

Effect of Pre and Post FED Rate Hike on Select Global Currencies

Ch. Chaitanya

TMSS College of Management, Affiliated to Osmania University. Plot No. 97,
Narsimharao Nagar, Vanasthalipuram, Hyderabad, Telangana. 500070
E-mail: mail2chaitanyapalyam@gmail.com

Abstract—The explosion of U.S. debt to its peak levels during the recent years seem to be threatened the Government with political and economic instability. Therefore to boost the U.S. economy, the Federal Reserve has maintained interest rates near zero. In the run up to the Fed's decision, analysts believed higher US rates could pose a challenge to a number of emerging market economies - particularly across Asia, a top exporter to the US - by pushing up bond yields, augmenting capital outflows and depreciating currencies. The present paper focuses on the influence of pre and post FED rate hike decision on Select Global Currencies for a period of 7 to 8 months by dividing them to pre and post decision. The analysis is done by using Descriptive Statistics and Correlation tools.

1. INTRODUCTION

In recent years of Crisis, U.S. debt has exploded to its peak levels by threatening the Government with political and economic instability. Therefore to boost the U.S. economy, the Federal Reserve has maintained interest rates near zero. After almost a decade, Fed has decided to increase the Interest Rate because of the reasons like the number of Americans claiming for unemployment benefits reduced during the last six months indicating the strong labor market conditions and prevailing low inflation. The rise of interest rates in a country often increases inflation that tends to decrease the value of a currency. If a country can manage to achieve a successful balance of increased interest rates without an accompanying increase in inflation, then the value and exchange rate for its currency is more likely to rise. All other factors being equal, higher interest rates in a country increase the value of that country's currency relative to nations offering lower interest rates. Although interest rates can be a major factor influencing currency value and exchange rates, the final determination of a currency's exchange rate with other currencies is the result of a number of interrelated elements that reflect and impact the overall financial condition of a country in respect to that of other nations. In the run up to the Fed's decision, analysts believed higher US rates could pose a challenge to a number of emerging market economies - particularly across Asia, a top exporter to the US - by pushing up bond yields, augmenting capital outflows and depreciating currencies. The present

paper focuses on the influence of pre and post FED rate hike decision on Select Global Currencies.

2. OBJECTIVE OF THE STUDY

The basic and prime objective of the study is to know the effect of pre and post FED rate hike decision on Global currencies.

3. SCOPE OF THE STUDY

This research covers about 17 randomly selected currencies from across the globe and their value against US Dollar.

Table 1: List of Sample Currencies from across the Globe

| Currency Quote | Currency Name | Currency Quote | Currency Name |
|----------------|-------------------|----------------|------------------|
| CAD | Canadian Dollar | MMK | Myanmar Kyat |
| JPY | Japanese Yen | THB | Thai Bhat |
| SGD | Singapore Dollar | HKD | Hong Kong Dollar |
| INR | Indian Rupee | CNY | Chinese Yuan |
| MYR | Malaysian Ringgit | GBP | British Pound |
| CHF | Swiss Franc | EUR | Euro |
| SEK | Swedish Krona | RUB | Russian Ruble |
| MXN | Mexican Peso | ARS | Argentine Peso |
| BRL | Brazilian Real | | |

The above table shows the sample currency names along the quotes with which they are made available in the market for currency transactions. The sample was randomly selected to cover almost the Globe.

Table 2 Showing the change in exchange rate movements against dollar during pre FED rate hike.

| Date | CAD Price | MMK Price | JPY Price | THB Price | SGD Price | HKD Price | INR Price | CNY Price | MYR Price | GBP Price | CHF Price | EUR Price | SEK Price | RUB Price | ARS Price | BRL Price | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------|
| 28-Aug-15 | -0.31% | -0.39% | 0.87% | 0.23% | 0.09% | 0.01% | -0.42% | -0.03% | 0.83% | 1.49% | 1.60% | 1.80% | 1.49% | -0.33% | -1.18% | 0.06% | -0.59% |
| 27-Aug-15 | -0.71% | -0.55% | 0.93% | 0.06% | -0.55% | -0.09% | -0.05% | -0.09% | -0.41% | 0.37% | 1.24% | 0.61% | -0.33% | -0.02% | -0.75% | 0.07% | -1.26% |
| 26-Aug-15 | 0.02% | -0.55% | 0.57% | 0.06% | 0.71% | 0.00% | 0.28% | -0.25% | -0.87% | 0.05% | 0.37% | 0.60% | -0.10% | -0.40% | -0.74% | 0.02% | 0.88% |
| 31-Aug-15 | -0.48% | 0.45% | -0.41% | -0.04% | 0.19% | 0.00% | 0.40% | -0.19% | -0.14% | 0.34% | 0.47% | 0.31% | 0.15% | -1.44% | 0.00% | 0.08% | 1.03% |
| 1-Sep-15 | 0.94% | 0.08% | -1.52% | -0.25% | 0.07% | 0.00% | -0.34% | -0.19% | -0.54% | 0.25% | 0.99% | -0.89% | -0.12% | -0.90% | 1.30% | 0.15% | 2.28% |
| 2-Sep-15 | 0.05% | 0.24% | 0.80% | 0.06% | 0.18% | 0.00% | -0.27% | -0.14% | 1.07% | 0.02% | 1.07% | 0.78% | 0.16% | 3.59% | -0.84% | -0.04% | 1.54% |
| 3-Sep-15 | -0.68% | 0.12% | -0.21% | 0.20% | 0.08% | 0.00% | 0.15% | 0.00% | 0.69% | 0.29% | 0.49% | 0.93% | -0.29% | 1.24% | -0.14% | 0.10% | -0.56% |
| 4-Sep-15 | 0.82% | -0.18% | -0.90% | 0.39% | 0.58% | 0.00% | 0.89% | 0.00% | 0.44% | 0.56% | -0.14% | -0.21% | 0.29% | -0.77% | 0.07% | 0.18% | 2.84% |
| 7-Sep-15 | 0.17% | 0.08% | 0.24% | 0.39% | 0.23% | 0.00% | 0.30% | 0.16% | 1.68% | -0.64% | 0.34% | -0.19% | 0.14% | 3.04% | 0.25% | -0.28% | -0.15% |
| 8-Sep-15 | -0.74% | 0.20% | 0.44% | -0.26% | -0.70% | 0.01% | -1.88% | 0.02% | 0.28% | -0.82% | 0.34% | -0.28% | -0.49% | 0.93% | -0.88% | 0.24% | -0.49% |
| 9-Sep-15 | 0.37% | 0.23% | 0.58% | 0.51% | -0.08% | 0.01% | 0.49% | 0.17% | -0.36% | 0.22% | 0.38% | -0.06% | -0.08% | -1.58% | -0.01% | 0.11% | -1.09% |
| 10-Sep-15 | -0.02% | 0.04% | 0.08% | -0.44% | -0.23% | -0.02% | -0.48% | -0.01% | 0.36% | -0.54% | -0.15% | -0.66% | -0.40% | 0.65% | -0.28% | 0.17% | 1.89% |
| 11-Sep-15 | 0.06% | 0.08% | -0.02% | -0.03% | -0.08% | 0.00% | -0.09% | -0.03% | -0.56% | 0.11% | -0.45% | -0.52% | -1.13% | -1.20% | 0.37% | 0.08% | 0.54% |
| 14-Sep-15 | 0.01% | 0.16% | -0.29% | 0.00% | -0.39% | 0.00% | 0.03% | -0.11% | 0.17% | 0.02% | 0.04% | 0.16% | 0.23% | 0.72% | -0.50% | 0.08% | -1.43% |
| 15-Sep-15 | -0.11% | 0.00% | 0.17% | -0.28% | -0.36% | 0.00% | 0.28% | 0.00% | -0.03% | 0.56% | 0.52% | 0.48% | 0.68% | -0.20% | -0.38% | 0.15% | 1.27% |
| 16-Sep-15 | -0.57% | -0.04% | 0.10% | -0.19% | -0.36% | 0.00% | -0.34% | 0.01% | -0.58% | -0.98% | -0.24% | -0.19% | -0.70% | -1.28% | -0.93% | 0.06% | -0.89% |
| 17-Sep-15 | 0.08% | 0.45% | -0.46% | -0.28% | 0.11% | 0.00% | -0.22% | -0.08% | -0.70% | -0.62% | -1.18% | -1.29% | -1.04% | -1.92% | 0.29% | 0.02% | 1.83% |
| 18-Sep-15 | 0.33% | -0.00% | 0.00% | -0.31% | 0.11% | 0.00% | -0.31% | -0.01% | -0.10% | 0.39% | 0.89% | 1.16% | 0.95% | -0.14% | 0.32% | 0.09% | 1.20% |
| 22-Sep-15 | 0.22% | -0.10% | -0.40% | 0.50% | 0.69% | 0.00% | -0.27% | 0.00% | 1.58% | -0.16% | 0.35% | 1.04% | 1.48% | 1.53% | 0.06% | 0.17% | 1.01% |
| 23-Sep-15 | 0.11% | -0.12% | -0.32% | 0.67% | 0.50% | 0.00% | 0.32% | 0.11% | 0.64% | 0.51% | 0.24% | 0.62% | 0.39% | -0.50% | 1.36% | 0.11% | 1.61% |
| 24-Sep-15 | 0.38% | 0.04% | 0.12% | 0.44% | 0.66% | 0.00% | 0.42% | 0.12% | 1.18% | 0.78% | 0.47% | 0.80% | 0.40% | -0.08% | 1.34% | 0.53% | 3.17% |
| 26-Sep-15 | -0.41% | -0.23% | -0.18% | 0.06% | -0.28% | 0.01% | -0.11% | -0.01% | 1.10% | 0.05% | -0.47% | -0.39% | -0.59% | 0.83% | -1.43% | 0.03% | -5.77% |
| 28-Sep-15 | 0.27% | -0.19% | 0.42% | 0.22% | 0.24% | 0.00% | 0.09% | -0.14% | -0.16% | 0.37% | 0.35% | 0.31% | 0.29% | -0.68% | 0.61% | 0.15% | 1.04% |
| 29-Sep-15 | 0.46% | 0.08% | -0.53% | 0.31% | 0.21% | 0.00% | 0.15% | -0.08% | 0.91% | 0.08% | -0.48% | -0.46% | 0.63% | -0.90% | 0.60% | 0.04% | 3.28% |
| 30-Sep-15 | 0.16% | 0.23% | -0.19% | 0.17% | -0.01% | 0.00% | 0.65% | 0.08% | 0.71% | 0.14% | 0.24% | -0.02% | -0.89% | -1.12% | -0.28% | 0.08% | -1.09% |
| 1-Oct-15 | -0.79% | 0.04% | 0.11% | -0.14% | -0.39% | 0.00% | -0.49% | 0.10% | -1.38% | 0.15% | 0.17% | 0.64% | -0.21% | -0.02% | -0.62% | 0.02% | -2.81% |
| 1-Oct-15 | -0.53% | -0.16% | 0.07% | 0.36% | 0.58% | 0.00% | 0.17% | -0.02% | 0.23% | -0.02% | 0.40% | -0.18% | 0.08% | -1.35% | 0.01% | 0.02% | 1.54% |
| 2-Oct-15 | -0.90% | 0.16% | -0.03% | -0.22% | 0.13% | -0.01% | -0.41% | 0.00% | 0.15% | -0.35% | -0.61% | -0.11% | -0.20% | 0.31% | -0.95% | 0.15% | -1.92% |
| 5-Oct-15 | -0.47% | -0.08% | 0.40% | -0.44% | -0.84% | 0.00% | -0.35% | 0.00% | -0.71% | 0.26% | 0.42% | -0.22% | -0.26% | 0.89% | 0.02% | 0.01% | -0.54% |
| 6-Oct-15 | -0.40% | 0.04% | -0.17% | -0.07% | -0.13% | 0.00% | -0.01% | 0.00% | -0.18% | -0.55% | -0.85% | -0.77% | -1.22% | -0.46% | -0.86% | 0.11% | -1.49% |
| 7-Oct-15 | 0.17% | -0.12% | -0.19% | -0.95% | -0.45% | 0.00% | -0.34% | 0.00% | -3.53% | -0.59% | 0.64% | 0.33% | 0.13% | -1.86% | 0.00% | 0.00% | 0.78% |
| 8-Oct-15 | -0.31% | 0.16% | -0.07% | -0.31% | -0.55% | 0.00% | 0.14% | -0.04% | 0.37% | -0.20% | 0.71% | -0.39% | -0.01% | -2.26% | -1.15% | -0.48% | -2.57% |
| 9-Oct-15 | -0.57% | 0.04% | 0.28% | -0.67% | -0.60% | 0.00% | -0.60% | -0.13% | -2.52% | 0.29% | 0.50% | 0.70% | -0.61% | -0.73% | -0.17% | 0.00% | 0.47% |
| 10-Oct-15 | 0.41% | -0.19% | -0.21% | -0.53% | 0.24% | 0.00% | 0.02% | -0.36% | 0.01% | -0.28% | 0.07% | 0.38% | -0.18% | 0.67% | 0.17% | -0.53% | -0.66% |
| 13-Oct-15 | 0.33% | -0.12% | -0.22% | 0.85% | 0.24% | 0.00% | 0.47% | 0.31% | 0.99% | 0.68% | -0.44% | -0.23% | -0.50% | -0.23% | 1.19% | 0.32% | 3.45% |
| 14-Oct-15 | -0.79% | 0.39% | -0.77% | -0.90% | -1.70% | -0.00% | -1.10% | -0.58% | -0.60% | -1.52% | -0.92% | -0.81% | -0.36% | 2.30% | -1.10% | -0.10% | -2.10% |
| 15-Oct-15 | -0.55% | -0.31% | 0.05% | -0.42% | -0.07% | 0.00% | 0.07% | -0.02% | -0.82% | 0.14% | 0.19% | 0.79% | 1.54% | -0.60% | -0.51% | 0.22% | -0.23% |
| 16-Oct-15 | 0.36% | -0.13% | 0.45% | 0.24% | 0.45% | 0.00% | 0.12% | 0.00% | 1.27% | 0.14% | 0.27% | 0.32% | 0.13% | -0.01% | 0.02% | 0.20% | 3.19% |
| 19-Oct-15 | 0.84% | -0.27% | 0.05% | 0.47% | 0.53% | 0.00% | 0.33% | 0.12% | 0.83% | -0.17% | 0.34% | 0.20% | 0.89% | -0.47% | 0.38% | -0.11% | -0.99% |
| 20-Oct-15 | -0.31% | -0.08% | 0.28% | -0.31% | 0.15% | 0.00% | -0.18% | 0.18% | 1.31% | 0.12% | 0.06% | -0.22% | 0.19% | 2.16% | 0.45% | -0.28% | 0.56% |
| 21-Oct-15 | 1.24% | 0.00% | 0.09% | 0.71% | 0.29% | 0.01% | 0.19% | 0.01% | 0.36% | 0.14% | 0.38% | 0.08% | 0.31% | -0.78% | 0.56% | 0.48% | 0.87% |
| 22-Oct-15 | -0.38% | -0.04% | 0.62% | -0.25% | -0.02% | -0.01% | 0.44% | 0.14% | 0.11% | 0.17% | 1.41% | 2.09% | 1.45% | -0.88% | -1.07% | 0.02% | -0.83% |
| 23-Oct-15 | 0.57% | 0.00% | 0.63% | -0.88% | 0.25% | 0.00% | 0.05% | -0.14% | -1.31% | 0.52% | 0.50% | 0.83% | 0.06% | -0.25% | 0.70% | 0.02% | -0.72% |
| 26-Oct-15 | -0.08% | -0.12% | -0.31% | -0.20% | -0.39% | 0.00% | 0.04% | 0.09% | -0.08% | -0.25% | 0.59% | -0.35% | 0.07% | -0.29% | -0.37% | 0.10% | 0.65% |
| 27-Oct-15 | 0.87% | -0.04% | -0.52% | 0.02% | 0.34% | 0.00% | 0.29% | 0.00% | 0.93% | 0.17% | 0.23% | 0.08% | -0.88% | 1.33% | 0.06% | -0.11% | -0.45% |
| 28-Oct-15 | -0.57% | 0.02% | 0.52% | 0.41% | 0.39% | 0.00% | -0.24% | 0.10% | 0.13% | 0.21% | 0.79% | 1.17% | 0.54% | 3.84% | 0.58% | 0.13% | 1.54% |
| 29-Oct-15 | -0.15% | -0.24% | 0.00% | 0.00% | 0.09% | 0.00% | 0.79% | -0.04% | 0.63% | -0.31% | 0.43% | -0.50% | -0.13% | -2.22% | -0.04% | -0.11% | -1.50% |
| 30-Oct-15 | -0.71% | 0.20% | -0.42% | -0.17% | -0.21% | 0.01% | -0.04% | -0.61% | -0.02% | -0.77% | -0.14% | -0.27% | 0.04% | 0.60% | -0.80% | 0.00% | 0.14% |
| 2-Nov-15 | 0.13% | 0.04% | 0.11% | -0.08% | -0.22% | -0.01% | 0.71% | 0.33% | 0.14% | -0.88% | -0.11% | -0.11% | -0.06% | -0.50% | -0.35% | 0.13% | -0.51% |
| 3-Nov-15 | -0.27% | -0.08% | 0.26% | 0.00% | -0.08% | 0.00% | 0.01% | -0.02% | -0.38% | -0.05% | 0.43% | 0.45% | 0.03% | -0.60% | -0.27% | 0.09% | -2.06% |
| 4-Nov-15 | 0.75% | -0.04% | 0.14% | -0.11% | 0.53% | 0.01% | 0.06% | 0.00% | -0.47% | 0.23% | 0.18% | 0.94% | 1.11% | -1.70% | 0.86% | -0.10% | 0.77% |
| 5-Nov-15 | 0.15% | 0.31% | 0.16% | 0.10% | 0.26% | 0.00% | 0.38% | 0.16% | 0.68% | 1.18% | 0.23% | -0.17% | -0.01% | 0.98% | 0.39% | 0.21% | -0.50% |
| 6-Nov-15 | 1.06% | 0.39% | 1.16% | 0.75% | 1.01% | 0.00% | 0.43% | 0.11% | 0.40% | 1.05% | 1.18% | 1.35% | 1.09% | 1.91% | 1.18% | -1.52% | -0.26% |
| 9-Nov-15 | -0.17% | 0.16% | 0.02% | 0.22% | 0.13% | 0.02% | 0.51% | 0.14% | 1.41% | -0.44% | -0.39% | -0.09% | -0.40% | 1.60% | -0.16% | 1.80% | 0.73% |
| 10-Nov-15 | -0.07% | -0.01% | -0.04% | -0.06% | -0.07% | 0.00% | 0.41% | 0.00% | -0.13% | -0.02% | 0.31% | 0.24% | 0.01% | 0.47% | -0.11% | 0.55% | -1.26% |
| 11-Nov-15 | -0.11% | 0.16% | -0.24% | -0.15% | -0.15% | -0.02% | -0.20% | 0.09% | 1.14% | -0.63% | -0.12% | -0.19% | -0.07% | -0.29% | -0.15% | -0.04% | 0.34% |
| 13-Nov-15 | 0.23% | -0.39% | -0.19% | 0.00% | -0.08% | 0.00% | 0.02% | 0.09% | 0.09% | -0.12% | -0.47% | -0.68% | -0.57% | 1.99% | 0.00% | 0.20% | 0.19% |
| 15-Nov-15 | 0.23% | 0.27% | 0.02% | 0.08% | 0.38% | 0.01% | 0.01% | 0.07% | 0.21% | 0.02% | 0.65% | 0.39% | 0.73% | 2.01% | -0.31% | 0.08% | 1.98% |
| 16-Nov-15 | 0.66% | 0.00% | 0.43% | 0.19% | 0.11% | 0.00% | -0.26% | -0.04% | 0.24% | 0.24% | 0.25% | 0.86% | 0.38% | 0.32% | 0.51% | 0.18% | 0.68% |
| 17-Nov-15 | -0.09% | -0.18% | 0.23% | 0.66% | 0.11% | -0.01% | 0.14% | 0.12% | 0.26% | -0.11% | 0.50% | 0.41% | 0.31% | -2.31% | -0.28% | 0.16% | -0.23% |
| 18-Nov-15 | -0.15% | 0.66% | 0.15% | -0.03% | -0.20% | 0.00% | 0.08% | 0.01% | -0.15% | -0.15% | 0.56% | -0.14% | -0.33% | -0.33% | 0.09% | -0.09% | -1.15% |
| 19-Nov-15 | -0.13% | -0.12% | -0.63% | -0.61% | -0.58% | 0.00% | 0.09% | -0.03% | -1.03% | -0.34% | -0.70% | -0.70% | -0.65% | -0.39% | -0.20% | 0.20% | -1.29% |
| 20-Nov-15 | 0.46% | 0.27% | -0.04% | -0.11% | 0.00% | 0.00% | -0.05% | 0.03% | -1.36% | 0.64% | 0.58% | 0.84% | 0.58% | -0.56% | -0.51% | -0.10% | -0.35% |
| 23-Nov-15 | 0.16% | 0.31% | -0.06% | 0.39% | 0.30% | 0.00% | 0.51% | 0.07% | 0.41% | 0.44% | 0.02% | 0.09% | -0.03% | -0.27% | 0.09% | 0.04% | 0.75% |
| 24-Nov-15 | -0.46% | 0.23% | -0.23% | -0.37% | -0.47% | 0.00% | -0.20% | 0.01% | -1.25% | 0.24% | -0.17% | -0.05% | -0.27% | 1.84% | -0.07% | 0.17% | -0.88% |
| 25-Nov-15 | -0.13% | 0.00% | 0.16% | -0.17% | -0.39% | 0.00% | 0.61% | -0.01% | -0.84% | -0.26% | 0.50% | 0.15% | 0.39% | -0.56% | -0.20% | -0.28% | 1.15% |
| 26-Nov-15 | 0.05% | 0.06% | -0.08% | 0.14% | 0.23% | 0.00% | 0.30% | 0.00% | 0.19% | 0.15% | 0.18% | 0.15% | 0.10% | 0.26% | 0.37% | 0.51% | 0.02% |
| 29-Nov-15 | 0.59% | -0.06% | 0.18% | 0.41% | 0.38% | 0.00% | 0.51% | 0.08% | 0.91% | 0.44% | 0.69% | 0.16% | 0.04% | 0.95% | 0.37% | 0.14% | 2.76% |
| 30-Nov-15 | -0.07% | 0.00% | 0.21% | -0.21% | -0.21% | 0.03% | -0.67% | 0.05% | -0.01% | -0.12% | -0.20% | 0.28% | -0.05% | 0.86% | -0.30% | -0.39% | 0.59% |
| 1-Dec-15 | -0.94% | 0.00% | -1.19% | -1.48% | -1.39% | 0.01% | 0.04% | 0.01% | -0.63% | -0.17% | -0.27% | -0.63% | -0.54% | -1.11% | -0.33% | 0.23% | -0.30% |
| 2-Dec-15 | -1.0% | -0.27% | 0.31% | 0.31% | 0.41% | -0.02% | 0.24% | 0.00% | 0.02% | 0.86% | 0.73% | 0.16% | 0.05% | 0.50% | 0.20% | -0.03% | -0.58% |
| 3-Dec-15 | 0.16% | -0.42% | 0.33% | 0.03% | -1.28% | 0.01% | 0 | | | | | | | | | | |

affected by devaluation of Yuan rather than USD and other basket currencies. The SD of RUB is more followed by BRL, MYR, EUR, CHF, GBP, SEK, MXN etc. Except CAD, RUB, MXN, ARS and BRL all other currencies are negatively skewed. HKD, CNY, EUR and ARS are showing leptokurtic movements indicating the abnormal returns because of their domestic reasons these currencies were almost beaten worst due to devaluation of Chinese Rinninbi (Yuan), whereas other currencies are showing platykurtic movements indicating the scattered movements away from mean.

Table 5: Descriptive Statistics of Currencies Post FED rate hike

| DS | CAD Price | MMK Price | JPY Price | THB Price | SGD Price | HKD Price | INR Price | CNY Price | MYR Price | GBP Price | CHF Price | EUR Price | SEK Price | RUB Price | MXN Price | ARS Price | BRL Price |
|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Mean | -0.00047 | -0.00099 | -0.001 | -0.00025 | -0.00035 | 8.22E-08 | -9.5804E-08 | 0.000114 | -0.00087 | 0.000867 | -0.00019 | -0.00028 | -0.00033 | -0.00038 | 0.000408 | 0.006137 | -0.0064 |
| Standard Deviation | 0.00723 | 0.00439 | 0.00633 | 0.00219 | 0.00445 | 0.000783 | 0.0037965 | 0.002447 | 0.007027 | 0.006075 | 0.005527 | 0.005482 | 0.005307 | 0.01615 | 0.000909 | 0.063149 | 0.012769 |
| Kurtosis | 0.23501 | 3.484815 | 0.733054 | 1.91384 | 0.553709 | 5.429018 | -0.23406487 | 8.651483 | 0.2938 | 0.525131 | 1.020635 | -1.089509 | 0.302068 | 0.581088 | 0.422657 | 61.93026 | 0.118654 |
| Skewness | -0.54855 | -1.48934 | 0.141381 | 0.967511 | -0.57329 | 1.111831 | -0.0275819 | -1.50826 | -0.50268 | -0.16269 | -0.52204 | -0.70108 | -0.34887 | -0.45428 | -0.39748 | 7.556895 | 0.117975 |

From the above table of Descriptive Statistics it is clearly evident that most of the select currencies are showing a negative price change against dollar except CNY, GBP, MXN and ARS which shows positive price change after the post FED decision of rate hike. The SD of ARS is more followed by RUB, BRL, MYR, EUR, CHF, GBP, SEK, MXN etc. Except JPY, THB, HKD, ARS and BRL all other currencies are negatively skewed. MMK, HKD, CNY, and ARS are showing leptokurtic movements indicating the abnormal returns, whereas other currencies are showing platykurtic movements indicating the scattered movements away from mean.

Table 6: Correlation Analysis of Currencies Pre FED rate hike

| Correlation | CAD Price | MMK Price | JPY Price | THB Price | SGD Price | HKD Price | INR Price | CNY Price | MYR Price | GBP Price | CHF Price | EUR Price | SEK Price | RUB Price | MXN Price | ARS Price | BRL Price |
|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| CAD Price | 1 | | | | | | | | | | | | | | | | |
| MMK Price | -0.0488 | 1 | | | | | | | | | | | | | | | |
| JPY Price | -0.11819 | -0.16562 | 1 | | | | | | | | | | | | | | |
| THB Price | 0.454664 | -0.0976 | 0.172052 | 1 | | | | | | | | | | | | | |
| SGD Price | 0.562031 | -0.10187 | 0.212708 | 0.679685 | 1 | | | | | | | | | | | | |
| HKD Price | 0.176554 | 0.188119 | -0.03387 | 0.102583 | 0.149857 | 1 | | | | | | | | | | | |
| INR Price | 0.472146 | -0.11655 | -0.16121 | 0.521199 | 0.459608 | 0.15929 | 1 | | | | | | | | | | |
| CNY Price | 0.242229 | 0.097356 | 0.057784 | 0.312612 | 0.101708 | -0.02232 | 0.179468 | 1 | | | | | | | | | |
| MYR Price | 0.197268 | -0.0657 | 0.027075 | 0.597964 | 0.402687 | 0.032025 | 0.288297 | 0.277883 | 1 | | | | | | | | |
| GBP Price | 0.297388 | -0.08634 | 0.403554 | 0.411198 | 0.522738 | -0.00717 | 0.249842 | 0.098724 | 0.111659 | 1 | | | | | | | |
| CHF Price | 0.023632 | 0.002305 | 0.621023 | 0.127822 | 0.327108 | 0.030939 | -0.12131 | 0.054613 | 0.081849 | 0.513155 | 1 | | | | | | |
| EUR Price | 0.015395 | -0.08093 | 0.640365 | 0.172724 | 0.397759 | 0.095102 | -0.19519 | 0.045765 | -0.02651 | 0.564943 | 0.836775 | 1 | | | | | |
| SEK Price | 0.200864 | -0.06067 | 0.442373 | 0.205947 | 0.445697 | 0.138678 | 0.03425 | 0.094768 | 0.066624 | 0.491312 | 0.718852 | 0.802895 | 1 | | | | |
| RUB Price | -0.138 | 0.281152 | 0.063975 | -0.00163 | -0.14118 | -0.0411 | -0.21172 | 0.113749 | 0.29398 | -0.05777 | 0.096884 | 0.037769 | -0.01539 | 1 | | | |
| MXN Price | 0.665669 | 0.001441 | -0.18126 | 0.480629 | 0.501384 | 0.055329 | 0.509501 | 0.234619 | 0.149677 | 0.275138 | -0.08599 | -0.11231 | 0.065411 | -0.00867 | 1 | | |
| ARS Price | -0.13383 | -0.09293 | -0.19926 | 0.028518 | -0.09712 | 0.114066 | 0.08519 | 0.184259 | 0.061435 | -0.10346 | -0.18245 | -0.16524 | -0.19003 | 0.013423 | -0.04242 | 1 | |
| BRL Price | 0.494228 | -0.009401 | -0.07359 | 0.313507 | 0.493871 | 0.063307 | 0.285971 | 0.098479 | 0.19788 | 0.238981 | 0.167995 | 0.054085 | 0.242461 | -0.09573 | 0.544024 | 0.154086 | 1 |

From the above correlation table it is clearly evident that the basket currencies are showing moderate to high correlation among themselves. CAD, THB, SGD, INR, MYR, BRL and MXN almost the emerging currencies are showing moderate to high positive correlation among themselves. The countries of Euro Zone are showing high correlation among themselves. Mostly the currency movements are showing varied relationship based on the currencies with which they are operating; it is also clearly depicted that despite of having other basket or reserve currencies most of the Forex trading is done with US dollar by most of the countries.

Table 7: Correlation Analysis of Currencies Post FED rate hike

| Correlation | CAD Price | MMK Price | JPY Price | THB Price | SGD Price | HKD Price | INR Price | CNY Price | MYR Price | GBP Price | CHF Price | EUR Price | SEK Price | RUB Price | MXN Price | ARS Price | BRL Price |
|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| CAD Price | 1 | | | | | | | | | | | | | | | | |
| MMK Price | -0.08179 | 1 | | | | | | | | | | | | | | | |
| JPY Price | -0.2118 | 0.21701 | 1 | | | | | | | | | | | | | | |
| THB Price | 0.425597 | 0.289013 | 0.084879 | 1 | | | | | | | | | | | | | |
| SGD Price | 0.613888 | 0.108513 | 0.12171 | 0.679206 | 1 | | | | | | | | | | | | |
| HKD Price | 0.286163 | 0.002737 | 0.036684 | 0.030946 | 0.142544 | 1 | | | | | | | | | | | |
| INR Price | 0.442138 | -0.03258 | -0.16357 | 0.267815 | 0.442599 | 0.192552 | 1 | | | | | | | | | | |
| CNY Price | 0.19957 | 0.213803 | -0.13332 | 0.267531 | 0.3767 | 0.006934 | 0.300211 | 1 | | | | | | | | | |
| MYR Price | 0.170199 | -0.00617 | -0.17555 | 0.368265 | 0.415307 | 0.070415 | 0.33883 | 0.463699 | 1 | | | | | | | | |
| GBP Price | 0.458989 | 0.131907 | 0.205105 | 0.350269 | 0.525999 | 0.101155 | 0.444511 | 0.219784 | 0.135264 | 1 | | | | | | | |
| CHF Price | 0.03042 | 0.227387 | 0.534607 | 0.2377 | 0.3717 | 0.009457 | -0.0458 | -0.11519 | 0.012718 | 0.364544 | 1 | | | | | | |
| EUR Price | 0.146288 | 0.165424 | 0.53462 | 0.266813 | 0.482841 | -0.00727 | -0.07158 | 0.048478 | 0.464799 | 0.877955 | 0.33129 | -0.21573 | -0.13799 | 0.094727 | 0.06109 | 1 | |
| SEK Price | 0.289091 | 0.11135 | 0.38919 | 0.403947 | 0.537744 | 0.074010 | 0.646481 | -0.04603 | 0.127048 | 0.438823 | 0.668608 | 0.784093 | 0.12653 | 0.029282 | 0.11663 | 0.029282 | 1 |
| RUB Price | 0.66604 | -0.02829 | -0.08214 | 0.265314 | 0.170743 | -0.02728 | 0.043907 | 0.236973 | 0.279387 | 0.058263 | 0.092302 | 0.012653 | -0.02923 | 0.012653 | 0.02923 | 0.012653 | 1 |
| MXN Price | 0.645111 | -0.14617 | -0.31169 | 0.282578 | 0.404226 | 0.224404 | 0.550358 | 0.236884 | 0.1894 | 0.33129 | -0.21573 | -0.13799 | 0.094727 | 0.06109 | 0.06109 | 0.06109 | 1 |
| ARS Price | 0.178308 | 0.023244 | 0.015637 | 0.280157 | 0.246349 | 0.064508 | -0.05743 | 0.081851 | -0.00657 | 0.098867 | 0.122871 | 0.139438 | 0.225158 | 0.038294 | 0.03374 | 0.03374 | 1 |
| BRL Price | 0.48387 | 0.138888 | -0.21911 | 0.334047 | 0.422534 | 0.045388 | 0.451428 | 0.288774 | 0.224685 | 0.347778 | 0.092108 | 0.157882 | 0.171334 | 0.087759 | 0.575259 | 0.004942 | 1 |

From the above correlation table it is clearly evident that the basket currencies are showing moderate to high correlation among themselves. The correlation between the currencies was declined after the FED rate hike decision as CAD, THB, SGD, INR, MYR, BRL and MXN etc., the emerging currencies are showing moderate positive correlation among themselves this is because of the high volatility of Forex markets because of FED rate hike decision. The currencies of Euro Zone are showing high correlation among themselves and the decision of FED rate hike in fact impacted these currencies more positively than adversely. Mostly the currency movements are showing varied relationship based on the currencies with which they are operating; it is also clearly depicted that most of the emerging economies and other countries Forex trading is done with US dollar whereas other basket currencies are confined to specific areas only.

4. FINDINGS AND CONCLUSION

From the study it is found that higher interest rates had strengthened USD that would be bad for any emerging economy, as that would trigger capital flows to move out of emerging markets and return investing them into higher yielding dollar-denominated assets. Partially it would be right but a nominal 25Bps may not show its impact immediately but further increase in interest rates would definitely affect the emerging and developed economies equally.

The velocity of the outflows would depend on the trajectory of FED interest rate hike decision; as of now the FED could not make any such decision but it is firm in increasing the rates twice in this year i.e., 2016. Despite the fact that capital inflows boosted lending and consumption in many emerging markets across the globe, with a reversal of these flows due to FED rate hike would affect the countries depended on these inflows adversely by way of hampering the economic growth.

Down the line with continuous increase in the rate hike the global economies would tumble and boost up another recession in the coming years as the global economy is growing at a pace of 2%. Further rate hikes by the Fed would edge the range of major economies in Asia (like South Korea, China, India etc.) that are struggling with low inflation/deflation and tumbling growth.

The currencies of commodity exporting countries have slumped significantly against the USD in the recent past because of devaluation of Yuan, slump in European countries followed by declining commodity prices. The move of FED rate hike would likely to raise the burden of debt service costs, in turn affecting the growth of countries that are enjoying low cost debt.

Fed rate hikes would boost the attention of Forex dealers towards the USD rather than other currencies, as increased FED rate would increase the demand for Dollar against other currencies. If this happens then most of the currencies would try to rely on other basket currencies which would pose the two way threat to emerging countries in such a way that one way the basket currencies are more volatile than dollar and other way the decrease in dollar demand would not only affect the US but also the countries maintaining high Forex reserves in dollars would also be affected worse. That could result in the basket currencies falling further against the USD during 2016, which would create competitive pressures for other East Asian economies, especially for exports into the US market.

The industry sectors in Asia and other emerging markets would be adversely affected by US FED rate hike that tighten the monetary policy by way of curtailing third party nations in utilizing cheap USD credit to fund investments. With this the exporters borrowing rates would increase marginally, but more prominently it would be tough to get new loans by potentially triggering debt defaults. Apart from this the foreign institutional investors who are dumping their investment into third party nations by cashing the high interest rate differentials now would pump their investment into their own nations; as the emerging countries would decrease the interest rates in order to sustain the other competitors by making them lack luster destinations for investment.

The dollar value would mostly be expected to appreciate when US interest rates start rising by FED. This fear of a stronger dollar value would be the real concern, creating panic among emerging economies and at International Monetary Fund as

most of the business houses and governments have taken on large dollar-denominated debts and currency devaluation threatens to spin out of control. Moreover, monetary policy is not the only determinant of exchange rates. Trade deficits and surpluses also matter, as do stock-market and property valuations, the cyclical outlook for corporate profits, and positive or negative surprises for economic growth and inflation. On most of these grounds, the dollar has been the world's most attractive currency since 2009; but as economic recovery spreads from the US to Japan and Europe, the tables are starting to turn.

Generally, higher interest rates increase the value of a given country's currency. The higher interest rates that can be earned tend to attract foreign investment, increasing the demand for and value of the home country's currency. Conversely, lower interest rates tend to be unattractive for foreign investment and decrease the currency's relative value. Interest rates alone do not determine the value of a currency. Two other factors that are often of greater importance are political and economic stability and the demand for a country's goods and services. Factors such as a country's balance of trade between imports and exports can be a much more crucial determining factor for currency value. Greater demand for a country's products means greater demand for the country's currency as well. Favorable gross domestic product (GDP) and balance of trade numbers are key figures that analysts and investors consider in assessing the desirability of owning a given currency.

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