TREASURY MANAGEMENT 2 SOLUTIONS

1. (a) USD/MWK = 420.5244 means that One US Dollar is equal to K420.5244 or I unit of a Dollar is equal to 420.5244 units of Malawi Kwacha.

**To type in solutions a,b,c**

(d) High interest rates reduce the appetite for borrowing by importers and therefore inhibit demand for Foreign Currency while low interest rates increase the demand for borrowing by importers and therefore spur the demand for foreign currency.

Increased demand for foreign currency leads to depreciation of the currency while reduced demand for foreign exchange results into appreciation of the currency.

RBM has tightened monetary policy over the past two years to arrest runaway depreciation of the local currency.

1. **(a) to type in solutions**

(b) The quantity theory of money states that there is a direct relationship between the quantity of money in an economy and the level of prices of goods and services sold. According to QTM, if the amount of money in an economy doubles, price levels also double, causing [inflation](http://www.investopedia.com/terms/i/inflation.asp) (the percentage rate at which the level of prices is rising in an economy). The consumer therefore pays twice as much for the same amount of the good or service.  
  
Another way to understand this theory is to recognize that too much money chasing few goods will lead to inflationary pressure.  
  
In its simplest form, the theory is expressed as:   
  
**MV = PT (the**[**Fisher Equation**](http://www.investopedia.com/terms/f/fishereffect.asp)**)**   
  
Each variable denotes the following:   
**M** = [Money Supply](http://www.investopedia.com/terms/m/moneysupply.asp)  
**V** = Velocity of Circulation (the number of times money changes hands)   
**P** = Average Price Level  
**T** = Volume of Transactions of Goods and Services  
  
It is built on the principle of "equation of exchange":

|  |
| --- |
| **Amount of Money x Velocity of Circulation = Total Spending** |

Thus if an economy has USK3, and those K3 were spent five times in a month, total spending for the month would be K15.  
  
QTM adds assumptions to the logic of the equation of exchange. In its most basic form, the theory assumes that **V** (velocity of circulation) and **T** (volume of transactions) are constant in the short term. These assumptions, however, have been criticized, particularly the assumption that V is constant.   
  
The theory also assumes that the quantity of money, which is determined by outside forces, is the main influence of economic activity in a society. A change in [money supply](http://www.investopedia.com/terms/m/moneysupply.asp) results in changes in price levels and/or a change in supply of goods and services. It is primarily these changes in money stock that cause a change in spending. And the velocity of circulation depends not on the amount of money available or on the current price level but on *changes* in price levels.  
  
Monetarists say that a rapid increase in money supply leads to a rapid increase in inflation. Money growth that surpasses the growth of economic output results in inflation as there is too much money behind too little production of goods and services. In order to curb inflation, money growth must fall below growth in economic output.

Thus if money growth in one country outstrips that of another country, all other things being equal, prices in the former country will grow faster. Through the theory of Purchasing Power Parity which assumes that currencies between countries will tend to equilibrium, inflationary pressure in the former country will lead to the currency of that country to depreciate much faster than that of the former.

1. (a) Increased Government borrowing creates pressure on the level of interest rates in the economy. Huge appetite for borrowing by the Government increases demand for public debt and therefore drives the level of interest rates to the roof. The Central Bank is even forced to increase the Bank rate in order to attract investment in Government securities.

(b) The liberalization of the Exchange Rate in May 2012 has led to the near convergence of the Black Market Exchange Rates and the Official Exchange Rates. By subjecting the determination of FX Rates to the forces of demand and supply, the authorities have let the natural price delivery mechanism to take its course and this has attracted FX supply from the informal sector to the formal sector. The attractive rates in the formal sector have attracted more supply into banks and Bureaus and those that were holding forex supply due to low official rates have more reason to release it into the economy now rather than before. The relative increased supply of FX in the formal sector has therefore depressed the Black Market Exchange Rate pricing and as such the FX Rates between the two markets have tended towards each other.

(c) There is high country risk in South Sudan due to insurgency and civil war. The likelihood of instability leading to settlement risk is quite high and in order to protect the Bank from losses you would rather avoid dealing with such Banks

(d) Refer to page 113 to 114 of the Manual. Well explained in those pages.

1. The financial market in Malawi is mainly divided into three: Money market, Forex market and Capital market.

Much as there there are a lot of trades on the Malawi interbank market, the market is characterized by a few products and lack of secondary market trading. The only major products on the Malawi money market are Treasury bills, Interbank trading and RBM Repos. Once in a while the market trades in Treasury Bonds, Malawi Government Promissory Notes and Local Registered Stocks. These products are however normally held to maturity and are not traded on the Secondary market. The Secondary market is therefore normally illiquid and not fluid. Most trades are short term (up to 365 days) and are done on the Primary market and this normally creates a problem of developing a proper and reliable yield curve.

On the foreign exchange front, lack of liquidity inhibits the growth of the inter-bank market. The FX inter-bank is almost non-existent except during the Tobacco selling season when liquidity improves in the market. The lack of liquidity is also demonstrated in a few products that are traded in the FX market. Most deals traded are Spot deals with very few Forward Exchange Agreements, Options Agreements and Swaps Agreements.

The Capital Markets are normally illiquid with a few counters traded on daily basis. Most investors buy stocks for holding and speculative purposes and there are always a few willing buyers for stocks. Major participants are institutional investors as individual investors are less willing to take risks on the Capital Markets. The market is also shallow as there are only a few counters on the Malawi Stock Exchange to choose from.

**SECTION B (to type in solutions)**

1. (a) With a Certificate of Deposit, the bid refers to the Bank buying the Paper and therefore lending cash to the Seller while the Offer refers to the Bank selling the Paper and therefore borrowing cash from the investor.

**5 (b,c to type in solutions)**

**6 (a,b,c to type in solutions)**

1. (d) A Yield Curve is a graphical representation of different levels of interest rates for different periods. The vertical axis represents the yield or interest rate while the horizontal axis represents the term or tenor. This is determined from prices of government securities of different maturities.

There is normally more than one yield curve in the Economy. For example the Swap Curve represents the interest rates at which interest swaps can be transacted.

With an inverted Yield Curve, long term yield rates are lower than short term yield rates.

***To be followed by a graphical representation***

1. Country risk - Refer to pages 102,103 and 104 of the Manual.
2. (a) Refer to pages 87 and 88 of the Manual

**Three uses of foreign Exchange swaps**

(b) The trading book is an accounting term that refers to assets held by a bank that are regularly traded. The trading book is required under Basel II and III to be marked to market daily. The banking book is also an accounting term that refers to assets on a bank's balance sheet that are expected to be held to maturity. Banks are not required to mark these to market. Unless there is reason to believe that the counter-party will default on its obligation, they are held at historical cost.

(c) **Any two major types of risks**

Market Risk refers to the possibility for an investor to experience losses due to factors that affect the overall performance of the financial markets. Market risk, also called "systematic risk," cannot be eliminated through diversification, though it can be hedged against. The risk that a major natural disaster will cause a decline in the market as a whole is an example of market risk. Main sources of market include Interest rate risk, Equity risk, Commodity risk and Foreign currency risk.

**Interest rate risk:** The risk that an investment's value will change due to a change in the absolute level of interest rates, in the spread between two rates, in the shape of the yield curve or in any other interest rate relationship. Such changes usually affect securities inversely and can be reduced by diversifying (investing in fixed-income securities with different durations) or hedging (e.g. through an interest rate swap). Interest rate risk affects the value of bonds more directly than stocks, and it is a major risk to all bondholders. As interest rates rise, bond prices fall and vice versa. The rationale is that as interest rates increase, the opportunity cost of holding a bond decreases since investors are able to realize greater yields by switching to other investments that reflect the higher interest rate.

**Equity risk: refers** the financial risk involved in holding equity in a particular investment arising from fluctuations in the prices of stocks. Equity risk often refers to equity in companies through the purchase of stocks, and does not commonly refer to the risk in paying into real estate or building equity in properties.

The measure of risk used in the equity markets is typically the standard deviation of a security's price over a number of periods. The standard deviation will delineate the normal fluctuations one can expect in that particular security above and below the mean, or average.

**FX risk:** refers to the risk of an investment's value changing due to changes in currency exchange rates and the risk that an investor will have to close out a long or short position in a foreign currency at a loss due to an adverse movement in exchange rates. This risk usually affects businesses that export and/or import, but it can also affect investors making international investments. For example, if money must be converted to another currency to make a certain investment, then any changes in the currency exchange rate will cause that investment's value to either decrease or increase when the investment is sold and converted back into the original currency.

**Commodity risk:** refers to the risk that a change in the price of a production input will adversely impact a producer who uses that input. Commodity production inputs include raw materials like cotton, corn, wheat, oil, sugar, soybeans, copper, aluminum and steel. Factors that can affect commodity prices include political and regulatory changes, seasonal variations, weather, technology and market conditions. Unexpected changes in commodity prices can reduce a producer's profit margin, and make budgeting difficult. Fortunately, producers can protect themselves from fluctuations in commodity prices by implementing financial strategies that will guarantee a commodity's price (to minimize uncertainty) or lock in a worst-case-scenario price (to minimize potential losses). Futures and options are two financial instruments commonly used to hedge against commodity price risk.