

## **BASEL'S FORGOTTEN PILLAR: THE MYTH OF MARKET DISCIPLINE ON THE FOREFRONT OF BASEL III**

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### **Abstract**

Although Basel II fortified the first two pillars with market transparency enhancing Pillar III disclosures and encouraged the usage of major Credit Rating Agencies (CRAs) such as Moody's, Standard and Poor's, and Fitch as quasi governmental authorities to overcome asymmetric informational problems on risk and capital adequacy fronts of the global financial system, the recent global financial crisis has proven just the opposite. The banks and regulators were not in a position to truly assess the risk and capital adequacy frameworks of the global and domestic financial institutions based on the assessments of the rating agencies. To overcome the problem of informational asymmetry for the market participants, the Basel Committee on Banking Supervision set out new proposals for enhanced Pillar III disclosures in the areas of credit risks and capital reporting standards on the forefront of Basel III that would come into effect on April 1, 2016. This paper is a critical evaluation of the new reporting proposals of BCBS within the critical role of the credit rating agencies.

**JEL classification:** G 21, G24, G28

**Keywords:** Market Transparency, Basel II Pillar III, Bank Risk and Capital Reporting, Credit Rating Agencies, Expected Default Frequency (EDF), Moody's Analytics

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## INTRODUCTION

Basel II heroically introduced “market discipline” as one of the three pillars of sound banking and empowered rating agencies in the assessment of credit risk in bank lending globally. However, the global financial crisis revealed two important issues to the market players and to regulators. As opposed to the common belief that markets are “efficient” and the market players are fully informed, the recent global crunch from 2007-2010 revealed that the market players were not in a position to correctly assess the risk content and structure of individual banks on both global and domestic levels. In this regard banks and regulators relied primarily and heavily on the judgments of global rating agencies supported by their internally developed credit risk models. Unfortunately both approaches failed on technical and theoretical aspects for risk assessment purposes in assessing the underlying and fundamental risks of the banks. Starting in June 2007, as the market making global banks with different financial instruments on their asset and liability portfolios showed rapid and consecutive credit risk migrations on a real time basis, the conventional “through-the-cycle” driven agency ratings failed severely to assess the “point-in-time” credit risks of the market participants. The acceleration in rating migrations resulted in parallel “deterioration of capital levels” of individual banks, causing material questions also on the quality and quantity of true capital levels, which were supposed to absorb the resulting capital losses within the global financial system. In this regard, existing implementation of Basel II reporting standards, especially the spirit of Pillar III “market transparency” suffered not only from the ineffective credit risk assessment properties of the conventional Pillar I system, but also from the implementation of deficient market transparency and reporting rules accentuated as the “Pillar III” type reporting requirements inside the global banking system on a timely basis. Due to the lack of effective and efficient transparency and reporting rules unspecified during the Basel II origination process, banks and regulators during the recent global financial crises were suffering from perceiving timely information on material market and credit risks of their fellow banks on sound technical and practical foundations.

This impetus led to the technical refinements on market transparency under the Pillar III context issued in June 2014 by BCBS (BCBS, 2014, p. 1-81), and to a more perfectionist approach to the reconstitution of new reporting standards as the Basel III framework. Since then, the market discipline has been again on the forefront of the Basel III reporting processes with new challenges for global and domestic banks in the world. These challenges are associated with the increased number of reports of over 115 with more than 35,000 data points combined with more granular and complex reporting frequency and infrastructure (Chabanel, 2014, p. 36-40). The main emphasis of the revision efforts lies still on the reporting of credit risks represented in form of probability of default (PD) with an additional 13 new reporting formats. Yet, the work for upgrading the “standard method” for calculation of capital for credit risks on the Pillar I front and the complete revision of the Pillar III type reporting in parallelism with the Basel III process is not over and needs further elaboration on technical market reporting principles.

## THE PURPOSE OF THE RESEARCH AND PERSPECTIVES

The purpose of this paper is two-fold. Our primary purpose within this study is to gain more insight into post-crisis revision processes of the “forgotten pillar” of Basel II and to the efforts of BCBS in strengthening the market transparency standards developed for the forthcoming Basel III. Our second objective is to elaborate the credit rating agencies (CRA) role inside the regulatory environment, which is driven by BCBS for regulatory and market transparency purposes. The over-reliance on CRAs not only by the regulators and also by the market participants may lead to wrong valuation of risky assets and this fact again may result in irregular capital adequacy calculations for mispriced financial assets. To overcome this problem, we will be referring back to Moody’s Analytics modeling issues as an alternative solution to CRA-based analytics.

As market transparency is an indivisible part of the global regulatory process since Basel I and as Basel II’s Internal Rating Based Approach with Basel III is still at the implementation stage in emerging countries, we will be constantly and critically “flashing back” Basel II’s Pillar III

issues on our discussions of the subject matter by taking a critical stance on the role of agency ratings for regulatory purposes as mandated in Basel II. From the investor's point of view, credit ratings provided by the CRAs should not be the single source of information for assessing the timely and material risks of a financial instrument or the issuer of that instrument. Within this study, we will be also arguing that there is still a loop hole for increasing the efficiency of market discipline with more effective credit risk models, which will be our focus at part 4 of our study. Our main proposal will reemphasise the usage and importance of the market-based models for “market-based” reporting standards as implied but not “enforced” by Basel rules and regulations if the main objective is to sustain a “safe and sound financial system based on market discipline” on the global and domestic banking fronts.

## THE CONCEPTUAL FOUNDATIONS ON MARKET DISCIPLINE

Though the concept of market discipline dates back to the free banking era in Scotland (1695-1845), today banking authorities use market discipline in two different ways:

**Direct Market Discipline**, which substitutes prudential supervision through influencing bank management behavior by accumulating relevant and reliable information on the side of investors and other market participants.

**Indirect Market Discipline**, which is a “complement” to prudential supervision through inducing investors to monitor the bank management behaviour, as they are not in a position directly in taking action to direct them towards efficient management. In this regard, indirect market discipline relies heavily on using material market information and imposing more transparency to the market participating institution to improve the efficiency of supervision (Rochet, 2004, p. 58). Roubini rephrases this as, “In theory, if the bondholders think the bank is headed in the wrong direction, they will impose market discipline in the form of higher borrowing costs. Likewise, the shareholders will rein in risky activity that might land the bank in trouble” (Roubini & Mihm, 2011, p. 207).

The Federal Reserve defines market discipline in parallelism with our conceptions as “the cost of borrowed funds, which reflects the bank's risk profile”, whereas the Basel II standards perceive market discipline more in the

context of “market monitoring” to avoid informational asymmetries between the market players and the regulatory bodies to attain safe and sound banking system and ultimately to avoid any regulatory arbitrage possibilities that may arise from differing levels of global playing fields (Gup, 2004, p. 68). Notionally, Basel's regulatory framework aims for sustaining a safe and sound bank system where the cost of funds is determined primarily by the interferences between CRAs and Issuers or Borrowers. Unfortunately, this interference caused “Rating shopping” practices among the issuers of financial instruments (Darbellay, 2011, p. 126).

Under the conventional pillar system since 2004, banks were incentivized to replace their tacit local knowledge of specific instances of default risk with a universalized algorithm of rating agencies that has been primarily used in corporate bond rating. In other words, investors or credit analysts relied heavily on credit ratings instead of performing their own due diligence. Or to put it in another way, the new rules undermined banks' sense of institutional responsibility for their lending and moved away from credit risk assessment towards development of generating strategies according to Basel rules (Peston & Knight, 2012, p. 206-207). In this regard this “Gaming Culture” is described as “market over-reliance on credit ratings” and this paradoxical misbehaviour has been subject to further analysis and critical evaluations of the roles of CRAs even after the crisis (Peston & Knight, 2012, p. 49-52). BCBS identifies this negligence of the bank's own independent internal assessment of risks as a “negative incentive” that motivated banks to use the external ratings to replace their own independent internal credit risk assessment, whereas this shortcut to the due diligence method gave a secondary negative incentive to CRAs to assign “good ratings” for exposures instead of accurate and conservative assessments (BCBS, 2009, p. 50). On the “neo-principles” front, the Financial Stability Forum describes this fact as “mechanistic reliance by market participants and the regulator to CRAs”, which reduces the financial stability causing threatening herding and cliff effects over time. In this sense FSB takes the first rating action in the world towards the CRAs by downgrading them “principally” by stating that “Banks, market participants and institutional investors should be expected to make their own credit assessments, and not rely solely or mechanistically on CRA ratings” (Financial Stability Board: Principles for Reducing Reliance on CRA Ratings, 2010, p. 2). FSB goes even further to advise that

“Standard setters and regulators should incentivize a transition to a reduced reliance on CRA ratings over a reasonable timeframe extending into the medium term, taking into account the need for market participants to build up their own risk management capabilities to replace reliance on CRA ratings, but with clear milestones” (Financial Stability Board: Principles for Reducing Reliance on CRA Ratings, 2010, p.7).

Since most banks lacked data, information systems and theoretical capability to build Basel II confirmed credit risk management models, consultancy firms and rating agencies, especially Moody's, have started to sell their expertise to the banks. In 2002 Moody's acquired KMV, known as Moody's Analytics *the specialist firm* in quantitative credit analysis. It rightly deserves to brand itself as “a pioneer in the sophisticated application of modern financial theory and statistical analysis to manage credit risk more accurately and effectively”. **Not limited to the regulatory standards, the evidence for accuracy and effectiveness of true credit and default risks after the global banking crisis of 2007 is very much in demand.** With its market-based credit risk models known as Expected Default Frequency (EDF) methodology, Moody's Analytics is providing “point-in-time” and market information based solutions contrary to the “through-the-cycle” methodologies of the Rating institutions. In this regard, the EDF methodology of Moody's Analytics provides superior discrimination capability to the users of default related information. The range of users of default information varies from market players up to the regulatory bodies and other standard setters such as central banks in the case of the US Federal Reserve and the Bank of England. Contrary to the German and Swiss nuances in implementation, those Anglo Saxon examples of standard setting institutions are uniquely fortified with excessive regulatory missions such as enhancing market discipline and transparency as dictated in the form of Pillar III of the Basel regulatory context. Though not being specified explicitly inside the Pillar III articles of Basel II, credit and default risk measured as the probability of default (PD) of sovereign and corporate entities constitute the most basic contours of market discipline. Default risk and its correlation between the systemically important institutions is also playing a very strategic role from the macro prudential regulation point of view in determining the systemic risks of a financial system of a country as well (Gai, 2013, p. 79-100).

But nevertheless the pillar of market discipline in Basel has created new revenue sources for rating agencies and also allowed uncritical acceptance of rating agencies' cognitive technologies in measuring default risk. Basel's notion of market discipline is exclusively derived from the market practices of the opaque rating processes of global rating agencies. However the market for default risk is not limited to exchanges that are based on rating of securities issued by borrowers. It also includes other practices of exchanges that are based on calculations of default probabilities of financial entities external to the ratings space. For example, Moody's Analytics provides assessment opportunities of real time default probabilities to the traders and analysts at a bank that may not agree with the conclusions of Moody's credit risk ratings. Within the same institution two technologies of default risk provide services to the different types of holders and traders of credit risk that operate in different markets. Similarly credit default swap markets signal default information about corporations and sovereigns that would not go hand in hand with credit rating agency default calculations. The existence of different markets for credit risk, where the pricing of risk is based on different technologies of risk measurement, therefore influences the holders and traders of credit risk in different contexts. Basel codes however privilege a particular market, the “*market for credit rating*”, over other markets for credit risk and, at best, fails to accurately operationalize its concept of “market discipline”, and, at worst, creates arbitrage opportunities for financial bricoleurs rather than a sound banking system. We believe this is a major failure of the Basel regulatory framework both as a theoretical construct and as a reliable regulatory technology. Having highlighted this shortcoming, where Basel II's rating agency based blocs deepen imperfect information problems at the incomplete credit risk markets in emerging markets, we will try to overcome this informational “inefficiency problem” with deeper market-based structural models, where governmental regulatory bodies have failed to provide an adequate regulatory solution up to now. The pricing of emerging market Eurobonds are a clear presentation of how markets price and value those financial instruments rather than pricing based on rating agency based calculations on expected losses, which also result in arbitrary capital adequacy calculations on the regulatory side. This fact demonstrates that market discipline in Basel is a myth that is dissociated from the

actual market practices of measuring and pricing credit risk apart from the regulatory context. Within this framework, this paper has four sections to draw a border on risk reporting issues between the two spheres of rating agency ratings used for regulatory purposes and credit risk assessments based on market driven models demanded from the market participants.

## **OVERVIEW OF THE ROLE AND RATIONALE OF MARKET DISCIPLINE IN BASEL III**

Under the existing Pillar III doctrine, market players inside a broad range of banking system spectrum face different levels of product/market combinations and operate under different competitive market structures. Even within these systemically different financial contexts, it was expected from those players that they should also contribute to the soundness of the global financial system by obeying the “uniform and shared level” of Pillar III dispositive standards. Reinforcement of Market Discipline is perceived as an integral and complementary solution to the rule based global supervisory framework labelled either as Dod Frank in the U.S, as CRD IV in EU or core Basel Standards at every regional and financial contour. The marketwise disciplined banks may be in a better situation to evaluate the actor oriented system dynamics of their competitive markets and the risks of their counter parties. In this sense, major deviations from the “best practices” in the financial markets may indicate institutional vulnerabilities and give clues to the market observers of hidden exposures of nonstandard accounting/auditing practices, inadequate internal supervision issues combined with the existence of non consolidated, on- and off balance sheet exposures, connected lending problems combined with over allotment to specific portfolio problems in their operating environments. With best intentions in mind, Pillar III disclosures have not been proven to fully achieve the goal of better market discipline as set out since 2006 neither on content nor on a timeliness basis. The rationality of Pillar III in the sense of disciplining the markets by providing more information on risk versus capital to alleviate the information asymmetries still depends very much on the existence and usage of CRAs, whose “downgrading” may cause perplexed behaviour of market participants and contribute to excessive systemic risks on financial markets.

## **LIMITS OF INTERNATIONAL COORDINATION IN EXTERNAL GOVERNANCE MATTERS**

The institutional operating environment in the global financial system within which different banking structures do exist might give way to different opportunities for regulatory arbitrage. The co-existence of different financial systems with varying forms of legal jurisdictions might provide “adverse selection” type of incentives to those global financial institutions to book their assets within “regulatory light” regimes. In this respect, the Basel Committee has played a leading role in international efforts to “level the playing field” and to end the regulatory arbitrage possibilities through supervisory cooperation and regulatory harmonization since 1974 (Lindgren, Garcia & Saal, 1996, p. 196). As fronting institution of the globalization and harmonization efforts on the global financial architecture level, the IMF has also made significant contributions to these efforts due to the existence of arguments on the “bank soundness” front. Especially in emerging countries where effective and efficient banking supervisory institutions are still missing, more classical banking based financial systems and markets are “disciplined” through IMF conducted economic reforms and World Bank orchestrated structural adjustment lending- and technical assistance programs. Yet, despite all these efforts to harmonies the differences of the regulatory and supervisory contours around the world, we can challenge these efforts by arguing that the Basel Committee had reached its practical limits within the Basel I Framework in 1988 inside the Group of ten countries initially. Since then, the hard work for resolution of the regulatory arbitrage and the efforts for more global, standards based Basel II style external governance system ended up in a more “regulatory gap” between the more volatile emerging markets and the advanced economies ranging from “G-20” member countries to a number of emerging countries of at least 70 “E-70” in recent years. In addition, many of the emerging market countries with different governance and competitive structures wanted to replace their existing local oversight frameworks on a more direct “carbon-copy basis” with the new tripartite pillar system since 2004. Without getting a sense of importing the international dimensions of the “unsoundness” to their local regulatory frameworks, particular emerging markets regulators have realized the bitter fact that “neither the Basel Committee nor

the IMF can replace proper banking supervision and improved collaboration between supervisors for sound banking appropriate to that country” as stated by Lindgren et al. In this regard one would not exaggerate to say that the actual limit for better external governance lies inside the rule based system of the pillars itself and the complexity of the problem is deepened within the dichotomy of the different banking systems in the world.

### THE DICHOTOMY OF BANK-BASED AND MARKET-BASED BANKING IN THE CONTEXT OF BASEL II AND SYSTEMIC RISK

Since the collapse of Bretton Woods, global financial markets are more prone to financial crisis and each and every individual financial system is linked to major capitals of credit and capital markets at different intensities. In this context, in bank-based systems, banks are the major institutions for allocating credit to the economy whereas in the market driven systems this intermediary function of the banks is replaced by the investment banks. Investment banks are known to be major players of the disintermediation process and do provide more advisory services between the lenders and the borrowers, where the risk is transformed more rapidly to other actors in different countries. Accordingly, the recent global financial crisis seems to have affected market-based economies first and spread over more bank-based systems in different parts of the world. In this sense the integration of world capital markets affected individual banks of both systems systemically and structurally

and this nuance is empirically tested by Schmukler, S. & Vesperoni, E. (2001, p. 347-375) in the famous book of Aslıgüç-Kunt/Levine “Financial Structure and Economic Growth”. As the Basel Committee tried to implement a uniform regulation where the benefits of a framework can be applied as uniformly as possible at the national level, the developments and responses at the markets in representative countries below were quite differentiated. According to the graphics below, **different financial systems are labelled with different levels of default probabilities and recovery processes during and after the financial crisis**, which cannot be brought on to the same level of ground with the conformist and uniformity approaches of Basel II standards. During periods of financial and economic distress, market discipline becomes a myth itself whereas the performance of a uniform regulatory system is challenged by more international and regional coordination problems to attain “sound and stable financial systems” around the globe. Yet Basel II and III combined with the subsequent new standards might still not give us the perfect answers to the old problems.

As depicted in the graph below, at the aggregate level in both developed and emerging markets even though the cyclical default trends show parallelism, the severity and the level of default probabilities mapped into Moody’s rating scales are very much different. To give an example, a closer look to the widening gap of the expected default frequencies (EDFs) and the corresponding Moody’s ratings of two countries, namely Turkey-50 and UK-50 might give us a hint as to how the crisis might have different impact on an emerging market

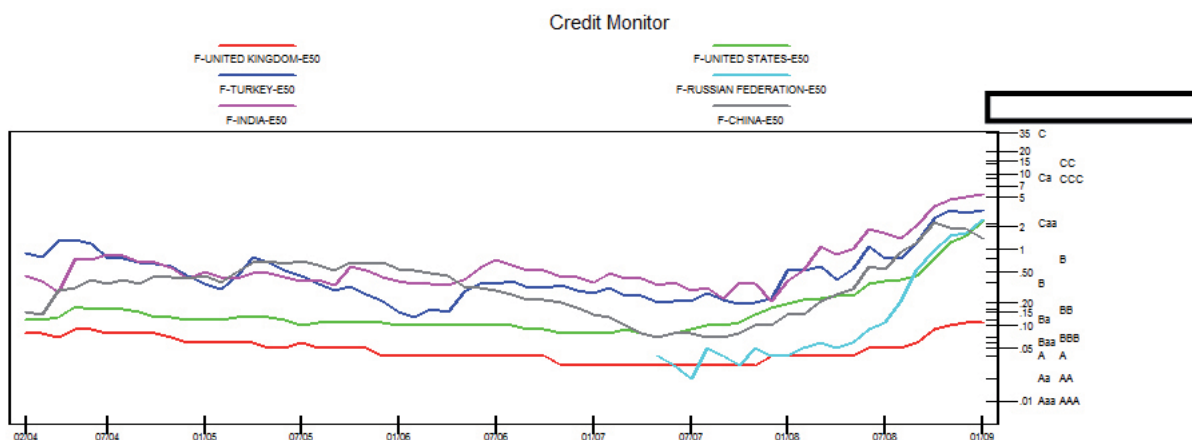


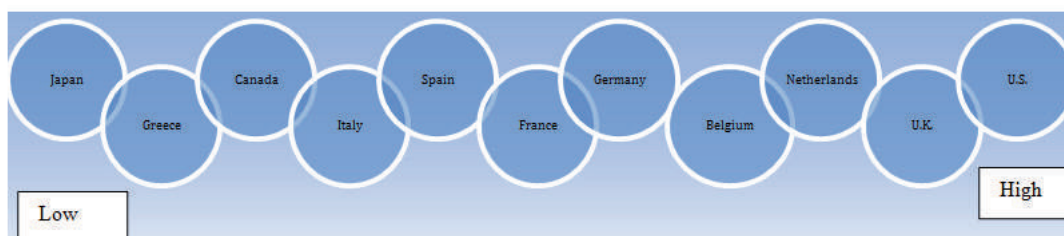
Figure 1. Developed Markets.

Source: Chabanel, P.E. (2014, November). *Integrated Regulatory Reporting: From Driving Reports to Data-Centric Approaches*. In: *Moody's Analytics, Risk Perspectives, Vol. 4*

and a developed one such as the UK. Though the EDF gap before the crisis was about 10 times higher for the advantage of the UK, an EDF gap reaches a level of 50 times as of the beginning of 2009 to the very much disadvantage of Turkish capital markets.

A similar explanation is also provided in the BIS 84<sup>th</sup> annual report, where it is reported that “the crisis and its aftermath halted the trend of growth in bank intermediated finance. Especially in the advanced economies most affected by the crisis, bank credit to corporations has ceded ground to market-based financing whereas in emerging markets, both sources have grown with market-based financing registering the faster pace” (BIS, 84<sup>th</sup> Annual Report, 2013-2014, p. 110). Under this context, as there exist different financial structures and risk patterns in emerging and developed markets with different levels of systemic risk contents, all efforts for parallel implementation of Basel standards and the running harmonization efforts of both systems via CRD directives under the motto of “level playing field”, will not lead to the effective solution as long as there exists inherently different credit risk levels (EDF) or PD levels of each financial system and bank in the world. Under these structurally different and fragmented circumstances, **market discipline** will be a true myth no matter how

accurate and detailed the Basel’s pillars sourced regulatory information is. The Basel regime, flanked with new and revised transparency, audit and regular disclosure requirements under Pillar III and revised Pillar II, reset an evolutionary regulatory regime in fixed, table formats, without basically distinguishing between the capital market-based and bank-based financial systems as depicted below (Hardie & Howarth, 2013, p. 1-17). However, the global regulatory reform processes led by Basel regime favour the “disintermediation” processes that take place since the enforcement of Basel I regime and in this respect the US with Canada is the prime example of a capital market based financial system, where institutional claims are greater than bank claims (Haan, Oosterloo & Schoenmaker, 2014, p. 265). Even today as we will see in the following sub-sections, the revisions of the Basel pillars focus primarily on international banks in global format. However, the distinctions of the two mainstream financial systems where the asset and funding structures do reveal obvious different liquidity and credit risk patterns are forced to be regulated under one single, compact and uniform Basel regime, and this may cause serious long lasting problems when markets become troubled. The continuum above is marked by the excessive capital market-based accentuation on the



**Figure 2. A Continuum of Market-based Banking in the World.**

Source: Hardie, I., Howarth, D. (Eds.) (2013). *Market Based Banking and the International Financial Crisis*. Oxford: OUP, p. 46, De Haan, J., Oosterloo, S., Schoenmaker, D. (Eds.) (2014). *European Financial Markets and Institutions*, Cambridge, p. 15-17

level of the U.S banking system and the more bank-based systems within continental Europe. Emerging market-banking systems are still heavily dominated with assets of state-owned financial institutions. Similarly, the majority of the bank-based systems are dominated by global banks in Germany and in Switzerland, German and Swiss banking systems are still known with the importance of their “Landes- and Cantonal Banks with saving institutions called “Sparkassen System” with heavy pronouncement of governmental and/or quasi governmental (cantonal) influences on their banking environments. While the U.K reveals itself as strong as in both systems, the

old member states of EU (EU-15) show over 140% of domestic bank loans over GDP ratios while the stock market capitalizations are at around 80% in general (De Haan, Oosterloo & Schoenmaker, 2014, p. 16). In this sense the new member states of 12 countries in the EU are at their still development stage relative to the mature systems in the EU. Though no one can speculate about the superiority of each system against another, it is obvious that each unique system may create its own banking model with different emphasis on various product/market intermediation matrices and the above mentioned risk constellations. One of the obvious

business models during the pre-crisis period was the business model of global banks, which relied heavily on a strong credit rating and continuous access to cheap short-term funding from the interbank market.

In this regard, a more Basel type uniform approach in regulation to prevent regulatory arbitrage will lead to more regulatory confusion and loopholes in application as long as there are also differences in supervisory structures in integrated and functional forms. In this regard, sustaining global financial stability within different financial systems under a uniform regulatory format constitutes an incompatible objective. Incidentally, Schoenmaker talks about a “Financial Trilemma” comprised of a) stable financial system b) an integrated financial system c) independent national financial supervision, which might be difficult to achieve simultaneously (Schoenmaker, 2011, p. 57-59 cited in De Haan, Oosterloo & Schoenmaker, 2014, p. 383).

The dissimilarities in worldwide banking systems are from the systems stability and systemic risk point of view very important, where market-based systems do give way to the organic growth and vulnerabilities of systematically important financial institutions (SIFIs) during turbulent times. With the fall of Lehman Brothers in September 2007, we have all witnessed the fact that each banking system creates its own SIFIs and their contribution to the systemic risk constellation in their own regulatory environments may take a global format. In this context, SIFIs are characterized not only by their sheer size which exposes a financial system directly to systemic risks, but by also by their enormous market shares, un-substitutability of their product ranges and finally their interconnectedness with the domestic and global banking systems of the world. SIFIs also fulfil systemically important functions (Finma, 2011, p. 6):

- 1) payment operations,
- 2) domestic deposits to ensure access to liquidity for payment transactions,
- 3) loans and credit lines to non-financial enterprises,
- 4) domestic mortgages with a maturity of less than 1 year.

But once the merry goes round for the SIFIs, the “default process” and the consequent complexities in their bankruptcy procedures, would lead them to be remembered as “Too-big-to-fail (TBTF)” institutions by their counterparts. Unfortunately, those institutions are

regarded as “Too-big-to-save” in the eyes of the global regulatory entities. In this regard those institutions play a very important role for global financial instability and for their respective economies and are in need of a special “finish” for supplementary capital buffers for their contributions to the systemic risk efforts (Finma, 2011, p. 5). While the bail-in and bail out frameworks and policy mix issues are still on the agenda of the global regulators, the main cause of the problems, namely the business model sphere of those banks such as “originate-and-distribute model” of TBTFs do remain unchallenged by the individual regulatory initiatives. Conversely, BSBS continues to re-regulate the global financial system on the front and level of TBTFs and still there isn’t any agenda to re-divide the universal banking system into its components or bring prohibitive measures to certain business models of the TBTFs in terms of “narrow banking”. Moreover, the BSBC is imposing the usage of CRAs to determine and assess the vulnerability of TBTF’s exposures to risk. However, it is still a neglected fact that each unique banking system especially in the emerging markets today may create its own Globally Systemically Important Financial Institutions (G-SIFIs) and still the TBTF initiatives continue to be embedded in the global framework. However, there is a big threat for global financial instability on the side of the emerging markets with different banking systems. FSB and BCBS still do aim to keep the regulatory dosage on the core issues like capital, liquidity, risk distribution and organization just for the club of TBTFs without taking into consideration each emerging country’s own specific situation (Staub, 2014, p. 57). Consequently, each unique banking system has its own merits and the distinction of system relevancy for the financial institution is gaining momentum with more global regulatory “solutions” focused solely on SIFIs and TBTFs, which is also causing more questions about the neutrality on “competitiveness” for specific institutional forms.

The banking systems wide distinction is also important as traditional bank-based systems are still exercising classical “relationship banking”, where they fund themselves primarily from deposits they take without much relying on CRAs to assess the risks of the relevant corporate assets. On top of this, they make use of their balance sheets for lending purposes retaining the outstanding loan amounts on their books. In this classical form of bank lending practice, management based on the extensive due-diligence work of the credit analysts and the account officers together solely take decisions.

The credit risk is in this context evaluated and decided within the internal credit assessment and rating framework of the bank itself and the outstanding exposure is carried forward without using any credit risk hedging instrument until the last repayment date of the exposure. Even external or agency ratings play a minor role in the decision making process. But within the context of the market-based banking systems, the whole process takes the form of “deal making or deal structuring”, where the lenders resort to “shadow banking institutions” to fund the “deal”, priced by the market based on the “facility ratings” provided by the rating agencies against payment for the “deal conform” fees without relying on deposit rates. In this type of financial system, no bank is ready to carry the exposure on their books, on the contrary they make use of a “originate-and-distribute model” where they either sell the loan on the “secondary market” or repackage it through “securitization” to other shadow banking institutes. Again, the securitization process would require a rating by a CRA (credit rating agency) stamped as AAA until BBB for a credit decision to be in line within the boundaries of “investment grade” to replace the extensive work done by the credit analysts. Similarly, it may be secured using of CDS (credit default swaps) instead of taking a mortgage as a security, which is a cumbersome and costly process for an investment bank in a market-based financial system. In this framework, market-based assets are financed via market-based liabilities and liquidity is supposed to be provided by the “marketability” of the products sold to the investors and to counterparties, which played a major role during the financial crisis (Finma, 2011, p. 27). Having established the broad differences between the two banking systems in the world today, where both systems have experienced different level of crisis with varying degrees of impact on them, we can conclude that the Basel II Framework will continue to be a **source of competitive inequality** among internationally active banks as long as this basic dichotomy in the financial systems exists. Nevertheless, in terms of the principles and norms underpinning banking regulation that surrounds those two banking systems, supervisory agencies will not be able to find “a standard approach” to affect the national idiosyncrasies with regard to regulation and supervision of banks. The historical background of this argument goes back to the establishment of BIS itself and it took 18 years of work for the declaration of the first Basel Concordat, to be declared as a “common standard” for capital adequacy rules in a “one-size-fits-all” format (Rethel & Sinclair, 2012, p. 84). Over the course of the 1990 and the Basel II purification process, it has been proven that there will always be cross-country variability in regulatory frameworks based on the different levels of outcomes reflecting banking system structures, development, stability, efficiency, performance and integrity. Unfortunately, Basel II’s institutional scope is applied to “all internationally active banks at every tier, within a banking group where a banking group is a group that engages predominantly in banking activities and in some countries without taken into consideration the specific market structures of emerging markets or the existing dichotomy of the two different financial systems inside the developed markets (BCBS, 2006, articles 20-23, p. 7). Consequently, the Framework’s willingness for the uniformity of the first two pillars will be an ineffective attempt within the nuances of the differences in the two major banking and financial systems in different countries and jurisdictions. If the proponents of the Basel regime are still willing and able to convert the nature of classical banking systems to the sole market-based systems through forcing primary and revised pillars, they should start the reversal process from Japan and Greece as indicated above and go over major EU banks to end up in the US-UK market-based Plato. As long as the countries will have different types of business model connected asset and liability structures, they will also be exposed to different systemic risks. Consequently, the old and revised idioms of market discipline will be an ineffective complement to the underlying first two pillars. The overreliance on CRAs by the regulatory regime reengineered by the Anglo-American entente will not help to solve this problem unless the CRAs will be regulated more effectively and efficiently by the relevant regulatory agencies (Hemraj, Springer, 2015).

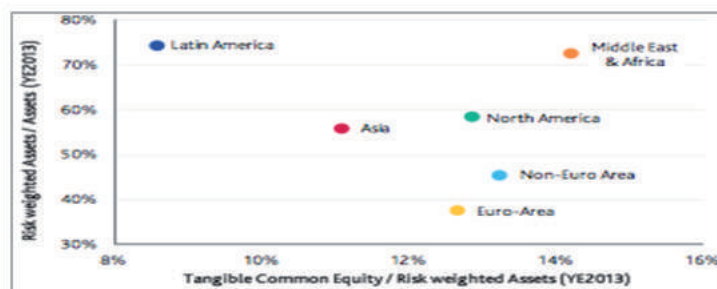
this basic dichotomy in the financial systems exists.

Nevertheless, in terms of the principles and norms underpinning banking regulation that surrounds those two banking systems, supervisory agencies will not be able to find “a standard approach” to affect the national idiosyncrasies with regard to regulation and supervision of banks. The historical background of this argument goes back to the establishment of BIS itself and it took 18 years of work for the declaration of the first Basel Concordat, to be declared as a “common standard” for capital adequacy rules in a “one-size-fits-all” format (Rethel & Sinclair, 2012, p. 84). Over the course of the 1990 and the Basel II purification process, it has been proven that there will always be cross-country variability in regulatory frameworks based on the different levels of outcomes reflecting banking system structures, development, stability, efficiency, performance and integrity. Unfortunately, Basel II’s institutional scope is applied to “all internationally active banks at every tier, within a banking group where a banking group is a group that engages predominantly in banking activities and in some countries without taken into consideration the specific market structures of emerging markets or the existing dichotomy of the two different financial systems inside the developed markets (BCBS, 2006, articles 20-23, p. 7). Consequently, the Framework’s willingness for the uniformity of the first two pillars will be an ineffective attempt within the nuances of the differences in the two major banking and financial systems in different countries and jurisdictions. If the proponents of the Basel regime are still willing and able to convert the nature of classical banking systems to the sole market-based systems through forcing primary and revised pillars, they should start the reversal process from Japan and Greece as indicated above and go over major EU banks to end up in the US-UK market-based Plato. As long as the countries will have different types of business model connected asset and liability structures, they will also be exposed to different systemic risks. Consequently, the old and revised idioms of market discipline will be an ineffective complement to the underlying first two pillars. The overreliance on CRAs by the regulatory regime reengineered by the Anglo-American entente will not help to solve this problem unless the CRAs will be regulated more effectively and efficiently by the relevant regulatory agencies (Hemraj, Springer, 2015).

## THE DIFFERENCE IN RISK WEIGHTED ASSETS (RWAS)

Having emphasized the varieties in different banking and financial systems, which complicates the level playing efforts on the side of BCBS, another major trouble area is “creation” of the RWAs as a fundamental exposure and risk concept for regulatory practices. The global diversity in RWAs and their reporting is the key modification issue for the existing revision efforts of the existing Basel regulatory framework. There is an urgent and solid need for a revised Pillar III to address concerns about the composition of banks’ RWAs and to allow greater comparability of these between banks in different jurisdictions. RWAs exist as part of different business models of the banks in general. In market based banking systems, an RWA consists of mainly an asset driven from a particular origination process called the “value chain”. This asset labelled as RWA since the inception of Basel I stems from allocation of bank capital to business units, who are responsible for origination, structuring, syndication and distribution. Unfortunately, with the material changes in market conditions, many of the originated assets in financial contracts may remain on the bank’s balance sheet, leading to a rapid and massive build-up of risk and exposure silos causing ultimate valuation losses if they are marked to market as implemented in conventional banking systems. In unconventional corporate banking systems the above mentioned origination and distribution processes are executed quite the same way with one additional dysfunctional “bankruptcy remote” process called “securitization”, where the entire risk is diverted to different parties on an asymmetric informational basis between the investors and the originators. Securitizations helped not only to offload the risk from the capital consuming balance sheet positions of the banks but also to “optimize” the level of RWAs, which made the basis for capital adequacy calculations of a bank. The market participants on both sides tried to overcome the informational asymmetries and hence the “riskiness of RWAs” unfortunately with the help of rating agencies. In this sense RWAs, which rely on ratings and are mostly based on historical parameters calculated on the basis of “through the cycle methodology” may give way to pro-cyclicality problems in capital calculations. RWAs, which rely on ratings as in the case of the “standardized method”, may give the bankers adverse incentives to game the regulatory system by underestimating actual risks inherent in the assets of a bank. However, the risks

on the liability side are immune from the label of “Risk Weighted Liabilities” (RWLs) still waiting to be invented by the founders of Basel to be integrated within capital adequacy calculations. Interestingly and ironically, the calculation of the main constituent of Basel III, namely the Leverage Ratio, is free from any risk weighting up to now until the invention of a new type of liability based capital calculation methodology. As seen from our tiny discussion about the invention of RWLs as an indispensable part of RWAs which might be an alternative to “risk-based asset and liability management” still waiting to be invented by BCBS, would increase the efficiency of the one-sided, subjective RWA system, which is prone and vulnerable to different calculation and interpretation issues. One of the most recent developments in this area is the “RWA optimization” calculated as RWA/Total Assets ratio. According to Le Lesle and Avramova (Le Lesle & Avramova, 2012, p. 11), higher RWA density is recently considered as indication of more prudent risk measurement, where banks deal with less “optimization” efforts. Accordingly, different banking systems reveal different RWA densities in their respective regions for several time periods. This difference is in North America 57% percent, followed by Asia with 51% and Europe with 35%. The interpretation of these ratios is straightforward. Almost half of the banks in the US and in Asia are comprised of non-risky assets and in the EU this non-riskiness reaches its height at around the 75% level. This is in absolute stark contrast with the findings of a recently published McKinsey report. According to the McKinsey report, “debt mountains have expanded at a greater pace than economies in 47 countries in the world reaching a record high level of USD 199 trillion in 2014 from USD 142 trillion in 2007, by making capital markets more vulnerable to fresh crisis than in 2007” (FT: Analysis McKenzie Report, 2015, p. 24). Another important conclusion from the report is the fact that the size of the bank loans in advanced economies, where corporations fund themselves is at around USD 41 trillion in 2014 which is not very diverging from USD 45 trillion in 2007 (Mc Kinsey Global Institute: Debt and Deleveraging, 2015). This outcome should have been reflected as more RWAs on the balance sheets of global banks than was reported. These findings are also automatically casting doubts on the reliability of bank capital ratios and on the global consistency of the used RWA methodologies. Martin Hellwig tries to give an explanation for this ambiguous fact with the following argument. “In theory, risk weights are meant to adapt equity requirements to the risks



**Figure 3. Regulatory Capital Levels vs. Risk-Weighted Asset Densities.**

Source: Moody's 2015 Outlook (2014, December). Global Banks, p. 9.

of the bank's investments; in practice the weights are determined by a mixture of politics, tradition, genuine and make-believe science and the bank's self-interest. In this mixture, some important but real risks are completely overlooked". In this sense the RWA concept is extremely complex and has many unintended consequences that harm the financial system (Hellwig & Admati, 2013, p. 183-194). As said before, this conceptual complexity is intensified by the heterogeneity of the RWAs densities globally, which is depicted by Figure 3.

### FROM BIPOLAR BANKING SYSTEMS TO A SINGULAR MARKET DISCIPLINE

The heterogeneity in banking and financial systems has also accentuated different versions of local regulatory systems in each banking systems. Though the difference in regulatory systems would result in creativity and energy for specific subjects of the regulatory elements, the global efforts driven by IMF and Financial Stability Board (FSB) with BCBS to establish more global and "regulatory superstructures" to optimize a single global regulatory solution has been on the forefront of development of more resilient global financial architecture. In this respect Basel regulatory standards constitute just the beginning of a new era to complete the globalization of regulation. To eliminate the above mentioned polarities on the regulatory front, to sustain a uniform market discipline and to finalize the "denationalization" of the regulatory standards, the former CEO of the Credit Suisse and Deutsche Bank points to several necessary and constructive steps (Ackermann, 2009):

1) better risk management systems and processes to be implemented by banks, not just to meet regulatory requirements but also to take over more efficient risk management systems instead of relying solely on the judgments of rating agencies to enhance market transparency. Instead the banks should load their own

quantitative models. The participants in this process should closely work with more scenario analysis and stress tests.

2) investors and Regulators would demand more equity and capital in the very near future, even though the existence of excessive capital would not hinder the global financial markets from the risks of future turbulences. There is a great consensus among those groups to sustain more capital for positions that are vulnerable to greater market and counterparty risks. Conceptually, the Basel II type risk modelling approach on the market risk front for trading books would be acceptable but a single Basel III type "leverage ratio" would oversimplify the bank's main activities to improve risk management practices of a bank.

3) to guarantee the functioning of the markets and to sustain long lasting liquidity, the regulators should reassess the subject of liquidity risk again and even though our market-based financial systems are prone to liquidity shortages, the market participant should put more emphasis on maturity and currency mismatch issues more seriously. In this regard the central bankers and the bankers on the frontline should develop mechanisms and instruments, which automatically trigger liquidity to the markets when there are severe liquidity shortages that result in market imbalances.

The polarity inside the banking systems in different countries gave way to the unconventional answers to the resolution methodologies of the international financial organizations and institutions. One of the lessons drawn from the long history of the financial crisis was the fact that success of the resolution is very much dependent on the extent and the quality of the information supplied to the official sector including the IMF and the markets (Fisher, 2005, p. 129). As a result the IMF started to establish Data Dissemination Standards in 1996 to reinforce better and timely provision of information centered around the

unique, singular market disciplined indoctrination. In parallelism with Stanley Fisher, in another IMF publication for bank soundness, Lindren Garcia and Saal list more than 30 countries with deficiencies in market discipline, where for example Turkey's failure in 1994 was due to the substandard disclosure standards combined with blanket deposit insurance and structural deficiencies in the financial markets (Lindgren, Garcia & Saal, 1996, p. 120). In this regard, the IMF and the best-known standard setters such as BCBS and IOSCO encourage emerging market countries to be in line with the codes of monetary and fiscal transparency standards. Again the major aim here is to attain a better-developed market, which can facilitate direct financial interactions between households, corporations, banks, and governments. This process creates an important safety valve in the system for instances where banks are constrained to lend to each other when there are severe market disruptions and handicaps caused by severe liquidity shortages.

### **THE REALITY FOR SUSTAINING GLOBAL MARKET DISCIPLINE AND THE ROLE OF THE RATING AGENCIES:**

Besides the international operators of market discipline, there are other contributors to the scene. With their vast resources on data and models, the credit rating agencies (CRAs) play a major role in providing information in the form of ratings and opinions to the market players and to supervisors. Especially with the announcement of Basel II, the singularity and uniformity of market discipline is deduced to the level of CRA's "analyst opinions" and the above mentioned substantial structural discrepancies on the soundness of banks are believed to be brought to an internationally accepted unique level labelled as a "rating". Many supervisors in the above mentioned different financial systems and volatile economies have adapted Basel's rating related standards even when conditions do not warrant their use effectively and efficiently.

A very basic form of CRA driven market discipline has been implemented in Argentina since December 1996 (Mishkin, 2003, p. 186). Instead of providing deposit insurance, the central bank of Argentina imposed even two separate ratings for those banks with more than USD 50 million assets to protect the interests of the depositors.

Unfortunately even under those stricter rules imposed for market discipline of the rating agencies has not prevented Argentina from being listed as the country with the most risky sovereign credit with a five year cumulative probability of 67.1% (Standard and Poor's: Global Sovereign Debt: A Market Driven Perspective, 2nd Quarter 2014). A similar experience was also witnessed in Turkey during January 1994, where Moody's downgraded Turkey's sovereign rating from investment grade Baa3 down to speculative grade of Ba1. Unaware of the true meaning of being truly downgraded until 14th January 1994, the interbank market reacted with soaring interest rates of 150% on the 20th of the same month, the bond yield rising up to 406% during the summer 1994. The situation in the foreign exchange markets was no different from the bond and money markets, where the USD/TRL exchange rate was devaluated by a mere 165% during 1994 causing a decline in GNP "contraction rate" of -6.1% during 1994. "Argentina and Turkey were both headed towards a debt repayment problem that threatened the stability of their currencies toward the end of 2001" (Desai, 2003, p. 190). Following the November 2000 crisis, the IMF and the World Bank sought to impose financial discipline and structural reforms consisting of rapid privatizations and banking sector reform programs. Tasks implemented to restore market-driven resolutions include determining the role of both private and public financial institutions, reinforcing prudential and regulatory oversight and strengthening transparency (Hoelcher & Quintyn, 2003, p. 8). In short, though market discipline would be the "quasi right answer" to the old problem at the height of a financial crisis, overreliance on external rating agencies to assess the default likelihood of a financial system or the institutions thereon would mean double penalizing the banks not only with higher capital adequacy ratios but with the "weapon of downgrading" authorized by the local regulatory instances as well. Unfortunately in none of the cases were the rating agencies in a position to forecast any upcoming crisis situation on their reports, on the contrary causing more speculative attacks on the respective currencies and markets as seen in the cases of Turkey and Argentina together. The issue was again attempted to be resolved under a uniform heading of Pillar III format by the global regulators by imposing new disclosure standards.

## THE BASEL COMMITTEE'S REVISED PROPOSAL TO ENHANCE BANKS' PILLAR 3 DISCLOSURES

### Guiding Principles of the New Reporting Framework

An important but potentially difficult part of the Accord was and still is the worldwide implementation of the disclosure standards to strive for greater transparency and market discipline. With all goodwill invested in the provision of meaningful information about common key risk metrics to market participants, the ultimate target of “sound banking” is still a great challenge for both sides along the financial markets. According to BCBS however, “in the wake of the 2007-2009 financial crisis, it became apparent that the existing Pillar 3 framework failed to promote the early identification of a bank's material risks and its overall capital adequacy” (BCBS, 2014, p. 1). With the aim of improving market discipline, a consultative document set out a new proposal for “über” standardization of the existing pillar 3 frameworks.

The Basel Committee identified five guiding principles for the informational stakeholders:

- 1) Principle 1: Disclosures should be clear,
- 2) Principle 2: Disclosures should be comprehensive in both qualitative and quantitative terms,
- 3) Principle 3: Disclosures should be meaningful to users,
- 4) Principle 4: Disclosures should be consistent over time,
- 5) Principle 5: Disclosures should be comparable across banks and across jurisdictions.

The new disclosure standards make use of several forms of templates and tables within the new concepts of a hierarchy of disclosures and aims to enhance bank transparency and market discipline thorough providing key pieces of information on the scope of bank risk management, risk weighted asset positions (RWAs), linkages between financial statements and prudential exposures, credit risks under standardized and internal rating based (IRB) approaches, counterparty credit risk and derivative exposures, securitized product exposures, market- and operational risks and interest rate risk in the banking book, which may affect either the earnings or the economic value of the banks on different rate shock scenarios.

### The Need for a Revision of the Pillar III Disclosure Requirements

Since its first inception in 2004 of the international capital standards, Market Discipline is elaborated under Pillar III and the purpose of the final pillar is to complement the minimum capital requirements (Pillar I) and the supervisory review process (Pillar II) on an informational infrastructure basis. The Committee wanted to highlight the bilateral relationship between the financial institutions and supplement the supervisory organs with a more “market oriented” and “market originated” disclosure approach. Based on the assumption that “the market knows best and is the ultimate decision maker for the faith of the market players”, the roughly sketched standards at Pillar III aimed to gain more insight into the discreet world of financial institutions. Upon approval of the disclosure policy of a bank by the board of directors, a bank might decide to feed formal information to the market on the scope of its capital structure and hence the capital adequacy resulting from its risk exposures thereon. Key banking risks that profile as equity-, interest-, credit-, market- and operational risks in the banking books are disclosed on a “materiality” and “true and fair view” basis. Until the publishing of “the Risk Disclosure of Banks” report by the Enhanced Disclosure Task Force (EDTFT) by the Financial Stability Board on 29 October 2012, the Committee believed that such disclosures should have had a particular “relevance” under the Framework in sustaining market discipline in a sound and safe banking environment (Financial Stability Board: The Risk Disclosures of Banks, Report of the Enhanced Disclosure Task Force, 2012).

According to the findings of the report, “Investors’ faith in banks and their business models has yet to be restored in the wake of the global financial crisis and rebuilding investors’ confidence and trust in the banking industry is vital to the future health of the financial system”. A better reporting system, which would consider the collective informational requirements of different stakeholders such as asset managers, analysts, correspondent bank risk analysts, external auditors and rating agencies would contribute to the rebounding of the financial system more effectively than the outstanding pure Pillar 3 framework. A similar empirical finding with respect to the usefulness of Pillar 3 is found inside the

superb work of Barth/Caprio and Levine (2006, p. 312).

The results of their findings conclude that “governmental regulations that foster international transparency and that strengthen the ability and incentives of the private sector to monitor banks tend to promote sound banking”. In this sense the authors emphasize the positive impact of improved market monitoring on the smooth functioning of banking systems. With this proposition in mind about the functions of Pillar III, the Basel Committee made another new attempt to review the Pillar III disclosure requirements on September 2014.

Another contribution to the reforming of disclosure standards was initiated by the “High-Level Expert Group on Structural Bank Reforms” led by Erkki Liikanen to assess whether additional reforms are necessary in the European Banking Sector in February 2012 (Liikanen, 2012). A very important and material conclusion of the report was the fact that “the Commission has made proposals to improve the structure of the ratings market and to reduce overreliance on ratings by financial institutions” which led to the prevention of solely and mechanistically relying on external credit rating for risk assessments and they would be required to strengthen the internal risk management and analysis capabilities. This reform act can only replace the fulcrum of financial gatekeepers (credit rating agencies) if the new type of “risk disclosure” could be able to include all relevant information for each legal entity and main business lines.

#### **European Banking Authority’s (EBA) Follow-Up Report on Bank Transparency**

The recent implementation of BCBS Pillar 3 disclosure framework is tested by a fact-finding exercise executed by EBA’s recent report drawn on a sample of 17 European financial institutions on 1st December 2014. The EBA had been assessing the compliance of banks with Pillar 3 disclosure requirements since 2008. According to the findings of the report, the EBA had noted a slow but real improvement in disclosures by some banks (Liikanen, 2015, p. 129). The report intends to provide a first overview of the similarities and differences between the current CRR (capital requirements resolution) disclosure requirement and the disclosure requirements in the revised Pillar 3 framework, despite the enduring

need for enhancements (EBA Report, 2014, p. 42). The EBA has taken special care on the disclosure of indicators for globally systemically important institutions (G-SIIs) leverage position, own funds in relation with capital requirements, asset quality, use of internal ratings based approach to credit risk combined with RWA flow statements and consequently market risks. As regards presentation, a majority of banks (65%) in the sample produce a standalone Pillar 3 report outside their annual reports, which are except in Germany not verified by an external auditor (EBA Report, 2014, p. 15). The report is of very much concern as it verifies the fact that the revised version of Pillar included disclosure requirements that diverge from the currently applicable requirements of the CRR.

#### **The New Assessment and Reporting Framework of Credit Risk Under Revised Pillar III in the Context of Market Discipline**

The first clear sign of the insufficiency of the Pillar III framework was apparent during the 2007-2009 financial crises, when the market players were not able to reassess the risk metrics of their corresponding financial institutions on a comparable and consistent basis. The same problematic issue is also relevant for assessing and interpretation of the capital structure and adequacy profiles of relevant banks within and across the jurisdictions (BCBS, 2014, p. 1-86). Further elaborations of inefficiencies in risk and capital disclosures and the technical findings of the Basel Committee led to the initiation of revision of the existing Basel II Pillar III practices. A key goal of the revised Pillar III disclosure is to cut off the information shortfalls in the existing framework and move towards a more “template-based” informational setting to improve the comparability and consistency of reporting to the market participants. In this context, starting from 1st of April 2016, national regulatory authorities will be required to comply with the new disclosure requirements based on 35 templates and 12 tables consisting of the following issues:

1) **Bank Risk Governance and Risk Management Approach:** The Committee takes a more structural and “principles” based approach on risk management disclosures, where the presentations of the disclosures should be more understandable, consistent and comparable to several stakeholders and across banks

to reflect how senior management and the boards of directors internally assess and manage risks under a specific strategy to the users of that information. Within this framework, a bank should disclose information regarding its business models, activities and their interaction with the overall risk profile of the bank, the governance and internal communication structures involved in the measurement, management, mitigation and compliance of those risks, including and not limited to the qualitative stress testing of information under strategic nuances. This is to enable users to understand how business activities of a bank are reflected in the bank's risk measures.

**2) Overview of RWA positions on quarterly and fixed format basis based on the following format:** The RWA templates should provide a view of total risk-weighted assets resulting from credit-, counterparty-, market-, operational-, settlement-, securitization and equity position risks in comparison to minimum capital requirement for the current and previous financial years (T and T-1).

**3) Linkages between financial statements and prudential exposures:** Based on credit, market, counterparty and securitization type credit risk treatments to enable users to see in a first step the difference between the accounting scope of consolidation and the regulatory scope of consolidation. This template enables users to see the differences between the regulatory banking books and trading books primarily, and differentiate each balance sheet position both on solo and consolidated positions on the contours of regulatory banking and trading books as well.

**4) General Information about Credit Risks (CRs):** The scope of the credit risk includes all credit risk carrying exposures subject to a credit risk capital charge according to the Basel Framework. What differs from the original Pillar I in the new version of the standard is the description of the business model of a bank that is based on the facilitation of the credit risk profile of a bank. In this regard the supervisor first considers the actual “business risks” attaching to the institution. The assessment of business risk involves the reporting of the other organizational and managerial constituencies of proper risk management such as:

**a) Credit risk organization and control functions.**

A primary consideration is whether the bank's risk appetite is conservative or aggressive within the credit culture of a bank that also determines the

organizational structure, credit policies/approaches and limit systems of the bank. This area is extended as to cover the structural fit between the credit risk management, risk control units, compliance and internal audit functions. A special emphasis is provided on the control of risks which cover a wide range from treatment of customers up to the business and compliance culture of a bank and compliance culture of a bank.

**b) The Quality of the Credit Risk Strategy.** The strategic direction of the organization should be clear and in line with the ongoing situation of the business environment from a credit perspective. The scope and main content of the reporting on credit risk exposure and its management should also elaborate the issue at the executive management and the board of director's level.

**c) General Qualitative Information about Credit Risk profile that originates from the nature of customers and facility types.**

Business models of and hence credit risk inherent at each bank is as unique as their identities. To give an example from the pre-crisis period, e.g. Dexia's business model was focused on lending to the public sector and by securitizing public loans with massive short-term funding risks; it increased its balance sheet from Euro 258 billion to Euro 651 billion before collapsing following a liquidity crisis in October 2008 as Moody's placed the rating of Dexia on review for downgrade. On the other hand, HBOS was exposed to the largest private mortgage and property related loans in U.K with 86% AAA ratings, whereas Bear Stearns was almost the mastermind of the structured credit markets and its CDO business had become an important component of Bear Stearns' business model (Docherty & Viort, 2014, p. 179-196). In the case of UBS, which is known as one of the most conservative global banks in the world with a strong risk management culture, its credit rating was downgraded by global rating agencies up to three notches due to its overexposure to ABS and CDO paper (Dahlhoff, 2014, p. 170). In this sense its recovery strategy based on the reduction of RWAs is striking. UBS is a clear example to reveal how business practices, financial transactions and risk mismanagement practices may result in decimation of its investment banking business. The general qualitative information about credit risk reporting standards aims to give users a connected and integral overview of how a business model may generate a credit risk profile

and how the financial entity may deal with those risks functionally and organizationally. In this regard an annual risk management reporting on a flexible format basis should be made and brought to the attention of executive management and to the board of directors.

**5) Analysis of Exposures by Products.** The purpose of the standard setter here is to provide a comprehensive picture of the quality of a bank's credit exposure (on- and off-balance sheet). The auditor is concerned to understand the net amount of risk, which is potentially disguised by zero capital weights for the off-balance sheet commitments and other capital charging positions. The true amount of risks, which would be piled on the books of a bank, may be substantially different based on allowances, write offs and hedges as well. Banks are here required to disclose a breakdown between defaulted and non-defaulted exposures together with provisions charged against the ones in default mode. The supervisory authority and other market participants are invited to gain more insight into the adequacy of the provisioning policy of a bank in a timely and analytical manner. Additional complementary quantitative data are requested on breakdown of credit exposures by industry, geographical area and residual maturity. One important issue here is the understanding and differentiation between the "actual" problematic exposures and the "technical past-due" exposures, where the obligors pay only the interest but not the capital for outstanding debts out of restructured exposures, which make the balance sheet much sounder than it is.

**6) Protections Available for Credit Risk Exposures:** Certain qualitative information on the use of collateral have been set, to recognize them as credit risk mitigants to reduce credit risk exposures. Basel collateral standards are known as too conservative in this respect where the main form of collateral is cash. However, the security eligibility in the new proposal is extended to collaterals, financial guarantees and credit derivatives, where banks must report the amount of the exposure as fully protected or as partially protected. This amount should be provided as Exposure/Protection and Protection/Exposure ratios, which define the amount of exposure calculated according to the applicable accounting rules to value of the protection.

**7) Disclosure of Protected Exposures by Guarantor Rating Class:** The Basel Committee's overreliance on credit agencies is expanded again with the new rule for "guarantor rating". The assessment of credit risk of the

### **Modification of Qualitative Credit Risk Disclosures under a Standardized Approach**

The Standardized Approach's (SA) initial purpose was to give material information about the institutional sources of credit risk and to integrate their roughly estimated risk buckets to their respective agency ratings. Ratings would be provided from two main sources, namely from the Credit Assessment Institutions (ECAIs) and Export Credit Agency ratings (ECA). The matrix form of credit risk sources and hence their ratings resulted in respective credit risk weightings for the existing exposures. According to the new recommendations made by the BCBS issued for comment on 26th of September 2014, banks who do make use of SA for their banking book portfolios should disclose additional exposure classes up to 14 categories for which each ECAI or ECA is used. The breakdown of those exposures by their respective more granular risk weights are extended to 9 different new categories. The regulatory portfolio/risk weight matrix is extended considerably in the new reporting format. In this regard a bank should give a detailed description of the process used to assign the issuer or issue ratings onto comparable assets in the banking book. Another important part of the SA deals with credit risk mitigation (CRM) techniques on capital requirement calculations. There are two approaches to integrate the use of collateral into the computation of RWA, namely the simple approach (SA) and the comprehensive approach (CA). SA impacts the RWA amount in such a manner, where the covered exposure receives the risk weight of the collateral with a minimum 20% risk weight. On the other hand CA reduces the exposure by the value of collateral and the net result is risk weighted as unsecured. In this regard RWA density provides a synthetic metric on the riskiness of each portfolio (BCBS, 2014, p. 27). Accordingly, on- and off balance sheet credit risk exposures are readjusted by either changing the original exposure amount or by changing the RWA risk weight attribute to the original counterparty. The newly modified standardized approach to credit risk is a more comprehensive approach where the total asset class exposures as defined under the existing Basel Framework are reduced by their risk weight contributions to the original counterparty by a "replacement effect" stemming directly from the "guarantor risk weights" applied to the original debtor risk weights. Under this method, RWAs are reduced after assigning new CRM techniques. A revolutionary metric used here synthetically is the new ratio of RWA density,

which reveals the synthetic metric on the riskiness of each portfolio. RWA/TA ratio (RWA density) is a very significant indicator of a bank's riskiness. A high proportion should be viewed as good indicator of a bank's riskiness.

### **Modification of Credit Risk under Internal Risk-Based Approaches**

The Internal Ratings Based Approach (IRB) challenges not only the relationship between risk management and relationships of banks but the regulatory bodies as well. Banks must provide additional information pertaining to the Advanced IRB or Foundations IRB models, which consist of the functions involved in the development and the approval of the credit risk models. Relationships between risk management and internal audit functions are separated strictly to sustain the independent sphere of the models from the revision process exercised by the internal audit departments. As the IRB approach using bank calculated capital adequacy driven from advanced credit risk models, the scope and main content related to models including the scope of the supervisor's acceptance should be reported exclusively and extensively in the new format setting. In this regard banks must provide the following information pertaining to their IRB models (BCBS, 2014, p. 31):

- 1) definitions, methods and data estimation and validation of PD (e.g. how PDs are estimated for low default portfolios, if there are regulatory floors, the drivers for differences observed between PD and actual default rates at least for the last 3 periods
- 2) where applicable, LGD (e.g. methods to calculate downturn LGD; how LGDs are estimated for low default portfolio; the time lapse between the default event and the closure of the exposure),
- 3) credit conversion factors, including assumptions employed in the derivation of these variables,
- 4) any deviation from the definition of default as permitted by prudential regulations where these are determined to be material, banks must also indicate for each class the main categories of exposure affected by such deviations.

### **Credit Risk Exposures by Portfolio and PD Range Reporting Platform**

New regulatory efforts on the IRB front focuses on a more differentiated asset class versus portfolio distribution weighted by 12 different PD scale ranges. For each defined PD range, different exposure classes for

on- and off balance sheet positions (Exposure at default – EAD) are available via “look-through-approach”. Using all other risk components and parameters such as PD, LGD (Loss given default), and M (weighted average maturity), alternative RWAs and hence capital requirements for each PD range are calculated. Furthermore, EL (expected losses), provisions and RWA density, which is defined as Total Risk Weighted Asset to EAD post - CRM (Credit risk mitigation) must be reported on two separate Foundation - IRB and Advanced- IRB based templates. Any credit risk mitigant used under both IRB approaches can reduce EAD, LGD or PD according to the type of security used (collateral, financial guarantee or credit derivative) and hence changes the RWA calculations. Therefore the defendants of Basel conceive RWA changes as a synthetic indicator of CRM benefits.

### **IRB – RWA Flow Statements**

Risk-Weighted Asset (RWA) is an abbreviation for describing the “perceived riskiness” of an asset by applying a certain percentage of “weighting” to the nominal amount of outstanding risk exposure to determine a basis for regulatory capital calculation. Since the inception of Basel I, RWAs have become a leading indicator of the amount of risk for describing the riskiness of a bank's on- and off balance sheet positions. In this sense a 100 USD loan is a much different risk compared to a 100 USD cash backed loan. In the language of RWA, the former exposes a bank to 100 USD worth of credit exposure whereas the latter's exposure would be reported as “nil”. According to IMF staff experts, RWAs are not only a part of micro- and macro prudential tool-kit but can also ensure a more risk based capital allocation process and highlight the destabilizing asset class when bubbles are rising (Le Lesle & Avramova, 2012, p. 5). The RWA concept is not free from conceptual diversifying discussions. According to the IMF experts, RWAs are found to be subjective and incomparable of global basis, which may also vary from one bank to the next, and it is apparent that for the same asset class such as “corporates” many different types of weighting may be applied by different European banks ranging from 32.2% for Rabobank until 63.5% for Svedbank (Docherty & Viort, 2014, p. 59). So there are very much legitimate reasons to convert and to interpret RWA as a “flow measure” than as a sole “stock figure”. In this regard, IRB – RWA Flow Statements is a new attempt of the standard setter to analyze the periodical consistency of Credit Risk Weighted Assets (CRWAs). The objective

here is to identify any material differences in RWAs outcomes and to understand the key drivers of changes in the relevant positions due to the usage of IRB approaches. Those changes may result primarily from relevant asset size differences resulting from new business origination, asset quality, asset acquisitions and disposals, including foreign exchange movements. A special emphasis should be given to RWA variability due to the changes in *“Asset quality”*. **These include, changes in the assessed quality of the bank's assets due to changes in borrower risk, such as rating grade migration or similar effects.** Furthermore changes due to model implementation and in model scope combined with methodological changes in calculation driven by regulatory policy changes may also result in changes of RWAs amounts.

#### **Back Testing of Probability of Default (PD) per Portfolio**

Many banks that have adapted an internal model-based approach to credit risk within the IRB framework, should routinely compare the actual outcome of credit risk parameter measures against the methodological “imperfections” of the used PD, LGD or EAD models. In this regard the standard setters are very much aware of the fact that there is still a large degree of inconsistency possible in building models for credit risk and the revised back-testing standard aims to secure the reliability in PD estimation quantification. Particularly the revised standard compares the PD used in IRB and/or F-IRB capital calculations with the effective default rates of bank obligors to quantify the bias of the models from the effective default rates of bank obligors. However, the banks would have a tendency to show the prediction power of their models rather than showing off the true and exact nature of diversion between the model outcomes and the effective default data on their portfolios.

Under this context, the credit risk bearing bank portfolio is broken down into sub-portfolios consisting of exposures from sovereigns, banks, corporations, special lending, and equity and purchased receivables in conformity with Basel II type asset classifications. Banks are therefore encouraged to provide a narrative explanation of their model-based calculations of PDs within each exposure class and link the PD range as closely as with the external rating equivalent to come up with a more meaningful and higher quality risk disclosure than simple alphabetical descriptions of rating agencies. The new approach of the standard setter is aims to derive a generic, single number PD called *“Weighted Average PD”*

which is defined as Obligor Grade PD weighted by EAD.<sup>2</sup>

## **CRITICAL ANALYSIS OF THE REVISED PILLAR 3 PROPOSAL INITIATIVE**

### **General Elaboration of the Enhanced Disclosure Initiative of BCBS**

The new consultative document of BCBS “ Review of the Pillar 3 Disclosure Requirements” is one of the senior level contributions of BCBS to the intentions of restructuring of the global financial superstructure on the way to Basel III. The scope of the revised Pillar III aims for the implementation of new reporting standards for all internationally active banks on global borders by the 1st of April 2016. Still, the focus of the global standard setter is on the development of a global banking arena, mainly consisting of systemically important banks (G-SIBS) and certain domestic systemically important banks (D-SIBS). Until then, all global issues will also confront the regional and domestic banks not only at intellectual discussion levels but they have to invest gigantic sums to execute these new rules of the game. As the domestic regulators will be under pressure to omit many of those new costly reporting and -monitoring rules, this will again give way to regulatory arbitrage opportunities for those banks, which do not want to stick to the more stringent rules and regulators. The excessive superstructure and monitoring costs may reinforce the market discipline in such a way that some of the smaller actors in foreign markets would be wiped out of the information and reporting intensive markets easily and effectively in such a way that the relevant regulators would not even bear the costs of such a retreat. As the execution of the more costly risk disclosure- and accounting standards landscape would push the more innovative and dynamic foreign banks to retreat from those markets, the G-SDIF's and certain D-SIBS market power would be concentrated more and more at the cost of not only small scale foreign banks but at the cost of smaller domestic banks as well (Die Bank, 2014, p. 19-21). In the very beginning of our discussions, we made referrals to the unity versus diversity in global banking business models across different jurisdictions. Any standardization of difference

<sup>2</sup> *Average historical annual default rate*: the 5 year average of the annual default rate (obligors at the beginning of each year that are defaulted during that year / total obligor hold at the beginning of the year).

in risk taking, -management and -reporting practices, where the market participants are inheriting risk from the derivation of different banking models, would face them and their relevant auditors with the challenge and problem of generating the most “cost efficient” reporting formats. The preparation of highly granular, quantitative disclosures to be prepared at different time levels would confront the banks with the new investments in “informational superstructures”, where the mid- and small-scaled domestic banks would not be able to carry the development costs of this major global reporting expansion initiative.

In general form, the proposed Pillar III aims to present all risk related information in a uniform, template-based format. This new reporting approach locates the risk disclosure in a more sovereign point where the risk reporting used to be a “supplementary” part of bank’s annual reports. Pillar III was perceived always as a “residual or forgotten pillar” to complete the first two pillars of the Basel II framework. The new BCBS effort targets the sovereignty of the Pillar III with its own “disclosure principles” for the benefit of key stakeholders. Fortified with templates and tables, it will be established as separate, standardized, independent pillar ready to take over the forthcoming extensive reporting requests of Basel III standards as well. Under this more sovereign and formatted context, the related risk measures or risk metrics to be disclosed are already defined in the existing Basel framework. Accordingly, risk measures and key risk parameters to be disclosed remain under the domain of regulatory metrics to sustain “regulatory comparability and -consistency”. Any variance from the “regulatory confidence level” towards non-regulatory, market based proprietary metrics is seen as the usage of an “extraordinary standard” and should be explained in footnotes to the regulatory templates. Though Pillar III targets “market discipline” the reporting of risk related parameter values and their measurement is determined within the scope of regulatory discipline.

A second challenge for the conceptualization of the new disclosure proposals is attaining the global “comparability”. Comparability across institutions and jurisdictions itself challenges the strike between more granular information for individual institutions. More granular information is needed to differentiate between individual business activities and resulting risks, and as regulators strive for more breakdowns across regulatory

exposure classes, the comparability of information gets more blurred on the level of individual institutions. This issue is resolved in a highly “sterile” way by the BCBS, where risk exposures and RWAs are required to be broken down between common regulatory portfolios, as opposed to a more general approach of differentiation of existing “business activities and related risks” which might vary from bank to bank and from country to country. Again we do witness more reliance on the risk-weighted assets approach for exposure classification by the standard setter rather than clarifying of each banking activity and mapping of the resulting banking facilities into related risks categories.

As indicated during the discussion of the RWA concept, the IRB-RWA format roots back to the ancient “statement of funds flow” or to the “FASB’s statement 95 “statement of cash flow” concept from generally accepted accounting principles. Similar to statement 95, the global bank standard setter aims here to add more flair to the static RWA concept by leveraging banking reporting standards to the terrains of IFRS or FASB. By adding more dynamism to the static RWA figures by inventing the “flow statement” format, which reconciles movements for the periodical changes in the credit risk-weighted assets, BCBS hopes to aim to gain more insight into the drivers of changes of RWA through the usage of more additive, explanatory supplements on top of the classical RWA statements. In this regard the BSBC is pushing the limits of “bank business secrecy” inherent in corporate banking where the banks are expected to disclose very discreet information regarding “origination of new business” and “maturing loans”. Not limited to the very much discreet zones of corporate banking business, BSBC is also demanding the banks disclose the changes in the assessed quality of the bank’s assets due to the changes in borrower risk, such as rating grade migration or similar effects. With the imposition of the new IRB-Flow template as an integral part of “rating migration analysis”, the BCBS wants the market participants to track over time of movements of specific loans through risk classifications and the deterioration of the asset qualities thorough rating migrations. Hence rating migration analysis “migrates” itself into the territory of an important bank management area and it is expected to be an important management tool to analyze changes in individual loans in the form of RWAs through grade level changes across times to calculate actual loss experience

by segment/grade over time. How much appetite there is for a bank to disclose this wide range of information remains and will remain a question mark on its own.

The majority of the RWA compositions based on the credit risk and variations in RWAs across banks due to credit risk are quite large across jurisdictions. Especially during the global crisis, the investment banks in the US were able to “dump” RWAs to other banks in foreign jurisdictions via securitizations, while the European banks preferred to book more “RWA – light” assets on their books enhanced by “better ratings” scaled by rating agencies on a “pre-paid fees” basis. Particularly, the opportunity of receiving higher ratings from agencies provided traders high trading gains without making use of their balance sheets and this situation gave way to deal with more and more mortgage-backed securities as their risk weights were creating additional capital saving incentives for the IRB model using banks. With the introduction of the new RWA flow-based template, the regulatory bodies may trace RWA changes easily on a regional and solo basis, which may also give indications about the size and nature of contagious effects which may result from fundamental changes in credit risk and resulting RWA changes of specific banks (TBTF banks).

On the other hand, a bank that cannot reveal any verifiable and business model justified explanation for RWA changes may still report significant lower risk weights and save capital from factious risk weights. There is also a danger for a RWA change due to “model implementation and changes in model scope” and a bank may find “loopholes” to arbitrage between different models such as IRB, Advanced IRB and Standardized Method. A kind of regulatory arbitrage may be attained through asset and model substitution. However to avoid this kind of capital arbitrage games banks might play, the BCBS set reporting borders to the model driven changes. As seen from the general elaboration of RWA implementation, the risk-weighting system is still far from a perfect differentiation of existing risk patterns of the banks. In this regard we can perceive the risk weights as equivalent parts of the “asset volatility” measures of Merton-based models which will be discussed in the subsequent chapter in detail. Some thoughts need to be spent on the “rating” driven parts of the new disclosure requirements. The new reporting standard continues to rely on a reporting framework, which fulfils the informational needs of the rating agencies primarily despite the intentions to encourage

market discipline by developing a set of disclosure requirements. The “content quality” of the disclosures rely heavily on the usage of rating originated information such as qualitative disclosures related to credit risk under a standardized approach with qualitative data on use of external ratings, qualitative description of exposures protected by credit derivatives where a breakdown should be provided by counterparty rating class. Furthermore, we also see the footsteps of note issuing institutions on the disclosure of PD bands, which should match the alphanumeric, notch-specific ratings used by credit agencies. Even to disclose the reliability of the guarantors used by banks to reduce their credit risk exposures, the guarantor’s external rating class and the corresponding exposure amounts should be provided on the disclosure. Again for those jurisdictions where the banking system is less dependent on rating agencies, the usage of “rating agency based information” will reflect itself as more a “variant” option to the existing way of doing and reporting financial businesses.

#### **Implementation Comments from the Representatives of the Global Market Makers**

The commentators of the new revision, especially the worldwide global representative organization of the banking industry (IIF) is of the opinion that “the present proposal seems more likely to contribute to less-than-useful information overload than to efficient and effective disclosures that serve users’ needs proportionately to their cost of preparation”. As stated by the IIF, voluminous information at quarterly presentation frequency prepared in largely prescriptive format leaves relatively little maneuver for banks to present information in a flexible way according to their size and budget and changes in the context of their distinctive business models and risks. There is an evident risk, in standardized formats, of spurious comparability” (ISDA-GFMA, p. 7). According to EDTF (Enhanced Disclosure Task Force) established by the Financial Stability Board, which consists of a private sector group comprising from users, preparers and analysts of Pillar 3 information, released a report that included 32 recommendations for improving bank risk disclosures in the areas of report usability, risk governance, risk management, capital adequacy, liquidity and funding, market risk, credit risk and other risks (EDT, 2014 Progress Report, 2012, p. 1-28). According to the report, banks in the U.K. and

Canada have fully implemented the overwhelming majority of the recommendations, while implementation rates are lower and differences between the bank and user assessments are considerably wider in the U.S. and parts of Europe where national regulators have been less active in promoting adaption. As stated before, there is still room to go forward with the disclosure initiative at individual regulatory- and preparer levels opening up new doors for further future regulatory arbitrage for an involuntary peer group of banks.

## CONCLUSION

The Basel Framework was based on developing the risk consciences of the banking world that would fit to the effective functioning of the market-driven financial systems. Even though the pillar system was heavily weighted by the strength of the supervisory mandate, the supra regulator in Basel always tried to establish a functioning balance between the market forces and the supervisory authorities to sustain sound and solid financial architecture in between the G-20 countries. Since its foundation of the BCBS in 1974, establishment of market discipline and avoidance of market failure have always been on the forefront of the global regulatory effort. In this regard, market pricing and especially the assessment of standalone credit risk with the resulting capital adequacy consequences has always been on the agenda of each regulatory milestone. Interestingly, the supra-regulatory body such as BCBS has not touched the issue of market pricing of credit risk in the revised Pillar 3 format and it is our duty to show in the very near future how the market participants may approach the credit risk and its pricing on a mere secular and transparent basis by keeping the regulatory standards as “exception” rather than a “rule” for assessing the credit risk as a basis for regulatory capital calculations. Basel II IRB modelling has been the right step for this initiative to overcome the deficiencies of the standardized method, yet the global implementation of IRB has been so far not without any complexity on the side of the global banking world. Since the fall of Lehman Brothers, the whole banking world and its regulators are searching for an answer to the right question. “How can we better gain insight into the credit risk patterns of a bank and how can we price this risk more effectively and efficiently than our competitors in the

market?” These questions are also in perfect harmony with the content of the Pillar 3 revision and in this regard Merton-based models have more promising answers to the problems associated with rating agencies since the collapse of the financial architecture in late 2007. In this regard, Moody’s Analytics may provide correct answers for those who do want to gain more insight into the risks above the rating based models.

Coming back to the content of revised Pillar III disclosure standards; BCBS should hinder overreliance on rating agency-based market disciplining efforts. The problem lies not on the historical data at the court of the CRAs but more on the insistence to use more outdated models outside the borders of market dynamics. BCBS’s efforts represent a substantial improvement to enhance market discipline within the scope of capital, risk exposures and hence the capital adequacy of the institutions on the global front, but with mere extra informational costs on banking systems within classical boundaries. BCBS must also show true and material efforts on increasing market transparency standards for CRAs besides the whole banking universe. It should also try to diminish the overreliance on credit rating agencies on a regulatory basis but encourage the banks to use their own internal models based on more market information. This is especially true for emerging market economies, which are led by supranational institutions to reform their existing banking risk management culture. Last but not least, if the proposed next generation disclosure requirements are too extensive as proposed here and too expensive to conduct for the emerging country banks, market participants would return to “less expensive” solutions provided by the CRAs right after the imposition of the revised Pillar III revisions. The excessive superstructure and monitoring costs may reinforce the market discipline in such a way that some of the smaller actors in foreign markets would be wiped out of the information and reporting intensive markets easily and effectively in such a way that the relevant regulators would not even be in a position to bear the costs of such a retreat. With good reform intentions coming from Basel, a new Emerging Market Crisis may be welcomed by overextended risk reporting and disclosure requirements demanded by the capital-strong market participants.

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