A Survey of US and International Financial Regulation Architecture.

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Abstract

Since the late 18th century and the signing of the National Bank Act, the creation of the Federal Reserve System in 1913, the collapse of the Bretton Woods system in 1971 and the Asian crises in 1997-98, financial Institutions had already become one of the most heavily regulated of all business in the modern business world. Increase in Regulation occurred after the 2000-2006 subprime crises and the 2007-2009 crises with the creation of the Dodd-Frank Wall Street Reform and Consumer Protection passed in July 2010 emphasizing financial stability although most of the structure was based on the regulatory solutions of the 1930's and the New Deal. The euro crises have further raised questions about financial architecture in the euro zone. Furthermore, the increase in innovation, the shadow banking system and recent political pressure towards deregulation, it has proved hard for the financial regulations to keep up and hence even though at the present moment point time the system seems to be holding up, the long-term direction of the financial regulatory system is uncertain.

Keywords: Financial Economics, Financial Markets, Financial Institutions and Services, Corporate Finance and Governance, Government Policy and Regulation.

JEL Codes: G18, G28, G38

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Introduction

The debate regarding the positive and negative impact of financial regulations is always ongoing and hence, the direction of financial regulations is dependent on the general economic policy of the state and the goals of state regulation. In the past both the negative and positive impacts of the lack of regulation and the increase of regulation have been recorded. It is argued that government regulations have opened up the way for less regulated firm to enter the market or that financial regulations address problems that are no longer relevant and that the increase in the cost of regulation is far greater than the positive monetary of impact of the regulatory framework. The other side of the coin then argues that there has indeed been a positive impact and hence there has been a reduction in firm failure, corporate bankruptcies, stable financial markets and the increase in public access and literacy in finance. (Marquis, 2008)

The rationale behind the regulatory has developed due to the past evidence of crises that have reduced the safety of public funds as well as events that have led to a decrease in the public confidence of the financial system. The lack of confidence can have a negative impact on the growth of the country as the public can withdraw funds from institution that are vital for investments. Furthermore, financial literacy and inclusion are also important reasons why the regulatory framework exists. Hence, disadvantage groups such as minorities, women, immigrants and elderly have now access to the financial system. Perhaps one of the most important reasons that the regulatory framework exists is because of the ability of financial institutions to create money. Creation of money is an ability that can lead to inflation and can be abused and hence the risk entails that regulations should exist. (Marquis, 2008)

Literature Review

The U.S. Regulatory Architecture

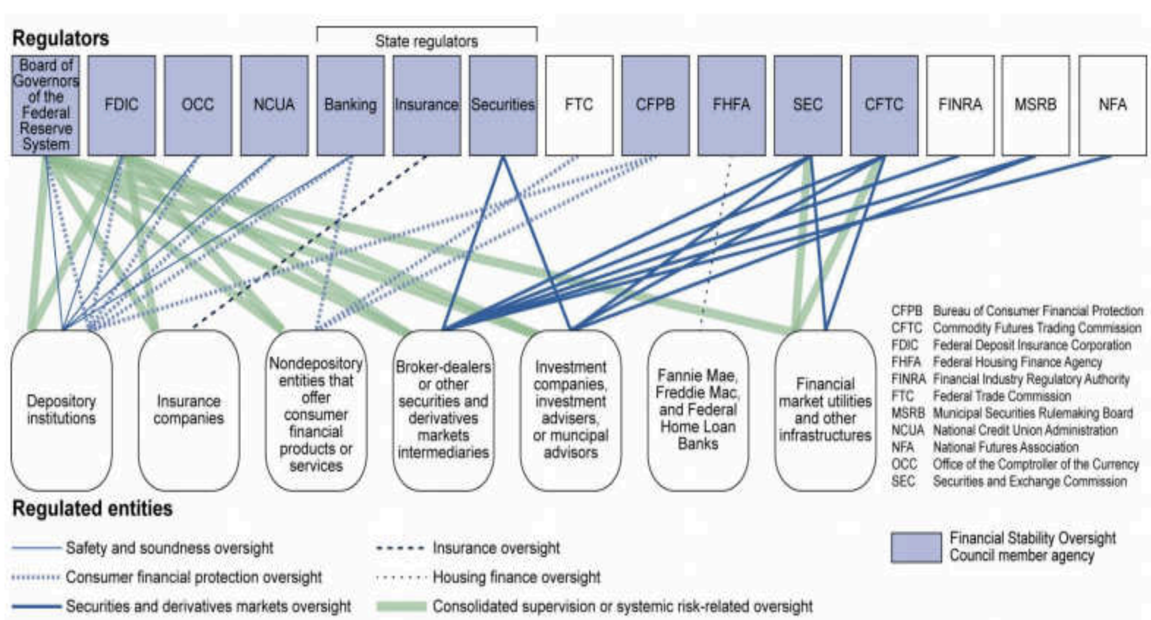
The financial system is inherently important due to its ability to provide matchmaking services for savers and investors who have funds available with borrowers and others who seek to raise funds for future payout. Therefore, the financial system is itself a risky endeavor but without risk companies would fail to innovate and households would not be able to purchase services such as education and housing that fall beyond their income. Hence, the aim of financial regulation is balancing the risk of finance with the benefits that are provided.

To understand the financial regulatory framework, we have to separate the financial activities into different markets and hence a report by the congressional research service 2017 separates the financial activities into 4 such distinct areas. (Labonte, 2017)

- **Banking** – accepting deposits and making loans;
- **Insurance** – collecting premiums from and making payouts to policy holders triggered by a predetermined event;
- **Securities** – issuing contracts that pledge to make payments from issuers to the holder and trading those contracts on the market. Contracts can take the form of debt and equity. One special class of securities is derivatives which are financial contracts who value is based on an underlying commodity, financial indicator or financial instrument.
- **Financial Market Infrastructure**- the "plumbing" of the financial system such as trade data dissemination, payment, clearing and settlement systems, that underlies transactions. (Labonte, 2017)

Once the financial activities have been separated into different markets it then becomes easier to provide for a regulatory framework that corresponds to each market activity. Hence, regulator can be categorized according to three main area of finance, “banking (depository), securities, and insurance”. In insurance markets the state plays more of a role rather than the federal government. There also exist specific regulators for activities such as consumer protection and agriculture finance and housing finance. Hence, the Depository Regulators include; Federal Reserve, Office of the Comptrollers of the Currency (OCC), Federal Deposit Insurance Corporation (FDIC) and the National Credit Union Administration (NCUA). The Securities Markets Regulators include; Securities and Exchange Commission (SEC), Commodity Futures Trading Commission (CFTC). In the same way the Government-Sponsored Enterprise Regulators are; Federal Finance Housing Agency (FHFA) and Farm Credit Administration (FCA) and Consumer Protection is then regulated by the Consumer Financial Protection Bureau (CFPB). Furthermore, the need for coordination of data among regulators is satisfied by the creation of umbrella groups such as; Financial Stability Oversight Council, the Federal Financial Institution Examination Council and the President’s Working Group on Financial Markets (inactive). (Labonte, 2017)

Figure 1. Regulatory Jurisdiction by Agency and Type of Regulation



Source: Government Accountability Office (GAO), *Financial Regulation*, GAO-16-175, February 2016, Figure 2.

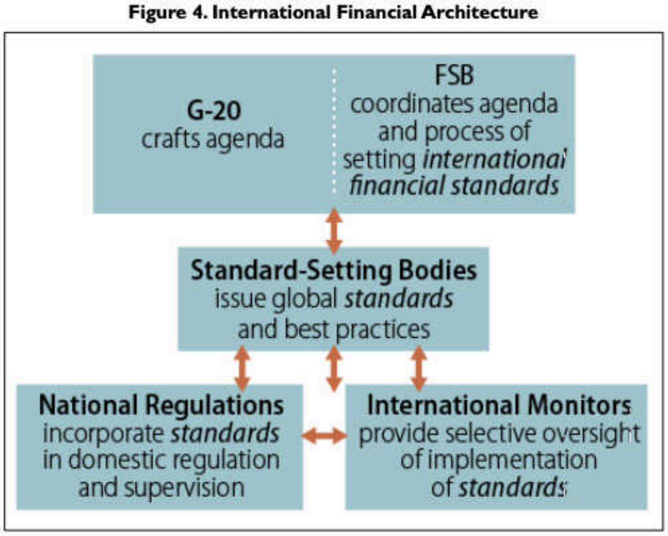
International Regulatory Architecture

There is both an international banking system and a domestic system that has oversight of international banking activities. The U.S. has been observing the activities of foreign bank in the domestic market since the 1966, beginning with the collapse of Interbank a Lebanese institution. Hence, since then any banks that hold a controlling interest in domestic banks is subject to supervision by the Federal Reserve Boards. Furthermore, the Treasury department and U.S. regulators participate with foreign regulators and hence there are multiple international setting bodies each corresponding to the three main areas of financial regulation.

- The Basel Committee on Banking Supervision for banking regulation,
- The International Organization of Securities Commission (IOSCO) for securities and derivatives regulation and
- The International Associate of Insurance Supervisor (IAIS) for insurance regulation.

Furthermore, the G-20 countries have created the Financial Stability Board (FSB) and the FSB and Dodd Frank have a significant overlap. (Labonte, 2017)

Figure 4. International Financial Architecture



Source: CRS In Focus IF10129, *Introduction to Financial Services: International Supervision*, by Martin A. Weiss. (Labonte, 2017)

Key Laws of the Financial Architecture

As we have seen there exists a comprehensive institutional architecture that provides for the regulation of the financial sector. Underlying this institutional architecture there exists a legal regulatory architecture that enables these institutions to function.

- National Bank Act (1863-1964)
- Federal Reserve Act (1913)
- Banking Act (1933)
- Bank Holding Company Act (1956)
- Bank Merger Act (1960)
- Bank Holding Company Act Amendments (1970)
- International Banking Act (1978)
- Depository Institutions Deregulation and Monetary Control Act (1980)
- Garn-St Germain Depository Institutions Act (1982)
- Financial Deposit Insurance Corporation Improvement Act (1991)
- Reigle-Neal Interstate Banking and Branching Efficiency Act (1994)
- Financial Services Modernization (Gramm-Leach Bliley) Act (1999)
- Federal Deposit Insurance Reform Act of 2005
- Financial Services Regulatory Relief Act of 2006 (Marquis, 2008)

Furthermore, Capital Regulations in Banking include;

- Basel I (1988) and Basel II (2006). (Labonte, 2017)

Additional laws introduced after the financial crises in 2007-2008;

- Basel III (2008), The Housing and Economy Recovery Act (2008) and Dodd-Frank (2010), The Financial Regulatory Reform Act (2018) (Tarullo, 2019)

Accomplishments and Critiques of the Financial Regulatory Architecture.

Both the Euro Crises and the global crises of 2007-2008 raised serious concerns and highlighted the deficiencies that exist in the global financial system. One of the main concerns was of course the availability of liquidity, and this lack availability has threatened the financial stability of both global and especially the euro crises. When the Maastritcht Treaty was signed and the EMU was set up, the treaty did not entail a lender of the last resort function for the European System of Central Banks, nor did it discuss a fiscal back in case of liquidity problems. Furthermore, the treaty included a no bailout provision, that precluded any sort of community liquidity support. Hence, to contain the crises the ESCB has evolved into the defacto last resort lender. The major risks are now taken by the central banks within the ESCB, under the Emergency Liquidity Assistance. The lender of last resorts of the euro zone sovereign have also evolved. Hence the European Stability Mechanism (since September 2012), can lend to sovereigns and ultimately is able recapitalize troubled banks. The ECB has also made its position known through the Security Market Program and the Outright Monetary Transactions (OMT). Hence, there exists now a *troika* of crisis managers (EU, ECB, IMF). (Obstfeld, 2013)

The post-crisis measures have included three significant accomplishments. These are; [1] tiering of bank regulations by size of institution, [2] greater financial resiliency for bank related institutions and a [3] movement towards an orderly resolution mechanism for failing banks. The 2010 Dodd-Frank legislation has established a principle that calls prudential regulations to vary with the size and systematic importance of banking organizations, based on the externalities that would be associated with the stress or failure of various groups of banks. Hence, the 'tiering' principle requires 'more stringent', capital, liquidity and risk management for banking organization with more than $50 billion in assets. Other requirements include "stress testing" and adherence to the "Volcker Rule". The Financial Regulatory Reform Act (2018) extended the threshold of the introduction of prudential measures from $50 billion to $250 billion. (Tarullo, 2019)

There has been a marked increase in the resiliency of the prudentially regulated part of the financial system. The increase is measure by; [1] the quality and quantity of capital both required and actually maintained by the banks; [2] the greater stability of funding sources for banks; and [3] the risk management capacities and practices of bank. This resiliency now extends to former "free- standing" investment that are you part of banking holding companies. Furthermore, there has been a marked change in the capital requirements post-crises. Leverage ratios requirements have been increased in the US and have been adopted by foreign countries as well. The "Collin Amendment" in Dodd-Frank requires that even the largest of banks have to meet the minimum capital ratios. The Federal Reserve has also a much more risk-sensitive capital measure with the help of the annual stress tests required by the Dodd-Frank legislation. The stability of funding sources now requires a "liquidity-coverage ratio", requiring large banking organizations to be able to self-fund for 30 days in a period of stress. (Tarullo, 2019)

Table 1

Capital Ratios of the Eight US Firms of Global Systemic Importance (as of December 31, 2017)

Firm	*Common equity ratio*	*Leverage ratio*
Bank of America	11.9	8.6
Bank of New York Mellon	11.9	6.6
Citigroup	10.3	8.8
Goldman Sachs	12.1	8.4
JPMorgan	12.2	8.9
Morgan Stanley	16.5	8.3
State Street	11.9	7.3
Wells Fargo	12.3	9.4

Source: Board of Governors of the Federal Reserve, Dodd–Frank Act Stress Test 2018: Supervisory Stress Test Methodology and Results (June 2018).
Notes: The eight banks included in this table are the US firms designated by the Financial Stability Board as of global systemic importance. US banking regulations apply certain requirements only to these eight firms. Under US banking regulations, the Common Equity Ratio is referred to as the "Common Equity Tier 1 Capital Ratio." Also, under US banking regulations, the Leverage Ratio is referred to as the "Tier 1 Leverage Ratio."

(Tarullo, 2019)

The final accomplishment of note in the post-crises period of financial regulation is the orderly resolution mechanism to control the damage done by the failure of a large failing financial institution and to address the too-big-to-fail problem. Hence, the investors belief in fact that the government will allow even the biggest of banks to fail without any damage occurring to the financial system, would entail the following beneficial consequences. [1] The moral hazard issue of financial firms taking on excessive risk in the expectation of a government bailout would be contained, [2] crises amplification effects arising from the prospect of serial failures would be limited; [3] taxpayer bailouts would be averted. Hence, the 2010 Dodd-Frank legislation includes a solvency mechanism that would entail the Federal Deposit Insurance Corporation to manage a large financial firms' resolution, including an access to a funding line from the Treasury to inject any needed liquidity into the failed firm. (Tarullo, 2019)

The post-crises measure toward stabilization have been substantial. Although most of them have been focused towards banking organizations. Furthermore, since the measures have been focused through statutory requirements, these may have been degraded over time. Also, not much attention has been focused towards the non-banking institutions such as shadow banking who borrow and lend outside the regulations set for prudentially regulated firms. Hence, it is imperative that a macroprudential policy architecture measures be instated that look towards the whole of the banking sector, both banks and non-banks. Such a macroprudential architecture exists in some places but has faced political opposition who fear a dampening of economic growth. Although such measures do exist for large regulated banks and through annual stress testing measures. (Tarullo, 2019)

Other critiques and accomplishments of the post-crises financial regulation should also be taken into account. A key point to the imposed regulation is to assess the cost of benefit of the propose regulation. Hence, a study performed by Taskinsoy 2019 on the benefits of the new proposed regulations according to Basel III effective January 2019. The study takes into account the cost and benefit of the imposed regulations on two different geographical areas i.e ASEAN-5 and Turkey. The study finds that to meet the requirements of the regulation the ASEAN 5 collectively need to come up with $111.37 billion of new capital and Turkey needs to come p with $32 billion. Furthermore, to meet the Basel III requirements effective 2019, banks from ASEAN-5 and Turkey would have to increase their lending spreads by 70 bps and 636 bps. The study also analyzed the impact on steady state and reduction in economic activity due to increase in higher capital ratio although it finds that the economic benefits in the long-run outweigh the costs. Although the Basel III reforms have to be accompanied by rigorous banking regulation and supervision frameworks. (Taskinsoy, 2019)

Table 10: Net Annual Economic Benefits Due to Regulatory Tightening
Percentage point (%)

CET1 RWA	cost benefit	Indonesia	Malaysia	Philippines	Singapore	Thailand	Turkey	Average
1	cost	0.06	0.08	0.06	0.08	0.06	0.18	0.09
1	benefit	0.18	0.16	0.14	0.15	0.14	0.38	0.19
1	net benefit	0.12	0.08	0.08	0.07	0.08	0.20	0.10
2	cost	0.14	0.18	0.15	0.18	0.16	0.44	0.21
2	benefit	0.42	0.38	0.30	0.34	0.36	0.70	0.42
2	net benefit	0.28	0.20	0.15	0.16	0.20	0.26	0.21
3	cost	0.34	0.42	0.38	0.36	0.40	0.65	0.43
3	benefit	0.64	0.56	0.48	0.52	0.54	0.95	0.62
3	net benefit	0.30	0.14	0.10	0.16	0.14	0.30	0.19

Note: Author's calculations
* The cost is the output loss due to higher capital requirements without tighter liquidity rules.
** Benefit calculations include a reduced probability of crisis and NSFR conditions.

(Taskinsoy, 2019)

Conclusion

The paper analyzes the development of the financial regulation architecture through later 18th century to present day times and outlines the many of the significant laws and institutions that are essential to the workings of the financial market. Furthermore, the accomplishments and critiques of the current financial regulation's architecture are assessed, and we find that there have been significant improvements within both the US and European architecture. Hence, innovations such as tiering, financial resiliency and orderly resolution mechanism have been put into place. The critiques of the current system are also addressed as to the lack of a comprehensive macroprudential policy. Critiques such as the long run cost benefit analysis of the economic benefit of the regulations tell us that indeed regulations will provide for benefit in the long run. Hence, we come to the conclusion that the financial regulation moves in the right direction and even though faults exists these faults if addressed with further innovations may make for a much more stable domestic and international financial regulatory architecture.

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