

### Performance Measurement and Transfer Pricing

- 1. Performance Measurement
  - Cost Center
  - Profit Center
  - Investment Center
- 2. Controllability Principle
- 3. Transfer Pricing
  - Market Based
  - Variable Cost
  - Full Cost
  - Negotiated Transfer



# Allocation of Decision Rights

As we discussed on Monday, in firms owners often have to allocate decision rights to managers.

Firms are often divided into subunits.

The decision rights assigned to a subunit are used to classify the unit as a:

- 1. Cost Center
- 2. Profit Center
- 3. Investment Center



## **Cost Centers**

### **Decision rights**

- 1. labor
- 2. Supplies
- 3. Materials

#### **Performance measures**

- 1. Minimize total cost for a selected level of output.
- 2. Maximize total output for a given budget.

### **Problems:**

Quality for Quantity Tradeoff

Average cost crates incentive to overproduce



## **Profit Centers**

### **Decision Rights**

- 1. Input Mix (see Cost Centers)
- 2. Product Mix
- 3. Selling Price

#### **Performance Measurement**

- Accounting profits compared to budget or some expectation.

### **Problems**

- Interdependencies of profit centers.
- Transfer Pricing
- Cost Allocation



## **Investment Centers**

### **Decision Rights:**

- 1. Input Mix
- 2. Product Mix
- 3. Selling Prices
- 4. Capital Investment

### **Performance measures**

- 1. Net Income
- 2. Return on Investment
- 3. Residual Income
- 4. EVA



# Performance Measures -Net Income

Net income is generally defined as the revenues of the investment center less the costs of the investment center. Where the costs include the allocated costs or overhead.

**Strengths:** 



# Performance Measures - ROI

Return on Investment is generally defined as the net income of the investment center divided by some measure of assets (typically total assets or net assets)

Strengths:



Performance Measures – Residual Income

Residual Income is a variant of ROI. Residual income is calculated as the investment center's Net income less a targeted return times assets (or net assets).

**Strengths:** 



## Performance Measures - EVA

EVA is basically the same as residual income. There are three adjustments:

- 1. Accounting earnings are adjusted.
- 2. They use WACC, weighted average cost of capital.
- 3. Highlights how compensation should be linked to EVA.

### **Strengths:**



## Canadian Sub (Prob 5-1)

See the exercise "Canadian Submarine": Problem 5-1 in Zimmerman, Jerold L. *Accounting for Decision Making and Control (4<sup>th</sup> Edition)*. McGraw-Hill/Irwin, 2002, pp 230.



# Quincy's Insurance

Sometime in the late 1980's early 1990's The Bull Dog insurance company stopped selling Major Medical Insurance.

Policies still needed to be serviced.

Bull Dog Insurance contracted with Quincy's to administer the line of business.

Quincy's pays claims, handles complaints, and makes policy changes.

Quincy's is compensated an annual fee and a bonus. All costs incurred in administrating the book of business are paid by Quincy's



# Quincy's Insurance

Quincy's Bonus has three key ingredients:

1. \$250,000 based on reduction of claim backlog.

2. Per file bonus for paying more than the base number of claims established in the contract.

3. A bonus based on the size of the book of business.

What types of behavior does this compensation package encourage?



# Quincy's Insurance

- 1. Low skilled laborers.
- 2. High Turnover.
- 3. Easy claim payments
- 4. "Super" customer service.

5. Quality control was done in house, there was no penalty for poor quality.



## Stale Mart (Prob 5-19)

See the exercise "Stale Mart": Problem 5-19 in Zimmerman, Jerold L. *Accounting for Decision Making and Control (4<sup>th</sup> Edition)*. McGraw-Hill/Irwin, 2002, pp 240-1.



# Controllability Principle

What metric should be selected to evaluate a unit's performance?

How is the performance evaluation mechanism affected by random shocks?

Does the performance evaluation system induce dysfunctional behavior.



## Accounting Information used in transfer pricing

Perfect information vs. Asymmetric information

Types of transfer pricing:

- 1. Market Based
- 2. Variable Cost
- 3. Full Cost
- 4. Negotiated



Accounting Information used in transfer pricing

Transfer pricing is important to

- Cost Centers
- Profit Centers
- Investment Centers



# Transfer Pricing – Internal Audit

Internal audit is traditionally a cost center.

What happens if you allow audit to price its product and charge units?

Key Lessons:

- Incentives to be efficient?
- Incentives to consult?
- Potential Disputes?

Alternatives:

- Compensation for cost cutting and innovations.



## Lewis Corporation (Prob 5-9)

See the exercise "Lewis Corporation": Problem 5-9 in Zimmerman, Jerold L. *Accounting for Decision Making and Control (4<sup>th</sup> Edition)*. McGraw-Hill/Irwin, 2002, pp 234.



### Pepsi Co. (Prob 5-17)

See the exercise "Pepsi Co.": Problem 5-17 in Zimmerman, Jerold L. *Accounting for Decision Making and Control (4<sup>th</sup> Edition)*. McGraw-Hill/Irwin, 2002, pp 239.



## Summary

1. Develop an understanding of cost Centers, profit centers and investment centers.

2. Consider the different means of measuring performance and the strengths and weaknesses of each alternative.

3. Develop an understanding of the importance of transfer pricing within the firm.