**Fin 404: These notes are taken from “Multinational Financial Management” written by Alan C. Shapiro published by Wiley**

**Introduction:**

An exchange rate is simply the price of one nation’s currency in terms of another currency.

Spot: is the price at which currency are traded for immediate delivery.

Forward rate: is the price at which foreign exchange is quoted for delivery at a specified future date.

Monetize the deficit: financing the public sector deficit by buying government debt with newly created money.

**Advantages and disadvantages of a strong dollar and a weak dollar**

Strong Dollar

a) Advantages

Dollar prices of imported goods, services and raw materials are lower, benefiting consumers

Lower import prices help hold down prices of competing U.S. products, which reduces domestic inflation.

Cost to US firms and individuals of foreign investment is lower.

Foreign capital attracted to a strong currency leads to lower US interest rates.

b) Disadvantages

US exports becomes less competitive in foreign markets

US firms face more competition domestically from lower-priced foreign imports

United States loses jobs in the traded-goods sector

Higher cost of operating in the US reduces foreign direct investment in the US slowing job creation by foreign firms

Weak Dollar

a) Advantages

 US exports become more competitive in foreign markets

US firms are more competitive domestically against higher-priced imports

United States gains jobs in the traded-goods sector

Lower cost of operating in the United States increases foreign direct investment in the US, boosting job creation by foreign firms

b) Disadvantages

Dollar prices of imported goods, services and raw materials are higher, hurting consumers

Reduced price competition from imports leads to higher prices of competing US products, which increases US inflation

Cost to US firms and individuals of foreign investment is higher.

Foreign capital fleeing a weak currency leads to higher US interest rates

**Alternative Exchange Rate Systems**

a) Free Float

Free-market exchange rates are determined by the interaction of currency supplies and demands

b) Managed Float

Few countries intervene actively in the foreign exchange market in order to reduce the economic uncertainty associated with a clean float. Most countries with floating currencies have attempted, through central bank interventions, to smooth out exchange rate fluctuations. Such a system of managed exchange rates called a managed float is also known as a dirty float.

c) Target-Zone Arrangements

Countries adjust their national economic policies to maintain their exchange rates within a specific margin around agreed-upon, fixed central exchange rates.

d) Fixed-Rate System

Governments are committed to maintaining target exchange rates. Each central bank actively buys or sells its currency in the foreign exchange market whenever its exchange rate threatens to deviate from its stated par value by more than an agreed-on percentage.

**Chapter 4: International Finance and Currency: Parity Conditions**

Arbitrage: simultaneous purchase and sale of the same assets or commodities on different markets to profit from price discrepancies.

Law of one price: In competitive markets, characterized by numerous buyers and sellers having low-cost access to information, exchange-adjusted prices of identical tradable goods and financial assets must be within transaction costs of equality worldwide.

Parity Conditions

1) Purchasing Power Parity

Exchange rate between the home currency and any foreign currency will adjust to reflect changes in the price levels of the two countries. For example, if inflation is 5% in the US and 1% in Japan, then the dollar value of the Japanese yen must rise by about 4% to equalize the dollar price of goods in the two countries.



The exchange rate change during a period should equal the inflation differential for that same time period. If effect, PPP says that currencies with high rates of inflation should depreciate relative to currencies with lower rates of inflation.

i) The real exchange rate

is the nominal exchange rate adjusted for changes in the relative purchasing power of each currency since some base period. In technical terms the real exchange rate at time t, relative to the base period is defined as



ii) Alternatively an equivalent way to represent the real exchange is to directly reflect the change in relative purchasing powers of these currencies by adjusting the nominal exchange rate for inflation in both counties since time 0.



2) Fisher Effect

The nominal interest rate r is made up of two components 1) a real required rate of return and 2) an inflation premium equal to the expected amount of inflation



In effect, the generalized version of the Fisher effect says that currencies with high rates of inflation should bear higher interest rates than currencies with lower rates of inflation



For example, if inflation rates in the US and the UK are 4% and 7%, respectively, the Fisher effect says that nominal interest rates should be about 3% higher in the UK than in the US.

3) International Fisher Effect

PPP implies that exchange rates will move to offset changes in inflation rate differentials. Thus, a rise in the US inflation rate relative to those of other countries will be associated with a fall in the dollar’s value. It will also be associated with a rise in the US interest rate relative to foreign interest rates.



4) Interest Rate Parity

The currency of the country with a lower interest rate should be at a forward premium in terms of the currency of the country with the higher rate. More specifically, in an efficient market with no transaction costs, the interest differential should be equal to the forward differential.



If the covered interest differential between two money markets is nonzero, there is an arbitrage incentive to move money from one market to the other. This movement of money to take advantage of a covered interest differential is known as covered interest arbitrage.

**Chapter 6: Analyzing Country Risk**

Country risk analysis: is the assessment of the potential risks and rewards associates with making investments and doing business in a country.

1) Measuring Political Risk

Although expropriation is the most obvious and extreme form of political risk, there are other significant political risks, including currency or trade controls, changes in tax or labor laws, regulatory restrictions, and requirements of additional local production. The common denominator of such risks is not hard to identify: government intervention into the workings of the economy that affects, for good or ill, the value of the firm.

Factors measuring the stability of the local political regime

a) Political Stability

Measures of political stability may include the frequency of changes of government, the level of violence in the country, the number of armed insurrections, the extend of conflicts with other states and so on.

b) Economic Factors

Economic factors such as inflation, balance-of-payments deficits or surpluses, and the growth rate of per capita GDP. The intention behind these measures is to determine whether the economy is in good shape or required a quick fix. In general the better a country’s economic outlook, the less likely it is to face political and social turmoil that will inevitably harm foreign companies.

c) Subjective Factors

More subjective factors of political risk are based on a general perception of the country’s attitude toward private enterprise: whether private enterprise is considered a necessary evil to be eliminated as soon as possible or whether it is actively welcomed. The attitude toward multinational is particularly relevant and may differ from the feeling regarding local private ownership.

d) Political Risk and Uncertain Property Rights

Political risk refers to uncertainty over property rights. If the government can expropriate either legal little to property or the stream of income it generates, then political risk exists. Political risk also exists if property owners may be constrained in the way they use their property. The definition of political risk encompassed government actions ranging from outright expropriation to a change in the law that alters the government’s share of corporate income to laws that change the rights of private companies to compete against state-owned companies.

e) Capital Flight

is the export of savings by a nation’s citizens because of fears about the safety of their capital.

Capital flight occurs for several reasons, most of which have to do with inappropriate economic policies: government regulations, controls, and taxes that lower the return on domestic investments. Perhaps the most powerful motive for capital flight is political risk. In unstable political regimes, wealth is not secure from government seizure, especially when changes in regime occur. If a nation’s own citizens do not trust the government then investment is unsafe

f) Culture

It is the culture that shapes the behavior that determines economic outcomes. Cultures that adopt the value and practices of a modern industrial society, including free markets, meritocracy, pragmatism, the rule of law, an orientation toward the future, an emphasis on education and an interest in science and technology are more likely to succeed.

2) The key factors that determine the economic performance of a country and its degree of risk.

a) Fiscal Irresponsibility

Is excessive government spending. It is one sign of a country that is likely to be risky because it will probably have an insatiable appetitive for money. One country risk indicator is the government deficit as a percentage of gross domestic product. The higher this figure, the more the government is promising to its citizens relative to the resources it is extracting in payment. This gap lowers the possibility that the government can meet its promises without resorting to expropriations of property, raising taxes, or printing money.

b) Monetary Instability

Large and unpredictable changes in the money supply lead to high and volatile inflation. Rapid expansion in the money supply is typically traceable to large government deficits that the central bank monetizes

c) Controlled Exchange Rate System

Currency controls are used to fix the exchange rate. A controlled rate system goes hand in hand with an overvalued local currency, which is the equivalent of taxing exports and subsidizing imports.

d) Wasteful government spending

Amount of unproductive spending in the economy. To the extent that capital from abroad is used to subsidize consumption or is wasted on showcase projects, the government will have less wealth to draw on to repay the nation’s foreign debts.

e) Resource Base:

The resource base of a country consists of its natural, human and financial resources. Other things being equal, a nation with substantial natural resources, such as oil or copper, is a better economic risk than one without those resources.

3) Key Indicators of Country Risk and Economic Wealth

A large government deficit relative to GDP

A high rate of money expansion

Substantial government expenditures yielding low rate of return

Price controls, interest rate ceilings, trade restrictions, rigid labor laws and other government-imposed barriers

High tax rates

Vast state owned firms

Pervasive corruption

The absence of basic institutions of government

Positive Indicators of a nation’s long-run economic health

A structure of incentives that rewards risk taking in productive ventures

A legal structure that stimulates the development of free markets

Minimal regulations and economic distortions

**Chapter 7: Foreign Exchange Market: Operation and Mechanism**

Foreign exchange market permits transfer of purchasing power denominated on one currency to another- that is, to trade one currency for another currency.

Most currency transactions are channeled through the world wide interbank market, the wholesale market in which major banks trade with one another.

Spot market: currencies are traded for immediate delivery which is actually within two business days after the transactions has been concluded.

Forward market: contracts are made to buy or sell currencies for future delivery.

Trading has historically been done by telephone, telex, or the SWIFT system. SWIFT (Society for Worldwide Interbank Financial Telecommunications), an international bank-communications network) an international bank-communications network, electronically links all brokers and traders.

Foreign exchange brokers: specialists in matching net supplier and demander banks.

Arbitrageurs: seek to earn risk-free profits by taking advantage of differences in interest rates among countries.

Traders: use forward contracts to eliminate or cover the risk of loss on export or import orders that are denominated in foreign currencies. More generally, a forward-covering transaction is related to a specific payment or receipt expected at a specified point in time.

Hedgers: most multinational firms engage in forward contracts to protect the home currency value of various foreign currency- denominated assets and liabilities on their balance sheets that are not to be realized over the life of contracts

Speculators: expose themselves to currency risk by buying or selling currencies forward in order to profit from exchange rate fluctuations.

Clearing House Interbank Payments System: a computerized network developed by the New York Clearing House Association for transfer of international dollar payments.

Electronic Trading: systems offer automated matching. Traders enter buy and sell orders directly into their terminals on an anonymous basis, and these prices are visible to all market participants.

The key to the widespread use of computerized foreign currency trading systems is liquidity, as measured by the difference between the rates at which dealers can buy and sell currencies

Spot Market:

Almost all major newspapers print a daily list of exchange rates. For major currencies, up to four different foreign exchange quotes are displayed. One is the spot price. The others might include the 30-day, 90-day and 180-day forward prices. When interbank trades involve dollars, these rates will be expressed in either American terms (numbers of dollars per unit of foreign currency) or European terms (number of foreign currency units per US dollar)

Direct quotations: give the home currency price of a certain quantity of the foreign currency quoted (usually 100 units, but only one unit in the case of the US dollar or the pound sterling)

Indirect quotation: Foreign currency units per dollar

Bid-ask spread: the spread between bid and ask rates for a currency- is based on the breadth and depth of the market for that currency, as well as on the currency’s volatility. The spread repays traders for the costs they incur in currency dealing – including earning a profit on the capital tied up in their business

Currency arbitrage: Exchange traders are continually alert to the possibility of taking advantage through currency arbitrage transactions, of exchange rate inconsistencies in different money centers. When profitable arbitrage opportunities disappear, we say that the no-arbitrage condition holds.

Exchange risk: bankers also act as market makers, as well as agents, by taking positions in foreign currencies, thereby exposing themselves to exchange risk.

Settlement risk (Herstatt risk): a bank will deliver currency one side of a foreign exchange deal only to find that its counterparty has not sent any money in return. The risk arises because of the way foreign currency transactions are settled. Settlement requires a cash transfer from one bank’s account to another at the central banks of currencies involved. However, because those banks may be in different time zones, there may be a delay.

Forward contract: between a bank and a customer calls for delivery, at a fixed future date, of a specified amount of one currency. The exchange rate is fixed at the time the contract is entered into.

In a typical forward transaction, for example, a US company buys textiles from England with payment of 1 million pound due in 90 days. Thus the importer is short pounds-that is, it owes pounds for future delivery. The importer can guard against this exchange risk by immediately negotiating a 90-day forward contract with a bank at a price. In technical terms, the importer is offsetting a short position in pounds by going long in the forward market- that is by buying pounds for future delivery.

Forward quotations: Forward rates can be expressed in two ways. Commercial customers are usually quoted the actual price, otherwise known as the outright rate. In the interbank market, however, dealers quote the forward rate only as a discount from or a premium on the spot rate. This forward differential is known as the swap rate. A foreign currency is at a forward discount if the forward rate is below the spot rate, whereas a forward premium exists if the forward rate is above the spot rate

Chapter 10: Measuring and Managing Accounting Exposure

Translation exposure (Accounting exposure): If exchange rates have changed since the previous reporting period, this translation or restatement, of these assets, liabilities, revenues, expenses, gains and losses that are denominated in foreign currencies will result in foreign exchange gains or losses.

Transaction exposure: results from transactions that give rise to known, contractually binding future foreign-currency-denominated cash inflows or outflows. As exchange rates change between now and when these transactions settle, so does the value of their associated foreign currency cash flows, leading to currency gains and losses. Examples of transaction exposure for a US company would be the account receivable associated with a sale denominated in Euros or the obligation to repay a Japanese yen debt.

Operating Exposure: measures the extent to which currency fluctuations can alter a company’s future operating cash flows- that is, its future revenues and costs. Any company whose revenues or costs are affected by currency changes has operating exposure, even if it is a purely domestic corporation and has all its cash flows denominated in home currency.

Chapter 15: Examining International Portfolio Investing

1) The Risks and Benefits of International Equity Investing

Changes in currency exchange rate

Dramatic changes in market value

Political, economic and social events

Lack of liquidity

Less information

Reliance on foreign legal remedies

Different market operations

2) International Diversification

The expanded universe of securities available internationally suggests the possibility of achieving a better risk-return trade-off than by investing solely in US securities. That is, expanding the universe of assets available for investment should lead to higher returns for the same level of risk or less risk for the same level of expected return. This relation follows from the basic rule of portfolio diversification. The broader the diversification, the more stable the returns and the more diffuse the risk.

Through international diversification- that is, by diversifying across nations whose economic cycles are not perfectly in phase- investors should be able to reduce still further the variability of their returns. In other words, risk that is systematic in the context of the US economy may be unsystematic in the context of the global economy.

International diversification may significantly reduce the risk of portfolio returns. The benefits from international diversification are significantly greater than those that can be achieved solely by adding more domestic stocks to a portfolio.

3) Benefits of international Diversification have been decreasing because

The benefits of diversification depend on relatively low correlations among assets. It is often assumed that as their underlying economies become more closely integrated and cross-border financial flows accelerate, national capital markets will become more highly correlated, significantly reducing the benefits of international diversification

When markets are the most volatile and investors most seek safety, global diversification is of limited value. The correlations among markets appear to increase when market volatility is at its highest. Even worse, the markets appear to move in synchrony only when they are falling, not when they are rising.

Emerging markets:

Countries with volatile economic and political prospects that offer the greatest degree of diversification and the highest expected returns.

Problems with emerging markets:

These are small markets representing in the aggregate less than 10% of the world’s stock market capitalization. Hence, they are subject to the usual volatility and lack of liquidity associated with small markets. Yet, they have some unique risks as well: relatively unstable governments, the risk of nationalization of business, less protection of property rights, and the treat of abrupt price movements.

Advantages of emerging markets:

Emerging markets can reduce portfolio risk because of their low correlations with returns elsewhere. Most of their high total risk is unsystematic. These correlations have risen in recent years. These correlations are still relatively low, particularly as compared to the developed countries.