STRUCTURED PRODUCTS

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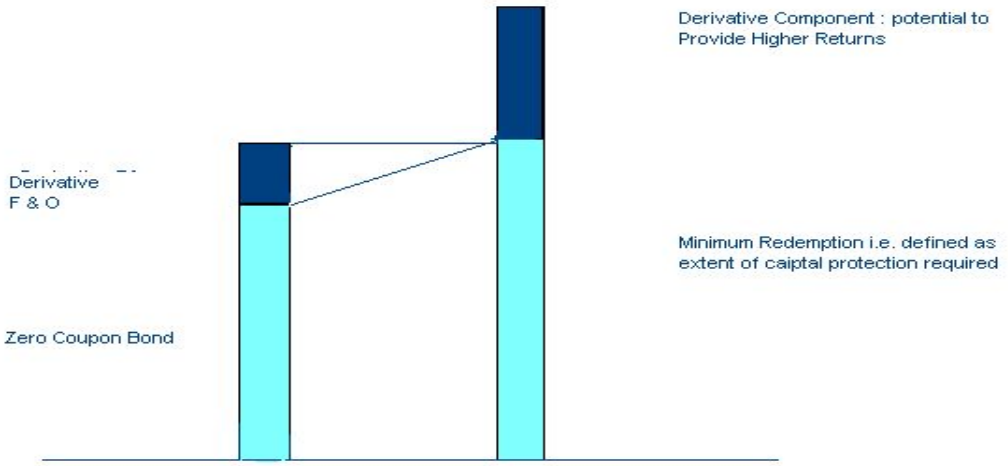
What are Structured Products

- Structured Product is a combination of bond + derivative
- It has flexibility with respect to the underlying asset



Derivatives

- An option gives its owner the right to buy or sell an underlying asset on or before a given date at a fixed price
- Options are a part of a broader asset class called contingent claims. The payoff of this asset in future depends on the outcome of an uncertain event.

Call	Option to Buy
Put	Option to sell
Exercise Price/Striking Price	Fixed price at which the option holder can buy/sell the underlying
Expiration Date/Maturity Date	Option expires or matures on this date
European Option	Can be exercised only on the expiration date
American Option	Can be exercised on or before the expiration date

Some Definitions

	Call	Put
At the Money	Exercise price = Market Price	Exercise price = Market Price
In The Money	Exercise price < Market Price	Exercise price > Market price
Out of the Money	Exercise price > Market price	Exercise price < Market Price

Types of Structured Products

- CPPI (Constant Proportion Portfolio Insurance) Based Structures : The client is not guaranteed a participation in the index, but principal protection is guaranteed by dynamically reducing risk as we approach the floor.
- Dynamic Portfolio Protection : This is based on the CPPI model with modifications like a moving floor due to multiplier.

- Option Based Structures with Simple Payoff : Here the clients capital is locked in for a certain time and a minimum return (could be zero) and an upside participation (typically less than 100% or with a cap) in an equity index or a set of stocks is guaranteed
- Range accruals/Digitals: In these products instead of capital guarantee and upside participation , the client gets a constant coupon if the underlying stock or basket is above a certain level.

- Option Based Structures with Complex Payoffs

CPPI

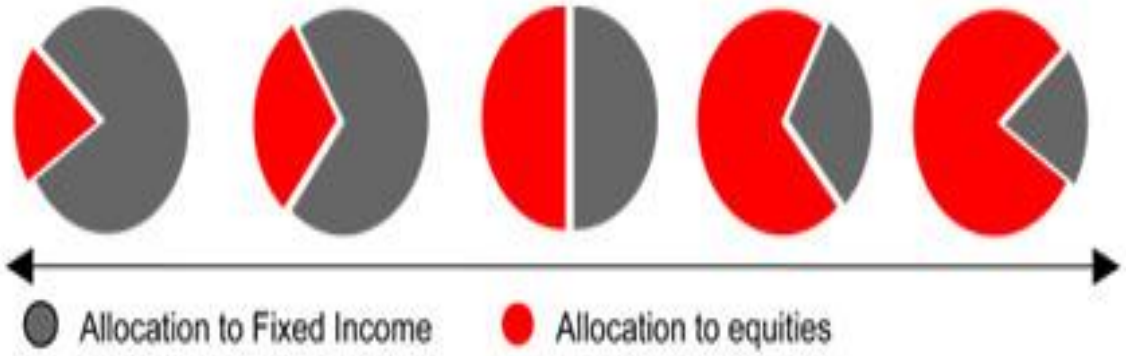
Constant Proportion Portfolio Insurance (CPPI) is the name given to a trading strategy that is designed to ensure that a fixed minimum return is achieved either at all times or more typically, at a set date in the future

CPPI-Jargon

- Floor : Present Value of desired capital to be preserved at maturity. If the product comes with an 80% capital guarantee, the floor is 80% of the initial capital.
- Cushion : Portfolio value less Floor. In the above example cushion will be 100-80 i.e.20%
- Multiplier : Leverage applied to cushion

How CPPI operates

- Essentially the strategy involves continuously re-balancing the portfolio of investments during the term of the product between performance assets and safe assets using a set formula or mathematical algorithm. CPPI is totally rules based and non-discretionary.
- Principal protection is achieved by adjusting the exposure to the performance assets such that the underlying portfolio (ie the mix of safe assets and performance assets) is able to absorb a defined decrease in value before the value of the portfolio falls below the level required to achieve principal protection.



- **Equity value decline** ➡ **Increase in the percentage allocated to fixed income**
- **Equity value increase** ➡ **Increase in the percentage allocated to equity**

Example of CPPI

- Initial Investment : 100
- Minimum Guarantee : 80 after 5years
- Investment pattern if worst case scenario is taken as fall in equity of 50% overnight
- 60 in Deposit 40 in Equity
- 50% fall in equity makes equity portion to 20. Still guarantee of 80 stands (60+20)

Example of CPPI

- Same example if market rises and value of equity goes up from 40 to 50. Total portfolio value becomes 110 (60+50).
- Fund provider can put 60 in equity as 50% fall will bring equity value to 30. Which still gives investor guarantee plus returns.
- As the fund rises so does the minimum guaranteed investment. If initial investment of 100 becomes 125, 80% of that is 100, which the investor can be assured of getting at any point in time after that.

Risk in CPPI-Cash Locked

- In the worst case scenario the market trends downwards. Then the risky asset contentiously loses value and in order to protect the floor, more and more assets are allocated to the risk-free asset. In this worst case scenario, as soon as all assets are allocated to the risk free asset. The total value of all assets equals the floor and the is no room left for an allocation to risky assets. The strategy is "**cash locked**". Upside potential disappeared and only the interest earned from the cash position can be invested in the risky asset.

Risk in CPPI-Model Risk

- Another risk is known as **Model risk**. This is the risk that the market overnight collapses and more value is lost then assumed when the multiplier was set. The model risk or gap risk is either ran by the investor or by the manager. In the latter case a gap risk insurance will be charged. This risk is often reduced by a long put option position.

Risk in CPPI-Trading Band Width

According to the CPPI methodology, risky assets are being bought in rising markets and sold in falling markets. If then after a boost, the underlying market corrects downwards to the previous level, the same number of risky assets that were first bought at a high price now needs to be sold at a low price. A loss is recorded and a smaller allocation to the risky asset is necessary. The trading band-with should be set as wide as to prevent this, but at the same time, as small as to reduce the gap risk. Next to the multiplier the trading band-width is a key to a successful CPPI product.

Gap Protection

Banks that provide CPPI underwrite this so-called ‘Gap Risk’ and guarantee to stand by the stated minimum return whatever occurs in the market. A non-bank provider of CPPI product would typically purchase Gap Protection from a third party in order to maintain their Minimum Return Guarantee

The difference between CPPI and standard fixed participation methodology

- Unlike a standard structured product which places a set amount in a zero coupon deposit on day one and purchases a call option with the remaining funds in order to provide a set participation level, a CPPI based structure varies cash allocation between so-called **safe assets** (ie bonds and cash) and the **performance assets** (equities or other 'risky assets') depending upon market performance.

- The key difference between CPPI based capital protected products and option-based products are:
- The participation in any rise in the underlying is not fixed at the start
- It is possible to have a higher initial participation than with an equivalent option-based product

Some Indian Structured Products

HSBC Capital Guard Portfolio

The key features of this product are:

* **100% Capital Protection Guaranteed –** 100% of initial investment back at maturity (after 4 years). For the guarantee to be applicable, the investor will need to remain invested till maturity

100% Initial Equity Exposure – Optimal allocation to actively managed equities aimed at Capital Appreciation

Profit Lock-in Mechanism – The portfolio endeavours to capture upside by providing a 3% lock-in for every 10% increase in initial portfolio

Easy Liquidity – 4 year tenor with liquidity provided through the tenor of the product (subject to applicable exit loads)

Minimum Investment Amount – Rs 25 lacs

- * Guarantee has been provided by HSBC Bank plc subject to terms and conditions..
- This portfolio is currently not available for subscription.

JM Financial's Triple AAAce Scheme

JM Financial's Triple AAAce Scheme, will invest in equity funds for five years and provide investors at least 85% of the maximum peak value of the underlying portfolio of funds, at the time of maturity. It has tied up with Societe Generale Asset Management and has been rated by Crisil Ltd, a subsidiary of ratings agency Standard & Poor's

Structured Products in Global Markets

Some Examples

Exotics

- Exotics are exotic options which are different from the plain vanilla European and American Options.
- Banks and institutions globally use exotics to create a variety of Structured Products.
- Examples of Exotics:
  - Non standard American Options (Bermudan Options)
  - Forward Start Options
  - Compound Options
  - Chooser Options
  - Barrier options
    - Knock-out or knock-in options
    - Down and Out Call
    - Down and In Call
    - Up and Out Call
    - Up and In Call
  - Binary Option
    - Cash or Nothing Call/Put
    - Asset or Nothing Call/Put
  - Lookback Options
  - Shout Options
  - Rainbow Options
  - Basket Options

Structured Products-Growth

- Protected Note
- Turbo Note
- Digital Plus
- Lock-in Accumulator
- Delta One Certificate
- Outperformer
- Sprint
- Best of /Worst Of
- Airbag
- Twin Win
- Condor

Structured Products-Income

- Callable Corridor
- Scoop
- Reverse Convertible
- Reverse Discount
- FX Target
- Callable Stability Note
- Phoenix Note
- Phoenix Plus
- Eagle Note
- Eagle Plus

Protected Note

- A Protected Note is a structured procuct,100% Capital Guaranteed at maturity, which allows the investor to benefit from participation in the increase (or the decrease) of the underlying

Mechanism

At maturity the investor receives maximum between:

100% of the capital invested

100% + x% of the performance of the underlying

Advantages

100% capital protection

Investor can benefit from a high return

Disadvantages

The redemption at maturity can be lower than the redemption of a standard deposit product over the same period

The capital is only guaranteed at maturity

Structure

Buy a zero coupon bond

Buy x% of a call (for participation in increase) or a Put (for a participation in the decrease)

Example of Protected Note

- Example 1: Increase of the underlying on the final observation date

  If the underlying has increased (from 100 to 120 for eg) the investor receives at maturity:

  100% of the capital invested + 100% of the underlying

  100% +(100%*20*) = 120% of the capital invested

- Example 2: Stability or Decrease of the underlying on the final observation date

  If the underlying has decreased (from 100 to 40 for eg) the investor receives at maturity:

  100% of the capital invested

Turbo Note

- A Turbo Note is a structured product,100% Capital Guaranteed at maturity, which allows the investor to benefit from a high participation in the increase of the underlying up to a predefined deactivating **barrier level**.

Mechanism

At maturity

If the underlying closes at or above its initial level and has never reached the barrier during the life of the product, the investor receives

100% + x% of the performance of the underlying

x% being the participation in the increase of the underlying

- If the underlying closes below its initial level but has never reached the barrier during the life of the product

  100% of the capital invested

- If the underlying has reached the barrier during the life of the product

  100% of the capital invested

Turbo Note

Advantages

100% capital protection

The product provides higher participation in the increase of an underlying than other structures (for eg protected notes)

Disadvantages

The capital is only guaranteed at maturity

The investor may no longer benefit from the increase if the underlying reaches the barrier.

Structure

Buy a zero coupon bond

Buy a call At the money Up and Out (American Barrier)

Example of Turbo Note

- Participation : 100% of increase of the underlying Barrier : 130%
- Example 1: Increase of the underlying on the final observation date

  If the underlying closes at 125% on the final observation date i.e. above its initial level and has never reached the barrier during the life of the product, the investor receives at maturity:

  100% of the capital invested + 100% of the underlying
  100% +(100%*25%) = 125% of the capital invested

- Example 2: Increase of the underlying beyond the barrier

  If the underlying closes at 110% on the final observation date i.e. above its initial level but has reached the barrier during the life of the product, the investor receives at maturity:

  100% of the capital invested

- Example 3: Decrease of the underlying on the final observation date

  If the underlying closes at 80% on the final observation date the investor receives at maturity:

  100% of the capital invested

Digital Plus

- A Digital Plus is a structured product ,100% capital guaranteed at maturity, which allows the investor to benefit from the maximum between the entire increase of an underlying and a high Digital Bonus if the underlying closes at or above its initial level on the final observation day.

- Mechanism
  - At maturity
    - If the underlying closes at or above its initial level on the final observation date, the investor receives the maximum between

      100% of the capital invested + Digital Bonus

      100% of the capital invested + 100% of the performance of the underlying
    - If the underlying closes below its initial level on the final observation date, the investor receives

      100% of the capital invested

Digital Plus

- Advantages
  - The investor can benefit from the entire positive performance of the underlying
  - A high Digital bonus is guaranteed if the underlying closes at or above its initial level on the final observation date
  - The capital is 100% guaranteed at maturity
- Disadvantages
  - The capital is 100% guaranteed only at maturity
- Structure
  - Buy a zero coupon bond
  - Buy a Digital Option
  - Buy a Call ‘Out of the money’

Example of Digital Plus

Maturity 2years Participation 100% of the increase of underlying
Digital Bonus Level 120% Capital 100% Guaranteed

- Example 1: Underlying Performance

  The basket closes at 125% on the final observation date
  The investor receives at maturity 125% of the capital invested

- Example 2: Digital Bonus

  The basket closes at 110% on the final observation date i.e. above its initial level but below the digital bonus level
  The investor receives the digital bonus i.e. 120% of the capital invested

- Example 3: Capital Guarantee

  The basket closes at 90% on the final observation date i.e. below its intial level
  The investor receives 100% of the capital invested

Lock-in Accumulator

- A lock-in Accumulator is a structured product, 100% capital guaranteed , which allows the investor to benefit from participation in the increase of underlying- periodically capped until a pre-defined level. This product offers a mechanism to set up to lock the accumulated performances when one or several levels of performance are reached.

- Mechanism
  - The investor participated in the evolution of the underlying by accumulating positive and negative performances period by period
  - The performance observed at the end of each period are capped on the upside but not floored on the downside
  - A lock-in mechanism of accumulated performance at one or several pre-defined levels (lock-in levels) is ensured
  - The investor benefits at maturity from the maximum between
    - 100% of the capital invested plus the maximum lock-in level reached during the life of the product
    - 100% of the capital invested plus sum of the accumulated performances capped on the upside and not floored on the downside
    - 100% of the capital invested

Lock-in Accumulator

- Advantages
  - The capital is 100% guaranteed at maturity
  - The investor can benefit from a high return
  - The investor benefits from 100% of the increase of the underlying until a certain level each period
  - A lock-in mechanism of performance is offered
  - As soon as the sum of calculated profits and losses reaches a predefined lock-in level, this level of performance then becomes secured and is guaranteed at maturity
- Disadvantages
  - The capital is only guaranteed at maturity
  - The performances each period are not floored on the downside but capped on the upside
- Structure
  - Buy a zero coupon bond
  - Buy a strip of call spread 100% /100% +Cap
  - Sell a strip of Put 100%
  - Buy a Put plus one or several options ‘Lock-in” on the performances generated by the strips of Call Spread and Put

Example of Lock-in Accumulator

- Maturity 18 months
- Observations : Monthly
- Monthly Cap on Upside : 2.4%
- Lock-in levels : 10% & 20%

  (Once a lock-in level has been reached a floor of performance is guaranteed at maturity)

Example of Lock-in Accumulator

Month	Observed Perf	Capped Perf	Sum of Capped Performace	Locked Perf
1	2%	2.0%	2.0%	
2	-1%	-1.0%	1.0%	
3	3%	2.4%	3.4%	
4	1%	1.0%	4.4%	
5	4%	2.4%	6.8%	
6	3%	2.4%	9.2%	
7	-2%	-4.0%	7.2%	
8	2%	2.0%	9.2%	
9	4%	2.4%	11.6%	10.0%
10	2%	2.0%	13.6%	
11	-1%	-1.0%	12.6%	
12	3%	2.4%	15.0%	
13	3%	2.4%	17.4%	
14	4%	2.4%	19.8%	
15	2%	2.0%	21.8%	20.0%
16	1%	1.0%	22.8%	
17	2%	2.0%	24.8%	
18	2%	2.0%	26.8%	

Example of Lock-in Accumulator

- Redemption at Maturity

  The investor benefits from the maximum between

  100% of capital invested + Lock-in level reached during the life of the product i.e.100%+20%

  100% of capital invested + the sum of accumulated monthly performances capped on the upside and not floored on the downside i.e. 126.8%

  100% of the capital invested

Delta One Certificate

- A Delta One Certificate I a structured product which allows the investor to be exposed to 100% of the performance of an underlying (positive or negative)
- Mechanism
  - At Maturity
    - If the underlying closes at or above its initial level on the final observation date, the investor receives 100% of the capital invested + 100% of the positive performance of the underlying
    - If the underlying closes below its initial level on the final observation date, the investor receives 100% of the capital invested reduced by the negative performance of the underlying (physical delivery or cash settlement) (Loss in capital scenario)
- Advantages
  - The product reflects at anytime the performance of the underlying
- Disadvantages
  - The capital is not guaranteed
  - If the underlying closes below its initial level on the final observation day, the investor is subject to a loss in capital equivalent to the one associated with the underlying

Example of Delta One Certificate

- Example 1: Increase of Underlying

  The basket closes at 120% on the final observation date i.e. above its initial level

  The investor receives at maturity 100% of the capital invested + 100% of the performance of the underlying i.e. 120% of the capital invested

- Example 2: Decrease in the Underlying

  The basket closes at 90% on the final observation date i.e. below its initial level

  The investor receives 90% of the capital invested

Outperformer

- An outperformer is a structured product which allows the investor to benefit from a high level of participation in the rise of the underlying while being only exposed to 100% of the decrease

- Mechanism
  - IF the underlying closes above its initial level on the final observation date, the investor receives
    - 100% + x% of the positive performance of he underlying (x% being the participation in the rise of the underlying)
  - IF the underlying closes below its initial level on the final observation date, the investor receives
    - 100% of the capital invested minus the negative performance of the underlying (physical or cash delivery) (Loss in capital scenario)

- Advantages
  - The product offers strong participation in the upside without any upside limit
  - The product is very sensitive to the evolution of the underlying on the secondary market

- Disadvantages
  - The capital is not guaranteed
  - If the underlying closes below its initial level on the final observation day, the investor is subject to a loss in capital equivalent to the one associated with the underlying

Outperformer

- Structure
  - Buy a Call Zero (in order to arbitrate the dividends)
  - Buy x% of a Call At The Money

Example of Outperformer

- Underlying XYZ Stock Maturity : 12 months Capital : Not Guaranteed
- Participation 130% of the increase of the underlying
  100% of the decrease of the underlying
- Capital Not Guaranteed

- Example 1: Increase of Underlying on the final observation date

  If the underlying has increased (from 100 to 120 for example), the investor receives at maturity
  100% of the capital invested + 130% of the performance of the underlying
  i.e. 100% +(130% *20%)=126% of the capital invested

- Example 2: Decrease of Underlying on the final observation date

  If the underlying has increased (from 100 to 80 for example), the investor receives at maturity
  A number n of stocks paid at their initial level
  In our example, if the stocks are immediately sold, the loss is less than 20%

Sprint

- A sprint is is a structured product which allows the investor to benefit from a very high leveraged participation in the rise of the underlying capped on the upside, while being only exposed to 100% of the decrease
- Mechanism
  - IF the underlying closes above its initial level but below the Target on the final observation date, the investor receives
    - 100% + 200% of the positive performance of he underlying
  - IF the underlying at or above the Target the final observation date, the investor receives
    - The Maximum Redemption (200%*Targeted Performance)
  - IF the underlying closes below its initial level on the final observation date, the investor receives
    - 100% of the capital invested minus the negative performance of the underlying (physical or cash delivery) (Loss in capital scenario)
- Advantages
  - The product offers strong leveraged participation in the upside
  - The investor benefits from an improved return when anticipated a moderate increase of the underlying
- Disadvantages
  - The capital is not guaranteed
  - If the underlying closes below its initial level on the final observation day, the investor is subject to a loss in capital equivalent to the one associated with the underlying
  - The performance is capped above predefined level

Sprint

- Structure
  - Buy a Call Zero (In order to arbitrate the dividends)
  - Buy 100% of a call At The Money
  - Sell 2 Calls Out of The money ‘Strike Target’

Example of Sprint

- Underlying XYZ Stock Maturity : 12 months Capital : Not Guaranteed
- Participation 200% of the increase of the underlying upto the Target
  100% of the decrease of the underlying
- Target 115% Max Redemption 130%
- Capital Not Guaranteed

- **Example 1**: Increase of Underlying on the final observation date

  If the underlying closes at or above its initla level but below the Target(say 110%), the investor receives at maturity

  100% + 200% of the positive performance of the underlying

  i.e. 100% +200%*10%=120%

  Example 1: Increase of Underlying on the final observation date

- **Example 2**: Increase of Underlying beyond the Target on the final observation date

  If the underlying closes at or above its initla level but below the Target(say 115%), the investor receives at maturity

The Maximum Redemption i.e.130% of the capital invested

- **Example 3**: Decrease of Underlying on the final observation date

  If the underlying has decreased (from 100 to 80 for example), the investor receives at maturity

  A number n of stocks paid at their initial level

  In our example, if the stocks are immediately sold, the loss is less than 20%

Best of / Worst of

- A Best Of/ Worst Of is a structured product which allows the investor to benefit from the increase of the Best Performance Underlying of a basket with leverage if the Worst Performing Underlying closes at or above its initial level on the final observation date.

- Mechanism
  - On the final observation date, if the Worst Performing Underlying of the basket closes at or above its initial level, the investor receives
    - 100% + x% of the Best Performing Underlying (x% being the participation in the increase of this underlying)
  - On the final observation date, if the Worst Performing Underlying of the basket closes strictly below its initial level the the investor receives 100% of the capital invested reduced by the negative performance of the Worst Performing Underlying (Loss of Capital Scenario)

Best of / Worst of

- Advantages
  - The investor benefits from a high leveraged participation in the increase of the Best Performing Underlying if the condition if fulfilled

- Disadvantages
  - The capital is not guaranteed
  - The condition to benefit from the leverage is applied on the Worst Performing Underlying. Therefore a high return is possible only if all underlyings close at or above their initial levels. If the Worst Performing Underlying closes below is initial level on the final observation date, the investor is subject to a loss in capital equivalent to the one associated with the underlying.

Example of Best Of/Worst Of

- Underlying: ABC Stock and XYZ Stock
- Maturity : 12months
- Participation : 200% of the increase of the Best Performing Stock

- Example 1 : Participation in increase
  - If ABC stock closes at 120% and XYZ at 105% on the final observation date. Then, the investor receives

  100% of capital invested+200%of increase of ABC Stock
  i.e. 100%+200%*20%=140% of the capital invested

- Example 2 : Loss in Capital
  - If ABC stock closes at 105% and XYZ at 95% on the final observation date. Then, the investor receives

  N number of XYZ stocks paid at their initial level (in the example, if the stocks are immediately sold, the loss is less than 5%)

Callable Corridor

- A Callable Corridor is a structured product , 100% capital protected at maturity, which allows the investor to accumulate a bonus every day where the underlying has remained within a predefined range.

  The product can be early redeemed by the issuer at its sole discretion at 100% +accrued bonus

- Mechanism
  - At the end of each period, we observe the number of days where the underlying has remained within the predefined range to calculate the bonus for that period.

- Advantages
  - The capital is 100% guaranteed at maturity
  - The investor can benefit from a high return
  - Even if the underlying exitsthe range, the mechanism of bonus payment does not deactivate. The investor receives on each payment date a bonus weighted according to the number of days where the underlying remains within the predefined ranges
- Disadvantages
  - The return can be lower than a classical monetary deposit if the underlying reamins within the predefined ranges for an insufficient amount of time.
  - The product may be redeemed by the issuer in the case of a favourable evolution of the underlying (Callable Effect)

Callable Corridor

- Structure
  - Buy a strip of daily binary European Options
  - Buy a zero coupon
  - Sella Bermudan Call on the structure

Example of Callable Corridor

- Currency USD Maturity 6years
- Bonus A maximum quarterly bonus of 6.5% annualised
- Underlying 6 month USD LIBOR
- Bonus Payment Quarterly
- Ranges Year 1: 0%-5.5% Year 4: 0%-5.75%
  Year 2: 0%-5.5% Year 5: 0%-6%
  Year 3: 0%-5.75% Year 6: 0%-6%

- Redemption Scenarios
  - At the end of each quarter, we observe the number of days where the underlying has remained strictly within the predefined ranges
    - The underlying has remained strictly remianed within the ranges during the entire reference period, the investor receives a 6.5% annualised bonus, paid quarterly
  - The underlying has not remianed strictly within the ranges during the entire reference period
    - The investor receives a 6.5% annualised bonus weighted according to the number of days where the underlying has remianed within the range
    - Suppose the number of days within the range is 60, the payout will be 6.5%*(60/90)*(90/360) i.e 1.08% of the capital invested for that quarter.

Hw to Create Your Own Structured Product

- Strategy A1
  - Using Fixed Deposits and Equity
- Strategy A2
  - Using Fixed Deposits and Options
- Strategy B
  - Using Fixed Income products like SCSS and Postal Savings Products with Equity
- Strategy C
  - Using derivative models like bull call spread

Strategy A1

Product	Amount	Rate of Return	Tenure	Maturity
FD	100000	0.07	6	Rs.151,644
FD	66000	0.07	6	**Rs.100,085**
Equity/MF	34000	0.12	6	Rs.67,110
NSC	62500	0.08	6	**Rs.100,527**
Equity/MF	37500	0.12	6	Rs.74,018
Equity/MF	100000	0.12	6	Rs.197,382

Strategy A2

FD	66000	0.07	6	**Rs.100,085.22**
Money Available	34000			
CALL				**PUT**
NFTY 30 DEC 2010				NFTY 30 DEC 2010
Nifty Current Level	5900			5900
Strike Price	6300			5700
Premium	113			85
Market Lot	50			50
No of Contracts	6			8
Nifty Level on 30 Dec 2010	6600			5500
Gain per option	300			200
Profit per option	187			115
Total Profit	Rs.56,100			Rs.46,000

Strategy B

	Amount	Rate Of Interest	Tenure	Monthly/ Qtly outflow	Maturity	Total Maturity
Postal MIS	100000	8%	6	667	Rs.105,000	
SIP (Monthly)	667*	12%	6		Rs.69,841	Rs.174,841
Postal MIS	100000	8%	6	667	Rs.105,000	
Postal RD	667	8%	6		Rs.60,702	Rs.165,702
SCSS	100000	9%	5**	2250	Rs.100,000	
SIP (Quarterly)	2250	12%	5		Rs.60,458	Rs.160,458

Strategy C

NIFTY SPOT	Long Call	Short Call	Premium for Long Call	Premium For Short call	Profit on Long Call	Profit on Short Call	TOTAL PROFIT
6100	6200	6900	415	195	-415	195	-220
6200	6200	6900	415	195	-415	195	-220
6300	6200	6900	415	195	-415	195	-220
6400	6200	6900	415	195	-415	195	-220
6500	6200	6900	415	195	-415	195	-220
6600	6200	6900	415	195	-15	195	180
6700	6200	6900	415	195	85	195	280
6800	6200	6900	415	195	185	195	380
6900	6200	6900	415	195	285	195	480
7000	6200	6900	415	195	385	95	480
7100	6200	6900	415	195	485	-5	480
7200	6200	6900	415	195	585	-105	480
7300	6200	6900	415	195	685	-205	480
7400	6200	6900	415	195	785	-305	480

Strategy C

- Maximum Loss
  = Difference in the premium of Long and Short Call
  =415-195
  =220
- Maximum Gain
  = Difference between strike price and the net premium outgo
  =(6900-6200)-(415-195)
  =480

Strategy C

For making structured product

NIFTY Spot 6100				
Lot size 50			Premium	Paid/ Received
Buy (One)	NIFTY 30June2011	Call	415	-20750
Sell (Three)	NIFTY 30June2011	Call	195	29250
			Net Cost	8500

Investor earns Rs.8500/- net on the buy and sell of call.So He has the entire Rs.1lac plus Rs.8500 at his disposal for FD

Strategy C

NIFTY SPOT	Long Call	Short Call	Premium for Long Call	Premium for Short Call	Profit on Long Call	Profit on Short Call	TOTAL PROFIT
6100	6200	6900	415	195	-415	195	-220
6000	6200	6900	415	195	-415	195	-220
5900	6200	6900	415	195	-415	195	-220
5800	6200	6900	415	195	-415	195	-220
5700	6200	6900	415	195	-415	195	-220
5600	6200	6900	415	195	-415	195	-220
5500	6200	6900	415	195	-415	195	-220
5400	6200	6900	415	195	-415	195	-220
5300	6200	6900	415	195	-415	195	-220
5200	6200	6900	415	195	-415	195	-220
5100	6200	6900	415	195	-415	195	-220
5000	6200	6900	415	195	-415	195	-220
4900	6200	6900	415	195	-415	195	-220
4800	6200	6900	415	195	-415	195	-220

Strategy C

- Maximum Loss
  = Difference in the premium of Long and Short Call
  =415-195
  =220
- Maximum Gain
  = Difference between strike price and the net premium outgo
  =(6900-6200)-(415-195)
  =480

Risk in Structured Products

- Issuers Credit Risk
- Market Risk : The value of investment changes with the movement of interest rates and volatilities
- Liquidity Risk : Premature withdrawal is on best effort basis
- Premature redemption risk : The is no capital guarantee if there is a withdrawal before maturity

Distribution Platforms in India

- PMS :
- FMP/Insurance
- Direct Distribution

- Issuers are NBFC’s
- Platform providers are MF’s, PMS providers, insurance companies

Why Structured Products market in India is not developed

- Booming stock market
- Preference for traditional products
- Long term options not available (max 3months)
- OTC derivatives use by SP issuers is not permitted*
- In India there is a restriction on direct access to derivatives
- Size required for direct access is huge