# 3. currency-linked dual currency investment

Currency-linked dual currency investment is a possible alternative to a regular term deposit. This form of investment is an opportunity for you to achieve far higher interest than regular term deposit rates, profiting from your exchange rate expectations, while you have a minimum interest guaranteed. Interest will be paid in the same currency in which the deposit was made, the evolution of the exchange rate has an effect on the level of the interest achieved on the investment and determines the currency in which the deposit will be repaid to the investor.

## product description

A client places an investment at the bank. The interest paid for this deposit is a function of the fluctuation of the cross-rate of a currency pair (one of them being the currency in which the deposit is placed). If the exchange rate remains for a long time within the range defined when the deal is concluded, then an interest rate above the regular term deposit rate is achievable. The Bank will examine if the official exchange rate (NBH fixing rate) of the National Bank of Hungary (or European Central Bank – set according to the client's will) stays in the predefined range every day or not. If this fixing rate stays in the range, then the Bank pays an interest rate premium for that given day otherwise the minimum interest rate will be guaranteed.

interest rate premium's conditions can be the following:

- within the exchange rate range fixed on the trade day, without touching the range limits
- out of the exchange rate range fixed on the trade day, without touching the range limits
- below the exchange rate level fixed on the trade day
- above the exchange rate level fixed on the trade day

Based on the above, your investment can yield high interest not only if the exchange rate is less volatile but also by large exchange rate fluctuations or when it evolves in the direction you predicted.

This product has a variant in which not only one exchange rate condition is defined. In that case you can have different interest rate premiums tied to different conditions.

The currency in which the investment is repaid depends on the spot market rate at 12 p.m. on the exchange rate monitoring date. A dual currency tower investment involves an investment placed in a certain currency (base currency) with the proviso that the Bank may repay the principal in another currency (secondary currency), if at expiry the cross rate of the two currencies is above or below – depending on the direction of conversion – a pre-defined exchange rate level (conditional exchange rate). If the conversion condition is met, the invested capital is returned to the client in the "secondary currency". Interest payments, however, will always be made in the base currency, regardless of whether the principal has been converted or not.

The deposit will not be broken before the end of the investment period (security deposit), the interest is paid on the end of the tenor in one sum. **example for HUF investment – accruing premium interest is paid for days when the fixing is inside the range:** an investor has HUF 100 million, which he intends to deposit for the next 3 months. The rate on conventional 3 month deposits is 7%. The EUR/HUF spot rate is 290 and the investor does not expect significant volatility in the exchange rate in the coming 3 months. The investor expects that the official NBH fixing will not leave (for a long time) the 280-300 range and would like to turn this expectation into profit but would not like to get lower than 2% interest rate in any case. Moreover he accepts the risk that the capital is repaid in euro at the end of the tenor. Therefore, this investor places his savings in a currency-linked dual currency investment, which pays a 10.00% interest on every day in the range and the 2% minimum interest is guaranteed on every day over the tenor.

In case on the exchange rate monitoring day forint strengthens below 280 (below the conditional exchange rate) versus euro, then the invested capital will be paid back in euro converted at 280 EUR/HUF.

parameters of the currency-linked dual currency investment	
notional	HUF 100 000 000
tenor	3 months
expiry date	end of tenor
exchange rate monitoring period	up to 2 business days before end of tenor
number of fixing days	90
3-month BUBOR at time of pricing (annualised)	7.00%
spot exchange rate	290 EUR/HUF
ATMF volatility for 2 months	10%
EUR/HUF exchange rate range	280-300 EUR/HUF
achievable maximum interest (annualised) (minimum interest + premium)	10.00%
condition to crediting achievable maximum in- terest	the official MNB EUR/HUF fixing rate does not leave the fixed EUR/HUF exchange rate range on any fixing day over the tenor
guaranteed minimum interest (annualised)	2.00%
premium interest (annualised)	8,00%* (N/90)+2%, where N: number of the days when EURHUF MNB fixing rate remained in the range during the tenor. In case of holidays and weekends the fixing rate of the last working day before will be considered. In case of a fixing rate exactly on one of the boundaries the minimum interest rate is guaranteed.
conditional exchange rate	280 EUR/HUF
conditional conversion exchange rate moni- toring day	2 bank days before maturity
currency of the credited enhanced interest refund	HUF
condition of conversion of principal	the spot market rate at 12:00 p.m. on the date of exchange rate monitoring is below the conditional exchange rate
exchange rate of capital conversion	conditional exchange rate
value date of capital conversion and crediting of enhanced interest	end of tenor (expiry date)
possible scenarios on expiry depending on the spot market rates at 12:00 p.m. on the expiry date	
A) exchange rate above 280 EUR/HUF	the investment stays denominated in HUF, and the interest is credited by the bank to the client's account (in HUF) on the expiry date of the investment
B) exchange rate below 280 EUR/HUF	the investment is converted into EUR at 280 EUR/HUF, and guaranteed minimum interest is credited by the bank to the client's account (in HUF)
transaction charges	none

**example for HUF investment – with more exchange rate levels:** an investor has HUF 100 million, which he intends to deposit for the next 3 months. The rate on conventional 3 month deposits is 7%. The EUR/HUF spot rate is 290 and the investor does not expect significant depreciation of the forint in the coming 3 months. The investor expects that the official NBH fixing will not rise above (for a long time) the 290 and 295 levels and would like to turn this expectation into profit but would not like to get lower than 2% interest rate in any case. Moreover he accepts the risk that the capital is repaid in euro at the end of the tenor. Therefore, this investor places his savings in a currency-linked dual currency investment, which pays a 5.00% interest on every day when the fixing is between 290 and 295, while pays 12.50% premium interest on days when the fixing is below 290. The 2% minimum interest is guaranteed on every day over the tenor.

In case on the exchange rate monitoring day forint strengthens below 280 (below the conditional exchange rate) versus euro, then the invested capital will be paid back in euro converted at 280 EUR/HUF.

parameters of the currency-linked dual currency investment	
notional	HUF 100 000 000
tenor	3 months
expiry date	end of tenor
exchange rate monitoring period	up to 2 business days before end of tenor
number of fixing days	90
3-month BUBOR at time of pricing (annualised)	7.00%
spot exchange rate	290 EUR/HUF
ATMF volatility for 2 months	10%
EUR/HUF rate tied to the maximum interest	290 EUR/HUF
achievable maximum interest (annualised)	12.50%
(minimum interest + premium)	the official MNB EUR/HUF fixing rate is not above the 290 EUR/HUF exchange rate level on any fixing day over the tenor
condition to crediting achievable maximum in- terest	10.50%
maximum interest rate premium (annualized)	295 EUR/HUF
EUR/HUF rate tied to the intermediate interest	5.00%
intermediate interest (annualised)	3.00%
intermediate interest premium (annualized)	the official MNB EUR/HUF fixing rate is not above the 295 EUR/HUF exchange rate level but exceed the 290 level on every fixing day over the tenor
condition to crediting intermediate interest	2.00%
guaranteed minimum interest (annualised)	10.50%* (N/90) + 3.00% * (n/90) + 2.00%, where N: number of the days when the EUR/HUF MNB fixing rate is under the exchange rate level tied to the maximum inte- rest rate n: number of the days when the EUR/HUF MNB fixing rate is under the exchange rate level tied to the intermediate in- terest rate. In case of holidays and weekends the fixing rate of the last working day before will be considered. In case of a fixing rate exactly on one of the boundaries the minimum interest rate is guaranteed.
premium interest (annualised)	280 EUR/HUF
conditional exchange rate	2 bank days before maturity
conditional conversion exchange rate moni- toring day	HUF
currency of the credited enhanced interest refund	the spot market rate at 12:00 p.m. on the date of exchange rate monitoring is below the conditional exchange rate
condition of conversion of principal	conditional exchange rate
exchange rate of capital conversion	end of tenor (expiry date)
value date of capital conversion and crediting of enhanced interest	
A) exchange rate above 280 EUR/HUF	the investment stays denominated in HUF, and the interest is credited by the bank to the client's account (in HUF) on the expiry date of the investment
B) exchange rate below 280 EUR/HUF	the investment is converted into EUR at 280 EUR/HUF, and guaranteed minimum interest is credited by the bank to the client's account (in HUF)
transaction charges	none

#### advantages

- it is possible to achieve yield above the regular term deposit interest, while there is a guarantee that the capital plus a minimum interest will be repaid on expiry
- it is possible to profit from your predictions about the evolution of the cross exchange rate between a given pair of currencies (that is, to achieve extra yield) if your predictions prove to be right
- if the amount invested is eventually converted, this will always be done at a more advantageous exchange rate than the spot rate at the time of placement
- the maximum interest rate, the minimum interest rate, the conditional conversion rate or the conditions of the interest rate premium can be set at your will, and the rest of the parameters will be calculated accordingly; the change of one parameter will cause the rest of the parameters to change, too.

### risks

- if conversion takes place at maturity on the conditional exchange rate, this will always mean that the investment is converted to the term currency at a less advantageous rate than the current market rate applicable on expiry
- if the investment is not converted, the exchange rate of a spot conversion can be less advantageous than it would have been if done on the date of placement
- if during the investment period the exchange rate leaves the range(s) or reaches or does not reaches exchange rate levels defined in advance for a longer time period, the achieved interest would be lower than the term deposit interest that was achievable on the market when the deposit was made

- the invested capital is not guaranteed (so if conversion takes place, a spot re-conversion could result a lower amount in the base currency than it was originally)
- the deposit cannot be broken before expiry (security deposit)
- further risks, arising not exclusively from the characteristics of the product described here but from other factors, are explained in chapter I/b. of the "K&H Treasury Handbook of Market Risk Management" on risk factors.

#### product structure

This product is the combination of a security deposit and more digital option. The explanation concerning digital options, provided in Chapter I/c. entitled "5 Basic Products" of "K&H Treasury Handbook of Market Risk Management" also applies to this product.