



Module: Financial Management

Module Code: MBAC 813

Assignment No: Individual Ass 1

Assignment due date: 20/05/2020

36/40=90%



I hereby declare that the assignment which I herewith submit to the North-West University as partial completion of the requirements set for the MBA degree, is my own work.

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Question A

Theories and assumptions:

- Real rates and cash flows do not include inflation, while nominal rates and cash flows reflect the effects of inflation.
- It is assumed that in projecting cash flows, the effects of the market have been taken into account, which means that inflation has been incorporated into the cash flows, therefore cash flows will not be adjusted for inflation.
- The covered interest rate parity theory, under the law of the efficient market hypothesis suggests that all relevant knowledge about the future is discounted into the current spot price. Further the difference between the forward rate and the spot rate is entirely due to the difference in interest rates. It is observed from the question that the treasury bonds in Botswana carry an interest rate of 4% per annum while in South Africa it is 5% per annum. Since the interest rates are different, the forward rates will have to be calculated first before converting to Rands.
- It is assumed that the WACC used is based on market determined debt and equity, meaning that it is nominal and has taken the effect of inflation into account, therefore WACC will not be adjusted for inflation.
- Note that the question gave us the spot rate in an indirect format, and shows the number of foreign currency per unit of home currency. Before calculating the forward rate, the spot rate will be converted to a direct quotation.

$$\begin{aligned}\text{Direct quote} &= 1/\text{Indirect quote} \\ &= 1/1.3 \\ &= 0.7692\end{aligned}$$

$$\text{Direct quote} = R0.7692/P1$$

Calculation of the forward rate is as follows:

$$\text{Forward rate} = \text{spot rate} \times (1 + i_h)^n / (1 + i_f)^n$$

Where i_h = Domestic interest rate (South Africa)

i_f = Foreign interest rate (Botswana)

n = time

it's the other way round

Forward rate for year 1 = $0.7692 \times (1.05/1.04)$

= 0.7766

Forward rate for year 2 = $0.7692 \times (1.05^2/1.04^2)$

= 0.7841

Forward rate for year 3 = $0.7692 \times (1.05^3/1.04^3)$

= 0.7916

Forward rate for year 4 = $0.7692 \times (1.05^4/1.04^4)$

= 0.7992

Ai) Net present value in Rands

	Year 0	Year 1	Year 2	Year 3	Year 4
Initial Outlay (Pula)	(9.00)				
Projected Cash flows (Pula)		3.50	5.90	5.00	7.00
Forward rates	0.7692	0.7766	0.7841	0.796	0.7992
Adjusted CFs in Rands	-6.9228	2.7181	4.6262	3.980	5.5945
WACC at 14%	14%	14%	14%	14%	14%
Discount factors	1.00	0.877	0.769	0.675	0.592
Present value (Rands)	-6.9228	2.3838	3.5575	2.6865	3.3119

Net Present Value = $-6.9228 + 2.3838 + 3.5575 + 2.6865 + 3.3119$

= **R5.0169million.** 6 marks

A ii) Net present value in Pulas 7 marks

The question requires the Net present value of a foreign operation. In valuing foreign operations, the same WACC that is applicable to South Africa may not be used as the local risk differs from the Botswana risk. Therefore the WACC has to be adjusted to reflect the risk of the Botswana operations. We are given the interest on treasury bonds for Botswana and South Africa, and the treasury bonds are an accurate measure to reflect the risk, as it is highly unlikely that the government will default in its own bonds.

Botswana risk = 4%

South African risk = 5%

Using the international Fischer effect, the nominal interest in a country is equal to the real interest rate plus inflation. We are told that the two countries have the same real interest rates, however, we will have to adjust the WACC to reflect Botswana inflation.

The Pula cost of capital can be calculated using the International Fischer effect:

Nominal discount rate calculation for Pulas

$(1 + \text{Real Discount Rate}) \times (1 + \text{Inflation Rate}) - 1$

$= (1 + 0.14) \times (1 + 0.03) - 1$

$= 1.1742 - 1$

= 17.42%

The NPV is as follows:

	Year 0	Year 1	Year 2	Year 3	Year 4
Initial Outlay (P)	(9.00)				
Projected Cash flows (P)		3.50	5.90	5.00	7.00
WACC at 17.42%	17.42%	17.42%	17.42%	17.42%	17.42%
Discount factors $(1+i)^{-n}$	1.000	0.8516	0.7253	0.6177	0.5261
Present value (Pula)	(9.00)	2.9806	4.2810	3.0885	3.6827

Net present value = $-9 + 2.9806 + 4.281 + 3.0885 + 3.6827$

= P 5.0328 million

Since the NPV is required in Rands, convert the Pula amount to Rands at the spot rate as follows:

=P5.0328* 0.7692

=R 3.8714 million.

Question B

1. Discuss both in general terms and as it applies to BMW the use of WACC as a discount rate in international operations.

WACC reflects the average risk and overall capital structure of an entire firm it is unique to a particular firm depending on how the financing is structured in the firm. 1 mark The WACC takes into account risk that is unique to a particular firm or project, meaning that it can only be used to evaluate projects or division that have the same risk as the company's average cash flows. 1 mark

WACC can be used to compare business having similar business risks. This assists in identifying companies using capital at the minimum costs. The business risk is a possibility that a company may generate less than the required profits. Identifying these risks may help companies identify issues that prevent from achieving their company targets. A business risk may differ from industry to industry and is mostly the same among a particular industry, therefore it will differ from country to country. A company having lower WACC compared to other companies operating in the same industry is an advantageous situation and this can create more value for its stakeholders. 1 mark

In using the WACC as a discount rate in international operations, consideration has to be taken for conditions and risks specific to the international operations. 1 mark These include the prevailing interest rates in those markets, the cost of debt as compared to other financial instruments. BMW would also need to consider the tax rate prevailing in the international markets as tax is a determinant in the calculation of WACC. BMW would have to consider its financing. If the company structure is made up of finances obtained in the South African market, it would not be appropriate to use the South African WACC

in the international markets. In the given scenario, BMW is made up of share capital and long term debt. 1 mark

Debt/ Equity ratio is not constant from country to country depending on the conditions of the market, and hence the WACC will change. For the forecasting value of the firm, WACC is assumed to be constant which in turn means that debt/equity ratio will remain constant which is impossible for international markets. 1 mark

The assumption is that this was all sourced in the South African market. It would not be feasible to use the WACC internationally as interest rates and taxes differ in other countries, therefore the WACC would have to be adjusted to reflect those conditions. 1 mark The required rate of rate by the international investors should also be considered as investors would be looking for a WACC that is lower than the required return for their investments to yield positive returns.

2. The risks faced by BMW when it moves into an international market and how it might manage these risks.

Moving into the international market will expose BMW to additional risk which comes along with such opportunities. The major risks that BMW is likely to face are foreign exchange risk and political risk.

Foreign exchange risk is the risk of currency value fluctuations, usually related to an appreciation of the domestic currency relative to a foreign currency. Where foreign exchange rates fluctuate often, it puts the business at risk as the operations of the company will fluctuate in line with the exchange rate. When the South African rands appreciates against other foreign currencies, profit or returns earned in the foreign country will decrease after being exchanged back to the domestic currency. This will result in low profits for BMW in South Africa. The volatile nature of the exchange rate can make it difficult to protect against this kind of risk, and BMW should be prepared to deal with the effects of foreign exchange risk on sales and profits. 2 marks

Political risk would be as a result of change in policies in the international markets which BMW moves into that might negatively affect their business. An example of this would be different laws and regulations as well as trade barriers or restrictions. In some countries, local authorities could request additional funds or tariffs in order for BMW to trade or have its operations in those countries. This could be a means to protect domestic producers from foreign competition. Imposed tariffs and quotas could make trading in some countries expensive for BMW, and as a result sales and profits would be affected adversely as tariffs could force them to charge higher prices as compared to domestic car producers. 2 marks

Another type of risk that BMW is likely to face could be cultural risk, where different countries have different ways of doing things and BMW might be forced to alter their operations to fit the culture of those countries. In some countries, for example, the use of child labour could be the norm, however, if other countries were to find that BMW makes use of child labour, it could lead to other countries boycotting from doing business with them. Language could also be another barrier where BMW might find themselves faced with communication challenges where the languages are different. 2 marks

As a way of managing these risks, employing hedging strategies and purchasing political risk insurance could be ways that BMW could use to reduce the impact of international risk. BMW could hedge some of its foreign-exchange risks by buying futures, forwards or options on the currency market. A futures contract is an obligation to buy or sell a fixed amount of an underlying asset at a fixed price at a future date. BMW could use futures contracts to lock in an exchange rate to guard against fluctuations. An option would give BMW the right but not the obligation to buy or sell a specific asset in a particular market. A forward contract is a non-futures contract between a company and its bank to buy the promise of a set volume at a set price for a set date. The purpose of these hedges is to reduce the risk that price movements in the currency market will adversely affect the company's revenue and profits. 2 marks

BMW could also acquire political risk insurance in order to protect their equity investments and loans from specific government actions in those. Political risk insurance would help BMW to continue to develop and grow their global businesses even in unpredictable or uncertain business conditions such as war, terrorism, and trade restrictions.

To manage the cultural risk, BMW could consider employing personnel from those international countries who understand how things in the country are done and also understand the language. They should also ensure that they abide with ethics at a global requirement to ensure that they do not engage in practises that may be viewed as unethical by other countries in the international market.

3. The methods of financing international operations and the factors that the company needs to consider before deciding to borrow in Euro debt.

Methods of financing international operations

To finance the international operations, BMW could first consider the use of retained earnings if there is any, as this would be the cheapest and easy source of finance to use. The use of retained earnings does not have formalities and legalities attached to it as well as issuance costs as compared to other forms of capital. 1 mark However, it is highly unlikely that BMW would have sufficient cash in their reserves to finance the operations, further using all of a company's reserves puts the company at risk of losing its earnings should the operations fail. BMW would also have to sacrifice other investments as well as interest that could have been earned on the cash surplus by the entity. 1 mark

The second option to consider would be the sale of short term investments if BMW has, as they are easily converted into cash. Selling short term investments is usually favourable than issuing shares as the issues of shares sends a negative signal to the market. Therefore, the issue of shares should be a last resort. 1 mark

BMW could also consider obtaining finance in the South African. Since the current operations are based in South Africa, borrowing in the South African market will enable BMW to take advantage of tax shields associated with the interest deductions. The disadvantage of debt financing is that it comes with fixed interest obligations, and BMW

would have to service the debt whether the new operations are performing well or not. Further, the interest rate granted to BMW will be dependent on their credit rating, therefore they will not be able to control the interest rate. BMW will also be exposed to interest rate risk as a result of debt financing. The current capital structure consists of a low debt ratio, meaning that BMW is low geared and still has a chance to acquire more debt in the South African market. 1 mark

BMW could consider borrowing in the international market which they intend to enter. The advantage of this is that it limits the exchange risk by matching revenue to expenses because expenses will be in the same currency with the revenue. However, the terms of borrowing might not be favourable for BMW as they are not well known borrowers in that market.

Factors that the company needs to consider before deciding to borrow in Euro debt.

Borrowing in the Euro market might see favourable as the finance manager has noted that the rates are 3% lower than South Africa and Botswana. However, this is not the only thing that BMW has to consider. BMW needs to consider the conditions of the loans as well as the repayment loans. It needs to consider how the 3% interest rate compares to other debt which is not the euro, perhaps the US debt market. 1 mark

The decision will also be determined by the international credit rating that BMW has. Further, BMW will need access to sufficient euro currency in order to make the loan repayments. Borrowing in the euro market might impose a problem of exchange rate since BMW is situated in South Africa and it would be have to honour payment obligations in euro. 1 mark

Other terms of borrowing may also be favourable as euro loans do not often require any security. Further, there is no local government intervention, meaning that the absence of regulation would result could result in favourable interest rates and low risks. It may also be quicker to raise the required funds as compared to borrowing in the South African market. 1 mark

In conclusion, BMW will have to weigh the benefits and costs of entering into the euro market and decide which alternative benefit the company and its operations. 1 mark

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