

The Same Business, Two Countries

Student brief

Highveld Industrial Limited manufactures pumps, valves, and pressure vessels for the mining and water-treatment sectors. It is listed on the Johannesburg Stock Exchange, has traded for thirty years, and is followed by four equity analysts.

Highveld has decided to establish a Ghanaian manufacturing subsidiary, serving West African mining and municipal water customers from a plant near Tema. The business would be the same: same products, same customers by type, same operating model.

The Ghanaian management team has submitted an investment proposal. It is discounted at **18 percent**. Their note says: "We have used 18%, being a prudent premium over the 16% the group applies in South Africa."

The group finance director has asked Mountain River whether 18 percent is the right rate.

Exhibit 1 • Highveld Industrial — South African market data

HIGHVELD INDUSTRIAL • SOUTH AFRICAN MARKET DATA

INPUT	VALUE
Market value of equity	R 4,200m
Market value of debt	R 1,100m
Equity beta (5-year monthly)	1.10
Pre-tax cost of debt	11.0%
South African corporate tax rate	27.0%
10-year South African government bond	10.5%
South African market risk premium	6.0%

Exhibit 2 • Inputs available for Ghana

INPUTS AVAILABLE FOR GHANA

INPUT	VALUE
10-year US Treasury yield	4.0%
US market risk premium	6.0%
Global industry beta, industrial equipment manufacturers	1.10
Ghana sovereign spread over US Treasuries (dollar Eurobonds)	600 bp
Ghana inflation (expected)	20%
US inflation (expected)	2%
Ghana 91-day Treasury bill yield	25%
Target financing	70% equity / 30% debt
Ghana pre-tax cost of debt	28%
Ghana corporate tax rate	25%

The Ghana Stock Exchange lists thirty-odd companies, many of them trading infrequently.

Question 1 • 15 minutes

Compute Highveld's weighted average cost of capital in South Africa.

Everything you need is in Exhibit 1.

Question 2 • 13 minutes

Now build a cost of equity for the Ghanaian subsidiary, then use the target financing inputs to compute its WACC.

Work in **dollars first**, then convert to cedis.

Before you start: explain briefly why you cannot simply apply CAPM using the Ghanaian Treasury bill yield and a beta from the Ghana Stock Exchange.

Question 3 • 9 minutes

Ghanaian management has used 18 percent. Compare that with your Ghanaian WACC.

How much of the gap is genuine risk, and how much is estimation noise? What would you tell the group finance director — and what would you tell the Ghanaian team?