DIVISIONAL PERFORMANCE AND TRANSFER PRICING ISSUES

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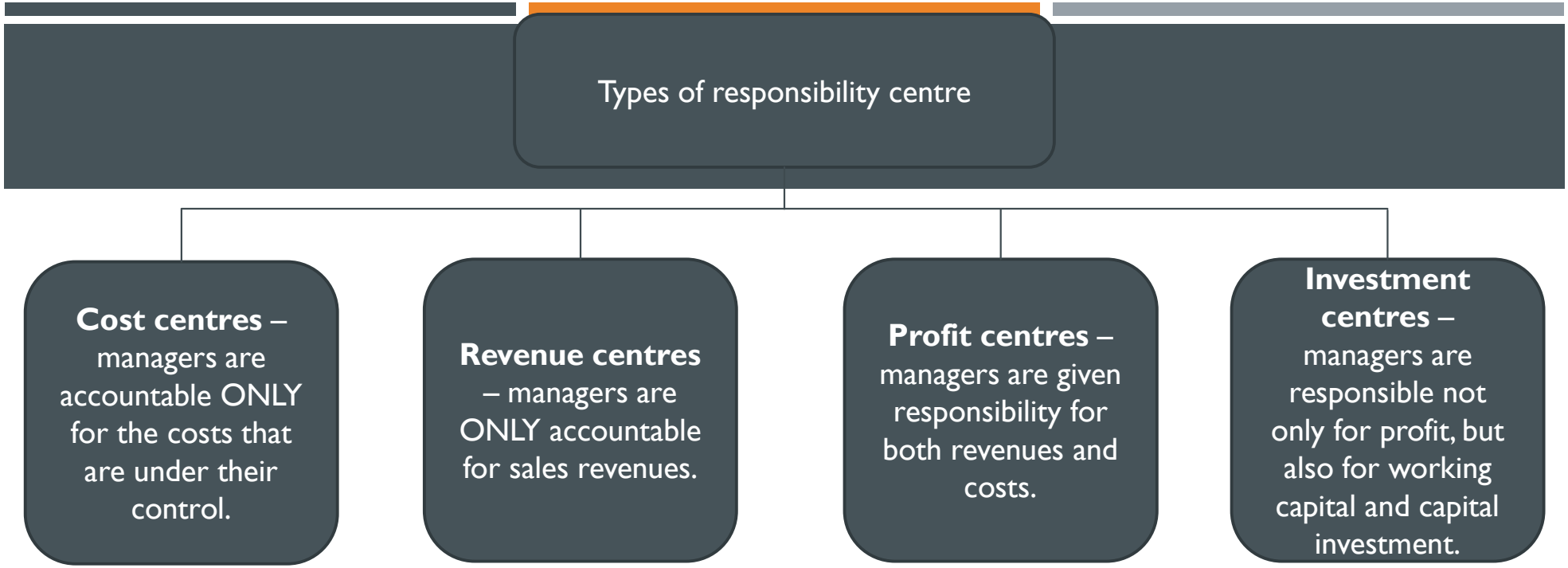
1. Responsibility centres
2. ROI & RI
3. Economic value added (EVA TM)
4. Transfer pricing
5. Cost-based
6. Market-based approaches
7. Opportunity cost approach
8. Practical issues*

RESPONSIBILITY CENTRES

- **Responsibility accounting:** A system of accounting that **segregates revenues and costs** into areas of **management responsibility** in order to control performance.
- **Responsibility centre:** Any part of an organisation which is headed by a manager who has direct responsibility for its performance and is accountable for it.


Types of responsibility centre
Cost centres – managers are accountable ONLY for the costs that are under their control.
Revenue centres – managers are ONLY accountable for sales revenues.
Profit centres – managers are given responsibility for both revenues and costs.
Investment centres – managers are responsible not only for profit, but also for working capital and capital investment.

WHY DO WE NEED TO CHANGE A RESPONSIBILITY CENTER?

RESPONSIBILITY ACCOUNTING IMPLEMENTATION

- An organisation chart must be drawn up in order to implement a budgetary control system satisfactorily
- Set up a dividsion as a cost/revenue/profit/investment centre
- Ensure that each manager has a well defined area of responsibility and the authority to make decisions. No 'grey' areas.
- A responsibility accounting system (a new software) is required to trace costs and give control information to the relevant budget centre

EVALUATING THE PERFORMANCE OF DIVISIONS AND MANAGERS

EXAM LOGICS

- When evaluating the results of the divisions

- When calculating the results of the managers

MANAGERIAL PERFORMANCE

- The impact of controllable costs and traceable costs on divisional profit could be viewed as follows:

Revenue	X
Controllable divisional costs	(X)
Controllable divisional profit	**X**
Traceable divisional costs	(X)
Traceable divisional profit	**X**
Apportioned head office costs	(X)
Net profit	**X**

You may be expected to adjust a division's results to reflect the issues of traceable

ROI AND RI

INFORMATION REQUIREMENTS

- The type of responsibility centre a division is will also have an impact on its information requirements.
- Clearly, the focus of management information in cost centres should be on costs, but there may also be a requirement for non-financial information that can indicate the cause of cost overruns (eg defect levels).
- The focus of management information in revenue centres should be on the revenues generated, but again there may also be a requirement for non-financial information that can indicate the cause of a fall in revenue (eg customer satisfaction; customer loyalty), and also for cost information for any costs that are directly related to selling (for example salesperson salaries).

ROI AND RI

- These techniques were introduced in the previous chapter in the context of assessing the performance of a company.
- They can also be employed in assessing the performance of an investment centre.

RETURN ON INVESTMENT (ROI)

- ROI is similar to the return on capital employed (ROCE) figure used in corporate analysis.

Formula to learn ROI = Controllable divisional profit/Divisional investment

COMPARISONS OF ROI

- Return on investment (ROI) will be normally be compared against an ROI target, or against last year's ROI. (Often the target will be based on historical performance.)

DYSFUNCTIONAL BEHAVIOUR

- If ROI is used as the principal performance measure then it is likely that a manager will only take decisions that will increase divisional ROI, which may be at the expense of growth in corporate profits.

This may occur because:

(a) New projects have an immediate impact on the division's asset base but may only increase profits over time;

(b) The current ROI may be artificially high because the division has been under-investing in recent years. (As with ROCE, one of the problems of ROI is that it can encourage short-term decision making.)

RESIDUAL INCOME (RI)

- Residual income (RI) gives a hurdle figure for profit based on the minimum return required from a division.

		$
Controllable divisional profit	X	
Less imputed interest		
(investment x cost of capital)	(X)	
RI		X

DYSFUNCTIONAL BEHAVIOUR

- RI is less likely than ROI to encourage dysfunctional behaviour, because it encourages any investments earning above the cost of capital.
- However, dysfunctional behaviour may still occur if new projects have an immediate impact on the division's asset base but may only increase profits over time.

ROI VS RI

- In practice, ROI is used more frequently than RI. RI is, however, technically superior

ADVANTAGES OF RI

a) RI increases in the following circumstances:

(i) Investments earning above the cost of capital are undertaken.

(ii) Investments earning below the cost of capital are eliminated.

a) RI is more flexible since a different cost of capital can be applied to evaluate different divisions with different risk characteristics.

WEAKNESSES OF RI

(a) It does not facilitate comparisons between companies or divisions of different sizes because it does not relate the size of a centre's income to the size of the investment.

(b) It can be difficult to decide on an appropriate and accurate measure of the capital employed on which to base the imputed interest charge (especially when applied to divisions).

REASONS FOR USING ROI

In practice, ROI may be used more frequently than RI because:

(a) ROI is consistent with corporate assessment (ROCE).

(b) Ratios are more easily understood compared with, say, costs of capital and are more appropriate for comparing divisions of different sizes.

(c) Calculation of cost of capital in RI is subjective and time consuming.

(d) A company may feel that the dysfunctional behaviour associated with ROI, such as underinvestment, is unlikely to occur.

For example, if a company is using ROI as a part of a balanced scorecard then customer, internal business and innovation measures should all highlight the impact of underinvestment.

PROBLEMS COMMON TO ROI AND RI

The calculation of 'profit':

(a) May need to be adjusted to reflect controllable and traceable items only.

(b) Transfer prices or quantities may be imposed or set at non-commercial rates.

(c) Both ignore tax.

PROBLEMS COMMON TO ROI AND RI

The calculation of 'investment':

(a) Historical, net book or replacement value. Using net book value (NBV) discourages replacement. Replacement value is complex to obtain and update.

(b) Cash may be controlled by the company's treasury department (ie not at divisional level).

(c) Intangible assets may have no accounting value or may be complex to update. Hard to apply to service divisions (create more value from intangible assets).

EVA TM

ECONOMIC VALUE ADDED (EVATM)

Pprofit-based measures, which many organisations use as their primary measure of financial performance, do not measure shareholders wealth increase adequately because:

(a) Profit ignores the cost of equity capital.

(b) Profits calculated in accordance with accounting standards do not truly reflect the wealth that has been created.

EVA TM FORMULA

- **EVA TM =** Notional operating profit after tax (NOPAT) - adjusted capital employed at start of year * WACC
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NOPAT

Three types of adjustments:

- To convert PL to cash
- Capitalize marketing, HR and RD costs
- Exclude unusual items

Controllable operating profit	X
Add:	
• accounting depreciation	X
• increase in provisions	X
• advertising, r&d and employee training	X
• operating lease payments	X
• non-cash expenses	X
Deduct:	
• economic depreciation	(X)
• decrease in provisions	(X)
• amortisation of advertising, r&d and employee training	(X)
• depreciation of operating lease payments	(X)
• tax paid including lost tax relief on interest	(X)
NOPAT	X

NOPAT

- Also note that interest is excluded from NOPAT because interest costs are taken into account in the capital charge (this is the same as the calculation of the profit figure for RI).

CAPITAL EMPLOYED

- Capital employed:
  - Take (and write about it) AT THE START of the year
  - Use accumulated adjustments from PREVIOUS year NOPAT

- WACC = (proportion of equity x cost of equity) + (proportion of debt x post-tax cost of debt)

EVALUATION OF EVATM

Advantages	Disadvantages
Calculates return in line with shareholder expectations, therefore aligns to the objective of maximising shareholder wealth	Complex due to adjustments required
Replaces multiple goals with one financial measure that can be used at all levels of decision making	Based on historical data (ie accounts) so may have limited use as a guide to future performance
Encourages expenditure in areas that create benefits for the long term (eg advertising & research and development)	Absolute measure making interdivisional comparisons difficult (where divisions are different sizes)
Removes distortion from accounting policies (eg the impact of provisions is removed)	
Consistent with NPV (both show the return on investments in relation to the cost of financing them)	

EVA TM PRACTICE

If operating profit is given

If PAT is given

Finance cost

Tax

- During the year, $100,000 of advertising cost which will generate sales in future periods was expensed to the income statement. This advertising attracted 100 customers in the reporting year and will attract 400 customers in the following year

- The allowance for doubtful debts at the end of the period was $300,000, a reduction of $200,000 from the beginning of the period.

- Depreciation charges of $100m in the year have been incurred.

- This year and each year for the previous 10 years, economic depreciation has included a $10m write-down of the value of brand building.

- The company has spent $90m this year and each year for the previous 10 years on long-term brand building.

- Research and development expenditure of $705m was incurred in the period leading to an economic asset of $4,233m at the year end.

- **Capital employed is always AT THE START OF THE YEAR**

WHAT DOES THE QUESTION ASK YOU TO DO?

- Calculate explaining any assumptions and adjustments you've made

TRANSFER PRICING

THE NEED FOR TRANSFER PRICING

- Where there are transfers of goods or services between divisions, these transfers could be made 'free' or 'as a favour' to the division receiving the benefit.

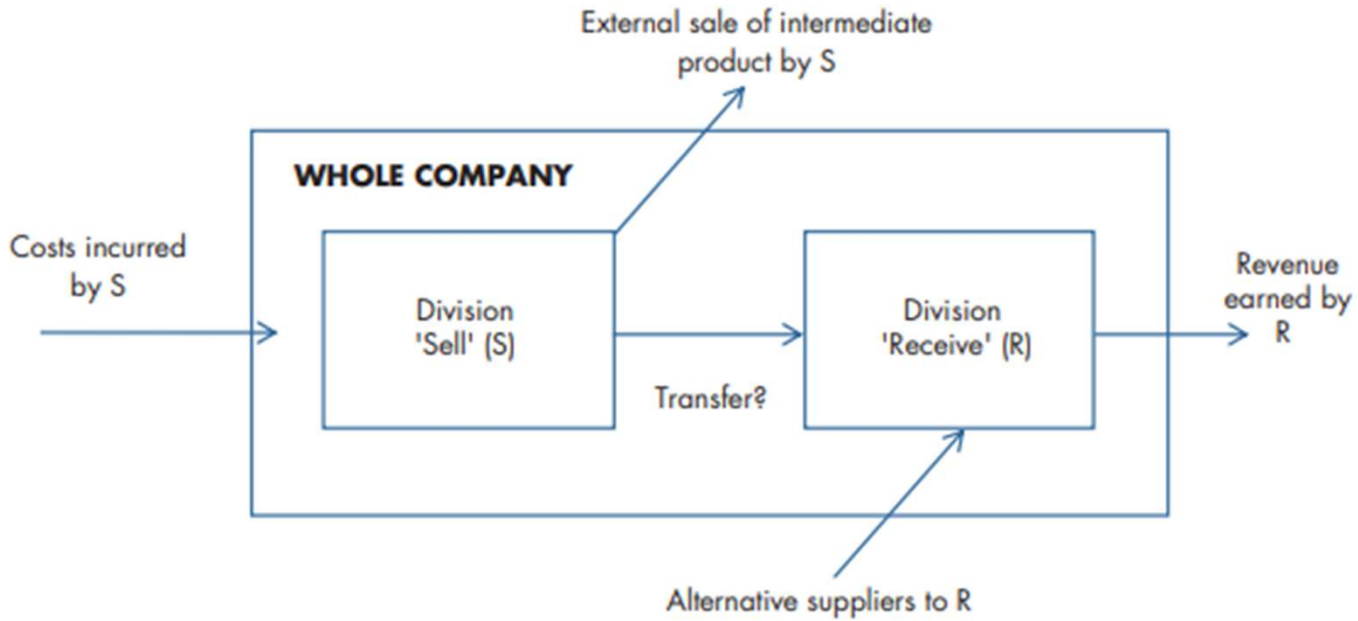
WHAT IS A TRANSFER PRICE?

Price at which goods or services are transferred from one division to another within the same organization.

It's COS to the purchasing department and Revenue to the selling

Is eliminated in FS, but is vital to assess performance

THE AIMS OF TRANSFER PRICING



THE AIMS OF TRANSFER PRICING

Aim	Achieved by
Preserve goal congruence ie aligning divisional behaviour with the best interests of the group as a whole	Decisions that managers take to improve the profit of their division will also improve the profit of the company as a whole (Drury, 2004); achieved by setting a transfer price which reflects the true cost to the company of products or services being transferred between divisions
Allow managers to retain autonomy	Not forcing internal transfers on to a division; instead, allowing divisions to decide where they buy from, or who they supply, and in what quantities
Permit performance evaluation of divisions	Preventing unfair impact on performance measures of either division

WHY BUY INTERNALLY

Why buy internally

- No bad debts
- No transaction costs
- Staff utilisation
- Can be cheaper
- Better quality control

Why NOT buy internally

- Hard to agree b/w divisions
- Can demotivate if transfer price seems unfair
- Maybe it's better to utilize local knowledge
- Transfer pricing for tax purposes
- International trade barriers

WHY TRANSFER PRICE IS IMPORTANT

- Intragroup revenue/costs distort results
- Appraisal without demotivation
- Different KPIs for different types of departments
- Goal congruence, eliminate dysfunctional behavior

ASSESSING IF TP IS GOOD

- Goal congruence
- Fairness
- Increases autonomy (better motivation)
- Accounting (easy to use and calculate)
- Tax optimization
- Remittance control

THE AIMS OF TRANSFER PRICING

- **General rule** A transfer price should reflect the true cost to the company of an internal transfer taking place.
- Transfer prices are most commonly negotiated between divisions based on either cost or market price.

HOW TO SET A TRANSFER PRICE?

COST-BASED METHODS OF TRANSFER PRICING

- The supplying division has its costs of manufacturing refunded and may also be allowed a mark-up to encourage the transfer.
- Cost-based approaches may be necessary if there is no external market for the product that is being transferred.

ACTUAL COST VS STANDARD COST

Actual costs

(a) All inefficiencies passed on to buying division, as there is no encouragement for cost control in the selling division

(b) Buying division does not know in advance what price it will be paying

Using standard costs overcomes all of these problems.

STANDARD VARIABLE/MARGINAL COST

The selling division (S) should transfer goods to the buying division at the marginal cost of production if:

(a) S has spare capacity as the marginal costs reflects the true cost to the company of the transfer taking place;

(b) S has no external market so could operate as a cost centre. If S is a profit centre, it will be demotivated as fixed costs will not be covered.

FULL COST

Full cost (variable costs plus fixed overheads) – sometimes this also includes a mark-up.

(a) May lead to high transfer price, and therefore the receiving division may look to use an external supplier instead;

(b) This may lead to the wrong decision being made, because fixed costs are not a relevant cost.

Using variable costs overcomes these problems, but does mean that the selling division will not cover its fixed costs.

MARKET-BASED APPROACHES TO TRANSFER PRICING

Where a market price exists it can be used as the basis for a transfer.

- **If the supplying division is at full capacity then the revenue it loses as a result of an internal transfer shows the true cost (revenue foregone) to the division of an internal transfer.**
- If a division would have to incur marketing costs to sell externally then the market price should be adjusted to reflect the fact that an internal transfer would not incur this cost. So the transfer price becomes lower ie market price less marketing costs.

OPPORTUNITY COST APPROACH TO TRANSFER PRICING

- The optimal transfer price (TP) should be calculated using opportunity costs.

Formula to learn

Minimum TP = marginal cost to selling division + opportunity cost of resources used.

OPPORTUNITY COST APPROACH TO TRANSFER PRICING

a) If external market exists for the intermediate product: opportunity cost is contribution lost from the external sale forgone.

b) If no external market for the intermediate product exists, the opportunity cost (or shadow price) is:

- Nil; or
- Opportunity lost by not using resources on alternative products.

Note. If this price is above the external market price or the receiving division's net revenue then the internal transfer will not and should not happen.

DUAL PRICING AND TWO-PART TARIFF SYSTEMS

Fixed costs can be considered in a marginal cost-based transfer pricing system in the following ways:

(a) **Dual pricing** Where an external market exists, credit the selling division with the market price of the transfers made but debit the buying division with the variable cost.

(b) **Two-part tariff** Transfer prices are set at variable cost and once a year there is a transfer of a fixed fee to the supplying division representing an allowance for its fixed costs. This should allow the supplying division to cover its fixed costs and make a profit.