

FX-linked Investments

Revisiting FX

as an Asset Class



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Structured Investments



The general principles



What is a Structured Investment Product ? And Why Should An Investor Consider Structured Investments?

- the Structured Investment Product deposit offers
 - **the opportunity to enhance the yield** depending on market conditions.
 - **capital guarantee** regardless of market conditions with a special mention for the DCOD
- A strategy expressing a **market view** with **no market risk**
- Total **flexibility** and **latitude** : structured to fit any profile
- The possible packaging as **Structured Notes : European Medium Term Notes**

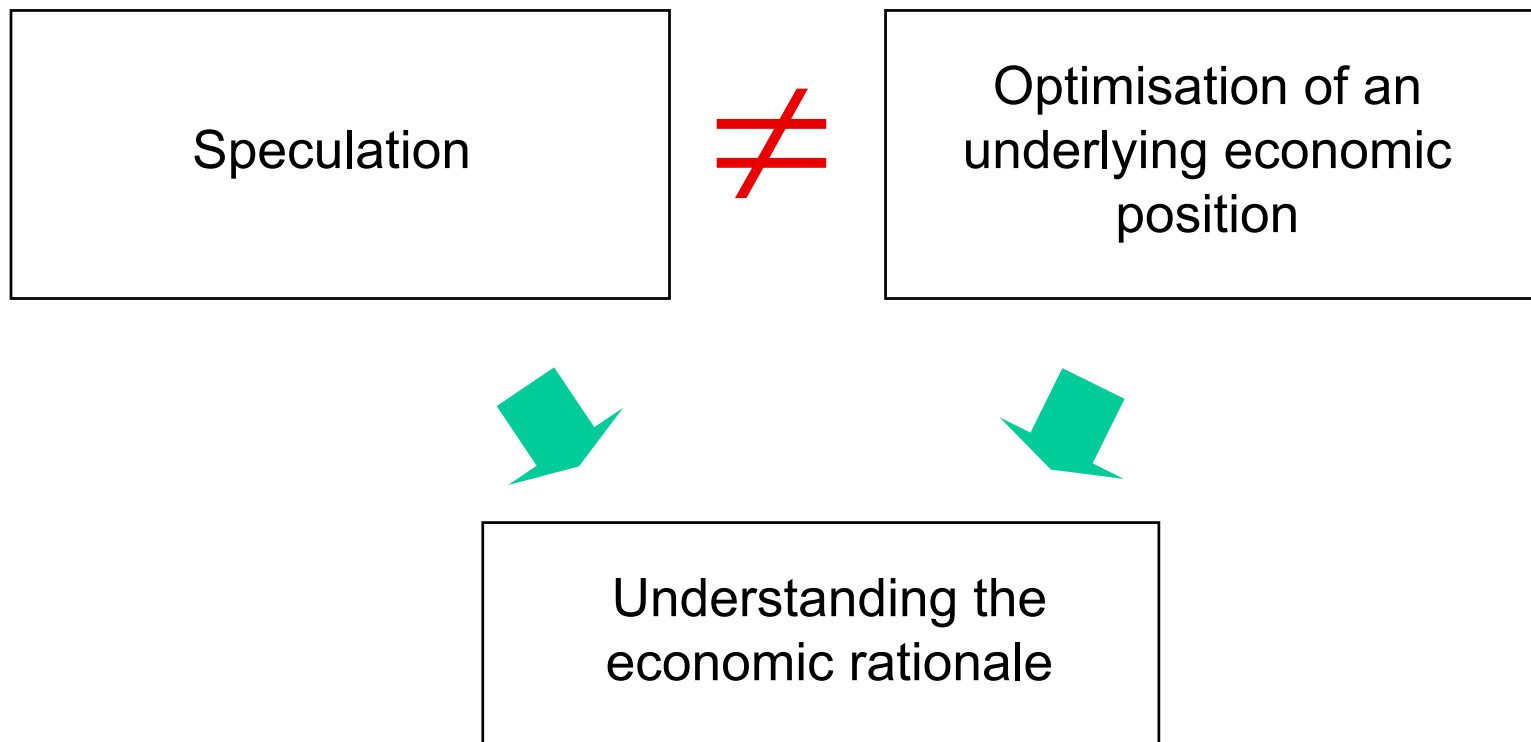
How should we consider structured investments ?

■ Structured placements as hedge of an underlying economic risk, such as :

- exchange risk (foreign exchange reserves, short-term liquidity cash, aso...)
- commodity risk (oil interests, gold interests, etc.)
- natural disaster risk (insurance companies)
- climatic risk (electric utilities)
- credit risk protection (insurance companies)
- economic risk (inflation, growth, etc.)

The Positioning

**Matching exactly the client's economic logic
and risk problematic (a hedge)**



BNPP's Yield Enhancement Structures

■ High volatility

- a choice among a panel of products selling volatility such as Double No Touch deposit, No Touch Deposit, or the Hydra-range Deposit

■ Low volatility

- a choice among a panel of products buying volatility such as Euro Digital Deposit, Touch Deposit, etc.

■ Directional view

- a choice among a panel of more directional products such as the DCOD, the Podium (or Pyramid Deposit), Euro Bull Deposit, Performance Deposit, etc.

The Short-Term Structures



*The Dual Currency Option Deposit
and the Best of DCOD*



Dual Currency Option Deposit Definition

- A Deposit offering the certainty of a boosted rate, well above the money market
- The redemption currency depends on the level of the currency pair and whether it hits a target at maturity
- Pay back in the original currency for both the deposit and the interest if target rate has not been reached
- Pay back in the other currency at the target exchange rate if it is reached at maturity

Dual Currency Option Deposit Characteristics

- A product which fits perfectly investors with multi-treasuries and a pool of currencies
- It is a short-term product : 1 week onwards
- The objective is double:
 - capture a better interest rate
 - execute a term transaction and beat FX market
- At maturity, the investor receives a boosted yield in all case; if his target spot rate has been reached, he receives all principal and interest converted at this rate
- It is a win-win situation :
 - the enhanced yield is obtained anyway
 - the FX conversion enables the Investor to optimise his treasury

Dual Currency Option Deposit

Example

- The investor is placing a 2-week deposit in Euro that he would have interest to convert into Dollar if spot goes to 1.19 (now spot is 1.19)
- The investor enters a DCOD for 1 week with a target exchange rate of 1.19
- His Deposit returns a Boosted Yield of 10.00 % p.a. (against money market 2.04 % p.a.)
- At maturity, clear-cut case :
 - spot is **BELOW** 1.19, the investor gets the principal plus interests earned in Euro : yield has been enhanced to 10.00 % p.a.
 - or spot is **ABOVE** 1.19, the investor gets the principal plus interests earned at 10.00 % p.a. converted into USD (conversion at 1.19)

Even better : the Best-Of Deposit

- The Yield is also certain and is even more boosted
- The redemption currency depends on the level of 2 currency pairs at maturity and whether it hits 2 targets

Example

- The investor is placing a short-term deposit in Euro that he would have interest to convert into Usd if spot goes to 1.19 (now spot is 1.17) or into Sterling if spot goes to 0.71 (now spot is 0.70)
- The investor enters a DCOD for 2 weeks with a Best-Of target exchange rate of 1.19 / 0.71
- His Deposit returns a Boosted Yield of 12.00 % p.a. (against money market 2.04% p.a.)



Even higher return : the Best Of DCOD

<<< Example (*continued*)

At maturity, clear-cut case :

- If Euro/Dollar finishes ABOVE the target rate 1.19 at maturity, the investor receives a yield of 12.00% p.a. and is delivered the nominal plus earned interest back in Dollar (converted at the target rate of 1.19)
- Or if Euro/Sterling finishes ABOVE the target rate 0.71 at maturity, the investor receives a return of 12.00% p.a. and is delivered the nominal plus earned interest back in Sterling (converted at the target rate of 0.71)
- Or if both Euro/Dollar and Euro/Sterling finish ABOVE their respective target levels 1.19 and 0.71, the investor receives a return of 12.00% p.a. and is delivered the nominal plus earned interest in either Dollar or Sterling along with BNPP Paris decision and using their respective target rates
- In the event that neither Euro/Dollar nor Eur/Sterling finish ABOVE their respective target rate at maturity, the investor will receive a return of 12.00% per annum and is receiving nominal as well as interest earned in Euro

Even higher return : the Callable DCOD

- We can show the DCOD with an extra option : a callable feature
- BNP Paribas has the right to call the deposit after a period of time
- In our example, BNPP would be able to notify the Investor after 1 week (half time), pay back the principal in Euro at par and the coupon prorata temporis
- For this special feature, the yield of the DCOD is higher by 1.00 % p.a.
- This feature gets the investor closer to the capital guarantee

- If called, the Investor can enter a new placement
- If not called, the DCOD works as usual

Corridor Double Knock Out Deposit Definition

- A Deposit with a maximum rate which is progressively reached: the more days the currency spends within the range and the closer the yield is to the maximum
- The advantage is the progressive and daily mark-up of the yield
- When the spot intra-day touches one of the two barriers, the daily mark up of the yield count stops
- It is less risky than traditional Double No Touch as the Investor accumulates every day more yield
- It is offering a better return than traditional Corridor as the accumulation stops when the barrier is hit

Corridor DKO Deposit

Example

- The Investor has the view that the spot EUR/USD exchange rate is likely to be trading within a pre-defined range, say 6 figure-wide during the next 6 months
- Every day that the investor's view is correct, i.e EUR/USD fixes between 1.14 and 1.20, the EUR deposit rate is incremented until the moment spot touches either barrier
- The maximum Euro Deposit Interest Rate is 8.00% : every day counts for **8.00 % / N** :
 - **N** the number of Observations in the Calculation Period
- The Capital is 100% guaranteed at maturity
- This compares with a 2.05% standard money market deposit rate. Spot reference is 1.17 in Eur/Usd

Corridor DKO Deposit

■ Several Advantages

- **100 % guarantee**
- **Progressive yield**
- **Good product for medium and long term placement**
- **The product can also be associated to a DCOD 1.18 KO 1.12 component : in that case, the product loses its capital guarantee. It gets a minimum yield of 2.5 % p.a. on top of the additional yield of the corridor de $8 \% * n / N$, or a maximum rate of 10.5 % p.a.**

Medium-Term Structures



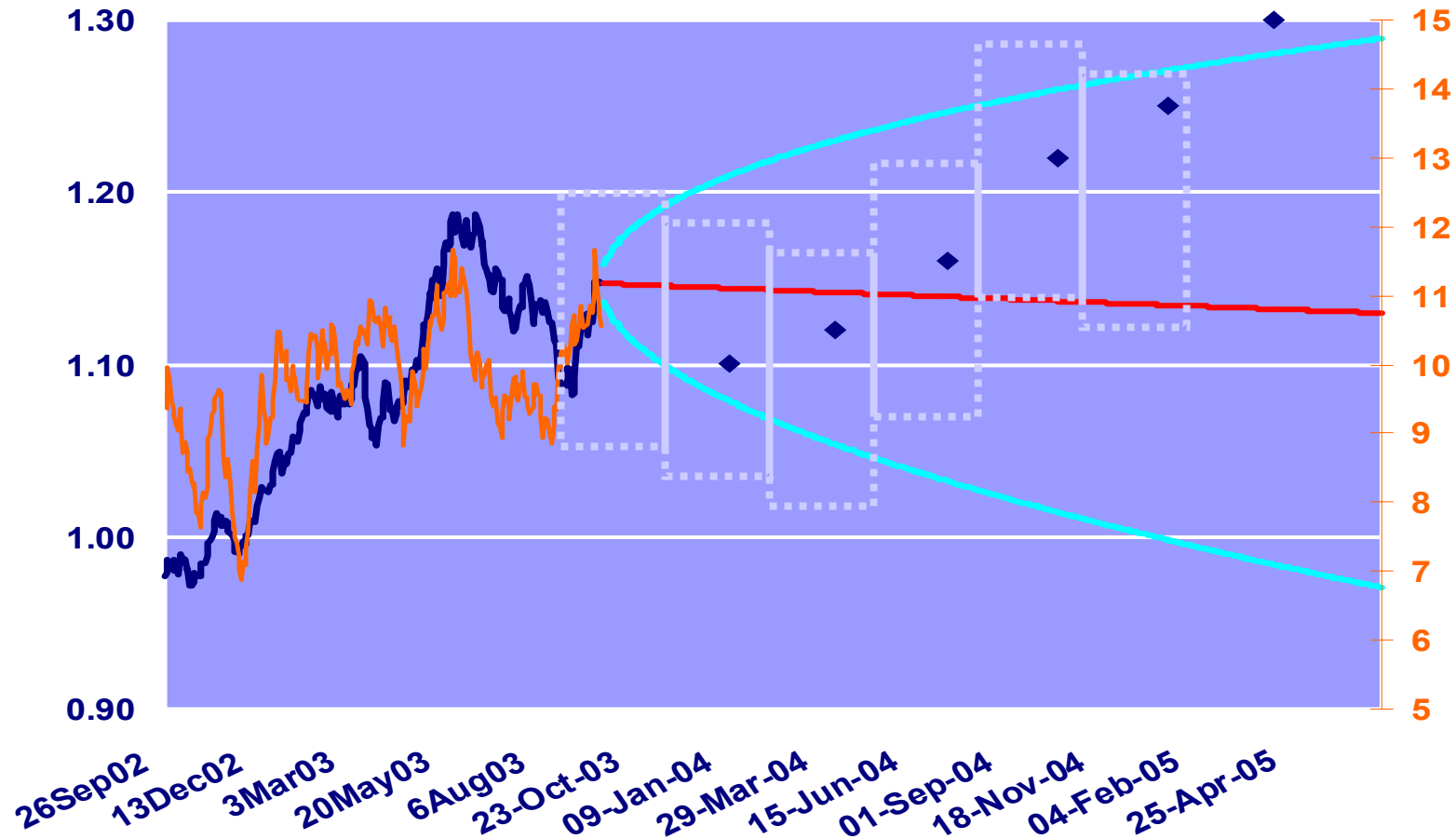
The Performance and the Power Ranger



The Performance

- Presented here as an Interest Rate Swap
- Based on a 98 %-capital-guarantee structured note
- Swiss-Franc denominated
- 15 months
- Investor pays Swiss Libor - 10 bp
- Investor receives 2 % up-front in cash
- Investor receives in Swiss Franc a zero-coupon equal to the average performance of the rise in Eur/Chf with a gearing of 110 %
- The Final Client invests in Chf in a product which protects him against the weakening of its own currency (investment and hedge)
- Based on an official reference Fixing Page (ECB)

The Reset Range - a structured note rationale



The Reset Range - a structured note

- The 4-year Note is a Euro-denominated EMTN
- Principal-guaranteed 100 % offered at 98.50 %
- A range reset every 6 months
- A range in Eur/Usd of 16 figures around a ECB Fixing
- 6.00 % p.a. every 6 months if Eur/Usd has not broken the specific range
- 0 % otherwise
- the spirit of Range Accruals on the Interest rate side
- 1.50 % cash up-front for the investor

The Power Range - an other structured note

- The 4-year Note is a Euro-denominated EMTN
- Principal-guaranteed 100 % offered at 98.50 %
- A range reset every 6 months
- A range in Eur/Usd of 16 figures around a ECB Fixing
- 10 % p.a. every year if Eur/Usd has not broken the 2 range of the specific year
- 0 % otherwise
- the spirit of Range Accruals on the Interest rate side
- 1.5 % cash up-front for the investor

Other products



Other FX structures suitable for investors

- **Single Barrier Deposit** The investor defines a barrier-level for the FX parity. If at maturity the spot rate is above the barrier, The investor receives an enhanced return ; if not, the return will be minimal
- **Touch Deposit** The investor defines a barrier-level for the FX parity. If during the life of the deposit the spot rate touches the barrier, The investor receives an enhanced return ; if not, the return will be minimal
- **No Touch Deposit** The investor defines a barrier-level for the FX parity. If during the life of the deposit the spot rate touches the barrier, the return will be minimal ; if not, he receives an enhanced return
- **Double No Touch Deposit** The investor defines a higher and a lower barrier-level for the FX parity. If during the life of the deposit, the spot rate has not reached either limit, The investor receives an enhanced return. If not (i.e. spot level has touched either the higher limit or the lower limit), the return will be minimal

Other FX structures suitable for investors

- **Single Time Swap Deposit** The investor defines a barrier-level for the FX parity. Each day that the spot rate is beyond the barrier, the investor receives an enhanced return to increment a total maximal yield if all days are fixing on the side of the barrier he has defined
- **Corridor Deposit** The Investor defines a range for the FX parity; each day that the spot rate is within the range, the investor receives an enhanced return to increment a total maximal yield if all days are fixing within the range he has defined
- **Hydra-Range Deposit** The Investor defines a range for the FX parity. It starts like a Double-No-Touch Deposit with an extra chance for the Investor to receive the enhanced yield : a new range is defined around the barrier that has been hit. Only if spot breaks out of the second range too will the Investor receive the minimum yield.

Appendix



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