Divisional Performance

Organisational Structures

- Functional
- Divisional

Setting up divisions

- Cost centre
- Profit centre
- Investment centre

ROI

- This is a form of ROCE
- Compares PBIT with operational assets used to generate it
- Usually applies to investment or profit centres
- Is calculated as follows:

$$\frac{\text{PBIT}}{\text{Operations Management Capital Employed}}$$

WHY ROI IS WIDELY USED

- Ties in directly with the accounting process; and Financial reporting is the most important means of communication with investors
- Very convenient method of measuring divisional performance
- Performance of investment centres of different size can be fairly compared

MEASUREMENT PROBLEMS -NCAs

- ROI normally uses net assets as a denominator
- Without asset replacement it means ROI will progressively increase without corresponding increase in earnings (WHY-DISCUSS IN CLASS)
- This may encourage short-termism
- Different ages and depreciation method for different divisions may make it difficult to compare divisional performance using ROI
- Inflation & Technological change could have an impact on the net assets – this can have negative impact on comparison of divisional performance
- On the other hand using gross assets poses challenges because it ignores age factor which has implications on repair costs

CONTINUED……

- Then comes the problem of assets definition
- Discuss issues to do with assets recognition vis a vis Research and Development costs
- For decision making purposes, some otherwise expensible assets could thus be capitalised

TARGET RETURN FOR A GROUP OF COMPANIES

- Often a group sets a target return

  IMPLICATIONS ON DIVISIONAL DECISIONS

- Any new investment should earn ≥ Targeted Group Return
- No NCA earning ≥ Return of its disposal value should be disposed
- Undertake investments with potential earnings > Targeted Group Return

PROBLEMS WITH THIS POLICY

- Investments are appraised by DCF and actual performance by ROI (WHAT IS WRONG WITH THAT? – CLASS DISCUSSION)
- Target return disregards Risk of each investment – (AGAIN- WHAT IS WRONG WITH THAT?)

DIVISIONAL PERFORMANCE AND ROI

- Consider the following when using ROI:

Good for comparison between investment of different size	Convenient for measuring performance (easy to calculate)	Not good for firms using target return (makes no allowance to risk)
May be misleading where profits remain unchanged from the same assets	Challenges as a result of difficulties in valuation and classification of assets	It may introduce short-termism and uptake of unbearable risk
May lead to sub-optimal decisions (ignoring projects with ROI>RR<Divisional ROI	Lack of goal congruency (long term company befit vs short term divisional gain	

DIVISIONAL PERFORMANCE: RESIDUAL INCOME (RI)

- A measure of the centre`s profits after deducting a notional or imputed interest cost
- Imputed cost could be WACC
- Risk of each investment could be factored in
- The higher the risk the higher would be the imputed cost
- An example should help us

DIVISIONAL PERFORMANCE AND RI

- Consider the following when using RI:

Leads to decision likely to benefit whole company (investments whose earnings >RR are taken and vice versa

More flexible than ROI (application of different RR to investments with different characteristics)

Being an absolute measure, it cannot be used to make comparisons between investment centres

The usual challenges with determining the net assets/capital employed

Does not relate size of the centre`s income to the size of the investment

EXAMPLE

- T is a division of M. The data below relates to T
- Net assets $20m
- Annual profit $5m
- Required Return 15% /annum

M is considering the following proposals

Proposal 1: To invest a further $2m in fixed assets with an expected return of $0.30m

Proposal 2: To dispose NCA at their carrying amount of $5.5m; and these assets were earning $0.8/annum. The sale proceeds would be credited to M.

a. Calculate the current ROI and RI of T

b. Advise on what should be done in the best interests of M

PROS AND CONS OF RI COMPARED TO ROI

Pros:

- More flexible because investments with different levels of risk attract different RR
- Easy to apply because investments earning above cost of capital are undertaken and vice-versa

Cons

- Does not facilitate comparisons between investment centres- does not relate to size of centre`s income to size of investment
- Difficult to ascertain the capital employed

Example

- Alpha Division, which is part of the Delta Group, is considering an investment opportunity to which the following estimated information relates:
- (1) An initial investment of $45m in equipment at the beginning of year 1 will be depreciated on a straight-line basis over a three-year period with a nil residual value at the end of year 3.
- (2) Net operating cash inflows in each of years 1 to 3 will be $12·5m, $18·5m and $27m respectively.
- (3) The management accountant of Alpha Division has estimated that the NPV of the investment would be $1·937m using a cost of capital of 10%.
- (4) A bonus scheme which is based on short-term performance evaluation is in operation in all divisions within the Delta Group.

Req - Calculate the residual income of the proposed investmen

ECONOMIC VALUE ADDED

- An absolute performance measure; similar to RI in that its arrived at after subtracting imputed interest
- Calculated as follows:
- EVA=NOPAT-CAPITAL CHARGE
- Capital Charge=WACC X Net assets
- EVA is based on Economic Profit derived by making series of adjustments to accounting profits
- Imputed interest is based on replacement value of assets in calculating EVA unlike RI which uses net assets as in the books

EVA CONTINUED……

• EVA premised on notion that the primary objective of the firm is shareholder wealth maximisation (WHY?)

➢ Conventional accounting profit ignores cost of equity

• EVA includes some expenses incurred to build the future earning capacity of the firm

• Costs such as R & D; advertising

• These costs are added as back to NOPAT to arrive at EVA

• Once off unusual items of income or expenditure are ignored when calculating EVA

• Adjustments for non-cash items such as provision for doubtful debts are eliminated

• It is important to note that NOPAT should be excluded as this forms part of the capital charge

• When adding back interest; always remember to include the tax benefit of that interest since it is tax deductible

TYPICAL ADJUSTMENTS IN CALCULATING EVA

TYPE OF ITEM	TREATMENT WHEN CALCULATING EVA
Value building Expenditure	Add back to NOPAT and Net Assets
Depreciation	Add back to profits & adjust assets accordingly **if EVA depreciation is given in the exam question**
Provisions	Add back to net assets and any such increase recognised in SPL should be added back to NOPAT
Other non-cash expenses (such as goodwill armotisation)	Add back to NOPAT and net assets
Operating lease charges	Add back to NOPAT and net assets and base depreciation on value after that (If EVA depreciation is not given)

EXAMPLE: EVA

- P a division of M has operating profits and assets as follows:

Gross profit	156
Less: Non cash items	(8)
Armotisation on Goodwill	(5)
Interest @10%	(15)
PBT	128
Tax @ 30%	(38)
Net Profit	90
Total Equity	350
Long Term Debt	150
	500

- M has a target capital structure of 25% dept and 75% equity. Cost of equity is estimated at 15%. Capital employed at start of period was 450. The division had operating lease payments of 20 throughout the period. Goodwill armotised in previous years amounted to 40.
- CALCULATE EVA for P

USING EVA AS A PERFORMANCE MEASURE

- A positive EVA means an organisation is creating wealth for its shareholders
- Directors should be encouraged to:
  - ➢ Invest in divisions where return exceed the RR
  - ➢ Harvest assets where return is less than RR

and pay dividends or invest in viable divisions

- ❑ STUDENTS SHOULD READ ON THE EVALUATION OF EVA TO WRAP UP THE SECTION

EVA: SOLUTION

Net Profit		90
Add Back:		
Non cash expenses	8	
Armotisation of Goodwill	5	
Interest (15 x 0.7)	10.5	23.5
NOPAT		113.5
Net Assets:		
Capital employed at start		450
Non Capitalised Leases		20
Goodwill Armotised		40
		510

- WACC= [75% X 0.15 + 25% X (10% X 0.7) = 0.13
- EVA =NOPAT – CAPITAL CHARGE
- EVA = 113.5 – (510 X 13%) = 47.2

Example

	20X6($M)	20x7 ($M)
• Profit before tax	96	117
• Income tax expense	(29)	(35)
• Profit for the period	67	82

- (1) Capital employed at the end of 20X5 amounted to $279m, in 20X6 $340 and 20X7 $395.
- (2) The Gamma Group had non-capitalised leases valued at $16m in each of the years 20X5 to 20X7 which were
- not subject to amortisation.
- (3) Amortisation of goodwill amounted to $5m per year in both 20X6 and 20X7. The amount of goodwill written
- off against reserves on acquisitions in years prior to 20X6 amounted to $45m.
- (4) The Group's pre-tax cost of debt was estimated to be 10%.
- (5) The Group's cost of equity was estimated to be 16% in 20X6 and 18% in 20X7.
- (6) The target capital structure is 50% equity, 50% debt.
- (7) The rate of taxation is 30% in both 20X6 and 20X7.
- (8) Economic depreciation amounted to $40m in 20X6 and $45m in 20X7. These amounts were equal to the
- depreciation used for tax purposes and depreciation charged in the income statements.
- (9) Interest payable amounted to $6m per year in both 20X6 and 20X7.
- (10) Other non-cash expenses amounted to $12m per year in both 20X6 and 20X7.

Required

(i) Stating clearly any assumptions that you make, estimate the Economic Value Added (EVA™) of the Gamma Group for both 20X6 and 20X7 and comment briefly on the performance of the Group. **(8 marks)**

(ii) Briefly discuss THREE disadvantages of using EVA™ in the measurement of financial performance. **(3 marks**