The stock market indices are perceived to be the barometers of the country’s capital markets and they are also used as a tool to understand the market movements. The volatility in the stock markets depends upon several factors such as new information arrival, macro-economic variables, global financial indicators, etc. The exchange rate fluctuations influences the stock markets. Understanding and predicting the exchange rate fluctuations helps us in predicting the movements of the stock markets and assist investors to make wise investment decisions. The study examines the exchange rate dynamics of Indian Rupees against US Dollars and its impact on the stock market index. The exchange rates and the Nifty 50 index values over period of 3 year ranging from October 2015 to September 2018 has been analysed. The INR against USD breached above Rs. 70 per USD in August, 2018 and currently at Rs. 72 per USD. The exchange rates of other countries also depreciated against USD. The study also examines the exchange rate dynamics of CNY, JPY and INR against USD since April, 2018.