Solvay Brussels School
Economics & Management

ULB

Youpee*

Boreal, the cosmetic company, is considering launching "Youpee", a new unisex perfume aimed at young professional executives (who sweet a lot ..). An investment of Euro 5 millions would be made in 2004. This could be depreciated for tax purposes straight-line over 10 years. In addition, a marketing campaign (on the theme "No sweet thanks to Youpee") would be organized in 2004 (the cost of this campaign – Euro 2 millions - would appear as an expense in the income statement of Boreal for 2004). Boreal considers that this perfume will be abandoned after 5 years. They plan to resell the plant and equipement in year 6 for Euro 1 million. The project will require an investment in working capital requirement of Euro 1.2 million.

Annual sales are expected to be Euro 10 millions from 2005 to 2009. Manufacturing costs are expected to be 60% of sales and profit are subjected to tax at 40%. The real cost of capital is 10 percent and the real risk-free interest rate is 4 percent.

(1) Calculate the incremental cash flows for this project if inflation is expected to be zero.
(2) Compute the NPV is this project? Should Boreal go ahead with the proposal?
(3) Define the internal rate of return. Based on a graph, explain the relationship between IRR and NPV. Would the decision be different if the company used the internal rate of return instead of the NPV?
(4) Decompose the NPV into its components:
- EBITDA net of taxes
- depreciation tax shield
- working capital investment
- initial investment
- resale value

(5) Calculate the break-even level of sales:
- based on profit
- based on present value

Why are these numbers different?
(6) Suppose that expected inflation is 10%. Explain the various effects that might modify your NPV calculation.

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* André Farber prepared this case as a base for class discussion.