ratio. Additionally, if an institution faced capital deficiencies in the past, it has to maintain a 6% leverage ratio. Figures 2.8 and 2.9 show the overall leverage indicators of the system.

We can observe the reduced risks via improved leverage ratios, moreover, in their recent work, Choi et al. (2018) compare the extra reserves needed to meet

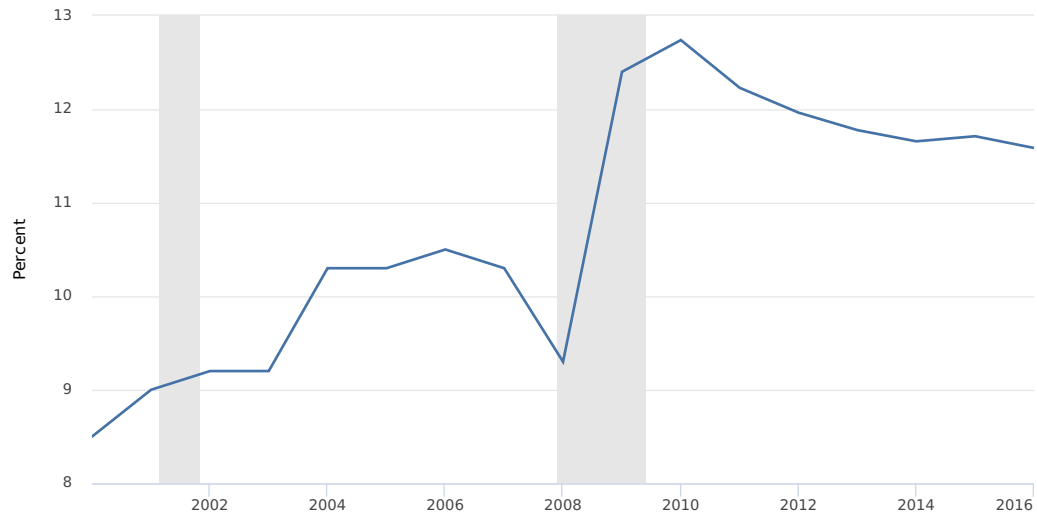


Figure 2.8 : Overall Leverage of the Banking System: Bank Capital (Tier 1) to Total Assets

Source: World Bank, FRED.

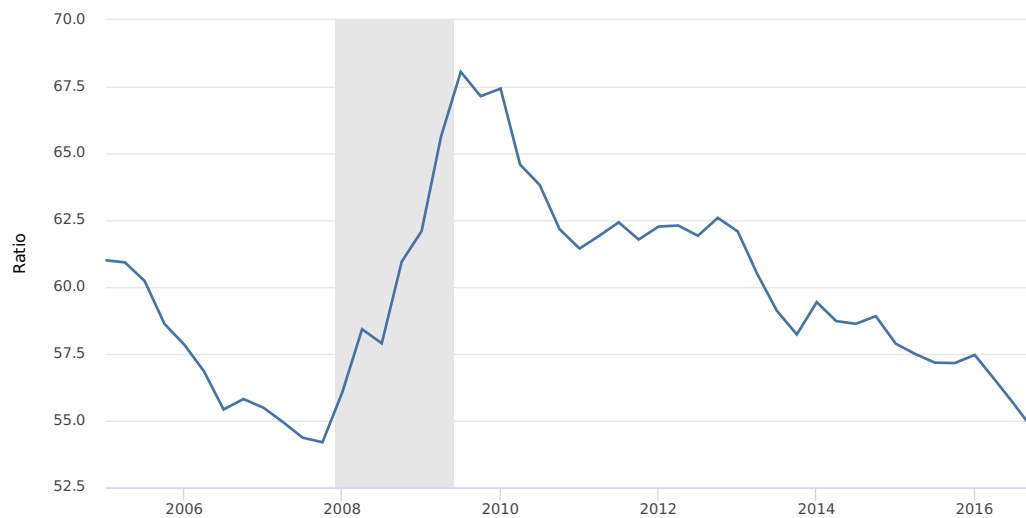


Figure 2.9 : Total Debt to Equity

Source: International Monetary Fund, FRED.

the risk-based capital requirements versus leverage ratio requirements after the implementation of the Act. In Figure 2.10 the data for the supplementary leverage ratio (SLR) and non SLR banks at the end of 2013 (just before the enforcement of the rule) is visualized as percentage difference of the actual levels and required levels. We

can see that most of the institutions meet the Risk-Based Capital Ratio standards on their own, whereas Leverage Ratio requirements are binding for the SLR banks.

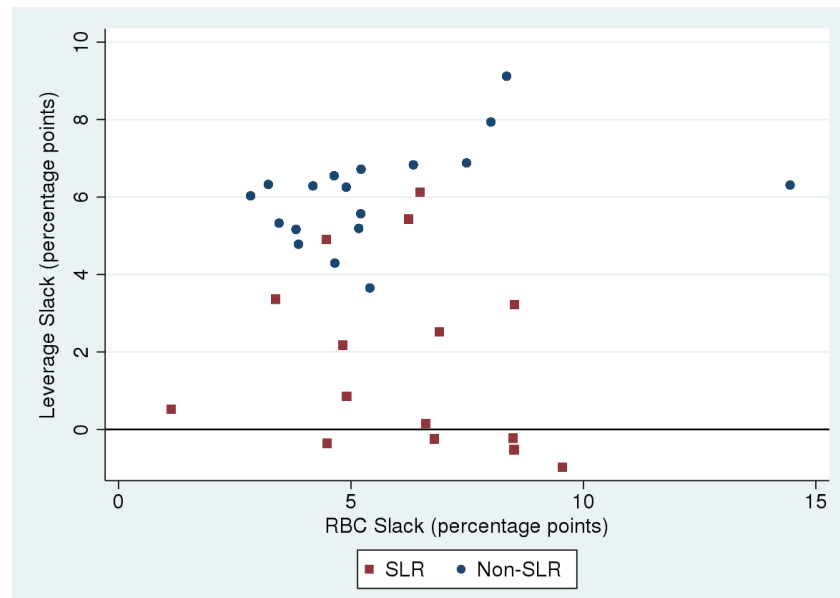


Figure 2.10 : The efficiency comparison of Leverage Ratio Requirements versus Risk-Based Capital Requirements

Source: Choi, D. B., Holcomb, M. R., and Morgan, D. P. 2018. Bank leverage limits and regulatory arbitrage: new evidence on a recurring question. Staff Reports 856, Federal Reserve Bank of NY.

On the other hand, the leverage calculation formula is blind to risk. This two facts combined gives a path to potential regulatory arbitrage (Figure 2.11). The banks may shift towards riskier assets in order to redress the burden. Choi et al. (2018) approved the move towards risky assets on enhanced leverage applied banks. Inline with the findings of Choi et al. (2018), FED and OCC proposed a further adjustment on leverage ratio requirements. It is suggested that, instead of fixed leverage ratio requirements for the firms that are subject to the enhanced SLR, the standard should be tied to the risk-based capital surcharge of the firm. They also state the aim clearly that the proposal seeks a calibration to enhanced SLR while preventing shifts towards risky activities. To briefly summarize the proposed structure, it suggests a dynamically adjusted combination of risk-based capital ratio and SLR, giving the ability to lower or raise the SLR for a particular firm⁹.

⁹Rule proposed to tailor 'enhanced supplementary leverage ratio' requirements" April 11, 2018. <https://www.federalreserve.gov/newsevents/pressreleases/bcreg20180411a.htm>

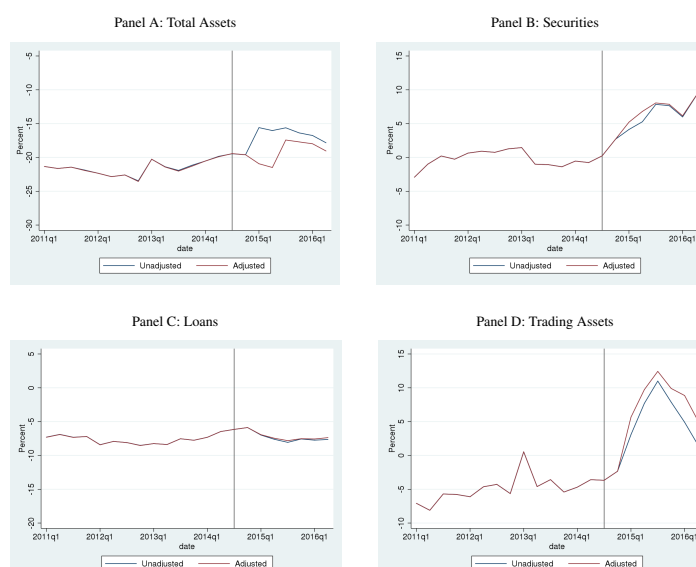


Figure 2.11 : Difference in risk-weighted asset shares, SLR less non-SLR.

Source: Choi, D. B., Holcomb, M. R., and Morgan, D. P. 2018. Bank leverage limits and regulatory arbitrage: new evidence on a recurring question. Staff Reports 856, Federal Reserve Bank of NY.

2.2.4 'Too Big to Fail' Precautions

As the long title of the Act suggests, to end the 'too big to fail' (TBTF) problem has a special focus in Dodd-Frank¹⁰. The steps to achieve this aim can be grouped in two main objectives, to reduce systemic risks imposed by TBTF's and impose a possibility of a soft landing in case of failures for TBTF's to get rid of the burdens on taxpayers resulting from activities of TBTF's.

The SIFI definition and the enhanced prudential standards for SIFI's with the further caution such that FED has the authority to increase even more if needed, is one of the key moves to reduce systemic risks¹¹ (Table 2.4). The thresholds of SIFI and the enhanced prudential standards with associated risks are shown in Table 2.3.

Regular stress tests applied by both the institution itself and the regulatory agency is forcing the TBTF's to behave more risk-averse. Additionally, these tests pave the way for a more dynamic regulatory architecture giving the ability to adopt capturing new

¹⁰Long title of the Act: "An Act to promote the financial stability of the United States by improving accountability and transparency in the financial system, to end "too big to fail", to protect the American taxpayer by ending bailouts, to protect consumers from abusive financial services practices, and for other purposes."

¹¹FED implemented an extra capital requirement in 2014 on just 8 biggest banks referring to Dodd-Frank Act's section 165.

Table 2.3 : Original and Updated Thresholds and Prudential Standards for SIFI's

Original Dodd-Frank	After The Repeal (2018)	Enhanced Prudential Standard	Risk	
G-SIB	G-SIB	Qualified financial contracts	Interconnectedness	
		Enhanced supplementary leverage ratio; G-SIB capital buffer	Capital adequacy	
		Total loss absorbing capacity	Resolution	
\$250 Billion	\$250 Billion	Supplementary leverage ratio; advanced approaches banks; countercyclical capital buffer	Capital adequacy	
		Liquidity coverage ratio	Liquidity	
\$50 Billion		Comprehensive capital analysis and review stress tests	Capital adequacy	
		Resolution plans	Resolution	
		Modified liquidity coverage ratio	Liquidity	
		Dodd-Frank Section 165	Multiple	

Source: OFR.

Table 2.4 : The Current FED Capital Surcharges for SIFI

JP Morgan Chase	2.5%
Citigroup	2%
Bank of America	1.5%
Goldman Sachs	1.5%
Wells Fargo	1.5%
Morgan Stanley	1%
State Street	1%
Bank of NYM	1%

Source: FSB (2018)

channels of risks and take ex-ante precautions. Even more, these tests and results are published regularly on the Federal Reserve Board of Governors, enhancing the transparency of the system. Last key step towards reducing systemic risks is to repeal privileges on transparency and requirements depending on the legal definition of the agent (e.g. hedge funds) rather imposing a regime depending on size or interconnectedness. Finally, the Act extended the definition of SIFI to include TBTF's that are not banks. However, as we mentioned above this improvement is rolled back.

To reveal the burden on taxpayers on a failure of TBTF, Dodd-Frank imposes an obligation of resolution plans, so-called 'living wills', on TBTF's. Systemic shock possibilities should be simulated by TBTF's and an emergency action plan in a case of insolvency should be suggested by the institution itself. Furthermore, it has to be updated regularly. Besides, not to be dependent only on the institution's own plan or to prevent moral hazards, OLA is constructed to plan regulator's steps on a possible liquidation process. Finally, in November 2015, the emergency rescue for individual banks is eliminated (Figure 2.12).

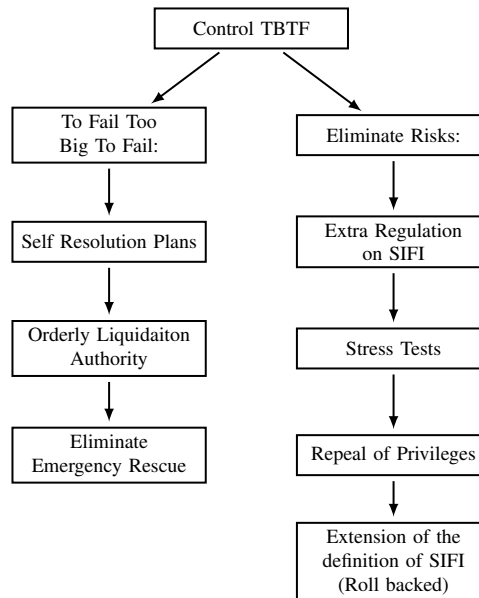


Figure 2.12 : Architecture in Dodd-Frank to cope with the TBTF problem.

If we look at the literature on the Dodd-Frank's response to the TBTF problem, there are empirical works trying to figure out the effect of the legislation. There is a basic and sound argument underlying almost all of the papers. Large banks have an implicit or explicit guarantee from the public since they have the strong potential to impose systemic risks. This advantage is embedded in their market values and costs of risks imposed by the market to these institutions. Therefore, if Dodd-Frank eliminates this public guarantee, which was obvious before the legislation, it has to be reflected again in the market. Ahmed et al. (2015), Acharya et al. (2016) and Lester & Kumar (2014) show that the TBTF subsidies are eliminated significantly, implying that the investors at least believe, large financial institutions do not contain reduced risks. Furthermore, these studies reveal that funding costs are more accurate after Dodd-Frank. However, we need to note that, the evidence may not be necessarily tied to the Act, as low interest rates and a more stable period of banking may also contribute to the results when comparing the two periods.

Another study that directly focuses on the biggest six banks of USA¹² uses stock market reactions following the passage of Dodd-Frank (Gao et al., 2018). They find that, although the institutions with assets exceeding \$50 billion had negative stock

¹²Bank of America, Citigroup, Goldman Sachs, JP Morgan Chase, Morgan Stanley, Wells Fargo

returns after the passage of the Act, the biggest six exhibit positive returns. Though, their findings suggest the contrary that the investors continue to believe big financial institutions are still protected. Figure 2.13 gives additional evidence such that the top banks are voluminous enough reaching 150% of GDP.

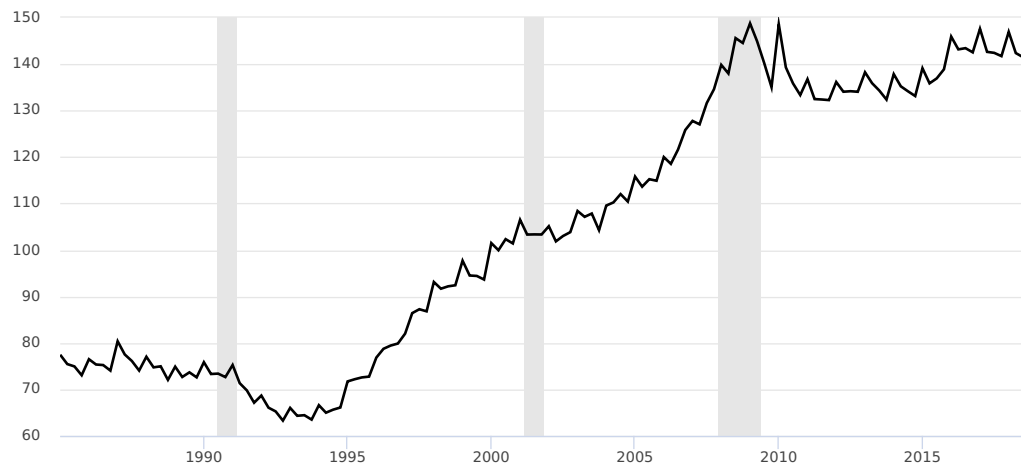


Figure 2.13 : Total Assets of Top 100 Banks as a Percentage of GDP

Source: Bureau of Economic Analysis, FRED.

Figure 2.15 and 2.14 shows us there is a significant trend towards monopolization in the banking sector. However, it is a general trend, Dodd-Frank neither contributed, nor reduced the problem showing that there is a systemic regime of generating TBTF. It can be claimed that Dodd-Frank did not aim to extinguish big financial institutions, rather it aimed to reduce associated risks and reveal the payoff on the shoulders on the taxpayers. Although we can observe some advancements, strong systemic risks still exist.

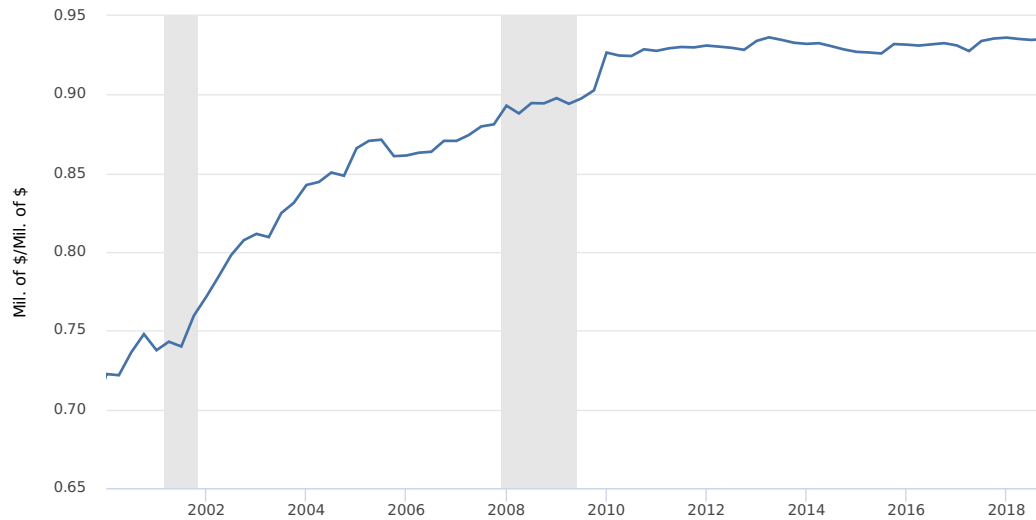


Figure 2.14 : Ratio of Top 100 Banks in Consumer Loans.

Source: Board of Governors of the Federal Reserve System, FRED.

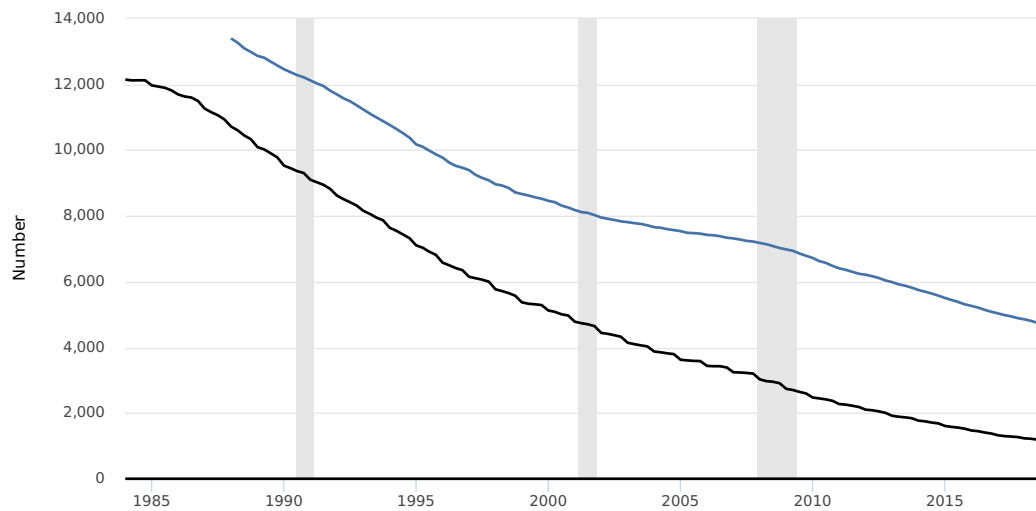


Figure 2.15 : Number of Total Banks (blue) and Banks with average assets under \$100M (black)

Source: Federal Financial Institutions Examination Council, FRED.

2.2.5 Credit Rating Agencies

The Credit Rating Agency Reform of 2006 required Credit Rating Agencies (CRA) to be regulated by the SEC. Title IX (Subtitle C) of Dodd-Frank takes it further by

implementing Office of Credit Ratings (OCR) in order to provide better oversight over Nationally Recognized Statistical Rating Organizations (NRSRO) and regulate them further after the crisis. Dodd-Frank expanded the liabilities of CRA, imposed further disclosure obligations, prohibited some activities, restructured the governance mechanisms and tries to intervene in the funding mechanism. The motive behind this further move is the contribution of the misleading credits issued towards the Great Recession and the problem of conflicts of interest. To recall, the funding structure of the CRA's has become a widely accepted issue, known as "credit shopping", as their main resources were the companies that are rated by CRA's.

To expand the liabilities, Dodd-Frank redefines the ratings issued by CRA as matters of national public interest, addressing their significant role in the funds market and overall of the economic stability. The Act makes CRA responsible for reporting violations of laws of security issuers. By repealing the exemption of NRSRO¹³, Dodd-Frank exposes the NRSRO to liability as an expert¹⁴ for material misstatements/omissions relating to its rating. Furthermore, the Act includes CRA to the penalty provisions of the '34 Act applied to registered public accounting firms and securities analysts. Lastly, the "wrongful state of mind" requirement for frauds is weakened against CRA.

To better impose transparency, qualitative and quantitative methodologies have to be disclosed. This disclosure rule is also valid backwards, historical rating performance data is to be made public too.

To make measures SEC separates rating activities from sales and marketing activities of CRA with the authority to impose fines including failure to supervise. OCR is required to examine each NRSRO annually and produce a public inspection report. Besides CRA is also responsible to establish an internal control report annually.

To construct a fraud-free governance mechanism, directors are to be independent and their compensation cannot be linked to the performance of the CRA. Half of the board of directors should be independent directors and no fee should be given nor any status changes can be applied on any advisory report, adversely no penalty or disqualification should be applied to an employee based on a particular change on a

¹³Rule 436(g), '33 Act

¹⁴Section 11 of the Securities Act

rating. Additionally, the board of directors is responsible to determine policies, ratings, conflicts of interest, internal controls and employee structure.

To prevent the conflicts of interest, compliance officers cannot participate in determining the methodologies and credits and cannot take part in sales activities or employment decisions. Similarly, compliance officers compensation has to be independent of the financial performance of the CRA. Along with some other minor changes, SEC is authorized to suspend or revoke a CRA's registration in case of violations.

From the detailed cautions above, it looks like regulation of CRAs is a well-designed scheme, however, it is one of the failures of Dodd-Frank. First of all, no alternative funding mechanism can be introduced. As a result, a kind of self-regulating mechanism that is, at least theoretically, available to 'credit shopping' still exist. Additionally, it seems to be hardly resolved because of the challenging nature of information trade. Secondly, Dodd-Frank aimed to eliminate totally reliance on ratings on regulatory architecture, however, again cannot introduce a sound alternative and achieved a partial success. Lastly, the Act aimed to include a responsible signature of CRA on an ABS to achieve both more reliable ABS products and increased liability of CRA's. However, CRA's did not sign any ABS, followed by an enormous outflow of ABS from the US. SEC, facing the pressure of the trillion dollars ABS market, stepped back shortly after.

2.2.6 Consumers

Apart from regulatory actions that affect consumers indirectly, Dodd-Frank aims direct protection of consumers via the creation of the Consumer Financial Protection Bureau (CFPB). CFPB's priority areas are mortgage credits, credit cards and loans. The Bureau is designed to write and enforce rules for banks and nonbank financial institutions involving its scope. The creation of CFPB gathered consumer finance regulation in a single agency. It allowed regulating consumer finance much more directly rather than indirectly via the courts. It allowed a significant amount of data to public studies.

The design of CFPB aimed a solution to the problem of fragmentation of the consumer finance regulation. It was also a resistance mark to pressures from the market calling

for bank profitability. The expertise asymmetries on consumer financial products between regulators and financial institutions was another target.

Designed to have strong and broad powers, CFPB is one of the most controversial parts of the Dodd-Frank Act. Proponents of the Act including the designers argued that the weaknesses of the ongoing regulatory architecture induced the mortgage bubble. The bureau acts through two different channels on mortgages. On the consumer side, CFPB introduces tools for consumers on mortgage loans to make the mortgage market healthier, prevent scam loans which took a significant role in the Great Recession. On the financial markets level, aiming to better regulate mortgage-based securities (MBS) markets, it introduces the "qualified mortgages" definition depending on the debt-to-income ratio of the borrower. This new concept is a tool to draw the limits of the usage of the MBS in financial markets. CFPB claims a bubble proof and more affordable mortgage system via these implementations.

In Figure 2.16, the loan composition of the top 100 banks with the largest asset volumes beginning from 1995 is shown. The blue line, showing the mortgage loans, gives evidence for the housing bubble occurred in the Great Recession with historically high levels of 54.6% of all loans. Towards 2018, we can observe a reverse trend towards commercial and consumer credits, reducing the mortgage loans to 40%.

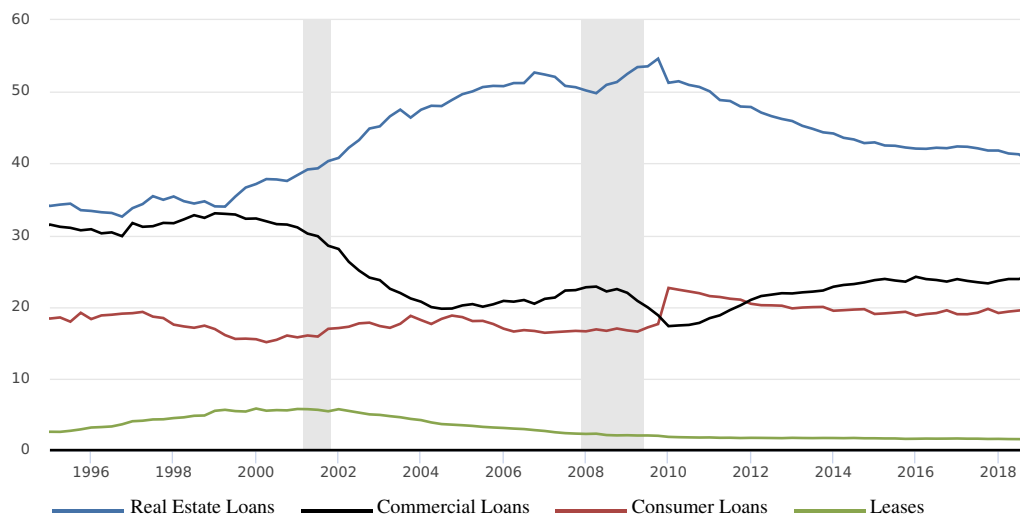


Figure 2.16 : Loan Composition of Top 100 Banks as a Percentage of Total Loans.

Source: Board of Governors of the Federal Reserve System, FRED.

Apart from the mortgage loans, CFPB also focuses on other types of consumer loans too. Dodd-Frank Act defines "unfair, deceptive, or abusive acts and practices"¹⁵ in consumer loans and Bureau has the powerful authority on preventing these practices¹⁶. Furthermore, CFPB publishes the filed consumer complaints, enforcing transparency for financial institutions¹⁷. This opportunity imposes a balance of power between huge companies among others and individual consumers. We can trace this rebalancing of power scheme from the long run loud opposition from the financial institutions. This architecture allows the consumers as borrowers to sue lenders for misjudging their ability to repay the loan. Figure 2.17 shows the high ratio of debt service payments before the CFPB, giving a strong sign of the deterioration of consumer loans. A rectified ratio can be seen after CFPB, showing improvements on affordable housing and less risky mortgage lending system. Moreover, decreased household debt ratios to GDP in Figure 2.18 implies an improvement. Another indicator of consumer protection is shown in Figure 2.19, where non-performing loans decreased to a rate of 1.5%.

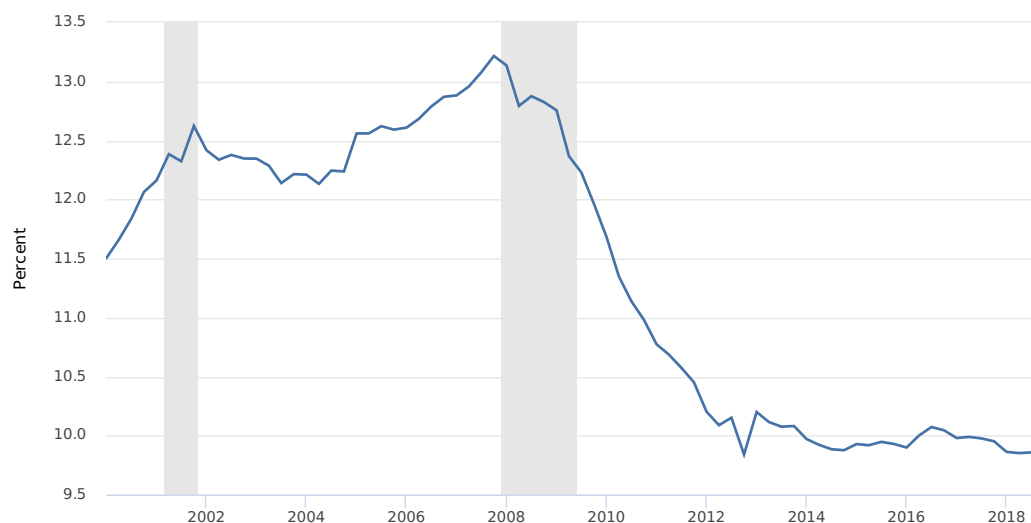


Figure 2.17 : Household Debt Service Payments as a Percent of Disposable Income

Source: Board of Governors of the Federal Reserve System, FRED.

¹⁵12 U.S.C. § 5511

¹⁶According to the official website of the Bureau (www.consumerfinance.gov), for the latest figures (06.04.2018), over 31 million consumers received relief resulting from illegal practices thanks to Bureau, amount totaling to \$12.4 billion

¹⁷Again depending on the official website of the Bureau, over 1.5 million complaints filed and published online as of 06.04.2018, an average rate of around 20.000 a month.

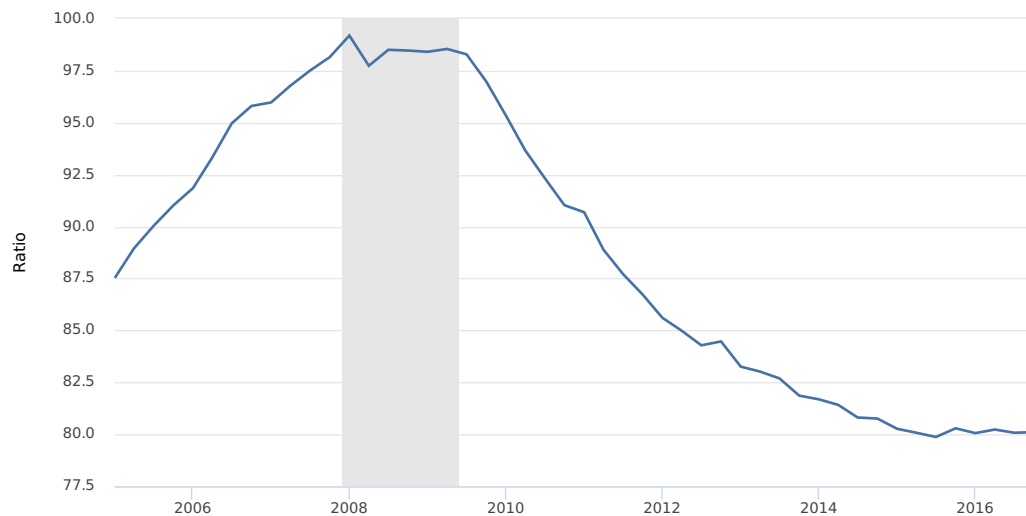


Figure 2.18 : Household Debt to GDP for United States

Source: International Monetary Fund, FRED.

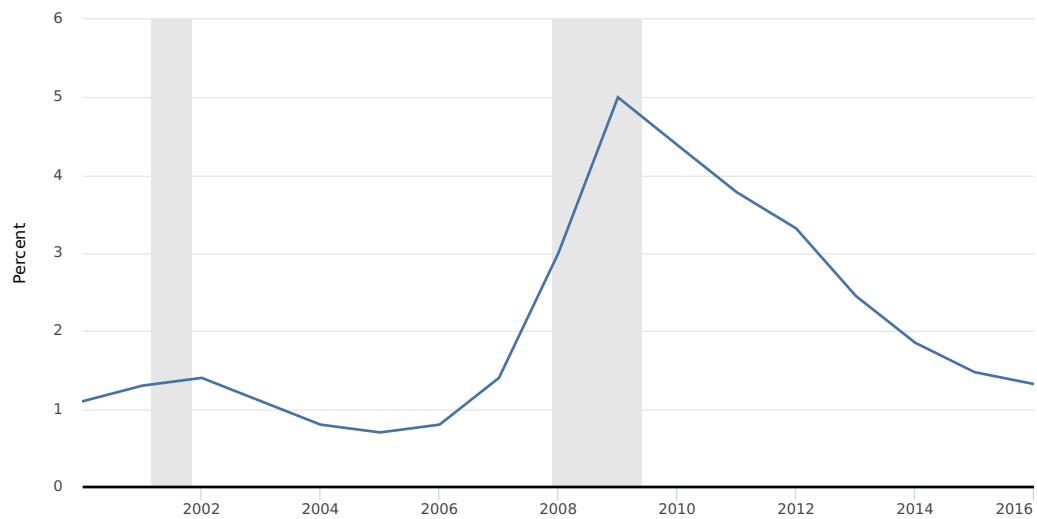


Figure 2.19 : Bank Non-Performing Loans to Gross Loans.

Source: World Bank, FRED.

The financial industry fought from the beginning against CFPB. They claimed that CFPB will increase the costs of finance, thus decreasing the availability and reach of consumers to financial products (S. Evans & D. Wright, 2010). The opponents of the Bureau argued that the separation of consumer protection from bank regulations is faulty as it will harm the need for the balance between the two. Furthermore, they put forward that, CFPB could risk bank safety by forcing banks to imprudently extend

credit (J. Levitin, 2013). This claim gives us the clues that, CFPB is a clear threat to regulatory captures on bank regulations.

Another argument from opponents of the CFPB is concerning the definitions of malpractices that are embodied in the law with the words "unfair, deceptive, abusive" claiming the concepts are not clear enough giving CFPB unlimited discretion on the financial activities¹⁸. Furthermore, they argue that the agency has no political accountability, having the highly independent design of the bureau¹⁹.

One last but significant problem is about the community banks and credit unions, which are quite small in volume. Besides, they are widespread and have an outsized political impact²⁰ (J. Levitin, 2013). The claim is, CFPB putting pressure on these relatively weak and small institutions that they cannot afford, feeding the ongoing trend of monopolization and harming the independence of these local institutions, forming new 'too big to fail's or enlarging already existing ones. However, CFPB has no supervisory authority on banks with assets less than \$10 billion²¹ and the rules implemented by CFPB need to have limited impact on small institutions²².

Figures 2.20 and 2.21 show no such deteriorating effect on small banks, rather an improvement on profitability can be seen. However, as we analyzed on TBTF subsection, Figure 2.15 shows a general trend of monopolization in the sector, not necessarily related to Dodd-Frank. On a critical study that tried to predict the effects of CFPB on credit markets, S. Evans & D. Wright (2010) foresee an increase in interest rates by 160 basis points. Furthermore, they predicted a decrease in consumer borrowing by at least 2.1% and 4.3% decrease in jobs created as a result of CFPB. It is hard to analyze the causality between the customer borrowing volume and CFPB or the relation with the jobs created, however, we can observe an interest rate increase following CFPB (again not necessarily implying a causality) in Figure 2.22.

¹⁸Prepared statement by Leslie Andersen for American Bankers Association

¹⁹CFPB is exempt of congressional appropriation and unlike other regulatory agencies like SEC, it has a unitary administration structure, instead of a committee based one.

²⁰Different from an ordinary branch of a big bank chain, their managers or owners are leading people of the community in the local area.

²¹There are 118 banks that have assets more than \$10 billion through the total 1808 banks with assets more than \$300 million as of December 2018 (FED)

²²For further titles on differences of procedures between small and large institutions regarding CFPB: Marcus Stanley, Testimony before House Small Business Subcommittee, June 9, 2016

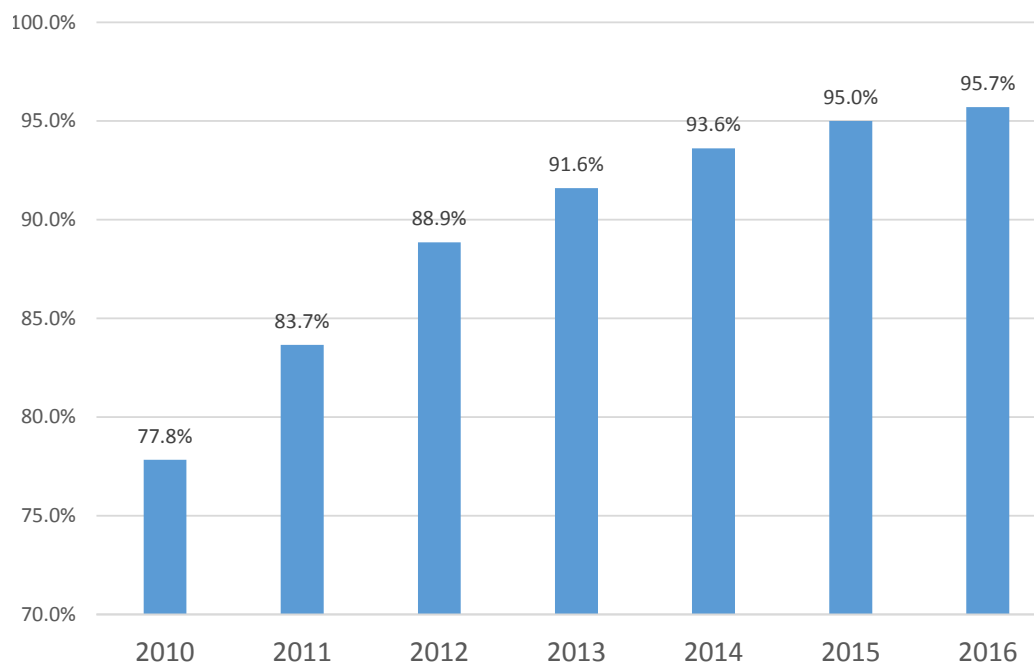


Figure 2.20 : Percentage of Community Banks That Are Profitable

Source: FDIC.

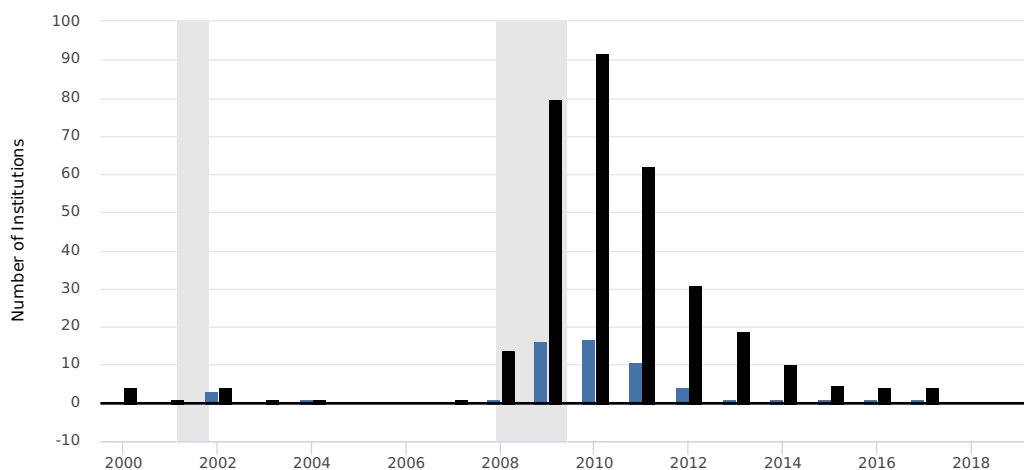


Figure 2.21 : Failures and Assistance Transactions of Commercial Banks Supervised by the Federal Reserve (blue) and FDIC (black)

Source: FDIC, FRED.

Crucially, we need to remind that, Dodd-Frank also requires CFPB to conduct cost benefit analysis. Furthermore, The General Accounting Office checks the CFPB's

self evaluation reports. The Bureau clarifies its actions via these regular cost benefit analysis and General Accounting Office has certified the obligations until now.

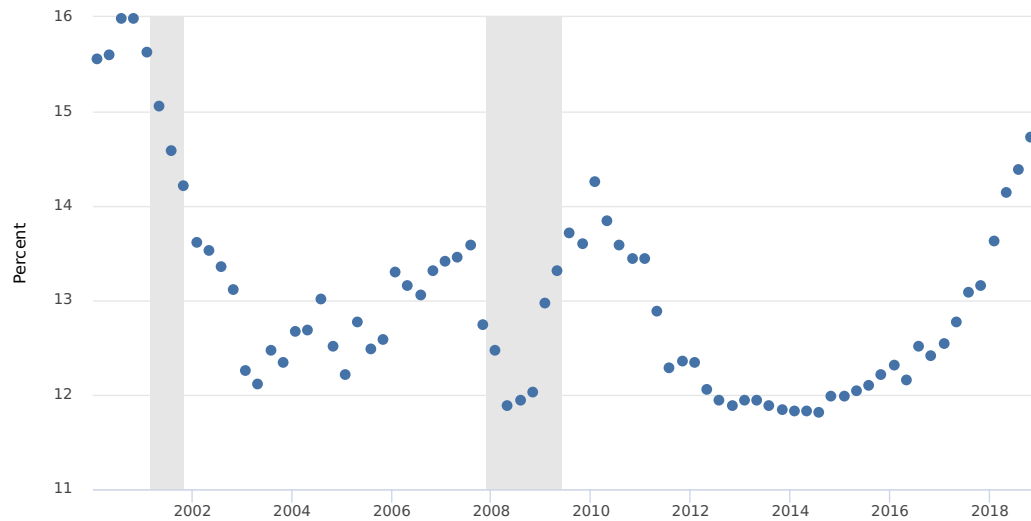


Figure 2.22 : Commercial Bank Interest Rate on Credit Card Plans

Source: Board of Governors of the Federal Reserve System, FRED.

2.2.7 Supervisors

As we discussed in the first chapter, adequate design of regulation cannot be enough to achieve financial stability, the design has to be effective on the application, in other words, efficient supervision is also necessary. Accordingly, Dodd-Frank aims to prevent regulatory capture and to block the gaps resulting from the older segmented architecture of regulation. One of the key institutions formed by the law is the Office of Financial Literacy (OFL) under CFPB. OFL is assigned to form a grants program for states and eligible entities to achieve the following targets: 1. Investigate and prosecute misleading and fraudulent marketing practices. 2. Fund technology, equipment and training for regulators and law enforcement officers to identify salespersons and advisors who target seniors through the use of misleading designations and to increase their successful prosecution. 3. Provide educational materials and training to seniors to increase awareness and understanding of misleading or fraudulent marketing. 4. Develop comprehensive plans to combat misleading or fraudulent marketing of financial products to seniors. 5. Enhance provisions of state law to provide protection for seniors against misleading or fraudulent marketing.

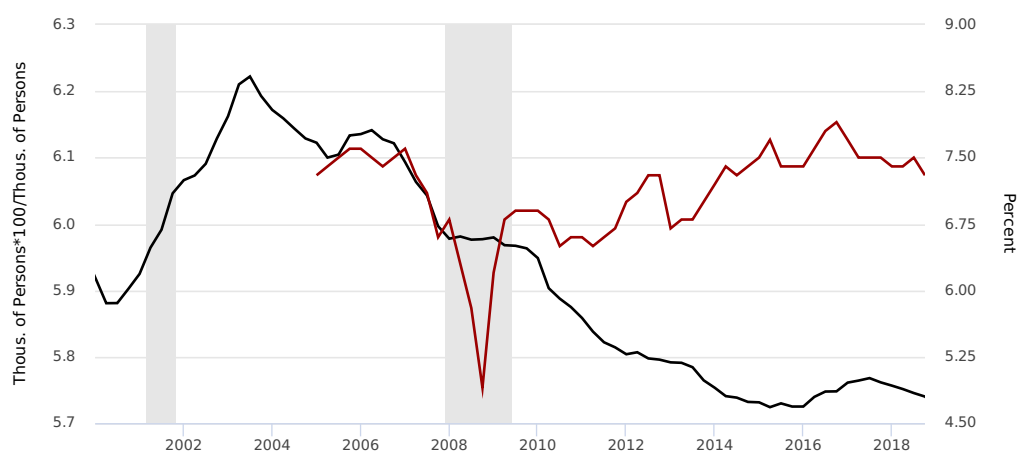


Figure 2.23 : Rate of Financial Sector Employees over Nonfarm Employees (Black, left axis) vs Value Added by Financial Sectors as a Percentage of GDP (Red, right axis)

Source: Bureau of Labor Statistics, Bureau of Economic Analysis, FRED.

Figure 2.23 implies a sharp increase in the efficiency of financial sectors, bringing into question the moral hazards before the Great Recession.

2.3 Structural Comparison of the Dodd-Frank Law with the Guidelines of Different Approaches

To begin with FRA, Boyer (2013) suggested macroeconomic control of finance via an agency designed to check overall stability, when we look back to Dodd-Frank, Financial Stability Oversight Council perfectly matches Boyer's claim. Boyer (2013) also suggested macroeconomic shocks to be monitored in the regulatory design. Dodd-Frank has several mechanisms that are designed to achieve macro-prudential regulations. The definition of 'systemically important financial institution' and the supplementary cautions imposed to SIFI's originates from the macroeconomic risks imposed by these institutions. Regular stress tests have to be applied by both the institution and the FSOC. Also, privileges on transparency and requirements depending on the legal titles are repealed and a systemic risk criterion imposed on regulatory exposure levels. Moreover, OLA design aimed to impose reasonable resolutions for SIFI's to prevent potential macroeconomic shocks. We can also claim that the own preparation of resolution mechanisms for firms both increases transparency and

self-awareness of the risks within the institution. Counter-cyclical capital requirements that are imposed by the Volcker Rule of Dodd-Frank can also be considered to match Boyer (2013)'s suggestion on precautions. However, on macro-prudential intervention, fiscal policy leg aiming to reverse the incitement from credit to saving is omitted. More importantly, as TBTF companies still form a considerably high portion of the economy, we can claim macroeconomic risks couldn't be eliminated totally. Furthermore, the rollbacks, such as the release of nonbank SIFI's also impose further macroeconomic risks.

On the second guideline by Boyer (2013), a reconfiguration of stock markets is claimed. Boyer (2013) suggested the costs of the risks generated should be readdressed to the generators of the risk. The precautions that we examined on shadow banking improved this relocation of risks and costs. OLA and 'living wills' also is a design to protect taxpayers' exposure to costs. The need for an update to the risk calculation models to cover shocks and endogenous bubbles pointed out by Boyer (2013) is also satisfied by Dodd-Frank. The last point by Boyer (2013) on the reconfiguration of stock markets is the coordination asymmetry of the regulatory framework and financial markets. Dodd-Frank also takes cautions on this problem by the design of FSOC mainly. One of the main objectives of FSOC, as mentioned before, is to achieve the coordination of the regulatory framework along with the capturing of the regulatory gaps that can be arisen by fragmentation and reform itself accordingly.

On the third guideline by Boyer (2013), finance should be redefined as a public utility. He suggested the direct involvement of public agents in the management structure of the financial companies. Dodd-Frank didn't impose such regulations, however, had steps towards redefining finance as a public utility. The most important move is highly increased transparency requirements as transparency is a strong mechanism of imposing public power. To remind and emphasize again these transparency requirements are multi-layered, namely, covering a range from the SIFI's transactions to consumer level actions via CFPB. Additionally, actions of CRA's i.e. credit ratings, are also redefined as matters of public interest.

On the last guideline from Boyer (2013), ex-ante public control over financial innovations has to be done. Dodd-Frank has significant improvements in ex-ante regulation. Firstly, FSOC and Office of Financial Research with subpoena power

is equipped and designed to capture potential risks of newly introduced financial transactions. The cautions imposed on shadow banking, such as entity-based approach handled by SIFI definition gives the capability to monitor the innovations.

To remind, the guidelines suggested by Aglietta & Scialom (2010) has three branches; liquidity management, prevent excess credit growth and new accounting regime. They suggested the designation of systemically important entities by analyzing the size, interconnections and leverage ratios of financial institutions. Dodd-Frank perfectly adopted this design, furthermore, again in line with Aglietta & Scialom (2010), gave it a central role on the regulatory architecture. Macroeconomic stress testing is also imposed as they suggested.

To achieve their second suggestion on excess credit growth, they claim that financial stability target has to be added to the duties of central banks. Dodd-Frank did not impose such a target update on FED. Moreover, they suggested a benchmark of excess credit growth such that, credit growth has to be aligned with the potential GDP growth. Again, we cannot trace this on Dodd-Frank. In Figure 2.24, we can observe the necessity of Aglietta & Scialom (2010)'s measure advice on excess credit. The increased leverage ratio of the overall system in Figure 2.8 implies an improvement after the implementation of Dodd-Frank, however, we cannot deduce the causality.

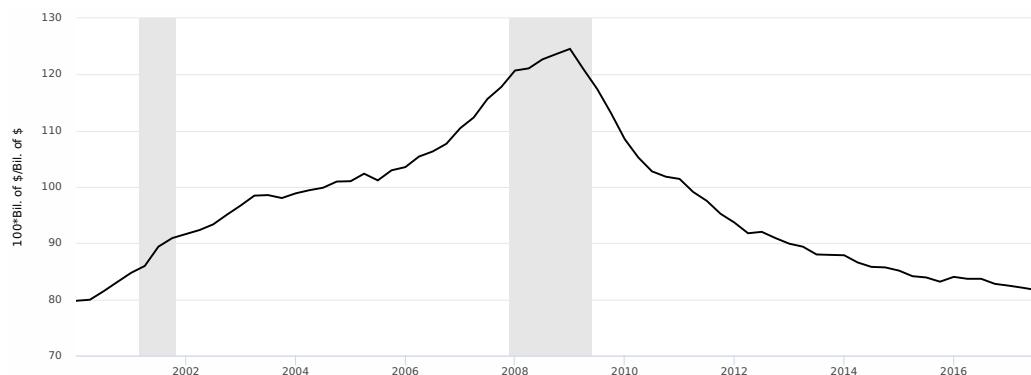


Figure 2.24 : Financial Sector Liabilities, Percentage of GDP

Sources: BEA, Board of Governors, FRED.

An accounting reform based on revaluation of long-term assets on balance sheets forms the base argument of Aglietta & Scialom (2010) on clarifying the hidden risks on balance sheets. This also not implemented by Dodd-Frank, whereas

additional transparency requirements can improve the accounting environment on better capturing risks.

Along with the proper design of a regulatory architecture, a working and effective regulation is also a focal point of Aglietta & Scialom (2010). They claim that we need three characteristics for a working regulation; an automated (objective), progressive and simple enough process. With literally over 2000 pages, Dodd-Frank cannot be considered simple. Also, as the last appointment²³ showed us, at least some parts of the regulatory agencies are not automated, depending highly on personal incentives. Only the progressive character can be claimed by analyzing the Act, with highly authorizing regulatory agencies.

If we consider the Ordoliberal thoughts compared with Dodd-Frank, our first intuition will be the monopolistic trends of the financial markets that are not on the agenda of the Act nor are reduced after enacting process. Accordingly, as we can list as one of the insufficient targets of the Act, persisting TBTF problem still exposes risks in order. Conversely, Dodd-Frank has several improvements in regard to the liability principle of Ordoliberals. The regulations on derivative markets so as to risks to be handled by generators is also in line with Ordoliberal principles. OLA design and the cautions on resolutions of SIFI's can be considered as a proper liability readdressing scheme. However, as TBTF remains, there is serious doubt on efficiency. As we discussed before, there are works in the literature introducing evidence on both elimination of TBTF and the opposite (Gao et al., 2018; Ahmed et al., 2015; Acharya et al., 2016; Lester & Kumar, 2014).

To remind, Ordoliberals defend a market environment such that no institution should be allowed to grow enough to gain power over public authority. Dodd-Frank clearly empowered public authority, which Ordoliberals welcome. Significantly increased transparencies on financial markets are also in line with the Ordoliberal principles on public 'ordering' of the financial markets. The efforts on CRA's should also be considered as empowering of the public. However, as we discussed before, they are far from satisfactory.

²³Kraninger, assigned as director of CFPB by Donald Trump on December 2018. The activity of the Bureau highly decreased afterwards.

To briefly summarize our last approach, Minsky claimed that the financial system cannot be stabilized (Minsky, 1986). Originating from the behavioural aspects of the financial markets, stability generates instability. Despite this inevitable result, we can restrain it, in his own words, we cannot fully eradicate but stabilize instability. His suggestions on stabilization can be summed up on four titles: Big government, strong and voluminous enough reserve system, manageable dimensions for private power and lastly regulation agencies that are aware of the intrinsic nature of the financial markets (Minsky, 1986).

For the first two guidelines of Minsky in contrast with the targets of Dodd-Frank, we can say that an improvement aimed only on strength of FED, the Act has enlarged the scope and powers of FED. For the third aspect regarding manageable private power, TBTF regulations match. SIFI design also matches with this aspect. However, as we discussed above, their efficiencies are doubted. Furthermore, as of 2015, the largest eight financial holding companies' assets, including off-balance sheet exposures and derivatives, sums up to \$16 trillion, reaching about 100% of GDP (Hoenig, 2014). Again, the monopolization trend of financial markets is also not taken into consideration by the Act.

Minsky (1986) suggested that regulatory agencies should be aware of the unstable, cyclic nature of the financial markets. Counter-cyclical capital requirements imposed by Volcker Rule shows a confirmation of Minsky. Minsky (1986) calls that regulatory agencies should be aware of the optimism trap and take precautions. As the law itself with highly increased regulatory requirements plus pressures from the financial markets introduces evidence on this awareness on Dodd-Frank.

2.4 Overall Performance of Dodd-Frank Through the Suggestions

As we tried to clarify throughout Chapter 2, Dodd-Frank has several improvements and inadequacies to gain financial stability. In this last section, we will try to summarize these aspects, along with trying to figure out what was wrong.

To begin with the positive set of the results of the Act, banking regulations is one of the leading achievements. Redesigned capital requirements and leverage ratios with the resulting levels imply a better environment. Also, with the implementation of

the Volcker Rule along with the requirements, pushed the banks towards traditional banking activities. Macroeconomic risk oversight through SIFI's and stress tests can also be listed in this manner.

A consolidated and broadly authorized architecture that fills the gaps of the older regulatory regime is constructed by the Act. A concrete example is the AIG, which escaped the regulatory framework on the way to the Great Recession. If the SIFI designation was implemented before the Great Recession, AIG should be highly regulated. Additionally, Dodd-Frank authorized regulatory agencies on self-regulation, further regulation and cost effect analysis. These cautions gave the ability to better grasp the financial innovations that should be imposing risks.

Highly imposed transparency enforcement occurred in several areas of financial markets. Dodd-Frank imposed transparencies and supervision to the over the counter derivatives market by SEC and CFTC. Hedge funds, having legal privileges have been the hidden feed of the Great Recession, now have to be transparent and regulated, at least the ones over a threshold. Additionally, Volcker Rule limits the involvement of banks in hedge funds to 3% of Tier 1 capital, aiming to limit the diffusion of the risks generated. Another important step for further stability in derivative markets is the obligation of at least 5% of the securitized loans should be kept aiming to keep 'skin in the game' for the agents.

The SIFI designation deepens the ability to grasp the macroeconomic risks embedded in microeconomic frameworks. A more flexible prudential standards design gives the ability to better respond the interconnected risks.

Consumer protection is one of the most efficient legs of the Act on behalf of achieving the targets. Both the consumer credit cycles and the spread of these to the general financial markets have become more stable. There are some controversies about the composition of consumer loans, such as student loans, yet these discussions are out of our scope.

Some of the newly introduced designs will be tested over time. OLA and 'living wills' are such examples so that we can test the effectiveness of these precautions during the next financial crisis. TBTF can also be included in this category. However, along with the empirical works (Gao et al., 2018) the volumes of the largest banks and nonbank

financial institutions gives a strong signal that they are still 'too big to fail'. Another leg of the legislation that is hard to be evaluated before another financial crisis is CRA regulations. As we discussed before, Dodd-Frank doesn't seem to be succeeded on the targets of eliminating the problems originating from the CRA's, such as funding mechanisms or the inability to impose further liabilities on CRA's to prevent fallacies of credits. Lastly, Dodd-Frank generated a sound response on financial innovations that occurred such as derivatives, however, we cannot be sure on grasping the future innovations.

A worse problem, which our aforementioned scholars will oppose with unity is the monopolization trend in financial markets. If TBTF is a problem on gaining financial stability, TBTF generating structure has to change. However, the possibility of this is potentially a systemic discussion as Minsky (1986) and FRA put forward. On the other hand, even if we claim that Dodd-Frank is insufficient on eliminating the risks associated with the TBTF, there is a strong market pressure and success on rollback of the Act.

2.4.1 Rollbacks of Dodd-Frank

Significant rollbacks began with the designations of nonbank SIFI's. Beginning with 6 nonbank SIFI's on 2014, none left as of June 2018. Revealing all the SIFI designations of nonbank SIFI's, naturally proposes the AIG issue to the agenda again. It again opens the backdoor for a regulatory walk around.

There have been other rollbacks in recent years, especially after the election of Donald Trump. He used the rollbacks of Dodd-Frank as election promises²⁴. Accordingly, the House of Representatives approved Financial CHOICE Act which aims to repeal several achievements of Dodd-Frank. It aims to repeal CFPB, CFR and OLA. It is also planned in Financial CHOICE Act to repeal Volcker Rule and SIFI designations. However, it doesn't seem possible to be accepted by Congress.

However, on 24 May 2018, Economic Growth, Regulatory Relief and Consumer Protection Act is signed. It is the biggest deregulation move after the Great Recession.

²⁴In his own words on 18 May 2016, during the election campaign: "Dodd-Frank has made it impossible for bankers to function. It makes it very hard for bankers to loan money for people to create jobs, for people with businesses to create jobs. And that has to stop." Source: Fortune (<http://fortune.com/2016/05/18/trump-dodd-frank-wall-street/>)

It raised the SIFI designation threshold to \$250 billion from \$50 billion, releasing 22 banks of 34 that were SIFI. Even Barney Frank, self-criticized the threshold of \$50 billion, suggesting \$100 billion. Besides, he claims that \$250 billion threshold is too high, as in case of failures of two or three banks near but under the threshold should impose systemic risk. The bill also repeals the Volcker Rule for banks under \$10 billion in assets.

3. CONCLUSION

Although having serious insufficiency, Dodd-Frank seems to have solved several issues to achieve stability, to protect consumers. Also, it is in line with several key points in suggestions from the approaches we selected. However, the insufficiency to meet TBTF targets along with the political agenda shows us, regulatory designs are prone to power relations. Then we should have three explanations: Dodd-Frank did not comply with the core suggestions of regulatory architectures suggested, it is structurally impossible to achieve stability in financial markets or lastly political determinism do not allow a proper implementation despite a sound design of regulation.

Back and forward moves of the regulatory cycles show us that regulation is a battleground. We documented it in different titles of the Act. Dodd-Frank, including its rollbacks, is a proof of political determinism on economics and law. In his recent work, Dagher (2018) analyzed the regulatory cycles throughout 300 years. He found that in most cases, regulation has been pro-cyclical. Therefore, historical data gives advice which is the opposite of deregulation policies that are being carried out in the US. It suggests, strongly confirming Minsky, a financial crisis follows deregulation steps. Regulation, therefore, is trapped in the boom periods. Then history directs us towards Minsky in the manner that, a strong reserve system is inevitable.

Ordoliberal claims can also fit the problem but we can question the feasibility in the deeply financialized world order. Dodd-Frank, which can be considered as an economic constitution in an Ordoliberal manner, is evidence of unfeasibility of implementation of an order which does not fit ongoing power relations.

FRA is also strongly confirmed in our research that, what lies under the regulatory structure is the power relations embedded in the accumulation regime. They addressed the change in the hegemonic block through the transition to finance-led accumulation regime. Another result from the point of view of FRA is the financial regulation problem is a structural one. Without a change in the accumulation regime, we cannot achieve a sound and persistent regulatory framework. The monopolization trend in

the financial markets and unresolved TBTF problem also confirms the structural roots of the problem. With this structural background, it would be naive to explain the weaknesses in achieving financial stability to the visions and wisdom of politicians. From a different perspective, Dodd-Frank experience is proving that if policymakers search a proper design of regulation, it is possible. But the answer to the target of the search is a systemic and political one, not a technical one.

The world is also facing a sovereignty crisis showing itself in the nationalistic trends, trade wars, Trump etc.. Also another global crisis warnings are circulating (Lipton, 2018). If we add these to the insufficiency of Dodd-Frank and the rollbacks, it supports the Boyer (2013)'s claim of the accumulation regime is in crisis.

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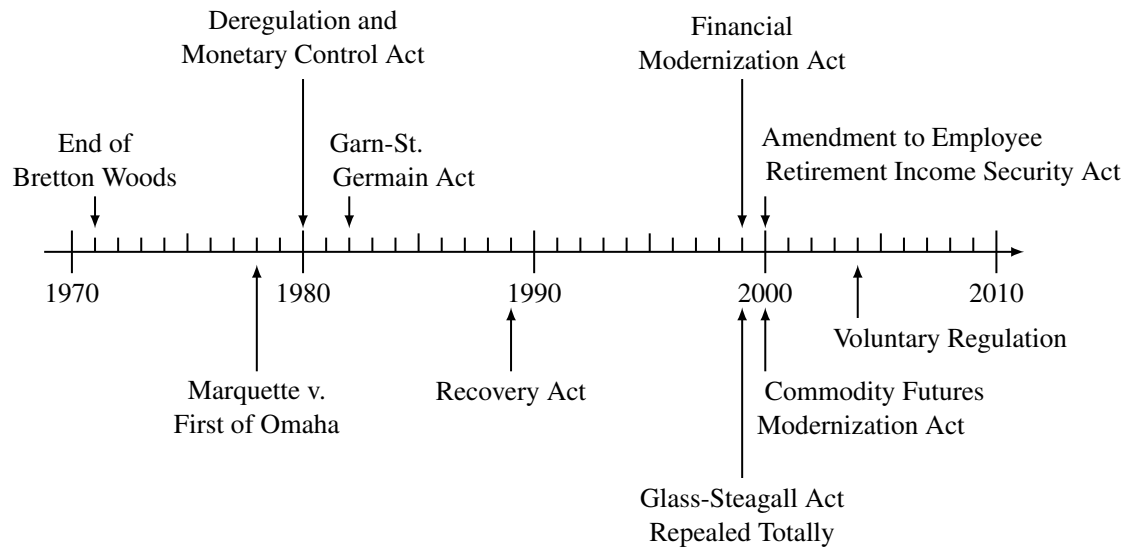
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APPENDICES

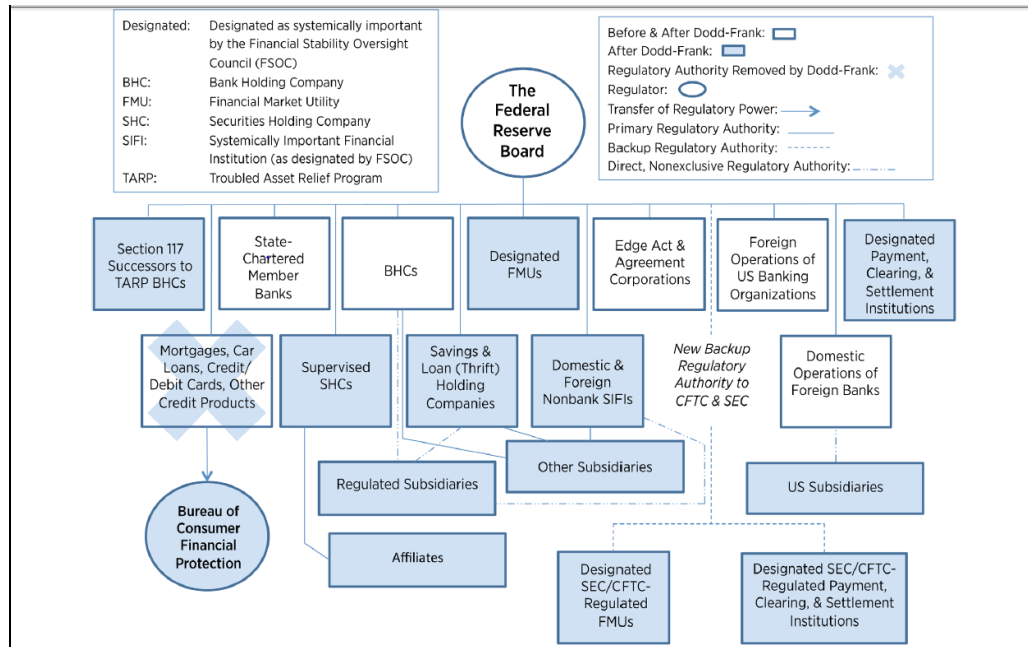
A.1 Timeline of Deregulations



Event	Year	Explanation
End of Bretton Woods	1971	Beginning of the free financing era
Marquette v. First of Omaha	1978	Elimination of usury rate ceilings in several states
Deregulation and Monetary Control Act	1980	Interest rate controls canceled
Garn-St. Germain Act	1982	Deregulated thrifts entirely plus allowed commercial loans and investments in junk funds
Recovery Act	1989	Creation of the Resolution Trust Corporation to resolve failed thrifts
Financial Modernization Act	1999	Allowance of increased diversification of financial activities
Repeal of Glass-Steagall	1999	Separation of commercial and investment banks repealed totally
Amendment to Employee Retirement Income Security Act	2000	Allowance of pensions to buy mortgage-backed securities and asset backed securities
Commodity Futures Modernization Act	2000	Deregulation of over-the-counter derivative contracts; credit default swaps (CDS) and equity default swaps (EDS)
Voluntary Regulation	2004	Allowance of banks to hold less capital reserves and increase in leverage ratios

Figure 1 : Timeline of key deregulations and explanations towards 2008.

A.2 Dodd-Frank in Relation with the Ongoing Regulatory Framework



Note: non-arrow lines between affiliates/subsidiaries and regulated institutions represent Federal Reserve Board regulatory authority through the parent entity over the respective affiliate/subsidiary.

Figure 2 : The changes imposed by Dodd-Frank in relation with the ongoing regulatory framework

Source: Manson, J. R. 2015. Overview and Structure of Financial Supervision and Regulation in the US. Tech. rep., European Parliament Committee on Economic and Monetary Affairs.

A.3 Dodd-Frank Implementation Timeline

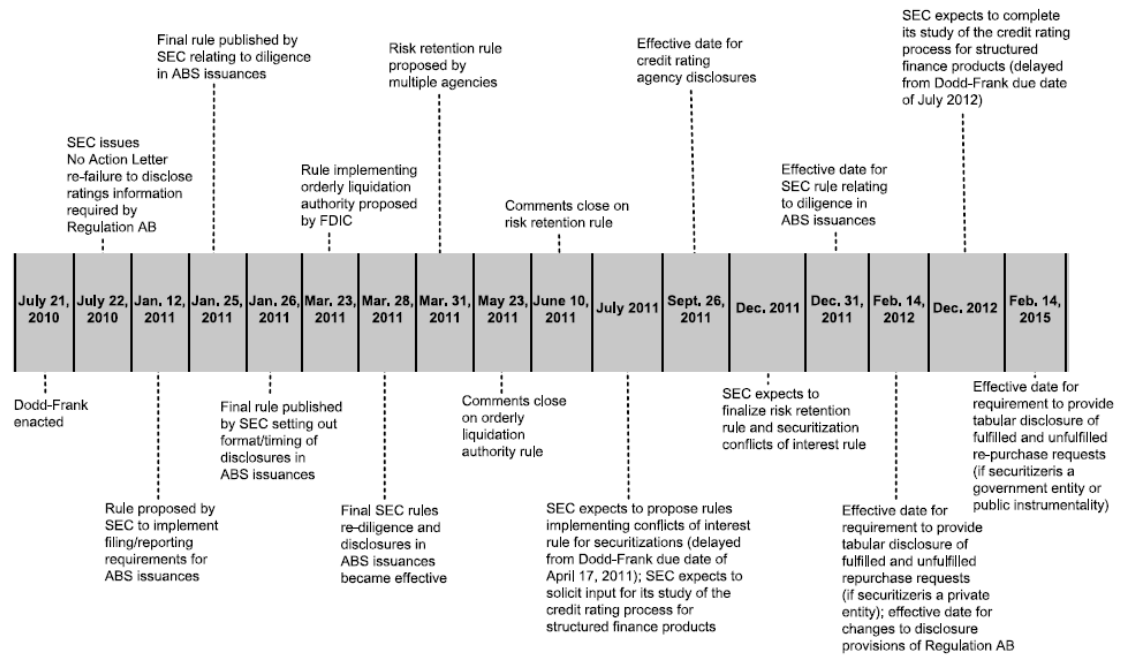


Figure 3 : Dodd-Frank implementation timeline.

Source: SEC

A.4 Detailed SIFI List and Volumes

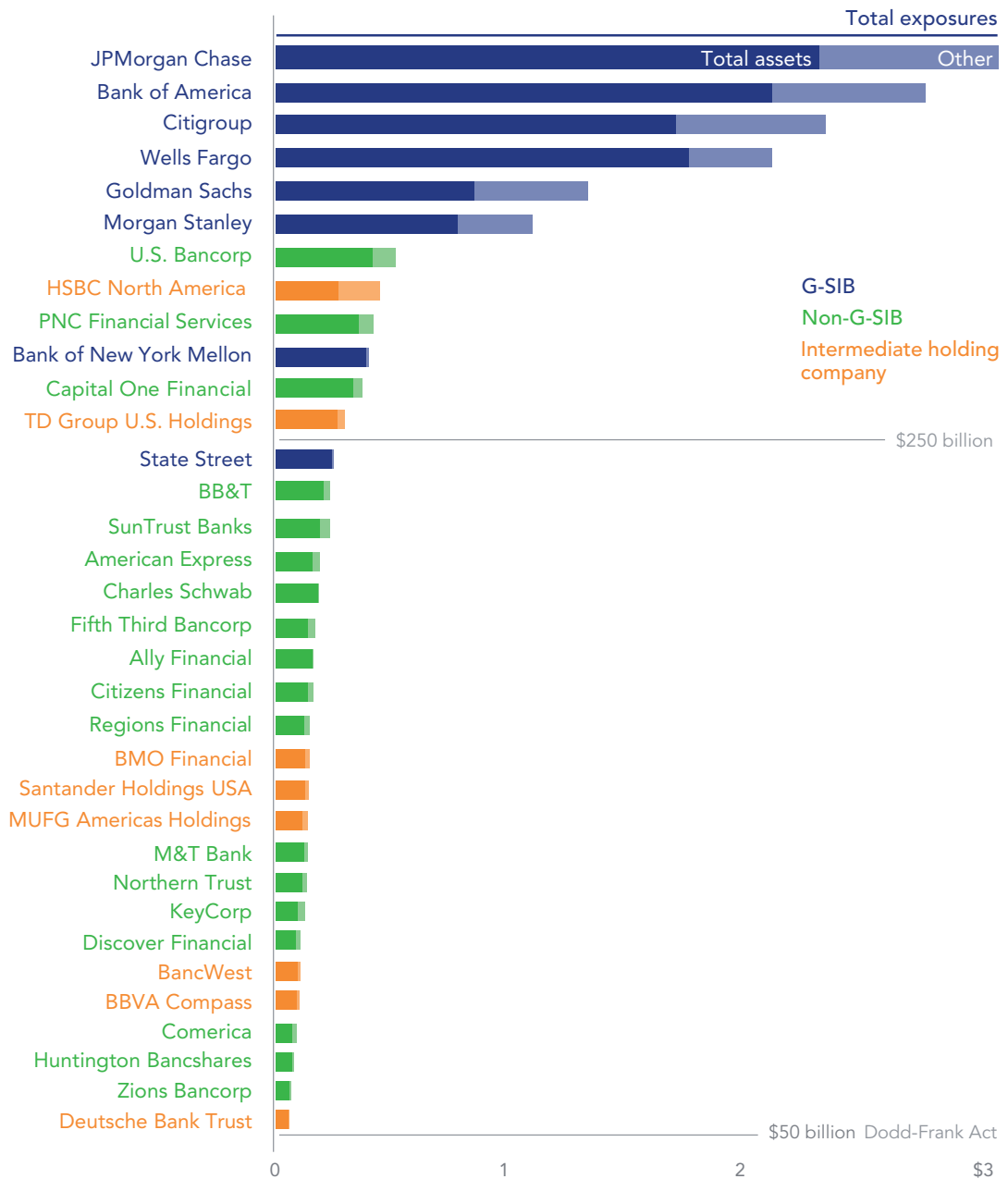


Figure 4 : Largest U.S. Bank Holding Companies and Intermediate Holding Companies by Total Assets and Exposures (\$ trillions).

Source: OFR

A.5 Formulas/Definitions for Banking Regulation Terms

Total Equity (Bank Capital) = Total Assets – Total Liabilities

Total Assets = Cash + Government Securities + Interest Earning Loans

Equity Ratio = $\frac{\text{Total Equity}}{\text{Total Assets}}$

Regulatory Capital = Tier 1 + Tier 2

Capital Adequacy Ratio = $\frac{\text{Regulatory Capital}}{\text{Risk Weighted Assets}}$

Tier 1 Capital = Paid up Equity Capital + Statutory Reserves
+ Capital Reserves – Carry Forward Losses

Tier 2 Capital = Undisclosed Reserves + Revaluation Reserves
+ Loan Loss Reserves + Investment Fluctuation Reserves + Subordinated Debt

Leverage Ratio = $\frac{\text{Regulatory Capital}}{\text{Average Total Assets}}$

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