# Risk management in banking sector essay sample

Finance, Banks



## Introduction

Risk Management is the process in which the financial supervisors identify the key risks in front of them, acquire coherent and logical measures to cope up with the risks, make decisions to point out the preferred risk area, select tools to minimise the risk and design methods in order to monitor the resulting risk position. (David H. Pyle, 1997) The financial markets are encountering several risks in the modern and futuristic world of today. The increased risk factor has changed the economic scenario due to which many financial institutions are also suffering from financial instability. It is also predicted that financial risks will become more challenging and exigent in coming years. (FSA, 2007)

The current situation highlights the urgency of sound practice of sound management in the financial sector because the ongoing changes in the sector are raising the risk level at alarming rate. Banks are making structural changes (Jill L. Wetmore, 1994) in their balance sheets and risk-based capital requirements. (John R. Brick, 1994) In addition banks are now eager to implement day-to-day accounting (Wetmore, 1996) for maintaining their transactions. These changing trends are inviting the risk factors into the financial sector and hence the need for risk management goes to its peak.

The banking sector is heading the risk factors in many areas. These include market risk, operational risk, performance risk, liquidity risk, credit risk and interest rate risk. (H. Pyle, 1997) Our discussion about the risk management with reference to banking sector will emphasis upon the three major risk areas which are "Interest Rate Risk (IRR), Liquidity Risk and Operational

Risk". All of these three areas are very critical and there is substantial requirement of sound risk management practice in these areas. Issues related with these risk areas and proposed methods to deal with them are described below.

### 1. a) Interest Rate Risk and BIS preferred method

The banking sector is going through a phase of sensitivity related to the interest rate risk. (Flannery and James, 1984) The background for the interest rate risk is prepared when the banks engage themselves in activities like taking loan, purchasing securities and taking deposits with different securities so that they can execute their business and offer different products and services to customers to meet their demands. (Comptroller's Handbook, 1998) These activities often lead the bank to a situation where their earning and the capital get exposure and they start facing the Interest Rate Risk or IRR. The investment securities that have been assessed through the market-to-market valuation (Gilkeson and Smith, 1992) accelerate the level of interest rate risk and bank can not conceal the assets value decline resulting from the increase in the interest rates. (Wetmore, 1994)

The interest rate risk level also effect and influence the activities and performance of the bank. (A. S. Ahmed, Anne Beatty, 2004) however this assumption has been criticized and challenged on several grounds and it is argues that the increase in interest rate is not significantly effective on the off-balance sheet activities. (Linda Allen, 2005) There are four basic sources that are associated with the interest rate risk; these are "Reprising risk, Yield Curve Risk, Basis Risk and Optionality." (BIS, 2004) Several studies and

researches have been conducted to design the methods that can measure and monitor the interest rate risk in financial institutions. The interest rate risk could be measure through the "Exponential duration model" offered by Livingston, Miles, and Lei Zhou, for getting accurate estimate of interest rate risk. (SFA, 2005)

Most effective and widely accepted methods for measuring and monitoring interest rate risk are formulated by the Basil Committee for Banking Supervision which is the agency of "BIS – Bank for International Settlement." The principles designed by the committee are known as BIS suggested methods of measuring and monitoring interest rate risk. Many international banks have been practicing these principles in order to handle the issues related with the interest rate risk because these are specially formulated for the adequate and effective management of bank's interest rate risk and for the development of supervisory response to that risk. (Basel Committee, 2004)

The methods focus upon several important points like internal control, capital adequacy and senior management responsibilities and also suggest the possible steps that can be taken to enhance the performance in these areas. For sound practice of interest rate risk, it is very important that the risk managers focus upon the four basic elements and manage their assets, liabilities and OBS instruments accordingly. They have to focus upon the "appropriate board and senior management oversight, adequate risk management policies and procedures, appropriate risk measurement,

monitoring, and control functions and comprehensive internal controls and independent audits. (BIS, 2004)

BIS proposed suggestions to the Supervisors and Senior Managers

There are several significant methods that BIS suggested to the directors, supervisors and senior managers of the bank so that they can play an effective role in the management of interest rate risk. The bank directors are required to commend only such policies that can work efficiently for risk management. They also have to make sure that these policies are followed by proper and adequate monitoring of the interest rate risk. The directors should keep them well informed about the current situation and the steps that have been taken for managing interest rate risk. It is among the major responsibilities of the directors that they have proper information and regular monitoring of the risk management measures. It is the duty of the senior members that they work for managing the interest rate risk level and bank's activities accordingly. To get control over the interest rate risk the managers should also formulate suitable policies and methodology. They also have to assure that the resources required for the management and monitoring of risk are accessible in the bank.

The line between the responsibilities and duties of different employees should be drawn properly and clearly by the bank administrations. If there is planning of establishing any committee designated to work for risk management, then the committee members should be well aware and well informed about their functions and liabilities so that there couldn't be any chance of creating conflict of interest among the employee. The proper

management of employees is an important method and guideline principle for the proper administration of the interest rate risk. The employees or committee members should be divided in to the groups where they can concentrate on their work specifically related to either segment of risk management including risk management, risk monitoring and control functions. The employees have to instruct to report the directors about their progress on regular basis. (BIS, 2004)

### BIS Proposed Risk Management Policies and Procedures

The formulation of the policies and procedures of the bank aimed at interest rate risk management should be done in a manner they must be very clear to all related people and they should also be kept consistent with the intensity and characteristics of the bank. BIS also suggested bank that they must keep the interest rate risk level and related issue in mind while preparing to launch new product or services for the costumers. They should also approve the "major hedging or risk management initiatives" in advance. (Basel Committee, 2004)

# BIS proposed method of risk managing, monitoring and controlling

The effective and efficient risk management system must fulfil the requirement of capturing all material source and assets that can use in managing process. The risk managers and the bank supervisors or directors must be well aware of the assumptions that surround their management system. It is also very important that there must be limits defined that should be followed to keep the level consistent with the policies of bank related with the interest rate risk management. "Stress Testing" is an

important method proposed by BIS to find out the reasons of weakness of bank while operating in stressful market condition.

The bank should know the causes of failure of their assumptions so that they can use them when formulating policies for further actions. Flow of information from employee to director is an essential part of risk management process. The directors, supervisors and senior members should be regularly informed by their employees about the steps taken to measure, monitor, control and report the interest rate risk. The establishment of internal control system is also essential for conducting risk managing activities. For this, the bank should go for reviewing its system neutrally in order to evaluate and review its efficacy. Another significant target for the bank managers include capital adequacy and disclosure of interest rate risk,

# <u>Interest Rate Risk treatment in the Banking Books</u>

The complete record of the activities of bank related with the risk management must be kept in accordance with the interest rate risk in their banking books. " If a bank's internal measurement system does not adequately capture the interest rate risk, the bank must bring the system to the required standard. If supervisors determine that a bank is not holding capital commensurate with the level of interest rate risk in the banking book, they should consider remedial action, requiring the bank either to reduce its risk or hold a specific additional amount of capital, or a combination of both." (Basel Committee, 2004)

So these were the suggested methods for measuring and monitoring the interest rate risk, proposed by BIS. There are many principles that focus on https://assignbuster.com/risk-management-in-banking-sector-essay-sample/

every area of risk management and the managers and supervisors of the banking system are required to follow these principles so that they can deal with the problem of interest rate risk in more effective and efficient way. The success of these methods is proven that's why many international banks are adopting these methods along with their specified systems of banking. (BIS, 2001)

### 1. b) Liquidity Risk and Related Issues

Liquidity refers to the ability of a financial institute to fund increases in assets and meet obligations as they come due. (Basel Committee, 2001) The financial market and the banks also perform the function of providing liquidity to the investors against long or short terms. The risks related with the liquidity are important point of concern for the people on the management side of banks. The liquidity risk level is touching a high level as compared with the past. (Raghuram G. Rajan, 2004) There are lots of issues related with the liquidity risk that include the "increased competition for consumer deposits, a wider array of wholesale and capital market funding products, and technological advancements" (Douglas W. Diamond, 1997) The banks are now changing their approaches towards the liquidity risk related issues and the methods for dealing with the liquidity risk also has been changed by the bank's supervisors. In order to manage the liquidity risk there are two main options available to the banks. Either they can go for amplifying the use of "credit-sensitive wholesale funds providers" or they can accelerate the expansion of off-balance sheet activities. (Comptroller's Handbook, 2001)

The banks can minimize the liquidity risk by creating liquidity in the Market according to their market participation pattern. If a bank has limited involvement in the market then they can either divert the liquidity demand from the market in order to cover the liquidity gap, or they can offer higher short term returns (Douglas, 1997) from the market, to the investors who are more risk averse. However if the bank have more participation in the market they can have several other options in front of them related to the liquidity risk management. If banks are participating more in market then they can get involve in longer-maturity physical investment (Raghuram G. Rajan, 2004) and hence they can minimize the gap between the maturity of financial assets and physical investments. (Douglas, 1997)

The structure of market plays an important role in influencing the liquidity of banks within the market. This assumption is proved by the fact that a price competition is the main element of most of the foreign exchanges and government bond markets. This quote driven price competition is held among the multiple dealers (Chris D'Souza, 2001) and inter dealer trading. (Alexandra Lai, 2001) These dealers become a great source of providing liquidity within the public and inter dealer markets.(Chris D'Souza and Alexandra Lai, 2001) These markets are also known as dealership markets (Bernhardt and Hughson, 1997) It is very important for the banks that they handle the issue of liquidity risk efficiently so that they can reduce the chance of rise of several other serious problems.

The problems arise from liquidity risk are not limited to the particular bank that is facing the risk but these problems will spread through out the

financial sector, causing several harms to other banks and financial institutions as well. Due to this fact the urgency of proper handling of liquidity risk increases and it become very important to know about the principles and methods that can help in dealing effectively with the liquidity risk problem.(Chris D'Souza and Alexandra Lai, 2001)

For proper management of liquidity it is very necessary that the bank must possess an informed board, capable management, and appropriate staffing. It is the duty of the managers and board members of a financial institution that they understand and recognize the nature and liquidity risk level so that they can design the appropriate tools for managing the liquidity risk. It is also very necessary that the responsible people of the bank ascertain that the funding strategy of the bank is suitable for the situation and those strategies can be implemented easily within the system. (Basel Committee, 2001)

The development of adequate structure for the purpose of managing liquidity risk is very important for a bank. A bank can minimize the chance of liquidity if the directors and senior members of the banks have designed agreed strategies for their daily management related to the liquidity risk. These strategies should also be properly communicated throughout the organization. If a bank wants to cope up with the problem of liquidity risk then it has to implement such policies and procedures that can be helpful in the process of liquidity management. (Basel Committee, 2001) The bank is also required to ascertain that the senior managers are also efficiently busy in the management process and they are also working out the strategies and

tactics that can help in dealing with the liquidity risk of a bank. there should be a proper flow of information so that every one involve in the process of liquidity management can be aware about the on going developments as well as any change in the managing decision related to the liquidity management. (BIS, 2001)

The bank directors can play significant role in managing the liquidity risk. They can work out to formulate such policies that can be effective to be use for the purpose of liquidity management. They also have to monitor the management process (Alexandra Lai, 2001)) as well as the managers that either they are performing their duties efficiently or not. The involvement of senior members in the process of liquidity management is quite imperative. The board members can monitor this situation through proper flow of information which can be only possible if there is adequate information system established in the bank that allow the employees to inform the directors about their progress on regular basis, preferable daily. "Banks should set and regularly review limits on the size of their liquidity positions over particular time horizons." (Basel Committee, 2001)

The measurement and monitoring (Comptroller's Handbook, 2001) of the net funding requirement is an important issue related with the liquidity risk management. It is quite imperative for a bank that within a bank there must be an established process that ensures the ongoing measurement and monitoring of the net funding requirements. "What if" scenario (BIS, 2001) should be utilized by the bank in order to examine and analyse the liquidity risk. This analysis could be done through proper and frequent review of the

assumptions that the banks are utilizing for the management of liquidity risk. This review will also assure the directors and managers that the assumptions they have underline for risk management are still valid or not.

The management of market access is another important point to focus upon while designing the strategies for the liquidity risk management. With the intentions of securing this goal it is very crucial that the banks possess deep insight of their efforts related to the issue. They should go for the periodical reviews of their efforts that have been done with the aim of establishing and maintaining relationship with liability holder and to maintain the diversification of liabilities. The bank also has to ascertain that it possesses suitable capacity to sell assets. (Basel, 2001) Another issue that come across the management while formulating the liquidity risk measures is the " Contingency Planning" which demands the invention of contingency plans that work to tackle the problems related with the liquidity risk management strategies.

The foreign currency liquidity management also plays part in the liquidity risk management. For attain this objective the banks are required to develop a system where they could measure, monitor and control its liquidity position in the major active currencies of the world. Along with these factors, the banks also need to develop a structure for the internal control of liquidity risk. Public disclosures also perform important task in the liquidity management of the banks. (Basel, 2001)

Operational Risks, Related Problems and Basel II Proposals

Operational risk is the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events." (Basel Accord, 2000) There are several events that can lead to the operational risk like Technology error, Fraud and theft Legal, regulatory noncompliance, Events and security and Transaction risk. (Mohan Bhatia, 2002)

As a result of operational risk, a financial institution or bank, just like any other organization faces several loses. These loses can be divided in to following types; Write-down, Loss of recourse, Restitution, Legal liability, Regulation and compliance risk and Loss or damage of assets. (Basel Accord, 2000)

Management of operational risk is an important issue in front of the banks. For the management of operational risk a bank must achieve an efficient and operative business setup. The bank must have adequate information system that guarantees the proper flow of information through out the process. Internal control management is also factor must be considered in managing operational risk. In addition the bank should possess efficient internal audit function which can assure that the internal control, internal audit and the information system of the bank are reliable and authentic. (Mohan Bhatia, 2002) After the bank makes it certain that it has acquire the above characteristics, it become possible forhe bank to start its operational risk measurement and management function.

The measuring and management of operational risk require the formulation of a risk plan at very first level. The risk plan works as the framework for risk management. The technological advancement is also a factor responsible for the increase of operational risk and in order to cope up with this factor the banks need to build a bridge between the business control and IT control. To measure the operational risk, the banks need to create a data base of all the loses that occurs to the bank as a result of operational risk. The advancements in the field of Information Technology offer variety of innovative software and other tools that can help the bank in building the database of their loss. After maintaining the data base of their loss, the banks have to identify and measure the operational risk being faced by them. The measurement of loss is guite a complex and controversial work.

A problem related to the operational risk management came across in the form of unjustified attitude of the bank managers and other responsible employees. They often go for hiding some data because the data witness their failure in managing the operational risk faced by the bank. In order to secure the data from hiding or wasting there is a need that the banking supervisors or senior managers arrange independent operational risk management committees that can control, audit and assure their activities neutrally and free from any unlawful activity. (Mohan Bhatia, 2002)

Measuring the loss resulting from operational risk is not an easy or simple job. The banks are required to take lot of sensitivity and care in handling the data. There is always a possibility of double counting, to avoid this each and every loss and event must be identified and classified in to the appropriate risk area. The banks should clearly define the risk, events and losses categories so that it becomes practical to measure and identify the losses caused by operational risk. There are several controversies that surround the issue that which loss is to be recorded under which risk category and how can one distinguish between different risk areas. (Basel Accord, 2001)

There are some comprehensive tools that allow the bank managers to "assess, identify, measure, monitor, control and report" the losses that are being faced by the bank as a result of operational risk management failure. (Hyperion Solutions Corporation, 2000). The financial losses occurred as a result of operational management failure can be measured under the "GAAP rules" or "Advanced Measurement Approach (AMA)" in the Basel Accord II. (hyperian. com) The Basel II proposal offers comprehensive and easy adoptable methods to measure the operational risks. These proposal offers wide range of methods that helps the bank to get a better understanding of the operational risk exposure at the corporate level. The banks are also enabled to consolidate the related risk factors in to an individual and demonstrable view of operational risk. (Basel Accord, 2000)

The Basel II proposals aimed at delivering the vigorous and logical framework to the banks which can facilitate them to collect, track, and monitor and report the data so that they can have a clear situation regarding the suffered losses due to failure of management in operational risk area. The Basel II proposals also assure that the adequate policies and methods for the risk management would be implemented successfully through out the banking structure. These methods also assist the banks to measure and quantify the operational risks which in turn will enable the banks to create tolerance for the operational risks within their operations and functions. If the banks follow these principles properly they can succeed in identifying the

risk exposures and hence they can formulate their future policies based upon this understanding.

These proposals also assist the banks in corporate governance and facilitate the board of directors and senior managers to oversee the risk exposure faced by different departments and hence the managing side will be able to get prompt reports about the loss, exposure and the risks faced by the bank. The Basel II proposals force the banking system to create such structure that ensure the proper flow of information and the reports regarding the exposure and monitoring of the operational risk could be available for the directors regularly so that they can analyze and summarize the scenario and then go for formulating and implementing such policies and procedures that can help the bank to cope well with the operational risk at every level.

# The Most Preferred Area of Risk Management

The need of risk management is present in different areas of risk. As discussed above the banks are facing several problems and instability conditions due to increased risk in the areas of interest rate risk, liquidity risk and operational risk. All of these three major areas have their own individual significance and importance for the banking sector. The neglect ion of any one of this area can cause the bank abundant and plentiful loss so it is never recommended that the banking system should go for managing risk in one area and neglect the others. However due to some certain and uncompromised background, a bank have no possibility to emphasis upon all the major risk management areas then the bank should go for concentrating and applying all of its efforts in the field of "Operational Risk". The

operational risk is one of the most significant and attention demanding area for the risk managers. It would be much better for a bank to concentrate on this area and give it preference over the others because the function and progress of all the departments and sectors of banks depend upon the operational management.

The area of operational management is too vast that it is not limited to any particular type of banking activity but it focus on the wide range of all the actions and activities that are done in a banking system. If this area is not properly managed then there is an obvious chance that all the other area which are some what depending on it, will also badly suffer and the steps taken for risk management in other areas will also become meaningless and insignificant. If the bank supervisors truly realize the importance of the operational management in their business then they will not even think about preferring any other risk management area over it. However during last some years the financial supervisors often give importance to credit risk and market result in comparison with operational risk. (Christian Wagner, 2005) however the there have been several changes occurred in the financial markets that resulted in the restructuring of the corporate management as well.

The emerging concept of globalization diverts the attention of the financial supervisors towards the importance of operational management world wide. The world also witness several severe financial disasters that occurred as a result of mismanagement in the area of operational risk for example the Net West Allied Irish Bank LTCM (Christian Wagner, 2005) becomes an example

for the world and the financial sector get aware of the importance of the management in operational risk area.

Not the people identify and accept the individual importance of operational risk management and start giving significant preference to this area. The operational management was given the importance as a self contained regulatory issue (Basel, 2000) first time in 1998 when a document "Operational Risk Management" was published by the Basel Committee on Banking Supervision. "The New Basel Capital Accord" also enhances the importance of operational management and proposed several useful and significant methods for the management of operational risk.

All these things make a point that the operational risk is an important area for the risk managers of financial sector to focus upon and if due to some reason a bank can manage the risk in just one area, then it should certainly give preference to the operational risk because all other activities of banking sector are linked with it.

### References

Ahmed, A. S., Beatty, A. & Takeda, C. 'Evidence on interest rate risk management and derivatives usage by commercial banks" 1997

http://papers. ssrn. com/sol3/papers. cfm? abstract\_id= 33922, Accessed May 18, 2007

Ahmed, A. S., Beatty, A. & Bettinghaus, B. 'Evidence on the efficacy of interest-rate risk disclosures by commercial banks', p. 223-251. International Journal of Accounting, 39 (3), 200

https://assignbuster.com/risk-management-in-banking-sector-essay-sample/

http://www. business. uiuc.

edu/kpmguiucresearch/conferences/clearwater/papers/bettinghaus. pdf Accessed May 19, 2007

Alexander, C. " Mastering risk" Volume 2 Applications, FT Prentice Hall, 2001

Allen, L. "Comment on "Evidence on the efficacy of interest rate risk disclosures by commercial banks by Ahmed, Beatty, and Bettinghaus", p. 253-255, International Journal of Accounting, 39 (3), 2004

Bier Wag, G. O., Kaufman, G. G., Schweitzer, R. & Toevs, A.," The art of risk management in bond portfolios", p. 27-36, Journal of Portfolio Management, 1981

Bier Wag, G. O. & Roberts, G. S., "Single factor duration models Canadian tests", p. 23-38, Journal of Financial Research, 1990

Brennan, M. J. & Schwartz, E. S., "A continuous time approach to the pricing of bonds" p. 133-155, Journal of Banking & Finance, 1979

Cherubini, U. & Della-Lunga, G., "Fuzzy value-at-risk: Accounting for market liquidity", Economic Risk management. 2001

Chris D'Souza and Alexandra Lai, "The effects of bank consolidation on risk capital allocation and market liquidity," p 271–291, The Journal of Financial Research, Vol. XXIX, No. 2, Bank of Canada, 2006

Carol Alexander, "Bayesian Methods for Measuring and Managing Operational Risks"

Chair of Risk Management, ISMA Centre, University of Reading, Available at www. ismacentre. rdg. ac. uk Accessed May 19, 2007

Christian Wagner, "Determinants of Operational Risk Reporting in the Banking Industry", 2005

http://www.efmaefm.org/efma2006/papers/231558\_full.pdf Accessed May 19, 2007

Cruz, M, "Mathematical models for pricing and hedging operational risks", p. 187-199, Mastering risk Volume 2 Applications, FT Prentice Hall, 2001

David H. Pyle, "Research Program in Finance," Working Paper RPF-272, University of California, Berkeley, 1997

http://haas. berkeley. edu/finance/WP/rpflist. html Accessed May 18, 2007

Davidson, S. "Measuring interest rate risk", p. 42-44, America's Community Banker, 5 (10), 1996

Davidson, S., "How should we be looking at interest rate exposure?" p. 42-43, Community Banker, 10 (5), 2001

Diamond, Douglas W. "Liquidity, banks, and markets," Journal of Political Economy 105. n5, 1997

"Financial Risk Outlook" Financial Services Authority, 2007

Fooladi, I. J. & Roberts, G. S., "Bond portfolio immunization: Canadian tests", p. 3-17, Journal of Economics & Business, 44 (1), 1992

https://assignbuster.com/risk-management-in-banking-sector-essay-sample/

Fooladi, I. J. & Roberts, G. S., "Risk management with duration analysis", p. 18-28, Managerial Finance, 26 (3), 2000

Gordon-Hart, S., "Basel 2: The risk to the global consensus", p. 22-26, Balance Sheet, 12 (1), 2004

Jill L. Wetmore, John R. Brick, "Commercial bank risk: market, interest rate, foreign exchange", p 585-596. The Journal of Financial Research Vol. XVII, No. 4, Saginaw Valley State University 1994

Livingston, Miles, and Lei Zhou, "Exponential duration: a more accurate estimation of interest rate risk". Journal of Financial Research 28. 3, 2005 "Liquidity and Funds Management," Comptroller's Handbook, 2001

http://www. occ. treas. gov/handbook/liquidity. pdf Accessed May 18, 2007

Mohan Bhatia, New Basel Accord: Operational Risk Management-Emerging Frontiers for the Profession, Information Systems Control Journal, Volume 1, 2002

" Principles for the Management and Supervision of Interest Rate Risk," Basel Committee on Banking Supervision, Basel, Switzerland, 2001

Risk management – operational risk management, Hyperion Solutions Corporation, 1998

http://www. hyperion.

com/solutions/project/risk\_management/operational\_risk. cfm Accessed May 18, 2007

- "Sound Practices for Managing Liquidity in Banking Organisations", Basel Committee on Banking Supervision, Basel Switzerland, 2000
- "Sound Practices for the Management and Supervision of Operational Risk", Basel Committee on Banking Supervision, Basel, Switzerland, 2003

Soto, G. M., "Duration models and IRR management: A question of dimensions?" p. 1089-1110, Journal of Banking & Finance, 28 (5), 2004

Subramanian, A. & Jarrow, R. A., "The liquidity discount", p. 447-474, Mathematical Finance, 11 (4), 2001

Thornton, D. B., "Discussion of "Evidence on the efficacy of interest rate risk disclosures by commercial banks", p. 257-262, International Journal of Accounting, 39 (3), 2004

- "The New Basel Capital Accord," Basel Committee on Banking Supervision,
  Basel, Switzerland, 2001
- "Working Paper on Regulatory Treatment of Operational Risk", Basel Committee on Banking Supervision, Basel, Switzerland, 2001