

**EXAM FOR CONTINUOUS ASSESSEMENT**

**Corporate Investment Appraisal**

**Master in Finance**

**2018-2019**

**1<sup>st</sup> February 2019**

Duration: 1:30 hours

**Notes:**

The punctuation of values and numbers follow the European standard.

Show all your calculation and thinking in order, I may be able to grade appropriately your work. Otherwise, if you present the output of a calculation only, and the result is incorrect, then I have no other option than to grade it with zero points.

**Parte I – Capital budgeting and risk analysis (12 points)**

A project in a company requires an initial investment in fixed assets of € 1,2 million that is to be depreciated over three years by the use of straight-line method. The residual value at the final of year 3 is €400.000. The forecast of sales is € 2,0 million in the first year of operation and growing at the annual rate of 10%. The variable cost is 60% of sales and fixed expenses €200.000. Income tax rate is 25%.

Working capital requirements information (in days of sales) is as follow: i) Days sales in inventory 30 days; ii) Days Sales Outstanding 30 days and iii) Days payable outstanding 90 days. The minimum amount of cash in the end of the period is 5 days of sales.

The WACC for this project is 10%.

- i) Prepare the managerial income statement for the three years of operations. (1 point)
- ii) Prepare the free cash flow to the entity for the three years of operations. (2 points)
- iii) Calculate the after-tax ROIC (Return on Invested Capital) for the first year. Is this an attractive return? (2 points)
- iv) Analyze the operational risk of the project (3 points)
- v) Use NPV, Profitability Index and payback period to decide if the project is worth investing and explain why. (4 points)