MEASURING AND MANAGING ECONOMIC EXPOSURE

FOREIGN EXCHANGE RISK AND ECONOMIC EXPOSURE

I. FOREIGN EXCHANGE RISK

A. Economic exposure

focuses on the impact of currency fluctuations on firm's value.

1 . Expectations about the fluctuation must be incorporated in all basic decisions of the firm.

FOREIGN EXCHANGE RISK AND ECONOMIC EXPOSURE

2. Definitions:
   a. Accounting exposure

      impact on firm’s balance sheet
   b. Economic exposure
      1.) Transaction
      2.) Operating

FOREIGN EXCHANGE RISK AND ECONOMIC EXPOSURE

B. Real Exchange Rates and Risk

1. Nominative v. real exchange rates

   real rate has been adjusted for price changes.

2. Hobson's Choice:

   when faced with a change in real value,

   do you keep price constant (changing sales) or change prices (change profits)

FOREIGN EXCHANGE RISK AND ECONOMIC EXPOSURE

3. SUMMARY
   a. the economic impact of a currency change depends on the offset by the difference in inflation rates or the real exchange rate.
   b. It is the relative price changes that ultimately determine a firm’s long-run exposure.

PART II.
THE ECONOMIC CONSEQUENCES OF EXCHANGE RATE CHANGES

I. ECONOMIC CONSEQUENCES

A. Transaction exposure

1. On-balance sheet
2. Off-balance sheet

B. Operating Exposure : real rate change

1. Pricing flexibility is key.
2. Product differentiation
3. Substitution of inputs

THE ECONOMIC CONSEQUENCES OF EXCHANGE RATE CHANGES

II. SUMMARY

The sector of the economy in which the firm operates;

the sources of the firm's inputs;

and

fluctuations in the real exchange rate

delineate the firm's true economic exposure.

PART III. IDENTIFYING ECONOMIC EXPOSURE

I. CASE STUDIES OF ECONOMIC EXPOSURE

A. APEN SKIING COMPANY

1. Firm's exchange rate risk affected its sales revenues.
2. Although there was no translation risk, the global market with its exchange rate risk and competitors impacted market demand.

IDENTIFYING ECONOMIC EXPOSURE

B. PETROLEOS MEXICANOS (PEMEX)

1. The firm's exchange rate risk affected cost but not revenues.
2. Economic impact
   a. Revenues: none
   b. Costs: decreased
   c. Net effect: increased US$ flows

IDENTIFYING ECONOMIC EXPOSURE

C. TOYOTA MOTOR COMPANY

1. Exchange rate risk affected <u>BOTH</u> revenues and costs.
2. Flow back effect:

   previously exported goods return with increased domestic competition.
3. Lower profit margins domestically

PART IV.
CALCULATING ECONMIC EXPOSURE

I. A quantitative assessment of economic exposure depends on underlying assumptions concerning:

   A. future cash flows;

   B. sensitivity to exchange rate changes.

PART V.
AN OPERATING MEASURE OF EXCHANGE RISK

I. NEED FOR A WORKABLE APPROACH

A. Regression Analysis

1. Variables

a. Independent

changes in parent's cash flows

b. Dependent

Average nominal exchange rate change

AN OPERATING MEASURE OF EXCHANGE RISK

2. Output measures:
   a. Beta coefficient

      measures the association of changes in cash flows to exchange rate changes.
   b. the higher the percentage change of cash flow to changes in exchange rates, the greater the economic exposure (higher beta values).

PART VI.
MANAGING OPERATING EXPOSURE

I. INTRODUCTION

Operating exposure management requires long-term operating adjustments.

II. Marketing Management Adjustments

A. Market Selection

use advantage to carve out market share

MANAGING OPERATING EXPOSURE

B. Pricing strategy: Expectations critical

1. If HC value falls, exporter gains competitive advantage by increasing unit profitability and market share.
2. The higher price elasticity of demand, the more currency risk the firm faces by product substitution.

MANAGING OPERATING EXPOSURE

3. Following HC depreciation, local firm may have much more freedom in its pricing.

C. Product Strategy

exchange rate changes may alter

1. The timing of new product introductions,
2. Product deletion ,
3. Product innovation.

MANAGING OPERATING EXPOSURE

III. Product Management Adjustments

A. Input mix

B. Shift production among plants

C. Plant location

D. Raising productivity

MANAGING OPERATING EXPOSURE

IV. Planning For Exchange-Rate Changes

A. With better planning and more competitive options, firms can change strategies substantially

B. before the impact of an currency change makes itself felt.

C. Implication: compaction of adjustment period following an exchange-rate change.

MANAGING OPERATING EXPOSURE

V. Role in Financial Management of Exchange Rate Risk: Financial manager's Marketing and Production

A. Provide local manager with fore-casts of inflation and exchange-rate changes.

B. Identify and focus on competitive exposure.

MANAGING OPERATING EXPOSURE

C. Design the evaluation criteria so that operating managers neither rewarded or penalized for unexpected exchange-rate changes.

D. Estimate and hedge the operating exposure after adjustments made.