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Hedging exchange rate risks

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How big is your exchange rate risk?

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– What is the net currency risk?

- **Not only receivables, but also liabilities can bear exchange rate risks as well as inventories, other assets and financing.**
- **Cross correlations between currencies have to be assessed.**
- **Bulk of cash flows with different currency risks at different times have to be taken into account.**
- **Price sensitivity of goods to exchange rate fluctuations.**
- **In the end, the important figure is the influence of exchange rate fluctuations on profits, not on sales.**

Reducing currency risk

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- Is currency risk a problem for your company?

- Could you reduce your currency risk by changing your suppliers or employing a different financing strategy?

- Do you want to hedge your currency risk
  - all the time, or just sometimes?
  - to the full amount, or just partly?

- You should define rules for hedging, especially if you decide to hedge only sometimes or partly.

Change Financing

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- **One relatively simple method of reducing your currency risk is to take a loan in the currency in which you have the highest amount of receivables.**

- **You can pay off the loan directly with receivables.**

- **This protects you from a longer-term downward trend in the currency of your receivables.**

- **Interest rate differential could even be in your favor.**

How to hedge on the FX markets

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- **You want to fix the exchange rate**
  - **Hedging by a Forward or a Future**
  - **Costs: Interest rate differential**

- **You want to have an insurance against adverse movements**
  - **Plain Vanilla Option**
  - **Costs: Premium**

- **You want to have an insurance against adverse movements but without initial costs**
  - **Structured product**
  - **Costs: You take a risk**

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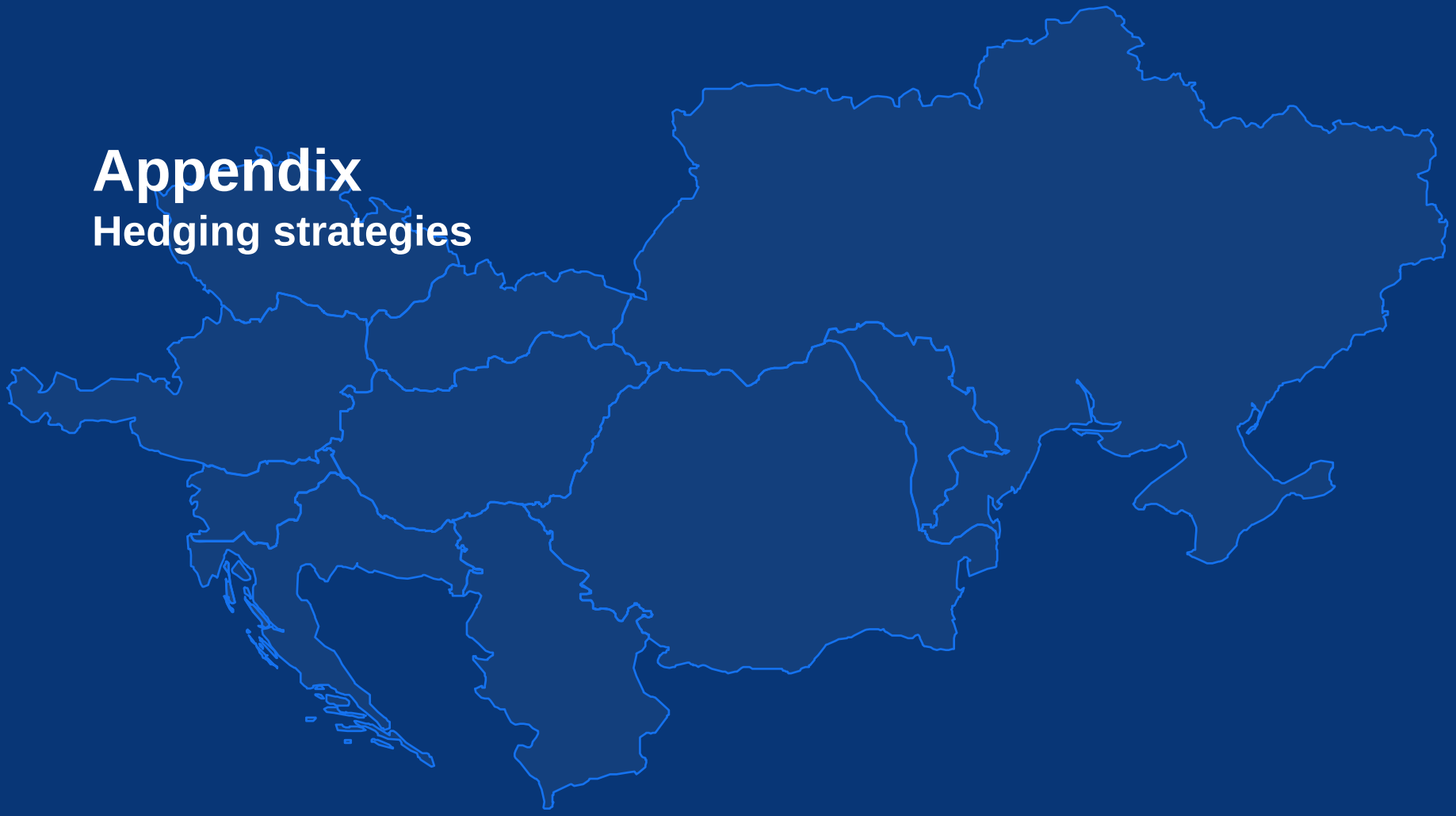
Appendix

Hedging strategies



EUR/RON-Chart (5 years period)

http://treasury.erstebank.com -> Data Center -> Währungen

Strategies

- **Outright / Forward**
- **Plain Vanilla Option**
- **Structured product**

Forward / Outright

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Your opinion: Rising EUR/RON rate

Approach:

You need to buy EUR 4,000,000 against RON in six months, but you wish to fix the current level in the market, as you expect a stronger EUR in the next few months.

A Forward/Outright deal is an agreement done by two partners, where they agree to trade a fixed foreign exchange rate on a certain date.

The spot rate normally does not equal the forward rate. This distinction is the result of the interest rate differential of both currencies and does not reflect any trend expectations for the future.

Forward / Outright

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Example:

EUR/RON – Spot rate:	**3.38**
Swap points for six months:	**+ 0.0600***
results in a EUR/RON forward rate:	**3.44**

***Interest rate differential between EUR and RON**

Advantages:

- **You participate in rising EUR/RON spot rates**
- **No costs for the hedge**

Risk:

- **If the EUR/RON spot rates decline sharply, you have to fulfill the agreed rate at the end**

Buying a Plain Vanilla Option

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Your Opinion:

You are expecting a long-term rising in EUR/RON spot rates and would like to take a profit from them. Your possible loss should be limited.

You buy a EUR-Call/Ron-Put option and have the right, but not the obligation, to buy EUR at the day of maturity at the fixed strike price.

The choice to exercise the option is up to you.

For the purchase of this option you pay a premium.

This is a coverage strategy. Your profit potential is unlimited, the loss is limited to the option premium.

Buying a Plain Vanilla Option

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Example:

Amount:	**EUR 4,000,000.--**
Period:	**6 months**
Spot rate:	**EUR/RON 3.38**
Strike price:	**EUR/RON 3.39**
You pay a premium of:	**3.90 % (EUR 156,000.--)**

- **If the spot rate on the day of maturity is higher than the strike price of EUR/RON 3.39, you will exercise your option.**
- **If the spot rate on the day of maturity is lower than the strike price of EUR/RON 3.39, you will not exercise your option.**

Advantages:

- **You have an unlimited profit potential**
- **You participate from rising EUR/RON spot rates**
- **The option can be sold at any time**

Risk:

- **Loss of the option premium**

Structured Product: Example

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- **Due to a EUR obligation in the amount of EUR 10,000,000.00, you have to purchase a EUR amount against the sale of RON on 5/8/2008.**

- **You would like to achieve a EUR-RON guaranteed maximum rate today in order to avoid an exchange rate risk.**

- **You anticipate a depreciation of the EUR-RON exchange rate until expiry of your obligation.**

- **However, a fall below the level of 3.3000 RON/EUR prior to expiry of your obligation is unlikely, in your opinion.**

Strategy

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- **The Knock-in Forward secures you a guaranteed maximum rate of 3.4800 RON/EUR.**

- **You have the possibility to participate in falling exchange rates to the level of 3.3001 RON/EUR.**

- **The Knock-in Forward changes to a binding Forward Transaction at the rate of 3.4800 RON/EUR, if the EUR-RON Spot Rate touches or falls below the barrier of 3.3000 RON/EUR during its validity.**

- **The strategy is for zero cost.**

Overview

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EUR-RON Spot Exchange Rate	**3.3841 RON/EUR**
EUR-RON Forward Rate (5/8/2008)	**3.4384 RON/EUR**

Expiry	**5/6/2008**
Value Date	**5/8/2008**
Guaranteed Maximum Rate	**3.4800 RON/EUR**
Barrier	**3.3000 RON/EUR**
Validity of the Barrier	**valid from 11/7/2007 to 5/6/2008 ("24 hour trading")**
Premium Payment	**None**

Break-even

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- **If your final guaranteed rate at expiry is below the current forward rate, you have achieved better results by employing this strategy. Hence, the current forward rate is the break-even level for this strategy.**

- **Your final guaranteed rate equals the break-even level if the EUR-RON exchange rate at expiry trades exactly at the level of 3.4384 RON/EUR without having touched or fallen below the barrier of 3.3000 RON/EUR during the barrier's validity.**

Participation

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- **You participate if the EUR-RON spot exchange rate depreciates according to your market expectations without touching or falling below the barrier of 3.3000 RON/EUR during its validity.**

- **Example: If the EUR-RON spot exchange rate at expiry trades at the level of 3.3346 RON/EUR, you purchase your EUR amount at this rate. You purchase your EUR amount at a 0.1038 RON/EUR lower EUR-RON exchange rate than at current outright forward conditions.**

- **In the best case, the spot exchange rate at expiry trades at the level of 3.3001 RON/EUR.**

- **This rate is 0.1383 RON/EUR below the current forward rate.**

Worst Case

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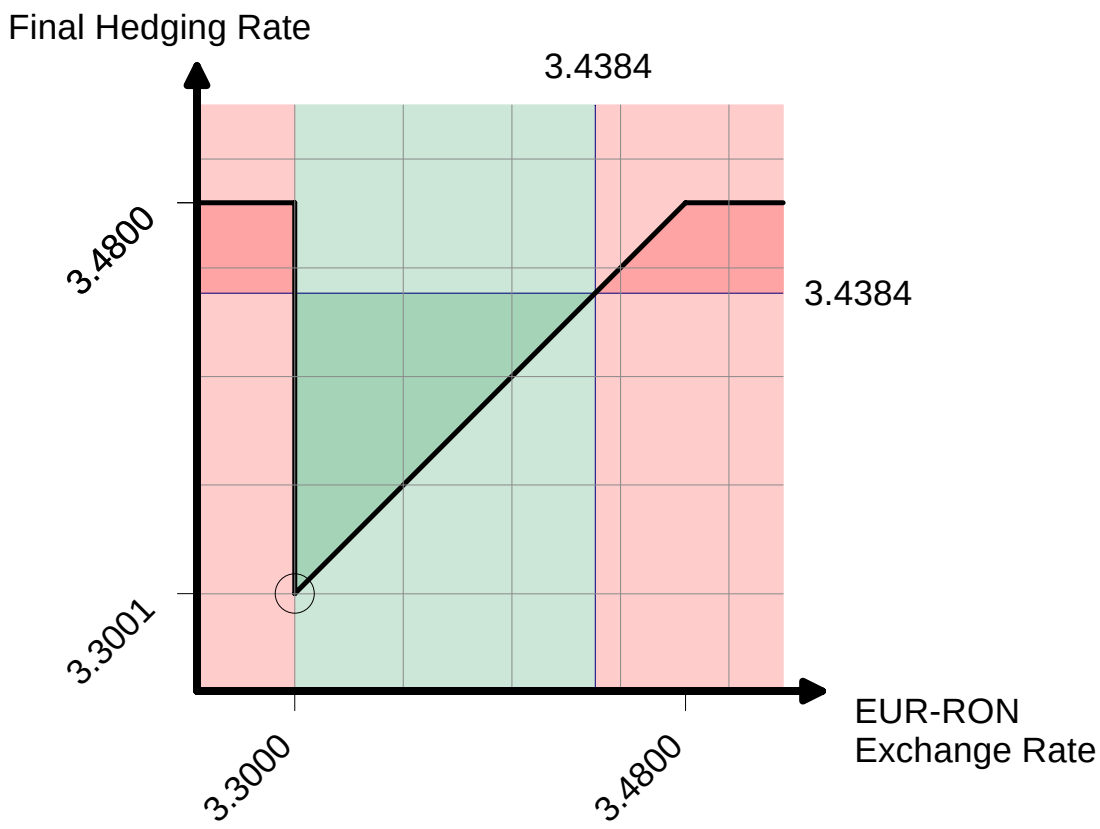
- **In the worst case, you have achieved a final guaranteed rate of 3.4800 RON/EUR for your underlying transaction.**

- **This is the case if the EUR-RON exchange rate at expiry trades above the guaranteed maximum rate of 3.4800 RON/EUR, or if the exchange rate touches or falls below the barrier of 3.3000 RON/EUR during its validity.**

- **In both of these worst case scenarios, you purchase the EUR amount at a EUR-RON exchange rate that is 0.0416 RON/EUR higher than the current forward rate.**

Risk/Reward Profile



Reward

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- **Guaranteed maximum rate of 3.4800 RON/EUR.**
- **Possibility to participate in falling exchange rate to the level of 3.3001 RON/EUR.**
- **The barrier is only valid from 11/7/2007 to 5/6/2008.**
- **No premium charges.**

Risk

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- **Purchase at the guaranteed maximum rate if the barrier of 3.3000 RON/EUR is touched or broken during its validity.**

- **The guaranteed maximum rate is above the current forward rate.**

- **Limited chance to participate through the barrier of 3.3000 RON/EUR.**

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