

Question 5

Joshua Strydom^a

^aStellenbosch University, Stellenbosch, South Africa

1. Introduction

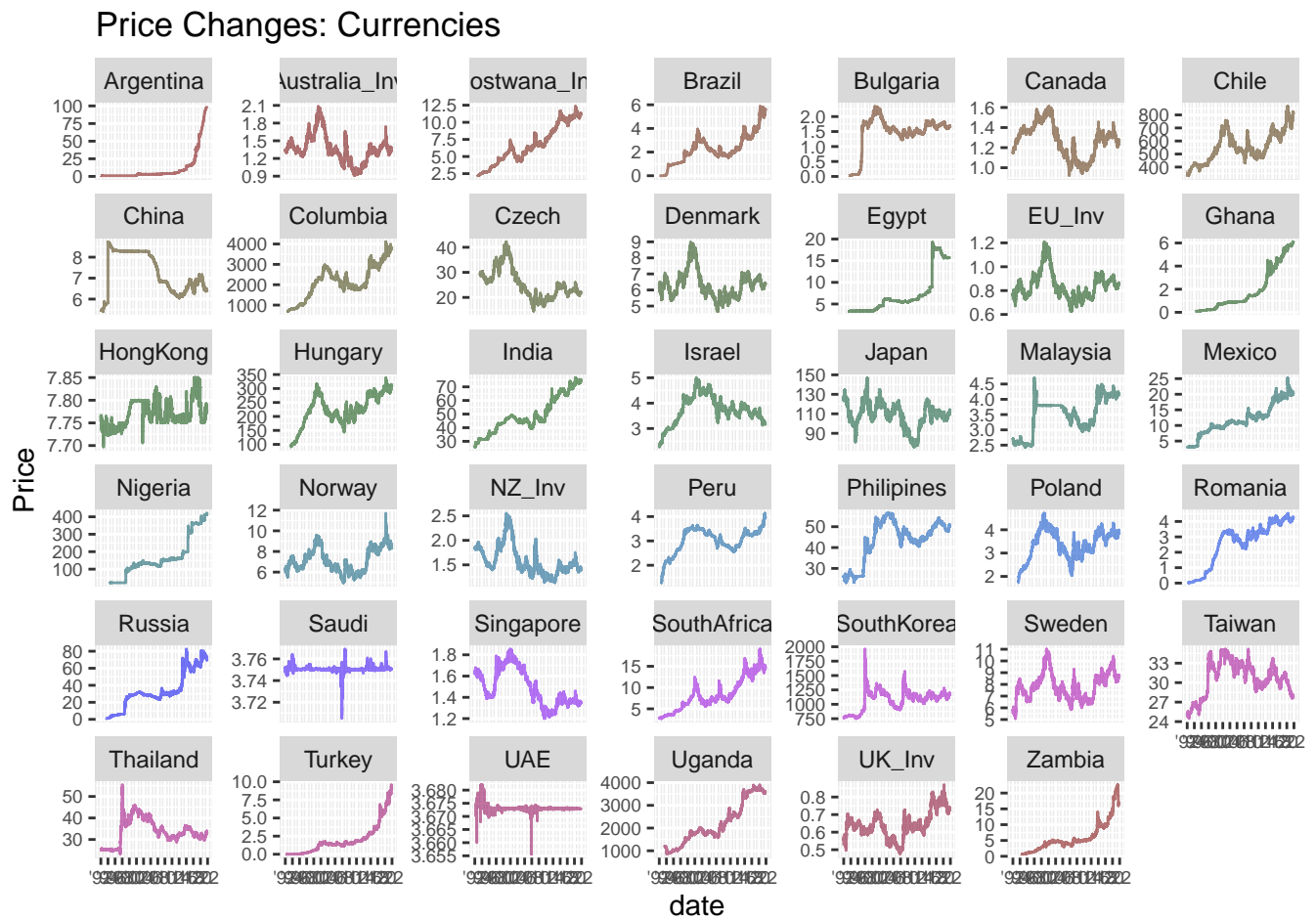


Figure 1.1: Caption Here

Email address: 20718284@sun.ac.za (Joshua Strydom)

Contributions:

The authors would like to thank no institution for money donated to this project. Thank you sincerely.

Figure 1.1 displays the price changes for the various currencies. South Africa, although not the most volatile, is relatively volatile to many currencies.

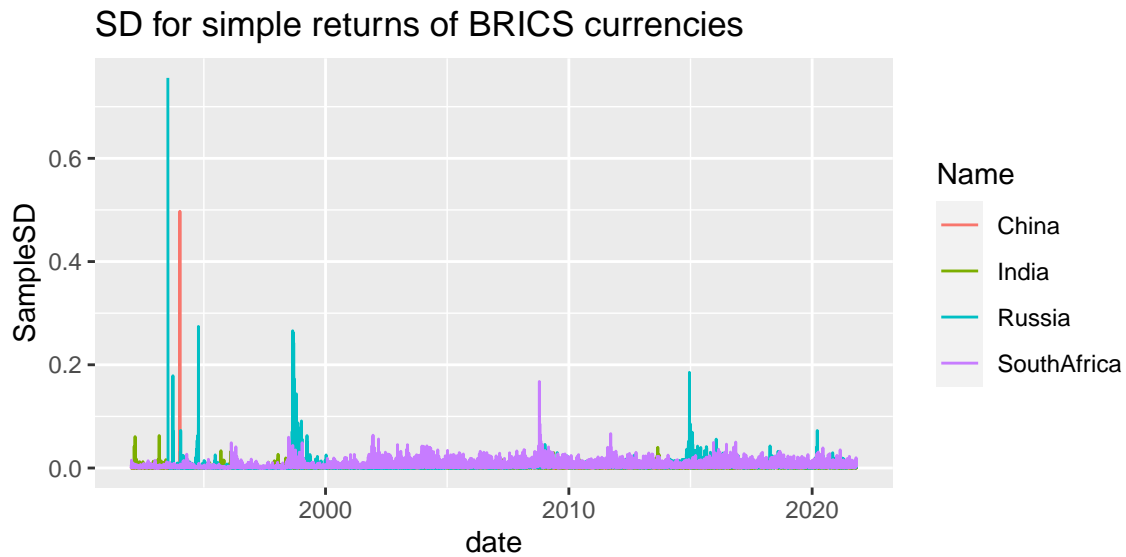


Figure 1.2: Caption Here

Figure 1.2 plots the standard deviation of simple returns and clearly shows that South Africa is not the most volatile currency in the BRICS.

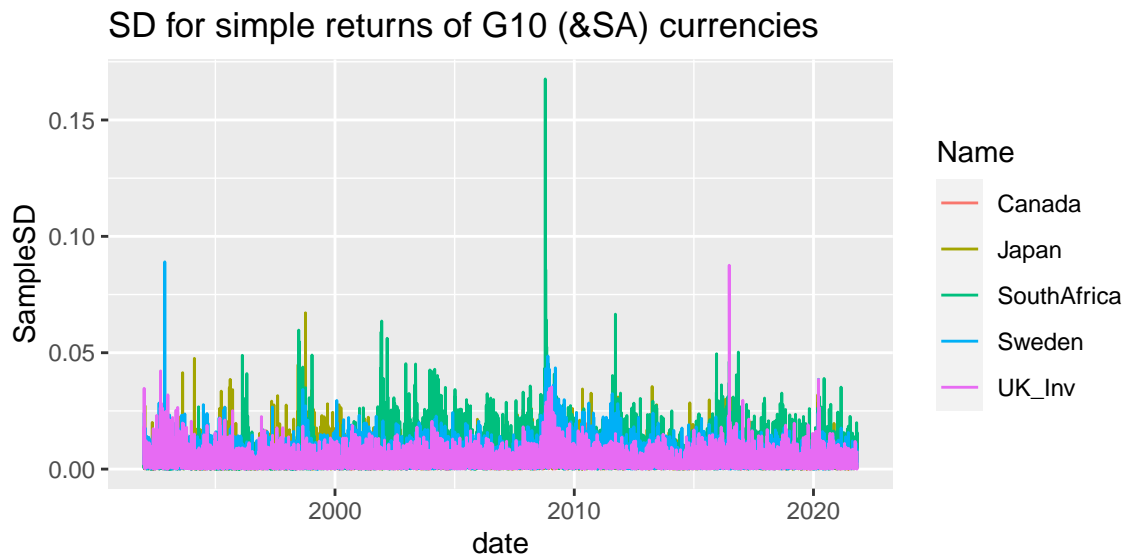


Figure 1.3: Caption Here

Figure 1.3, however, shows South Africa to be the more volatile currency when compared to G10 member countries in the sample.

2. Simple rolling standard deviation calculation for South Africa's currency volatility

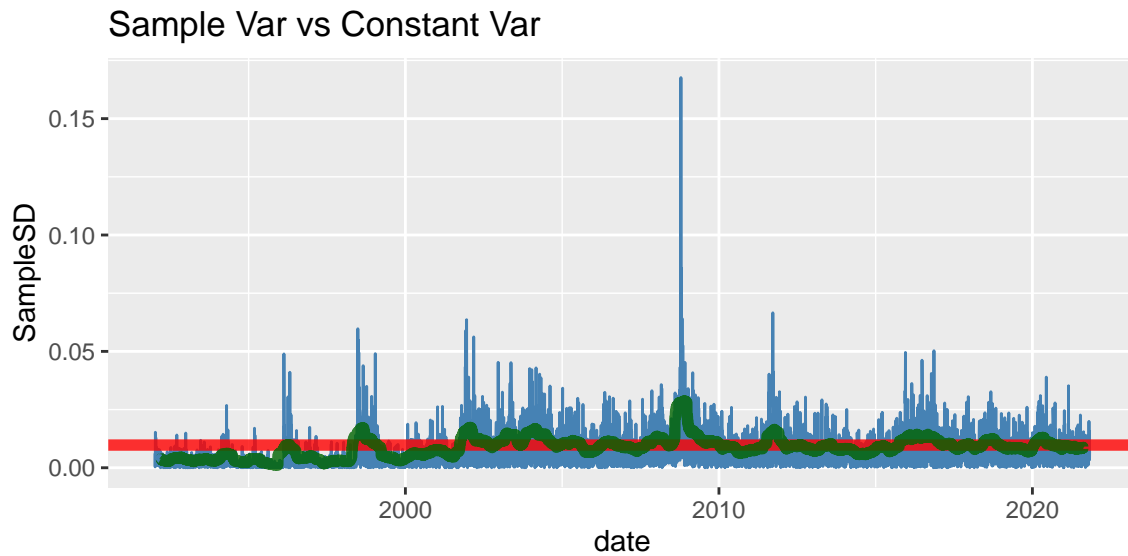


Figure 2.1: Caption Here

3. Currency carry trades

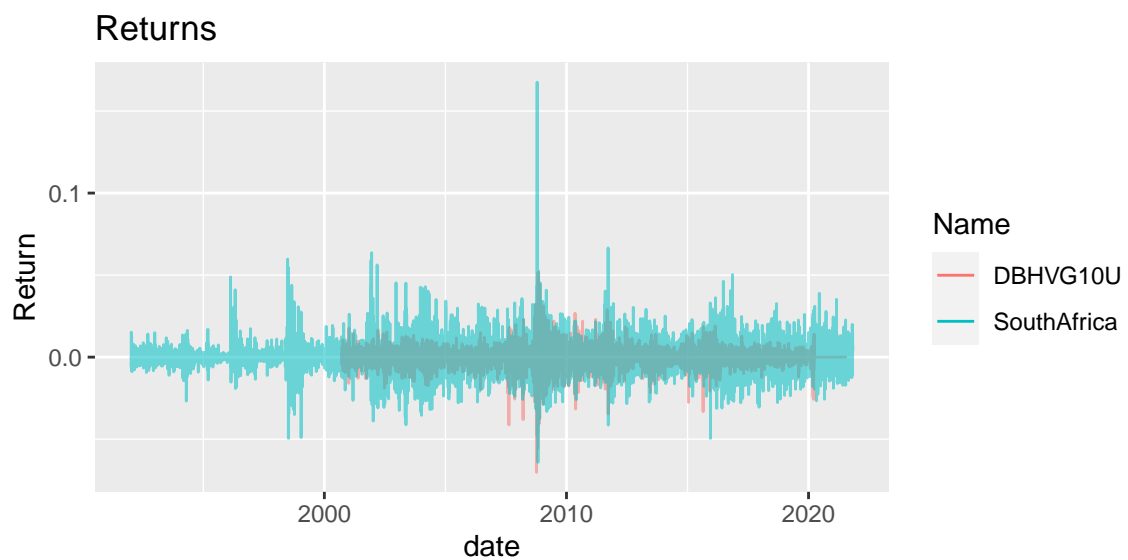


Figure 3.1: Caption Here

Figure 3.1 shows the simple return of both the South African currency and the carry currency. It can be noted that the Rand follows the currency carry and has performed well during periods where G10 currency carry trades have been favourable. Globally, it has been one of the currencies that most benefit during periods where the Dollar is comparatively strong.

4. Implied volatility

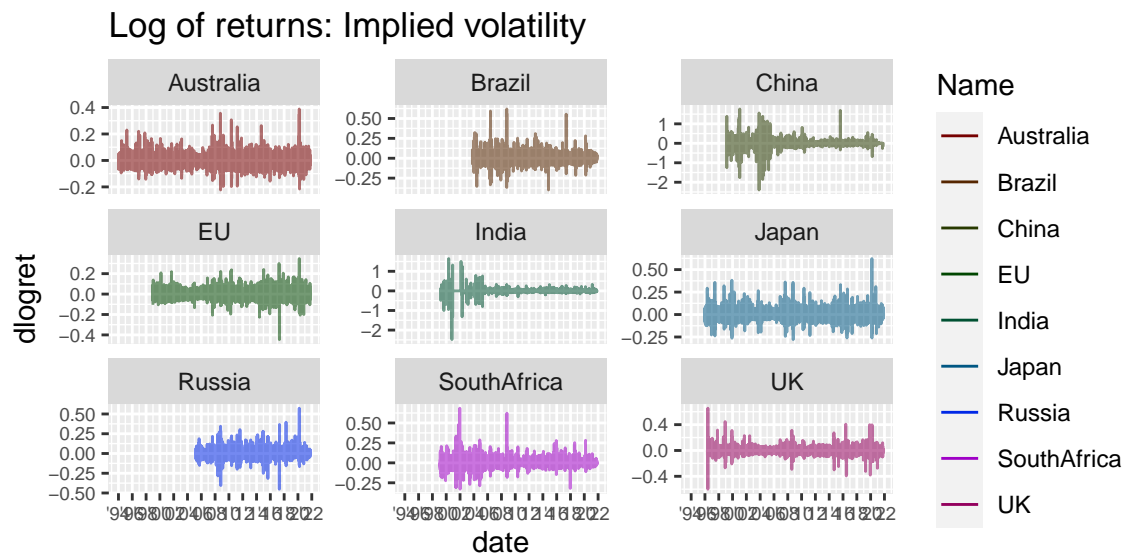


Figure 4.1: Caption Here

Figure 4.1 shows the log returns of implied volatility. The most volatile of the group are that of Brazil, China, India and South Africa.

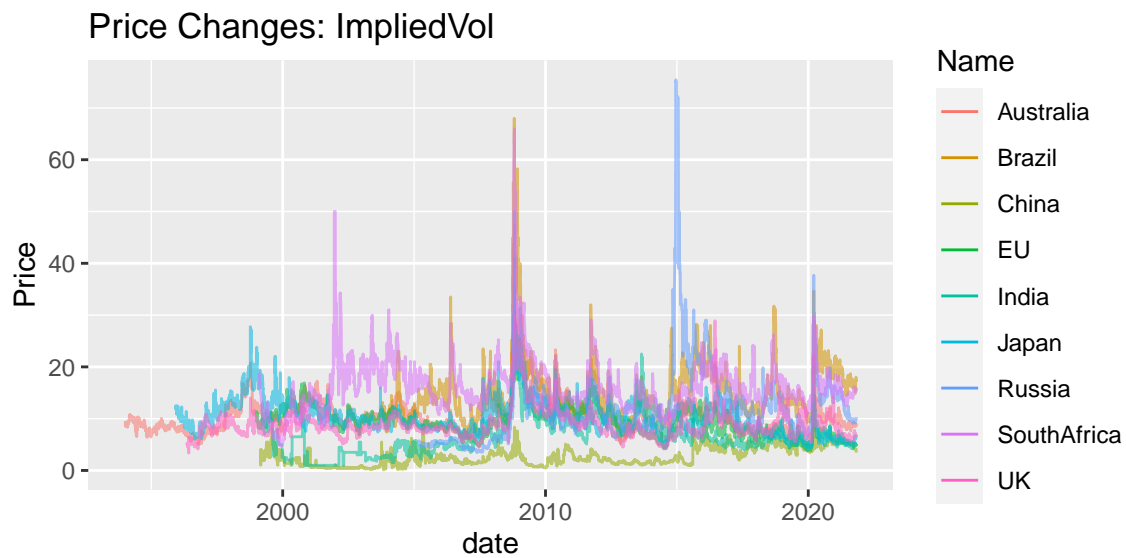


Figure 4.2: Caption Here

Figure 4.2 again shows South Africa to have a high relative implied volatility.

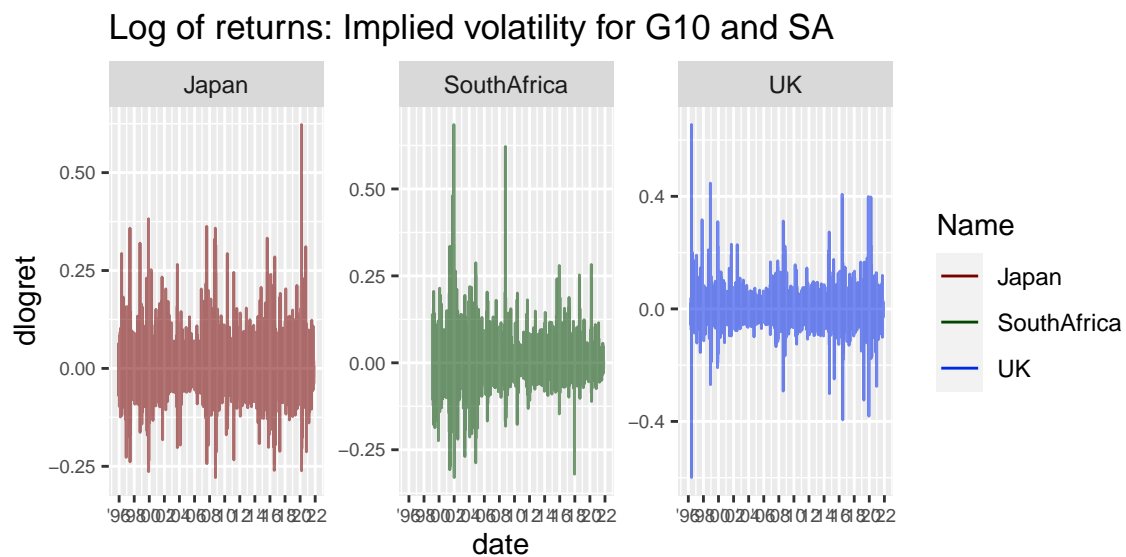


Figure 4.3: Caption Here

Figure 4.3 shows South Africa to have the highest implied volatility relative to the G10 member states in the data provided.

5. Conclusion

The South African rand (ZAR) has over the past few years been one of the most volatile currencies.