

**IMPACT OF BASEL III IMPLEMENTATION ON UAE BANKS WITH SPECIAL FOCUS ON  
CAPITAL (COMMON EQUITY)**

**TABLE OF CONTENTS**

LITERATURE REVIEW ..... 3

    Basel committee..... 4

    Basel I ..... 6

    Basel II ..... 8

    Basel III..... 11

        On capital base ..... 11

    Islamic banking regulations and guiding principles ..... 14

        Guidelines relating to liquidity risk ..... 14

        Capital adequacy requirement..... 15

    2.2 Capital conservation buffer ..... 16

        2.2.1 Introduction..... 16

        2.2.2 The framework..... 16

        2.2.3 Capital conservation ratios..... 17

    2.3 Countercyclical buffer ..... 18

        2.3.3 The framework..... 18

    2.4 Leverage ratio ..... 18

        2.4.3 Computational details ..... 18

    Effect of Basel III on UAE banks ..... 19

    Conclusion ..... 20

    References..... 21

## LITERATURE REVIEW

After the global financial crisis of 2008, there was need to put more stringent financial regulations to tame the rogue financial institutions and save the world from future financial crisis. International regulation of the financial sector was first established in the late 80s when the Basel committee on banking supervision came up with the first set of regulatory capital adequacy standards. These regulations have been adopted and implemented by banks across the globe. Basel I introduced the first set of banking regulations followed by Basel II in 2004; which was a revision of Basel I. Basel II put more focus on risk management and regulatory capital for banking institutions (Akkizidis and Khandelwal, 2008.). Basel II was more specific than Basel I.

The lack of adequate capital base to absorb large scale losses was the primary cause of the global financial crisis in 2008. This called for stringent reforms on capital adequacy of banks. Banks are required to have more capital against their risk weighed assets and also to have more reserves in order to cushion them against losses and liquidity pressure. This is the basis in which Basel III was introduced in 2010. Basel III was introduced to address the shortfall in the financial sector that led to the global financial crisis (Al-Tamimi, 2002). Basel III gives more light on the need to enhance quantity and quality of capital, the management of liquidity and the reduction of leverage and pro cyclical. Banks all over the world are expected to implement the Basel III regulations. Basel III aims at strengthening the global banking system's ability to absorb financial shocks improve transparency and enhance risk management. This research paper delves into the effects that Basel III on banks in the UAE given that most of these banks practice Sharia compliant banking.

**Basel committee**

The Basel committee was formed at the end of 1974 in Basel Switzerland by the central bank governors of ten countries after the failure of Bankhaus Herstatt in West Germany. The ten countries included; France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the United Kingdom, the United States, and Luxembourg. The committee was formed as a result of the instability that was caused to international currencies and the banking industry (Archer and Haron, 2007). The committee has since been expanded and is composed of members from Argentina, Australia, Belgium, Brazil, Canada, China, France, Germany, Hong Kong SAR, India, Indonesia, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, Russia, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. Committee member countries are represented by their respective central banks in the committee and by the banking supervising authorities in cases where there are no central banks. The committee was used as a forum for cooperation between member countries. Its responsibility has since been given the responsibility of improving the supervisory understanding and the quality of banking supervision globally (Barth, Caprio and Levine, 2006). The committee has carried out its responsibility through the exchange of information on national supervisory arrangements, the improvement of the effectiveness of international banking supervision techniques and the setting up of minimum supervisory standards in areas where they are necessary.

However the committee does not have supervisory authority and its resolutions do not have a legal force. Its sole duty is the formulation of supervisory standards and guidelines. The Basel committee also recommends best practice (Basel Committee on Banking Supervision (BCBS), 2006a). The committee expects banks to implement the recommended standards and guidelines

and incorporate them in their national banking systems. The committee was formed to ensure that every bank is supervised and that bank supervision is adequate. To this end, the committee came up with supervisory regulations for foreign banks with a set of regulations for foreign bank branches, subsidiaries and joint ventures between the foreign banks and the host nation. The committee originally agreed to have quarterly meetings in which they would discuss the state of international banking and propose regulations and standards that will enhance the supervision of the banking sector globally. The committee has been criticized for being toothless. This is mainly because it can only come up with the regulations but has no authority to ensure that these regulations are adhered to. The proponents of the committee are quick to state that the regulations instituted by the committee have been able to keep the global banking industry in check.

The Basel committee has expanded its responsibility to include capital adequacy, transparency and risk management for banks. The new responsibility was attributed to the deteriorating capital ratios of international banks which increased their risks. The committee came up with a way of measuring risk on and off the balance sheet (Basel Committee on Banking Supervision, 2006b). The regulations also act as a way of harmonizing global banking to eliminate unequal competition stemming from the differences in capital requirements in different countries. The committee came up with the first regulation in 1988 which was also known as the Basel Capital accord. The members acknowledged the fact that the capital framework would not be static and that it would change and evolve over time and therefore will need to be adjusted to keep up with the changing times. The amendments that were proposed in the 1988 accord were supposed to be implemented by end of 1992. The committee has since come up with amendments of the accord to regulate the financial sector with an aim to avert future financial global crisis. Whenever the

committee come up with new standards, banks are given a period of time to fully implement the regulations (Basel Committee on Banking Supervision. 2006a).

### **Basel I**

Basel I stipulates the set of banking regulations that were put forward by the Basel committee in 1988 and sets out the minimum capital requirements that financial institutions should adhere to. These regulations and standards are aimed at ensuring proper capitalization of internationally active banks. These standards became necessary after international banks exploited the lack of universal regulations and relocated to countries where there were no or less stringent regulations. The committee came up with the International Convergence of Capital measurements and capital standards also known as Basel I (Balthazar, 2006). The first Basel accord was divided into four pillars of the constituents of capital, risk weighting, moderate risk and high risk category. Risk weighting focused on the weight of bank assets in its loan book. Risk weighting has five categories of 0%, 10%, 20%, 50% and 100%.

**0%:** Cash; Claims on OECD central government; Claims on other central governments if they are denominated and funded in the national currency (to avoid country transfer risk)

**20%:** Claims on OECD banks and multilateral development banks; Claims on banks outside OECD with residual maturity of a period less than one year; Claims on public sector entities (PSE) of OECD countries

**50%:** Mortgage loans

**100%:** All other claims: claims on corporate, claims on banks outside; OECD with a maturity over one year, real estate, plant and equipment.

The capital elements were also composed of tier 1 and tier 2.

***Tier 1***

- (a) Paid-up share capital/common stock
- (b) Disclosed reserves

***Tier 2***

- (a) Undisclosed reserves
- (b) Asset revaluation reserves
- (c) General provisions/general loan-loss reserves
- (d) Hybrid (debt/equity) capital instruments
- (e) Subordinated debt

The minimum capital was set at 4% tier one capital and 8% total tier one plus tier two capital in relation to risk weighted assets. Basel I also took into account the risk posed by a bank's off balance sheet items. The application of conversion factors took care of the off balance sheet items in Basel I. This helped in the adjustment of a bank's risk adjusted value of the items which was to be included in the bank's total value of risk weighted assets. Under Basel I, banks were expected to maintain capital levels of at least 8% of their total risk weighted assets and at the same time maintain tier 1 capital of at least 4% of their risk weighted assets. Opponents of Basel I criticized it for its ambiguity and the arbitrary approach it had on risk weighted assets (Basel Committee on Banking Supervision (BCBS), 2006b). It was also criticized for not being

sensitive to the individual risks that banks faced on their assets. Banks have different levels of risk and each risk poses a different and varied risks.

Case in point is the 100% risk weighed on commercial loans. Basel I provided 100% risk on all commercial loans. This means that banks are expected to include the total value of their commercial loans in their risk weighted assets. The problem is that every commercial loan has a different risk. Some are riskier than others and can therefore not be given one or a general risk profile. This result in a regulatory arbitrage where the bank given two options will chose the most profitable one. When there are two borrowers one established and the other is a start up, the bank will go with the start up because it is riskier and therefore presents a chance of a higher return (Cornford, 2005). Since the banks want more returns they go for riskier commercial borrowers who they charge more interest on loans as compared to established businesses. The drawbacks of Basel I led to the formation of Basel II regulations.

## **Basel II**

Basel II was a result of the drawbacks of Basel I. It was instituted to address the pitfalls of Basel I. The Basel committee on bank supervision came up with the three pillar approach. Basel tow also was a response to the changing structure and practices of banking and financial markets. The three pillars are on minimum capital requirement, supervisory committee and market discipline. Since this research study focuses on capital; it shall therefore only look into the first pillar on capital requirements. The key elements of the minimum capital requirement are the definition of capital and the definition of risk weighted assets. The accord states that in calculating the capital ratio, the denominator or total risk weighted assets will be determined by multiplying the capital requirements for market risks and operational risk by 12.5 (i.e. the reciprocal of the minimum



capital ratio of 8%) and adding the resulting figures to the sum of risk-weighted assets compiled for credit risk (Carnell, Macey and Miller, 2008). The ratio will be calculated in relation to the denominator, using regulatory capital as the numerator. The definition of eligible regulatory capital will remain the same as outlined in the 1988 Accord and clarified in the 27 October 1998 press release on instruments eligible for inclusion in Tier 1 capital. The ratio must be no lower than 8% for total capital. Tier 2 capital will continue to be limited to 100% of Tier 1 capital.

The requirement for banks to maintain at least 8% of their risk weighted assets still stands. Basel II still maintained the definition of capital but has altered how banks get the denominator. Under Basel I, the numerator is the amount that represents the available capital and the denominator represents the risks faced by the bank. Basel II made substantive changes on the treatment of credit risk and gave provision for a specific treatment of securitization. It also takes account of operational risk that results from people and processes (Freeland and Friedman, 2007). Basel II adequately addressed the need to strengthen the regulatory capital for large banks through more stringent minimum requirements that pay attention to institutional risk profiles and reinforce the effective management of risk. The first pillar of Basel II is applicable on the measurement of credit risk. In doing this the minimum capital requirement pillar makes use of three approaches namely; the standardized approach, the foundation internal ratings based approach and the advanced internal ratings based approach. The use of these three approaches give banks and financial institutions varied option that can be used in the determination of credit risk. Basel II also came up with a more accurate way of calculating the risk of the assets of banks to eliminate regulatory arbitrage that was practiced under Basel I (Greuning and Iqbal, 2007). The standardized approach still maintains Basel I's approach in the calculation of the risk adjusted values of an asset but then increases the risk categories from four to six adding 35% and 150%.

The Basel II standardized approach differs from Basel I in that it recognizes the difference in risk profiles and bases the determination of risk on the risks associated with a particular bank's assets through credit rating agencies like Moody's and Standard and Poor's. Under credit rating, assets are segmented into their respective risk classes then assigned a credit rating is assigned to the counterparty of that asset (Hal, 2009). The lower the risk the higher the counterparty, and the higher the risk the lower the counterparty. The ratings range from AAA to unrated.

The standardized approach has been one of the major causes of criticism for the Basel II accord. The first criticism emanates from credit rating. Questions have been raised over the reliability and credibility of using credit agencies in the determination of the risk of assets. This is mainly because these rating agencies are paid by the banks and financial institutions that they are supposed to rate. This was seen in the global financial crisis of 2008 when credit rating failed to protect against securitization which occurred before and during the crisis. Under the Basel II standardized approach, credit rating agencies have been given the role of determining the amount of capital that banks should hold in the relation to securitization risks that they face. This has not worked due to the fact that many credit rating agencies gave some securitized products inaccurate high ratings (Heidi and Michael, 2010). This inaccuracy was also attributed to the reliance of these credit agencies on faulty rating methods of risk assessment and the fact that the rating agencies were paid by the financial institution that they rated, a factor that compromised their objectivity in rating. Some banks had their risk profiles perceived as low prompting them to hold less capital and when there were defaults in securitized products, the banks' low level of capital could not absorb the losses leading to the crisis (Jones, 2000). The crisis showed the drawbacks of Basel II and the need to improve it to address the faults. This was done with the introduction of Basel III in 2010.

**Basel III**

The Basel III named a global framework for more resilient banks and banking system was introduced in 2010 and is a reflection of the Basel committee on banking supervisions attempts to use the experience from the financial crisis to avert future global financial crisis (Patrick and Brooke, 2010). The regulations in Basel III work under the backdrop of the existing banking regulations to make the financial industry more effective. Some of the fundamentals of Basel II still apply in Basel III. Basel III improves the ability of financial institutions to absorb losses without affecting the rest of the economy. Basel III tackles capital requirement, leverage ratio, countercyclical buffer and capital conservation buffer. The regulations as stated by the BCBS are;

***On capital base***

To this end, the predominant form of Tier 1 capital must be common shares and retained earnings. This standard is reinforced through a set of principles that also can be tailored to the context of non-joint stock companies to ensure they hold comparable levels of high quality Tier 1 capital. Deductions from capital and prudential filters have been harmonised internationally and generally applied at the level of common equity or its equivalent in the case of non-joint stock companies. The remainder of the Tier 1 capital base must be comprised of instruments that are subordinated, have fully discretionary noncumulative dividends or coupons and have neither a maturity date nor an incentive to redeem. Innovative hybrid capital instruments with an incentive to redeem through features such as step-up clauses, currently limited to 15% of the Tier 1 capital base, will be phased out. In addition, Tier 2 capital instruments will be harmonized and so-called Tier 3 capital instruments, which were only available to cover market risks, eliminated. Finally, to improve market discipline, the transparency of the capital base will be improved, with

all elements of capital required to be disclosed along with a detailed reconciliation to the reported accounts (Felix, 2010).

### *On leverage ratio*

The leverage ratio is calculated in a comparable manner across jurisdictions, adjusting for any differences in accounting standards. The Committee has designed the leverage ratio to be a credible supplementary measure to the risk-based requirement with a view to migrating to a Pillar 1 treatment based on appropriate review and calibration.

Basel III introduces a new definition of regulatory capital. Another element of Basel III is that it has retained tier 1 and 2 but has improved on them by increasing the capital that will enable banks and financial institutions absorb losses better in the future. Basel III stipulate that tier 1 should consist of core capital which is equity stock and retained earnings. Another thing to note on Basel III is the exclusion of subordinated debts in the calculation of banks capital. This and other items that are no longer included in the calculation of capital should be phased out over a ten year period beginning 2013. Basel III also proposes the increase of the amount of capital held by banks as a buffer against losses (Basel Committee on Banking Supervision. (2010a). This is expected to rise from 8 percent in the Basel II requirement to 10.5 percent by 2019 under the new regulation. The additional 2.5 percent is an additional buffer that banks should maintain to help them mitigate losses from securitization especially in the event of an economic crisis.

Basel III increases the amount of tier 1 capital from 4 percent to 6 percent of their risk weighted assets. In an effort to increase core capital, the Basel committee also requires banks to maintain at least 4.5 percent of their risk weighted assets. Previously this was maintained at 2 percent. Additionally, banks are also required to have a counter cyclical buffer ranging from 0-2.5 percent

of their risk weighted assets. The counter cyclical buffer is an extension of the capital conservation buffer since it counteracts the trend of reduced capital levels in low risk periods. By raising the capital levels, Basel III addresses the issue of low capital and enables banks to avoid the rush to conserve capital during bad economic times thus averting credit crunches in the future. Basel III also looks into the leverage ratio. The Basel III leverage ratio compares the bank capital level to its assets without consideration for the risk levels. The leverage ratio requirement for banks should at least be 3 percent of the banks' total assets. The leverage ratio discourages the tendency by banks to interfere with the minimum capital reserves and therefore makes sure banks are protected from future losses (Basel Committee on Banking Supervision. (2010ab).

Basel III just like the other Basel accord has been criticized. The first concern is the effect that the required high capital level will have on lending rates. By adhering to the increased capital requirements, banks will have less money to lend which will have a negative effect on the economy. Basel III is criticized for taking money from the banks and preventing them from doing their primary duty of lending money to their customers (Pablo, 2010). Another drawback of Basel III is its failure to consider the different risk levels in the calculation of the leverage ratio. Apart from taking away money from banks, Basel III will also lead to increased lending rates since banks will want to compensate since they will not have much at their disposal. They will maximize on the little that they have. However some critics still say that the levels of capital requirements though high, are not enough to offer a buffer for losses during economical crisis. Basel III focuses on capital and fails to address some pitfalls of Basel II like the calculation of a banks' risk weighted assets. Another issue that Basel II should have addressed but it failed to address is the use of rating agencies (Barth, Caprio and Levine, 2006). This does not help in mitigating future financial crises since these rating agencies can be compromised in

their duty to determine risk. Basel III basically improved on the numerator and forgot to improve the denominator too.

### **Islamic banking regulations and guiding principles**

There are principles that apply to both Islamic and conventional banking. Islamic banking has grown and has become part of the global financial industry. The Basel committee on banking supervision has been rooting for cooperation with the Islamic financial services board. This cooperation aims to achieve supervisory practices that are applicable to both Institutions that provide Islamic financial services and the conventional financial service providers. Just like in conventional banking, the regulations and guidelines of Islamic banking also promote sound practices in risk management and capital adequacy (Iqbal and Mirakhor, 2007).

#### ***Guidelines relating to liquidity risk***

***Principle 1:*** An IIFS should have in place a sound and comprehensive liquidity risk management framework, integrated into its enterprise risk process, in order to maintain sufficient liquidity to meet its daily funding needs and to cover both expected and unexpected deviations from normal operations for a reasonable time. The IIFS should have an appropriate governance process, including board and senior management oversight, in order to identify, measure, monitor, report and control the liquidity risk in compliance with Sharī`ah rules and principles and within the context of available Sharī`ah-compliant instruments and markets. Supervisory authorities should have a rigorous process for evaluating the liquidity risk management position and framework of IIFS and requiring prompt corrective action in case of any deficiency (Islamic Financial Services Board. (2005).

***Capital adequacy requirement****Core capital*

The conditions are: (i) the subsidiary issuing the instrument should be an IIFS15 itself; and (ii) the relevant instrument should meet all the criteria for being considered as common shares for regulatory purposes. The amount recognised in consolidated Core Capital is equal to the total minority interest (meeting the above conditions) minus the surplus Core Capital of the subsidiary attributable to minority investors. The surplus Core Capital of the subsidiary (i.e. the amount in excess of 8.5% of RWA – which is the sum of the minimum Core Capital requirement of the subsidiary plus the capital conservation buffer) should be multiplied by the percentage of Core Capital that is, held by minority shareholders in order to arrive at the amount of the surplus Core Capital of the subsidiary attributable to the minority shareholders (Islamic Financial Services Board. (2011).

*Core and additional capital*

The condition is that the relevant instruments issued by a fully consolidated subsidiary of the IIFS (which must itself be an IIFS) to third-party investors should meet all the criteria for being considered as Core or Additional Capital. The amount recognised in consolidated total capital is equal to the amount of the total capital instruments issued to third parties (meeting the above condition) minus the surplus total capital of the subsidiary attributable to third-party investors. The surplus total capital of the subsidiary (i.e. the amount in excess of 10.5% of RWA – which is the sum of the minimum total capital requirement of the subsidiary plus the capital conservation buffer) should be multiplied by the percentage of the subsidiary's total capital that is, held by third-party investors, in order to arrive at the amount of the surplus total capital of the subsidiary

attributable to the third-party investors. The amount of the total capital that will be recognised in Additional Capital will exclude amounts already considered part of Core Capital (Islamic Financial Services Board, 2011).

## **2.2 Capital conservation buffer**

### ***2.2.1 Introduction***

32. If the capital of an IIFS falls below the required buffer level, the relevant institution will be subject to various restrictions on discretionary distributions of profits, until the capital is restored to the required level. In addition, such an IIFS will be required to draw up and agree with the relevant supervisory authority a "capital conservation plan" in order to ensure that it has a credible strategy for early replenishment of the buffer. However, the IIFS will have the choice of raising new capital from the private sector instead of internal conservation of capital through reduced profit distributions. This option should be part of the capital conservation plan (see section 2.2.4) to be submitted to the supervisory authority by the IIFS, and will be subject to supervisory evaluation and approval.

### ***2.2.2 The framework***

33. The capital conservation buffer shall amount to 2.5% of RWAs above the regulatory minimum capital requirements and should comprise only common equity. An IIFS should first use Core Capital to meet the minimum capital requirements outlined in section 2.1 – that is,, 4.5% Core Capital and 8% total capital requirement, if necessary. Only after meeting these requirements, Core Capital be used for the capital conservation buffer (Islamic Financial Services Board. (2012).



**2.2.3 Capital conservation ratios**

41. In order to meet the minimum requirements for Core Capital (i.e. 4.5%, as mentioned in section 2.1) and the capital conservation buffer (i.e. 2.5%), an IIFS should have not less than 7.0% of Core Capital at all times. If the Core Capital level is below this requirement, the IIFS will be subject to restrictions on profit distributions as outlined in paragraph 36; that is., it will be required to “conserve” a specified percentage of profits in the succeeding financial year. The percentage of profits that would need to be conserved by the IIFS when operating in a specified range of Core Capital is called the "capital conservation ratio". This ratio is explained in the following table

| <b>Core Capital Ratio Minimum</b> | <b>Minimum "Capital Conservation Ratios"</b><br>(as a percentage of profits) |
|-----------------------------------|--|
| > 4.5% – 5.125%                   | 100%   |
| > 5.125 % – 5.75%                 | 80%  |
| > 5.75% – 6.375%                  | 60%  |
| > 6.375% – 7.0%                   | 40%  |
| > 7%                              | 0%   |

43. The Core Capital ratio excludes any additional Core Capital used to meet the 8% total capital requirements. For example, a bank with 8% Core Capital and no Additional Capital would meet

all minimum capital requirements, but would have a zero conservation buffer and therefore be subject to the 100% constraint on profit distributions (Islamic Financial Services Board, 2012).

## **2.3 Countercyclical buffer**

### ***2.3.3 The framework***

65. The CCB can be chosen in the range of 0–2.5%. A supervisory authority has, however, discretion to implement any other macroprudential tools it deems fit for the jurisdiction. In addition, if the need arises, the level of the CCB can be set higher than 2.5% for all domestic banks and foreign banks with locally incorporated subsidiaries.<sup>26</sup> The CCB should consist wholly of Core Capital. An internationally active IIFS would use a weighted average of the buffers in effect in the jurisdictions to which it has a credit exposure.

66. When a supervisory authority decides to impose or increase the CCB requirement, it will make the announcement up to 12 months before the implementation date so that IIFS have enough time to meet the additional capital requirements. When a supervisory authority decides that it is appropriate to release the buffer partially or wholly, a shorter time frame could be applied so that the credit supply is not restricted by higher capital requirements at a time when economic conditions warrant a higher supply of credit (Islamic Financial Services Board, 2012).

## **2.4 Leverage ratio**

### ***2.4.3 Computational details***

78. The leverage ratio described below shall be applicable at the level of 3% and shall be calculated as the average of the monthly leverage ratio over the quarter, based on the definitions

of capital and total exposure specified below. The formula for calculation of leverage ratio will be: **Leverage ratio = Core Capital ÷ Total exposure ≥ 3%**

### **Effect of Basel III on UAE banks**

The period stipulated for the changes recommended by Basel III to fully take effect spans from 2013 to 2018. The increased common equity ratios under Basel III have greatly affected the composition of equity capital not just in conventional banking but also in Islamic banking albeit at a lower rate as compared to conventional banking sector. Having looked at the regulations and guidelines of Islamic banking, the Islamic Financial Services Board (IFSB) revised its regulations in order to accommodate the regulations of Basel III. The regulations are for the Islamic financial services providers who wish to comply with the Basel III. Another effect that the Basil III will have on UAE banks which are predominantly Islamic banks is on risk, audit compliance and capital management. Islamic banks will have to reinforce themselves in these areas. The banks will also be affected by the credit risk requirement. This is because Islamic banks have higher credit risks that are higher as compared to conventional banks (Archer and Haron, 2007). Islamic banks make have the principles of Mudarabah and Musharakah instrument which are held by banks for investment purposes. This exposes them to more risks as compared to their conventional counterparts. The implementation of Basel III will reduce the risks of these banks exposure to credit risk. Due to the structure of their trading portfolio, Islamic banks are not affected by the increase on risk weighed assets as compared to their conventional colleagues. This is because Islamic financial institutions do not trade on repo, bonds, CDO, CDS and other derivatives (Stubing, 2011). On liquidity ratio, Basel III will not affect Islamic banking much since most of their product and assets are less liquid as compared to their conventional counterparts. On countercyclical buffer Islamic banking is affected on the computation of the

countercyclical buffer based on the fact that Islamic banks have profit sharing investment accounts.

### **Conclusion**

Basel III definitely has an impact on the UAE banks. However the banks will only be affected on credit risk which they will have to raise in order to protect them in hard economic times. The banks in the UAE will however gain from the increased risk weighed capital due to the structure of their portfolio.

## References

Akkizidis, I. and Khandelwal, S. K. 2008. *Financial Risk Management for Islamic Banking and Finance*. London: Palgrave Macmillan

Al-Tamimi, H. 2002. Risk Management Practices: An Empirical Analysis of the UAE Commercial Banks. *Finance India*, Vol. XVI, No. 3, pp. 1045-1057

Archer, S. and Haron, A. 2007. Operational Risk Exposures of Islamic Banks, in Archer, S. and Karim, R. A. A., *Islamic Finance: The Regulatory Challenge*, John Wiley & Son (Asia) Pte Ltd.

Barth, J., Caprio, G. and Levine, R., 2006 *Rethinking Bank Regulation: Till Angles Govern*. Cambridge, Cambridge University Press.

Basel Committee on Banking Supervision (BCBS), 2006a. Core Principles for Effective Banking Supervision, Basel, Available at: <http://www.bis.org/publ/bcbs129.htm> [Accessed 03 May 2013]

Basel Committee on Banking Supervision. (2006b) International convergence of capital measurement and capital standards: A revised framework. Available at: <http://www.bis.org/publ/bcbs128.pdf> [Accessed 02 May 2013]

Basel Committee on Banking Supervision. (2010a) Basel III: A global regulatory framework for more resilient banks and banking systems. Available at: <http://www.bis.org/publ/bcbs189.pdf> [Accessed 03 May 2013]

Basel Committee on Banking Supervision. (2010b) Basel III: International framework

for liquidity risk measurement, standards and monitoring. Available at: <http://www.bis.org/publ/bcbs188.pdf> [Accessed 03 May 2013]

Balthazar, L., 2006. *From Basel 1 to Basel 3: The Integration of State of the Art Risk Modeling in Banking Regulation*. Palgrave Macmillan.

Carnell, R., Macey, J. and Miller, G., 2008. *The Law of Banking and Financial Institutions*, London: Aspen Publishers.

Cornford, A., 2005 "The Global Implementation of Basel II: Prospects and Outstanding Problems." *International Finance* pp 34-40.

Felix S., 2010. Basel III Arrives. Available at: <http://blogs.reuters.com/felixsalmon/2010/09/12/basel-iii-arrives/>. [Accessed 02 May 2013]

Freeland, C. and Friedman, S. 2007. Risk and the Need for Capital, in Archer, S. and Karim, R. A. A. *Islamic Finance: The Regulatory Challenge*. John Wiley & Son (Asia) Pte Ltd.

Greuning, H. and Iqbal, Z. 2007. Banking and Risk Environment, in Archer, S. and Karim, R. A. A. *Islamic Finance: The Regulatory Challenge*. John Wiley & Son (Asia) Pte Ltd.

Hal, S. S., 2009, *International finance: transactions, policy, and regulation*. New Jersey: Wiley and Sons

Heidi M. S. and Michael W. T. 2010. *Global bank regulation*. Oxford: Oxford University Press.

Iqbal, Z. and Mirakhor, A. 2007. *An Introduction to Islamic Finance: Theory and Practice*. John Wiley & Son (Asia) Pte Ltd.

Islamic Financial Services Board. (2005) Guiding principles of risk management for Institutions (Other than Insurance Institutions) Offering only Islamic Financial Services. Available at: <http://www.ifsb.org/standard/ifsb1.pdf> [Accessed 03 May 2013]

Islamic Financial Services Board. (2011) Guidance note in connection with the IFSB capital adequacy standard: the determination of alpha in the capital adequacy ratio for institutions (other than insurance institutions) offering only Islamic financial services. Available at: [http://www.ifsb.org/standard/eng%20GN-4\\_IFSB%20CASAAlpha%20in%20Capital%20Adequacy%20Ratio%20\(Mar\\_2011\).pdf](http://www.ifsb.org/standard/eng%20GN-4_IFSB%20CASAAlpha%20in%20Capital%20Adequacy%20Ratio%20(Mar_2011).pdf) [Accessed 03 May 2013]

Islamic Financial Services Board. (2012). Revised capital adequacy standard for institutions offering Islamic financial services. Available at: [http://www.ifsb.org/docs/IFSB%20ED-15%20Revised%20Capital%20Adequacy%20Final%20\(01-11-2012\).pdf](http://www.ifsb.org/docs/IFSB%20ED-15%20Revised%20Capital%20Adequacy%20Final%20(01-11-2012).pdf) [Accessed 03 May 2013]

Jones, D., 2000. Emerging problems with the Basel Capital Accord: Regulatory Capital Arbitrage and Related Issues. *Journal of Banking & Finance*, No. 24, pp. 35-58.

Pablo, T., 2010. Basel III Still Contains Seeds of More Chaos, available at <http://www.ft.com/cms/s/0/1185b16c-c27f-11df-956e-00144feab49a.html#axzz1G86VwXtw> [Accessed 03 May 2013]

Patrick, J. and Brooke. M., 2010 Bank Researchers Call for Doubling Equity Safety Net, available at <http://www.ft.com/cms/s/0/1f4841ea-2a0b-11e0-997c-00144feab49a.html#axzz1G86VwXtw> [Accessed 03 May 2013]

Stubing, D., 2011. GCC Banks in good position for Basel III. Available at:  
<http://gulfbusiness.com/2011/12/gcc-banks-in-good-position-for-basel-iii/#.UYKZLKL6VUk>

[Accessed 03 May 2013]