

Currency Forward Market, Hedging Behavior and Currency Speculation (Cont)

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- For smaller firms, it would be more difficult to cover the fixed costs. The rates for smaller firms would be worse than those offered to large firms.

Exporters: Bid rate + forward premium – firm bargaining (sell dollar at the cheaper rate)

Importers: Offer rate + forward premium – firm bargaining (buy dollar at the more expensive rate).

Firm Heterogeneity in Hedging Behavior

- In fact, firms might have different hedging behavior, depending on the effect of exchange rate changes on firms.
 - Exchange rate changes can affect firms in two ways;
 1. Profitability
 2. Cash Flows
 3. Market Value
- } Foreign Exchange Exposure (FEE)

- Corporate Finance studies split FEE into
 1. *Transaction Exposure* (Effect on current transaction, mainly financial obligations including revenue, expense, debt)
 2. *Operational Exposure* (Effect on future transaction, esp. profitability)
 3. Translation Exposure (Effect on Foreign Asset) – highly relevant for developed countries which are the world major foreign direct investors.

- Need to split FEE into transaction and operational exposures is due to the fact that instruments to contain the adverse effect of the exposure are different.
- Activities in foreign exchange market like forward contract, future, swap, option can mitigate the transaction exposure only.
- For operational exposure, firms must alter their management such as matching currency cash flows (market diversification), back-to-back loans, retiming the transfer of Funds.

Natural vs. Financial Hedging

- Natural hedging is referred to a situation where firms use non-financial tools to protect themselves from exchange rate changes.
- For example, exporting firms import raw materials from abroad. These firms have both foreign exchange revenue and expenses so they can bring their FX revenue to pay for FX expenses. The need to hedge would be the difference between FX revenue and expenses.

- Source of financing would be another source where firms can use for their natural hedging.
- Multinational enterprises (MNEs) can exploit their economies of scale (size) and scope (various activities) to guard against any adverse effect of exchange rate changes.
- Choices between natural and financial hedging vary across firms and industries so that each firm might have different financial hedging behavior.

Firms' Decision to use financial hedging against FEE

1. Level of FE Exposure

The larger the exposure the more likely the firm to hedge.

1.1 Whether firms are in the tradable sector (exportable or importable)

The higher the degree of tradability, the more the likelihood firms would hedge.

1.2 The extent to which firms have foreign exchange transactions, including foreign debt, foreign financing, export-sale ratio, import materials. *The effect would be positive.*

2. Firm Size

- Generally, large firms are more likely to hedge comparing with smaller firms. Choices of instrument are also influenced by firm sizes (Judge, 2006).
- Size matters simply because cost incurring from hedging activities is rather fixed (i.e. threshold effect).
- Nance et al (1993) points to the reverse result, i.e. small firms could be more likely to hedge due to the possibly tremendous effect of FEE (e.g. Insolvency)

Judge, A (2006), 'Why and How UK Firms Hedge', *European Financial Management*, 12(3): 407-441.

Nance, D., C. Smith, and C. Smithson (1993), 'On the Determinants of Corporate Hedging', *Journal of Finance*, 48: 267-84.

– Dolde (1993) argue for 2 steps in decision for hedging;

Step 1-Propensity to hedge (Whether firms hedge or not)--- Large Firms more likely

Step 2- Intensity to hedge (How much firms would hedge) --- Small firms larger amount.

Dolde, W., 1993, "The Trajectory of Corporate Financial Risk Management," *Journal of Applied Corporate Finance*, 6(3), 33–41.

3. Expectation of Exchange Rate Changes

- Possibly, in a country whose exchange rate regime is not freely floating, firms might expect minor changes in exchange rate.
- Such minor changes would limit the adverse effect of exchange rate changes on firms.
- In this circumstance, incentive to hedge becomes less.
- In reality, East Asian economies are reluctant to let their currency change according to market forces. This is especially true when exchange rate is appreciating.

- Such policy stance could signal firms' hedging behavior.
- Studies in the 1997/98 East Asian crisis (e.g. Krugman, 1999; Dornbusch, 2001) argue that policy stance to keep exchange rate to a certain level caused firms excessively borrow from abroad without hedging their transactions.

Dornbusch, R. (2001), 'A Primer on Emerging Market Crises', NBER Working Paper No 8326. National Bureau of Economic Research (NBER), Cambridge.

Krugman, P. (1999), 'Balance Sheets, the Transfer Problem, and Financial Crises' *International Tax and Public Finance*, 6(4): 459-472.

- In political economy context, a given policy measure is purely determined by demand for and supply of policy.
- On demand side, exporters might favor currency depreciation as their products' price would be lower in terms of foreign currency. They might try to lobby.
- One of many supply side factors is policy ideology. When policy makers have strong view that currency depreciation is good for growth, they might quick respond to any requests from firms.

- In many occasions, speech by top-policy makers could reveal their ideology preference.
- This could lead to over-request for currency depreciation, e.g. express their concern on local press.

Evidence from Thailand

- The role of spot transaction becomes less important over the year. Its share to total foreign exchange transaction declined from 48 per cent in 2004 to 30 per cent in 2010.
- Non-spot activities (i.e. forward contract, currency swap, currency options) grew rapidly. The value doubled from \$ 11 billion a month in 2004 to \$27 billion a month in 2010.

- Forward contract accounted for the lion share in non-spot transaction, accounting for more than 70 per cent.
- Nonetheless, exporters and importers tend to be less active in the non-spot transaction. This is especially true for exporters.
- To illustrate how active exporters and importers hedge their transaction, the ratio of non-spot transaction on exports (imports) to actual exports (imports) is constructed.



