

## **FOREIGN EXCHANGE RISK EXPOSURE OF LISTED COMPANIES IN SRI LANKA**

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### **Introduction**

Foreign exchange rate exposure has become a popular phenomenon within this open economy context, as members of the society may be individuals, business organizations and government deals with other countries without concerning geographical barriers. Exchange rate movements have been a big concern for investors, analysts, managers and shareholders [in the economic sense] since abolishment of the fixed exchange rate system. This system was replaced by a floating rate system in which the price of currencies is determined by supply and demand of money (Marshy and Salam, 2007).

When fluctuations in exchange rates are taken place, participants who engage with foreign currency trading become more exposed to the risk of fluctuating exchange rates. Generally companies are exposed to three types of foreign exchange risks; accounting (translation) exposure, transaction (commitment) exposure and economic (operational, competitive or cash flow) exposure (Abor, 2005).

This objective of the study is to find out the effect of main currency exchange rates exposure on listed companies in Sri Lanka. Currency exchange rate exposure has been measured in terms of three main currencies namely, SL Rupees to US Dollar (USD/LKR), SL Rupees to GB Pound (GBP/LKR), SL Rupees to Euro (EUR/LKR) and trade weighted exchange rate measured by Nominal Effective Exchange Rate (NEER).

This study is significant as there is a growing trend towards hedging instruments in emerging financial markets. So this study would provide some jurisdiction for the application of such complex financial instruments in Sri Lanka. Hence the rest of the text is organized to present methodology, findings of the study to achieve the aforesaid objective.

### **Methodology**

This study was based on 13 listed diversified firms on Colombo Stock Exchange in Sri Lanka. The data used in this study is the monthly foreign exchange rates for the currencies under consideration (USD/LKR,

GBP/LKR, EUR/LKR), monthly share prices of above mentioned 13 diversified listed companies, monthly market index and monthly Nominal Effective Exchange Rate from January, 2012 to December, 2013. The model implemented by Jorion (1990) was used for the analysis of

the study. Equation (3) is used to calculate the return of each stock and equation (1), (2) are for explicit the effect on foreign exchange rate exposure. MS Excel and SPSS 16 are used for identify the significance of the model.

$$R_{it} = \alpha_i + \beta_{i1}FX_1 + \beta_{i2}FX_2 + \beta_{i3}FX_3 + \gamma_i R_{mt} + \varepsilon_{it} \quad (1)$$

$$R_{it} = \alpha_i + \beta_i RNEER_t + \gamma_i R_{mt} + \varepsilon_{it} \quad (2)$$

Where,

$R_{it}$  = stock return of  $i^{th}$  firm on time  $t$

$\alpha_i$  = constant term

$\beta_{in}$  = co-efficient of  $i^{th}$  stock with  $n^{th}$  exchange rate,  $n = 1,2,3$

$FX_1$  = return of the US Dollar relative to SL Rupees

$FX_2$  = return of EURO relative to SL Rupees

$FX_3$  = return of UK Pound Sterling to SL Rupees

$R_{mt}$  = return of market on time  $t$

$\gamma_i$  = co-efficient of market return

$\varepsilon_{it}$  = residual term

$RNEER_t$  = return of Nominal Effective Exchange Rate

$$R_{it} = \frac{P_t - P_{t-1}}{P_{t-1}} \quad (3)$$

$P_t$  = share price of firm  $i$  at time period  $t$

$P_{t-1}$  = share price of firm  $i$  at time period  $t - 1$

**Research Findings**

The below two tables are used to present the findings of the study. Table 1 shows regression analysis results in

the exposure of individual exchange rates namely USD/LKR, GBP/LKR and EUR/LKR on firms measured in terms of stock return.

**Table 1: Firm exposure to exchange rate**

Firm	USD/LKR <sup>a</sup>	GBP/LKR <sup>a</sup>	EUR/LKR <sup>a</sup>	ASPT <sup>a</sup>	R <sup>2</sup>	Model <sup>a</sup>
EXPO	0.077	0.789	0.869	0.000*	0.820	0.000
VONE	0.926	0.884	0.528	0.000*	0.895	0.000
SHL	0.839	0.207	0.903	0.000*	0.916	0.000
CARS	0.837	0.548	0.762	0.238	0.327	0.710
JKH	0.139	0.472	0.646	0.000*	0.787	0.001
RICH	0.070	0.606	0.230	0.000*	0.845	0.000
SPEN	0.470	0.350	0.023*	0.000*	0.844	0.000
SUN	0.052	0.357	0.407	0.004*	0.713	0.009
CFLB	0.249	0.645	0.291	0.000*	0.808	0.001
FLCH	0.014*	0.465	0.151	0.000*	0.839	0.001
HHL	0.357	0.538	0.649	0.000*	0.867	0.000
HAYL	0.148	0.653	0.166	0.003*	0.680	0.019
CSEC	0.129	0.960	0.351	0.000*	0.801	0.001

Note: <sup>a</sup> Probability values of t- test and \* specifies the significance at 5% level.

According to the above table GBP is not significant for companies in diversified sector which implies that GBP is not a leading currency in determining the foreign exchange risk. Out of 13 companies only one

has been significance for other currencies of the analysis; USD and EUR. Conversely 92% of the firms show the significance on model given by equation (1).

**Table 2: Firm exposure to NEER**

Firm	NEER <sup>a</sup>	Model <sup>a</sup>
EXPO	0.072	0.000
VONE	0.643	0.000
SHL	0.011*	0.000
CARS	0.827	0.406
JKH	0.014*	0.000
RICH	0.854	0.000
SPEN	0.950	0.000
SUN	0.662	0.008
CFLB	0.797	0.000
FLCH	0.303	0.000
HHL	0.208	0.000
HAYL	0.253	0.021
CSEC	0.213	0.000

Note: <sup>a</sup> Probability values of t- test and \* specifies the significance at 5% level.

Table 2 explicit the results of regression analysis of stock return and return of NEER. Majority of the firms are not significantly dominated by the trade weighted exchange rate.

The findings of the research concludes that in Sri Lankan context the firms in diversified sector has not much exposure towards changes in exchange rates. The other factors which effect on stock return and intra-currency relationship might be the reasons for this results and those are suggested for further researches.

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