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Was Basel III necessary and will it bring about prudent risk management in banking?

Content

Abstract

This paper assesses whether Basel III was necessary and would be able to bring about prudent risk behaviour among banks. Basel III aimed at setting new global standards to address both firm specific and general systemic risks by raising the quality of capital to position banks to better absorb losses on going concern basis, monitor leverage and also improve banks liquidity. However, it did not fully address many of the factors that were responsible for the global financial crisis and the fundamental problems identified with Basel I and Basel II.

The risk weighting system suffers from the assumption of portfolio invariance and has not been refined. Basel III did not address the over reliance on external rating agencies in the capital framework and also the ethical issues such as corporate governance, account manipulation and full disclosures. The issue of reliance on market disclosure to aid the market in the assessment of quality of capital across institutions has also not been resolved.

Keywords: Basel III, risk weighted assets, corporate governance, risk management

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Introduction

Central Banks were initially established with various purposes. For instance one of the important roles of the Bank of Sweden founded in 1656 was to develop the payment system. When Bank of England was founded in 1694 its main purpose was to mobilise money to fight the French. In the nineteenth century, central banks focus shifted towards financial stability. Franklin and Herring (2001) suggested that the greatest systemic crisis in England was the Overend and Gurney Crisis in 1866. The use of the discount rate helped England to escape the worst effects of many severe crises such as the major international crisis of 1873. The United States of America had no central bank from 1836 until 1914 and experienced various financial crises followed by recession. The financial crisis of 1907 led to the agitation for a central bank. The Federal Reserve System started operation in 1914.

The Great Depression of 1929 followed by major bank panic in 1933 culminated in the closure of banks. The disruptions in the banking system led to the passage of Glass Steagall Act of 1933 which introduced deposit insurance and separation of commercial and investment banking operations. The Federal Reserve System mandate was increased by the Banking Act of 1935 which helped to eliminate occurrence of banking panics. The experiences of Great Depression had a tremendous effect on bank regulation in the U.S and in almost every country. Banks since then have been heavily regulated and in some countries governments intervene in the financial system to allocate resources. The purpose of bank regulation therefore emerged to be avoidance of financial crises.

Banks are also viewed as delicate institutions which need governmental support to aid the development of stable and safe environment. Tchana (2008) argued that market failures such as incomplete markets, moral hazard between banks' owners and depositors, and negative externalities were responsible for banks' fragility. Similarly the objective of protecting small depositors and controlling systemic risk is cited as one of the primary arguments for bank regulatory and supervisory measures such as capital adequacy and reserve requirements.

Private owners of companies have the right incentives to select the capital structure that allows their optimal amount of stability. They select the level of loss they wish to incur for a given expected return. However the level of stability in the financial system does not suggest zero failures. Financial stability is a public good and failure of one financial institution may result in failure in another institution resulting in systemic panic and failure. This disruption might culminate in slowdown in economic growth. Bank shareholders may not consider this severe externality in their pricing and selection of optimal private capital. Social optimal capital may be higher than private optimal capital. The cost involved in attainment of social optimal capital cannot be borne alone by the private investors hence government intervention in the financial system is needed to provide safety net.

Banks competition reduces margins and impacts on profit. Banks have the incentive to take on more risks by easing their credit standards. Prudent banking is therefore undermined and capital adequacy requirements are used as instruments to limit banks failures. The purpose of this paper is therefore to assess whether Basel III was necessary and would be able to bring about prudent risk management in banking.

Discussion

Basel Committee[1] on Banking Supervision (BCBS) gives the opportunity for regular cooperation on banking supervision and regulation issues. It promotes and strengthen supervisory and risk management practices globally. Capital regulations under Basel I came into force in December 1992 with the aims of requiring banks to maintain sufficient capital to cushion losses without causing systemic problems and also provide level playing field internationally. A minimum ratio of 8% for Tier 1 capital was required to be maintained. The pervasive regulatory arbitrage that occurred under Basel I culminated in the introduction of Basel II in June 2004. Basel II has three pillars namely minimum capital requirement, supervisory review process and market discipline. Pillar 1 defines the minimum capital required to cushion unexpected losses. Under the Standardised approach to credit risk, general provisions was allowable in Tier 2 capital subject to the limit of 1.25% of risk weighted assets but this was not allowed under the Internal Ratings approach. Total risk weighted assets are obtained by multiplying the capital requirements for market risk and operational risk by 12.5[2] and adding the resulting amount to the sum of the risk weighted assets for credit risk. Banks were allowed to choose either the Standardised Approach for smaller institutions (without the capacity to model their business in risk terms) by using fixed weights. The second method is the use of external ratings and the third is Internal Ratings Based Method (IRB) which is driven by the banks' own internal rating methods. Under the IRB banks are tasked to state the probability of default (PD) for each credit, its loss given default (LGD) and the expected exposure at default (EED).

The Supervisory review process, (Pillar 2) of Basel II aimed to ensure that banks have adequate capital to support all their risks but also encourage banks to develop and employ better risk management practices in monitoring and managing risk. Banks' management were required to develop an internal capital assessment process and set capital targets and supervisors were tasked to assess how well banks are assessing their capital needs relative to their risks. The purpose of Pillar 3, market discipline was to complement the minimum capital requirements (Pillar 1) and Supervisory review process. A set of disclosure requirements were to be met by banks to enable market participants to assess key information on banks' capital, risk assessment processes and capital adequacy requirements.

There were several problems with Basel II and this was exemplified by the latest global financial crisis. The hallmarks of the global financial crisis were contagion and counterparty risks. These problems emerged because of the banks involvement in capital market activities for which they have no adequate capital. The success of mortgage backed securitization in the U.S was supported by the involvement of Government (Lange 2004). Securitization and its warehousing on and off-balances created a lot of problems for banks. Commercial loans sale involves sale of newly created commercial loans with the selling bank responsible for the servicing of the loans, enforcing covenants and monitoring financial conditions. Loans sold with recourse[3] were treated as assets in the calculation of capital adequacy requirements and the proceeds subject to reserve requirements (Christopher 1987). Banks rarely sold loans to recourse so as to dodge the capital and reserve requirements. Similarly the U.S Variable Interest Entities which banks are linked are consolidated onto balance sheet in the event of insolvency and illiquidity. These

[1] Members come from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, United Kingdom and United States.
[2] Reciprocal of the minimum capital ratio of 8%
[3] Issuing bank guarantees the loan against default

situations were not captured by Basel II. The failures of Lehman Brothers and AIG were partly traced to counterparty risks which were also not fully captured under Basel II.

The Basel II framework also tends to underestimate risk during good periods and overestimate it at bad times. For instance leverage ratios depend on current market values which are high during good periods and low in bad times. Risk measurement also tends to be a point in time and not full measures over the business cycle. Counterparty credit policies are easy in good times and difficult in bad times. Profit recognition and compensation schemes also facilitate short term risk taking but are not adjusted for risk over the business cycle. The Basel framework was unable to resolve the pro-cyclicality. The pro-cyclicality was accentuated by the IRB framework which permits banks to estimate their own probability of default, loss given default and exposure at defaults which are all functions of the business cycle.

The risk weighting formula required that capital needed to back loans should depend only on the loan risk not on the portfolio on which it is added. This approach did not reflect the importance of diversification hence did not penalise portfolio concentration. Similarly the mathematical model underlying the Basel approaches (I and II) ensured that each exposure's contribution to value at risk (VaR) is portfolio invariant only if dependence across exposures is created by a single systemic risk factor and also each exposure is small. The subprime crisis started from the U.S housing market and exposures were large.

The Basel risk weighting approach also facilitated portfolio concentration in low risk weighted assets such as government bonds, lending between banks and mortgages. Credit default swaps (CDS) created markets in credit. The banks transformed the risks involved in the CDS through securitization thus defeating the importance of capital weights.

The Basel definition of capital was not comprehensive and coherent. Regulatory adjustments for goodwill for example are not required for common equity but applied to Tier 1 and combination of Tier 2. The regulatory adjustments were also not applied uniformly across nations and this provided an avenue for regulatory arbitrage. Banks did not also provide clear and consistent information on their capital and this compromised banks capacity to absorb losses and were also different between countries.

The supervisory review process (Pillar II) relied on stress testing and guidance from supervisors to enable banks hold capital for risks that are not comprehensively recognised under Pillar I. However supervisors do not have the skills to predict future asset movements and their volatility. Pillar III also relied on market discipline and disclosure with the understanding that the market will punish poorly managed banks and reward well managed banks. The market bubble at the root of the global financial crisis showed the absence of information efficiency. Basel II did not come into operation properly and in July 2009 the Basel Committee adopted changes that aimed at increasing capital held for market risk in the trading book portfolio of banks.

The global banking system entered the crisis with inadequate and high level of non equity capital and banks were compelled to mobilise equity capital during the crisis and this was very difficult. The crisis also showed the inconsistency in the definition of capital across countries and lack of market disclosure that would aid the market to assess quality of capital across institutions. The new global standards to address both firm specific and general systemic risks referred to as Basel III aimed at raising the quality of capital to position banks to better absorb losses on going concern basis. Tier I capital consists of going concern capital[4] which are common stock and some equity type debt instrument and are also subordinated. Credit losses and write offs are to be deducted from retained

[4] Goodwill, minority interest, deferred tax assets, bank investment in its own shares, bank investments in other banks, financial institutions and insurance companies (all cross share holdings), provisioning shortfalls and other deductions such as projected cash flow hedging not recognised on the balance sheet are not included in the common equity.

earnings which are part of common equity. The new definition of capital constitutes an important improvement in the global capital regime which is expected to be enhanced by better risk coverage and introduction of capital buffers and higher minimum capital requirements. The minimum requirement for common equity capital of Tier I increased from 2% of risk weighted assets before application of capital deductions to 4.5% of risk weighted assets after capital required under Basel III. The new minimum requirement for common equity is phased beginning with 3.5% requirement in January 2013, 4.0% in 2014 and increasing to 4.5% by January 2015. The minimum common equity plus capital conservation buffer is also phased beginning 3.5% in 2013 increasing to 4.5% in 2015 and 7.0% as of January 2019. Total risk based capital under Basel III remained unchanged at 8% of risk weighted assets but is required to be met by using the stringent definition of capital.

Basel III aimed at increasing the risk coverage of the capital framework particularly for trading books, securitizations, off-balance sheet exposures and vehicles and counter-party credit exposures stemming from derivatives. The crisis revealed that some banks held greater amount of complex illiquid credit products without the corresponding capital to support those risks. The failure to also recognise major on and off balance sheet as well as derivatives related exposures also worsened the crisis. Higher risk weights for re- securitization exposures such as credit derivative obligations (CDOs) and Asset Backed Securities have been introduced to better show their inherent risks. Banks are also required to use stressed inputs to determine capital requirements for counter-party credit default risk. Banks are to apply a multiplier of 1.25 to the asset value correlation (AVC) of exposures to regulated financial firms with assets of at least $25billion. This will raise the risk weights of these exposures.

Another distinguishing feature of Basel III is the introduction of leverage ratio which would serve as a “backstop” to the risk based capital requirement (BCBS 2010). The crisis revealed that many banks were highly leveraged though they reported strong Tier I capital ratios. The leverage ratio will help to contain the development of high leverage in the banking system and provide additional support for the risk based requirements. The Basel Committee in July 2010 proposed a minimum Tier 1 leverage ratio of 3% starting from 2013. The leverage ratio is expected to capture both on and off balance sheet exposures and derivatives.

The crisis also highlighted the importance of liquility in the stability of banks. Funding suddenly dried up and limited in supply during the crisis period for a long time. Basel III in response introduced global minimum liquidity standards to ensure the resilience of banks to short term disruptions in access to funding and to solve longer term liquidity mismatches. Liquidity coverage ratio (LCR) requires banks to maintain sufficient high quality liquid assets to withstand stressed funding scenario specified by supervisors. The Net stable funding ratio which will be observed from 2012 and introduced in 2018 is a long term structural ratio designed to address liquidity mismatches.

The role of pro-cyclical factors stemming from mark to market accounting and held to maturity loans, margining practices and the build up of leverage and its reversal in prolonging the crisis have been identified by the Basel Committee. The committee proposed longer term calibration of probability of default in modelling risk, forward looking provisioning and capital buffers to reduce the cyclicality.

Analysis

Basel III aimed at promoting a broader financial stability. The forward looking provisioning approach is expected to improve the recognition of losses before they crystallise. The attempt to limit banks leverage through the leverage ratio and to capture counterparty risks is commendable. The liquidity ratio and the redefinition of capital would enable banks to better withstand short term disruptions. Capital buffers are also expected to dampen cyclicality of the minimum capital requirement. However the provisions of Basel III have not fully addressed the factors that were responsible for the current financial crisis and the fundamental problems identified with Basel I and Basel II.

The risk weighting system continues to suffer from the assumption of portfolio invariance. Basel III did not change the risk weighting regime and banks would continue to search for common equity against their risk weighted assets. This provides incentive for banks to engage in capital arbitrage. The risk weighted regime and the liquidity proposal for instance ensured preference for government debt paper to the detriment of the private sector especially the small and medium enterprises.

External rating agencies were partly blamed in this crisis however Basel III has not addressed this fundamental issue. The reliance on external rating agencies in the regulatory capital framework needs to be reduced.

Banks have incentive to take on risk to maximise returns. Basel III attempted to capture all risks in prudent manner however the developments in the financial system create new set of risks which the current framework might not envisage.

There were also major shortcomings in risk management, corporate governance, market transparency and the quality of supervisors preceding the crisis. Ethical issues such as accounting manipulation, external auditors, regulators and employees surrounded the collapse of Lehman Brothers. Basel III has not addressed any of these issues to bring about prudent risk management. It has no provisions on regulation of bank like activities in the shadow banking sector though this sector played a major role in accentuating the crisis.

The liquidity proposal favours more non risky assets to be maintained. Some countries sovereign bonds are risky and to treat all government bonds as non risky may impact on the solvency of banks. This situation may impact on the profitability of banks and consequently their franchise value. The main shortcoming of the net stable funding ratio also is that it depends on banks and supervisors capacity to model investor behaviour.

The OECD has identified too big to fail institutions, insolvency resulting from contagion and counterparty risk, lack of regulatory and supervisory integration and lack of efficient resolution regimes as the hallmark of the crisis. Basel III has not fully addressed most of these issues.

Conclusion and Recommendation

This paper assesses whether Base III was necessary and would bring about prudent risk behaviour in banking. There are many factors that were responsible for the crisis including excess liquidity which resulted in upsurge in credit with weak standard, excess leverage, and too little capital of inadequate quality. There were also shortcomings in risk management and corporate governance. The new global standards to address both firm specific and general systemic risks referred to as Basel III aimed at raising the quality of capital to position banks to better absorb losses on going concern basis, monitor leverage and improve banks liquidity.

Basel III has not fully addressed many of the factors that were responsible for the crisis and the fundamental problems with Basel I and Basel II.

The risk weighting system continues to suffer from the assumption of portfolio invariance. Basel III did not change the risk weighting regime and banks would continue to search for common equity against their risk weighted assets. It did not also address the over reliance on external rating agencies. Ethical issues such as corporate governance, account manipulation and full disclosures were not addressed.

BCBS needs to monitor financial system development and risk on regular basis. Shadow banking needs to be properly examined and the associated risks captured in the capital framework. Reliance on external rating agencies also needs to be reviewed and stronger mechanisms need to be put in place to ensure that regulations and standards are fully implemented. Regulatory arbitrage also needs to be severely punished. Bank tax could also be introduce to deal with the “too big to fail” problem

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