Tutorial Submission 3

1A) Direct price quotation - local currency per foreign unit – R10/$1.

Indirect price quotation - foreign currency per local unit – R1/$0.15c.

B) If the South African Rand appreciates by 50% the demand for South African exports:

According to the law of demand, the higher the exchange rate, the lower the quantity of South African rand demanded, if the South African Rand appreciates by 50% then South African goods and services become more expensive to foreign buyers because they now have to spend more of their own currency to purchase the same amount of goods from South Africa. A higher exchange rate makes South African goods expensive for foreigners, thereby decreasing demand for South African exports.

c) If the dollar appreciates by 20% the demand for imports by South Africans:

According to the law of supply, higher the exchange rate, the greater the quantity of South African rand supplied. A 20% appreciation of the US Dollar would lead to a decrease in demand for imports by South Africans from Q1 to Q2, as the increased cost of these goods in Rand terms would make them less affordable. When the U.S. dollar appreciates by 20% against the South African Rand, the relative price of goods imported from the U.S. in Rand terms increases. This means that South African importers now have to pay more Rand for the same amount of U.S. goods. When the dollar appreciates, the price of U.S. goods in Rand increases. This is represented by a movement up along the demand curve, leading to a higher price (P2) and a lower quantity of imports (Q2).

2) The exchange rate between the two countries between 2009 and 2011:

From 2009 to 2011 there was an appreciation in the rand against the Pula.

South Africa's GDP growth attracted international investors seeking higher returns. The exchange rate strengthened. The anticipation of rand appreciation led to increased demand for rand. The demand curve for rand shifted right (D1 to D2); supply curve shifted left (S1 to S2), raising the exchange rate. Investors believed South African assets would outperform Botswana’s assets.

B) Between 2011 and 2016 the rand depreciated against the pula. Increased demand for imports led to more rand being exchanged for foreign currencies. International financial crises created uncertainty, reducing demand for rand. Non-locals sold rand assets, increasing the supply of rand. The demand curve for rand shifted left (D1 to D2); supply curve shifted right (S1 to S2), lowering the exchange rate.

C) Botswana runs a managed float exchange rate system. Market forces, economic conditions and the monetary policy results in the chart looks like it does.

3) Interest rate differential the gap between South African rates and foreign rates influences investment flows.

Interest Rate Differential= 10% − 5% = 5%.

Before the Change: South Africa’s interest rate was 10%, and Britain’s was 5%, creating a 5% interest rate differential in favor of South Africa, and After the change the South African South Africa’s interest rate is reduced to 8%, while Britain’s rate remained 5%. The new interest rate differential is now 3%. Therefore, lower interest rates on South African assets results in South Africa becoming less attractive to investors seeking higher returns, as the relative advantage in interest rates has decreased. Due to a lower interest differential, the demand for rand decreases, as investors invest elsewhere.

C) Interest Rate Parity is the concept that the return on investments in different currencies should be equal when adjusted for exchange rate risk. The interest rate differential between South Africa and Britain is 3% (8% - 5%).

With a higher interest rate in South Africa compared to Britain, investors will expect the rand to weaken relative to the pound therefore, the pound will strengthen as investors move funds to Britain in search of better returns.

D) The Purchasing power parity (PPP) ensures money has the same value across different countries.

Implied Exchange Rate (PPP) = 60/5 = 12 ZAR per GBP.

To bring the exchange rate in line with PPP, the ZAR is expected to appreciate relative to the GBP. Therefore, the ZAR would need to strengthen to reflect the implied exchange rate. According to the purchasing power parity, the ZAR is expected to appreciate relative to the GBP to bring the exchange rate closer to the PPP implied rate of 12 ZAR per GBP.

4) The real exchange rate in terms of DVD players per case of wine:

Real exchange rate = 15 x 600 / 12000 = 0.75 DVD players per case of wine

B) New exchange rate after the appreciation of the rand:

New exchange rate = 18 x 600 / 12000 = 0.9 DVD players per case of wine.

C) if Japan’s exchange rate appreciates to 30 yen per rand, the RER is:

RER = 30 x 600 / 12000 = 1.5 DVD players per case of wine.

D) In the short run, the appreciation of the rand to 30 yen per rand increases the Real Exchange Rate (RER) from 0.75 to 1.5 DVD players per case of wine.

In the long run, the appreciation of the rand to 30 yen per rand would result in the nominal exchange rate and price levels adjusting together. The real exchange rate does not change when the nominal exchange rate changes. The real exchange rate would remain at 1.5 DVD players per case of wine.

5)

A) Current account balance: 867,021 + 67,174 + 162,183 + 64,441 = 1 160 819

Imports = 1,003,603 + (174,162) + (157,229) + (30,666) = 1 365 660

Current account balance = 1 160 819 – 1 365 660 = -204 841

B) South Africa is a net lender as it is lending more to the rest of the world than it borrows. The Net Lending to/Borrowing from Rest of World is positive (24 982)

C) Net investment inflows:

Net direct investment (inflow/outflow) + Net portfolio investment (inflow/outflow) + Net financial derivatives (inflow/outflow) + Net other investment (inflow/outflow):

= 15,942 + 107,191 + 7,478 + 53,663 = 184 274.

D) Unrecorded transactions help balance the discrepancy between the current account and the financial account

Current Account Balance + Financial Account Balance + Unrecorded Transactions

−204,841 + 179,616 + 24,982 = −204,841 + 204,598 = −243 million.

-243 million R indicates that the discrepancy in the data was minor and, with the unrecorded transactions included, it adjusts to balance the overall accounts.

Positive Unrecorded Transactions of 24,982 million R offset the negative discrepancy between the current and financial accounts, bringing the overall balance closer to zero.

E) If the South African rand experiences a depreciation in the short run, its current account balance would be affected because goods and services would be cheaper for foreign buyers but inversely more expensive for South Africans to buy imports as the rand would be weaker .Therefore , a depreciation of the South African rand typically leads to an improvement in the current account balance in the short run by increasing exports and decreasing imports.