

Financial Risk Management: Ways towards Assets Protection

Mohammed Bayyoud
Oroubah Barghouthi



B P International

Financial Risk Management: Ways towards Assets Protection

Financial Risk Management: Ways towards Assets Protection

India ■ United Kingdom



B P International

Author(s)

Mohammed Bayyoud* and Oroubah Barghouthi

Department of Banking & Finance, Al-Quds University, Palestine.

*Corresponding author: E-mail: mbayyoud@staff.alquds.edu, omahmoud@staff.alquds.edu;

FIRST EDITION 2021

ISBN 978-93-91595-36-4 (Print)

ISBN 978-93-91595-37-1 (eBook)

DOI: 10.9734/bpi/mono/978-93-91595-36-4



Contents

Foreword	i
Preface	ii
Abstract	1
Introduction	2-3
Chapter 1 Types of Financial Assets	4-9
Chapter 2 Types of Risks Associated with Assets	10-13
Chapter 3 Financial Risk Management - Ways to Protect Financial Assets	14-17
Chapter 4 Credit Risk Management	18-23
Chapter 5 Liquidity Risk Management	24-29
Chapter 6 Market Risk Management	30-33
Chapter 7 Operational Risk Management	34-37
Chapter 8 Model Risk Management	38-41
Chapter 9 Case Studies from European and Non-European Countries	42-46
Conclusion	47-48
Acknowledgements	49
References	50-51
Biography of author(s)	52

FOREWORD

In the 21st century, the financial industry has turned out to be highly competitive and aggressive environment, where the firms need to have a distinct approach for timely identification of different types of risks and dealing with the identified risk with effective risk management techniques. The firms need to understand the significance of the financial risk management for dealing with the complexities of the risk management. Failure to respond can limit the growth for firms. The Basel II framework has further increased the challenges for business organisations. Most of firms operating in modern business environments are subjected to encounter similar risks such as credit risk, market risk, liquidity risk, operational risk, and financial risk. Fluctuations and changes in internal and external business environments of firms need to remain responsive to qualitative principles as well as quantitative factors. This book has attempted to highlight the key principles of risk management. The regional differences in the risk management approaches are covered in this book to show how different firms can increase their protection based on the changes in their laws and regulations. The differences in the approaches of financial and non-financial institutions need to be understood in order to clarify the understandings related to appropriate risk management approach.

I believe this book to be a great significance for understanding the modern business environment. This can act as an important reference point for management people, financial risk managers, practitioners, researchers and students in gaining deeper insight about the ways to protect the financial assets. The book is expected to spur the highest level of thoughts and understandings with the objective of adding novel and exciting body of knowledge.

PREFACE

This book, FINANCIAL RISK MANAGEMENT: WAYS TOWARDS ASSETS PROTECTION was started with a focus to help the readers in making connectivity among the different types of financial asset risks and approaches used by companies in dealing with such risks. I have used general examples to present my perspective without any complexity involved. Examples from sublime crises have been given in the discussion to show how different financial risks mainly liquidity risks have been addressed by the firms. However, for understanding the general examples and discussion about the management of different types of risks, I have highlighted important and necessary component for the specific firms to understand their institutional structures. The core aim behind this book was to understand the model-oriented approach to show how the firms dealing with different types of assets apply risk management techniques. Themes in different chapters were developed based on recent financial history, general factors and models been used. This book is designed with low level of technical difficulty. It has not used many statistics in dealing with financial concepts.

© Copyright (2021): Author(s). The licensee is the publisher (B P International).

Financial Risk Management: Ways towards Assets Protection

Mohammed Bayyoud^{1*} and Oroubah Barghouthi¹

DOI: 10.9734/bpi/mono/978-93-91595-36-4

ABSTRACT

This book has included some of ideas related to different types of financial assets, types of risks associated with assets, and risk management approaches and methods to deal with multiple financial assets. It talks about the advanced level of discussion to help novice risk-management professionals in clarifying the concepts. It is expected that this book will ignite a thought process among the financial risk managers of companies for the effective resolution of a specific problem related to asset protection.

This book also involves the protection of financial assets which is a heavily debated topic among the international spectators because many of the companies in the modern world have recognised financial risk management as a way towards regulatory compliance. It concludes how financial risk management is therefore turning out as an effective practice of economic value within the international firms involving primarily management of exposure to financial instrument and financial risk management techniques can therefore help the risk managers in better gauging of risk and in making decisions that are more informed.

Keywords: Assets protection; risk management; case studies; credit risk management models of risk.

© Copyright (2021): Author(s). The licensee is the publisher (B P International).

¹Department of Banking & Finance, Al-Quds University, Palestine.

*Corresponding author: E-mail: mbayyoud@staff.alquds.edu, omahmoud@staff.alquds.edu;

INTRODUCTION

This handbook is designed for investigating various financial risk management approaches and methods associated with the protection of financial assets. The book discusses the possible ways to protect assets. It provides in-depth insight about the theoretical and practical issues associated with risk management of financial assets. It is a fundamental part of the business to undertake a proactive approach to identify and prevent losses resulting in all forms. In the contemporary business environment, every type of business is vulnerable to high-level uncertainties and the rapidly changing regulatory. In addition, shareholders are also continuously changing their expectations, and these expectations are ultimately pressurising companies' managements to work harder for the protection of financial assets. The asset protection is highly essential for protecting shareholders and for ensuring that business continuity for the future.

This book aims to deliver the myriad of ideas related to different types of financial assets, types of risks associated with assets, and risk management approaches or methods to deal with multiple financial assets. The fundamental to the advanced level discussion in this book expect to help novice risk-management professionals in clarifying the concepts. It is expected that this book will ignite a thought process among the financial risk managers of companies for the effective resolution of a specific problem related to asset protection.

Effective risk management through protection of financial assets is a heavily debated topic among the international spectators because many of the companies in the modern world have recognised financial risk management as a way towards regulatory compliance. Financial risk management is therefore turning out as an effective practice of economic value within the international firms involving primarily the management of exposure to financial instruments. The financial risk management techniques can therefore help the risk managers in better gauging of risk and in making decisions that are more informed. Currently, assets securitisation is identified as effective financial risk management approach. It has been identified that, "*The economic reasoning of securitisation hinges on the ability of issuers as profitable enterprises to maximise shareholder value as the principal goal of economic activity. Management decisions evaluate the economic impact of competing strategic and operational objectives on shareholder value*". The firms have started realising that financial activities should be geared in order to support the realisation of profitable objectives. It can be depicted those financial activities risk management structure in the financial assets market has been very diversified due to ever-changing market activities. The approach is used for redressing the conflicts of interest between the creditors and shareholders. Firms also need to look for the adoption of appropriate risk management in line with the capital structure choice of firms. However, financial institutions undermine different types of risks associated with asset securitisation and normally regard this risk management approach as the tool for inherent differentiation and integration process. The approach directs the investors and issuers reduce the cost of investment funding by segregation of the risk experience of a selected pond of assets. The discussion of different risk management approaches in this book is directed, therefore, to analyse how the other approaches to asset protection can help in dealing with the different types of financial risks.

Although, cost of protecting financial assets is not focused of this book, it is one of the motivating aspects stressing on the need for financial risk management. The cost of managing and protecting financial assets in the modern environment has increased relative to the low cost incurred decades ago. Current business environments need to address the roles and actions involved in the financial decision-making process, and the location of financial assets in firm i.e., savings, pensions. Therefore, modern business firms are concerned with the categorisation of assets, based on registered and non-registered statuses with some financial authority. In similar context, this book is written to discuss in detail the ways of managing financial assets effectively.

Mainly, the book covers a diverse range of topics, which are interrelated but by addressing a range of perspectives about asset protection, I have made this book distinguished from the other broad-ranging financial risk management books. Various theories and practical aspects are combined for each main discussion. The book has presented broader concepts without highlighting any specific industry or sector, as any specific focus would have limited the research findings.

The book is divided into four key sections. The first section investigates and discusses the theoretical background and practices related to Types of Financial Assets. The second chapter is about the Types of Risks associated with Assets. In this section, theoretical and practical elements related to the asset-backed risk, credit risk, foreign investment risk, liquidity risk, market risk, operational risk, business risk, and Model risk are discussed. The third section is a detailed section in which Risk Management - Ways to Protect Financial Assets are discussed in detail. After discussing different theoretical approaches to financial risk management, the book also, tend to discuss the case studies from financial markets of different European and non-European countries in order to gather practical evidence about different ways to protect financial assets.

For directing the readers about this book, the author of this book has exercised great concern in resolving the ambiguities involved with the financial terms and words. The ambiguous terms are defined formally throughout the book and for this final glossary list has not been generated. There is the likelihood that readers can interpret different meanings of the terms.

Lastly, it is necessary to highlight that the author of this book is an expert in his field, possessing experiences as well as high-level knowledge. The author identifies his responsibility to disseminate what he knows in the arena of the financial risk management.

© Copyright (2021): Author(s). The licensee is the publisher (B P International).

Types of Financial Assets

Mohammed Bayyoud^{1*} and Oroubah Barghouthi¹

DOI: 10.9734/bpi/mono/978-93-91595-36-4

The recent financial crisis 2008-2009 has exposed the world towards the set of new financial and non-financial risks. As per my analysis, no one in the western economies was able to save himself from the adverse effects and shocks of the financial crisis. From a professional trader to an ordinary customer, the effects of the known as well as unknown consequences proportionately affected everyone. The discomfort faced by the corporate organisations during crisis has increased the human drive towards more in-depth assessment in order to be prepared for the future discomforts. The crisis has offered a good chance to learn lessons about the significance of an effective risk management strategy as a reward for business in times of difficulties.

However, my life experience has helped me in understanding that learning about underlying causes and the associated aspects of a specific event are relatively significant to the overall management of the event. Lessons learned about the underlying factors can assist in gaining outcomes that are more effective. Perhaps, activities and project aspects associated with the trip event can explain detailed view about the success and failure of a specific project in comparison to the sound risk management.

1.1 Definition Financial Assets

Fundamentally, the term 'asset' refers to the ownership or control of something leading to the value exchange. One of the significant characteristics shared by all asset types is associated with their capability to offer services or economic benefits. One of the general economic benefits flowing from an asset can be measured in the form of cash flow (Hull, 2015). In order to understand financial assets, readers need to recall their understanding about the classification of assets into tangible and intangible assets. Tangible assets are the one, which have physical existence, such as land, building, property, plant and equipment, furniture and fixtures. On the other side, intangible assets do not possess physical existence, i.e., goodwill, patents, copyrights, trademarks. The major difference besides physical existence between the tangible and intangible assets is the fact that the earlier one reflects present cash flows while later is the representation of the future cash flows (Banerjee, 2015).

In relation to this context, financial assets or instruments can be defined as the ones, which are traded in the financial market. These financial assets can be in any form such as cash and bank balance, securities, and equity. The parties in the financial markets are individuals, companies, banks, financial institutions, mutual funds and the government (Skoglund & Chen, 2015). These financial assets in the market are based on return and risks. Both these elements are examined as highly effective for the long-term and short-term financial instruments. With the changes in the recent years, there has been an emergence of the new financial instruments such as derivative (Skoglund & Chen, 2015).

After gaining an overview of the financial instruments' definitions, in the next section of this chapter, types of financial instruments are discussed.

¹Department of Banking & Finance, Al-Quds University, Palestine.

*Corresponding author: E-mail: mbayyoud@staff.alquds.edu, omahmoud@staff.alquds.edu;

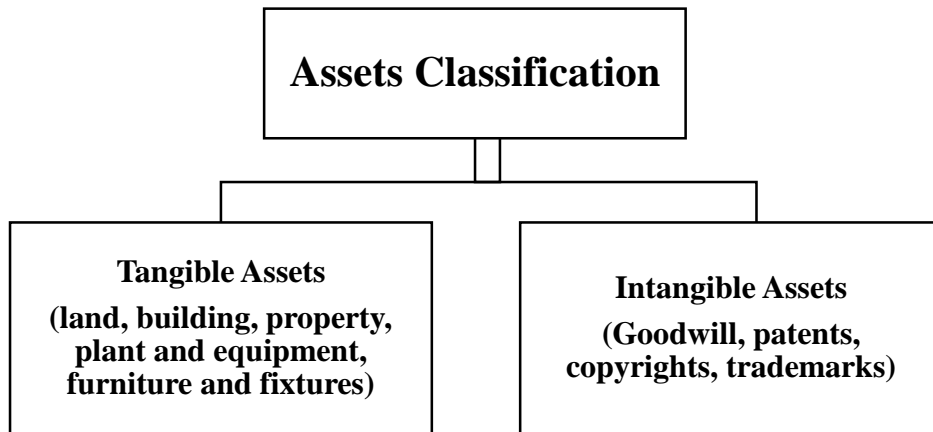


Fig. 1. Asset's classification

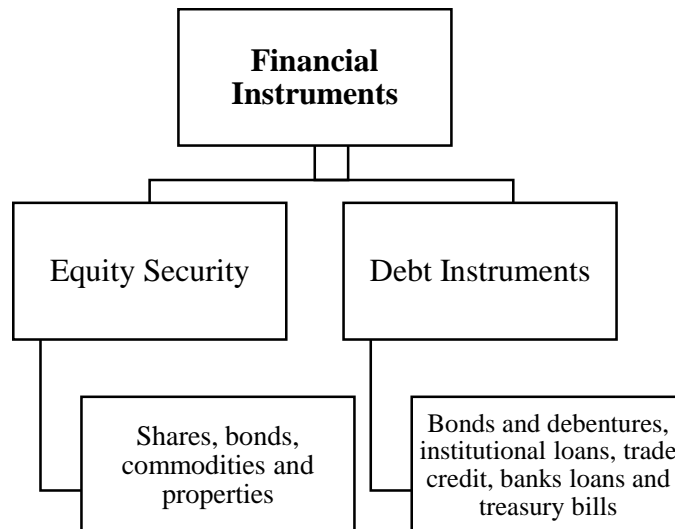


Fig. 2. Types of financial assets or instruments

1.2 Securities

One of the prominent financial assets recognised in the current world is financial securities i.e. equity instruments and debt instruments. Equity instruments can be further classified into shares, commodities and properties while debt instruments are categorised as bonds and debentures, institutional loans, trade credit, bank loans and treasury bills. For the purpose of this book, each of the mentioned security instruments is briefly defined below to clarify the understanding of the novice reader. The understanding about these basic financial elements is necessary to examine how different firms use set of product mix in order to finance and invest decisions of the firm (Christoffersen, 2012).

1.2.1 Equity Security

1.2.1.1 Shares

Share's capital refers to the ownership funds invested in a firm for issuing or raising companies' capital. There are two general types of the shares, i.e., ordinary shares and preference shares.

Ordinary shares owners are mainly described as company's owner while preference shareholders are the ones, who have received the preferential rights in relation to dividends payment and repayment of capital. Shares are the amount of capital invested to increase the capital needed by a firm for subsequent investment in the business. The company pays a percentage of the amount invested by each share capital owner as dividend (Christoffersen, 2012).

The ordinary shares are also realised as common shares and therefore the discretion to offer them dividend or not is purely dependent on the management of a business firm. However, the ordinary shareholders have relatively high privilege in the business organisation because due to their position as original shareholders, such stakeholders are offered voting powers (Christoffersen, 2012). In contrary, participatory shareholders are the one, who do not have guaranteed rights to dividend payment, however, in case dividend is offered, they are the first one to receive dividend relative to the ordinary shareowners. In similar context, the favourable tax treatment is offered to the preference shareowners. Preference shareowners can be classified into participatory shareowners because in case a firm accomplish certain performance goals, the holders of participatory shares are given additional dividends (Christoffersen, 2012).

Every firms adopt different share valuation methods based on the principles and rules of the markets in which these firms are operating. The market liquidity contributes a vital role in specifying whether a firm can sell its shares at the given market price at any given time. The shares need appropriate protection from the market including tax jurisdictions (Brigham & Houston, 2012).

1.2.1.2 Commodities and properties

The commodity is a marketable item, which helps the companies in production of other types of goods and services. The term commodity can generally be described as anything such as wheat, cotton, rice, corn, oats, butter, eggs, fats and oils. The firms use these two types of financial assets for contracts related with the future delivery. Trading in commodities is different from the trading in other types of financial commodities (Poitras, 2013).

Many firms contract in physical commodities as well as the property and equipment. Physical commodities are subjected to changes and these changes can place effects in the fair value of the trading portfolios. Therefore, companies are highly responsive to the changes taking place in the property and equipment. The valuation of such assets also changes constantly to accommodate the market fluctuations. These property and equipment assets are also classified into the leasehold assets as well as non-lease assets. The firms therefore keep reviewing the balance sheet price of their tangible commodities in order to assess what types of risk can create obstacles in the recovery of the assets (Epstein & Jermakowicz, 2008).

1.2.2 Debt Security

1.2.2.1 Bonds and debentures

Bonds are described as the long-term financial assets, which are issued by numerous bodies including bond-issuing corporations, mutual funds, and governments. The main purpose behind issuing bond is to raise the substantial amounts of debt or loan capital. Many companies also issue debenture for the same purpose. Debenture is an instrument of acknowledgement of debt, which is considered as unsecured bond while the bonds are recognised as secured instrument. Additionally, companies often differentiate the secured bonds into types of collateral pledged and the priority of the lien (Johnson, 2013). Unsecured bonds are not subject to collateral security. These are only backed by the promise of the issuing company to create the promised interest and principal payments as arranged.

Debentures are also classified into different classes such as debentures having higher payment priority. These include senior debentures and subordinated debentures. Subordinated debentures possess lower priority claims on the earnings of the firm relative to the senior debentures. The reason behind it is the fact that senior debenture has a prior claim to earnings and liquidation proceeds from

the general assets of the firm. It is necessary to understand that holders of the subordinated debentures are at higher risk relative to the holders of the senior debentures and investors (Gallagher & Andrew, 2007).

One of the significant bond types is convertible bonds. These types of securities can easily be converted into another security types upon the discretion of the owner. Convertible bonds can be exchanged into common stocks. The prominent features of the convertible bonds are its face value, coupon rate, interest payment, and frequency maturity. If the bond owner selects the option of not converting the bonds into stocks, then the owner can continually receive the interest and principal payments like the other bond categories (Gallagher & Andrew, 2007).

1.2.2.2 Institutional loans

Institutional loans are described as the low interest loan with a fixed rate. The specific institutions issue these types of loans. Such types of loans are specifically issuing for the institutional investors in order achieve acceptable yield to the institutions. These loans can be structured to be more bond like instruments because of its long-term tenor. In case of prepaying the institutional loans, possible penalties are associated with it.

1.2.2.3 Trade credit

Business firms often find trade credits as an effective tool in order to finance growth. It is a type of credit extended by the suppliers for helping the businesses to purchase now and pay later. Trade credit's appearance in the balance sheet is therefore recognised as important source for financing and significant external source of working capital (Hull, 2015). This is a powerful source for increasing the purchasing power of the business. The perceptiveness of firms differs in front of the customers as well as in front of the supplier of the fund. The customer defines it as a loan acquired from the suppliers in relation to the purchase. The attractiveness of the trade credit can be recognised as a feature, which is not guaranteed by mortgageable assets, which are beneficial for the firms lacking collateralizable assets (Vilks, 2017). Trade credits are also recognised as substitute or alternative sources of finance. However, some of the opposing theories still argue that many of the firms ask for more trade credit even if they have access to bank loans. Such believers argue that both the trade loans and trade credits can be examined as complementary sources of finance. For example, many of the firms use bank credit for financing business expansions while trade credits for financing the buying or purchase of the products (Vilks, 2017).

1.2.2.4 Banks loans

Bank loans are recognised as one of the mostly shared form of small and medium sized enterprises. Due to their quickly accessible attribute, firms often access bank loans in order to establish and grow their business (Brigham & Houston, 2012). However, like trade credits, bank loans are also recognised as important aspect of the firm's balance sheet. Bank loans are also a vital source of short-term financing. The prominent type of the bank loans includes promissory notes, which is defined as a document specifying the terms and conditions of a loan. The key components of the bank loans include amount, interest rates, and repayment schedule. Owners of the loans are primarily paid interests on the principal amount. The long-term and short-term loans each have different specified maturity periods (Brigham & Houston, 2012). Bank loans to businesses are generally offered for the period of ninety days periods. At the end of this period, a bank can renew its loan for increasing the period of loan. In case a bank finds that a customer has become bankrupt, or its financial position is deteriorating, then the bank can exercise its discretion in increasing the borrower's creditworthiness (Brigham & Houston, 2012).

1.2.3 Derivatives

Besides the above-mentioned financial instruments, derivatives are also one of the vital financial assets. The value of derivative is driven from primary assets such as shares, bonds, commodities, and properties. The derivatives are categories into two broad types i.e., future and options (Kaptan,

2001). The market for the derivative is integral part of the international financial markets. Its history can be traced since the early 1980s. The financial derivatives are connected with the specific assets as claims and liabilities arising in these financial instruments ascend after a specific time. Since the financial derivative can be traded in the market, therefore they obtain a market value, which is dependent on the market price of the underlying financial or nonfinancial asset (Kaptan, 2001). It is important to examine that derivative cannot only be linked with the financial assets but also to certain types of goods. Firms have strong consideration on the financial risk management of the derivatives because they realise the clear link between the derivative and ordinary financial markets (Kaptan, 2001).

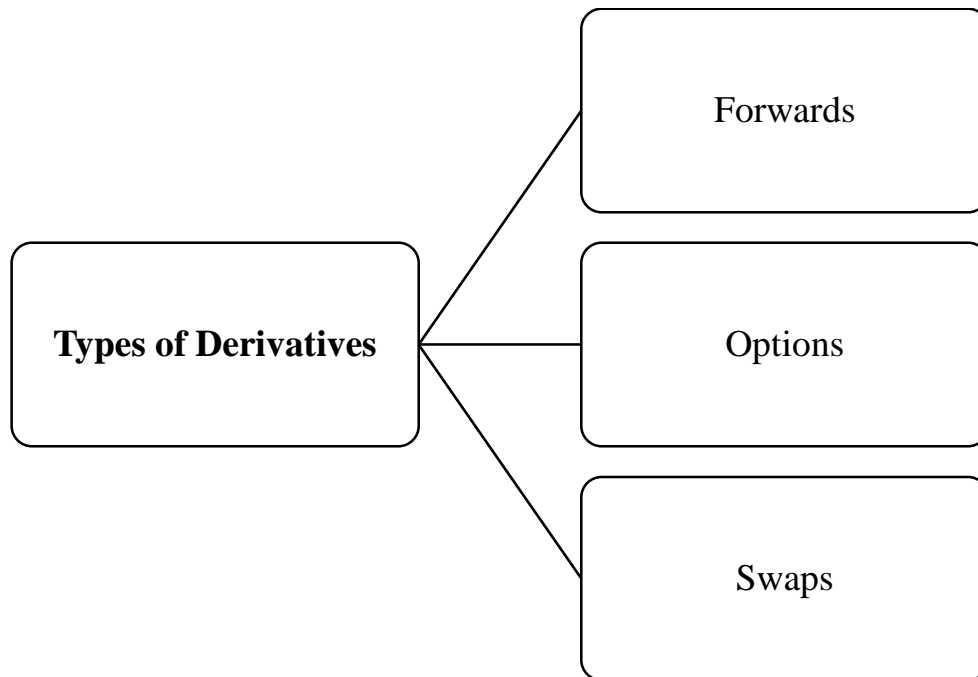


Fig. 3. Types of derivatives

1.2.4 Types of Derivatives

Different types of derivatives can be explained as follows.

Forward: In this type of derivative, there is an agreement between the counterparties for making an exchange on a specified date for a specified quantity of an underlying item. Both parties have decided and agreed-upon a specific contract price. Implementation of a forward contract is compulsory but only in the situation when the period defined in the contract is expired. In such situations of the forward contracts, each of the counterparties has both claim and liability upon execution. Consequently, the net value of the forward instrument is zero, which is calculated as the difference between claims and liabilities (Kaptan, 2001).

Options: Second type of derivative is option, in which buyers have acquisition of the rights but is free from any obligation associated with purchasing and selling of a specific asset. Like forward derivative, option derivative contains contingency. However, it is totally on the wish of the acquirer to exercise it or not (Johnson, 2013). A certain amount or price is paid to the seller of the option, which helps the buyer in acquisition of rights and not the obligations. Similarly, the buyer of the option can also sell the option contract i.e., the right to exercise options so that the option can obtain a market value. The firms carry out the statistical recording of options in the similar method as for the forwards (Kaptan, 2001).

Swaps: The third type is a swap, which signifies a spot purchase (sale) of a financial asset. However, the conditions of the forward sale (purchase) are applied in swaps. The swap operation is functioned principally by the CBA. Many of the financial firms identify swap agreement as a type of a forward agreement (Kaptan, 2001). The exchange of currencies is involved in this type of activity. Swap agreements are generally types of instruments where any currency can be easily swap with the another currency. In other words, buying and selling currency in spot market is extremely important for repurchasing agreement on sale of currencies in forwards' market. The prices of these currencies are determined earlier along with any specific rule needed to be specified earlier (Kaptan, 2001).

The examination of fundamental data about the different types of financial assets reveals that basically, both the financial and non-financial firms acquire similar set of assets. These assets can have varied effects from the different risks in the process of asset protection. However, prior examining the ways for managing the financial risks, in the next chapter of this book, types of risks associated with assets are discussed in detail.

Types of Risks Associated with Assets

Mohammed Bayyoud^{1*} and Oroubah Barghouthi¹

DOI: 10.9734/bpi/mono/978-93-91595-36-4

This chapter explores the importance of identifying the different types of risks associated with different types of assets. The identification and ranking of risks can offer management with the opportunity to damage the business assets. Assets' protection is extremely necessary against different risk sources (Banerjee, 2015). Risk is an uncertainty associated with the fact that the realised return would not equal to the expected return. Since the results and outcomes of the financial decisions are mostly associated with the future periods, therefore, all financial decision making needs to look into risks because it is present in all the financial elements. The major financial risks arise from the fact that how firms finance their assets (Skoglund & Chen, 2015).

The asset protection is extremely essential component of the bigger risk management concept. Risk management can help in efficiently settling the lawsuits through early negotiations in order to prevent the business from sacrificing its assets. There is a misconception about the asset's protection in the finance as many of the people think asset protection is generally to avoid debts. The increased asset protection is related to help client avoid risks and materialise it through proper risk management methods (Hull, 2015; Christoffersen, 2012). The assets protection is identified as last line of protection when everything has gone wrong since only it can help the clients from dealing with the worst-case scenario. However, a successful and feasible risk management is associated with thorough knowledge about the effective risk management. Such information helps the debtors in protecting its assets from the creditors' reach, leading to failure to access the debtor's assets (Brigham & Houston, 2012).

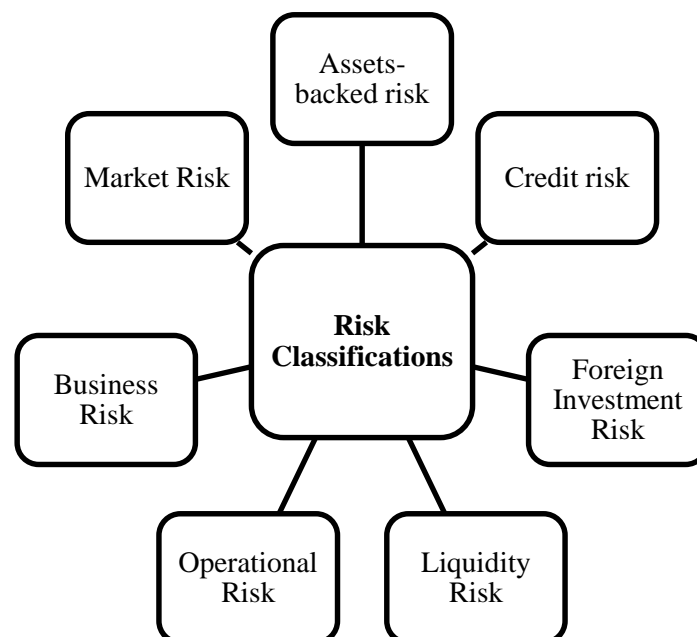


Fig. 1. Types of financial assets risk

¹Department of Banking & Finance, Al-Quds University, Palestine.

*Corresponding author: E-mail: mbayyoud@staff.alquds.edu, omahmoud@staff.alquds.edu;

The chapter has offered description of different risk types. Fig. 4 above reflects that financial risk classification can be carried out effectively by focusing on different financial and non-financial environments.

2.1 ASSET-BACKED RISK

Firms do acquire financial securities backed by a loan, lease and receivables against non-real estate assets. Such types of assets are alternative to investment made in corporate debt. Assets-backed securities also hold important risk types related with buying and bundling of loans. Therefore, these securities are directly connected to the asset pool and security structuring. Adequate securities structuring is the vital factor in determining how well the firms can mitigate risks (Jonsson & Schoutens, 2009). Therefore, risk management process associated with the assets-backed security can help firms in controlling the effects of the value of the supported security. By protecting risks in one category, firms are capable of controlling its effects on the supported security. Changes in interest rates, modification of terms and prepayment risks are the important risk types (Christoffersen, 2012).

2.2 CREDIT RISK

Credit risk is defined as the default risk. This type of risk arises when the counterparty to a contractual agreement becomes less likely to meet its obligations partially or completely on the agreed date. It is important to understand that credit risk is not related with the default made by the counterparty but is related with the partial payment or payment after agree date. Therefore, the nature of business place strong effects on how credit risk is being managed or eliminated by different firms (Skoglund & Chen, 2015). The banking sector firms are more involved in the management of credit risk because it is the part of their business. Financial firms normally tend to manage their credit risk exposure through effective risk management aspects and procedures through hedging (Christoffersen, 2012). On the other side, non-financial firms eliminate their credit risks because it is not a component of their core business. However, the investor can make assumptions in context of the credit risks through the direct or indirect usage of leverage. When the investors have purchased the investment through margin, the effects credit risk are controllable (Skoglund & Chen, 2015).

In this context, measurement and management of credit risk cannot be performed effectively without credit risk framework. In many organisations, firms have separate credit risk management staff (Hull, 2015). The team works by setting limited to the credit risk through the application of diversification principle for management of credit risk exposures across the products, regions, industries, collateral types and client segments. Adequate risk committees design appropriate credit policies for delegating, reviewing and maintaining the credit approval authorities. Firms do concentrate on the credit concertation risk arising from the exposure of firms' assets portfolio to multiple aspects (Hull, 2015; Skoglund & Chen, 2015).

2.3 FOREIGN INVESTMENT RISK

Foreign investment risk is mainly encountered by business organisations or firms, which are operating within a category of the cross-border investment. Firms investing money from their economy to another different economy are vulnerable to several foreign investment risks (Brigham & Houston, 2012). The assets invested by the firm in another country can be affected by the withholding impositions in order to reduce the return on investment. Foreign investment risk is connected with the fact that investors' expectations fail to achieve the desired level of actual return on their investment. Foreign investment risk is a type of risk resulting from the extreme changes in the valuation of market factors (Brigham & Houston, 2012; Christoffersen, 2012).

However, Cross-country border risk is more challenging related to the internal country's risk management process. The firms dealing in with cross border transactions are often engaged in the diversified activities and therefore for the effective risk management, they need set of specific metrics and not a single name credit concentration.

2.4 LIQUIDITY RISK

Another important type of risk is liquidity risk, which specifically arise because of market transactions with low liquidity. Every firm needs to ensure that it has sufficient financial cash flows, which are needed for sustaining its normal activities. The firms may face challenges in relation to the low trading volume and large bid –ask spreads in the financial markets. These conditions lead to sale of assets pushing lower prices and assets. Before the financial crisis of 2008, there was a sharp decline in the consideration dedicated to liquidity risk. However, the crisis pressurised the financial sector as well as non-financial sector firms to increase their considerations. Financial analysts have substantiated that the only thing, which has exacerbated the financial crisis was the short of liquidity. Most of the firms withdrew their funds from the market. A firm not taking enough measures for the management of the liquidity risk can lead to compounding of the other risks' categories too. The limited ability of the firms to liquidate their assets can result in compounding of the market risks. Likewise, in case of shortage of liquid assets, firms can lead to default payments leading to the compounding of credit risk. Hence, the appropriate measurement of the liquidity risk can help the firms in accumulating enough internal cash for conducting the normal business operations (Papaioannou, 2006).

Liquidity risk can be examined as a financial assets-based risk, where the asset cannot be sold because of limited market liquidity. Such type of liquidity risk is subjected to lengthening of holding period related for the VAR calculations. The firms need to employ the set of specific metrics to ensure that company is able to control its short-term wholesale borrowings. The effective management of appropriate minimum advances to deposits are extremely necessary for the stress survival horizons in the financial markets (Christoffersen, 2012).

2.5 MARKET RISK

Market risk is a kind of risk related with the fluctuations in the securities prices specifically related with stock prices. In case a company purchases a stock and subsequently market decline as a whole then prices of the purchased stock would probably fall. In contrary, with the increase in the market, the stock prices also rise significantly. The time horizon for the measurement and management of market risk is based on days. The financial firms are relatively more exposed to market risk compared to the non-financial firms. The expertise and level of knowledge of the financial firms are quite higher. Non-financial firms focus on their core business risks related with the specific business type in which they are engaged. In this context, such business companies require to eliminate the level of their market risk altogether (Christoffersen, 2012).

Many of the financial firms classify market risks further into equity risk, interest rate risks, currency risks, and commodity risk. Firms therefore look after the overall management of their trading portfolio and activities in order to ensure that market risk losses do not lead to material damages. The management of such risks is based on the employment of range of metrics in order to ensure that there is enough resilience to the market stress. Assets of the firms are needed to be protected from the profit and loss fluctuations taking place in the market (Brigham & Houston, 2012).

2.6 OPERATIONAL RISKS

Operational risk management is also an important aspect of the financial risk management area where the loss resulting from inadequate procedures are considered. The main aim behind operational risk management is the fact that procedures need to be full-proofed and secured in order to prevent business disruption practices. In simple words, operational risk stems out from the internal procedures, people and system. With the complexities involved in the modern financial management processes and practices, operational risks have emerged out as vital business practices. The rise in the regulatory, operational, and strategic pressure on financial institutions have further stressed the financial institutions to adopt appropriate measures and to develop reliable frameworks for the management of the operational data. Any loss of data about the assets can lead to disastrous impacts (Grinsven, Hendrikus, & Grinsven, 2009).

2.7 BUSINESS RISKS

Business risk is described as the risk that alters factors or variables associated with a business plan. Such risks have potentials to destroy the viability of business plans. The types of business risks include quantifiable risks, which can be categorised into business cycle risk and demand equation risk. These risks also include non-quantifiable risks i.e., modifications in the competitive behaviour. In both the financial as well as non-financial firms, business risks are necessarily an important component of the central business. Therefore, these firms simply accept the business risks (Christoffersen, 2012).

2.8 MODEL RISKS

Financial transactions and business practices are reliant on the valuation and risk management models. The effects of the inappropriate models can be very harsh on the business. Model risks are crucial for the financial firms generally because these companies use and implement range of consumer and commercial credit models such as credit scorecards, credit loss forecasting models; Basel II supports models and financial instruments valuation models. Therefore, the financial firms also identify the complex risks related with the evolution, settlement, and preservation of multifaceted models used for risk administration, assessment, and financial/regulatory reporting purposes (Gallagher & Andrew, 2007).

The detailed discussion of the different types of financial risks has helped in examining how the firms encounter range of risks during their operations. In the next section, the findings of the previous chapters are used to identify and discuss the ways to protect financial assets.

Financial Risk Management - Ways to Protect Financial Assets

Mohammed Bayoud^{1*} and Oroubah Barghouthi¹

DOI: 10.9734/bpi/mono/978-93-91595-36-4

Financial Risk Management is an important area of discussion since every decision in the financial and non-financial firm, related with the risk management framework involves exposure and opportunity. The first key principle associated with the financial risk management exhibits that managing risks in a firm is not confined to the management of risk practiced within the financial institutions rather it is about the management of risk in market through effective trading measures. Many of the firms use trading activities in the liquid markets for managing different types of risks while others focus on the management of risk outside the liquid market. It depends on the differences and variations in the businesses of firms. A risk management approach for a financial institution (such as banks, security companies, investment firms and others) may be different from the risk management approach for a nuclear institution.

Without appropriate risk management, one can easily incur loss or lose an opportunity. Firms therefore start with the categorisation of risk. They subsequently look for the adequate capital and assets' base for conducting their operations. After gaining a big picture of the business potentials, it becomes easy for the firms to create effective financial risks models. In line with the management of other business risks, firms are separately concerned with finding out ways to deal with financial assets.

In searching and deciding about the ways towards financial risk management, firms need to develop related questions.

- How should the firm value its assets?
- How can a firm offer attractive stocks to the investors?
- What should be the focus of the firm?
- Should it concentrate on the short-term profitability and growth or opt for the long-term profits?
- What should be the portion of capital and debt in the firms' financing?
- Can the portion of debt be increased and how much it is acceptable?
- What assets of the firms are vulnerable to the different types of financial risks?

I have once read an ancient story in a book, which can be used to understand how the different perspectives may define the effectiveness of different financial risk management approaches. The story is about six blind men, who were asked to describe an elephant, by simply feeling different parts of the elephant's body. One man was asked to feel the tail, one was asked to feel the trunk, one was asked to feel the belly and one the ear. Each of them described elephant based on the sensory experience with that specific body part only. This story should be considered as a base for understanding the financial risk management perspective given in this study.

With the fast pace of globalisation and rapidly changing financial environments, financial risk management has gained a unique perspective. New elements are constantly adding since we need to broaden our perspectives differently from the group of the blind men.

¹Department of Banking & Finance, Al-Quds University, Palestine.

*Corresponding author: E-mail: mbayoud@staff.alquds.edu, omahmoud@staff.alquds.edu;

Before understanding different perspectives and risk management approaches, general principles related with the two common aspects of risk management i.e., risk measurement and risk control have been examined. Practical evidence gathered after the recent 2008-2009 financial crisis have explored that companies have focused on the introduction of the new risk measurement aspects compared to the risk controlling measures.

3.1 BASIC PRINCIPLES OF FINANCIAL RISK

Basic principles of financial risk management are associated with risk tolerance. As soon as the trader examines the stop-loss limit of risk for their business, they change their business position towards liquidity. The key rules are always taken into account by every prudent investor.

- Careful and continuous tracking of market prices of existing positions is recognised as the most significant rule in the process of managing financial risks. A thorough examination of the realistic assumptions is extremely necessary to examine and forecast funding needs and their financing plans. The limits of the financial positions are extremely important for making future gains.
- Sensible choices of limit size relative to trader expertise and trading strategy is the second most important principle for the risk management. Management needs to have sufficient trust in a given trader's judgement. Timely assessments can help in correct and right prediction of the losses (Allen, 2012).
- Good procedures for review of request to exceed limits are also important to examine the difference between the existing loss and the latest information. In this situation, it is essential for the business management to look after the information asymmetry and employment of the reasonable degree of scepticism. Past situations can help in utilising the experience for understanding the present issues. However, in many instances, situations are different and therefore a regular independent analysis could only help in examining how different should be the analysis of the trading transactions of the firms in order to make them responsive to the business environment. Likewise, many of the financial instruments and products are connected with the nonlinear returns and this leads to selection of a risk management approach, which can effectively help in dealing with the risks. Simulation is identified as an effective approach for handling such types of risks. However, this approach may not be suitable for dealing with non-derivative instrument.
- Examination of the reasons for large losses and large gains is a well-recognised aspect of risk management across the globe, since such analysis is vital for clarifying the logic of the trading strategy (Allen, 2012).
- Development of the financing plan is extremely necessary for management of companies in order to assess and predict the needs and plan to meet their requirements (Allen, 2012).

Therefore, a mix of traditional and contemporary risk management perspective has been discussed in the subsequent chapters.

3.2 INSURANCE

Insurance has been identified as one of the basic lines of defence available to firms in order to protect their assets against the financial risks. Insurance offers a simple way to protect firms from the uncertainties and unforeseen losses (Hampton, 2011). The method helps in transferring risk from the insured to the insurer, ultimately resulting in redemption of losses. Asset's protection attorneys identify insurance as first line of defence. Despite the insurance companies offer greater support to the firms in management and protection of their assets, the insurance method is a protection against the protection of primary liability. Asset's protection is not about individuals' assets protection, rather it is about the proactive planning of the assets of different types of firms. Limited liability companies, limited partnerships and corporations, all offer great instance for the structures for the asset's protection (Williams, 2014).

Insurance strategies are ways for mitigating the consequence of an anticipated loss. It can be depicted that insurance instruments are alike vehicles used for transferring risk and for structuring finance. Traditional companies adopt traditional insurance for management of their credit as well as protection of assets through financial guarantees. These two insurance strategies, however, are not important for the current situation due to changes in the financial environment and market situations of the firms. According to Fabozzi, (2010),

“Financial guarantees, which can be either a pure financial guarantee (corporation is the beneficiary) or a financial surety bond (third party is the beneficiary), provide for a payment by an insurer to the insured if there is loss on a financial obligation to the insured and that loss is the result of a specified event that causes the default”.

The importance of insurance strategies is vitally observed in the management of operational risks. Insurance does not only provide an effective approach of management to financial managers but also offer great support to individuals to protect themselves from the hazards of the information asymmetry. More details about the role of insurance in managing operational risks are given in chapter 7 of this book.

3.3 HEDGING

Firms often encounter challenges and problems when managing their financial aspects in times of risks. Hedging is identified as an effective financial risk management strategy that could be used in managing foreign exchange or currency risks. Hedging is suitable for managing risks involved in derivatives. The qualification of hedge accounting is necessary for effective implementation of this option. Hedging needs to be monitored on regular basis for assessing its outcomes. Like other financial assets, hedging cannot be used without assessment of the hedging instrument or value. In many situations, hedging can turn out into less effective results or outcome. Hedging is examined as highly effective method in dealing with the offsetting changes in the fair value or cash flows of firms. Different types of hedge accounting are used to examine the exposure between the hedging instrument and the hedged item (García, 2017). Financial companies are further required to confirm that when on one hand, hedging can help firms in reducing its probability of distress, its optimal action can lead to decline in business debt. Thus, the ability of hedging is to increase the debt capacity of firms is highly significant for shareholders of a company. The added debt capacity is often recognised as the value-added capital. For this reason, financial managers realise that financial hedging is helpful in purchasing assets from the market efficiently with low risky effects of the foreign exchange rates. However, the long-term perspective reveals that hedging also required often the structural adjustments due to the differences in sourcing and production methods. The consequences of firms' more activism in the financial markets can be seen through the presence of more effective hedging tools. Thus, deeper analysis of the different hedging tools would help in understanding the role of hedges as an operational tool along with their positive effects and the respective drawbacks.

The detailed discussion of hedging as an asset protection is given in chapter 5 of the textbook.

3.4 SECURITIZATION OF ASSETS

Securitization of assets is important for the assets' protection from financial risks. This technique or approach is mostly applied in order to manage liquidity risks in order to help the borrowers manage temporary cash shortages. Asset's securitisation method is mainly used for management of liquidity risk. Different firms, however, adopt different measures for dealing with their liquidity risks. The different types of securitisations include full amortisation, controlled amortisation, and floaters. Details of these approaches would be given in chapter 6 of the book. Generally, there are many reasons behind the securitisation of assets, which include to protect business assets from some financial threats and to help business management in availing benefits of financial risk management. The securitisation option is available to many financial firms in order to assist them in the improvement of return on capital, to increase finance, to improve return on assets, to diversify the funding sources and to reduce the credit exposure (Das, 2009).

3.5 SIMULATIONS

Simulations are recognised as an effective approach to deal with the financial risks, mainly in the credit risk category. My exposure to this risk management approach has revealed that simulation, as an easy statistical measure, can assist in the convenient attribution of risk of potential liquidation losses. Monte Carlo Simulation as a methodology can assist in quantitative risk analysis by handling desired calculations. In risk management, it is extremely important that a business is able to capture customers' behaviours through scenario-based analysis. Simulation method is extremely helpful in assessing the value-at-risk in order to shape the returns distribution or the correlation between the returns. The importance of simulation can be examined from its impacts in detection of various risks such as market risk, and interest rate risks. The method can guide the ways to tackle different types of risks through examination of the financial position of banks, their asset value, earnings or net income. One of the significant attributes of simulation, which makes it different from the other approaches of risk protection, is its compatibility to deal with the static and dynamic environments. In this context, simulations can offer information about the existing and expected future periodic gaps, duration gaps, balance sheet and income statements, performance measures, budget and financial reports. This technique can be stated as the best approach on dealing with the risk exposure. However, it is important to note down that simulation models have vital effects on the business of the banking sector or financial institutions. However detailed assessment of the simulation as a way towards assets protection from credit risks would be discussed in Chapter 4 of this book.

Thus, it can be examined that financial risk management after the crisis has led to the risk measurement and risk control. Risk control requirements are however, linked with the effective risk measurement. Firms do employ range of risk control methods, including personnel controls as well as non-personal controls in order to minimise the occurrence and impact of the different financial risks within their organisations. Control functions in the financial risk management are similar to the ones employed for managing security risks in Information Technology (IT) markets. Some of the control functions included in the operations area include segregation of duties, quality-oriented design and well-trained personnel. All of these three elements are extremely necessary to identify how the individual firms can relate their decision-making process with the different types of risk controls. Risk control is a methodological challenge for firms and therefore its implementation is highly connected to the cooperation at all the levels of business.

For example, in dealing with the credit risk, banking institutions needs to integrate all their tangible and intangible resources to ensure that risks controls are in place for managing the smoother working of the organisational functions. An absent integration could lead to ineffective outcomes. The role of these controls is to identify and reduce the likelihood of a risk occurrence.

After gaining a brief overview of how financial risk management is tackled generally, in the subsequent chapters of this book, the detailed discussion is carried out to show what different quantitative and qualitative risk approaches are used to manage the different types of risks. The focus of the discussion would be placed on the theoretical as well as practical aspects of the risk management techniques. Real-life examples from the financial and non-financial firms would further help in understanding the risk management aspects more clearly. However, the next chapter discusses the approach for credit risk management in dealing with the protection of assets.

Credit Risk Management

Mohammed Bayyoud^{1*} and Oroubah Barghouthi¹

DOI: 10.9734/bpi/mono/978-93-91595-36-4

Credit risk management has been described as the one of the significant practices associated with the financial management of the firms operating in different sectors across the globe. Every business firm needs to be financially sound in order to stay responsive to the uncertainties associated with the market.

We can examine from the case of Enron, who showed financially sound results in the year 2001. The company appeared as fundamentally sound with strong balance sheet results. The liquidity position of the firm was also quite strong. Investors viewed the company as the greater opportunity in the market. Few months after the representation of Enron's financial stability in the market, company filed for bankruptcy, shocking its investors. The major cause behind such issue was the negligence of the company in dealing with the credit risk and lack of credit risk management practices within the firm. As described in the previous chapter (types of risks), it can be examined that credit risk is defined as the potential of the contractual party to meet its obligations in compliance of the agreed terms. There are vital effects of credit risk on the financial soundness in the market and therefore, credit risk management comes out as vital factor in this context. Uncertainties are indispensable parts of the overall system, which if not managed in timely manner, can result in threatening the continued existence achievements of firms in their sector. The management of credit risk is concerned with the administration and control of the exposure, likelihood and recovery rate (Brown & Moles, 2016).

4.1 CREDIT RISK EVENTS

Credit event can be described as default event, resulting from the negotiations carried out among the different parties.

Credit risk event is not mainly about the liquidity or bankruptcy of firms rather it is about the range of events that may affect credit formalisation for the firms. Credit events may be classified as bankruptcy, credit upon merger cross acceleration, cross default, currency convertibility, downgrading, restructuring, failure to pay, government action, market disruption, moratorium on debts, obligation accelerations, obligation default and repudiation. Assessment and management of credit risk in different credit events come out as vital.

Different bankruptcy events can be described as followed.

1. Bankruptcy

Bankruptcy is the most prominent credit risk event, which is required to be managed through proper measures. It refers to the event where the liquidity position of a firm falls below the acceptable level of liquidity. The firms, upon the occurrence of this credit event, do not have enough current assets to meet the current obligations. To deal with such situation, firms dissolve their legal entity's position under the corporate law, where commercial court declares it as bankrupt and insolvent.

2. Credit upon a merger

A company relates another credit event with the transfer of assets. The illegal transfer of assets can lead towards the negative impacts on the ability to make payments. There are situations, where

¹Department of Banking & Finance, Al-Quds University, Palestine.

*Corresponding author: E-mail: mbayyoud@staff.alquds.edu, omahmoud@staff.alquds.edu;

company has consolidated into another company. The merger transactions bring several risks associated with credit, which are required to be looked into accurately in order to understand the impact of assets transfer.

3. Cross-acceleration

Thirdly, events related with other obligations turned out as vital in influencing the credit side of the firms. In many situations, credit repayment becomes mandatory in response to the legal binding. It can be examined that cross-acceleration is often overlooked by the firms' management in the process of credit risk management.

4. Cross default

Another type of credit risk event encountered by the firms is resulting in the cross default. Specifically, when the firm is identified as defaulting in context of one obligation, it automatically gives rise to the default or failure in other obligations. Many of the researchers in past academic studies have used cross acceleration and cross default as the same thing.

5. Currency Convertibility

Likewise, the changes in one currency may have effects on the repayment of debts in that currency by the firms. In different countries, the foreign currency controls are different, which can have potential impacts on the transactions made by firms in the same country. The affected currency can pose risk of default for firms dealing with similar currency. Currency convertibility risk is highly crucial since most of the transactions in the current world are carried out between the firms operating in two different countries of the world.

6. Downgrading

There are some credit risk events associated with the downward of the obligor. The downgrade can result in the cancellation of the existing rating of the obligor in front of the holders of their security. This could lead the holder of the credit risk instrument to sell it in the market.

7. Restructuring

Another credit risk event, which surely requires management of the credit risk, is associated with the restructuring. Under this event, the firm may lead to rescheduling or deferring of the outstanding debts. By restructuring the credit instrument, these firms are capable of modifying the obligation's seniority or the extension of its maturity. Credit restructuring occurs when the firms are required to apply suitable strategies in order to deteriorating and declining credit rating. Set of suitable strategies are required in this context based on the firm level restructuring and the possible problems of counter party. Therefore, for every firm before deciding about the strategy for this restructuring event, it is extremely important to provide and understand the cautious definition of the restructuring.

8. Failure to pay

This credit event in the real threat to the financial soundness of the firm as in this situation, the firm ultimately rejects the payment of contractual obligation.

9. Government action

Since the government or public authorities regulate all firms operating in the market, therefore any government action can lead to outstanding claims. These could not be enforced against the legal entity.

10. Market disruption

Changes and disruptions are important part of the market as situations may change the work of the firms. These disruptions can lead towards the seizure of the obligor trading. Market disruptions may take any form and it is necessary for firms to keep a strict watch on the impact of these changes on their tradable securities.

11. Moratorium on debts

This credit event occurs when the firm declares a stoppage on the present debts and interest payments. A delay in debt payment can result from the actions of the government. This is a kind of relief provided to the debtor, during which the creditor is not allowed to take any action against the debtor. However, such type of relief is associated with the period when the firms are encountering severe political and commercial stress. National government of the countries in times of stress may permit the complete cessation of the debt payment or allow the partial cessation.

12. Obligation accelerations

Another type of credit risk event is associated with the contractual obligation, which becomes payable on the firm before its due maturity. However, reader of this book should not confuse it with the cross default since in obligation acceleration is connected with the direct party affected as a result rather than any third party.

13. Obligation default

In order to understand the obligation default, one should understand the legal entity's obligations. It can be examined that an event of default is highly concerned with the firm's obligations. Obligation acceleration leads to the situation when non-fulfilment of the contractual obligations has arisen before the arrival of due date. In this situation, credit event can easily be triggered prior to the due date, driving the other contractual payments of the firms to accelerate

14. Repudiation

Likewise, repudiation occurs because of the firms' disaffirmation and disclaimer of debts. Credit event arising out from repudiation arises out from the fixed income securities of firms. Repudiation represents the legal declaration of a counterparty risk, which ultimately indicates that the firm would not repay its pending obligations through the legal supportive evidence. The occurrences of repudiation take place when the counter party is of the opinions that the firm with which it is dealing is not going to perform based on the contractual terms. For dealing with such situation, firms need to request for the legal support in order to stress the other party for fulfilling and satisfying its legal obligation (Madhumathi & Ranganatham, *Derivatives and Risk Management*, 2014).

All these credit events may occur simultaneously or independently within firms. Since the credit events may be triggered

4.2 METHODS FOR CREDIT RISK MANAGEMENT

Credit risks management is extremely complicated and challenging issue and therefore, it requires looking after the multidimensional aspects associated with the credit including both quantitative and qualitative aspects. Range of methods and approaches are offered in the academic literature for timely management of the credit. Some of these methods offer qualitative judgements while some require quantitative judgements. Loss occurring from a default leads to extent of credit risk, which can be greater or lesser. The type of different approaches often leads to judgement, deterministic and judgemental models. However, selection of a suitable credit risk management model is ultimately dependent on the evaluation of credit risk.

Different credit risk management models used for credit evaluation process include judgemental methods, expert systems, statistical models, behavioural models and market models.

Credit risk management approach	Procedure to be followed under each credit risk management approach
Judgemental approach	In this credit risk evaluation method, assessor's experience is applied, and understanding is created for extension and refusal of the credit
Expert systems	This evaluation method is based on the application of the panel approach in making judgements about the case and formalising the decisions by using the lending system and procedures
Analytical models	These methods make application of the set of analytical methods, including the quantitative data in order to reach towards a decision
Statistical Models	This evaluation method is based on the use of statistical inferences needed to drive the appropriate associations for the decision making
Behavioural Models	Some methods of credit management often look after the behaviours of the business actors and elements over a period of time to show how the associations drive for reaching a decision

Many firms consider combination of evaluation approaches to determine the level of credit risk management. All systems need to look after the information sources, business environment and environment space in the selection of appropriate evaluation process. The goals of credit risk management must be observable in line with business objectives. Attitudes towards credit risk management cannot be undermined in realising how different stakeholders can approach the levels of bad debts.

For example, it can be examined that if the firm's credit risk policy is based in the objective to maintain a low level of bad debts then the firm will choose the strategy and approaches, which leads to limit its credit towards high quality firms with low-default profitability. Such objective will probably influence the ability of the firm to offer credit to the high risky customers. Credit risks are an inherent phenomenon, which needs to adopt an effective measurement process. The firms' credit ratings in the market ultimately place impact on the management of credit risk and measurement of the capital adequacy obligations.

Besides evaluation of credit risk, firms need to understand two other most important elements of credit management i.e., negotiation and arrangement of the credit terms and the collection of payments in line with the agreed terms and policies. Poor focus on any of these credit risk management aspects could ultimately lead towards the high level of risks to liquidity and profitability.

The figure below explains the elements of credit risk management. It can be depicted that



Fig. 1. Elements of credit risk management

Credit risk management is ultimately designed to view the financial as well as marketing aspects associated with the credit risk. For the modern business organizations, in terms of finance, credit control is essential for monitoring and restricting the credit risk. Financial perspective of the credit risk management is mainly associated with the management of the company's debtors while the marketing perspective requires the business to look into the management of interaction between a firm and its clients. At the first and initial step of the credit risk policy, negotiation is very important for the timely credit risk management. The firms and their credit customers have already decided about the terms, policies and practices associated with the credit management policy, and then only they can mutually deal with the credit risk arising out from the different contractual obligations between them. Establishment of efficient procedures for collecting and controlling query can enhance the effectiveness of firms to monitor the effects of interaction with a specific customer on their credit management process. Such negotiation and policy practicing can ultimately aid in chasing up the late payers quickly. This initial level assessment can limit the subsequent issues for the business clients. The purpose of good lending must be explained in order to decrease the extent of bad debts in case of customers' defaults. Firms need to have a system for timely assessment and control of credit risk.

It is extremely necessary for the lender to consider whether the short-term lending activities selected for financing long-term needs and expectations of the business organisation are capable of helping in meeting the long-term working capital requirements of the organisation. Asset protection loans can be used for determining the ability of the business for finance its assets. In order to manage the credit risk for protection of assets, firms are required to analyse range of factors such as purpose of loan, sources of repayment risks, structure of lending and other security-based features in understanding the extent of risk it can undertake and accept according to business needs.

Business may use credit default swap (CDS) as an important financial measure for protecting the financial assets from credit risk management. CDS are legal contracts designed to protect buyers and counter parties from the high exposures to the credit defaults. Such contracts are usually developed based on the bond investments and high exposures for making investments in the risky markets. The firm's engagement in protection of buying can make fixed payments. For instance, a swap quote can be decided between the protection buyer and the protection seller in order to help on the occurrence of the credit default event (Madhumathi & Ranganatham, Derivatives and Risk Management, 2014). These two parties for making contingent payments use swap agreement. Upon the occurrence of the credit default event, the parties can describe their default probability, default exposure and loss resulting from such default. Thus, in place of the periodic fee paid by the protection buyer, protection seller would help the buyer in protecting its financial assets using the contingent payment. One might question why the credit default swap seller put in great efforts in providing the protection to the financial assets of the firm. In response to this question, it can be stated that credit protection seller of the default swaps continuously received the reimbursement for his actions. Both the seller and buyer involved in such swaps are at greater opportunity to deal with the initial amount of participation. However, it is necessary to mention at this point that cash settlements upon default are reliant on the fall in value and the price fluctuations taking place in the market at the pre-specified time (Madhumathi & Ranganatham, Derivatives and Risk Management, 2014).

On the other side, in many situations, no default swap event occurs within the predetermined period or during the three years, which may lead to additional premium payments from the buyers in the entire life of swap. In case of no default, the default swap premium amount payable by the seller would be settled and calculated according to the period for which the premium is paid by the seller (Madhumathi & Ranganatham, Derivatives and Risk Management, 2014).

In many situations, default event may occur in between two periods e.g., after six months of passing of two years from starting of premium payment by the swap default buyer. In this situation, buyer would be required to make additional or accrual payment of premium for six months and the protection seller would be required to make the default payment to the buyer (Madhumathi & Ranganatham, Derivatives and Risk Management, 2014).

Likewise, financial assets of firms can be protected using cash CDOs, which can assist in dealing with assets portfolio such as loans, bonds, assets backed securities and mortgage-backed securities. The cash CDOs, can help firms in dealing with the credit risk for their fixed income assets portfolio.

The chapter can be summarised in order to manage and protect the financial assets of the firm, it is extremely important to consider the ways for monitoring the exposure, likelihood and recovery rates of such risk by the firm. Credit risk cannot be managed in an effective manner until appropriate credit risk events can be identified. The identification of appropriate credit risk event can only assist the firms in formalising their risk management procedure. Financial assets of the firm require protection from bankruptcy, credit upon merger cross acceleration, cross default, currency convertibility, downgrading, restructuring, failure to pay, government action, market disruption, moratorium on debts, obligation accelerations, obligation default and repudiation. Credit risk event may appear as significantly different for the firms based on the differences in the nature of their individual businesses. Similarly, for different businesses, credit risk management approaches and models also vary. For appropriate management, right risk evaluation is necessary and adequate risk management can assist in searching for the information sources, business environment and the level business objectives. Credit risk management policy should be based on multiple elements identified in this chapter to avoid any significant area, which could help in monitoring and restricting credit.

© Copyright (2021): Author(s). The licensee is the publisher (B P International).

Liquidity Risk Management

Mohammed Bayyoud^{1*} and Oroubah Barghouthi¹

DOI: 10.9734/bpi/mono/978-93-91595-36-4

Liquidity risk management has been identified as among one of the critical aspects of the protection of financial assets. Liquidity is the ability of financial institutions to meet its obligations in time of uncertainties and other events. Liquidity helps the business in maintaining the agents' behaviours. It is the ability of the institution to meet its contractual obligations. The recent financial crisis 2008-2009 has critically highlighted the significance of sound liquidity management in order to help the institutions in reducing their exposure towards risk. The practical incidence has confirmed the impacts of variances in the different business models of the business institutions to help them in the creation of a strong liquidity tolerance base.

Recent crisis is representation of how the fears over credit losses and counterparty solvency eroded the confidences of the market players and resulted led towards the rise of the fully-fledged liquidity crisis. Besides the crisis, still liquidity has been among the leading worries of banks, asset managers, regulators and customers. For this reason, western institutional stakeholders have started adopting suitable measures to help them in predicting, measuring liquidity due to its unpredictable and complicated nature of liquidity. The institutions are making greater attempts in realising how liquidity can be managed both internally and externally outside the firms. The easy credit opportunities fuelling the industry have resulted in greater level of moderations. It can be examined that there have been drastic changes in liquidity risks management approaches of the institutions where the funding opportunities are recognised as vital for the management of liquidity. The institutions focus both market making side as well as buy-side in order to increase the strength of their balance sheet and the financial statements. The impact of regulatory guidance and rising security can be seen through the improvements in liquidity risk management practices in context to risk governance, stress testing, capital planning and capital actions.

Modern businesses have recognised the importance of aligning the risk appetite of companies with the overall risk profile of the business highlighting the need to reduce influence of liquidity risk up to greater extent. The alignment needs to be in between the relevant business policies, procedures, roles and responsibilities. The businesses look after the continuous testing of their risk framework through the set of traditional to contemporary practices such as liquidity stress testing, identification of early warning scores, limits, operating metrics and regulatory ratios and timely actions management. In adopting any of the stated measures, the authorities need to look after the collaborations among the different stakeholders. Crisis response or even the routinely operations of the business cannot be carried out without understanding the perspectives of the different stakeholders' responses. The potentials periods of market disruptions however help businesses in deciding about the new ways of dealing with the financial asset's protection. Businesses have called for need to enhance ownership and accountability of liquidity risk data. The key aspects that every business organisation need to understand in the process of liquidity risk management are given as below.

5.1 PLAN FOR UNEXPECTED

The first and foremost aspect of the effective liquidity management is the firms' ability to plan, prepare and practice for the unexpected. For this purpose, critical role of the firms' planning strategies cannot be undermined. To deal with such situations, many of the firms do participate in the simulation activities to identify potential gaps and improvement opportunities. Good firms therefore do not wait

¹Department of Banking & Finance, Al-Quds University, Palestine.

*Corresponding author: E-mail: mbayyoud@staff.alquds.edu, omahmoud@staff.alquds.edu;

for the crisis to occur rather than these firms keep on simulating the potential business environment from time to time. The planning tactic is subjected to help the business organisations in identification of the potential gaps and improvement of their operational effectiveness and response time. In the process of planning for the liquidity risk management, firms are required to concentrate on the principles of incorporating liquidity risks, benefits and costs in their performance measurements, product pricing and new product approval processes.

5.2 INCREASING OWNERSHIP AND ACCOUNTABILITY

Firms need to examine the challenges of ever-growing regulatory requirements, which have been increasing with every passing period. Firms, therefore, look after the portfolio management to deal with the systems and applications. The institutions have little time to understand the juggling needs; therefore, they need to understand the granular information. The simultaneously developed approach for enhancing the ownership and accountability is therefore significant for implementation of the holistic approach. The after-crisis period has offered strategic and tactical implications of the new requirements. The leading institutions offer guidelines for addressing regulatory needs and firms need to show compliance through the strategy formulation.

5.3 UNDERSTANDING OF LIQUIDITY TRAPS AND FRICTIONS TOWARDS THE CASH TRANSFER

A business institution needs to realise that they should identify the potential liquidity traps highlighted with the regulation. The new regulations have called the businesses to factor completely the impacts of the liquidity measures on the models and forecasts besides presenting the commentary on the liquidity traps. The institutions are required to conduct a detailed and advance level analysis for the estimation of the potential amount of trapped liquidity along with the calculation of the transfer of liquidity among entities. The firms need to get engaged in the development of the liquidity risk triggers and response actions. Such strategic trapping can assist the institutions in ensuring that they are satisfying the national or jurisdictional liquidity requirements in relation to adequate funding under different stress scenarios and environments.

5.4 STRATEGY DIFFERS FOR DIFFERENT BUSINESS INSTITUTIONS

The firms in the process of managing liquidity risk need to ensure that bigger policies and strategies may not be necessarily needed in order to protect their financial assets. Bigger policies cannot be deemed as better ones. The answer may vary according to different situations. Firms have different internal and external thresholds based on the size and sector in which they are operating. Larger firms need to be systematic and important for the acquisition of higher liquidity and capital levels. Every firm is therefore required to consider the range of factors such as differences in the business models, competitive positioning, barriers to entry, customers' needs and preferences, institutional capabilities, legacy factors and jurisdictional regulatory requirements.

Some other key principles, which are needed to be taken into consideration while managing liquidity risk (for protection of financial assets) include development of sound processes for the identification, controlling, monitoring and measurement of liquidity risk. Financial assets are spread across the different business definitions and lines. The funding needs and liquidity risk exposures need to be in line with the legal entities and macro environmental aspects. The operational, legal, and regulatory elements need to be considered. Financial assets further need to have a strategy to ascertain that the funding resources of the firms are diversified and capable of affecting the risk exposures of the business.

5.5 LIQUIDITY RISK MANAGEMENT UNDER BASEL III LIQUIDITY FRAMEWORK

For effective liquidity risk management, it is extremely important that financial assets are protected through Basel III liquidity framework. Liquidity risk is a cost less risk and therefore firms do not neglect the aspects of making returns through the liquidity management. Firms need to develop relationship

between the amount of their liquidity and the incentives present for the product innovation. Basel III liquidity framework needs to integrate the following situations. It can be examined that the greater is the amount of liquidity cost; the better is the opportunities for the business. Businesses need to service the delivery mechanisms not to the protection motive only but also for the accomplishment of the profitability initiatives.

It can further be examined that Basel III framework requires firms to measure the size of their liquidity buffer without any focus on the stressed cash outflows. The design of the liquidity buffer needs to be well integrated in the design. The framework requires conventional approaches to the liquidity management to be replaced with modern Basel III approach. Basel III requires firms to provide clear connection with both the operational and non-operational aspects. The ultimate objective of firms needs to be responsive to the volatile and contingent liabilities. Firms also look after the interplay and interconnections among different risk types in the process of designing, monitoring, assessing and responding to the programs.

Basel III framework has helped business firms in realising that acting as a partner is quite necessary for dealing with other partners in order to ensure that liquidity risk management positions. All stakeholders from different departments need to integrate their contributions in order to enhance the liquidity. The stakeholders need to play their specific roles in increasing the different types of liquidity within the business such as operational, restricted, contingent and strategic.

Operational liquidity is the reflection of the amount of cash needed by the firms for meeting the daily needs and therefore a cushion is needed to be placed by the firms for meeting with the institutional needs. Firms looking after the operational liquidity requirements need to ensure the firms' operations can be accomplished successfully. Business firm need to undertake the liquidity stress test. On the other side, the second type of liquidity i.e., restricted liquidity is also controlled and maintained by businesses to deal with the specially defined needs and financial obligations. Firms do need to undertake the liquidity stress test under this situation. Firms in the management of restricted liquidity need to ascertain that the test is applied to the assumed outflows.

The third type of liquidity management i.e., contingency approach is based on the measures adopted by the firms to ascertain those financial obligations are met under a stress scenario. The firms therefore take every measure for dealing with the liquidity through the liquid asset buffer. The accessibility to financial assets is therefore achieved through the monitoring of the stressed cash flows. The dealing of cash needed to meet the stress need also require appropriate management. Likewise, the firms need to ensure that the level of their strategic liquidity is adequate. It can be examined those institutions need to meet the future requirements, i.e., to plan for the management of operations for supporting the bank during stress times.

Subsequent to the discussion on the basic's aspects, every firm needs to understand. In the next section, the chapter discusses the two types of the liquidity risks i.e., funding liquidity risk and market liquidity risk.

5.6 TYPES OF LIQUIDITY RISKS

Management and controlling of liquidity risk become easier when firms categorise these risks into two different groups such as funding liquidity risk and market liquidity risk.

5.7 MARKET LIQUIDITY RISK

Market liquidity risk is one of the types of liquidity risks in which banking institutions are not able to exit or offset positions speedily and in adequate quantities at a reasonable price. The situation occurs when the institutions are experiencing inappropriate market depth, market disruptions. In many of the situation, banking institutions often experience the inability in accessing the market. It can be examined that in practical situations, some of the financial assets such as bonds and exotic products do not have depth. The level of market participation is weak. The rise in credit risk is identified as one of the key reasons behind the weaker market participation. The influence of credit risk of one or more

market maker can lead to the decrease in the market participation of players and ultimately lead towards the activity concentration.

5.8 FUNDING LIQUIDITY RISK

Another type of liquidity risks i.e., funding liquidity risk also needs effective approach towards risk management. This type of liquidity risk is described as a possibility that a bank may not be able to satisfy its funding requirements at reasonable cost. Such funding needs originate daily from cash flow mismatches in swap books. Any firm experiencing funding liquidity risks has to deal with the exercise of options and the implementation of dynamic hedging strategies. Most of firms need to look after the cash flow impact of such instruments. Many firms may face funding requirement issues resulting from changes occurring in the market adversely. Therefore, firms need to integrate the regular liquidity measurement, monitoring and controlling processes regarding the adverse changes in the market perceptions.

5.9 PROTECTION OF FINANCIAL ASSETS FROM THE LIQUIDITY RISK MANAGEMENT

According to many scholars, firms need to protect their financial assets from both types of liquidity risks i.e. market liquidity risk and funding liquidity risks. However, the level of structure and formality in the liquidity risk management process is extremely crucial. The role of senior management and board of the firm comes out as vital. The liquidity risk is highest for some of the stakeholders such as dealers having active position in the process of significant unmatched derivative cash flows and significant foreign currency cash flows. It is important to understand that Tier II dealers need less formal monitoring relative to the others.

In addition to the quantitative aspects of managing liquidity risks, qualitative elements require firms to look after the following aspects such as open communication between line management and individuals responsible for management of cash. The effective liquidity management needs to be based on the contingency liquidity plan, appropriate process measurement, restricted control and exposures towards the market illiquidity and mismatched cash flows and administration of the comprehensive information management. It can be examined that irrespective of the Tier, dealers need to look after the importance of communication between traders, risk takers and liquidity managers. The low or high levels of the cash inflows and outflows ultimately help in deciding about the liquidity management system.

5.10 CONTINGENCY LIQUIDITY PLANNING

Deteriorating liquidity positions urges firms to undertake adequate measures. Contingency planning is recognised as significant measure for dealing with the factors or symptoms necessary to deal with liquidity. Counterparties need to address the declining conditions of the firms through an appropriate contingency plan. The firms looking after the specific strategies to deal with the counterparty plans need to understand that several measures need to be made part of the contingency plan such as influence of the credit enlargement activities, early termination triggers, expected funding requirements, collateral requirements, management duties and action triggers for the institution of plans.

The liquidity risk management cannot be however accomplished effectively without adequate measurement and calculation of the effects of liquidity. The calculations need to be based on the availability of the internal as well as external level of information.

Significance of managing different types of liquidity cannot be undermined. The firms need to understand the taxonomy of liquidity for effective management of liquidity. The understanding about the use of liquidity stress model is extremely necessary for understanding the situation. The model is explained in the next section of this chapter.

5.11 LIQUIDITY STRESS MODEL

According to the model suggested within the financial management studies, firms test their liquidity level need to integrate the following elements in their model. These aspects include liquid asset buffer, stressed outflow, stressed inflows and stressed liquid asset buffer.

5.12 LIQUID ASSET BUFFER

The first component of the liquid asset test model is the liquid asset buffer. It is representative of the contingent liquidity existing in the place. The stress test cannot be successfully carried out without taking into account the market and operational attributes, which should be met by the securities for qualification of inclusion in the liquid asset buffer. The model must take into consideration that liquidity generating capacities of the securities incorporated in the liquid asset buffer needs to look into the connectivity between the low credit and market risk, ease and certainty of valuation. The liquid asset buffer needs to integrate the operational requirements for ensuring that liquidity is under control (Venkat & Baird, 2016).

5.13 STRESSED OUTFLOWS

The second aspects of the liquidity stress model are stressed outflows. Such outflows are included in the model based on the assumptions. These outflows are included in the liquidity stress model due to their significance for settling the non-contractual maturity obligations. These outflows further concentrate on the inability of firms to refund contractual maturity obligations. The literature has mentioned that the level of stressed outflows may vary for the different firms and therefore different firm may include in their model various elements falling into different categories. Among the generally used categories, include retail deposit outflows, unsecured wholesale funding outflows, derivative transactions, assets-backed issuances and differences in the credit and liquidity facilities (Venkat & Baird, 2016).

5.14 STRESSED INFLOWS

Stressed inflows are the third most important component of the liquidity stress test model. Like the stressed outflows, stressed inflows are also based on assumptions. The role of stress inflows in the model is to offset the stress outflows. The different types of stressed inflows present in different types of firms include secured funding transaction maturities, loan repayments from customers and drawdowns on liquidity facilities existing to the institutions. Based on the assumptions of the specific stress scenarios, the firms may opt for the reduction in the inflows and outflows. Any variation in inflows and outflows of the firms is further dependent on the market conditions (Leonard, 1999).

5.15 STRESSED LIQUID ASSET BUFFER

The fourth component include stressed liquid asset buffer. The model calculates this element by netting off the stress outflows and stress inflows from the liquid asset buffer. The liquidity stress testing design needs to integrate the qualitative and quantitative aspects in the system so that all the necessary and adequate components can be linked together. The main factors considered by the firms in their liquidity risk management include liquidity risk inventory, event analysis, stress scenario and stress contingency funding. The modelling simulation, however, may vary for different business organisations based on their individual needs and requirements. Regulatory jurisdictions should be focused in managing liquidity risk across the jurisdictions. It can be examined those institutions need to gain insights about the multiple foreign jurisdictions in which their firm is present (Hanmanth. & Shivaji, 2016).

5.16 PLANNING HORIZONS

However, firms need to look after the fact that effective liquidity management is reliant on the planning horizons. The horizon ultimately keeps on changing with the change in time. Companies need to

integrate the longer-term projections within their liquidity management framework. Changes in the macro environmental factors, mainly regulations need to be integrated. Therefore, firms need to have design their stress model with an ultimate focus on the forecasting of the liquidity at any point of time with improved precision. The model should provide the relatively higher level of the cash flow predictability for the business considering the severity and the measures needed for the survival (Tarantino, 2010).

5.17 SIMULATION TECHNIQUES

Different types of liquidity simulation techniques are available to help the firms in testing the liquidity stress tolerance for their businesses. These include historical statistical techniques, deterministic model, and Monte Carlo simulation. The choice of selecting a specific model is ultimately dependent on the range of factors discussed above. The first testing technique i.e., historical statistical technique urges firms to look after the observed cash flow volatility. Furthermore, the deterministic model is useful for the firms in the development of hypothetical liquidity stress scenario. This approach helps firm in measuring forward looking and backward-looking scenarios. The third approach i.e., Monte Carlo Simulation technique can assist firms in assessing liquidity risk by using the stress testing with specified variables spread across a future period. It can be examined that range of simulation techniques are useful in heling the firms to measure their liquidity for historical as well as for future situations. It can be examined that the firms' ability to manage their liquidity risk is ultimately dependent on how effective approach is selected by the firms for the accurate prediction of the liquidity crisis event (Venkat & Baird, 2016).

Range of factors can therefore be looked into in order to identify effective liquidity risk management practices. Firms must analyse liquidity in which cannot be dealt too distinctly. The firms need to understand the inherent complexity involved in managing liquidity risk. Baseline scenarios keep on changing for the business organisations and so are their different types of the financial assets. It can be examined that organisation need to understand themselves and set up different variables in the equations. The use of right parameters without the effective tool can simultaneously resulting in unpredictable outcomes. The chapter has informed that firms need to examine different types of liquidity through different components in the liquidity model to concentrate on the short term as well as long-term management of liquidity. Although liquidity risk is associated with, the critical period of stress faced by a firm in the first initial days of crisis yet, the effective liquidity management needs to be concentrated towards the whole life approach. Market fluctuations are constant and therefore the liquidity stress framework need to focus on the stress scenarios changeable from the baseline scenarios. All these guidelines can be integrated into the firm's system for the effective liquidity risk management of firms. It should be noted that protection of financial assets could be carried out while all the different types of risks affecting these business assets are addressed and managed simultaneously.

The next chapter of the book focuses on the Market risk management framework.

Market Risk Management

Mohammed Bayyoud^{1*} and Oroubah Barghouthi¹

DOI: 10.9734/bpi/mono/978-93-91595-36-4

Market risk management is also an important component of financial risk management process. Like the business, financial assets of the business such as stock, hedging instruments, loans and others are also at higher risk of market fluctuations. Market fluctuations can place disastrous impacts on the financial asset's management of companies since most of these instruments perform in the open market. I wonder that whether it is necessary for every business organisation to consider market changes affecting them. Assets protection from the market risk is about real planning for protecting the business from the financial losses caused by market fluctuations. Market factors are more vulnerable for firms based on their quantitative and qualitative aspects. Markets also differ in size and types for different types of business assets and therefore, it is extremely necessary to evaluate the important market factors prior deciding about the ways to manage marker risk and protect the financial assets from these types of risks.

Market risk is more about the involvement of regulations and risk management by looking after the effects of different regulations on trading volumes of assets. Derivatives of the firm require extra cautious behaviours in dealing with the events. Compliance of the regulations can ultimately lead to timely response to the changes occurring in the market. Market risk can be examined as the adverse movements occurring in the assets prices in order to lower the value of the trading assets. Market risks can affect the return yielded by the investors, associated with the change in expectations. The analysis of the market actors has further revealed that different firms operating in the market deal with their market risks either through the adoption of subjective measures or through the objective measures. However, quantification of market risk is dependent on the difference and nature of trading operations of the firms.

Basic problem in the market risk is related with the challenges of decisions regarding the holding or selling of the market products. Fluctuations in the market situations and prices can ultimately lead the businesses towards two possible strategies i.e., holding strategy and the short selling strategy. Firms experiencing market risk may go for the holding strategy when there is an expectation about the increase in the asset's prices of the company. The firms simply hold the assets to be sold for the future period. Market risk under this situation is quite higher relatively. In the second situation, if the firm experiencing marketing risk has perceptions that price of the assets would decrease in the future, and then the business firm would immediately opt for the short selling strategy.

These two risk profiles are based on different situations and set of actions. However, certain assumptions underlie behind it where price of an asset can never drop below zero. On the other side, the market prices of the firm's financial assets can increase without any limitation or bounding. It can be examined from the above-discussed two situations that holding strategy can bring high profits for the companies, which can be in the form of unlimited profits and a bounded loss. On the other side, short selling strategy is connected with the potentials for unlimited loss. The management of market risk is therefore recognised as critical issue.

6.1 CORRELATIONAL ASPECTS OF MARKET PRICES OF ASSETS

In order to understand how market prices of assets are mathematically driven for controlling the risks, the unique attributes of the business assets need to be analysed. The first fact determines the

¹Department of Banking & Finance, Al-Quds University, Palestine.

*Corresponding author: E-mail: mbayyoud@staff.alquds.edu, omahmoud@staff.alquds.edu;

connectivity related with assets prices, which are recognised as related with each other through their responses given to single risk factor. The firms identify that a single known risk factor can be used to investigate the co-movements of the firm's assets. Secondly, firms may be responsive to the multiple known risk factors. Several risk factors can place the business value of the firms at risk and therefore business needs to be in alignment with risks in the portfolio. Market risk management is different from the management of other risk types because of the involvement of market factors in it. Market conditions are beyond the control of firms as market volatility can lead to deteriorate the significant value of the firm. In similar context, Basel Committee has required the firms to measure the value at risk for firms' assets in order to measure the trading books exposure to the markets. Complexity involved in risk management can assist in the measurement of complexity involved. It can be examined that in past mid 1990s straightforward solutions were present. However, with the passage of time, complexities have increased for the companies, as now firms need to understand both the market-risk profile through short-term profit and loss volatilities and long-term economic risks. Firms need to understand how much risk their businesses have accumulated based on their individual risk appetite in order to maximize their business efficiencies, firms are looking towards better capital management. Therefore, their needs to have efficient risk model cannot be undermined.

Market risk can further be categorised into management of spot risk and forward risk.

6.2 MANAGEMENT OF SPOT RISK

Spot trades are crucial to be managed because the transactions related with spot trade engages immediate exchange of the market assets. The transactions in the spot trading include purchase of stock, purchase of gold and exchanging the currencies of different countries. The spot trading is primarily based on the delivery of assets at future time. The market risk arises through the involvement and delivery of risk at future times. The mathematical modelling needs concentration towards the primary building blocks to value and manage risk. Spot transactions make up a large portion of the firms' risk; therefore, significant consideration is needed in this context. Management of forward and backward risks increases the role of the market maker extensively as trading desks of the firm is concerned with the management of market risks in line with the less liquid spot market or more liquid spot markets. Firms operating in the low liquid spot markets are often concerned with some sort of modelling for the purpose of valuation. Strict adherence is required by the firms to estimate the stock indexes and product prices. Market risk is challenging because of the engagement of foreign exchange currency and external actors in the process.

6.3 MANAGEMENT OF FORWARD MARKET

Unlike spot market, forward market risk is dependent on the future risk management approach and therefore any change in the prediction of the future prices based on anticipated market model can result in high risk as well as high gain. It can be examined that since huge timing difference exists in price quotations in the forward market options, firms need to update its assets prices based on the adjustments required for changes in the forward. The liquidity of price is measured compared to the prices of the other assets existing in the market. The firms therefore need to supply the prices based on more liquid quotations. Since in the forward market, risk management needs to look into the differences in price quotations based on the existence of timing difference, therefore, contract features are included in the provision for application of the risk management model in an effective manner. Thus, techniques for the management of market risks can be used to avoid risk overstatement, which is the outcome of more formulaic risk measurements. The trader makes use of key strategies in order to assess the changes and difficulties involved in simulations as market risk management requires simulation at each node (Allen, 2012).

6.4 MARKET RISK MODELLING

Modelling market risk is not easy because of the substantial changes occurring constantly within the market. Like liquidity risks management, firms do protect their market assets from risk through the stress testing approach. Range of modelling approaches mainly Monte Carlo and historical

simulations are available for the firms to measure the sensitivities and full evaluation of the market risks. The approaches are being used to understand computational bottleneck involved in the risk modelling. The different modelling approaches have different ways for calculating complexities (Allen, 2012).

Monte Carlo method allows the firms to measure the market risk using 1000 simulations per risk factors. The modelling approach has allowed the firms to project the distribution of past occurrences and future statistics in an effective manner. On the other side, historical simulation models differ by helping the firms in identification of the immediate and more distant past. Historical simulation models for market risk management are reliant on the early warning signals, making it more reactive to the stress situations (Allen, 2012).

It can be examined that firms' business nature play vital role in deciding about the level of market risks for them. Banking institutions different from other institutions they are required to carry out the back testing to understand the situation. Banking institutions, therefore, do not make use the discrete economic model for testing; rather they use VAR and shareholder value for the calculation of economic capital requirements for market risk. In doing so, their market risk management model concentrates on three main design choices such as consideration on the confidence interval, consideration of liquidity horizons and how best to account for fat tails.

However, different firms in same industry such as banking institutions in the development of their economic model for market risk measurement looks towards different confidence intervals and liquidity horizons for the effective holding of risk. Different banking institutions have different level of individual factors. Market risk modelling is dependent on the risk governance mechanisms as systems and infrastructural changes constantly work to make the situation more challenging for the firms.

In a recent survey conducted by the McKinsey in conjunction with the Institute of International Finance, three strategic considerations were recognised as vital for helping the firms with the better management of the market risks. These three strategic thrusts were mainly described in relation to the complexities faced by the banking institutions. These include as follows:

Improved alignment of risk measurement and calculations through stronger integration of the risk information technology (IT) architecture and higher data quality

A simplified steering framework, which can help the institution in identifying the limits of their individual systems both in context of risk and economic capital systems

Improvement in risk governance, mainly new product development and trade approval processes are interlinked with each other. Firms not only need to assess the strategic requirements and implement those significantly but also require the systems to be looked in unity with each other. The implementation of common data model across different business groups stresses the firms to attain the multilayer risk assessment.

Firms need to improve their governance mechanism for effective management of market risks. Assignment of roles and responsibilities come out as vital element as risk appetite needs to be in line with the essential activities related with the market risk management. The governance structures of the banking institutions can be increased by setting the risk appetite and by driving the limit structure.

6.5 ELEMENTS OF GOVERNANCE STRUCTURE IN MARKET RISK MANAGEMENT

Market risk management is only possible when the management of firms have aligned the top-down management targets with the bottom-up initiatives. Firms need to identify the underlying sources of revenue in front of the risk management so that firms are able to examine the notional number of risks and sensitivities. Driving the limit structure can support the effective implementation of the issue. In order to understand the governance parameters, set for limiting market risk, it is further necessary for businesses to restrict monitoring as a responsibility for controlling the business functions. Firms need to understand the significance of limit monitoring as without keeping an eye on the risk limit, firms are

unable to control functions. The function of limit monitoring is mainly given to the risk group present within the company. The group is also responsible for keeping a check on the limit breaches. Limit systems must be managed closely for the investigation of the root causes of limit breaches. The firms can track the technical as well as non-technical data errors. The specifically assigned group can perform in more appropriate manner for correcting data errors and for making sensible corrections.

The governance mechanism of the firm is also linked with the effective data management. The use of centralised database management system can assist firms in distributing the centrally available market data to businesses. Data management is significant for the successful market risk management. Since every business organisation owns almost some sort of market risks, therefore, it is necessary for firms to decompose the identified risks based on risk sensitivities. The quantitative and qualitative risk management aspects are therefore important for the management of market risks. Market risk management need to be considerate on the quantitative portfolio but not with its entirety. However, quantitative elements should be taken into account through VARs, SVAR, stress results and limiting the breaches. For each of the approach, stability, outliers and accuracy is required to be measured. The measurement is conducted in context of equal weighting, time weighting and volatility scaling.

After viewing the market risk management to protect financial assets of the firms, the next chapter of the study looks after the operational risk management.

Operational Risk Management

Mohammed Bayyoud^{1*} and Oroubah Barghouthi¹

DOI: 10.9734/bpi/mono/978-93-91595-36-4

Practically, operational needs of firms form vital component for them. The difference between the above discussed risks and their management and operational risk management can be examined from the point that operations are part of the routine functioning. Operations management highlights the deficiencies in business in the context of lacking information systems and internal controls of the business. Such deficiencies are subjected to incur loss because of the involvement of the personnel and non-personnel risk aspects. Operational risk can be categorised into risk of fraud risk associated with the provision of non-deliberate incorrect information, risk of disaster and personnel related risks. Operational risks are connected with the bottom up as well as top-down situations. Therefore, in order to manage these risks, firms can look after two keyways such as quantitative and qualitative strategies.

7.1 BOTTOM-UP APPROACH

It can be determined that in the bottom-up approach, firms stress on the quantitative measures. Among some of the factors, include measurement of audit risks through the audit scorings. Additionally, operational risks within the firms can be measured quantitatively through the counting of unreconciled items or error rates. Another incidence of operational risk includes measurement of delay in obtaining signed confirmations as a measure of legal risks. These quantitative measurements offer great opportunities for the provision of good incentives and showing the ways towards the relevant improvements needed. However, it can be examined that many firms identify it difficult to develop connections between these measures and the possible sizes of losses.

7.2 TOP-DOWN APPROACH

Another approach for the operational risk management stresses on the measurement of the historical volatility of earnings. Such measurement is appropriate for the direct connectivity to the size of losses because it helps firms in making connectivity between the operational risks as well as all other types of risks. Operational risks are linked with the financial risk management. It can be identified that management of operational risk cannot be dealt as a separate concern as business firms make use of the already available tools for management of the operational risks encountered by the firms. For example, businesses have their resources intact in order to manage the predictable physical disasters such as earthquake, hurricanes and nuclear plant breakdowns.

International standards are mainly in place to help the firms in development of quantitative measures of operational risk in order to manage operational capital. Basel Committee has explained the need to integrate ways for quantifying the capital requirements needed by the firms for management of operational risks. Different firms align their practices with the capital measurement and capital standards have adopted Basel II definition of operational risk. Operational risks are involved in routine business operations and if not considered appropriately, operational risks can cause billions of dollars to the people. The broken processes and poorly trained staff can however increase pressures on firms. In the absence of adequate response, the presence of operational risk can turn out as highly challenging for the overall business and reputational risks.

¹Department of Banking & Finance, Al-Quds University, Palestine.

*Corresponding author: E-mail: mbayyoud@staff.alquds.edu, omahmoud@staff.alquds.edu;

7.3 STEPS INVOLVED IN THE OPERATIONAL RISK MANAGEMENT AND MEASUREMENT

By pursuing five tasks, firms can easily pursue management and measurement of their operational risks. The first task is to identify operational risks existing or hidden within a specific business. In the second task, assessment of the size of operational risks is needed to understand the situation. The third task is to monitor and control the operational risks. The fourth task would be to mitigate the operational risks while the fifth task would be calculation of capital for protecting firms from operational risk losses. However, firms operating in any part of the international world need to ensure that all of these tasks are accomplished in order to address their operational risks.

7.4 BASEL OPERATIONAL RISK CATEGORIES

Basel Committee has provided test for helping firms to categorise their operational risks. Companies need to understand their individual standings in context of operational risks. These categories include internal fraud, external fraud, clients, products and business practices, employment practice and workplace safety, execution, delivery and process management, damage to physical assets and business disruption and system failure. Basel categories framework offers a great platform to management for identification and assessment of the risk's effects of businesses. These seven categories assist firms in understanding their individual standings. Different types of operational risks experienced by firms can be linked with one of the following seven categories. Any firm experiencing operational risk from within inside themselves might have looked into the internal fraud category, which mainly drives from the employees or managers sources. Likewise, external fraud comes into the business through the external business stakeholders such as investors, suppliers, other business partners. It can further be examined from the analysis of the categories that firms may experience operational risks resulting from the non-personnel sources such as policies and practices. Fraudulent policies can lead to disastrous situation for firms. The damages caused by the wrong policies to the business are quite harsh relative to the damages resulting from the physical assets. Physical damage to the assets can be recovered through the additional investments. Its impacts are mainly direct on the business while damage resulting from the unfavourable business policies can place influence on the direct as well as indirect business aspects (Allen, 2012).

Management of firms is allowed to employ a common model for identification and assessment of the impact of risks towards their business. This approach further allows firms to realise the likelihood and consequences of each individual risks for management controls. This can further assist in management of controls and frequency of monitoring. The categorisation of operational risks based on the five tasks is subjected to lead towards effective results. Basel framework is recognised as an effective framework for operational risks measurement and management for different types of organisations i.e., similarly suitable for the financial management organisations or non-financial management organisations. The framework, however, cannot ensure that nothing would go wrong rather it could only ensure that firms are better equipped in a position to identify and assess what can go wrong and such changes can be monitored and reported in a timely manner. The framework can help firms with controls to be used for speedy clean up after the identification of the operational risk management changes. However, it is still a questionable aspect for firms that whether they need to have bulk of capital for setting out effective operational risk's management. The answer can be gained through capital budgeting methods used by firms in different industries.

Operational risks have some similarities related to market risk and credit risk. The operational risks highlight those failures can lead to the representation of the wrong risk profiles and exposure to the significant business losses for the institutions. Operational risk management is up to certain extent different from the management of the credit risk and market risk because the later ones are generally directly taken in response for an expected reward. It can be examined through the examination of practical examples i.e., a firm originates market risk for itself while making decisions related with the use of certain product. Likewise, credit risk arises when a firm makes decision for carrying out a business with a specific counterparty. In contrary to both these types of risks, operational risks are present in the course of normal business activities. For this reason, financial regulators have started

pressurising firms to respond to the challenges of every changing operational requirement. Policies and practices need to be written by individual institutions in order to express the operational risk appetite and tolerance for managing such risk (Allen, 2012).

7.5 MEASUREMENT OF OPERATIONAL RISK

For management of operational risks, three possible methods are available for businesses in line with the Basel II guidance. Some of the global business organisations make use of operational risk capital for the calculation of their operational risk. Involvement of the operational risk capital is considered vital at the strategic planning level and for the effective capital allocation. Businesses need to examine strategic and business reasons may vary for different firms. Regulatory requirements often place significant impacts in shaping the operational risk activities since changes in regulations can result in turning the certain legal activities into the illegal activities. The main sources of managing and measuring the operational risk in different firms include regulators, senior management and third party. The third parties complement the operational risk management of the firms in order to control the financial and reputational impacts of the business. The management of strong operational risk requires strong framework for businesses so therefore strategic management needs to ensure that their operational risk framework encompasses the contingency planning approach. It can be examined that external third parties need to understand regarding the operational robustness of the firm. The firm therefore should focus on the framework, which can help firms in protection from the catastrophic operational event. Therefore, it is necessary for the firms to describe the operational risk framework in context of the inadequate and failed processes, people and systems and from external events. Management of operational risk can become possible only when firms have effective measures for operational risk measurement. Businesses need to understand the situation from the point of view of their stakeholders rather than merely focusing on internal situations. The operational risk framework should include both the external and internal business factors since all the routine elements possess the potentials for affecting the business (Allen, 2012).

7.6 OPERATIONAL MANAGEMENT CONTROLS

Managers of firms have range of controls for dealing with the effective risk management of operational risks affecting the financial assets of firms. These operational controls include mainly separation of assets into distinct categories, segregation of duties, system administration, and internal accounting controls. Assets safeguarding, securities servicing and record keeping is ultimately dependent upon the planning activities and quantity of risks integrated with businesses. A firm segregating its administrative and portfolio management functions can help firms in successful accomplishment of their individual duties.

Firms have their financial activities divided between the front and back-office functions and therefore, safeguarding financial assets comes out as vital in both the front and back office. Examples of the front office functions include determination and directions given to the trust beneficiary, decisions regarding the purchase, sale and distribution of the specific assets and actions taken to certain that firms are affecting undertaking the performance of their fiduciary duties.

On the other side, in context of the back-end assets management, firms are required to look after the range of activities such as movement of case and securities at the directions of the front office, posting transactions to internal accounting systems, performance of internal control functions, and preparation of reports for clients, supervisory authorities and management. Establishment of criteria and checking performances based on such criteria cannot be undermined. The business firm need to demonstrate the implementation of effective compensating controls in order to perform certain functions. Financial assets, whether it is simply cash, securities or tangible assets needs to be backed through the adequate control procedures. It can be examined that many of the firms in practical business environments currently look for the joint custody and controls to ensure that assets management system is not functioning in isolation rather than individuals are kept jointly responsible for their functions. For this purpose, everyone in the business firm needs to understand completely the system capabilities and workflows. Manual safeguards must be implemented along with the automated functions. Many firms limit or restrict the accessibility of their employees towards the

specific business functions to pursue significant risks assessment and workflows within the business organisations.

Practically, business firms have a specific and distinct asset management system, which is necessary for automatic profiling of the workflow changes. The system is used to keep transaction histories, logs, audit trails and similar reports. Individuals working in these systems are given authorities to put input and generate data. The ability to bring change in system therefore needs to be limited through the strong security administration and authentication system. Therefore, accurate monitoring of the system transaction can only be achieved through the internal accounting controls. Operations related with financial assets of firms need to be integrated with each other for maintaining accuracy and safety of the assets with each other. For effective facilitation of efficient assets protection, firms need to understand the procedures and workflows not only when the financial assets are in the on-premises custody but also when these assets are present in off-premises custody. Firms therefore need to place the controls, which could lead to the benefits of direct participation as well as benefits of indirect participation of different assets custodians. The concentration on all stakeholders' concerns is extremely important to ensure that uninterrupted operations are being followed. Financial assets protection needs to consider the complexities involved because, in the current business environment, all the operations of business firms have been performed through technologies. Modern technologies are offering new ways towards assets protection while have also raised security concerns for individual firms. Therefore, companies need to have operational controls, which can not only assist in successful measurement and management of the operational risks but also support firms in the completion of their business through secure platforms. Thus, in this chapter, operations risk management framework is described to show how firms can undertake management of their financial assets in order to stay competitive.

In the next chapter of the book, model risk management is given. The chapter tends to indicate the model adopted by firms for the protective shielding of their financial asset's management. The model risk management can help the firms in identifying what specific aspects should be integrated in their model for the effective protection of their financial assets.

Model Risk Management

Mohammed Bayyoud^{1*} and Oroubah Barghouthi¹

DOI: 10.9734/bpi/mono/978-93-91595-36-4

Financial assets risk management is ultimately dependent upon the range of models used for managing risk at different stages. The use of these different models ultimately brings significant risks for firms. The role of risk management models is significant in addressing different types of risks and stress testing the tolerance of the firms. However, the theoretical risk management models possess for firms cannot be overlooked because these models can misguide the users in employing these risk models in management of pricing, trading, hedging and estimating risk. The chapter has therefore stressed on quantitative reasoning approach in order to determine how firms need to pay specific attention to the ways of using models. The chapter has emphasised on the use and misuse of the risk management process. A comprehensive discussion is given to show how firms are required to exercise great care in using the specific risk management models.

8.1 IMPORTANCE OF MODELS IN RISK MANAGEMENT

In the process of assessing the model risk, firms need to understand that the role played by a model is quite explicit in controlling the risk and in the development of new risks. These models have different perspectives on viewing model error as the primary cause of financial risk. This could help in observing the relevancy or irrelevancy of models in helping firms to manage their risks associated with financial assets. There is a greater level of misunderstandings at present in the practical world, where traders and investors operating in the real working environment consider models as simply convenient mathematical shorthand. These business individuals do not associate significant meaning to risk management models. They are more focused around the quantitative outcomes of the models. They, therefore, require no detailed theoretical justification in practical environment. They are more concerned with the quantitative and statistical values.

The significance of model and model risks can be examined from the fact that financial and non-financial risks are part of the business. Firms can incur heavy trading losses in using the wrong model. The choice of wrong model can lead firms in making incorrect forecasts about the market prices and other market aspects of the business. Only right model can result in engagement of the firms to predict the correct move of the business. Forecasting the market prices based on correct model can further assist the firms in developing and implementing appropriate market strategies and directions. It can be examined that financial asset protection is mainly based on judgements related with the uncertain futures. These anticipations are relied on the selection of appropriate forecasting models.

Models in financial management play vital contribution in providing computational aid in forecasting but investors and traders view the use of model as a model, where chance of errors is minimised, and ultimately imposing false sense of security for the business. Models can also lead to mistakes and errors and therefore investors need to clarify their individual position at first as model error can result in relatively robust errors, which can be harsh compared to the other aspects of the corporate risk management. Many models make use of the insider information more actively while there are certain situations where financial, risk management models do not integrate the complete level of information and knowledge. The risk position and risk exposures are distorted for the business firms, when wrong model is being used.

¹Department of Banking & Finance, Al-Quds University, Palestine.

*Corresponding author: E-mail: mbayyoud@staff.alquds.edu, omahmoud@staff.alquds.edu;

The outsider reviewers and insider reviewers have different perspectives about the use of models as they use different data sets for the calculation of the incentives a business is offering to them. Statistical estimations form the strong basis for the outsiders, as they do not rely on the theory used by the insiders for development of data and information. The firms use statistical controls in order to understand the sufficiently industrious data mining. Not everyone within the business can make the use of accounting models and theories. It can be examined those insiders are given opportunities and latitudes in making decisions about the trade. However, model risk may result when both insiders and outsiders do not concentrate on each other's requirements. Therefore, validity of models needs to be assessed and judged in order to predict the effectiveness of the model.

8.2 ASSESSMENT OF MODEL VALIDITY PRIOR ITS IMPLICATION

Assessing the model is necessary for understanding this is effective for helping the firm in predicting their futures. The models, which can be used by the firms for marking their trading positions to market or gauging the influence of market variables on prices, are referred as the models of relative processes. These models help the firms in predicting the one set of prices move comparative to other set of prices. The validity of model needs to be assessed for their adequacy in forecasting the influence of change of market prices on position values in order to lead firms for taking unintended and dangerous exposures.

8.3 CATEGORIES OF VALUATION OF RISK MODEL

Subsequent to the measurement of model validity, firms also undertake examination of the categories of the reasons, which could be used for valuing and controlling risks in an accurate manner. Academic literature has classified these reasons into three distinct categories.

In the first category, firms identify the model as correct but due to the improper and incorrect implementation of the model. In this regard, incorrect derivation of equations or mistakes can occur in programming. In the second category, firms overlook the inclusion of a key source of risk in their model or include the same in the manner, which can obscure the associations related with the market prices. In the third category, firms may modify the value of one or more parameters in order to determine the liquid market prices for hedging the financial instrument.

8.4 RULES FOR AVOIDING INCORRECT IMPLEMENTATION MODEL

Business needs to understand that incorrect implementation of the model can lead to serious issues, as a comprehensive understanding is needed for implementing competent analysts. To avoid the incorrect implementation of the risk management model, business firms need to take into account set of rules to be kept in mind.

The first principle for correct implementation of the model is the need of business firms to conduct independent implementation of the model and to analyse whether the results agree or not. Error documentation can be crucial as business can miss it in the process of reading or analysing someone's errors.

The second principle is related with the use of independent implementation, which needs to be assessed for different solution methodology relative to the testing of implementation. Firms often make use of different implementation methodologies in order to examine the feasibility of model in highlighting the same flaws.

The third principle illustrates that prior implementing the risk management model in real situation; these should be tested on degenerated cases in order to identify the known solutions.

The fourth principle is to reduce the level of model risk illustrates that firms need to generate the graphical representation of the model output plotted against the model inputs with an ultimate aim of exploring any instances, which do not make any institutive sense.

The fifth principle of model risks asks firms to keep attentive to the complexity introduced into the models. For instances, firm need to understand the changes taking place in the old model. Firms not updating their practices in line with the modifications cannot base their financial risks management in aligned with the modern needs. Firms need to increase the expertise of their people in order to help them in accommodating the formal model within their business. One of the biggest mistakes made by the firm is related with their missing of a key source of risk. The model, which does not include sources of risks are unable to indicate the effectiveness of the findings and results. The model needs to integrate the risk factors for maintaining accuracy in the results. Omission of risk factors can result in disastrous outcomes. The situation where the test just refers to loss of accuracy because of the model's inability to target significant findings can be extremely difficult option for the firms.

8.5 CORRELATIONAL MODEL AND MARKET MODEL

Business firms therefore need to realise that models can be correlational, or market based and therefore reasonable choice is necessary. In situations where the correlational model is required, the use of market-based model can result in complexities.

The benefits of correlational model over the other market models can be examined in following context. The correlational model allows reflection on the basket trade in the exposure reports for the options positions associated with two different individual stocks. The correlational model further allows firms to utilize liquid hedges in an effective manner. This type of model is also helpful in the making valuation of the two individual stock options. Due to the direct mode of this model, it does not restrict the valuations in completely reflecting the cost of unwinding some of the risks. The correlational model of risk is also subjected to indicate the lower uncertainties associated with the results. Consequently, correlational model allows businesses to low their required reserve levels in order to maintain their business certainties. In contrary, the use of direct market model is beneficial for the business organisations when firms decided to hedge some of its risk through the employment of two different options. It can be examined that valuation based on the direct model is effective when change is offset in the situation of implied volatility quotes change on the individual stock.

Furthermore, business firms need to validate the uncertain input parameters and sources of the risk prior implementing the certain model for the evaluation. Business firm in an international operating environment is further required to understand that their risk management practices for the financial asset's protection need not to be marked to specific models rather these needs to be aligned with the market needs. This ultimately helps them in reducing the differences between the observed market price and a value represented by a specific model. Market conditions form an important element in the management of difficulties. It can be examined that business firms need to check their business situations and covered contingencies to assess the valuation change needed. With the changes in the financial market at international level, firms have started dealing with range of options and financial assets such as commodities, forward options, and spot options. The use of market related information is therefore necessary to understand how much margin the market maker for understanding the association between different market factors needs.

The complexities of model risk have helped in understanding the issues involved in the choice of model for management of risks. In this chapter, range of options is assessed to view how the change in different situations can lead to business firm's exposure to multiple risks. The chapter has indicated that in dealing with different types of uncertainties, firms need to understand the compatibility between the chosen model and the characteristics of the financial assets used for protection. In using the models of different types, firms need to assess and estimate the relationships between liquid instruments. The discussion in this chapter has shown that model risk can arise from the imperfections and uncertainties associated with these models. Both the theoretical literature as well as practices has confirmed that models used by business firms are simply representations of the real-world associations. Therefore, these cannot be examined as perfect. The incorrect or misused model outputs can cause the firms to incur significant financial loss, poor business and strategic decision-making and damage to the reputation of the business firm in the market. The discussion in the chapter has indicated that model risk may result because of fundamental errors or may result from the inappropriate employment of the model. The firms therefore need to manage their model risk in similar

manner as they manage their other business risks. Model risks require management after identification of the sources of risks and assessment of the business magnitude. With the increased complexity in the business environment, high level of uncertainty related with inputs, assumptions, and high-level impacts, model risk has been continuously increasing for the firms. The chapter has further helped in clarifying that firms cannot eliminate model risk but can control and monitor these model risks by setting out limits on the selection and use of specific models. Model risks can be controlled by putting effective mechanisms. After analysing the model risk management, the next chapter would focus on the case studies from across the world to show how the different countries are adopting risk management to protect their financial assets. Examples from European and non-European countries can be used to examine the situations.

© Copyright (2021): Author(s). The licensee is the publisher (B P International).

Case Studies from European and Non-European Countries

Mohammed Bayoud^{1*} and Oroubah Barghouthi¹

DOI: 10.9734/bpi/mono/978-93-91595-36-4

In this chapter of the book, case studies from European and non-European countries are analysed to show how firms operating in different markets covers the impact of credit spread exposures and control risks associated with the business. Firms operating in major geographic regions such as United States, Western Europe, developed Asia and other emerging markets require firms to stay highly responsive to the changing environments. The financial assets differ within different markets and based on such differences, the practices to deal with such assets are modified within different markets. European style trading and dealing of financial assets is different from the American style options traded in the market (Wu, 2011).

9.1 EUROPEAN FIRM'S CASE FOR FINANCIAL RISK MANAGEMENT

Management of different types of risks associated with the financial assets in European markets challenging because in the European market, reasonably liquid instruments are needed. European financial assets and instruments are monitored under different stock markets and therefore management of assets is required to be in line with the regulatory frameworks and standards developed by these firms. Banking institutions are at high risk in Europe due to significant portion of pressure on these institutions. Financial risk management, operational risk management and model risk are the key risk types involved in the market for the firms operating in the European Union. Firms need to follow the European Union standards and regulations in order to perform their financial service activities. Many of the European countries such as United Kingdom have significant financial services regulations and directives. The existing regulations need to be modified and altered if UK firms are operating in the high-level internationally protected environment (Maechler, Mitra, & Worrell, 2007). In the United Kingdom, different types of financial institutions are present including banking institutions, insurance companies, pension schemes, and foundations and endowments. In United Kingdom, firms make use of the internal and external environmental factors for financial enterprise risk management. The range of modelling techniques is used by business organisations to manage range of risks. Among the frequently used modelling technique, include data distribution, data fitting, data smoothing, model validation, data classification. UK firms mainly employ the Monte Carlo Simulation approach for setting the prices of the financial assets and for preventing these from the different types of risks (Zopounidis & Galariotis, Quantitative Financial Risk Management: Theory and Practice, 2015).

An example can be discussed under this heading to show how the different European firms use the combination of information available in context of market prices and model prices in order to devise an intelligent decision regarding financial risk management process. A UK firm has three distinct information such as observable market prices for a European call option, a European put option a forward to the similar expiry date. In this situation, UK firm has realised that there is no agreement with put-call parity. The firm can therefore sale the option by offsetting it two different ways systematically. A risk manager in the UK firm would be required to look after the options available to deal with it differently. Risk managers can assess the range of circumstances in this context. Risk managers in the firm would assess the computational advantage in order to examine the diversified basket of assets for accumulating different types of business tasks. The model drives prices at which

¹Department of Banking & Finance, Al-Quds University, Palestine.

*Corresponding author: E-mail: mbyayoud@staff.alquds.edu, omahmoud@staff.alquds.edu;

firms are capable of distinguishing in the short term. Liquidity of prices for different options needs to be considered. Firms need to consider different options into account to understand the timing differences and contract features for making issues applicable. In UK, like the other European markets, firms are actively engaged in dealing with the set of commodities (Bruni, Fair, & O'Brien, 2012). The UK traders therefore consider among the options available to them for trading management in order to understand the importance of risk aversion or risk acceptance as a part of their business. The European traders do not prefer risk aversion strategy; as such, traders are unable to retain a reputable place in life. The firms search for higher profits and higher profits can only be achieved through the aggressive trading attitude. The association between the models used by UK firms and statistical certainties is mainly based on the association between the liquid and less liquid resources. UK firms due to strict regulatory requirements needs to address the issues of the estimation of no statistical limits and risk reporting need to be considered (Allen, 2012).

Corporate climate of the European companies is needed to be assessed for gaining better understanding about their individual perceptions and responses about the risks. Physical, regulatory and market related climate risks, all contribute to shaping the attitudes and behaviours of the financial firms in understanding the industrial regulations. The European firms may vary in terms of encountering the physical and market risks in terms of their exposure. Physical risks can be materialized for some firms relative to the market risks. Firms regulated in European industries are identified as more responsive and exposed to risk, uncertainties and therefore their responses are quite higher (Sakhel, 2017).

European firms investigated for their approach to manage financial assets related risks, in past studies have reported that European firms exhibit higher percentages of exposure to three categories of risks analysed. The major findings identified from the review of past studies have further highlighted that hedging is significantly associated with financial price exposure for European firms. In European firms, there has been a strong association found in terms of the financial risk exposure and hedging activities. Such endogenous relation is extremely significant for the current investigation. Different firms, however, have different understanding and approaches in context of the exchange risk and commodity risk exposures. The financial risk management is recognised as vital for the financial as well as non-financial firms, but non-financial firms have to stay responsive to the overall situation. The unexpected changes resulting from the foreign exchange market risks, interest rate risks and commodity prices, all has vital impacts on business operations of firms. Management of prices of their financial asset is quite problematic for the non-financial firms since their individual business option is very different. These firms have different exposures and therefore are required to undertake significant measures for dealing with the corporate risk management. Foreign exchange rate exposure is very different, as market, index exposure of such firms cannot overlook the fluctuations in the stock price movements. The non-financial firms in the European financial market also require developing comprehensive understanding of the interest rate sensitivities although these firms do not have direct connectivity with the interest rate risks like the financial firms. The consistency between the firms' business exposures and firms' real operations need to look into before selection of an adequate model for the firm for the management of the risk levels (Saunders & Allen, 2002).

In context of the European firms, market trends have confirmed that larger firms in the European markets have higher and stronger tendency towards hedging, which is supportive of economies of scale in hedging argument. In European market, firms with high advantage tend to manage the level of their risk by having more hedging practices. Such firms with high hedging focus are capable of reducing the probabilities of the financial distress. Likewise, those European firms, which are operating in the more liquid financial markets, are more likely to hedge. In contrary, European firms have also shown trends i.e., firms with high ownership are less likely to hedge (Malz, 2011).

9.2 NON-EUROPEAN FIRMS: CASE OF ASIAN FIRMS

Financial and risk management policies for the non-European and Asian firms differ from the European firms, which requires the adoption of different tactic and approach for the overall financial

risk management. In some parts of the Asia, countries have different and rigorous approach for the management of risk as large number of firms in these countries prefers to employ profit-based approach for the evaluation of risk management function (Pramborg, 2005). The firms in eastern countries controls their foreign exchange risk, which is one of the higher financial risk affecting the financial assets of the firm in the international markets. Therefore, these firms make choices with respect to types of hedging instruments in order to reduce the risk impact for themselves. The firms operating within the international market do not require protecting themselves from the local or domestic risks but needing to ensure that their financial assets are protected against any type of crisis risk (Allayannis, Brown, & Klapper, 2014). The practical situations have revealed that in the Asian firms, the regulatory pressure and uncertainties are quite higher as the financial service industry as well as non-financial service industries is pursuing the compliance of regulations to improve their customers' experience and for enhancing the level of their competitiveness in the market. Firms dealing in the global financial markets need to be highly responsive to the changing world requirements related with the global, political and economic uncertainties in their stride. Non-European firms across the globe have also shared their own risk appetite as the significant aspect of their financial risk management framework as such frameworks are based on the different types of risks and the prominence of such risks for firms. The level of market information and stakeholders in the market ultimately shape the risk management approach backing the financial assets. There are many firms who have different valuation systems for financial risk management, operating in a global market with a unified approach for management of market and credit risks comes out as vital modelling and management aspects. Many of the firms measures and constantly report their enterprise-wide risk values on daily basis to understand their economic position among the global market players. Such continual monitoring trend is more concentrated by the larger firms. VAR-based market risk metric is among the key approach employed and exercised for management of financial assets. The high level of uncertainties in the Asian firms need more calculated and metric based approach for dealing with different types of their assets. The agility of risk infrastructure in these countries ultimately targets the new situations. Risk classification in Asian firms is based on the changing parameters (Akkizidis & S., 2007).

Practical evidence has confirmed that firms in the Asian markets focuses on their corporate governance and contingency framework in order to achieve the transparency and disclosure of different risks associated with the financial assets.

Case example of Asian Development Bank can be significantly viewed to analyse how firms pursue risk management approach within the non-European financial firms. It can be analysed that ADB addresses its credit risk, market risk, liquidity risk, operational risk and other risk types through its strong and continual financial risk management approach. The top banking institution manages its credit risk by only making transactions with financially sound institutions. There are different guidelines and limits set for the exposures of firms to the corporate investments, directory relationships and for the other investments. The financial institution only makes investment in the conservative assets. On the other side, for dealing with market risk, Asian Development Bank looks after management of interest rate risks to enhance the effectiveness of its portfolio. Several quantitative approaches are employed by these banks for the monitoring and management of market risks including risk metrics and stress testing methods. The management of currency risk is carried out using the similar currency in which funds are received. The banking institution further makes use of the cross-currency swaps and foreign exchange agreements in order to assist the conversion of borrowed funds. Likewise, for the management of its liquidity risk, liquidity policy is used to ascertain that sufficient amount of capital or investment is available with the institution to deal with its uncertainty in market conditions (Ghofar & Islam, 2014). Firms do manage their operational risk through the maintenance of the system of internal controls, effective monitoring of procedures and processes, which are designed to keep their individual operating system within the specified and acceptable levels. The use of modern technologies in the management of risk level cannot be undermined. The case of Asian Development Bank has offered greater understanding of the monitoring procedures and management practices needed in order to manage different types of risks (Financial and Risk Management Policies, 2017).

Market depth and associated market factors play vital role in shaping the capital structures of the firms. The level of liquidity in these Asian markets cannot be undermined, as it is not high relative to the advanced markets. Asian firms tend to experience lack of depth for large bond issues because of the exhausted level of possibilities to target and achieve the local markets (Azis & Shin, 2014). It can be examined that firms in Asia relative to the other non-European markets rely on the financial institutions for borrowing the investment or loan for themselves rather than bond markets. Firms in the non-European markets such those operating in Asian market require the incentives for the adjustment of their capital structures. Their specific risk management approach is also inclined towards the significant approach. For instance, firms may go for investment in the high-risk foreign currency, when they have higher level of probabilities for the stream of foreign earnings (Azis & Shin, 2014).

9.3 NON-EUROPEAN FIRMS: CASE OF USA

Firms operating in the United States have different risk management strategy based on their individual level circumstances. The influence of regulatory and supervisory frameworks is quite higher in the firms operating within the United States. The information about both the financial and market variables are used for predicting the changes for firms in United States. It can be examined that the operating environment of the United States firm is quite different from that of the European firms, specifically in context of the economic and business conditions of the firms. Statistic listing of the firms needs to understand the risk estimates of the firms. Legal framework for the firms in United States have offered distinct securities classification framework for the firms. The regulations are quite strict for the classification of the security class actions as only actions approved by the United States are required to be considered by US firms. However, jurisdictional differences are quite significant. The class actions are being selected by the US firms for quantitatively managing their financial risk by keeping focus on changes in behaviour, better governance opportunities, greater level of focus and for lowering the level of investment. The operation of security class actions can support firms in dealing with their business complexities in effective manner (Zopounidis & Galariotis, Quantitative Financial Risk Management: Theory and Practice, 2015).

However, firms operating in the United States and other developed markets tend to understand the differences in the market volatilities because of their encounter with the regional and international level differences. The response of the different markets to financial risk management is therefore different in crisis as well as in normal periods. Portfolio of financial assets is therefore protected against the international diversification approach so that different types of risks can be managed in an effective manner. Risk understanding of all the stakeholders and decision makers was not too significant for firms in United States compared to the other parts of the world. It can be examined that powerful U.S. based risk management infrastructure has ultimately posed difficulties for foreign firms to swallow U.S. firms.

Furthermore, individual firms operating in U.S. financial market need strong infrastructural base. Businesses need to understand the complexities of the market for management of the financial assets. It can be depicted that business firms risk management infrastructure in United States vary. Management of assets in the financial firms is stronger relative to the administration of skills and competencies in order to manage the businesses. The role of corporate customers and stakeholders has therefore emerged out as vital in order to understand the differences in risk management approaches of the business organisations (Harrington, 2004). United States firms, mainly those listed within the public exchanges are subjected to deal with the common stances of financial risk management. Classification of assets is used to categorise different types of assets and risk associated with these assets such as interest rates, currency and commodities. The firms operating in different exchanges require the companies to understand the firm's internal controls.

Thus, in this chapter, differences and similarities associated with the cases of different countries have been focused to show how the differences in countries can lead to the different financial risk management practices. The general discussion on the cases of the European and non-European countries have further assisted in understanding the need to undertake specific investigation of the

macro environmental factors of the different geography to undertake regional differences in the consideration. The individual differences of the countries cannot be undermined in understanding the overall situation.

The next chapter presents the conclusion of the overall book.

© Copyright (2021): Author(s). The licensee is the publisher (B P International).

CONCLUSION

The key insights gathered from the discussion of the chosen investigation topic have helped the readers in clarifying their concerns. The book was divided into nine chapters, where each of the chapter has added significant findings related with financial risk management. Firms in the global operating environment have been focusing on the ways to protect their financial assets from different types of risks. The first chapter has summarized types of financial assets such as equity security, debt security, derivatives. Chapter two of the book has highlighted the companies need to protect these assets from the range of risk classifications such as assets-backed securities, credit risk, foreign investment risk, liquidity risk, operational risk, business risk and market risk. These different types of financial assets risk are the significant concerning aspect for the financial and non-financial firms. In chapter three of this book, basic principles of financial risk discussed in this chapter has indicated that every prudent investor need to assess their situations and their risk tolerance based on the basic principles of financial risk management. These principles include careful and continuous tracking of market prices of assets; decision making regarding the sensible choices relative to trader expertise, good procedures for both present and future information needs to be assessed for the effective business management. The principle also requires firms to examine and assess the reasons for gaining larger losses in order to understand the well-recognized aspects. The development of financial management plan is therefore capable of assessing the needs as well as for increasing the effectiveness of their predicting power. The chapter has also pointed out towards the mix of traditional and contemporary risk management approaches used for the management of different types of risks. These include insurance risk, hedging risk, securitization of assets, and simulations. The role of qualitative and quantitative risk approaches come out as vital in understanding how the firms in the real life make use of the integrated risk management approaches to maintain the level of their individual reputations and competitiveness levels.

Chapter four of the book has highlighted the credit risk management perspective and practices for the businesses operating in the global risky environment. The chapter explained how the global firms look after the different types of credit risk events in order to devise their credit risk management plan. Among the key types of credit risk identified in this chapter include bankruptcy, credit upon a merger, cross-acceleration, cross default, currency convertibility, downgrading, restructuring, failure to pay, government action, market disruption, moratorium on debts, obligations accelerations, obligation default, and repudiation. The chapter further clarified how the firms in general use the different credit risk management approaches with different credit risk management procedures. Among the different types of critical approaches, include judgmental approach, expert systems, analytical models, statistical models, and behavioral models. They key elements of the credit risk management policy were also defined in this chapter i.e., payments management, arrangement of secure payment, credit insurance, organization and planning, credit analysis, and credit policy. Role of cash CDOs was also highlighted in this chapter for helping the companies with management of their asset's portfolios.

Chapter five has indicated how firms address their liquidity risks through the initial planning and timely action-based approach. The key aspects for liquidity risk management identified included planning for unexpected, increasing ownership and accountability, understanding of liquidity traps and strategy differences among the firms. The chapter further indicated the significance of Basel III liquidity framework for the protection of operational liquidity. In the process of managing liquidity risks, firms need to categorize, the types of liquidity risk i.e., market liquidity risks and funding liquidity risk. The chapter helped in identifying the main components of the stress testing in order to develop the testing model for the companies.

Chapter six identifies market risk management for businesses. Financial risk management process is mainly related with market risk management. The firms need to have strong market risk frameworks because financial assets such as stock, hedging instruments, loans and other assets are subjected to have significant fluctuations in their prices. The chapter has shown correlational aspects of market prices, management of spot risks, and management of forward market. The chapter has also indicated the market risk modelling approach for the firms. Elements of governance structure in the management of market risk are vital for understanding the qualitative and quantitative risk management aspects.

In chapter seven, operational risk management is discussed to show how firms in operate the set of risks arising out from their daily operations. Operational risk management is relatively crucial. The discussion on operational risk categories discussed under the Basel operational categories was highly significant for understanding the individual categories.

In chapter eight, model risks management was identified to show how the difference in choices of firms to use a specific model for their financial risk management could lead to effective findings. The chapter has highlighted the importance of assessing the validity of model used for the protection of financial assets prior making its implications. Set of rules were also specified to show how the firms can avoid mistakes they incur in management of their financial assets. Firms for dealing with the complexities can use correlation model and market model.

In chapter nine, general discussion on the case studies from European and non-European countries have further assisted in analyzing the factors influencing the different approaches of the UK-based, Asian and United States' companies in order to deal with the financial assets' risk management. Differences in the market factors and trends have shown that each of the market has different exposures and limits to the business risk and this help firms in management of their individual risk levels.

The book has limited its discussion in general on management of different types of risks in the financial assets' management. The discussion was aimed to help the novice readers in understanding the individual perspective.

ACKNOWLEDGEMENTS

I would like to acknowledge the contributions from the group of professional and personal life people, without whose support, successful and timely completion of this work would not be possible.

Furthermore, in my personal life relations, the credit of this professional accomplishment goes to my parents, who have been my emotional supports throughout my life since my first step. They have been constantly encouraging me to pursue my academic goals, professional careers and my dreams to attain what I want to achieve in my life. Their long standing with me has helped me achieving such a high success.

Likewise, my gratitude is always there for my lovely wife Enaam Elmadhoun and life partner, without whom I would not be able to manage my professional and personal life effectively. Without her, I was unable to maintain such an effective balance between work life and professional life.

© Copyright (2021): Author(s). The licensee is the publisher (B P International).

REFERENCES

- Akkizidis, I., & S. K. (2007). *Financial Risk Management for Islamic Banking and Finance*. Springer.
- Allayannis, G., Brown, G. W., & Klapper, L. (2014). *Exchange Rate Risk Management: Evidence from East Asia*. Washington, DC: World Bank.
- Allen, S. L. (2012). *Financial Risk Management: A Practitioner's Guide to Managing Market and Credit Risk*. John Wiley & Sons.
- Azis, I. J., & Shin, H. S. (2014). *Global Shock, Risks, and Asian Financial Reform*. Edward Elgar Publishing.
- Banerjee, B. (2015). *Fundamentals Of Financial Management*. PHI Learning Pvt. Ltd.
- Brigham, E. F., & Houston, J. F. (2012). *Fundamentals of Financial Management*. Cengage Learning.
- Brown, K., & Moles, P. (2016). *Credit Risk Management*. Edinburgh: Edinburgh Business School.
- Bruni, F., Fair, D., & O'Brien, R. (2012). *Risk Management in Volatile Financial Markets*. Springer Science & Business Media.
- Christoffersen, P. F. (2012). *Elements of Financial Risk Management*. Academic Press.
- Das, S. (2009). *Perspectives on Financial Services*. Chennai: Allied Publishers.
- Epstein, B. J., & Jermakowicz, E. K. (2008). *Wiley IFRS 2008: Interpretation and Application of International Accounting and Financial Reporting Standards 2008*. John Wiley & Sons.
- Fabozzi, F. J. (2010). *Financial Risk Management*. John Wiley and Sons.
- Financial and Risk Management Policies. (2017). *Financial and Risk Management Policies*. Retrieved December 02, 2017, from <https://www.adb.org/site/investors/credit-fundamentals/financial-and-risk-management-policies>
- Gallagher, T. J., & Andrew, J. D. (2007). *Financial Management; Principles and Practice*. Free Press; Inc. .
- García, F. J. (2017). *Financial Risk Management: Identification, Measurement and Management*. Springer.
- Ghofar, A., & Islam, S. M. (2014). *Corporate Governance and Contingency Theory: A Structural Equation Modeling Approach and Accounting Risk Implications*. Springer.
- Grinsven, J. H., Hendrikus, J., & Grinsven, M. (2009). *Improving Operational Risk Management*. IOS Press.
- Hampton, J. J. (2011). *The AMA Handbook of Financial Risk Management*. AMACOM Div American Mgmt Assn.
- Hanmanth., N. D., & Shivaji, D. W. (2016). *RISK MANAGEMENT IN BANKS*. Lulu.com.
- Harrington. (2004). *Risk Management & Insurance, 2/E*. Tata McGraw-Hill Education.
- Hull. (2015). *Risk Management and Financial Institutions*. New Jersey : John Wiley & Sons.
- Johnson, R. S. (2013). *Debt Markets and Analysis*. John Wiley & Sons.
- Jonsson, H., & Schoutens, W. (2009). *Asset backed securities: Risks, Ratings and Quantitative Modelling*. EURANDOM.
- Kaptan, S. S. (2001). 3. Classification of Financial Instruments. In *New Instruments of Finance in India*. Sarup & Sons,.
- Leonard, B. (1999). *Risk Management of Financial Derivatives: Comptroller's Handbook*. DIANE Publishing.
- Madhumathi, R., & Ranganatham, M. (2014). *Derivatives and Risk Management*. Chennai : Pearson Education India.
- Madhumathi, R., & Ranganatham, M. (2014). *Derivatives and Risk Management*. Chennai: Pearson Education India, 2014.
- Maechler, A. M., Mitra, S., & Worrell, D. (2007). *Decomposing Financial Risks and Vulnerabilities in Eastern Europe, Issues 2007-2248*. International Monetary Fund.
- Malz, A. M. (2011). *Financial Risk Management: Models, History, and Institutions*. John Wiley & Sons.
- Papaioannou, M. G. (2006). *A Primer for Risk Measurement of Bonded Debt from the Perspective of a Sovereign Debt Manager*. International Monetary Fund.
- Poitras, G. (2013). *Commodity Risk Management: Theory and Application*. Routledge.
- Pramborg, B. (2005). *Foreign exchange risk management by Swedish and Korean nonfinancial firms: A comparative survey*. *Pacific-Basin Finance Journal*, 13(3), 343-366.
- Sakhel, A. (2017). *Corporate climate risk management: Are European companies prepared?* *Journal of Cleaner Production*, 165(1), 103-118.

- Saunders, A., & Allen, L. (2002). *Credit Risk Measurement: New Approaches to Value at Risk and Other Paradigms*. John Wiley & Sons.
- Skoglund, J., & Chen, W. (2015). *Financial Risk Management: Applications in Market, Credit, Asset and Liability Management and Firmwide Risk*. New Jersey: John Wiley & Sons.
- Tarantino, A. (2010). *Essentials of Risk Management in Finance*. John Wiley & Sons.
- Venkat, S., & Baird, S. (2016). *Liquidity Risk Management: A Practitioner's Perspective*. John Wiley & Sons.
- Vilks, A. (2017). *Loan and Investment in a Developing Economy: An Ethiopian Perspective*. Cambridge Scholars Publishing.
- Williams, M. (2014). *Asset Protection for the Rest of Us: A Layman's Guide to Asset Protection Planning*. BookBaby.
- Wu, D. D. (2011). *Quantitative Financial Risk Management*. Springer Science & Business Media.
- Zopounidis, C., & Galariotis, E. (2015). *Quantitative Financial Risk Management: Theory and Practice*. John Wiley & Sons.
- Zopounidis, C., & Galariotis, E. (2015). *Quantitative Financial Risk Management: Theory and Practice*. John Wiley & Sons.

Biography of author(s)



Mohammed Bayyoud

Department of Banking & Finance, Al-Quds University, Palestine.

He is a Director of Bayyoud's Financial & Consultancy Services, London, UK, Senior Consultant for RBC (Royal Bank of Canada), Head of Finance & Banking Department Al Quds University, Jerusalem, Restructurer and consultant of Business, Director and Operational Manager CANAR Technical Services Inc., Toronto, Canada, Certified Residential Underwriter (CRU) the Real Estate of Canada, Certificate in Mortgage Lending for Residential Housing (CMHC) and Accredited Financial Analyst AFA, by the Global Management and Finance, USA.



Dr. Oroubah Barghouthi

Department of Banking & Finance, Al-Quds University, Palestine.

She has 30 years of extensive Practical and teaching experience in Islamic Banking, Risks Analysis and Performance Evaluation, Banking Management, Basel International Standards for Banking Supervision, Central Banking, Financial Asset Valuation, Corporate Governance, Investment, Financial Markets. She is an Assistant Professor in Department of Banking & Finance at Al-Quds University –Jerusalem, Establishing & Heading Finance Department in IUJST & YPU universities in Syria, Dean of Faculty of Business & Economics in Yarmouk Private University YPU in Syria CEO of Research Department in PMA (Palestinian Monetary Authority). She has 20 published papers involving Scopus & ABDC indexed journal. She has Research Papers on the field of Islamic Banking, Corporate Governance, Banking Management, International Basel Standards in Banking Supervision, Risk Management in Banks, Competitive Advantage, Central Banking.

London Tarakeswar

Registered offices

India: Guest House Road, Street no - 1/6, Hooghly, West Bengal, PIN-712410, India, Corp. Firm
Registration Number: L77527, Tele: +91 8617752708, Email: director@bookpi.org,

(Headquarters)

UK: Third Floor, 207 Regent Street, London, W1B 3HH, UK

Fax: +44 20-3031-1429 Email: director@bookpi.org,
(Branch office)