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Challenges Posed by Foreign Exchange Exposures and Strategic Way-Out

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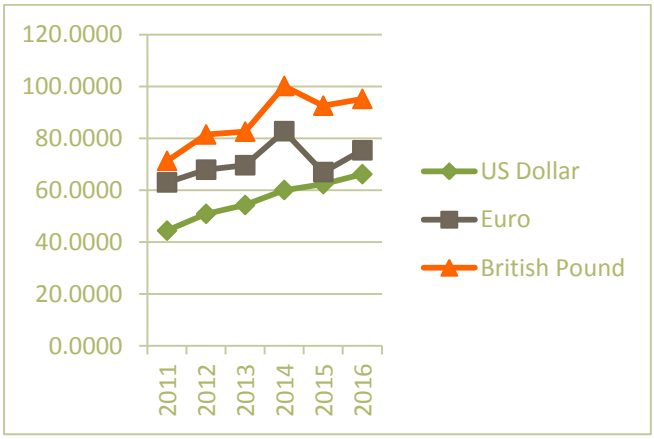
Abstract: ***Foreign exchange rates determine exporting firms' profitability, competitiveness and also give comparative advantage to a country. The fluctuating exchange rates pose unique risks and opportunities for Indian companies with global supply chains and those operating in many geographic markets. This paper addresses exchange rate exposure in terms of transaction risk, translation risk and economic risk and analyses risk management strategies of the firms through hedging and Rupee invoicing. This paper suggests rupee invoicing when the exporters has first-mover advantage and power through product differentiation as well as the stable monetary policy and low transaction costs associated with home currency and operational hedging strategies for internationally active firms.***

Keywords: Foreign Exchange Risk, Hedging, RupeeInvoicing.

INTRODUCTION

Foreign exchange rates not only determineexporting firms' profitability and competitiveness butalsogive comparative advantage to a country. However the fluctuatingexchange rates pose unique risks and opportunities for companies with global supply chains and those operating in many geographic markets. Exchange rate fluctuations, specifically a steep fall in the domestic currency will bring significant variability in costs and revenues, profitability, competitiveness and shareholder value.While there are solid benefits to a weak rupee, there is also compelling financial and strategic risks around a rapid and sustained fall in the Rupee. Strong rupee also has some advantage (e.g. stronger purchasing power), but ultimately it erodes competitiveness as weak world demand would dampen the positive impact of the depreciation on exports.



Source: x-rate.com, (July, 22, 2016)

The above graph clearly shows that there has been wide variation in the exchange rate of Euro, British Pound vs.-a-vs. Indian Rupee and gradual increase in the value of US Dollar againstrupee during January 2011 to January 2016.

Continued political instability and civil war in the Middle East, Brexit and ongoing uncertainty around the European debt crisis as well as a slowdown in Chinese growth may dampen the global economy and poses threats to create instability in the currency markets. In an integrated globalised economy, companies face strong interdependencies across risk categories such as financial risks and operational risks– which can quickly degrade their competitive position, and shrink operating profits.

TYPES OF EXCHANGE RISK

- Transaction risk (the risk of variations of the value of committed future cash flows or net cash flows in foreign currency). A transaction exposure for a firm arises when a change in an exchange rate causes a change in its current and expected future foreign currency cash flows.
- Translation risk (the risk of variations of the value of assets and liabilities denominated in foreign currency, translation risk exists from the holding of foreign assets irrespective of the net direction of trade flows). A translation exposure arises when a firm holds foreign assets or liabilities that have to be reported in its home currency on the firm's accounting statement (balance sheet). and
- Economic risk (which takes into account the impact of exchange rate variations on competitiveness and foreign assets value).

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Most of the literature distinguishes between financial and operational hedge. Where financial hedge comprises derivative instruments as well as foreign currency borrowing/loans and operational hedge refers to the geographical diversification of production, sourcing and sales.

Financial Hedging Strategies (through Derivative Instruments):

a. Forwards and futures: A forward foreign exchange rate contract is an agreement to buy or sell a given amount of foreign currency at a certain point in time at an exchange rate fixed today. Forward contracts are traded "over-the-counter. While futures are standardized and exchange-traded equivalents of forwards.
b. Options: Whereas a forward or future contains the contractual obligation to deliver at the agreed time and rate, an option offers a choice. The option thus protects the exporter against adverse moves in the exchange rate with the opportunity to benefit from favourable movements.
c. Swaps: Cross-currency swaps exchange a cash flow in one currency against a cash flow in another currency. If, say, an Indian enterprise wishes to issue a bond to finance a subsidiary in an emerging market country, it may obtain best financing conditions by issuing a bond denominated in US Dollar, rather than in the local currency and then swap in the local currency of subsidiary host country.

Operational Hedging Strategies:

a. diversification across currency zones,
b. operational matching of revenues and expenditure

SURVEY OF LITERATURE

Belk and Glaum(1990), Batten, et al.(1993) and Jonuska and Samenaite (2003) investigated the exchange rate risk management techniques. Some studies were conducted to examine the theory about foreign exchange risk management and their practice, such as Brucaite and Yan(2000),Dhanani and Groves(2001) and Popov and Stutzmann (2003). Karasoy (1995), Bradly and Moles(2001), El-Masry,(2003)and Fang and Miller (2004) studiedthe impact of exchange rate movements on a firm. Foreign exchange risk becomes more and more important in light of the globalisation and internationalisation of world markets, and is one of the most difficult and persistent problems with which the financial executives must cope with (Al-Momani and Gharaibeh,2008)

Muller and Verschoor (2006) used a sample of 817 euro area multinational firms to estimate their exposure to exchange rate variations. Interestingly, the majority of firms in the sample with an exchange rate exposure were net importers; euro appreciation increased their share value. The authors suggested that short-term exposures are more effectively hedged than longer-term exposures. However, the scope for managing medium-term economic risk is more limited than that for managing short-term variations of the exchange rate, Döhring (2008).

International business deals when arranged for the future are complicated by the increased risk of exchange rate changes. There is a wide spread feeling that exchange rates have turned out to be more volatile than they were expected to be (Frankel 1995). To guard against this fluctuating exchange rate exporting and global firms develop strategies to either eliminate or reduce this currency risk, which is the major aim of foreign exchange risk management (Dawson &Rodney, 2002). To guard against this risk firms either use derivatives or diversification strategies. It acts as insurance against a decline in the future cash flows and firms' foreign assets value. Firms need to identify and quantify their exposure to currency risk, which is a basis for a suitable currency risk management strategy (Shapiro, 2003). Mathur (1982), Bodnar et al. (1995), and Phillips (1995) found in their studies, that firms are increasingly using derivatives to manage their exchange rate risks. However, these transactions can only ensure a certain amount of earnings in terms of the home currency in a certain period. They cannot fully avoid the influence of appreciation of the home currency itself, Takatoshi et al. (2013).Hence domestic currency invoicing may help to neutralize this risk.This study makes an attempt to understand the complexities of rupee invoicing and will help in understanding the rupee invoicing scenario.

Theoretical considerations on Strategies

When exports are invoiced in domestic currency (Indian Rupee), the short-term exchange rate risk is borne by the importer rather than by the exporter. Exchange rate risk can also be mitigated or neutralized by hedging through

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financial instruments such as exchange rate derivatives or foreign currency debt (financial risk), as well as through the operational setup of the exporting firm (operational risk). Hedging allow internationally active firms to reduce their exposure to exchange rate variations. It should be noted that importing firms also face exchange rate risk. Transaction risk arises from foreign-currency denominated imports in the same way as from foreign-currency denominated exports. As in practice many Indian firms are at the same time importers and exporters, their exposure to exchange rate risk is limited to net cash flows in a particular currency.

Géczy et al. (1997) argues that currency swaps are more cost-effective for hedging foreign debt risk, while forward contracts are more cost-effective for hedging foreign operations risk. Foreign currency debt payments are long-term and predictable, so fits the long-term nature of currency swap contracts. Foreign currency revenues, on the other hand, are short-term and unpredictable, and are in line with the short-term nature of forward contracts. A survey done by Marshall (2000)[1] also points out that currency swaps are better for hedging against translation risk, while forwards are better for hedging against transaction risk.

Transaction risk can be easily hedged using financial hedging strategies through derivatives (in particular forwards). Hedging becomes more difficult for economic risk because in the long term the cash flow may be uncertain. Foreign currency loans are functional substitutes to forwards and futures. Nevertheless, loans can easily cover longer maturities than derivatives (e.g. a firm with access to international capital markets may hedge future revenues in US dollar by issuing a US dollar bond).

Traditional financial hedging tools, particularly useful for short-term cash flows, are often insufficient or too expensive to address large and sustained exchange rate shifts. Applying derivative products to uncertain future cash flows creates the risk of over-hedging or under-hedging. Under-hedging means that part of the cash flow is not covered against exchange rate risk. Over-hedging implies the existence of the open position which itself is vulnerable to exchange rate changes. To effectively manage long-term risks, manager should employ "operational hedging"which is a holistic and long-term approach to economic risk management. To implement operational strategies, determine the vulnerable areas in the business (i.e. the cost and revenue drivers),evaluate the location of production facilities, sources of raw materials, and organization of sales and marketing channels by geography. Operational hedging may be a powerful tool to minimize the impact of major currency shifts on costs and revenues.Operational hedges potentially provide better protection than financial hedging during times of stress, Hutsona and Laing (2014). Operation hedging approach allows for greater flexibility in how supply chains, product distribution patterns and market-facing activities are designed and implemented. Operational hedges are less flexible than financial hedges, and involve higher sunk costs; they are typically used to reduce economic risk. A complete operational hedge would consist of off-shoring production and sourcing to the destination market. This will eliminate transaction risk and economic risk but at the price of creating translation risk. The matching of foreign currency assets with foreign-currency liabilities offers protection against translation risk.

The risk-reduction benefits of operational hedging arise from currency diversification effects, the offsetting of foreign currency revenues with costs in the same currency, and the operational flexibility that international operations give the firms (Kogut and Kulatilaka, 1994; Mello, Parsons and Triantis, 1995; Allen and Pantzalis, 1996; Buckley and Casson, 1998; Pantzalis, Simkins and Laux, 2001; Bodnar and Marston, 2002).

Theoretical considerations on rupee invoicing

By invoicing in domestic currency, an exporter is able to shift transaction risk to his customer abroad. However, once economic risk and market structures are also taken into account, it becomes less certain that the exporter always has an interest in using domestic currency for invoicing (Kamps, 2006). McKinnon (1979) argued that it may be optimal for an exporter of homogeneous goods to align to the same invoicing currency as the main competitors. A firm can reduce its demand uncertainty by invoicing in the same currency as its competitors. The exporter who invoices in his own currency runs the risk of a reduction in demand when his currency appreciates (referred to as "economic risk"). The choice of the preferred invoicing currency is also dependent on the elasticity of foreign demand and the volatility of the exchange rate. The work by Bacchetta and van Wincoop (2005) suggests to product differentiation (which in turn affects demand elasticity) as a factor favoring

[1] Marshall (2000)[1] Taken from,"Corporate Hedging for Foreign Exchange Risk in India." Available online: http://www.iitk.ac.in/infocell/announce/convention/papers/ Marketing, Finance and International Strategy-07-Anuradha on July 25, 2016.

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invoicing in the exporter's currency. New open economy macro models also highlight the role of monetary stability in making a currency attractive to use as invoicing currency (Devereux et al, 2004). However as argued by Friberg (1998), the existence of forward currency markets may make foreign-currency invoicing more attractive; hedging and invoicing may become complementary. Takatoshi et al. (2013) have also shown in their studies of Japanese firms that hedging and yen-invoicing are complementary. An Indian exporting firm faced with price-sensitive demand can use foreign-currency invoicing to reduce economic risk while at the same time can use derivative hedging to eliminate transaction risk.

CONCLUSION

Thus it may be concluded that hedging and invoicing are complementary strategies and diversification not only gives competitive advantage but also neutralizes the long term risk related to foreign exchange rate movement. Rupee invoicing is suggested when the exporter's has first-mover advantage and power through product differentiation as well as the stable monetary policy and low transaction costs associated with home currency.Takatoshi et al. (2013) in their studies of Japanese firms found that yen-invoicing substitutes for both financial and operational hedging. Study by Marshall (2000)[1] provides anecdotal evidence that pricing policy is the most popular means of hedging economic exposures.

REFERENCES

1. Allen, L., Pantzalis, C., (1996). Valuation of the operating flexibility of multinational corporations. *Journal of International Business Studies* 27,633-653.
2. Al-Momani,R., and Gharaibeh, M.R. (2008). Foreign exchange risk management practices by Jordanian nonfinancial firms. *Journal of Derivatives & Hedge Funds*, 14(3/4), 198–221
3. Bacchetta, P. and E. van Wincoop (2005): A theory of the currency denomination of international trade.*Journal of International Economics*, 67, 295-319.
4. Batten, J., Mellor, R. and Wan, V. (1993). Foreign Exchange Risk Management Practices and Products Used by Australian Firms.*Journal of International Business Studies*, 25, 557–573.
5. Bodnar, G. M., G. S. Hayt, R. C. Marston and C. W. Smithson (1995). Wharton Survey of Derivatives Usage by U.S. Non-Financial Firms. *Financial Management*, 24, (2), 104-114.
6. Bodnar, G., Marston, R., (2002). Exchange rate exposure: a simple model. In: Choi, J. and Power, M. (Eds.), *International Finance Review*, Vol 3, Global Risk Management: Financial, Operational and Insurance Strategies, *Elsevier Science: JAI*, Greenwich, CT, pp. 107-116.
7. Bradley, K. and Moles, P. (2001).The Effects of Exchange Rate Movements on Non-financial UK Firms. *International Business Review*, 10, 51–69.
8. Brucaite, V. and Yan, S. (2000) 'Financial Risk Management — Case Studies with SKF and Elof Hansson', Published Master Thesis, Go ¨teborg University, Available online: http://www.handels.gu.se/epc/archive/00001538/01/Brucaite_200014.pdf. Accessed on July 18, 2016
9. Buckley, P., Casson, M., (1998). Analysing foreign market entry strategies: extending the internalisation approach. *Journal of International Business Studies* 29, 539–561.
10. Dawson, J.D. & Rodney, H.W. (2002).*The use of Exchange Rate Hedging Techniques by UK Property Compnies*, City University Business School. London.
11. Devereux, M. C. Engel and P. Storegaard (2004): Endogenous Exchange Rate Pass-Through when Nominal Prices are set in Advance.*Journal of International Economics* 63(2), 263-291.
12. Dhanani, A. and Groves, R. (2001). The Management of Strategic Exchange Risk: Evidence from Corporate Practices.*Accounting and Business Research*, 31, (4), 275–290.
13. Döhring, B. (2008). Hedging and invoicing strategies to reduce exchange rate exposure: a euro-area perspective. *Economic and Financial Affairs, European Commission, Economic Paper 299*, January.
14. El-Masry, A. (2003). The Exchange Rate Exposure of UK Non-financial Companies: Industry Level Analysis. *Journal of Managerial Finance*, 32,(2), 115–136.
15. Fang, W. and Miller, S. (2004) 'Exchange Rate Depreciation and Exports: The Case of Singapore', Working Paper, No. 2004-45, University of Connecticut, Available online: http://www.econ.uconn.edu/working/2004-45.pdf. Accessed on July 16, 2016
16. Frankel, J.A(1995). Exchange Rates (2nd Ed.). New York: Macmillan.

International journal of management and economics invention
||Volume||2||Issue||08||Pages-730-734||Aug-2016|| ISSN (e): 2395-7220
www.rajournals.in

17. Friberg, R. (1998): In which currency should exporters set their prices?*Journal of International Economics*, 45, 549-76.
18. Géczy, Christopher, Bernadette A. Minton, and Catherine Schrand, (1997). Why Firms Use Currency Derivatives. *Journal of Finance*, 52(4),1323-1354.
19. Hutsona, E. and Laing, E. (2014). Foreign exchange exposure and multinationality. *Journal of Banking and Finance*,43 (6), 97-113.
20. Jonuska, M. and Samenaite, I. (2003) 'Foreign Exchange Risk Management in Lithuanian Economy: The Use of Currency Derivatives', Published Master Thesis, Stockholm School of Economics in Riga, Available online. Accessed on July 18, 2016
21. Kamps, A. (2006): The euro as invoicing currency in international trade.*European Central Bank Working Paper No. 665*.
22. Karasoy, A. (1995) 'Management of Exchange Rate Risk in Turkish Banking Sector: A Model and Tests', Discussion Paper, No. 9602, Central Bank of the Republic of Turkey, Available online: http://www.tcmb.gov.tr/research/discus/9602eng.pdf. Accessed on July 16, 2016
23. Kogut, B., Kulatilaka, N.(1994). Operating flexibility, global manufacturing, and the option value of a multinational network. Management Science 40,123-139.
24. Mathur, I. (1982). Managing Foreign Exchange Risk Profitably.*Columbia Journal of World Business*, 17 (4), 23-30.
25. McKinnon, R. (1979): *Money and International Exchange: The Convertible Currency System*, Oxford University Press, New York.
26. Mello, A., Parsons, J., Triantis, A., (1995). An integrated model of multinational flexibility and financial hedging. *Journal of International Economics* 39, 27-51.
27. Muller, A. and W. Verschoor (2006): European Foreign Exchange Risk Exposure.*European Financial Management*, 12(2), 195-220.
28. Pantzalis, C., Simkins, B., Laux, P., (2001). Operational hedges and the foreign exchange exposure of US multinational corporations. *Journal of International Business Studies* 32, 793812.
29. Popov, V. and Stutzmann, Y. (2003) 'How is Foreign Exchange Risk Managed? An Empirical Study to Two Swiss Companies', Published Master Thesis, University of Lausanne, Available online: http://www.hec.unil.ch/cms_mbf/master_thesis/0314.pdf. Accessed on July 18, 2016
30. Phillips, A. L. (1995). 1995 Derivatives Practices and Instruments Survey.*Financial Management*, 24,(2), 115-125.
31. Shapiro, A.C (2003) *Multinational Finacial Management* (7thEd.). Chennai: Multivista Global Ltd. PP 328-416.
32. Takatoshi, I., Satoshi, K., Kiyotaka, S., Junko, S. (2013). *Exchange Rate Risk Management of Export Firms: New findings from a questionnaire survey*. RIETI Discussion Paper Series 13-E-024.