

## Financialization and Regulation: The Fate of Basel 2 and the Future of International Convergence of Capital Measurement Standards

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### ABSTRACT

*This paper critically evaluates recent attempts to regulate international banking sector. It is argued that the attempts to draw up a regulatory framework for the banking sector have been dominated by intra-capitalist rivalries. Hence, Basel 2 is explored from the prism of conflicting interests of capitalists which has become more rampant at the age of financialization and globalization. Here its viability in determining capital adequacy ratio is also questioned. It is argued that Basel 2 and risk management techniques dressed in mathematical equations is highly ideological. The paper traces evidence for this claim at the roots of current global economic meltdown. It is argued in this paper that because of the essence of risk in a capitalist economy, regulatory arrangements within the framework of recent liberalization, globalization and financialization, particularly those claiming to develop international standards to measure risk are destined to fail.*

**Key words:** Financialization, risk management, banking, regulation, Basel 2, globalization, competition.

**JEL CLASSIFICATION:** G02; G18

### INTRODUCTION

The main task of this paper is to investigate the nature of recent changes in the regulatory sphere of contemporary capitalism with a particular focus on financial sector regulation. This is done so to analyse the underlying views that govern the efforts aimed to remedy the current global economic meltdown. The main question needs to be answered is whether a regulatory arrangement is possible to prevent future economic and financial crisis. Previous answers to similar questions have been more affirmative with disappointing results. They were positive because they believed that the alleged sophistication of risk measuring methods and deepening of financial transactions of all kinds would adequately deal with prevailing risks and reduce them to manageable levels. However, these answers have not only failed to prevent subsequent financial crisis even in the most developed markets but they were ineffective in sorting out the mess created. As a result in the process of financialization, financial engineering and pseudo-scientific risk measurement has proven to be far from providing a solid ground for the smooth operation of the world capitalist system.

This paper scheduled to investigate the changes in the legal and regulatory processes of contemporary capitalism that are put forward for its smooth operation. It is argued in this paper that the peculiar legal arrangements of the financial sphere of capitalism must, in the final analysis reconcile with the general economic context. In studying such transformations it is always necessary to distinguish between the material transformation of the economic conditions of production and the financial which would be reflected upon the legal. The former can be determined with some precision but the legal, political, religious, artistic or

philosophic – in short, ideological forms of such transformation where one become conscious of the conflicts embodied in the material cannot. The paper investigates financial regulation within the broader context of this type of commotional interaction between the sub-structure and the super.

The paper is organized as follows; the first section reports on the current state of financialization and discuss the need for a regulatory framework to provide smooth operation of the banking sector. The second section explains the establishment of anglo-saxon superiority in the world of finance and discusses how arena of international financial regulation came into being to resolve intra-capitalist competition. Then the following section three focuses on the inadequacies of Basel 1 which has introduced eight per cent capital adequacy ratio. The section four explores the founding principles of Basel 2 and establishes how it compromises with the anglo-saxon nature. Following section five propounds that Basel 2 is a doomed attempt since it is based on naïve assumptions and weak understanding of the operations of banks. It is also argued that Basel 2 is an ideological set-up developed under the auspices of strong anglo-saxon lobbies of the larger US banks to help perpetuating their international superiority with some devastating effects. Last section concludes.

### **I. Socialization of Finance and Recent Disturbances in the Banking Sector**

Today, capitalism is in the process of unprecedented transformation. Investigating the underlying material conditions of this transformation is the focus of much of the recent literature. It is not an enigma that the financial sector is already transformed entirely. As explained in Erturk et., al (2008), it has grown more rapidly than other fields of capitalist activity; there has been a constant push for freeing it from regulatory constraints; it has expanded globally with much ease; it has used new technology more effectively than any other sector; it is going through a profound institutional transformation; it has made extensive use of financial innovations; it has developed wisdom to manage risks in an increasingly risky world; it has progressed effective tools to influence monetary policy; it has managed to spread views that persuaded authorities to remain “independent” and at best to deregulate the system for an effective risk management. The weight of finance has grown markedly in the capitalist world in terms of employment, profits, size of institutions and markets. It appears as though the greatest beneficiary of globalization is the financial sector.

Finance now penetrates every aspect of individuals’ actions and ever so present in every aspect of social as a whole. It is also one area that attracts most attention from investigators, academics, and politicians. This apparent transformation of the capitalist order, hereby identified as financialization is set to conquer all aspects of social life. The current global economic meltdown has brought into light an argument that discusses the viability of present regulatory and institutional arrangements to provide smooth operation of the capitalist economy. Hence, one very important challenge to the financialization comes around regulatory arrangements.

The need to regulate the financial sector has become an important bone of contention between competing ideas, while some defend the need for a strict control of financial institutions others started to warn against the rise of protectionism and abandonment of free market principles.

As is well known, in 2008, US banking sector has been rocked by severe turbulence. Since large market players like Goldman Sachs fell one after another the standard motto ‘too big to fail’ has become redundant. More importantly what has started in the US financial sector now spread throughout the globe through a variety of

transmission mechanisms affecting developed and developing countries alike. By the time of writing this article, the bottom of the crisis is not in sight and more problems are looming in the background.

In the 1980s the US has witnessed the S&L crisis (estimated cost to tax payers' \$160 bn., 3% of the GNP). There is also the Continental Illinois, Drexel Burnham, Orange County, Procter and Gamble, the computer problems of the Bank of New York, Enron and currently the US is living through major consolidation drive within the banking industry initiated by the bad health of many banks (Smouha, 1999, Bliss and Flannery 2001). More recently, the current financial disturbance led to the nationalization of the Freddie Mac and Fannie May, the 12 trillion dollar mortgage companies as well as WaMu and J P Morgan. After each one these hiccups the US regulatory authority implemented new policy measures, either by altering the Glass-Steagal Act or by introducing new accounting standards and procedures while using interest rate policies to curb crisis dynamics (Heimann, 1999). Of these the removal of Glass-Steagal Act of 1933 and introduction of Basel 2 has preceded the current financial crisis. As a result of crisis the implementation of Basel 2 remains pending.

Japan is no exception, during 1980s and 1990s it has experience major problems in the banking sector. Daiwa had a breakdown in management information systems; Sumitomo Copper suffered from a rogue trader, possibly known to the executives for a long time but permitted to operate. In the UK, there was the famous BCCI, Barings and more recently Northern Rock and others... Like the US, the regulators in Japan and in the UK passed new resolutions and implemented rescue packages to prevent a copy-cat effect or at least arrest the difficulties at source and prevent them from spreading to the system as a whole (Heffernan, 1996).

From 1991 to 1993, with a peak in 1992, the banks of all Nordic countries went practically bankrupt. The total cost for the taxpayers ranged from 2% of GNP in Norway to 9% in Finland. The main reason was the concentration of real estate loans as was the case with many Japanese banks. In Spain, Banesto had to be sold as a result of it becoming fragile. In 1993-94 the floor fell under the largest local bank in France, Credit Lyonnais, and the total loss exceeding \$20 bn. or around 1.5% of the French GNP. In 1994-1995 Bank of Naples, the seventh largest bank in Italy became technically insolvent. Its losses were about \$4 bn. In these two cases, both owned by their respective states, real estate losses were negligible. Special laws were passed to keep them afloat. In Italy the other famous case of bankruptcy was the Banco Ambrosiana in 1982, as a result of not so complex fraud (Heffernan, 1996, Santomero, 1999).

In Germany starting from the beginning of 1970s there has been many disturbances in the banking sector. Deutsche Morgan Grenfeld, a rogue money manager caused Deutsche Bank to bail out its affiliate. Also, Herstatt Bank, the grandmother of all global crisis and Metal Gesellschaft were of German origin (Heffernan, 1996). In many other developing countries, Russia, Czech Republic, Venezuela, Mexico, Brazil, Thailand, Korea, Turkey, Israel, everyone had problems. Each of these countries accepted and undersigned the implementation of Basel 2, remains reluctant in implementing its standard procedures.

Hence, increasingly rickety banking sectors across the globe coincided with the introduction of liberalization and deregulation. Although this process helped global integration it has also increased the riskiness of the banking sector. This process led to increased use of risk management techniques by the banks. Risk management has become the primary concern for the management of financial institutions as well as their

supervisors and regulators. On the other hand, pseudo-scientific risk management ideology itself has become the core instrument in undermining the system as a whole, as witnessed in the last of the global economic crisis. The problems relating to the idea of risk management being a scientific effort is highlighted further below. In the next couple of paragraphs I will propose that anglo-saxon type of banking and financial processes are more prone to the use of market based risk management techniques simply because of the type of capital accumulation occur there.

## **II. Intra-capitalist Rivalries and the Meaning of Bank Risk Management**

In this era of financialization the need for a regulatory framework that converges risk management of banks has become increasingly important and challenging. The main challenge comes from the fact that, even in this era of “*globalization*” each individual country still follows different path for capital accumulation. In other words the core difference between a variety of capitalisms comes from differences in their capital accumulation processes at the centre of which lies the labour process specific to that country (Aybar and Lapavitsas, 2001). For instance, Japanese, German and French capitalisms and the way in which they accumulate capital is different from the anglo-saxon counterparts. US-UK type of capital accumulation is characterized by flexible while others have relatively more rigid labour markets. Similarly, Japanese, German and French banking systems are different from anglo-saxon banking systems because of the relative weight of markets. Anglo-saxon banks operate in a competitive, market based systems while other are characterized by closely controlled systems.

In this sense, flexible labour markets underlying the process of globalization has provided some impetus to the anglo-saxon type of capitalism and provided a superior role in their competition with others in the world. Alleged anglo-saxon superiority in accumulating capital provided ground for efforts in developing a standardized risk management that is applicable across the globe. Hence, came into being Basel 2 as one such attempt aiming to converge risk management of banks along anglo-saxon lines. This paper explores Basel 2 and explains its short-comings down below.

In fact, anglo-saxon capitalism advocating full withdrawal of the state from economic sphere believed that freely operating markets would allocate resources more efficiently. Outcome of financial liberalization has been very disappointing for those who advocated it. Financial liberalization has been strongly advocated by the Bretton-Woods institutions and implemented as a policy across the globe (Villanueva and Mirakhor, 1990). It has then, proceeded in a different speed and in different forms. On the one hand financial liberalization has proceeded gradually with governments ever present in guiding markets as in South East Asia and on the other hand with governments abruptly withdrawing from the economic sphere as in Latin America. The second type of financial liberalization followed an anglo-saxon pattern which required above all flexible labour markets. It has also advocated a type of system characterized by free competition whereby price mechanisms cleared supply and demand.

In the international environment this type of domestic financial liberalization requires openness of the capital account of balance of payments a situation which is highly destabilizing. Fully liberalized international capital flows would benefit larger participants and provide them with superiority. It is a well-established fact by now that in a fully competitive environment those with larger market share would benefit the most.

As explained in detail in Swank (1996), banks are highly leveraged institutions, rendering banking a risky business. Deregulation of local markets, the internationalization of financial market competition and the underlying instability of the world economy have resulted in an environment in which operating a financial institution is substantially more risky than it had been in the past. This has led institutions to question many of their assumptions about what risks are appropriately taken and how they should view their role in the financial sector.

Pyle (1999) explains the ways in which banks alter their methods of risk management in response to the economic conjuncture can be analysed by focusing on their immediate reaction to the introduction of liberalized financial systems. As financial markets became more competitive with the introduction of financial deregulation, larger corporate clients moved to direct financing. Consequently, key financial institutions increased their emphasis on placement. Importance of bank loans for financing investments began to decline. A process known as disintermediation became more prominent. Whether it is private placement, syndications or direct underwriting, major financial institutions have clearly shifted their focus from loan generation to the facilitation of funding needs of their large corporate clients. First they have moved to agency and off-balance sheet activity to a greater extent than before, and second, they have employed a number of standard techniques to reduce risk exposure for transactions. Banks started to generate revenues from fee-earning activities more than ever before. This is fuelled by financial innovations on both sides of the balance sheet.

On the consumer level, securitization has brought about a similar trend, mostly in Anglo-Saxon countries. As this trend spread, it appeared as though banks direct exposure to consumer credit is substantially reduced. On the liability side a similar move off balance sheet has occurred. The deregulation of deposit rates and the increasing sophistication of retail customers have led to increased emphasis on asset management and away from deposit gathering. Interest rate spreads is giving way to fee income and balance sheet activity is being sacrificed in favour of less risk and a stable income stream from agency services.

Beyond these there is another trend, even those risks contained in the banks' principal activities, those involving their own balance sheets and the basic businesses of lending and borrowing, not all risks of these contracts are borne by the bank itself (Davis, 1993). In many instances the financial risk associated a transaction are being mitigated or completely eliminated by risk reducing business practices, in others the risk is being shifted to other parties through a combination of pricing and product design. Hence, from management's perspective risks were actively managed at the firm level by transferring them to other market participants and eliminated or avoided by simple business practices (Bhattacharya and Thakor, 1993). These risk management practices include standardization of processes, contracts and the procedures to prevent incorrect financial decisions. The goal appears to be getting rid of the firm of risks that are not essential to the financial service provided, or to absorb only an optimal quantity of a particular kind of risk. They also include the construction of portfolios that benefit from diversification across borrowers and the implementation of contracts that requires bank employees to be held accountable.

Banks use techniques of risk transfers to eliminate or reduce the risks inherent in their positions. Markets exist for many of the risks borne by the banking firm. Interest rate risk can be transferred by rate sensitive products

such as swaps or other derivatives. Credit risks can be transferred by altering borrowing terms to affect a change in asset duration. Finally the bank can buy or sell financial claims to diversify or concentrate the risks that result from servicing its client base. Banks recognize that they should not engage in business in a manner that unnecessarily imposes risk upon them, nor should they absorb risks that can be efficiently transferred to other participants. Rather the bank should manage only those risks at the firm level that are more efficiently managed there, rather than by the market itself or by owners in their own portfolio. In short a financial institution should accept only those risks that are necessary part of the bank's selection of value-added services.

### III. Regulating Banks

Providing stability to the international financial order by compromising interests of the conflicting forces is the primary target of any financial regulation introduced. Monetary authorities, central banks, treasury departments as well as international financial institutions like the IMF and the World Bank primarily aim to implement a regulatory framework that ensures smooth operation of the world capitalist system. This has become increasingly more important since the capitalist world economy began its transformation along the lines of financialization.

The importance of creating a regulatory system whereby conflicts of interest is resolved by obtaining optimal contracts has been at the epicentre of the recent financial liberalization literature. Accordingly, within an ever expanding world of finance conflict resolution between expansionist profit maximizers such as individuals, banks, portfolio managers, speculators and the stabilizers of the system such as monetary authorities, treasuries, central banks, IMF and the World Bank ought to be found within a regulatory framework that guides efforts to achieving optimal contracts. On the other hand, critically scrutinizing the fundamentals of Basel 2 proves that such an effort is not easy to reach.

The need to develop a regulatory framework to sustain stability of the financial sphere has become increasingly important with the progress of financial liberalization in its market or government friendly form both have proven to introduce destructive dynamics. It is not top-secret information that portfolio risk has increased with the implementation of policies known as financial liberalization. Risk management techniques organized around the newly discovered operational notion of "*information*" as developed in Akerloff (1971) and Stiglitz and Weiss (1981) enabled those who are after drawing optimal contracts became more sophisticated in terms of their methods and in terms of the scope of the contracts they have drawn. What was needed is to obtain optimal portfolio with optimal contracts which would reduce transaction costs in relatively free markets.

This system of expansion and market friendly approach has been also advocated by the anglo-saxon participants of the world capitalism. American and British banks in the lead reformed, bended, adjusted and improvised on information theoretic approach and advocated a type of regulatory system that resolved conflicts in their own interest. As emphasized in Stiglitz (1985), the others, European, Japanese and newly industrialized countries financial systems still required a degree of government intervention. Such protection was probably needed against their more aggressive anglo-saxon competitors. Oxymoron as it appears but if world capitalist system was to expand this would only be possible with a financial system that has been freed from its regulatory fetters, yet with a new Basel 2 type intervention.

The inter-capitalist rivalries has become into open when Japan has become one of the larger donor countries in South East Asia. Japan defended rigorously its right to start a developmental bank to oversee its lending to the countries in Asia-Pacific region. An important challenge to the US domination in the international sphere of finance hence gained momentum but this attempt by the Japanese has fell short. Other regional formations have taken place though none became an important vehicle to challenge anglo-saxon domination (Bart, Caprio and Levine, 2001). Finally, the Basel 2 has become a product of anglo-saxon, US-UK type of capitalism representing its method of thinking. We will turn back to this point further below.

Before we turn to Basel 2 and how intra-capitalist competition can be regulated in the current state of affairs we are forced to answer following preliminary questions:

1. What determines the risks banks are subjected to and how important is the role of economic set-up in determining these risks? How do banks manage their risks in accordance with the dominant economic conjuncture?
2. What are the ways in which banks' risk management systems can be prevented from helping them by-pass the legal restrictions in a financially liberalized environment?
3. Does the banking sector require a special regulatory set-up because banks are not sufficiently protected by the core laws of legal system?

In order to answer the first question we need to break down risks to six generic types for the sector as a whole: market risk, credit risk, counter-party risk, liquidity risk, operational risk, and legal risk. The first of these often divided between trading risk and balance sheet risk. Banks do not have risk management techniques in place for all of these risks (Fama, 1980). They tend to control their credit risk, trading risk, balance sheet and liquidity risk exposures. Other types of risks are not so crucial from the banks' point of view. If counterparty risk is evaluated to be significant then it is measured by using standard credit risk procedures in which legal risk appears to be important. Bankers see legal risks arising from contracts in which proper credit decisions are not properly in-built in the written procedures.

Any legal arrangement that aims to provide a high value added banking services, particularly of the intermediation type for a sustainable development will be confronting with such risk management techniques and brilliant ways masterminded to by-pass restrictive measures. Hence any legal framework drawn up and offered for the smooth operation of a value creating banking sector needs to be located within a broader economic, political and constitutional order.

The main characteristic of the legal system is to try to control the behaviour of people and organizations by means of deterrence. Since in the presence of deregulated and free market environment the traditional approach to financial regulation does not provide enough protection to the financial intermediation, it is believed that installing self-controlling mechanisms prevents "bad governance" and avoid damage (Diamond and Dybvig, 1983). Prudential regulation debated as the most advanced form of regulation aimed to prevent the occurrence of some 'unwanted' events and cut short the duration between crime and punishment (Mishkin, 2001).

However any regulation, be it prudential or restrictive is only meaningful if the controlled subject behaves, therefore all regulation will be fully dependent on respect of the core law. Many de-regulationists argue that “a set of rule of conduct aimed at minimizing public losses, when the controlled subject respects the core of law” would discipline financial institutions through market based punishment processes (Mishkin, 2001). Prudential regulation hence, does not apply to the fraudulent case or to creative accounting practices in the credit sector where it is almost impossible to distinguish between bad luck, incompetence and fraudulent behaviour.

Financial market operators can continuously reverse their position, promptly correct a decision and implicitly discount the likelihood of wrong choice but a loan officer cannot reverse his position. He is stuck with his decision. He will defend the original decision and will try to cover up the consequences (Carey, 2001). Particularly with the large loans the bank manager has a justifiable bias towards forbearance. Credit decisions and then its monitoring cannot be objective but discretionary. As Diamond (1984) explain in detail bank managers have a monopoly over information and have power to delay default by extending new credit to the borrower when his probability of insolvency increases. Credits are intrinsically illiquid and the values of the parameters that influenced the original allocation change very slowly.

This is similar to the IMF sovereign debt relations in many developing countries. In most banks, loan control is mostly performed by the same people who grant the loan. This introduces a strong bias in favour of self-control. There exists an almost complete identity between the forbearance decision problem and the management of a forward contract with a declining value. The dilemma between selling the contract and taking a loss or keeping it, hoping for a change of trend is analogous to the decision that the bank must make to either renegotiate a loan, recall it, or provide a borrower with new financing.

Between the management of a forward contract and that of non-traded credit, there exists however an important difference: the value of the former can be continuously monitored, while the value of the latter, in spite of the important improvement in corporate distress prediction techniques can still only be the object of an educated guess. In dealing with continuously traded assets, one can assess risk and, obviously without any guarantee of success, continuously modify the investment strategy.

The only way in which this situation is argued to improve is with the growth of securitization and with the development of secondary market for bank loans. This is just like following the example the development of market for Third-World debt. The dematerialization of credit seems to be the only way to overcome moral hazard. Market risk control methods have reached a high degree of sophistication for tradable securities. Such operations had minimum weight in the banking operation but became more relevant. This trend and in particular securitization is not encouraged by the Basel 1 rule. It did not acknowledge any liquidity premium of a tradable security with respect to underlying assets. To avoid this main cause of troubles it is believed by the de-regulationists that any regulation enacted must prevent banks from keeping in their portfolio the loans that they have granted. Banks should sell them to the market. This is believed to introduce some market discipline since the loans will be re-evaluated by a different party. Hence, Basel 2 was to overcome this Basel 1 weakness.

Basel 2 proposing a risk management methodology for banks commercializes credit decisions. In this, banks are viewed as single entities taking part in the process of financial arrangements in a competitive environment *a la*

American portfolio decisions of which are done by considering some of the inputs provided by rating agencies with the exception of larger and well established banks that would use their own ratings. As such Basel 2 does not only draw theoretical principles from the ideal US type of financial institutions but it was to help expanding them.

This is not to suggest that there are no defenders of Basel 2 in the developing world and in Japan and in the EU (BIS, 2006b). In fact, larger participants in the world market with comparative advantage in certain sectors are supporters of the Basel 2. It provides to these firms similar advantages as it does to the American firms. Critique of the accord or rather requirement for a more detailed consideration comes from the governments and other agents who are in the business of providing stability to the smooth operation of the capitalist system.

#### **IV. Evolution of Bank Regulation: Basel 1 and 2**

In this section I look at the evolution of bank regulation by focusing on Basel 1 and 2. Before I go into critically evaluating Basel 2, I first look at the merits and inadequacies of its predecessor Basel 1.

##### **Basel 1:**

Basel 1 was introduced in 1975 following the fall of Herstad Bank in Germany. The failure of Herstad Bank caused a liquidity crisis in the USA and was about to bring down the entire banking system there. This happened as a result of a delayed payment due to time difference between Germany and the USA. Basel 1 brought about a system of eight per cent capital adequacy requirement in 1992 which was expected to prevent similar liquidity problems. It prepared banks to hold adequate funds to correspond any decline in the banks' liquidity.

Basel 1 has been subsequently altered in 1988 and then again in 1999. Advisory changes in 1999 turned into Basel 2 in 2004. Basel 1 was not statistical and mathematical exercise but it is a regulatory arrangement aimed at setting international standards. Hence making control and monitoring of the banks easy for the authorities. In 1996, volatile foreign exchange and interest rates in the US brought about additions to the Basel 1. Banks are required to add adequate capital for market risk. Basel 1 initially developed for advanced capitalist country banking systems adopted by over 100 countries by 1988. Its simplicity made it attractive and easy to accept. Inclusion of credit risk to the calculation of capital adequacy is the underlying element in Basel 1. In fact it was for the first time with Basel 1 that the credit risks are included into the measurement of capital adequacy.

In the age of liberalization and financialization, Basel 1 provided legitimate ground for the authorities to intervene with bank operations whereby banks can be forced to operate with higher adequacy ratios. Banks as a result had to develop risk management processes in line with their risk profile, capital structure and their operational strategies. Risk management for the individual banks has become even more important as Central Banks of many countries agreed to ease the controls over cross-border operations of banks.

Basel 1 has been widely criticized since it was not adequately developed to respond risk management needs of banks. In short it was criticized for offering "one size fits all" type of risk measurement technique. For instance, Basel 1 included only five risk weights hence being insensitive to measuring various types of risk. It disregarded specific historical and social conditions of different countries in which banks decided their lending

strategies. In Basel 1, the risk weights for the OECD member countries was different from non-members, a point which attracted a salvo of criticism.

Basel 1 was also criticized for not taking into account price movements and the ways in which banks constructed their portfolios. Basel 1 did not consider differences in bank behaviour across the board. Larger and smaller banks are treated as though they face similar menaces from risk. Basel 1 was also criticized for not including issues relating to transparency, good governance, market discipline, optimum contracts, prudential regulation and etc.

Basel 1 taking into its calculation of capital adequacy merely credit and market risk argued to be inadequate. It was argued that Basel 1 needed to be supplemented with more sophisticated risk measurement techniques. As such Basel 1 accord dealt with only parts of the pillars of the Basel 2. For example with regards to the first Basel 2 pillar, the credit risk was dealt with in a simple manner while market risk was an afterthought; operational risk was not dealt with at all (Rochet, 2003).

In other words wide-spread critique of Basel 1 was organized around the issues that were introduced by the information theoretic framework which also gave rise to what is known as the Post-Washington Consensus. The need to incorporate the issues left outside into the risk measurement techniques by the banks paved the way for Basel 2. What was required was market friendly intervention by the authorities and supervisory institutions particularly at the age of globalization and financialization. According to the critiques of Basel 1 who argued that it remained inadequate in endogenizing the rapid changes in the markets and in determining risk weights ought to be replaced. Since, Basel 1 did not consider the size of the banks, their asset quality, capacity and managerial ability in measuring risks it had to be scrapped.

### **Basel 2:**

At this juncture of current economic meltdown, it is safe to assert that Basel 2 is no longer a living document. Its demise is marked by the recent financial crisis which has started in the US financial sector and spread across the globe. However, investigating the main tenets of Basel 2 can still be useful. It can help us understand and analyse the merits of accumulated wisdom for bank regulation. It would also help us to reflect on the future developments for bank regulation.

Basel 2 was introduced in 2004. Its clauses were going to be implemented by the developed countries gradually, starting from 2008. It was alleged that Basel 2 employs more sophisticated risk measurement and management techniques than Basel 1 (BIS, 2006a). Mainly they were organized around a variety of risk weights. The issues relating to transparency, reporting, auditing and weighing risk items were the basis of Basel 2. It was believed that implementing these items would help banks to determine their risk levels better than Basel 1 and this would lead to creation of strongly efficient markets, those clearing at equilibrium level of interest rates.

Increased transparency also believed to help banks reducing their risk levels as supervisory authorities find it easier to control the system. This would in turn help to establish market discipline. As such Basel 2 was alleged to include answers to how to measure risk levels, how to measure capital adequacy ratios, how to manage risks and how to announce bank performance to the larger population.

The new concepts like “*risk adjusted pricing*”, “*rating systems*”, “*expected / unexpected losses*”, “*risk centred structuring*”... are all brought about by the Basel 2. All of these concepts, risk management and measuring techniques are developed with one aim in mind: market discipline. However, there exist fundamental flaws to these claims mainly deriving from theoretical foundations of neo-classical understanding of the banking industry upon which Basel 2 is established. It was just prior to the 2008 financial crisis many banks in the US aired their suspicions about the applicability of Basel 2.

### **Three Pillars of Basel 2:**

Basel 2 uses a “three pillars” concept to describe and recommends the necessary minimum capital requirements to keep the bank safe and sound.

1. Minimum risk weighed capital requirements,
2. Supervisory review process, and
3. Market discipline to promote greater stability in the financial system through disclosure requirements.

The first pillar of Basel II refers to measurement of Capital Adequacy Ratio. This is calculated by taking into account banks’ current and future risks. The first pillar deals with maintenance of regulatory capital calculated for three major components of risk that a bank faces: Other risks are not considered fully quantifiable at this stage.

Basel 2 considers three types of risks in calculating capital adequacy.

1. Credit Risk
2. Operational Risk
3. Market Risk

Credit risk is the default risk of the borrower which would push banks to liquidity crisis.

Market risk refers to unexpected formation of foreign exchange rates, security prices and interest rates.

Operational risk refers to all types of risks derived from errors derived from lack of information of the bank employees.

Hence Capital Adequacy (CA) is measured:

$$CA = \text{Tier 1} + \text{Tier 2 Capital} / \text{Credit Risk} + \text{Market Risk} + \text{Operational Risk}$$

Credit risk measurement component can be calculated in three ways based on a variety degree of sophistication.

1. Standardized Approach, under this approach the banks are required to use ratings from External Credit Rating Agencies to quantify required capital for credit risk. In many developing countries this is the only approach the regulators are planning to approve in the initial phase of Basel 2 implementation.

2. Foundation IRB (Internal Rating Based Approach), this approach allows banks to develop their own empirical model to estimate the PD (Probability of Default) for individual clients or groups of clients. Banks can use this approach only subject to approval from their local regulators.
3. Advanced IRB, this approach allows banks to develop their own empirical model to quantify required capital for credit risk.

Under the standardized approach the banks are required to use ratings from External Credit Rating Agencies to quantify required capital for credit risk. Table 1 below presents a summary of risk weight used for Standardized Approach. As can be traced from the table in Basel 2 claims on sovereigns are also rated while in Basel 2 these were evaluated to be risk-free.

**Table 1. The Summary of Risk Weights in Standardized Approach**

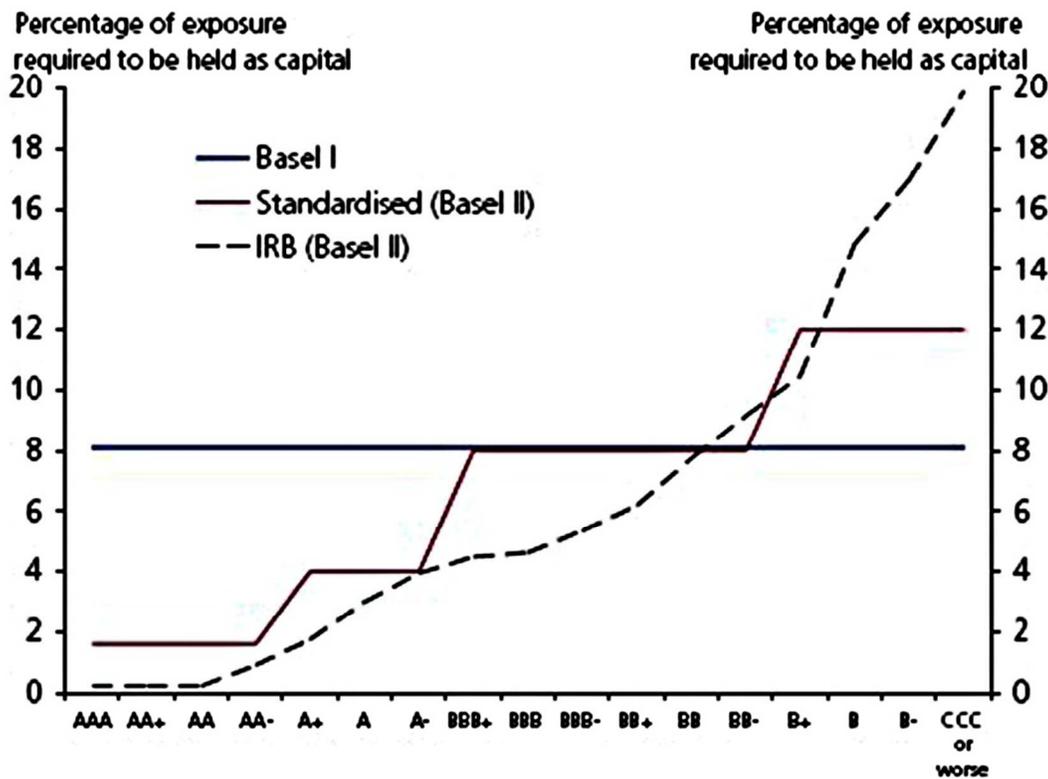
<b>Claims on sovereigns</b>						
<b>Credit Assessment</b>	<b>AAA to AA-</b>	<b>A+ to A-</b>	<b>BBB+ to BBB-</b>	<b>BB+ to B-</b>	<b>Below B-</b>	<b>Unrated</b>
<b>Risk Weight</b>	0%	20%	50%	100%	150%	100%
<b>Claims on banks and securities companies</b>						
<b>Credit Assessment</b>	<b>AAA to AA-</b>	<b>A+ to A-</b>	<b>BBB+ to BBB-</b>	<b>BB+ to B-</b>	<b>Below B-</b>	<b>Unrated</b>
<b>Risk Weight</b>	20%	50%	100%	100%	150%	100%
<b>Claims on corporates</b>						
<b>Credit Assessment</b>	<b>AAA to AA-</b>	<b>A+ to A-</b>	<b>BBB+ to BB-</b>	<b>Below BB-</b>	<b>Unrated</b>	
<b>Risk Weight</b>	20%	50%	100%	150%	100%	
<b>Claims on the BIS, the IMF, the ECB, the EC and the MDBs</b>						
<b>Risk Weight: 0%</b>						
<b>Claims on retail products (Credit card, overdraft, auto loans, personal finance and small business)</b>						
<b>Risk weight: 75%</b>						
<b>Claims secured by residential property</b>						
<b>Risk weight: 35%</b>						
<b>Claims secured by commercial real estate</b>						
<b>Risk weight: 100%</b>						

Source: BIS, 2006c

Basel 2 encourages banks to initiate their own internal-ratings based approach for measuring credit risks. Banks are expected to be more capable of adopting more sophisticated techniques in credit risk management. In this way banks can determine their own estimation for some components of risk measure: the probability of default (PD), exposure at default (EAD) and effective maturity (M). The goal is to define risk weights by determining the cut-off points between and within areas of the expected loss (EL) and the unexpected loss (UL), where adequate capital should be held. Then, the risk weights for individual exposures are calculated based on the function provided by Basel 2. Banks are expected to be more capable of adopting more sophisticated techniques in credit risk management.

It is evident that large banks with global networks are much more prepared to use internal ratings. They are permitted to do their own calculations and credit assessments. On the other hand smaller banks particularly those in developing countries lending to SMEs would be placed in a more disadvantageous position (Calomiris and Powell, 2001). They would face higher transaction costs deriving from deeper information asymmetries. Hence larger banks would be much more advantaged. Basel 2 provided them with advantages in determining their capital adequacy which has tax effect on the bank. Smaller amounts spared for capital adequacy would increase profitability of a bank. The benefits of using own internal ratings are demonstrated in the following figure 1.

Figure 1. Basel – 2 benefits banks to hold lower capital requirement



Horizontal axis shows a variety of risk weigh ranging from AAA to CCC or worse. In the vertical axis percentage of required capital is presented. Continuous line is the eight per cent capital adequacy applied across the board as required in Basel 1. It is obvious from the figure above that banks’ lending to AAA firms are going to loose out a percentage of their capital to the capital adequacy requirement and will earn zero return for that percentage. Continuous ladder-like line shows the banks using Standard Approach and allocating capital according to the risk weigh information obtained from rating agencies. When compared to Basel 1, this is an improved situation as far as smaller banks are concerned. But when they are compared to the large banks using internally calculated risk weighs they are clearly dis-advantaged. The situation for the banks using IRB is shown with the dotted line.

**Measuring Operational and Market Risk:**

Basel 2 requires all banking institutions to set aside capital for Operational Risk. Here too, there exists 3 different approaches, Basic Indicator Approach (BIA) is simple and recommended for banks without significant international operations, Standardized Approach (SA) banks' activities are divided into eight business lines (corporate finance, trading & sales, retail banking, commercial banking, payment & settlement, etc.) and Advanced Measurement Approach (AMA), allow banks to develop their own empirical model to quantify required capital for operational risk. Banks can use this approach only subject to approval from their local regulators.

For measuring the market risk the preferred approach is Value at Risk (VaR) which is a measure of how the market value of an asset or of a portfolio of assets is likely to decrease over a certain time period (usually over 1 day or 10 days) under usual conditions. It is typically used by security houses or investment banks to measure the market risk of their asset portfolios. Other measures of risk include volatility/ Standard Deviation, semi-variance or downside risk and expected shortfall.

**The Second and the Third Pillar of the Basel 2:**

The second pillar deals with the regulatory response to the first pillar, giving regulators and supervisory authorities much improved 'tools' over those available to them under Basel 1. It also provides a framework for dealing with all the other risks a bank may face, such as systemic risk, strategic risk, reputation risk, liquidity risk and legal risk, which the accord combines under the title of residual risk. The authorities are equipped with 4 principles. These allow them to monitor the banks closely and impose upon them higher capital adequacy if need be.

The third pillar greatly increases the disclosures a bank must make. This is designed to allow the market to have a better picture of the overall risk position of the bank and to allow the counterparties of the bank to price and deal appropriately. The third pillar requires the bank activities to be transparent by releasing financial information about its activities to the public. This is believed to enable depositors to better evaluate bank condition (i.e. bank probability of failure) and diversify of their portfolio accordingly. Hence, this pillar by itself is believed to lead to enhance the role of market discipline in financial markets.

**V. The Critique of Basel 2**

It is already mentioned above that the underlying theoretical foundations of Basel 2 is open to questioning. It is also indicated above that Basel 2 would fail to resolve conflict of interest between competing parties in a capitalist economy. It favours anglo-saxon type banking practices and that the more professional larger banks would benefit from the clauses proposed in Basel 2. In this section, these claims are scrutinized.

Firstly, it is true that Basel 2 is advancement over Basel 1 in calculating capital adequacy measurements which attempts to include human error (operational risk) as part of overall bank risk (Szego, 1999). On the other hand, this is done so by divorcing operational errors from their systemic context. Banks are enabled to measure operational risks derived from human error and broadly from their lack of "human capital", a highly problematic concept (Fine, 1998). Smaller banks as a result suffer more than larger banks. Basel 2 hence, measures operational risk by carrying the concept of "informational asymmetries", into the centre of its analysis

without developing a proper understanding of its meaning. Information is reduced to “accounting data”. However, more recent studies found that information goes beyond that and includes unquantifiable elements based on historical and social power relations. The presence of inadequate human capital is then tied to the strength of available information in assessing risk. Accordingly, weaker informational environment causes higher human error.

Secondly, Basel 2 ties capital adequacy calculations to the risk measurement and this is left to the initiative of banks. In Basel 2, authorities are desired to encourage capital adequacy calculations after measuring risks. More importantly risk measurement techniques are tied to the size, capacity and capability of banks. For instance banks operating in the national sphere (a small country banks) and a bank operating in international sphere (a larger bank) will use different risk measurement techniques depending on their capacity. Larger banks will use advanced measurement techniques to calculate their capital adequacy while smaller banks will rely on “rule of thumb”. Smaller banks will end up with higher capital adequacy requirements which would hinder their profitability and competitiveness. In this sense Basel 2 favours unequivocally larger banks with deeper international experience and operations.

Thirdly, in Basel 2, risk calculation for international banks also includes calculating market risks of other country markets where they operate. The underlying forms of these markets depend on a variety of social and political factors. Adjusting these specific market variations into one single variable to fit in the basic equation is very difficult if not impossible.

Fourthly, Basel 2 relies on information sharing between bank managers and supervisory authorities. It is however not clear to what extent this information sharing can provide a reliable basis is not quite clear (Ramakrishnan and Thakor, 1983; BIS, 2006d).

There also exists a major technical problem with Basel 2. This comes from its method for calculating three different types of risk simultaneously. These risks are different in nature since credit and operational risks are micro while market risk is macro-economic. As a result, each of these can be detected by using different types of data that can become available in varying time scales. These risks also spontaneously affect and dynamically enforce change upon each other. In aggregation of a simultaneous calculation of these risks are heavily problematic, undermining the validity of Basel 2.

## **VI. Conclusion**

In the era of financialization Basel 2 is developed with a view to provide a much more sophisticated international standard to calculate capital adequacy ratios of banks. Using a complex system of risk calculation that included a variety of risks is believed to hedge banks against the risks. However, as explained above Basel 2 suffers from inherent technical problems. It creates an advantageous set-up for the developed country banks particularly of anglo-saxon origin. Banks operating with proper documentation and lending to the companies that presents proper documentation will end up having lower capital adequacy ratios while banks operating without proper documentation will have to hold higher capital as is the case in many developing countries. This will bring about additional problems to developing country banks and SME financing.

SMEs with poor documents will be rated more risky and banks operating in the rural areas and lending to the SMEs will be forced to hold higher adequacy ratios. These are all indications to who the Basel 2 agenda serve. In many ways, Basel 2 presents theoretical naivety which believes that employing measurement standards in the complicated world of production and finance can resolve problems of instability. Thus, any regulation like Basel 2 is doomed from the start not only because it failed to develop sufficiently sophisticated risk measurement and management techniques but it is doomed because of its neo-liberal leanings and understanding of finance.

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