NECESSITY OF PRACTICING FOREIGN EXCHANGE FORWARD CONTRACT IN BANGLADESH

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Abstract

The study intends to explore the reasons necessitating the inception of practicing foreign exchange forward in Bangladesh, one of the emerging economies of South Asia. With the country's increased involvement in international trade and commerce and extensive investment in infrastructural facilities exposure to foreign exchange risk is also growing. But unfortunately, no mechanism is there in Bangladesh that can give the individual or institutional investors protection against exchange rate risk while dealing with foreign currencies regularly. As such, it is an attempt to provide a qualitative judgment regarding the prospects of initiating practice of foreign exchange forward contract in Bangladesh. The study has been conducted based primarily on secondary data and the majority of data has been collected from different books, reports, research articles, web sites and other internet based resources. It finds that if the country introduces practice of foreign exchange forward not only the individuals receiving foreign remittances and firms that deal with the foreign currency would be benefited but also the government would be benefited.

Keywords: Exchange rate risk, Hedging, Derivatives, Currency exchange forward. Arbitrage

1. INTRODUCTION

Foreign exchange refers to the price of each units of a particular currency in terms of another currency. It is one of the major determinants of economic performance of a country. This is why the policy makers should keep greater focus on the value of its currency. They can set either a fixed exchange rate or a floating exchange rate. Between the two, the former system of foreign exchange collapsed in 1970 and resulted in a price and economic crisis. This brought floating exchange rate system into practice more widely and the emergence of the regime has increased the risk of exchange rate volatility and made the cash flows more sensitive. Consequently, risk of inflation has also been increased, which in turn affected the value of investment (Hanappi, 2015; Sikarwar, 2014; Treepongkaruna et al., 2012) and profitability (Chong et al., 2014; Raihan, 2013). Studying 1,523 firms sampled from 20 countries, Ye et al. (2014) shows that, about 50% of the firms were significantly affected by fluctuating exchange rate risks.

This spurred a debate whether the freely floating exchange regime is suitable for less developed countries or not. Hossain (2009), Grenville and Gruen (1999) shows that, floating regime is unviable/unsuitable for developing countries due to destabilizing speculation, consequent excessive exchange rate volatility and particularly in the absence of a resilient and developed financial system.

Bangladesh entered into the floating exchange rate regime on May 31, 2003. After the initiative, it experiences a fairly stable exchange rate for the first ten months with a depreciation of less than 1 percent. But from mid 2004 the value of its currency started depreciating and reached at Bangladeshi Taka (BDT) 70 per US Dollar (USD) from BDT 58 per USD, resulted in a 20 percent fall. Since then, the floating regime has kept greater attention to the policy makers of the country due to its high volatility. Because, volatility in exchange rate not only affects the performance of the companies which are involved in international trade but also the economic performance of a country. To get protection against such risk, currency exchange forward can be used effectively. This strategy is not still familiar in Bangladesh. As such, the financial institutions or firms dealing with foreign currencies do not have any mechanism of getting protection against foreign exchange risk.

1.1 Purpose of the study

The study intends to explore the reasons necessitating the inception of practicing foreign exchange forward in Bangladesh. It also point outs the advantages it would get if it initiates practicing such mechanism in the country.

1.2 Significance of the study:

There is no practice of derivatives usage in Bangladesh. Both the financial institutions and nonfinancial institutions have to deal foreign currency in cash market. This study will show how practice of foreign exchange forward in the country could benefit them through hedging their position.

2. LITERATURE REVIEW

According to Marshal (1999) foreign exchange is the most important financial activity in large British, American and Asian firms and banks. Several researchers have made their contribution upon management of foreign exchange risk. Most of these studies tend to show foreign exchange risk as one of the vital risks to manage.

Kemal (2005) demonstrates why do stability in the foreign exchange market is important and explores that volatility hampers the total volume of trade in the world trade market. Studying panel data for SAARC countries from 1980-2010 Hooy and Choong (2010) finds that, export volume is negatively affected by the volatility of exchange rate. Hasan et al. (2015) studies time series data from Bangladesh for the period of 1991 to 2012 and find a long-run relationship between the exchange rate and export and conclude that exchange rate affects export.

Study by Batten et al (1993) finds that most of the firms use derivatives like- forward, option and currency swaps to hedge their position. Froot et al. (1993) shows that hedging reduces cash

flow volatility which in turn leads to better rates for financing. Whereas Stulz (1996) and Leland (1998) shows, hedging reduces the likelihood of bankruptcy. Bodnar and Gebhart (1998) conducted their study on German and US companies and finds that they use derivatives primarily to manage foreign exchange risk to get protection against the variability in cash flows. Bodnar et al. (1999) find that many firms consider market view while choosing a risk management strategy. Loderer and Pichler (2000) made a survey on Swiss firms and identify the guaranteed cash flows, loss prevention and reduction of financing cost and tax as the main reasons for managing currency risk. The study of Allayannis and Ofek (2001) finds that the firm size, expenditure in research and development and the level of exposure in terms of the volume of sales and international trade are relevant determinants in the decision of hedging. Finally, Hagelin (2003) also studies a total of 101 listed companies from Stockholm Stock Exchange to identify the reasons behind use of derivatives for currency hedging (both for transaction and translation) and finds that companies hedge transaction risk with currency derivatives with an aim to increase the value of the company along with a reduction in the indirect costs of bankruptcy and eliminate the problem of underinvestment, as well as for reasons of exposure to risk. Mihaljek and Packer (2010) find that, due to phenomenal growth in OTC derivatives in India, foreign trade and per capital Gross Domestic Product (GDP) has been increased.

4. METHODOLOGY

This study attempts to provide a qualitative judgment regarding the prospects of initiating practice of foreign exchange forward contract in Bangladesh. It has been conducted based primarily on secondary data and the majority of data has been collected from different books, Bangladesh Bank reports, newspaper articles, research articles and other internet based resources. To determine the spot quote (cash price) the average buying price and average selling price of 53 scheduled banks for each USD has been taken from the web site of Bangladesh Bank (https://www.bb.org.bd/en/index.php) for the date 01 January, 2019 and a hypothetical rate for the forward quotes has been considered, as there is no such practice in the country. To determine the 3 months forward rate for finding the arbitrage opportunity, the 91 days treasury bills rate of BDT and USD has been used. The rate for BDT has also been taken from the web site of Bangladesh bank and the rate for USD has been taken from the web site of U.S. Department of Treasury.

5. FOREIGN EXCHANGE FORWARD

Foreign exchange forward is one of the instruments of derivatives which is used to hedge exchange rate risk. An increase in the exchange rate more than the expected level causes the value of import to rise. On the contrary, a decline in the exchange rate more than the expected level causes the value of export to decline. As such, a fluctuation in exchange rate creates a dilemma and affects both the importers and exporters. Foreign exchange forward provides a mechanism of hedging through locking the price of foreign currencies in advance. This contract provides the buyer to get delivery of the underlying currency at a prefixed price at a prefixed date in the future. For both parties involved in the contract, execution of the contract is obligatory. At the date of execution of the contract the buyer pays the seller the specified amount for the quantity of foreign currency specified by the contract. An importer of goods who needs to pay its foreign seller at a specified foreign currency in the future and is expecting a rise in the exchange rate during the time when payment is due can remove the exchange rate

risk by buying his needed currency in advance at a price specified by the foreign exchange forward contract. Similarly, an exporter of goods who would receive a specified foreign currency from its foreign buyer in the future and is expecting a decline in the exchange rate during the time of receiving the currency can remove the exchange rate risk by selling the currency in advance at a price specified by the foreign exchange forward contract.

A foreign exchange forward contract is a product of over-the-counter market. The contract is usually held between two financial institutions or between a financial institution and one of its clients. The following table shows the way a financial institution (or a commercial bank) might quote (hypothetical data) the spot and forward rate of USD in terms BDT:

Table 1:	Spot and forward (hypothetical) quotes for the BDT/USD exchange rate, 01 January, 2019 (quote is for BDT per USD)	
	Buy	Sell
Spot	BDT 84.125	BDT 85.500
1 month forward	BDT 84.250	BDT 85.600
2 month forward	BDT 84.350	BDT 85.850
3 month forward	BDT 84.500	BDT 85.900

The first row in the above table shows the spot price of each units of USD at which the bank is ready to buy and sell. This means, if a client of the bank wants to get immediate delivery of USD s/he has to buy at BDT 85.500; on the contrary, if the client wants to sell USD immediately s/he has to sell at BDT 84.125 per USD. The second, third and fourth row of the table shows the 1 month, 2 month and 3 month forward quotes for USD. This implies that, the bank is prepared to buy each units of USD in 1, 2, and 3 months at BDT 84.250, BDT 84.350, and BDT 84.500 per USD respectively, and to sell each units of USD in 1, 2, and 3 months at BDT 85.600, BDT 85.850 and BDT 85.900 respectively.

5.1 Foreign Exchange Forward from an Importer's Perspective:

A Bangladeshi importer who would have to pay its US exporter after a month can enter into a 1 month forward contract with the bank to get each units of USD at BDT 85.600 if s/he expects an increase in exchange rate. Doing so, the importer can minimize the foreign exchange risk by specifying the rate at which it can buy USD in advance. During the day of execution of the contract if the spot price of each units of USD goes up more than BDT 85.600, the importer would get delivery of USD from the bank by using the forward contract at the rate specified by the contract held. This is how an importer can hedge its position against exchange rate risk by entering into foreign exchange forward.

5.2 Foreign Exchange Forward from an Exporter's Perspective:

A Bangladeshi exporter who would receive payment from its US importer after a month can enter into a 1 month forward contract with the bank to sell each units of USD at BDT 85.250 if s/he expects a decline in exchange rate. Doing so, the importer can minimize the exchange rate risk by specifying the rate at which it can sell USD in advance. During the day of execution of the contract if the spot price of each units of USD becomes lower than BDT 85.250, the exporter would be able to sell the USD received to the bank by using the forward contract at that rate specified by the contract held. This is how an exporter can hedge its position against exchange rate risk by entering into foreign exchange forward.

5.3 Foreign Exchange Forward from an Arbitrageur's Perspective:

Practice of foreign exchange forward would also create opportunity of making arbitrage profit for the investors in the market. An arbitrageur makes money from the discrepancy between the quoted forward price and the price of forward that supposed to be. As such, an arbitrageur has to determine the forward price by applying the following formula (Hull, 2012):

$$F_0 = S_0 e^{(r-q)T}$$

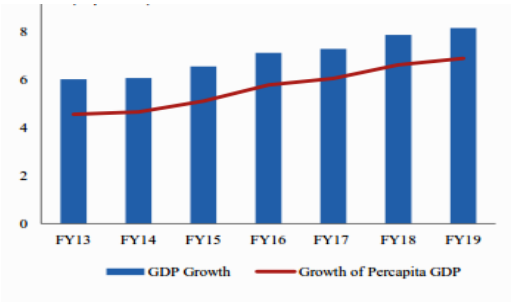
In the above formula, F_0 stands for the determined foreign exchange rate that supposed to be, S_0 stands for the spot exchange rate of the foreign currency in terms of home currency, e is the exponent used for continuous compounding, r and q stands to denote the risk free rate of interest for the home currency and the foreign currency respectively and T stands for the maturity of the forward contract. By applying the aforementioned formula, the arbitrageur can determine the forward exchange rate that supposed to be. Any mismatch between the calculated rate and the quoted rate creates an opportunity to make arbitrage profit. If the quoted forward rate is higher than the calculated forward rate then s/he can make the arbitrage profit by taking long position (buy the asset) in the market and short position (sell the asset) in the contract. Conversely, if the quoted forward rate is lower than the calculated forward rate then s/he as to take short position in the market and long position in the contract.

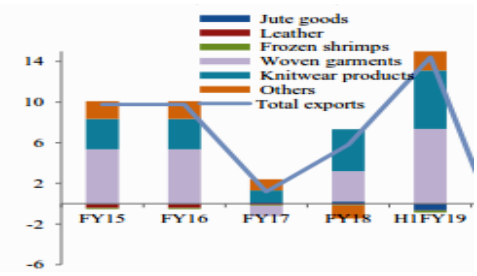
An arbitrageur who wants to find the discrepancy between the quoted 3 month forward rate and the rate that supposed to be should consider the spot selling rate of the USD i.e. BDT 85.500 (table- 1), 91 days T-Bill rate of the home country i.e. 2.40 percent (https://www.bb.org.bd/monetaryactivity/treasury.php), and the foreign country (USA in this case) i.e. 2.37 percent (https://www.treasury.gov/resource-center/data-chart-center/interest-rates/pages/TextView.aspx?data=billrates). Using all these inputs the arbitrageur would find that, the 3 month forward rate of USD should be BDT 86.144, a rate different from the quoted rate. This implies that, an opportunity of making arbitrage profit is there. As the calculated forward rate is higher than the quoted forward rate, by taking a short position in the market and long position in the contract simultaneously, the arbitrageur would be able to get an arbitrage profit.

6. NECESSITY OF FOREIGN EXCHANGE FORWARD IN BANGLADESH:

Bangladesh has achieved a paramount importance to the international communities with its increased economic activities. According to the Bangladesh Economic Review 2019, the economy has grown at a rate of 8.13 percent in the financial year 2018-19. In the financial year (FY) 2017-18 and 2016-17 it was 7.86 and 7.28 percent respectively (Figure-1, Panel a). Export earnings of the country stood at USD 30,903 million during July-March of FY2018-19, which was 12.57 percent higher than the earnings from export in the same period of FY2017-18 (Figure-1, Panel b).

Figure- 1





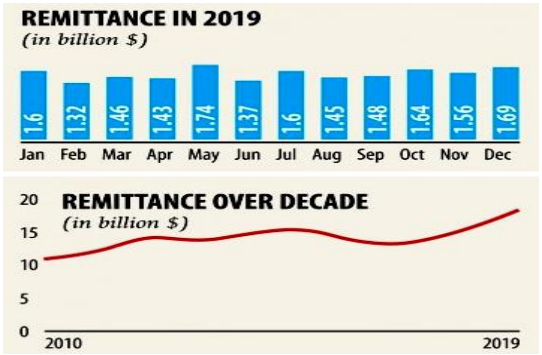
Panel a **Panel b**

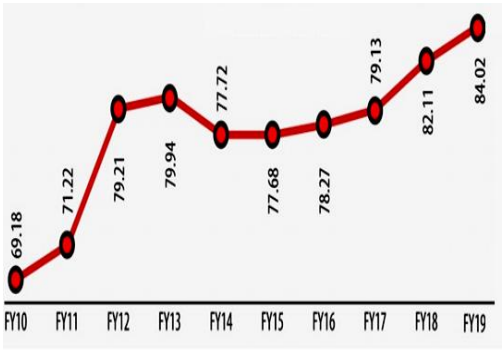
Source: Bangladesh Bank Quarterly, October-December 2019

Country's total payments of import stood at USD 40,895 million in FY2018-19 (July-February), which is USD 2,180.00 million or 5.63 percent higher than the import payments of the same period of the preceding year. Such progress of the country made it economically important to the international communities.

Bangladesh receives foreign remittances from millions of Bangladeshis living and working abroad. Panel a of figure- 2 shows that, the remittance received in December 2019 alone stood USD 1.69 billion, which is a rise of over 31 percent year on year. It also hit an all time high of USD 18.32 billion in the fiscal year 2018-2019 (Star Business Report, 2019). All these achievements may become blurred anytime if the exchange rate goes unfavorable to the country. The country is also investing extensively to build its infrastructural facilities like roads, bridges, power plants, railways, water ways, airports, sea ports, water and sanitation, hospitals etc. And to do so, it is not only buying technology from the overseas but also taking foreign loans and hiring skilled man powers that are paid in foreign currencies. A depreciation of home currency ultimately increases the expenditures of such infrastructural developments. Panel b of figure- 2 shows the trend over the last 10 years through which BDT depreciates against USD.

Figure: 2





Panel a **Panel b**

Source: The Daily Star, 2019

At present there is no practice of using foreign exchange forward contract in Bangladesh. This implies that, no mechanism is there for the individuals and firms dealing with the foreign currency to get protection against foreign exchange risk. Inception of practicing use of foreign

exchange forward would not only be advantageous for the individuals, firms and the government but also for the economic growth. Because, empirical evidence suggests that, there is a positive relationship between the financial integration and economic growth. According to Baele et al. (2004), from financial integration three benefits to be derived more opportunities for sharing of risk and diversification; more and efficient capital allocation among investment opportunities; and prospect for higher growth.

7. CONCLUSION

It can be concluded saying that inception of OTC derivatives market for hedging currency risk in the existing financial sector of Bangladesh would bring about a change in the policy regarding money and capital market, existing foreign exchange mechanism, trading rules and regulation, price structure of commodities, corporate decision making, higher education curriculums, recruitment policy of the institutions, risk exposure of the investors, behavior and perception of the investors and infrastructure of the market. It would also encourage vast number of people to use official channel for receiving remittance from their relatives working abroad. All these are expected to have a positive impact to the growth of the economy. Besides, it would also be challenging to create awareness among the prospective hedgers and arbitrageurs regarding the new mechanism. As such, further study is required to pin point all these issues vital to the reformation of financial and non-financial sector of the country.

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