

## THE EVOLUTION OF REGULATIONS IN BANKING: A CYCLE BASED APPROACH

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***Abstract.** The question about the specialness of banks has been the center of debates amongst academicians and regulators over a long period of time as leading to extensive regulations for controlling and supervision of banks. The base regulations, though not legally compulsory, have been those developed and published by Basel Committee since mid-1970s. The main intention of these regulations is to assure globally sound and stable financial systems in individual countries that will eventually lead to a stable economy across the globe. However, the recent financial crisis has proved that the banking regulations have not served as intended and yet they are under major revisions again. In this paper it is intended to investigate the evolution of bank regulations with a particular attention to the scope of banking, capital adequacy and deposit insurance. It will be another focal point of this paper to draw attention to the existence of cycles in the processes of regulations that makes regulations to move between two extremities; tight and loose regulations. In this manuscript these issues are investigated with an analysis of related literature and with specific observation on the evolution of regulations in the USA.*

***Keywords:** bank regulations, capital adequacy, deposit insurance, basel committee.*

### Background

The academic discussion regarding the specialness of banks is closely linked to the developments and evolving of bank regulations. It is argued that as delegated monitors banks are special for the fact that they transform risk, maturity and liquidity for generating investment (liabilities) and funding (assets) instruments that meet the taste of a wide range of individuals and corporations. Due to information asymmetry it is in favor of individuals to delegate banks as their agencies dealing with risky operations that they are not capable of managing effectively. Corrigan (1982 and 2000) discusses that what make banks special are (1) they offer transaction accounts, (2) they are sources of liquidity for all other institutions and (3) they are transmission belt for monetary policy. He continues to justify the regulations imposed upon banks as a result of their unique roles in economies. Calomiris and Gorton (1990) also state that banks are unique due to the services that they provide on the each side

of their balance sheets. Similarly Diamond and Dybvig (1986) states that banks are special due to the fact that they offer transformation services that enable them to convert illiquid assets into liquid assets i.e. creating liquidity.

The reliability of banks as the safeguards of households' deposits and/or savings is another issue that governments and regulators try to assure. The reaction towards this issue is twofold. Academics that have a complete trust in market economy are against regulating banks for the fact that banks are just like other profit seeking firms that are subject to market rules that will eventually make distinction between reliable and unreliable banks. For example; Fama (1980), as quoting from Tobin (1963), argues that specialness of banks derive from regulations rather than the business that they do or the functions that they perform. It is claimed that if banks are left to function in a market free of regulations, their equilibrium would be determined by the market rules, just like it is the case for other industries. Ferrera (1990) also discussed that the heavy regulation wall had to fall due to the fact that it was no longer possible to keep banks separated from other activities such as investment banking and even owning non-financial subsidiaries. Additionally, Barth, Caprio and Levine (2012) states that tightening capital requirements or increasing supervisory powers had no positive impact on the financial sector, and in fact increased supervision was found to be positively related to corruption in banking. They further argue that strengthening private monitoring was found to be associated with deeper, more efficient, and less corrupt financial systems, but not with greater financial stability.

The regulations imposed upon banks are justified for different reasons. Blinder (2009) specifies that government intervention to markets is justified for the following purposes; (1) to create and enforce rules of the game and keep the system honest, (2) to guard against undue concentration, thus keeping markets competitive, (3) to redistribute income, e.g., through the tax-and-transfer system, (4) to correct externalities or other market failures, e.g., those due to asymmetric information, (5) to protect the interests of taxpayers, e.g., in cases in which public money is being spent or put at risk. He further underlines that by implementing regulations, governments target to protect consumers and taxpayers and to ensure financial and economic stability both locally and internationally.

Another issue about bank regulations is the cost of preventing and/or combatting financial crises. Calomiris and Gorton (1990) states that while private bank coalitions were effective in monitoring banks and mitigating the effects of banking panics, governments eliminate banking panics through costs of deposit insurance and reserve requirements. They also underlined that private self-regulation system could be effective when combined with some government policies.

Currently banks are the most heavily regulated firms. The evolving of regulations, in line with the expanding businesses and functions of banks and experienced financial crises, causes regulations to become more and more complicated. However, regulations are intended to be designed in line with the market rules and whenever it is possible it is avoided to include direct controls, such as interest rate controls applied in the past, on banks' operations. Stevens (2000) after underlining that safety nets could produce suboptimal market by inflating banks' incentives to take risk, he suggests banking regulation and supervision to replace safety nets by the market discipline. The third pillar of Basel II named Market Discipline is aimed to increase the level of private monitoring in bank regulations that will reduce the level of government intervention in the future regulations. Thus it is observed that regulations are tried to be converged with market rules in order to minimize the involvements of governments.

Another issue regarding the regulations is about internationalization of them throughout the world. Regulations that are initially imposed upon banks were nationally-based and after the internationalization of banking businesses, the current regulations contained international dimensions and it is aimed to harmonize them throughout the world since the foundation of

Basel Committee in 1975. Despite the fact that it is not compulsory to adapt to the regulations developed by the Basel Committee, it has been the duty of IMF and the World Bank to spread these rules amongst almost all countries in the world.

Another dimension of regulations is related to product innovation and technology. As stated by Markham (2010) banks became financial supermarkets and this makes their balance sheets even more complicated for regulators to identify risks coherent to their balance sheets and take the necessary measures to control them. Similarly, DeYoung (2007) states that during the 1980s it became increasingly difficult to maintain a regulatory environment that could protect the banking industry from competition while, at the same time, ensuring a vibrant and healthy banking industry. He then suggests that changes in market conditions and financial and technological innovation necessitated changes in the regulatory regimes too.

Although there might be some other features of regulations, however, they are not discussed here. In the remaining parts of this paper the evolving of bank regulations will be analysed from different perspectives with specific focus to the relationship between financial crises and regulations. In the first part regulations regarding the scope of banking, in the second part regulations regarding capital requirements and finally regulations regarding deposit insurance will be investigated with a historical based literature review.

## **The Evolution of Regulations Regarding the Scope of Banking Activities**

The scope of banking, as widely accepted, can be divided into two main pillars namely commercial banking and investment banking. Although there are other banking activities such as private banking, consumer banking, international banking that are parts of current banking businesses, from the regulatory point of view they are not considered as being completely different from either of the two main sections mentioned. These banking businesses can be parts of either investment banking or commercial banking.

The main distinction between a commercial bank and an investment bank is that a commercial bank accepts deposits from the households and transfers these funds mainly to traders in the form of self-liquidating loans. On the other hand investment banks do not have licences to accept deposits and thus they are free to get involved in risky businesses such as stock market operations, underwriting activities and etc.

In the United States (US) the regulation cycle regarding scope of banking started during the colonial time when banks were provided a charter to operate. Apart from providing commercial banking activities, charter banks provided services to the government as the underwriters of their bonds. However, after witnessing that charter banking system, due to creating a monopoly, caused corruption and instability in the US banking system, these regulations were repealed and it was followed by the era of free banking. McCarthy (March/April 1984) underlines that charter regulations were criticized as being odious to the free spirit of US civil institutions. Thus new regulations were designed to assure that anyone who could meet the minimum legal capital requirements was entitled a charter to own a bank. After the establishment of free banking system in the US, many banks were established to offer commercial banking services to their customers. They were also assisting the government to raise revenue by purchasing and depositing state bonds for guaranteeing the convertibility and circulation of their own banknotes.

As indicated by McCarthy (March/April 1984) due to the heterogeneous bank notes and due to the exploitation of the free banking system by the so-called “wildcat banks”<sup>1</sup>, many

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1 For a definition of wildcat banks see for example Gianni and Vannini (2010) P. 413

bank failures were witnessed and that necessitated the reorganization of the banking system in the US that led to the national banking system.

The National Banking System was established after the enactment of the National Currency Act by the US congress, in 1863. McCarthy (March/April 1984) outlines that the act imposed a number of restrictions on bank activity in order to enhance bank soundness and stability. Alongside minimum capital requirements, these new regulations were: (1) reserve requirements, (2) restrictions on the scope of operations primarily to accepting deposits and making short-term, self-liquidating loans to businesses, and (3) a requirement to provide periodic reports of condition to the Comptroller.

After the establishment of national banking system commercial banks were not allowed to be a part of capital market operations and they were encouraged to serve trade activities and invest their funds mainly in the so-called self-liquidating loans. However, they were allowed to broker securities for their customers. As indicated by Markham (2010) the Office of Comptroller of Currency (OCC) prevented this in 1902. Nonetheless this did not last for a long period of time. As emphasized by McCarthy (March/April 1984) the entering of US to World War I accelerated the integration of commercial and investment banking activities and that enabled banks to finance the government's war expenditures. Therefore the involvement of commercial banks in investment banking activities continued to grow and commercial lending of banks declined significantly.

By the time of the great depression of 1929, many commercial banks went bankrupt just because they were heavily involved in investment banking operations. Therefore the economic crisis of 1929 led to two new regulations from the past imposed upon banks by the enactment of Banking Act of 1933 or Glass-Steagall Act (GSA) in the US. The first regulation was related to the separation of investment banking from commercial banking and the second was the prohibition of paying interest on demand deposits and setting interest rate ceiling on various types of deposits. These two regulations were enacted because during the global crisis of 1929 banks were heavily involved in investment banking that swallowed almost all their deposit borrowings from the households. Thus the aim of these regulations were to push banks into the traditional banking activities i.e. borrowing deposits and lending self-liquidating short term commercial loans. On the other hand, interest rate related regulations were enacted to prevent banks from unjustified interest rate competition.

The GSA remained enacted until 1999 when the enactment of Gramm-Leach-Bliley Act (GLBA) in 1999 repealed it and enabled commercial banks convert themselves into financial holding companies that could provide not only commercial banking services but also investment banking services alongside many other modern financial services. However, as stated by Blinder (2009), it is believed that the repeal of GSA has seeded the causes of 2008 global financial crisis and it is suggested to re-enact GSA which has provided a half century financial crisis free banking system in the US. On the other hand, DeYoung (2007) states that from the early 1980s through the early 1990s, approximately 10% of U.S. commercial banks failed in contrast to the period 1940-1980 when only 237 banks failed. However, he discusses that the appearance of safety and soundness during those years of GSA is deceptive because the financial regulations and industry structure present at the time were themselves the root cause of the bank insolvencies of the 1980s and 1990s.

Despite the fact that GSA re-shaped banks in the US i.e. banks had to separate their commercial banking and investment banking activities, as indicated by Ferrera (1990) in mainland Europe, banks were formed under the name of universal banking that enabled commercial banks to provide not only investment banking services but also own industrial companies. This was the case in Japan and in Turkey as well. Gruson and Nikowitz (1988)

indicate that The Second Banking Directive of the European Economic Community counts securities and derivatives trading as parts of European Banks' activities.

These different types of bank structure in Europe and in US were centre of debates for a long period of time. Before the repeal of the GSA, Shull and White (1998) suggested that both the holding company affiliate arrangement and the operating subsidiary structure appear to be safer than the universal banking for non-traditional activities that are not examinable and supervisable by bank regulators. They were suggesting US banks to be converted into bank holding companies rather than universal banks in order to effectively compete with banks outside of USA. Jeannot (May 2000) states that the dismantlement of GSA was inevitable due to the fact that the deregulation of banking industries in developed countries (mainly in Europe) had potentially placed US banks in a disadvantageous environment and left them uncompetitive. On the other hand as indicated by Macey (2000) the GSA was dead even before GLBA because federal regulators, particularly the Federal Reserve Board and the Comptroller, had already eviscerated the "Maginot Line" between commercial and investment banking through liberal regulatory interpretations of the statute long before the Act was passed. Thus Congress, in passing the Act, merely gave formal recognition to the changes that had been taking place in the marketplace over the past years. Markham (2010) also supports the statement of Macey (2000) regarding the legal disintegration of GSA being just a result of the developments in the markets that practically dismantled the GSA. In other words bankers were able to exploit and/or create loopholes in GSA in order to allow themselves providing investment banking services alongside the traditional banking activities. As they were doing this, the regulators were not preventing them due to the fact that not only the financial system but also banking system was getting more and more complicated following the invention of new financial instruments such as certificate of deposits in 1960s, securitisation in 1980s, credit default swaps in 1990s and other revolutionary and complex instruments. Indeed regulators needed time to understand and then to regulate these issues.

It is obvious that the cycle of regulations regarding the scope of banking has two extremities: the unity of commercial and investment banking on one extreme side and their separation on the other extreme side. The cycle started with the free banking era in the USA when these two banking services were unified and later the cycle continued with the separation of these two banking facilities during the national banking era. After that, regulators were forced by the market players to unify them despite the existence of the regulations preventing it. Nonetheless, banks were providing both types of banking services in the market after being encouraged by the federal government for its own financing purposes. Having continued until 1929, banks found themselves exposed to market risk empowered by the global depression. The cycle kept continuing with the enactment of GSA that banned again the unification of these two types of banking facilities at extreme sides. Nonetheless, the market forces gradually succeeded to dismantle the GSA over time especially with the help of the invention of new financial instruments and technology that resulted in intense competition in banking industry alongside creating complex balance sheet and risk structures that finally caused the legal repeal of GSA in 1999.

Having lived through the global financial crisis of 2008 some argued that GSA should be re-enacted in order to prevent future financial crises. Some also argue that the restoration of GSA is impossible. Kregel (2010) discusses that GSA provided the unregulated investment banks with a monopoly over securities market activities that were functionally equivalent to the deposit business and liquidity creation of regulated banks. He then adds that due to the complexity of financial markets in comparison to the time of the inauguration of GSA it will not be possible to re-enact GSA. Nonetheless he suggests that the banking definition to be widened so as to include investment banking activities under the regulatory umbrella of

today's commercial banks. However, Carpenter and Murphy (June 2010) indicate that after the 2008 financial crisis, a new regulation, named "Volcker Rule" enacted in the US, already limits the ability of commercial banking institutions and their affiliated companies and subsidiaries to engage in trading unrelated to their customer needs and investing in and sponsoring hedge funds or private equity funds.

Stiglitz (2009) after stating four reasons behind the global financial crisis of 2008; (1) firing the chairman of FED in 1987 who opposed deregulation processes, (2) tearing down the walls separating banks' investment banking activities from their commercial banking operations (3) application of leeches such as tax cuts in the USA, (4) faking the numbers that caused enactment of Sarbanes-Oxley to combat operational risk and (5) letting it bleed (veered from one course of action to another), he criticizes the belief that markets are self-adjusting and that the role of government should be minimal. On the other hand Calomiris and Gorton (1990) states that the history of US banking regulation can be written largely as a history of government and private responses to banking panics.

In which direction is the cycle going to continue? The separation or unification of the scope of banking? Building upon the latest core banking regulations of Basel Committee aka Basel III, it can be said that banks will continue to get involved in investment banking activities due to the fact that capital regulations are heavily related to the complex synthetic instruments and the calculation of their risk weights. Nonetheless the debates over the separation and unification of commercial banking and investment banking activities will remain unsolved. Within the borders of cycle defined the degree of separation and/or unification will change depending on market conditions, geography, tradition and bankers' lobby power.

Having gone through the brief history of regulations regarding the scope of banking it is easy to recognize that regulations are introduced following financial crises. Thus the structure of new regulations is extremely affected by the last crisis lived. Accordingly, new regulations are designed and implemented for combating financial crises similar to the latest crisis that crashed markets and influenced the content of new regulations. However, new regulations which are designed to prevent a specific crash usually do not have a complete perspective to cover and/or to combat new types of crises to be witnessed in the future. Also the regulations introduced after financial crises soon become the shooting target of the market players for the changes that will allow them to freely act in the markets in order to maximize their market value and/or profitability. And the cycle goes on indefinitely.

Nonetheless the Basel Committee's new and comprehensive regulations named Basel III seem to be designed with a broader and longer vision so as to ensure that banking systems around the globe will be sound and stable for overcoming potential crises in the markets.

## **The Evolution of Regulations Regarding Capital Adequacy**

In present times the main regulatory body of capital regulations and also bank regulation is the set of regulation that has been developed by the Basel Committee since 1975 when the committee was established. Before moving into the details of present capital regulations, Basel III, looking at the historical developments of capital requirements will help to better understand capital adequacy issue and its evolving directions.

As outlined in FDIC (2003), prior to the Basel regulations regarding the capital requirements, the US regulators stressed factors such as managerial capability and loan portfolio quality, and largely downplayed capital ratios. Supervisors did try to make use of a variety of capital adequacy measures as early as 1864, when the National Banking Act set static minimum capital requirements based on the population of each bank's service area, but

most early attempts at quantifying the notion of capital adequacy were controversial and unsuccessful. In the 1930s and 1940s, state and federal regulators began to look at the ratios of capital-to-total deposits and capital-to-total assets, but both were dismissed as ineffective tests of true capital adequacy. Tarullo (2011) states that it was after the recognition of the effects of losses occurred on banks' loans to foreign sovereigns that the US regulators started to re-impose minimum capital ratios upon banks.

As stated in FDIC (2003) various studies related to the ways to adjust assets for risk and create capital-to-risk-assets ratios were undertaken in the 1950s, but none were universally accepted at that time. Therefore a judgment-based, subjective, bank-by-bank approach to assessing capital adequacy remained effective in the USA until the failure of many banks during the 1981 recession. After that the federal banking agencies introduced explicit numerical regulatory capital requirements. The standards adopted employed a leverage ratio of primary capital (which consisted mainly of equity and loan loss reserves) to average total assets. It was this capital regulation that resulted in the first comprehensive capital regulations developed by Basel Committee in 1988 that combined a risk based capital approach named Basel I.

The analysis of banking crises in different countries showed that bank failures could be classified in many ways, including by risk type, the type of shock that precipitated the failures or crisis, the state of the banking system, what portion of the banking system was affected, how the crisis was resolved, and whether the failures resulted in regulatory changes (Basel Committee (April 2004) P.67). While each country's experience has unique characteristics the common figure in the crises that they lived is similar. Spain, Norway, Sweden and the U.S. had very similar experiences when they liberalized their financial systems. Credit risk, particularly real estate lending, led to widespread banking problems in Switzerland, Spain, the United Kingdom, Norway, Sweden, Japan and the U.S. Market risk was the principal cause of failure in the isolated failure of Herstatt (Germany) and also caused the first stage of the U.S. Savings and Loan failures. Financial liberalization (deregulation) was a common feature of major banking crises often combined with supervisory systems that were inadequately prepared for the change. It is also stated that banking problems were more severe and/or more difficult to resolve when they hit weakly capitalized institutions (Basel Committee (April 2004) P.68).

These crises affecting a variety of countries all around the world have helped the regulators of these countries to agree upon internationally accepted bank regulations around the world. Legislative and regulatory changes followed three main lines. First, supervisors tried to improve the risk adequacy of regulation. Second, legislators and supervisors tried to strengthen market and supervisory discipline. Finally, some countries revised legislation with a view to more efficient resolution. While considerable efforts to improve banking regulation and ongoing supervision were taken on a national level, national authorities have also pooled their experience within the revision of international capital standards under the guidance of the Basel Committee on Banking Supervision (Basel Committee (April 2004) P.69).

As a matter of fact following banking crises in different countries, regulators were encouraged to redefine the capital adequacy ratio and related body of regulations. The Basel Criteria that were initially introduced in the form of Cooke Ratio basically converted the previously used simple shareholders' funds over assets ratio into regulatory capital over risky assets. It was aimed that by recognizing the different risk structures of individual banks, it would help regulators better controlling of banks with proper recognition of each different bank's financial statements. However, the definition of risky assets was initially limited to credit risk only as missing other risks such as interest rate risk, liquidity risk, foreign exchange rate risk, operational risk and others. Nonetheless having witnessed bank failures

due these above mentioned risks the remaining risks (in the form of market risk and operational risk) were included in the calculation of capital adequacy ratios in order to complete the risk based regulations regarding the capital requirements.

Soon after the capital adequacy formula has been finalized the bankers started to complain about the calculation process that it did not take into consideration the management skills of individual banks and that it was providing the same standard calculating procedure for all banks alike. The Basel Committee decided to allow banks to calculate their own risk weighted assets based on the internal models developed by them and approved by the local regulatory authorities. This initiative given to banks allowed them to measure their riskiness as using their internal models and provided them with an opportunity to reduce their risk weighted assets by improving their risk management skills. The better risks are managed the lower risk weighted assets are to be calculated by their own internal models. This tradeoff between risk management skills and risk weighted assets allowed banks while increasing the total sizes of their balance sheets to keep their risk weighted assets under control without violating the existing capital rules.

This helped banks to keep their risk based capital ratios well above the required ratios also by the help of asset sales through securitization and other structured facilities. As discussed by Eken (May 2006) these activities left banks with high leverage ratios but still well sufficient risk based capital adequacy ratios. Recognizing this, the Basel Committee amended a new condition to Basel III regarding the leverage level of banks free of their risk based capital adequacy ratios in order to assure the soundness of banks alongside the comprehensive capital adequacy ratios applied imposed upon them.

Similar to the cycle of regulations regarding banking scope capital adequacy regulations also move between two extremities; the basic “shareholders’ funds over assets” ratio and the complicated “regulatory capital over risk weighted assets” ratio. The global financial crisis of 2008 has caused regulators to restructure the capital related regulations as converting Basel II regulations into Basel III. Although the calculation of capital adequacy ratio was left very much similar, some new amendments were introduced for the strengthening of capital adequacy levels of banks. As specified in Basel Committee (June 2011) aka Basel III, alongside additional increases in the minimum capital ratios specified in Basel II, banks will be forced to maintain an additional 2.5% Tier 1 capital to risk weighted assets. Besides a maximum leverage multiplier is introduced. A 3% Tier 1 capital to on balance sheet assets plus the off-balance sheet items multiplied with the suitable credit conversion factors is going to be tested during the period January 1<sup>st</sup> 2013-January 1<sup>st</sup>, 2017.

These new regulations bound banks with tighter restrictions that will eventually be shooting target of professional bankers soon. It is also mentioned in the Basel III that especially the leverage ratio will be tested in the future leaves both regulators and supervisors with an option to abolish it after a certain period is passed free of shocks. And the cycle will probably continue with the easing of regulations and then continue again by tighter regulations after banks are hit by a new crisis.

Within the extremities of this cycle it is apparent that for the safety and soundness of banking systems and for the protection of depositors initially tight capital requirement ratios are implemented. Following that the modification in line with the demands of bankers and developments in the markets that loose the initial regulations over time take place in the future. Finally, after a strike by a financial crisis, the regulations are restructured or reshaped in order to combat problems occurred.

## The Evolution of Regulations Regarding Deposit Insurance

The main idea behind the establishment of deposit insurance is to protect households' savings that will keep public confidence restored and eventually ensuring a stable banking industry. A Safety Fund was in place during the free banking era in US that was criticized for two reasons: The first was the cost of participating in the fund and the second was that the cost was calculated with a flat rate for all banks that meant that low risk banks subsidized bankers with high risk preferences. McCarthy (1984) stated that similar to the establishment of safety fund system in 1820s the Federal Deposit Insurance Corporation (FDIC) was established to restore the public confidence in banking industry following the great depression of 1929. Calomiris and White (1994) indicated that unless the great depression of 1929, it would be very unlikely to adopt deposit insurance in the USA. That was because prior to 1933 when, by the enactment of the GSA, FDIC was established, eight state-level deposit insurance systems had been created since 1908 and in the 1920s, all collapsed under the weight of excessive risk taking and fraud, encouraged by the protection of deposit insurance.

Following the establishment of FDIC deposit insurance has been widely included in banking regulations around the world. For example it was after the collapse of Herstatt in 1974, that German authorities decided to set up a deposit protection system in 1976 (Basel Committee (April 2004) P.6). Following the bankers crisis; a crisis occurred after the liberalization of the financial markets that alongside traditional banks allowed so called bankers; individuals authorized to accept deposits, to compete for deposits by offering higher interest rates in early 1980s. This competition ended with the collapse of many bankers that forced Turkish authorities to set up deposit insurance system in 1983 in order to restore the public confidence.

As stated by Santos (2000) government backed deposit insurance has proven very successful in protecting banks from runs, but at a cost that it leads to moral hazard which has been underlined by many other academics. Diamond and Dybvig (1986) states that banks are subject to runs mainly due to the transformation services they offer. However, they indicate that any regulation to prevent bank runs must not simultaneously prevent banks from producing liquidity which will eventually prevent banks from doing their businesses. Nonetheless, Diamond and Dybvig (1986) suggest regulators as having introduced deposit insurance it is crucial to keep banks out of risky businesses that may eventually cause their failures.

Mishkin (2006) states that policymakers' pledge not to engage in a bailout of large banks is not time consistent: when a large bank is about to fail, policymakers will want to renege on their pledge because they want to avoid the systemic risk that the failure of the bank would entail. At the beginning of the 1994 banking crisis, in Turkey, the deposit insurance coverage increased to 100% of deposits and it was widened to include all banks' borrowings after the crisis of 2000 and 2001 when almost all failed banks were overtaken by the government. However, after the restoration of the public confidence the coverage range was limited to savings deposits and its level was dropped to only 50,000 of Turkish lira. Similar examples are seen almost in every country.

Basically when there is a tension in the markets deposit insurance becomes an important tool for the restoration of the public confidence almost in every country. However, after the tension is over the coverage of deposit insurance is narrowed for the sake of not causing moral hazard. Nonetheless when markets are hit by another shock the coverage range and limit of deposit insurance is widened again. And this movement between two extremities keeps repeating itself similar to cycles of other regulations.

## Conclusion

As indicated by academics there is a strong connection between regulations imposed upon banks and financial crises lived. On the one hand in order not to intervene the free market rules it is avoided by the regulators to impose heavy or tight regulations upon banks. On the other hand, in order to prevent any costs occurred during financial crises to be imposed upon taxpayers, for the protection of savers and for a sustainable public confidence they target to have some minimum regulations in place. Nonetheless during financial crises, the cost is almost all the time imposed upon taxpayers by the governments. Alongside imposing costs upon taxpayers some heavy regulations are introduced in order to restore the public confidence in the system. After it is achieved the new regulations undergo severe criticisms directed by the market professionals and free market advocates that generally ends up with major corrections of these regulations imposed, if they are not abolished completely. It is argued that it is probably this process that plants the seeds of new crises to follow.

The process of imposing and abolition of regulations that continued to go this way has not preserved banks and/financial systems from the market shocks so far. In other words, the indecisive character of regulations i.e. differentiating regulations in line with the market expectations and in line with market shocks introduce the regulations themselves with a variation or volatility that eventually could cause in the ineffectiveness of regulations at all. Always changing regulations make it difficult to adapt to for banks and make it difficult for the regulators to pursue. Of course it is evident that as time passes market conditions change, technology and product range evolve and that requires to be converged with the regulations. This can be done either way that regulations could be loosened to allow markets to develop new products or products that are to be developed could be formed as taking into consideration the existing rules and regulations. Whichever way is preferred it is better to be decisive. No matter regulations are tight or loose but it is a matter to have regulations to be stable at a certain level and at least for a certain period of time that will help banks and regulators with a clearer vision into the future.

However, as mentioned earlier regulations are not stable and they change over time for different reasons such as covering new instruments, including contemporary developments and similar issues. On the one hand it is justified that by doing this regulations are structured to cover any developments that might possibly cause disturbances. On the other hand it is justified that this ensures that the regulations are not in conflict with the market rules. This seems to be a strong part of regulatory structure so as to keep regulations vivid and elastic. However, this also causes regulations to have a volatile feature that makes it difficult to adapt to easily and on a timely basis.

There are always inventions in the financial markets regarding new instruments, products and structures. It takes time for regulators to recognize, understand and finally include them within the coverage of the existed regulations. In other words there is always a time lag between innovations in the market and their inclusion within the coverage of regulations. After allowing the market players a time for adaptation to the changes in regulations, the time lag between innovations and the implementation of the regulations becomes even wider. By the time this gap is narrowed some new innovations appear to take place in the markets and the gap becomes wider again.

Apart from this time lag between regulations and innovations regulators target to ease regulations in order to be in harmonization with the free market rules. To do that amendments to the existed set of regulations are introduced together with an adaptation period for the harmonization of the new rules. Sometimes even before adapting to the changes some new rules are introduced that are also followed by newer changes and it goes on this way until

there is a shock in the market. Following the new crisis the existed and loosened regulations are tightened again in order to restore the confidence in the system.

This cycle can be witnessed almost in every country and regarding any type of regulation. The movements between two extremities of the cycle diminish the targeted effects of regulations. The initial tight regulations basically prevent banks from getting involved in risky and/or complex activities so as to keep their balance sheets sound and stable that would eventually result in sound and stable financial markets. Nonetheless the loosening of regulations in line with the market professionals' demand and in line with the idea of converging regulations with the market rules, results in ineffective regulations by the time of financial crises. In other words it makes no difference between having regulations and having no regulations. Then tight regulations are put in place in order to restore the public confidence. Therefore, instead of having regulations that move between two extremities it would be better to have regulations that are stable at a predetermined level for a certain period of time. This sustainability in the level of regulations will help the market to find its equilibrium in line with the stable level of regulations. Otherwise the market equilibrium will also change in line with the changing regulations.

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