

Impact of Derivatives on Efficiency of Stock Market: Evidence from Karachi Stock Exchange.

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Abstract—Through the proper use of derivatives, a firm, even country can hedge, manage and transfer the systematic and unsystematic risks. Many studies have been conducted for determination of the factors which influences the reluctant and usage of financial derivative instruments & risk management practices of financial corporations and non-financial corporations, have built a lot of materials to the literature. In Pakistan such studies encompass the driving factors like history of derivative in Pakistan, measurement of risks (especially interest rate and foreign exchange risks), and knowledge of financial managers of Pakistani corporation towards modern financing. Financial derivatives business regulations (FDBR) have been created and allowed by State Bank of Pakistan to regulate and handle the derivative dealings in Pakistan. To enhance the liquidity and flow the capital to the right path for economic growth, the introduction of derivative market in Pakistan could be a pioneer step. The purpose behind this study is highlighting the impact of derivatives on the efficiency of Karachi stock exchange of Pakistan. The study first focuses on the concept of the derivative market, products, and participants and secondly, it provides auxiliary for development of an efficient derivative market in Pakistan.

Index Terms— Derivatives, Hedge, Pakistan, Systematic risks, Unsystematic risks.

1 INTRODUCTION

Interest rate risk and foreign exchange rate risk are frequently facing risks among all types, foreign exchange rate risk is only bear by organizations having their operations in more than one country (MNCs), while almost every organization faces the interest rate risk to stable it's short and long term financial requirements.

Misunderstanding and mismanagement of risks (especially foreign rate and interest rate risks) by financial managers can hurt the value of shareholder's wealth, the loss in shareholder's confidence is the result, and in last the performance of stock market minimized.

Derivative (instrument for risk reduction) is a written contract between two parties, it doesn't have its own value, but its value derived from and depend on some other underlying assets, the values of both derivative contract and the underlying assets are closely related. In the derivative market normally the physical delivery of above listed (underlying) assets is not in practice. OR it is a financial instrument or contract consisting three conditions. 1) Derivative value changes by the changing of underlying assets. 2) The initial investment is not necessary here. 3) A future settlement date is an essence of this contract.

All companies, especially multinational are facing the interest rate and foreign exchange rate risks. Karachi Stock Exchange (KSE)'s efficiency

obviously disturbs by levels of reluctant and usage of derivative instruments. A rational investor always seeks the hedging of risk in the shape of investment in derivatives, when he analyzes the financial statements. Especially for KSE listed companies, due to unfavorable circumstances, the proper use of derivative instruments invites to hedge systematic and unsystematic risks to get the sufficient financing by giving more confidence to the investors.

Many studies have been conducted determination of factors which influences the reluctant and usage of financial derivative instruments, risk management practices by the financial corporation (e.g. Jack W.Dorminey and Barbara 2012. highlighted the hedging derivatives in the banking industry) and non-financial corporation (e.g. Bodnar, G. M. and Gebhardt, G. 1999. Highlighted the derivative usage by nonfinancial firms in the US and German) have built a lot of materials to the literature.

This study will provide help for all KSE listed companies to enhance their efficiency and performance by using derivative instruments to hedge the interest rate and foreign exchange rate risks. The study will be helpful to motivate the financial managers to start or increase the derivative use; economic revival is the basic aim behind these efforts.

In the discussion of economic revival, among other factors the stock market is considered as an important driving force. When we talk about the stock exchange, its efficiency comes automatically in our debate as a crucial topic.

An efficient market can lead their competitors at national and international levels, meaning of efficient market can learn better with the Efficient Market Hypothesis (EMH) and Miller & Modigliani (M&M) Theorems. M & M theory and EMH argue that the changes in stock price depend upon public information. Efficiency in information is the base of strongest relationship between stock price and information. Three categories of market efficiency; weak, semi and strong forms were also introduced by FAMA (1970) on the basis of efficiency of information.

In a rational decision making regarding investment portfolio and their analysis can do easily in an efficient financial market by an investor, it means only an efficient market can permit their investors to make decisions quickly.

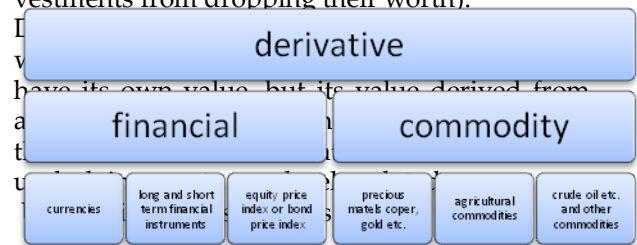
The derivative market is new for Pakistan stock exchange; Investors in Pakistan have not awareness (information) regarding the use of derivatives.

Investigation for building an efficient derivative market is the purpose of this study in order to put more efficiency in the Karachi stock exchange market. In the under developing economies like Pakistan the research area for "derivative impact on stocks" is now waiting for researchers and it can play a valuable contribution in economic growth also. For Pakistani environment where more volatility, more inflation, security threats, terrorism and energy crises are considered as extra challenges for an investor, this study could be a sign of prosperity in the Karachi stock exchange market. After publication of this study, these papers could be helpful for further researches. The derivative market has been captured more attention after global financial crises of 2008 and Asian crises of 1995 and 1996. This crisis vividly reveals that the financial institutions were not able to capture the risk through their instruments and model; these were unable to protect investment regarding sudden abrupt and quantum fluctuation in asset prices. For emerging economy like Pakistan, a healthy derivative market facilitates economic growth and development and also can develop the bond, foreign exchange, real estate markets. Why KSE listed companies do not use derivatives? And what type of instruments are they using in alternate of derivatives? Are the big research areas of this study.

The study has been divided into five sections. The first section focuses to facilitates to understanding of the derivative market, products and participants, the second section draws light on the scope of the study, The methodology stated in the third section, the fourth section highlights the impact of derivatives on Karachi Stock Exchange (KSE) market, and finally fifth section emphasizes the conclusion and recommendation remarks to the concern authorities to make some necessary steps in developing a potential derivative market in Pakistan.

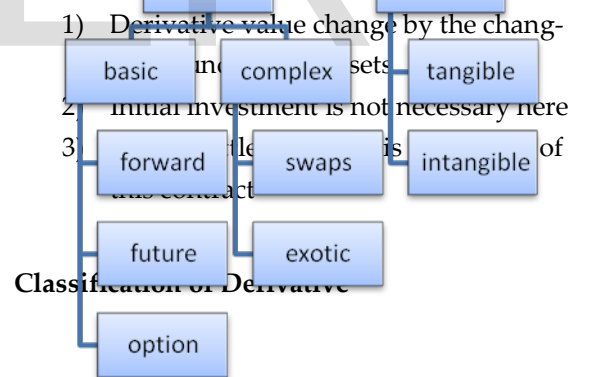
Derivative

(Hedging device for investors to safe their investments from dropping their worth):



In the derivative market normally the physical delivery of above listed (underlying) assets is not in practice.

OR
 It is a financial instrument or contract consisting three conditions:



Some Kinds of Risks:

- 1) Operational risk; uncertainty of failure to operate the system.
- 2) Market risk; uncertainty about unfavorable movement of market prices.
- 3) Legal risk; uncertainty of legal boundaries disrupts your activities.
- 4) Liquidity risk; risk of slowness in pace of trading an asset or security.



for this study because the derivative market in Pakistan is quite new. Derivate market is a broader market and it almost cover all of the integral financial market of the economy, including insurance companies, broking services, and funds& portfolio management, and also includes banks and housing societies, credit unions, and micro financing facilitation institutions.

This study tries to fill the following gaps

1. Scope of derivative market in Pakistan.
2. Impact of derivative on efficiency of Karachi stock exchange.
3. Basics of derivatives consisting market, products, and participants.
4. What barriers are in the use of derivatives?
5. How to overcome these barriers.
6. What the responsibilities of concern authorities are being ignored to promote derivative market in Pakistan?

Scope of the study

1) To mobilize the capital at right direction to generate the employments and income by using derivatives, 2) to enhance the transparency and security for financial instruments and risks, 3) to explain the meaning, products and participants of derivative market, are also can be consider as an important purpose of this study due to introductory period of derivative market in Pakistan. Importance of derivative market in emerging economies for economic growth, impact of derivatives market on the efficiency of Karachi Stock Exchange (KSE), identification of factors that contributes to rapid growth of derivatives market are also the scope of this study. In addition, in the Pakistan the investors have not adequate awareness regarding derivative products and its use. Therefore the investors and financial institutions, both are not contributing their real potential in the development of derivative market, ultimately the pace of economic growth is not quite differ before and after global financial crises, this study could be an integral material to fill these gaps.

Methodology

The stubby is mainly based on secondary data; collected from official websites and publications of KSE, and from other related literatures.

In addition, relevant literature is also reviewed to enhance the quality of this study. The use in the vital range of secondary data is responsible

Impact of derivatives on efficiency of Karachi Stock Exchange

Indeed the KSE listed companies are using derivatives to the insufficient extent, more than 50% firms are minimizing their risks by hedging, while less than 30% firms are using derivatives for speculation. These insufficient levels are the result of the risk averse nature of financial managers; affecting the efficiency of KSE. Although some of the KSE listed companies have been agreed upon the development of a fully active derivative market in Pakistan, but majority of them are using only one or two types of instruments where the future is more preferred than forward.

The derivatives are quietly new instruments for the investors of Pakistan, but currently many financial institutions, including banks, credit unions and mutual funds, institutions are dealing the derivative transactions with various types of use. Karachi Stock Exchange is now working to introduce the Islamic derivatives in contrast of preventing selling and buying of derivative transactions in the existing derivative market. 2001 was the year when first time the one month future derivative introduced in Karachi stock exchange, but now various other instruments are available like cash settled futures, and index futures etc.

Despite these developments the Pakistan derivative market has not in a better position as compared to Indian derivative market (which started in 2000) and other developing countries.

Markets for derivatives started in Pakistan in the year 2003. The first transaction was the coupon swap by National Bank for PARCO. At that time the market was very thin and uneducated. Clients were not sophisticated enough to handle the transaction. Moreover, there were not enough transactions taking place in the market. After PARCO, forward rate agreement took place in 2004 which were apparently termed as the first derivatives in the market done by UBL.

2004 was the year in which State Bank of Pakistan focused on derivatives. SBP gave approval for FX options, interest rate swaps on a case to

case basis. At that time there used to be four active players in the market, Standard Chartered Bank, Citi Bank, ABN Amro and Deutsche Bank. In November, 2004 SBP introduced the concept of the Authorized Derivative Dealer (ADD). In 2005, the license was given out to Banks for ADD.

Underdeveloped derivative market in Pakistan is due to the bad performance of the whole economy, consequently the presence of a vital range of risks makes market maker unable to attract the foreign even local investors. Basically, through the proper use of derivative, a weak party can prevent his self from bearing risk and can able him to transfer the risk to other stronger and willing party who can handle it better than first one. An effective derivative market in Pakistan economy can generate an efficient stock market where a rational investor can manage their risks not only regarding inflation, but as well as for trade deficit, foreign policies, currencies and interest rates. An efficient derivative market provides auxiliary to attract foreign investments; can reduce our debt burden.

Conclusion/ Recommendation

Investors know that a security has higher the risk invites higher the return, but investor wants to place some blocks to the extent possible between risk their investments.

Concept of derivative securities starts from foreign currency contracts, then grew into interest rate and now famous in the world and make investors able to deal in risky investments or securities.

As at the initial stage of derivative market in Pakistan is facing a number of challenges and concern & responsible authorities try to introduce this derivative market to individual investors and participants for example, state bank of Pakistan decided to allowing the banks to carry out the derivatives transactions. These authorities are seeing a bundle of challenges and it is also known by these authorities that the developed economy of Pakistan demands the proper management of financial commodity risk.

I think that the major problem in the development of derivative markets of Pakistanis is the lacking of knowledge of derivatives, and its advantages in today complex investment decision making.

I hope that the well educated people in this field can minimize the barriers and maximize the interest, and speed of growing of that market. The less educated investors and participants are the main reasons still under development stage of derivative market in Pakistan.

If we draw some light on other challenges, the deregulation of financial markets in Pakistan is another major constraint.

Underdeveloped market, the interest level of derivative concern authorities, and its dealers are still too low, and constraints of unavailability of market data regarding derivatives are the main responsible blocks in development of derivatives.

Low level of market liquidity is also may be responsible for underutilization of derivative risk protector's instruments, a large capacity market can overcome this liquidity problem, because more the participants invites high liquidity. The state bank of Pakistan is responsible to provide surety to the participants (individual investor and institutions like old age benefit fund, and national investment trust etc.) regarding proper supervision and trading of derivative transactions.

Derivatives can help to our investor in calculation of opportunity cost and also help in better understanding regarding the operations of money market

If the Pakistani derivative concern authorities and other responsible sectors increase their attention towards the development of derivatives, then the increasing domestic saving, continuous development, sustainable development of economy, increase in FDI, and resolution of interest rate fluctuation problem will be ready in the weak economic umbrella to make it strong.

I hope that in coming days the concern authorities will be successful with the help of an educated framework to make a developed derivative market in Pakistan.

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