



## CASE STUDY

# Risk Management: A Case Study on Derivative

The case study is based on the derivative debacle. The companies which initially gained some benefit on account of derivative deals, entered into exotic derivative structures to earn some profits without taking care of the underlying exposure, resulting in heavy financial losses due to adverse market movement of the foreign currencies

1<sup>st</sup> Prize in a Case Studies Competition organized by NIBM in 2018



## **Risk Management: A Case Study on Derivative.**

### ***Introduction***

Derivative is a financial instrument:

- a) Whose value changes in response to the change in a specified interest rate, security price, commodity price, foreign exchange rate, index of prices or rates, a credit rating or credit index, or similar variable (sometimes called the underlying)
- b) That requires no initial net investment or little initial net investment relative to other types of contracts that have a similar response to changes in market conditions; and
- c) That is settled at a future date

In an exposure linked to variable whose value keeps on changing, it becomes very difficult to protect against adverse movement of the variable a company / individual is exposed to. Derivatives are financial instruments structured to partially or fully transfer the risk to the counterparty that is willing to take the risk at a price.

The origin of derivatives can be tracked back to 1865, when the Chicago Board of Trade has introduced first commodity futures. India has adopted market determined exchange rates in March 1993 thus setting a direction of structural reform. In 1994 the Rupee was made fully convertible on current account. Banks were allowed to book forwards and cross currency options not involving rupee, foreign currency-rupee options and swaps for effective hedging of their customer's foreign currency exposures. Authorized dealers (Banks) in India were allowed to offer Interest rate Swaps (IRS) and Forward rate agreement (FRA) in 1999. The basic purpose of introducing these derivative products was to allow corporates to hedge their interest rate / exchange rate risk for their trade and balance sheet purpose.

The basic principal behind introducing over the counter (OTC) derivative was to provide tools to mitigate risk arising out of foreign currency and interest rate exposure.

### ***Need of study***

Derivative being complex in nature and new to India, a significant gap was there in the understanding level of the corporates, bankers, and other related parties including regulators. Due to this gap the derivative positions taken by corporates in year 2006-07, 2007-08 and which have matured during /after the collapse of Lehman Brother (Investment Bank in USA) which was an after effect of Sub-Prime Crises has resulted in significant losses to the corporates.

A need was felt to understand conditions prevalent during that period resulting in such huge losses.

### ***Scope of the Study***

The study is confined to understanding the deals prevalent during the period under consideration and the impact on related parties on account of adverse movement in the underlying.

### ***Methodology***

A case similar to those prevalent during the years before Sub-Prime Crises has been drawn to understand the impact of lack of understanding and non-adhering to risk management practices.

## The Case

### SECTION-I

M/s Doordarshi Pvt. Ltd. was a company incorporated in year 1972 as a closely held company promoted by Shri Tej along with his close relatives. The company was into manufacturing of garments. In the initial days, the company used to procure raw material from the domestic markets and also selling the finished goods domestically. The margins in the business were attractive and company had shown significant improvement in the performance over the years. The decade of 80's & 90's saw company performing very well with no major issues being faced other than some isolated events of employee unrest in the company on account of demand for hike in the wages. The management handled all these issues tactfully thus not to impact the operations significantly.

After liberalization in Indian economy, there was a boom in cross-border trading. The company also ventured into International trade activity. They also shifted their purchase of cotton yarn from domestic markets and started importing it from China & Pakistan on account of price differential. They also started exporting manufactured garments to western countries, particularly to United States & European Union.

Due to this change in business plan of the company, it required higher funding for its operating activity. They approached a Bank named Smart Bank Pvt Ltd for working capital facility along with Export Packing Credit, Bill Discounting & Letter of Credit facility.

The Bank found it to be an attractive proposition and went ahead with sanctioning the required facilities and secured the loan with adequate tangible collateral securities along with the primary security, which was the asset being created out of bank finance. Further the promoters strengthened the proposal by providing their personal guarantee.

The unit was doing good and repaying the bank's dues on time. They were routing sales through the Cash Credit account maintained with the Bank.

During the month of June 2006, the company received an order for export of USD 2.50 million worth of readymade garment to a company situated in USA. Company successfully executed

that order and booked a handsome profit on the deal. Due to this deal, company was also able to establish new connection in the given geography.

Now company started receiving export orders regularly from the same company and the export business as well as import business book of company was increasing.

During meeting with board of directors, the C.E.O of the company highlighted the foreign currency risk associated with such exposures (Exports & Imports). As the dependence on export revenue was increasing, the need for hedging of the foreign currency exposures were felt. It was also discussed that the company might be forced to book lower revenue in Rupee term, if there could be an adverse shift in exchange rate.

The board, then advised the C.E.O to approach some consultant in this regard and submit the report in the next meeting. The CEO availed the services of a private forex consultant and submitted the consultant's advisory in the next meeting. The advisory was very clear about the need for hedging for its foreign currency exposure with suitable tools, effectively.

In between as the export orders were increasing, the company found that the existing production facilities were inadequate and approached the Smart Bank to sanction a Term Loan for capacity expansion.

Looking to the past performance and the future prospects of the company the Smart Bank was also very comfortable with the company and sanctioned a Term Loan of Rs 5 crore to be repayable in 6 years after completion of a moratorium period of 1 year. The company also agreed to serve the interest during the moratorium period.

After the full disbursement of Rupee Term Loan, company C.E.O approached the bank and requested to explore the possibilities for reduction in interest rate on the term loan, as he was of the view that interest @12.5% p.a. was way too high.

The Smart Bank showed its inability to reduce the interest, as the cost of borrowing for the Smart Bank was not permitting it to provide any loan below a benchmark lending rate of 10% and 2.5% was the spread as determined by the company's risk rating.

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### *A. The First Deal*

With need to reduce the interest burden, the C.E.O of the company approached the consultant once again who suggested him to explore the derivative product- Rupee-Dollar Swap.

Derivative is a financial instrument, whose value changes in response to the change in a specified interest rate, security price, commodity price, foreign exchange rate, index of prices or rates, a credit rating or credit index or similar variable (sometimes called the underlying) and that requires no initial net investment or little initial net investment relative to other types of contracts that have a similar response to change in market condition and that is settled at a future date.

Swap is a derivative contract where two parties enter into an agreement to exchange cash flows as per agreed arrangements. So in Rupee- Dollar Swap one party moves from Rupee liability to Dollar Liability and other party will move from Dollar Liability to Rupee liability at some agreed cost.

By undertaking the Rupee-Dollar Swap the M/s Doordarshi Pvt Ltd was looking to convert its Rupee liability to US Dollar Liability to earn something in form of interest carry.

The structure they have entered was as under

Date of Trade: 02<sup>nd</sup> February 2007

Maturity Date: 15<sup>th</sup> July 2008

Spot Reference: 44.10

INR Notional: Rs 2,75,62,500/-

USD Notional: USD 0.625mio

#### Deal Structure:

1. Initial exchange of principal: Nil
2. On maturity M/s Doordarshi Pvt Ltd to Pay USD 0.625 million & Receive INR 2,75,62,500/-

3. M/s Doordarshi Pvt Ltd to receive interest @ 3.5% per annum on the USD notional at quarterly intervals.

#### Risk In the structure

In the above structure the risk factor was depreciation of Rupee against USD beyond the coupon received by M/s Doordarship Pvt Ltd i.e. 3.5%

#### The scenario analysis of this structure was as under

Scenario 1: If on maturity the USDINR rate is more than 44.10, say it is at 46.10 than M/s Doordarshi Pvt Ltd will have to buy USD 0.625 million from market @ 46.10 i.e. by paying INR 2,88,12,500/-

Scenario 2: If on maturity the USDINR rate is equal to 44.10 than M/s Doordarship Pvt Ltd will buy USD 0.625 mio from market @44.10 i.e. by paying INR 2,75,62,500/-

Scenario 3: If on maturity the USDINR rate is less than 44.10, say it is at 42.10 than M/s Doordarship Pvt Ltd will buy USD 0.625mio from market @ 42.10 by paying INR2,63,12,500/-

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The initial thought was that M/s Doordarship Pvt Ltd would be meeting the USD liability under the structure from the export receivable and would not be looking for buying the USD from market.

Company entered into the above deal in Feb 2007 and subsequently the Rupee started appreciating and in the month of March on 29<sup>th</sup> March 2007, it has touched the level of 42.790. Further the appreciation trend of Rupee continued and it touched the level of 40.575 on 26<sup>th</sup> April 2007. At that time, the Company felt that it could get a handsome profit on this deal, if it unwind the same i.e. the POS- Principal only Swap.

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### ***B. The greed***

Initially the board members were reluctant to unwind the deal as their purpose of entering the deal was to use the deal for the entire period for interest rate benefit and not to earn profit or speculate. But later on, they decided to unwind the deal on 04<sup>th</sup> June 2007 @ 40.20 and booked a sizable gain on account of this unwinding.

This episode created a very good name for the CEO as well as the private consultant in the company.

Further on the basis of advice given by the private consultant and as per the understanding reached between C.E.O and promoters of company, the company decided to enter into many such derivative deals to earn money as they find it to be an easy way of earning money. Further they also had export receivable to be used as underlying.

After some time in the month of August, the company entered into another derivative contract, which was different than the earlier one. The details of which are as under-

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### ***C. The Second Deal***

|                     |  |
|---------------------|--|
| Trade date          | 01 <sup>st</sup> August 2007                 |
| Start date          | 03 <sup>rd</sup> August 2007                 |
| Maturity date       | 15 <sup>th</sup> July 2008                   |
| Settlement date     | 17 <sup>th</sup> July 2008                   |
| Amount              | USD 0.625 million & CHF @ 1.2009 is 0.7505   |
| Sport ref (USD/CHF) | 1.2009                                       |
| Structure           | USD CHF POS with embedded option on maturity |
| Transaction details |  |

|  |   |
|--|---|
| Initially exchange of principal  | NIL   |
| Principal Exchange at the end,   | M/s Doordarshi pvt ltd to buy USD 0.625 mio<br>and sell CHF @1.2009 |
| M/s Doordarshi pvt ltd to receive  | 1.40% p.a. on USD notional  |
| M/s Doordarshi pvt ltd to pay  | NIL   |
| Exchange of coupons  | at the end  |
| Embedded option  | (Option Type-American Barrier,European Exercise)                    |
| M/s Doordarshi Pvt Ltd buy USD PUT CHF CALL @ 1.2009 with K/O @ 1.10 for USD 0.625 million |   |
| M/s Doordarshi Pvt Ltd Sell USD CALL CHF PUT@1.2009 with K/I at 1.28 for USD 0.625 million |   |

### Scenario Analysis

M/s Doordarshi Pvt Ltd receives 1.40 % p.a. coupon on the USD notional. Actual /360.

On the principal leg M/s Doordarship Pvt ltd has a liability to pay CHF 750562.5 (USD 625000 X 1.2009) on maturity

Scenario 1: 1.28 and 1.10 both levels are never seen then M/s Doordarshi Pvt ltd buys the CHF form the bank @ 1.2009 if USD/ CHF is below 1.2009 or at SPOT if USD/CHF is above 1.2009.

Scenario 2: 1.28 and 1.10 both levels are seen then M/s Doordarshi pvt ltd buys the CHF @ spot if USD/CHF is below 1.2009 or @ 1.2009 if USD/CHF is above 1.2009.

Scenario 3: Only 1.28 is seen and 1.10 is never seen then M/s Doordarshi pvt ltd buys the CHF form the bank @ 1.2009

Scenario 4: 1.28 is never seen and 1.10 is seen, then M/s Doordarshi pvt ltd buys the CHF @ spot

Risk: The risk in the structure is that USD/CHF touching 1.10 levels, if that was seen, then M/s Doordarshi Pvt ltd was open to USD/CHF exchange risk on maturity

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The company leveraged its position and entered into various structured USD/CHF deals with various authorized dealer on the same underlying, as their intention was to gain from the market movement.

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#### ***D. Outcome of Deal 2 and other similar deals***

Subsequently on 23<sup>rd</sup> November 2007 the USD/CHF pair touched a low of 1.0896 thus triggering the 'Knock Out' leg of the embedded option structure. The second leg of the embedded option structure being 'Knock In' structure with trigger @1.28 was not triggered as the levels were never seen during the deal period. On maturity the USDCHF was @ 1.0170 and company was under obligation to Buy CHF @1.0170 against USD.

The company did not have any export receivable in CHF.

Further the USD purchase cost against INR had also gone up as the USD/INR rate which was @ 40.170 on 01<sup>st</sup> of August 2017 had also gone up due to Rupee's depreciation and was @43.290 on 15<sup>th</sup> July 2008.

Similarly in other deals also, as the CHF never touched the knock-In levels but have touched the knock-out levels, so company was open to market risk and has to buy CHF from the market to meet its obligation. Further the situation had become worse as company did not have requisite underlying to deliver because of excess leveraging and had to buy USD from the market against INR and company suffered heavy losses as Rupee had also depreciated significantly.

Further to add to its trouble, the company subsequently received a notice from Income tax department for re-assessment of their P& L as company had shown the Loss from derivative as business loss thus reducing the profit for the year by that amount and eventually its Income tax liability. Income tax department was of the view that the losses was due to speculation and not a business loss and thus company was not eligible to reduce the profit by adjusting the losses on account of these transactions and was liable to pay the taxes on full amount.

## Learning form the case study

### SECTION-II

The above case study is based on the derivative debacle taken place during 2006-2010 in India. The companies which initially gained some benefit on account of derivative deals, entered into exotic derivative structures to earn some profits without taking care of the underlying exposure, resulting in heavy financial losses due to adverse market movement of the foreign currencies.

#### *Understanding the deal-2*

##### Part -1- POS- Principal Only Swap

M/s Doordarshi Pvt Ltd to Buy USD 0.625million and Sell CHF @1.2009 (0.7505)

So M/s Doordarshi Pvt Ltd would have to buy CHF form Market to sell under the deal @1.2009 for eventual buying of USD

Also, the company was also having gain in form of interest carry of 1.40% received on USD notional of 0.625 million

##### Part -2- Barrier Options- Knock Out

**American K/O is @1.10 for structure “Buy USD PUT CHF Call @1.2009 for USD 0.625 million”**: This structure gave the company the right to ‘Sell USD’ and ‘Buy CHF’ @1.2009 for USD 0.625 million **if USD/CHF did not touch level 1.10 during the period of the Deal**. The CHF bought on maturity would have enabled the company to deliver under the derivative POS deal under which company has taken obligation to sell CHF @1.2009 and BUY USD.

**But if the level 1.10** was to be seen **any time** during the deal period (as it is an American option), the above structure would have ceased to exist (K/O; Knock Out) and company will be open to market rate for buying CHF to deliver under the POS derivative deal on maturity.

American Exercise: It can be exercised any time from the date of entering the contract till date of maturity.

European Exercise: It can be exercised only on the fixed maturity date.

Example: Assume USD/CHF is at 1.05 then the company would have to buy CHF 0.7505 from market by paying USD 0.7147 million and then use the CHF to fulfill the POS structure obligation of selling it @1.2009 thus resulting in a loss of USD 0.0897 million.

### Part-3 Barrier Options- Knock In

**American K/I is @1.28 for structure “Sell USDCALL CHF PUT @1.2009 for USD 0.625 million”:** Under this deal, structure would come to existence (K/I; Knock In) if the USD/CHF was to touch 1.28 anytime during the period of the deal. Company would be under obligation to sell USD and buy CHF @ 1.2009 only. This structure restricts the company to take advantage of the depreciated CHF against USD. In this structure had the CHF depreciated from 1.2009 but did not touch 1.28 then, the company would have been able to buy CHF cheaper from market and deliver under the POS deal.

Example: Assume USD CHF did not touch the 1.28 levels and was trading at 1.27 on maturity then company would have bought CHF 0.7505 million from market by paying only USD 0.591 million, which would have been used to deliver under the POS deal, resulting a profit of USD 0.034million on exchange gain in POS over and above the Interest carry of 1.40%.

But if the USD/CHF pair could have touched 1.28 any time during the deal period then company would have been under obligation to buy the CHF from the bank @1.2009, which would have been used to deliver under the POS, thus no profit on POS other than the interest carry of 1.40% which it was receiving on USD notional of 0.625 million

## Total Loss on account of Deal No 2

### SECTION-III

On the date of deal i.e. 01.08.2007

USD INR was @ 40.170

USD CHF was @ 1.2009

On the Maturity date i.e. 15.07.2008

USD INR was @ 43.290

USD CHF was @ 1.0170

- A. On the date of deal, the company has to buy USD 0.625 million and sell CHF 0.7505million.  
So liability of company @ 40.170 was at Rs.2,51,06,250/-
  - B. On the maturity of the deal, the company has to sell CHF 0.7505 million for which it had to buy the same from the market as it did not have any export receivable in CHF. So it paid USD 0.7379 million @ USD/CHF 1.0170. For Buying USD 0.7379, it paid Rs 3,19,43,691.
  - C. Thus a net loss on deal 2 in INR terms was Rs 68,37,441/- (excluding the inflow on account of 1.4% carry on the USD 0.625 million)
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# The Greed and the Trap

## SECTION-IV

The company was not having any exposure in CHF, despite of this company moved into a deal where it had taken obligation to sell CHF @ 1.2009 in anticipation that CHF would not appreciate much beyond this point ( K/I levels of 1.10) as it had never breached the level of 1.10 in the past for many decades. So company was aiming for a safe interest carry of 1.4% on the USD Notional which would have helped the company further to reduce its funding cost.

The initial motivator was the little gain from 1<sup>st</sup> deal. But the key difference between the 1<sup>st</sup> and the 2<sup>nd</sup> and subsequent deals was the underlying exposure. Company was not having any exposure in CHF and despite of this, it had moved to CHF liability, in anticipation of positive market movement.

USD/CHF graph for the relevant period



The USD/INR graph for the relevant period



## The points to be discussed are

### SECTION-V

- A. Company used same underlying for multiple transactions. What were the relevant RBI instructions in this regard?
- B. What were the cause for CHF appreciation and Rupee depreciation during the period under consideration?
- C. Can the exposure be treated as speculation and subject to Income tax department scrutiny or it is a normal business transaction?
- D. What were the RBI guidelines in this regard?

- 1. *Company had used same underlying for multiple transactions. What were the relevant RBI instructions in this regard?*

Derivative transactions were permitted only for hedging of the underlying exposure and leverage was not allowed by RBI. The relevant instructions were in place vide Master circular on Risk Management and Inter-Bank dealing dated 04<sup>th</sup> April 2003 and in subsequent updated versions, published at yearly intervals. Further vide comprehensive guidelines issued by RBI through notification no DBOD No. BP.BC. 86/21.04.157/2006-07 dated 20<sup>th</sup> April 2007, hedging was allowed for purpose of risk mitigation and not for speculation.

- 2. *What were the causes for CHF appreciation and Rupee depreciation during the period under consideration?*

In any market the exact cause of fall and rise of any commodity / underlying cannot be ascertained with hundred percent confidences but to some extent the following points can be attributed towards the rise of CHF

- US Sub Prime crises, which was the result of housing bubble coupled with credit default swaps, resulting in worsening of financial condition and sentiments.
- CHF being traditional safe-haven currency the inflow had increased, resulting in appreciation of Swiss Franc.

3. *Can the exposure be treated as speculation and subject to Income tax department scrutiny or it is a normal business transaction?*

If the exposure is backed by underlying than it is a trade based hedging but if the underlying is less than the exposure taken in derivative, than the resultant gap should be treated as position taken for speculative purpose and the resultant gain and loss should be accounted in suitable manner, as it will not be a business loss. Thus company was not permitted to claim it as loss from business activity and was liable to pay tax on the higher component.

4. *What were the RBI guidelines in this regard?*

RBI had issued comprehensive draft guidelines vide notification DBOD No. BP.BC. 86/21.04.157/2006-07 dated 20<sup>th</sup> April 2007, which permitted the need based hedging with use of proper instruments. The relevant points of the guidelines were as under:

- Following products are permitted for exchange rate exposure: Foreign currency forward, Currency swap, currency options
  - Customer appropriateness and suitability policy
  - Following information needs to be shared with user
    1. Description of the transaction
    2. Building blocks of the transaction
    3. Rationale along with appropriate risk disclosure
    4. Sensitivity analysis identifying the various market parameters that affect the product
    5. Scenario analysis encompassing both the possible upside as well as the downsides
  - Analyze the expected impact of the proposed derivative transaction on the user
  - Board approved policy,
  - Details of documentation (ISDA,etc)
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## Trainer's Note

### SECTION VI

| <b>Teaching Plan</b>  |   |                              |
|---|---|------------------------------|
| Topic   | Case study on derivative  |                              |
| Programs/<br>sessions in<br>which it can be<br>administered | <ol style="list-style-type: none"> <li>1. Risk Management (Financial Risk, Market Risk, Operational Risk etc)</li> <li>2. Derivative</li> <li>3. Financial Statement Analysis (to focus on impact of leverage)</li> <li>4. Program on Forex Dealings</li> <li>5. Program on Markets (Equity/forex/Interest rate etc)</li> </ol>               |                              |
| No of Session   | Two   |                              |
| Target Group  | Bank/Corporates working in treasury related areas   |                              |
| Objective /<br>lesson can be<br>drawn                       | <p>To understand the</p> <ol style="list-style-type: none"> <li>1. Impact of excessive leverage</li> <li>2. Impact of decision making without having proper understanding</li> <li>3. Impact of timing the Markets</li> <li>4. Importance of adhering to Regulatory guidelines.</li> <li>5. Importance of Mark to Market/Stop Loss</li> </ol> |                              |
| Session Plan  | <b>TOPIC</b>  | <b>Time<br/>(Indicative)</b> |
|   | Introduction  | 10 Min                       |
|   | Section I to be given to participants and should be advised to go through it.   | 25 Min                       |
|   | Participants will be divided into 4-5 group as per strength and advised to interpret the case and to present to the class   | 40 Min                       |

|  |   |        |
|--|---|--------|
|  | Section II to be given to participants or illustrated by the faculty  | 20 Min |
|  | Participants were advised to work out the loss on account of this deal  | 25     |
|  | The Solution should be discussed by the Faculty and distribute the Section III to participants to check their solutions | 20     |
|  | Section IV & V should be discussed with the participants and can be handed over to them after discussion                | 20     |
|  | Sum-up all the learning form the case study   | 20     |
|  | Total Time  | 180    |

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***Learning Objective:***

The case study gives an insight into following aspects

1. Excess leverage can result into unwanted results.
2. Underlying is a must for risk mitigation and any view & position taken without underlying will be speculation.
3. Markets cannot be timed.
4. Banks' / Authorized dealers are prohibited from financing speculative activities.
5. Understanding of a product is very important and a decision / position taken without understanding the consequences of the decision / position can result into significant trouble, both for the customer as well as the financier.
6. Regulatory guidelines need to be adhered to in true spirit.
7. Risk management is a must, irrespective of whether it's a customer or a Bank.
8. Mark to Market & Stop Loss concept is to be properly followed so as to avoid such huge losses.
9. Appropriate products depending upon the risk appetite and the understanding level of the customer should be provided that too with full disclosures.

10. Customer appropriateness and suitability of the product needs to be checked before offering any structured products.
  11. Company's interested in dealing in derivative should have a risk management policy in place and Authorized dealers should allow only after obtaining all the approvals from the company like Board Resolution, Risk Management Policy, ISDA documentation etc.
  12. The deal ticket should contain possible scenario analysis in user friendly language, so that customer will be in a position to interpret it properly.
  13. The dealing officials should be updated on the regulatory guidelines so as to avoid falling on the wrong side of the instructions issued by regulators.
  14. The company board should take the review of the position from time to time and should not leave the deal in anticipation of positive results.
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### ***Introductory questions***

Q. What is derivative?

Derivative is a financial instrument:

- d) Whose value changes in response to the change in a specified interest rate, security price, commodity price, foreign exchange rate, index of prices or rates, a credit rating or credit index, or similar variable (sometimes called the underlying)
- e) That requires no initial net investment or little initial net investment relative to other types of contracts that have a similar response to changes in market conditions; and
- f) That is settled at a future date

Q. What is Currency Swap?

It is a financial contract between two parties exchanging or swapping two different streams of cash flow in different currencies.

Q. What is Option?

Currency option is a contract where the purchaser of the option gets the right but not the obligation to either purchase (Call Option) or sell (Put Option) and the seller of the option has an obligation to sell (Call option) or purchase (Put Option) an agreed amount of a specified currency at a price (Strike price) agreed in advance and denominated in another currency on a specified date (European Option) or by an agreed date (American Option) in the future.

Q. What is Knock In?

It is a barrier option; it means the structure will come into existence only when a predetermined price level is reached before expiration.

Q. What is Knock Out?

It is a barrier option; it means the structure will cease to exist if the predetermined price level is reached before expiration.

Q. What are the different types of risks in derivatives?

Credit Risk: Risk of failure of counterparty to perform its obligation

- Pre-settlement risk: Counterparty defaulting on a contract during the life of a transaction.
- Settlement risk: Counterparty defaulting in performing its obligation after one party has performed its part on the settlement date of the contract.

Market Risk: Risk of loss due to adverse movement in the market value of the underlying.

Regulatory Risk: Failure to comply with the regulatory requirements

Legal Risk: Loss from contract which are not legally enforceable.

Operational Risk: Risk of loss occurring as result of failed or inadequate systems and controls.

Liquidity Risk: Risk of mismatches of cash flows.

Q. What could be the impact of excessive leveraged position?

A leverage position will reduce the loss absorbing capacity of the corporate and if the position is big one and the things does not go as per corporate's wish than the results could be devastating.

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### ***Discussion areas***

- a) Different types of risks in derivative transaction & effective risk management.
- b) Corporate Governance
- c) Regulatory guidelines on derivatives
- d) Excessive Leverage and its consequences.
- e) Importance of Market to Market and Stop Loss mechanism

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### ***Suggested Reading***

No particular reading for the case but in general the following can be referred to

1. RBI Master circulars on Risk Management and Interbank Dealings / FEDAI Guidelines
2. RBI Circular on Comprehensive guidelines on Derivative / FEMA
3. Book on Foreign Exchange, International Finance and Risk Management by A.V. Rajwade
4. Book on Currency Exposures and Derivatives: Risk, Hedging, Speculation and Accounting-A Corporate Treasurer's Handbook.
5. International Swap and Derivative Association's guidelines & documents.