

# **Case Studies in Financial Engineering**

#### CASE 3

## **Hedging at Porsche**

Michigan Ross School of Business, Case No. W04C40 August 6, 2015

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- 1. How do you distinguish between speculation and risk management?
- 2. In which extent should companies hedge risks? Should Porsche hedge its foreign exchange risks?
- 3. Evaluate the impact of foreign exchange hedging strategies on the risk profile of the company's cash-flows from foreign sales and identify an optimal hedging strategy.
- 4. Assess the potential benefits and the risks involved in using options to build a stake in another company. Do you agree with the assertion that Porsche was speculating with shareholders money and becoming a hedge fund that neglected its core business?
- 5. Analyse the differences between shareholders and management regarding the appropriate risk management policy.
- 6. Suppose that Porsche reviews its hedging strategy at the end of Nov.2007 for the cashflows expected from the North American market in 2009, considering 3 scenarios:
- (i) Base scenario sales = 32,750 vehicles
- (ii) Unfavourable scenario sales 30% lower than in base scenario
- (iii) Favourable scenario sales 30% higher than in base scenario

#### Assumptions:

- (i) Average sale price per vehicle \$90,000
- (ii) All sales area realised at the end of Nov09
- (iii) Cost per vehicle 60,000€

Characterise the dependence of Porsche cash-flows (net of variable costs) from the North American market on the \$/€ spot exchange rate if:

- a) Porsche does not hedge its currency risk at all
- b) Porsche hedges its currency risk by buying 2-year European at-the-money put options on US\$ in sufficient quantity to have the right to sell an amount of USD equal to the expected 2009 sales.