

# The types of derivatives finance essay

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## **Introduction**

" Large amounts of risk have become concentrated in the hands of relatively few derivatives dealers ... which can trigger serious systemic problems" (Buffet, 2003), as Buffet views derivatives as time bombs for those who deal with them and the economic system. But is this true or are derivatives generators of Market stability? A derivative is defined as something that is based on or derived from another source, in finance terminology, a derivative is a security by which the price is derived from one or more assets. We can also say that a derivative can be considered as a contract between two parties for future delivery of assets at an agreed price. From the above definitions we can say that derivatives are not primary, they are dependant. But what is the nature of derivatives, how did it develop, how do derivatives work, what are they used for and how many derivatives are there? And what is The role of derivatives in the financial crisis of 2008? All of these questions will help us answer the main question behind this essay which is " Are derivatives weapons of mass destruction or are they generators of market stability".

## **History of derivatives**

Mankind have been using derivatives over 100, 000 years ago, where as people used to exchange goods and services, however it had a problem as it was hard to exchange items that are harvested at different times of the year. Ever since that day, derivatives have grown and gained widespread use. In the year 1970 several factors played a role to drive the derivative markets.

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To begin with governments began to deregulate pricing and controls in markets which introduced high volatility, calculations were required to help predict prices in the future, which is why computers were used to do these calculations, since that day, derivatives would be used on anything with a market that has the will to trade. In the year 1992 electronic trading was introduced by the Chicago mercantile exchange which gained huge acceptance. As it offered greater liquidity and higher transparency. In the past 30 years, derivatives saw an astonishing growth, whereas the size of the market exceeded \$200 trillion, which is basically 100 times more than it was 30 years ago when most of the derivatives that comprise this market were not even available

## **Types of Derivatives**

There are different types/ flavors of derivatives, it can either be plain vanilla or exotic, plain vanilla includes all the contract involving buying or selling for future delivery such as forwards and future contract. It also involves contract with an option to sell or buy at a fixed price in the future which are option contracts. On the other hand, everything else in the world of derivatives are exotic derivatives. Future and forwards. Futures and forwards are linear instruments, this section will talk about forwards and then futures and at the end a comparison between the two types of derivatives. A forward is a contract between two parties, where as the delivery of the product is delayed until after the contract has been made, however the price of the product is determined on the initial trade date. For example, let's say an exporter made a forward contract whereas he should receive €100 million within 6 months. Whereas the price of the euro is \$1.15 at the beginning. If

the price of the euro drops by 10% then the exporter would lose \$11.5 million. When a contract is written, the expiration date of the contract is written. If a forward contract is made then the holder of the contract is said to be long in the underlying asset. If the price is higher than the forward price at expiration, then the long position makes a profit, otherwise it's a loss. Futures and forwards are similar instruments, the difference is not that big, whereas futures are traded in formalized exchange while forwards are custom made and are traded over the counter. If you take a look at figure 1, we can understand the mechanics of derivative products. C:

UsersUserDesktopForwardPayoff. gifSource: [http://www.investorsoftware.net/InvestorPrimer/Images/ForwardPayoff. gif](http://www.investorsoftware.net/InvestorPrimer/Images/ForwardPayoff.gif)OptionsAn option is a derivative security in that its value is contingent upon the underlying asset It provides its holder with the right, without obligation to buy or sell an asset at a pre obligation, or at a pre-specified price (Strike price) in the future. Options can either be a call option or a put option, whereas the call option provides the owner with the right to buy an asset at a pre-specified price in the future whereas put option provides the holder with the right to sell an asset at pre-specified price in the future. There is also two types of exercise rights, the European option and the American option where as the European option rights can only be exercised on maturity while the American option can be exercised before maturity.

## **Benefits and risks of derivatives**

In the year 2009, International swaps and derivatives association (ISDA) performed a survey, which involved the top 500 companies by revenue, the survey's findings showed that 94% used derivative instruments to manage

and hedge risk effectively. But does this necessarily mean that the use of derivative would give an advantage to the companies using them?

Derivatives have been used as instrument of financial speculation which received criticism, as it was increasing the risks in the financial sector which may have lead to the financial crisis in 2008. So what are the advantages and disadvantages of derivatives and what role did derivatives play in the financial crisis. Benefits Over the past few years credit derivatives became increasingly popular, so how do they affect the stability of financial markets, in general derivatives improve the allocation of risks within financial systems in two ways, first of all, they make risk management efficient and flexible to banks, they also allow efficient distribution of individual risks and reduction of aggregate risk within the economy. The development of the credit derivative markets has clear benefits for market stability as they allow the origination and funding of credit to be separated from the efficient allocation of the resulting credit risk (Rule, 2001). The BBA surveys (1999/2000 and 2001/2002) show that a number of banks in the London market argue that credit derivatives trading is more important in reference to active portfolio/asset management than in reference to compliance with regulation. That banks emphasize the economic importance of these securities is, therefore, significant. Derivatives can be used to by participants within the market to take on risk and hedge the company from specific exposure of the business, whereas they contribute to the cash flow and increase the availability of credit. Furthermore derivatives allow a business to manage against exposures to external influences on the business where they have no control. For example British Airways are exposed to fuel prices, which can vary considerably, however British airways hedge the exposure of fuel prices <https://assignbuster.com/the-types-of-derivatives-finance-essay/>

by using derivatives, which will allow the company to focus on its core business. What they do is that they take out future derivatives to purchase fuel in advance of its receipt at a fixed price, so they can protect themselves from increase in fuel price. Now if the price of fuel falls below the contract level, the loss of derivatives is made up by the lower cost of fuel they buy in a conventional manner. Derivatives have been widely criticized for their use as tools of speculation, whereas the derivative contract involves two parties, the first party will try to reduce the risk, while the other party will take on risk, which allow the parties to speculate on the value of the underlying asset. According to Deutsche bank, the losses AIG sustained from the use of swaps were due to " a massive corporate failure to manage the aggregate risk". Risks involved with derivatives Derivatives have commercial benefits and are necessary to develop the trading sector but the manner by which they are used can pose a risk to the economic system. To begin with derivatives needs proper knowledge as if an investor wants to investigate in derivatives, they must know everything about the derivative market, as if they don't they might suffer massive loss. Secondly, usually in derivatives large amount of investments are involved because of the trade size, according to Warren Buffet this will pose large amount of risk, within the hands of the derivative leaders which can cause serious systemic problems. Furthermore the rapid growth of the derivatives markets can cause an increase in prices. According to Buffett, investment banks have been selling billions of dollars worth of investments to clients as way to manage market risk, he argues that these highly complex financial instruments are time bombs and " financial weapons of mass destruction" that could harm not only their buyers and sellers, but the whole economic system. Moreover, we <https://assignbuster.com/the-types-of-derivatives-finance-essay/>

mentioned at the beginning that derivatives are dependent on cash market and other factors, if the cash market was effected, this will cause a huge effect on the derivative market. In addition to the above risks, derivatives lack transparency, which is a key risk in the market which will not allow supervisors to monitor systemic risk effectively. According to J. P Morgan "lack of information available to supervisors prevented proper supervision taking place. We also have the issue of lack of the counterparty risk, which is the risk by which the counterparty in the derivatives contract cannot satisfy its obligations written in the contract, for example failure of British airways to receive its fuel by time, will cost the company a lot. The counter party will save a huge dilemma whereas they would be left with no contract or payments or assets. Finally, the last risk is the operational and systemic risks that affect the derivatives contract. Which can affect the credit default swaps

### **The role of derivatives in the financial crisis of 2008**

Commentators took the view that derivatives had an effect on the financial crisis of 2008, however it was not the main cause behind the crisis of 2008, according to Lord Myners (Financial services to the secretary of the treasury) even though derivatives formed a big part of the financial infrastructure, it is difficult to argue that derivatives caused the financial crisis. The difficulties experienced by Lehman Brothers and AIG during the crisis came from outside the derivative markets, whereas both institution were involved in the over the counter market derivatives, in particular credit default swaps, which many argue the CDS had a significant role in the crisis, contributing through enabling speculation and shorting of financial institutions to the share price instability, which had necessitated the public rescue of AIG. On the other

hand, others pointed out the derivatives were involved in the collapse of Lehman brothers and AIG, whereas Deutsche Bank argued that AIG took a large number of CDS, which were too complex for clearance, when the financial crisis took place, the value of the underlying assets declined tremendously, causing AIG to make up for the losses by paying the counterparties, so it required financial support from the US government to prevent the collapse of AIG. Furthermore, the way the derivative market is not completely clear for the users, caused an increase in the lack of trust among its users, which eventually reduced liquidity. It also stopped the regulators from spotting the buildup of risk in the financial system. All in all, we can say that derivatives play an important role in our lives, mainly it is responsible for the redistribution of risk, further more it can be used as a tool to speculate in the financial markets by the participants with the underlying asset. Derivatives also lack the transparency in the markets, where risk buildup cannot be detected easily, it also destabilizes the financial system, especially if the underlying asset suffers a shift in value. However we cannot really say if derivative had an immediate effect on the financial crisis, but we can say that the systemic risk haven't been identified fully, due to the market opacity.

**Conclusion**

The growth of the derivative markets in the past 25 years have been of the most exciting developments in the world of finance. Whereas in many situations, hedgers and speculators find it better to trade a derivative with an asset rather than to trade the asset itself. Derivatives can be traded by exchanges, or financial institutions, and corporation in the OTC market. The aim is to present a unifying framework within which all derivatives—not just options or futures—can be valued. In this essay we have taken a look at the history of derivatives, the meaning of derivatives,

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what are the different types of derivatives, what are the benefits and risks of derivatives, and finally what effect did derivatives have on the financial crisis in 2008, so we can answer the final question of whether derivatives are weapons of mass destruction or Generators of market stability. In my opinion, I agree with Warren Buffet, derivatives are weapons of mass destruction but only if they fall in the wrong hands, after all we saw what effect did derivatives have on Lehman Brothers corporation and AIG, it also affected Warren Buffet himself, as he lost \$534 Million on derivatives. But if the Derivatives are used wisely, then I don't see a problem with having derivatives as long as doesn't let people engage in massive mischief. In a way derivatives are like gambling, it's not a big deal if you lose \$10 in one dice throw, however when you start throwing big numbers that's when you suffer a lot. After all Warren Buffet uses derivatives in Berkshire Hathaway, but the company maintains a limited amount.