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# The Financial Regulatory Cycle *

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**Abstract**

This paper presents the idea of the financial regulatory cycle in the United States. I show that there have been three long cycles of financial regulation since the independence of the country in 1776. Moreover, there are also smaller cycles within these long regulatory cycles. Contingent capital may be a way to curb the impact of the regulatory cycle.

Keywords: Financial Regulation; United States Banks; Law and Economics; Financial History

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# 1 Introduction

During times of euphoria in the financial markets, there is a widespread belief that the market will achieve the best outcome if left alone. This usually leads to deregulation. By contrast in times of financial turmoil, we return to a more draconian approach to financial regulation. Thus, financial regulation moves in a cyclical manner (Rajan, 2009; Coffee Jr, 2011a).

In this paper, I will present the Financial Regulatory Cycle. This cycle suggests that financial regulation is not constant over time (Rajan, 2009; Coffee Jr, 2011a). Instead, regulation in this sector fluctuates cyclically.

The main argument proposed here stems from the financial regulatory cycle proposed in different forms by Rajan (2009); Coffee Jr (2011a). According to these authors, times of loose financial regulation are followed by periods of tight financial regulation. Following these tight periods, financial regulation becomes looser again.

In my argument, however, I will introduce regulatory cycles of different lengths. In financial regulation, there are long cycles, a type of Kondratiev regulatory cycle. These cover the periods of the Antebellum U.S., the time between the Civil War and the 1980s, and from the 1980s onwards.

Within these long cycles, there are still small regulatory cycles. I will elaborate on this aspect by presenting the smaller cycles in the long cycle that we are currently living through. In this cycle, there was a period of deregulation during the 1980s, which was followed by a brief period in which regulation was tightened in response to the S&L Crisis. Then, there was a time of deregulation until 2006, which stopped when regulation tightened as a reaction to the 2007-08 Financial Crisis. In 2011, the period of deregulation that we are still going through started.

It is important that policy-makers acknowledge and understand the financial regulatory cycle, because only this way they can implement policy to curb the financial cycle and prevent future crises. A way to control the regulatory cycle may be with the use of contingent capital. This can be a useful tool, because it can recapitalize automatic the banks in times of financial turmoil.

The next section of this paper will explain the financial regulatory cycle. Section 3 will describe the three long cycles of financial regulation in the United States. Section 4 will introduce the short cycles from the 1980s to the present. Section 5 makes some policy recommendations. Section 6 concludes.

## 2 The Financial Regulatory Cycle

The main point of this paper is to present the Financial Regulatory Cycle. It builds on the idea proposed by Rajan (2009); Coffee Jr (2011a). According to them, financial regulation is not stable over time. Instead, it moves cyclically between periods of deregulation and of tightening financial regulation. However, I expand this argument by introducing the idea that in the financial regulatory cycle there are cycles of different lengths.

In financial regulation, there is a long type of cycle that lasts several decades. We can think of it as comparable to a Kondratiev regulatory cycle. When trust in the free market is high, you have a period of looser financial regulation, just as it happened in the 1980s (Cunha, 2020a). On the other, when trust in the market is low, financial regulation tightens, like what happened in response to the Great Depression (Grossman, 2010).

Within the long financial regulatory cycles, there are short cycles. Their functioning is similar to the long ones. In times of financial euphoria, there is a strong belief in the functioning of the free market, which leads to deregulation. An example of this case were the 1990s and early 2000s until the financial crisis of 2007-08 (Cunha, 2020a).

In a similar manner, in times of financial turmoil there is a push for tighter financial regulation. An example is the regulatory response to the financial crisis of 2007-08, in bills like the Dodd-Frank Act (Coffee Jr, 2011a). Despite the fact that we are in a long period of deregulation, we can still witness short cycles in which financial regulation is tightened.

The financial regulatory cycle appears to be based on a perversive dynamic in the regulatory process. When responding to financial crises, there is usually a momentum against the free market and a temptation to over-regulate (Rajan, 2009). Once economic and financial conditions stabilise, the trust in the free market outcome returns and a process of deregulation starts. Usually, this deregulation is followed by large financial and economic gains, because it was eliminating regulatory fat that was preventing faster economic growth. These early gains build into the perception that further deregulation would mean more economic gains, creating a momentum for deregulation. However, usually, at this point, most of the gains from financial deregulation have already been realised. Thus, the deregulatory process starts to remove sound rules, which creates the basis for financial instability (Rajan, 2009;

Coffee Jr, 2011a).

# 3 The Long Cycle

In the financial regulatory cycle I propose, there are long regulatory cycles faced by the financial industry. These cycles last several decades. They are comparable to a Kondratiev type of regulatory cycles. This section will present three long financial regulatory cycles in U.S. history: Antebellum U.S. (1776 to 1860); Civil War (1860) to the 1980s; 1980s Onward.

## 3.1 Antebellum U.S.

The Antebellum U.S. was a period of low regulation for the financial system, even though there were attempts to create a national and robust banking system.

This period was marked by a dispute over the type of banking system the new country was going to have. The Federalists led by Alexander Hamilton tried to create a national banking system, which would allow banks to have geographically diverse portfolios of loans. However, this goal was defeated by a coalition of anti-federalists and state banks, which took advantage of the deeply rooted fear of large financial institutions that existed in the country (Grossman, 2010; Komai and Richardson, 2011).

**First and Second Banks of the United States** The first Bank of the United States was created in 1791 and the second Bank of the United States in 1816. They were initially promoted by Alexander Hamilton to foster development, currency circulation and capital creation (Grossman, 2010). However, neither bank was able to renew its charter and both were disbanded within 20 years of their establishment. The opponents were mainly from agrarian southern and western states who mistrusted financial conglomerates, expansive federal authority and preferred regulating financial activity at the state level (Grossman, 2010; Komai and Richardson, 2011).

These failed attempts to create a national banking system led to the development of a fragmented and crisis prone banking system in the country (Grossman, 2010; Komai and Richardson, 2011). They prevented the establishment of a lender of last resort and did not allow banks to have geographically diverse portfolios.

Banking crises were a hallmark of this period. Table 1 lists the banking crises in the history of the United States. As we can see, from the independence until the end of this period in 1933, there were 13 crises in 157 years. This averages to a banking crisis roughly every 12 years. This is a great contrast with the second long regulatory period from 1933 to the 1980s, in which there was not a crisis for more than half a century.

**Free Banking** The political battle over the banking system of the U.S. was initially won by the states as displayed by the dismantling of both Banks of the United States. This allowed the rise of free banking. During this time, the government left regulation to market forces (Komai and Richardson, 2011).

Free banking laws were implemented in Michigan in 1837 and New York and Georgia in 1838 (Grossman, 2010). These made getting a bank charter easier. It was no longer necessary to obtain a charter from the state legislature. Individuals just had to fill some paperwork and deposit the required amount of bonds to obtain a bank charter. These looser free banking laws spread through the country in the 1850s (Grossman, 2010).

The requirements to obtain a charter and open a bank were not very stringent. Thus, bankers had little difficulty obtaining a charter, which allowed for a large increase in the number of banks operating in the U.S. (Komai and Richardson, 2011).

## 3.2 Civil War to the 1980s

The Civil War marked a shift in the structure of the financial system. The move was partially due to the more active role the federal government wanted to play in the country. This included the regulation and supervision of the financial industry.

The key feature of this long regulatory cycle was the tightly regulated and limited competition in the banking sector. This was especially true for geographical competition.

In terms of financial regulatory history, this period can be divided into two. The first from the Civil War to the Great Depression, which was characterized by tightly regulated competition and frequent panics (Calomiris, 2009; Bordo, Redish, and Rockoff, 2015). The second period was from the New Deal (1933) to the 1980s. In it, competition was even more tightly regulated. However, this was a period of stability in the banking sector.

### 3.2.1 Civil War to the Great Depression

The Civil War provided an opportunity to implement new legislation due to the absence of the southern states from Congress (Komai and Richardson, 2011). The federal government attempted to create a national banking system. In 1864, Congress approved the National Banking Act. This Act gave the federal government the ability to issue charters to commercial banks, regulated currency issuance, and created the Office of the Comptroller of the Currency to regulate and supervise national banks (Grossman, 2010; Komai and Richardson, 2011).

However, the creation of a national banking system was against the interests of most states and small banks (White, 1982, 2014). The unit banking lobby prevented the advancement of branch banking nationwide and within most states. Their strength came from the fact that unit banks were able to unite themselves as a cohesive group, while consumers were not able to do the same due to their large numbers. This way, unit banks were able to protect themselves from outside competition with the use of regulation (White, 1982, 2014).

This political economy game led to the regulatory outcome facing the financial industry in this period (White, 1982, 2014). This outcome together with other restrictions on capital requirements and liability meant a limited and tightly regulated competition and frequent panics in the banking sector (Calomiris, 2009; Bordo, Redish, and Rockoff, 2015). This phase lasted from the Civil War to the Great Depression.

**Unit Banking** Restrictions on branch banking are a key feature of the history of the U.S. banking system. In the 1890s, only five states allowed branch banking (Grossman, 2010). In 1927, the McFadden Act prohibited interstate banking (White, 1982, 2014; Kane, 1996; Kroszner and Strahan, 1999). This way, unit banking was an important aspect of the U.S. banking sector until the restrictions on branching were relaxed in the late twentieth century (Kane, 1996; Kroszner and Strahan, 1999; Cunha, 2020a).

Unit banking reduced competition to small banks, because large banks could not branch out (DeYoung, 2010). Moreover, it also provided more revenue to states in the form of bank charters (Kroszner and Strahan, 1999).

Unit banking meant more regulations than branch banking. To achieve unit banking, one has to regulate, while to have branch banking, it is enough to leave the sector unregulated.

This regulatory choice limited competition, which made the system very fragmented and prone to instability. Just before the 1980s, over 95% of banks held less than $1 billion in assets (2006 dollars) (DeYoung, 2010). This meant that there were many banks, but few branches, as shown in figure 1.

White (2014) argues that unit banking made the U.S. banking system more susceptible to panics. If nationwide branch banking was allowed, the U.S. banking system would have been more stable, like the Canadian one. This would happen due to the greater geographical diversification in their portfolio of assets.

**Capital Requirements** Capital requirements were almost non-existent by the time of the Civil War. According to Grossman (2010), only six states had them.

However, this changed in the following decades. The National Banking Acts of 1863 and 1864 implemented capital requirements for national banks. Following this move, states started establishing them as well. By 1926, thirty-one states had introduced capital requirements (Grossman, 2010).

**Double Liability** Competition was further reduced due to double liability. In this period, most states and the federal government implemented double liability laws. This meant that besides losing their initial investment, shareholders of failed banks were now also liable for an amount equivalent to their initial investment. Some states even introduced triple or unlimited liability. By 1930, only four states had single liability. (Grossman, 2010).

These additional liability rules made being a shareholder in a bank less attractive, and, thus, discouraged investment in banking and new entrants in this industry, which reduced the competition in the sector. The discouragement of new entrants may have been supported by established bankers, because the former breed competition (Rajan and Zingales, 2003).

**Derivatives** Securities regulation followed the same path as the rest of financial regulation. Thus, in this period we also witnessed the first instances of regulation of the derivatives market. The first one was the Anti-Gold Futures Act of 1864, which prohibited the trading of gold futures (Greenspan, 1997). Agricultural futures were, nonetheless, the main focus of government regulatory attention in the derivatives market. The most noticeable regulatory action in this field was the Grain Futures Act of 1922, which attempted to regulate the perceived speculation and manipulation of grain futures prices and established the Grain Futures Administration, a predecessor of the Commodity Futures Trading Commission (Greenspan, 1997; Komai and Richardson, 2011).

These attempts to regulate the derivatives market were not welcomed by the sector. They were frequently challenged in court by the industry, in particular the Chicago Board of Trade, the first organized futures exchange in the United States. As a consequence of these legal actions, both the Cotton Futures Act of 1914 and the Futures Trading Act of 1921 were declared unconstitutional. However, these outcomes did not stop the government from further regulating this sector (Greenspan, 1997; Komai and Richardson, 2011).

**Deposit Insurance** Deposit insurance was introduced in some states during this period. The first one to introduce it was New York in 1829, followed by Vermont (1831), Indiana (1834) and Michigan (1836). By 1917, fourteen states had or have had a deposit insurance scheme (Grossman, 2010).

Deposit insurance creates moral hazard, which in the banking sector leads to banks favouring riskier borrowers and investments, even if these are not the most profitable. This increases the risks taken by the banking system and can have distorting effects in the economy (Calomiris and White, 1994).

### 3.2.2 New Deal (1933) to the 1980s

As a response to the financial instability of the Great Depression, the federal government changed the structure of financial regulation. To promote stability, the rules implemented in the aftermath of the Great Depression limited competition even further. The new rules introduced limited entry in the sector, and competition on interest rates, and on the types of services companies were allowed to offer (Grossman, 2010; Cunha, 2020a).

This was successful in promoting stability in the banking sector as there were no banking crisis in this period. This was a stark contrast with the history of the sector in the United States until this point (Calomiris, 2009; Bordo, Redish, and Rockoff, 2015). This new phase lasted from the New Deal to the 1980s.

**Deposit Insurance** Federal deposit insurance was established in the Banking Act of 1933. This act also created the Federal Deposit Insurance Corporation (FDIC) to implement the scheme. Initially, deposit insurance had been set up on a temporary basis, however, it was soon made permanent (Komai and Richardson, 2011; Grossman, 2010).

Deposit insurance was also extended for deposit-taking institutions other than banks, such as savings and loans. This was done in 1934 in the National Housing Act, which created the Federal Savings and Loan Insurance Corporation (FSLIC) to be responsible for this program in the S&L industry (Komai and Richardson, 2011).

Deposit insurance has been credited with helping stabilise the banking system (Friedman and Schwartz, 2008; Diamond and Dybvig, 1983). However, it is also an example of financial regulation implemented to stabilize the system at the cost of efficiency. This scheme reduced competition in the sector, because it limited entry in this sector and made entry more discretionary (Calomiris and White, 1994; Grossman, 2010).

**Regulation Q** Under Regulation Q, the Banking Acts of 1933 and 1935 imposed interest rate ceilings on savings deposits and forbade the payment of interest on demand deposits. These rules were meant to reduce price competition amongst banks and decrease the cost of funds, which would make them more profitable and, thus, less likely to fail (Gilbert, 1986; Komai and Richardson, 2011; Grossman, 2010; Cunha, 2020a).

**Business Areas** The Banking Act of 1933 restricted the areas in which financial companies could operate. It separated commercial banking and investment banking activities. Commercial banks were not allowed to be affiliated with firms that operated in areas such as issuance or underwriting of stocks, bonds or other securities, with the exception of Treasury securities. In the same manner, the Act also prohibited investment banks from accepting deposits (Grossman, 2010). These rules protected banks from competition from other financial companies (Cunha, 2020a).

**Securities** The securities market was not exempt from regulatory attention following the Great Depression. The Securities Act of 1933 introduced regulation for the primary market, while the Securities Exchange Act of 1934 focused on the secondary market. The latter also created the Securities and Exchange Commission (SEC) to regulate and supervise the securities industry (Komai and Richardson, 2011).

In this period of low competition, the Securities Act of 1933 also reduced competition in the securities market by protecting investment banks, specially high-prestige investment banks. Moreover, it raised costs to issuers and investors and was a source of rents for the firms it regulated (Mahoney, 2001).

### 3.3 1980s Onward

In the 1980s, financial regulators started favouring more competition. To promote more competition, they deregulated the sector. Thus starting a new period of looser regulation. From then onwards, the restrictions on the business areas in which financial firms could operate were loosened, interest rate ceilings were removed and nationwide branch banking was allowed (Cunha, 2020a).

Thus, the 1980s started a new long regulatory cycle in the financial sector. This long cycle of loosening financial regulation is still ongoing (Cunha, 2020a).

**Branch Banking** Branch banking was *de facto* forbidden in the United States until the 1980s. The federal government left the matter of branch banking to the states until 1994 (Cunha, 2020a). As we can see in table 2, until 1978, no state allowed interstate banking. Moreover, most states also imposed restrictions on intrastate bank branching (Kroszner and Strahan, 1999). So, nationwide branch banking was not permitted.

Throughout the 1980s, restrictions on branch banking started being lifted. The Garn-St Germain Depository Institutions Act of 1982, the Office of the Comptroller and individual states lifted some of the existing restrictions on branch banking (Kroszner and Strahan, 1999; Stiroh and Strahan, 2003; DeYoung, 2010; Cunha, 2020a). Later, the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 further loosened the restrictions on interstate branch banking (Cunha, 2020a).

These actions allowed the expansion of branch banking, as shown in figure 1. Moreover, according to Kerr and Nanda (2009), it also led to an increase in competition in other industries.

**Real Estate Lending** During this period, there was a substantial liberalisation of real estate lending (Cunha, 2020a). The Garn-St Germain Depository Institutions Act of 1982 removed maximum loan-to-value ratios for real estate loans (Davison, 1997; Cunha, 2020a). The Alternative Mortgage Transactions Parity Act of 1982 repealed restrictions on exotic features of mortgages, such as adjustable rates and interest only mortgages (Sherman, 2009; Cunha, 2020a).

Rules on real estate lending continued to be loosened until the financial crisis of 2007-08 (Cunha, 2020a,b). Examples of this continuing deregulation include the Housing and Community Development Act of 1992 and the American Dream Downpayment Act passed in 2003 (Cunha, 2020a,b).

The looser rules on real estate lending allowed the growth of the real estate bubble of the early 2000s, especially through the expansion of the subprime loans market. This subprime market was one of the main causes of the real estate bubble of the early 2000s, which was the root of the financial crisis of 2007-08 (Brunnermeier, 2009; Cunha, 2020a).

**Business Areas** The separation of commercial and investment banks established in the Glass-Steagall Act was repealed in 1999 with the Gramm–Leach–Bliley Act (Cunha, 2020a). However, this was just the final nail in the coffin of the separation of business areas. Throughout the 1980s, the Federal Deposit Insurance Corporation, the Federal Reserve and state regulators had already eroded this separation of banking activities (Federal Deposit Insurance Corporation, 1984; Davison, 1997;

Sherman, 2009; DeYoung, 2010; Cunha, 2020a).

**Interest Rate Ceiling** The Depository Institutions Deregulation and Monetary Control Act of 1980 created the Depository Institutions Deregulation Committee (DIDC) to gradually phase-out Regulation Q. However, in a high inflation economy, this gradual process was not being sufficiently fast for lawmakers. Thus, the Garn-St Germain Depository Institutions Act of 1982 required the DIDC to repeal any remaining Regulation Q differentials by 1984 (Cunha, 2020a).

**Derivatives** It is not just banking regulation that is cyclical. Other types of financial regulation follow a similar cycle. After the attention it received in the beginning of the twentieth century, derivatives trading was left unattended by regulators (Cunha, 2020a).

Brooksley Born, the Chair of the Commodity Futures Trading Commission (CFTC) between 1996 and 1999, tried to regulate the over the counter (OTC) derivatives market. However, her efforts were frustrated by Alan Greenspan (then Federal Reserve chairman), Robert Rubin and Lawrence Summers (Treasury Secretaries during her tenure) (Cunha, 2020a).

Born (2011) believes that the deregulation of the financial markets was one of the main causes of the 2007-08 crisis. This outcome may not have been a surprise for some market participants, such as Warren Buffett. In 1982, he warned congressman John Dingell about the dangers of the growing and unregulated derivatives market, which he compared to gambling (Lenzner and Johnson, 2010; Cunha, 2020a).

# 4 The Short Cycle

In the previous section, I introduced the long financial regulatory cycles. However, despite the existence of these long cycles, there are still shorter financial regulatory cycles within these long cycles. To illustrate this point, I will describe the short financial regulatory cycles within the last long financial regulatory cycle, from the 1980s to the present. The short cycles since the 1980s are: Deregulation in the 1980s; Response to the S&L Crisis; S&L Crisis to 2007; Response to the 2007-08 Crisis; 2011 Onward.

## 4.1 Deregulation in the 1980s

The 1980s witnessed a lot of financial deregulation (Cunha, 2020a). As stated before, some restrictions on branch banking started being lifted by the Garn-St Germain Depository Institutions Act of 1982, and by regulation coming out of the Office of the Comptroller and individual states (Kroszner and Strahan, 1999; Stiroh and Strahan, 2003; DeYoung, 2010; Cunha, 2020a).

Throughout this decade, real estate lending rules were also loosened by the Garn-St Germain Depository Institutions Act of 1982 and the Alternative Mortgage Transactions Parity Act of 1982 (Davison, 1997; Sherman, 2009; Cunha, 2020a).

Moreover, the Federal Deposit Insurance Corporation, the Federal Reserve and state regulators loosened the restrictions on the separation between commercial and investment banking (Federal Deposit Insurance Corporation, 1984; Davison, 1997; Sherman, 2009; DeYoung, 2010; Cunha, 2020a).

The first half of the decade also saw repealed of the interest rate ceilings imposed by Regulation Q (Cunha, 2020a).

## 4.2 Response to the S&L Crisis

The late 1980s and early 1990s witness the first banking crisis since the Great Depression. During this period, there were 1,400 savings and loan (S&Ls) and 1,300 bank failures (Reinhart and Rogoff, 2009).

Following the financial turmoil caused by the S&L Crisis, there was a brief stop in the ongoing financial deregulatory process. Between the late 1980s and the early 1990s, there were no major pieces of deregulatory legislation implemented.

During this crisis, there was even a tightening of the regulation faced by the savings and loan associations. The most famous example was the Financial Institutions Reform, Recovery, and Enforcement Act of 1989, which enhanced the regulatory and enforcement powers of federal regulators.

## 4.3 S&L Crisis to 2007

The period between the S&L Crisis and the 2007 was one of great deregulation. Nationwide branch banking was allowed by the Riegle Community Development and Regulatory Improvement Act of 1994 (Kroszner and Strahan, 1999; Cunha, 2020a,b). Later, in 1999, the Gramm-Leach-Bliley Act repealed of the separation of commercial and investment banking (Cunha, 2020a,b).

This period also witnessed further deregulation of real estate lending. Examples include the Housing and Community Development Act of 1992 and the American

Dream Downpayment Act passed in 2003 (Mian, Sufi, and Trebbi, 2010; Igan, Mishra, and Tressel, 2012; Cunha, 2020a,b). The deregulation of real estate lending, especially for subprime borrowers, was followed by a bubble in this sector, which was one of the main causes of the 2007-08 financial crisis (Brunnermeier, 2009).

Moreover, the derivatives market was also deregulated through bills like the Commodity Futures Modernization Act of 2000 (Cunha, 2020a,b). Born (2011) suggested that the deregulation of this market was one of the major causes of the 2007-08 crisis.

## 4.4 Response to the 2007-08 Crisis

During the financial crisis of 2007-08 we witness a pattern similar to the one of the last banking crisis (the S&L crisis). First the production of looser regulation stopped. Afterwards, tighter regulation was implemented.

The financial crisis of 2007-08 brought a short period until 2010 in which financial regulation was tightened (Coffee Jr, 2011a; Cunha, 2020b). The most famous piece of legislation from this time was the Dodd-Frank Wall Street Reform and Consumer Protection Act, which was enacted in 2010. This Act included provisions on consumer protection, and required an increase in the transparency of exotic financial products and credit ratings (Coffee Jr, 2011a; Cunha, 2020b).

## 4.5 2011 Onward

Following the financial crisis, lawmakers quickly reverted to a deregulatory attitude. In 2012, the JOBS Act (an acronym for Jumpstart Our Business Startups Act) gathered bipartisan support to ease securities regulations to promote funding for small businesses (Coffee Jr, 2011a).

More recently, in 2018, The Economic Growth, Regulatory Relief and Consumer Protection Act raised the threshold to be considered too important to fail from $50 billions to $250 billions. Moreover, it also released small banks, those with less than $10 billions in assets, from the restrictions imposed by the Volcker Rule.

# 5 Policy Lessons

Policy-makers should acknowledge the financial regulatory cycle. This will allow them to stop swinging between too little and too much regulation and enact cycle-proof regulation.

An example of such a cycle-proof rule is the use of contingent capital (Rajan, 2009; Coffee Jr, 2011b). The most commonly used version of contingent capital are the contingent convertible (CoCo) bonds. This is debt issued by banks that is converted into equity if certain pre-specified trigger events occur. These events can be a financial crisis or when the capital of the bank falls below a specific value. Thus, this measure gives the holders of contingent capital the right to seize an equity interest in the company if the value of the capital decreases dangerously or if there is a large scale episode of financial turmoil. This way, contingent capital can prevent problems at the micro and macro level, such as systemic risk.

Contingent capital will not break the financial regulatory cycle. However, given that this cycle already exits, contingent capital provides mechanism to curb and reduce its negative impact, without imposing any major costs.

Some of the policies suggested in the aftermath of the 2007-08 financial crisis may not be appropriate to deal with the financial regulatory cycle (Brunnermeier, 2009). Countercyclical capital requirements may not be as effective because of the financial cycle. During good times, the market requires little capital in financial companies. This is because during the euphoria, the market perceives losses as very unlikely. This was the case during the real estate bubble leading up to the 2007-08 financial crisis.

# 6 Conclusion

In this paper, I presented the Financial Regulatory Cycle, which suggests that financial regulation fluctuates in a cyclical manner. In financial regulation, there are long cycles that last several decades. The United States has had three long cycles so far: the Antebellum period, from the Civil War to 1980s, and the current period from the 1980s to the present.

Within these long financial regulatory cycles there are still short regulatory cycles. I illustrated this point by describing the short cycles since the 1980s. These were: Deregulation in the 1980s; Response to the S&L Crisis; S&L Crisis to 2007; Response to the 2007-08 Crisis; 2011 Onward.

A measure that will help curb the cycle is the use of contingent capital, such as CoCo bonds. This allows banks to expand their balance sheets in a manner that will reduce the risks in case of turmoil in the financial markets.

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# Appendix

## Tables

Table 1: Banking Crises

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|---|
| Panic of 1792 |
| Panic of 1796-97 |
| Panic of 1819 |
| Panic of 1825 |
| Panic of 1837 |
| Panic of 1857 |
| Panic of 1873 |
| Panic of 1884 |
| Panic of 1890 |
| Panic of 1893 |
| Panic of 1901 |
| Panic of 1907 |
| Great Depression (1930s) |
| Savings and loan crisis (1986-1991) |
| Subprime mortgage crisis (2007-08) |

Source: Bordo and Eichengreen (1999); Bordo et al. (2001); Carlson (2005); Chew (2005); Sylla, Wright, and Cowen (2009); Reinhart and Rogoff (2009)

Table 2: Year of Deregulation of Restrictions on Geographical Expansion, by State - Year in which a state entered into an interstate banking agreement with other states

| State | Year | State | Year | State | Year |
|---|---|---|---|---|---|
| Alabama | 1987 | Kentucky | 1984 | North Dakota | 1991 |
| Alaska | 1982 | Louisiana | 1987 | Ohio | 1985 |
| Arizona | 1986 | Maine | 1978 | Oklahoma | 1987 |
| Arkansas | 1989 | Maryland | 1985 | Oregon | 1986 |
| California | 1987 | Massachusetts | 1983 | Pennsylvania | 1986 |
| Colorado | 1988 | Michigan | 1986 | Rhode Island | 1984 |
| Connecticut | 1983 | Minnesota | 1986 | South Carolina | 1986 |
| Delaware | 1988 | Mississippi | 1988 | South Dakota | 1988 |
| DC | 1985 | Missouri | 1986 | Tennessee | 1985 |
| Florida | 1985 | Montana | 1993 | Texas | 1987 |
| Georgia | 1985 | Nebraska | 1990 | Utah | 1984 |
| Hawaii | 1997 | Nevada | 1985 | Vermont | 1988 |
| Idaho | 1985 | New Hampshire | 1987 | Virginia | 1985 |
| Illinois | 1986 | New Jersey | 1986 | Washington | 1987 |
| Indiana | 1986 | New Mexico | 1989 | West Virginia | 1988 |
| Iowa | 1991 | New York | 1982 | Wisconsin | 1987 |
| Kansas | 1992 | North Carolina | 1985 | Wyoming | 1987 |

Source: Stiroh and Strahan (2003)

# Figures

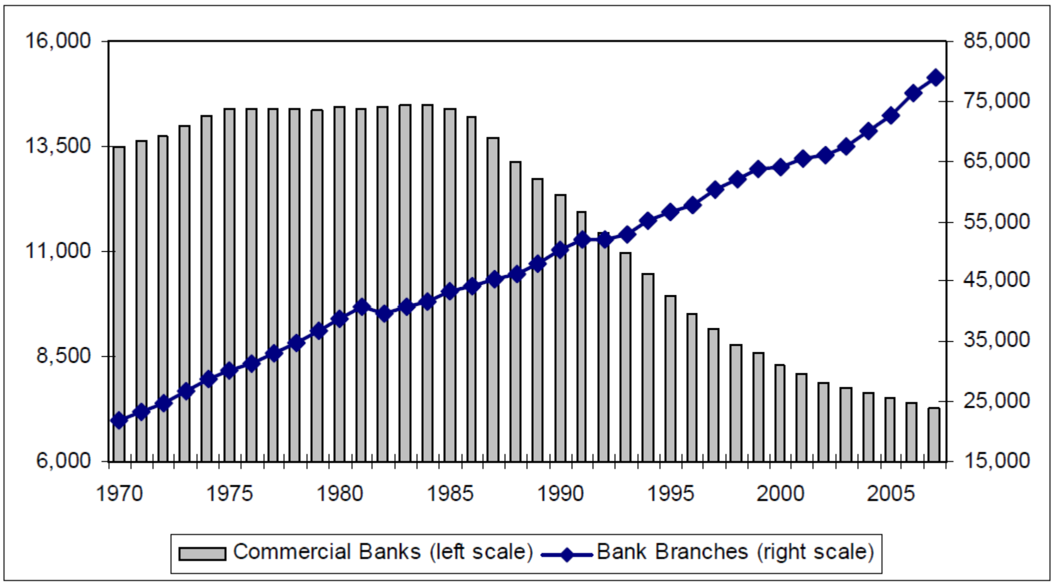


Figure 1: Number of Commercial Banks and Commercial Bank Branch Offices in the U.S. between 1970 and 2007.

Source: DeYoung and Rice (2004)