Swapskills Pte Ltd

FX Market Fundamentals

FX 101

In this module, we'll hope to build an understanding of what the economic fundamentals are, that drive up or down the price of a currency. But before we can answer that big question, let's revisit a simple question.

What is Currency?

Typical ways to view a currency—

Currency is cash : This is simple to understand! Currency pays for the things you buy.

Currency is the most liquid commodity : Of all the commodities there are, currency is the one that's a common need for all.

Currency is a country's promissory note or liability paper : This draws an analogy between currency and a rates instrument. The country promises to pay you a sum equal to the value of the currency you hold.

Currency is a store of value (asset class) : When certain commodities seem to lose their value to society from time to time, currency stores value.

Currency is a medium of exchange : Currency is exchanged on a daily basis in every location in large volumes.

Inside this issue:

Points of interest

- **There are viewpoints to the notion of "Currency"**
- **FX deals may be spot, forward, non deliverable forward, swap or non deliverable swap**
- **Supply and demand, trade factors and government intervention determine FX rate**
- **FX Risk comprises Transaction, Translation and Economic Risk**

© Swapskills Pte Limited 2010

FX Markets

FX Markets allow the transfer of value or purchasing power in one currency into another. The FX market is not a physical exchange, but rather an electronic network comprised of banks, brokers, governments, corporate treasuries, exchange dealers all trading via phone, telex and the SWIFT payments system. Banks buy and sell currency at all times (make the market) while brokers provide information, anonymity and reduced time and effort for market participants.

The Participants

Corporations

- Protecting profits from currency fluctuations
- Protecting sale margins
- Limiting cost of raw materials
- Funding overseas subsidiaries

Governments

- Maintaining reserve balances
- Sovereign investments
- Maintaining currency value in global markets
- Protecting imports and exports

Financial Institutions

- Capital raising
- Maintaining liquidity
- Currency as an asset class
- Speculation

Supra-nationals

- Protecting the global financial system
- Aiding emerging economies maintain competitiveness
- Maintaining economic stability
- Funding economies in crisis

Types of FX Deals

Spot: Buy your foreign currency NOW at an agreed price (FX rate). Eg. Pay 100 USD and receive 130 SGD

Forward: Agree to Buy LATER at a price agreed today, without any initiation cost. E.g. I agree to buy SGD 1 month forward at a rate of USD/SGD 1.3 on a notional of 100 USD

© Swapskills Pte Limited 2010

Non Deliverable Forwards (NDF): Buy your foreign currency NOW at an agreed price (FX rate). Upon termination, of the contract the gains and losses are settled in US dollars. Such a deal resembles a forward contract, but the gains are settled in USD because of capital controls in emerging economies that do not allow overseas entities to freely purchase the local currencies in these emerging countries.

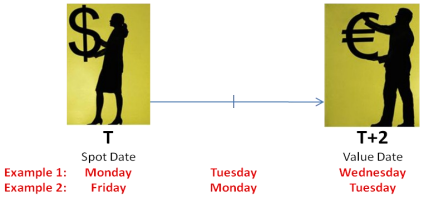
Swaps: FX Swaps or Cross currency swaps are exchanges of cashflows (typically interest payments) in two different currencies. They can be thought of in this manner. One party lends one currency to the other while the other simultaneously makes a loan in the other currency. The notional principal amount is agreed today in either currency and translated to the other using the spot rate. The interest rates payable on these currencies over the period of the swap are variable. It can be also thought of as a series of forward contracts.

Non Deliverable Swaps (NDS): A non-deliverable currency swap is much like a currency swap explained earlier, except instead of the delivery of the currencies, the gains or losses from the transaction are swapped instead in US dollars. They involve non deliverable emerging market currencies much like NDFs and can be thought of as a series of NDFs.

Spot FX

A Spot FX transaction is an exchange of one currency against another at a pre-determined rate. If today is the ***"Spot Date"*** or the ***"Trade Date"***, settlement happens after 2 working days on the ***"Value Date"***.

However USD/CAD spot deals settle on T+1. Further, currency transactions involving the EUR can settle from anywhere within the eurozone, and may settle even over a weekend.



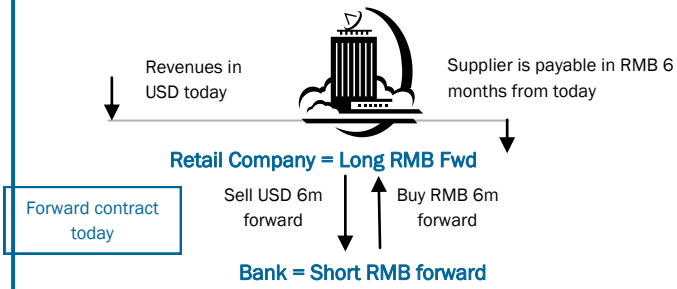
The most traded currency pairs in order of daily trade volume are EUR/USD, USD/JPY and GBP/USD, and London is the most active FX centre in the world!

© Swapskills Pte Limited 2010

Forward FX

A Forward FX transaction is one in which one party (**the Long**) agrees to buy one currency versus another at a future date (**Maturity date**) for a price determined today (**Forward Price**) from another party (**the Short**).

Forward contracts are used to hedge exchange rate risk. Here's what that means—



The company is afraid that the USD will weaken against the RMB in 6 months time, and will hence cost them more in USD to purchase the required amount of RMB.

Forward contracts trade in the market on a variety of currency pairs and for a variety of maturities. Here's a screenshot of a monitor that shows forward FX rates—

© Swapskills Pte Limited 2010

Non-Deliverable Forwards (NDFs)

A new type of forward contract called a non-deliverable forward contract (NDF) is frequently used for currencies in emerging markets. Like a regular forward contract, an NDF represents an agreement regarding a position in a specified amount of a specified currency, a specified exchange rate, and a specified future settlement date.

However an NDF does not result in an actual exchange of currencies at the future date. That is, there is no delivery of the actual currency, instead settlement is typically done in ***US dollars*** based on the exchange rate at the future date.

When there are ***capital controls*** in place set by the emerging market economy it creates the functioning of two markets for the emerging country currency, i.e. onshore and offshore markets.

Firms can have entities on-shore and off-shore

On Shore

Banks and other Institutions on-shore have capital restrictions that allow them to only transfer a retail lot size of capital into and out of the region legally.

Off-Shore

Banks and other institutions off-shore do not face any restrictions on the amounts of currency they trade outside the country.

Firm A uses NDFs to hedge exposure to the emerging market currency , where gains or losses are settled in USD.

Hedge Fund A has exposure to onshore currency (e.g. equity market exposure)

Note: Pricing a non-deliverable forward is covered in FX 102—FX Pricing and Arbitrate

© Swapskills Pte Limited 2010

Some currencies where Non Deliverables are popular


Indian Rupee


Chinese Yuan


Korean Won


Thai Baht


Taiwan Dollar


Argentine Peso


Philippines Peso


Malaysian Ringgit


Brazilian Real


Fijian Dollar


Nigerian Naira


Sri Lankan Rupee


Libyan Dinar


Cuban Peso


Egyptian Pound


South African Rand

How do individuals gain access to Spot FX market?

When we discussed market participants, you may have noticed individuals weren't directly connected to the FX market. Here's how it works! (If you've visited a money changer, you should follow the drift)

Wholesale Bank

Directly connected to the marketplace. Buy and Sell all major currencies.

Retail Bank

Buys currency supplies from wholesale bank.

You

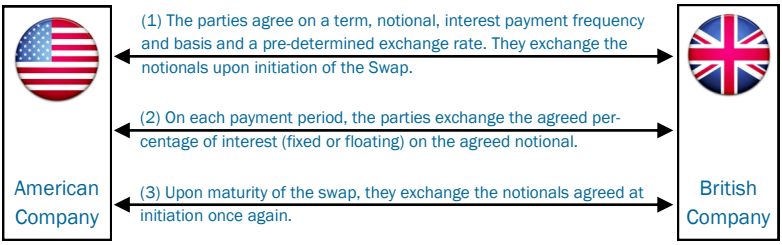
Buy currency from retail bank.

Like any supply chain there are middlemen costs. Each institution charges a small fee over their purchase price.

© Swapskills Pte Limited 2010

FX Swaps

A foreign exchange swap or a currency swap is an exchange of cash-flows in one currency to another. This is how it works—



One use might be to lower funding costs. **Here's an example—**

Two companies Americano and Europa have their headquarters in USA and Europe respectively. They both plan to expand overseas for which they require foreign currency. See the table below to see what rate of interest can each firm borrow respective currencies. The current exchange rate is 1 Euro = 1.40 USD. The swap period is for 5 years.

	US Dollars	Euros
Americano	8%	10%
Europa	10%	9%

Step-1: Americano borrows $140 m at 8% p.a. from the domestic bank for 3 years. Europa borrows €100 m at 9% p.a. from the domestic bank for 3 years.

Step-2: Americano exchanges $140m for €100m from Europa. Both firms offer to pay 10% p.a. for the exchanged notional currencies (see table).

Step-3: At the end of every year Americano pays Europa €10m and Europa pays Americano $14m. Each firm then pays the interest they owe the domestic banks i.e. 8% and 9% respectively.

Step-4: At Maturity both firms exchange the notional principals initially exchanged i.e. Europa pays Americano $140m and Americano pays Europa €100m

© Swapskills Pte Limited 2010

At the end of this entire transaction, both firms were better off than borrowing directly from the banks in foreign countries because of the savings they incur from being able to borrow cheap domestically.

Americano has to pay the domestic bank only 8% p.a. where as it receives 10% p.a. from Europa. At the end of the 3 years, Americano makes a gain of 3 x 2% x $140m = $8.4 m. Similarly Europa makes a gain of 3 x 1% x €100m = €3 m.

Note: The example above is a "Fixed-Fixed" Cross Currency Swap. To know more about the other types of cross currency swaps and their uses, you may refer the Swaps 101—Interest Rate, Basis and Cross Currency Swaps module

Non Deliverable Swaps

A non-deliverable currency swap is like a currency swap explained earlier, except instead of the delivery of the currencies, the gains or losses from the transaction are swapped instead in US dollars. This reduces the transaction costs that both the firms may incur and allows a certain degree of speculation as well. NDS pricing is explained further in FX 102— FX Pricing and Arbitrage.

What is an FX Rate?

A Foreign Exchange rate is the price of one currency in terms of another currency. For Example—

1 EUR buys 1.4565 USD today, or 1 USD buys 1/1.4565 EUR today (0.6865 EUR).

CURRENCY	VALUE
EUR-USD	1.4565
GBP-USD	1.6480

Real and Nominal FX Rates

Nominal Exchange Rate:

The market rates as quoted by dealers in the market like above is called the nominal exchange rate. It is interpreted as the amount of one currency that another currency buys.

Eg. 1 EUR buys 1.4565 USD today, or 1 USD buys 1/1.4564 EUR today

© Swapskills Pte Limited 2010

Real Exchange Rate:

The Real Exchange rate is a measure of purchasing power. It is the market value of goods and services that one currency buys in another country. *For example*, the nominal EUR/USD rate maybe 1.4565 but in reality 1 EUR may only buy USD 1.1 worth of goods and services in the USA. Hence the real exchange rate is 1.1.

Real exchange rate is determined by pricing up a basket of goods and services used by a typical household in each country and deriving the ratio of each of these costs. *For example*, a basket of goods that might cost 1000 EUR in the eurozone might cost 1100 USD in the USA, hence giving us a real interest rate of 1.1.

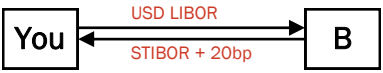
Inter-converting between Real and Nominal FX Rates:

$$Real\ FX\ rate_{EUR/USD} = Nominal\ FX\ rate_{EUR/USD} * \frac{Price\ of\ basket\ of\ goods\ in\ EUR}{Price\ of\ basket\ of\ goods\ in\ USD}$$

If a basket of goods costs EUR 100 in Europe and the same costs USD 132.41 in the USA, and if nominal rates in the markets were stated at EUR/USD = 1.4565, we can derive the Real FX rate as—

Real FX Rate = (1.4565)*(100/132.41) = 1.1

Types of Cross Currency Swaps



Floating—Floating Swap
Both legs of the swap are floating interest rates in different currencies which are reset periodically. Also called "Cross Currency Basis Swaps" and is covered later.

Fixed—Fixed Swap
This is the exchange of the fixed swap rate interest payments in 2 different currencies upon an agreed notional.

A bit of trivia (answer overleaf)

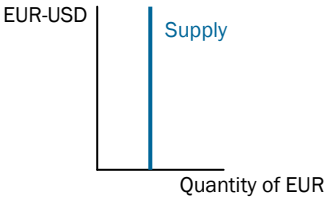
Q) What is common to the following:? a galleon, a knut, and the galactic standard credit?

© Swapskills Pte Limited 2010

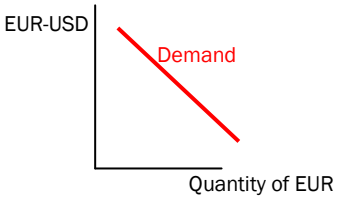
Determinants of an FX Rate

1. Demand and Supply Conditions

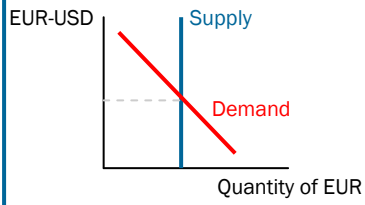
Foreign Exchange rates are greatly determined by the forces of supply and demand. To understand this , let's look at supply and demand curves for the euro.



This shows the supply curve for euros. Since the amount of euros in circulation is fixed by the european central bank, at any given in point in time, the long run supply is constant or a vertical or inelastic, regardless of the exchange rate.



The figure to the left shows the demand curve for euros. The demand curve is downward sloping because on a decline in the exchange rate, euro imports are highly demanded and hence a greater quantity of euros demanded.



Combining the figures above we can see the equilibrium points in the foreign exchange market. The market is said to be in equilibrium, or the price has reached its optimum value where the supply equals demand.

Answers to trivia question:

They are all fictional currencies.
(i) The galleon, sickle and knut are currencies from the Harry Potter Series (ii) The crescent is the currency from the chronicles of Narnia and (iii) the galactic standard credit is from Star Wars.

© Swapskills Pte Limited 2010

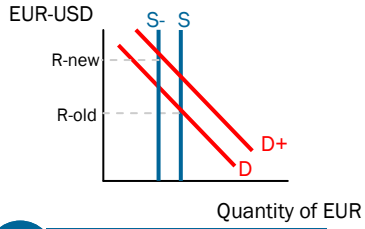
2. Relationship Between Trade and Financial Factors

There are 3 factors affecting supply and demand of a foreign currency. These in turn, make the curves shift and hence changes the equilibrium price of the currency.

1 THE PRICE OF CURRENCY AND THE DEMAND FOR EXPORTS

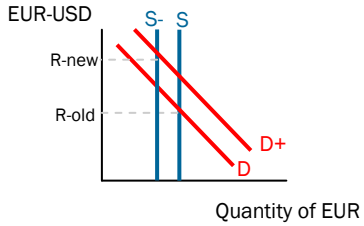
If the EUR/USD price falls, European exports are cheaper in the USA. Demand for EUR in the USA increases. The price fall also triggers buying of EUR in other countries, and hence the supply of EUR in USA decreases. This consequently again increases the EUR/USD exchange rate.

2 FORWARD PRICES



If the EUR/USD forward rate is greater than the EUR/USD spot rate, this means that the EUR is likely to appreciate. Hence people prefer holding EUR and its supply falls. Its demand also increases outside the eurozone owing to others seeking exposure to this currency appreciation.

3 INTEREST RATES

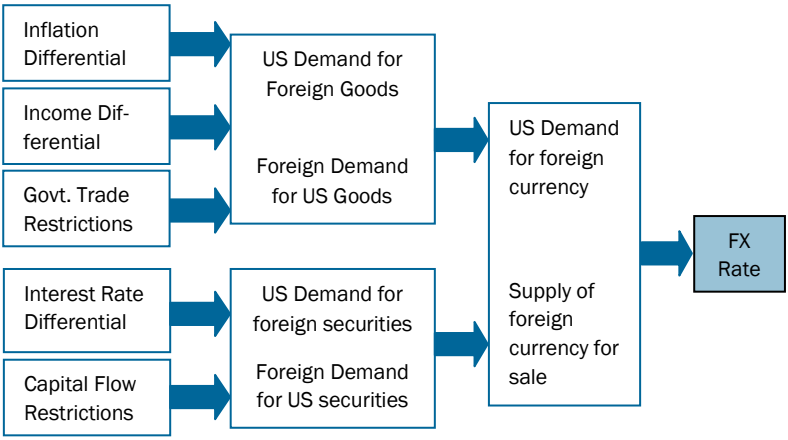


If EUR interest rates increase, people seek investments in euros i.e euro denominated loans. Hence demand for euros outside the eurozone increases. Supply of euro outside the eurozone simultaneously falls, because residents seek investments in EUR. As a result EUR/USD rate increases.

© Swapskills Pte Limited 2010

As you can see, the same factors affect both supply and demand in the FX markets. As a result FX rates are **more volatile** than if supply and demand had been independent!

A more detailed and general picture of the effect of the factors is as below. Notice how FX rate is closely connected to inflation and interest rates.



3. Degree of government intervention

What are the factors the government may control to manage the foreign exchange rate in the country?

1 CURRENT ACCOUNT BALANCE

A county's current account is their measure of goods, services, investment income and gifts exchanged with other countries (unilateral transfers). In short,

Current account = Net (Goods, Services, Investment Income, Unilateral Transfers)

If the current account has a **surplus**, it generally means that 'exports > imports' while if the current account is in a **deficit**, it means that 'imports > exports'. The government can control current account balance using targeted fiscal policy.

© Swapskills Pte Limited 2010

2 FINANCIAL ACCOUNT BALANCE

A county's financial account is their measure of funds flowing into and out of the country for investment purposes. Investment purposes include real assets or financial securities. In short,

> Financial account = Net (Overseas Investment Locally, Local Investment Overseas)

If the financial account has a **surplus**, it generally means that 'net inflows > net outflows' while if the financial account is in a **deficit**, it means that 'net outflows > net inflows'. The government can control the financial account balance by using monetary policy, nominal interest rates and also using fiscal policy.

3 RESERVE ACCOUNT BALANCE

A county's reserve account is the value of gold, foreign currency, foreign assets and IMF (International Monetary Fund) Special Drawing Rights (SDRs) they maintain as reserve against each unit of local currency issued. In short,

> Reserve account = Net (Foreign Currency, Gold, SDRs, Foreign Assets)

If the reserve account has a **surplus**, it generally means that the government traded its local currency for foreign currency reserves while if the reserve account is in a **deficit**, it means that the government bought back its local currency trading foreign currency. The government can control these balances by issuing a mandate to the central bank, who then trade in the marketplace via their dealers.

This method of keeping track of the transactions in a country is called "Balance of Payments". If includes transactions of the government and businesses and also those at the consumer level.

Balance of Payments Equation:
Capital Account Balance + Financial Account Balance + Reserve Account Balance = 0

© Swapskills Pte Limited 2010

In order to maintain this equation, governments generally fund current account deficits using a financial account surplus and vice versa.

What are the effects on exchange rate upon implementation of expansionary monetary policy and expansionary fiscal policy?

EXPANSIONARY MONETARY POLICY	
Growth rate of money supply INCREASES	
Demand for Imports INCREASES Inflation INCREASES Demand for Exports DECREASES Current Account Balance DECREASES	Real Interest Rate DECREASES Demand for Investment DECREASES Financial Account Balance DECREASES
Demand for Currency DECREASES	
Currency DEPRECIATES	

EXPANSIONARY FISCAL POLICY	
Tax payments DECREASES	
Government spending INCREASES	
Government borrowing INCREASES	
Inflation INCREASES Demand for Imports INCREASES Demand for Exports DECREASES Current Account Balance DECREASES	Real Interest Rate INCREASES Demand for Investment INCREASES Financial Account Balance INCREASES
Usually Effect of Financial Account domaintes that of Current Account,	
Currency APPRECIATES	

Currencies have nicknames too in the world of FX trading—
NZD = 'Kiwi', SEK = 'Stocky', NKK = 'Nokky', GBP/USD = 'Cable', EUR/USD = 'Fiber', USD/CAD = 'Loonie', CHF = 'Swissy', AUD = 'Ozzie', USD/JPY = 'Ninja'

© Swapskills Pte Limited 2010

Types of an FX Rate

As we saw earlier, currency exchange rates may be determined from supply and demand, but also be controlled by active intervention by the governments in the foreign exchange markets. This gives rise to three types of exchange rates—

	Fixed Exchange Rate	Managed Float	Floating Exchange Rate
What it means?	FX rates are fixed (pegged) against a major currency such as the USD.	FX rates are allowed to oscillate within a narrow band around a determined fixed level against a major currency such as the USD. This mean level is reset periodically.	This policy is adopted by most well developed nations that allow the market forces to establish the exchange rate.
Advantages	The govt. can artificially maintain the exchange rate to promote high levels of trade activity.	The government can maintain FX rates stability but maintain flexibility to move the FX rates when needed.	This is only advantageous in highly developed countries, where the cost of actively managing the currency is higher than its benefits.
How it is implemented	The easiest way to do is to buy / sell foreign reserves in the international market.	Govts usually set the mean and establish a variance band around the mean within which the currency is allowed to fluctuate. The govt. intervenes when the FX Rate goes outside this band.	Govts do not intervene under any circumstances to manipulate the FX Rate. Instead, they rely on domestic influences to stimulate their economies.

© Swapskills Pte Limited 2010

	Fixed Exchange Rate	Managed Float	Floating Exchange Rate
Central Bank Controls	–Reserve accounts	–Nominal interest rates –Reserve accounts	–Nominal interest rates –Supply and Demand factors
Central Bank Does not Control	–Supply and Demand factors –Nominal Interest rates	–Supply and Demand factors	–Reserve accounts
Degree of Government Intervention	High	Medium	Low
Examples	China in July 2005 Eurozone countries peg their individual currencies to the Euro.	Singapore currently uses a floating peg system, and pegs the SGD against a basket of major currencies to maintain the purchasing power of SGD	USD, EUR, JPY, CHF, GBP, AUD and NKK (Norwegian Krone)

Risks associated with exchange rates

Transaction Risk

Transaction risk is the potential fluctuations in anticipated future cash-flows due to changes in exchange rates. Transaction exposure usually results in a firm facing three distinct tasks. *First*, it must identify the degree of the transaction exposure. *Second*, it must decide whether to hedge its exposure to transaction risk, and *lastly* what hedging technique it should adopt.

© Swapskills Pte Limited 2010

How is it measured?

Transaction risk is measured by using the Value at Risk (VaR) method. VaR allows us to find out with a certain degree of certainty (confidence), about what could be the maximum loss incurred in a given time-frame.

Formula for calculating VaR:

$$\textbf{Maximum one-day loss} = E(e_t) - ((\text{z-stat}) \times \sigma_{ExR})$$

Expected change in exchange rate at the end of the period

Confidence or certainty with which you want to estimate the daily loss. This is reflected in the one tail z-stat. Follow the table below to find z-stat based on your level of confidence:

Standard deviation of daily percentage changes in the price of the currency. Depending on the timeframe chosen, the standard deviation for the relevant time-frame must be chosen.

z-stat	Confidence
2.33	99%
1.65	95%
1.29	90%
0.67	75%
0	50%

Example

Assume that Swapskills is expected to receive €100,000 in one week's time. The standard deviation for EURUSD on a weekly timeframe is 2.5%. With a 95% certainty / confidence level, what is the maximum loss that swapskills can incur, if they expect no change in the exchange rate over this expect.

$$\textbf{Maximum weekly loss} = 0\% - (1.65 \times 0.025)$$
$$= -0.04215 \text{ or } -4.215\%$$

If Swapskills is uncomfortable with taking this percentage of risk, it can hedge its risk by adopting one of the following techniques.

© Swapskills Pte Limited 2010

How do you hedge transaction exposure ?

1. Forwards or Futures hedge

Depending on the nature of your cash-flow (inflow / outflows) we can hedge the transaction exposure to a significant extent by locking in the exchange rate at which the transaction will actually occur.

Forwards and Futures are agreements in which a predetermined notional of currency is exchanged at some time in the future at a negotiated exchange rate. Forwards are traded Over the Counter (OTC) where as futures are traded over an exchange.

2. Money Market Hedge

Receivables	*Payables*
Assume that Swapskills is expected to receive €100,000 at the end of one year. Interest rate for € is 5% and $ is 10%. In order to make a money market hedge, **Step 1:** Borrow €100,000 / 1.05 = €95,238 **Step 2:** Convert the amount to US$ at the current spot of 1.40. €95238 x 1.40 = $133,333 **Step 3:** This money can be used for current business operations or further re-invested the money market at 10%. **Step 4:** If the money is reinvested in the money market, The value of the receivables at the end of 1 year will be worth $146,666.33. The borrowed money can be repaid using the amounts receivable after a year.	Assume that Swapskills needs to pay €100,000 at the end of one year. Interest rate for € is 5% and $ is 10%. In order to make a money market hedge, **Step 1:** Deposit €100,000 / 1.05 = €95,238 **Step 2:** Convert the amount to US$ at the current spot of 1.40. €95238 x 1.40 = $133,333 **Step 3:** Borrow $133,333 from the bank. **Step 4:** At maturity, use the €100,000 deposited to pay the amount payable, and $146,666.33 to the bank for the amount borrowed.

© Swapskills Pte Limited 2010

3. Option Hedge

Receivables	Payables
Assuming the example above, if Swapskills (A US Based company) needs to receive a payment, the biggest threat it faces is if the Euro depreciates. In this event, the amount receivable in dollars will decrease dramatically. In order to hedge the exposure to a depreciating Euro, Swapskills could purchase 1 year put options on the Euro. Any losses made by the decrease in amounts receivable will be compensated for by the gains in the value of the put option.	Assuming the example above, if Swapskills (A US Based company) needs to make a payment, the biggest threat it faces is if the Euro appreciates. In this event, the amount payable in dollars will increase dramatically. In order to hedge the exposure to an appreciating Euro, Swapskills could purchase 1 year call options on the Euro. Any losses made by the increase in amounts payable will be compensated for by the gains in the value of the call option.

4. To Hedge or Not to Hedge ... that is the question !

While considering whether one should hedge cash-flows, two outcomes should be evaluated. By taking the weighted probabilities of different outcomes, one can determine the expected value of the exchange rate at the end of the desired period and the total expected cash inflow/ outflow. This would be the un-hedged option.

The other option would be to consider the value of the cash-flow using the hedged exchange rate. We land up choosing the option that promises a better cash-flow in a risk-neutral environment.

© Swapskills Pte Limited 2010

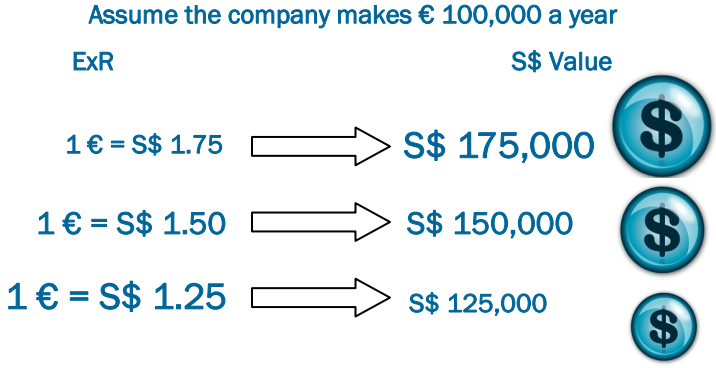
Probability / Outcome	*Value of the exchange rate*
0.25 (Recession in US)	1.60
0.50 (Slight upswing in US)	1.40
0.25 (Boom in US)	1.30
Expected Exchange rate	1.425
Unhedged Option	1.425 x Notional
Hedged Option	1.35 x Notional

Current Spot = 1.35

Translation Risk

Translation exposure occurs when an individual / a corporation, translates foreign income back into the domestic country's currency. Fluctuations in the exchange rate, affect the value of domestic currency translated at the end.

A company in Singapore that has operations in a foreign country will repatriate profits back in the foreign currency. If the Singapore dollar (S$) continues to appreciate indefinitely, the S$ value of foreign income will continue to fall assuming stable income from foreign operations.



© Swapskills Pte Limited 2010

How Do You Hedge Translation Risk ?

Since income from foreign country operations cannot be guaranteed, to hedge the entire cash inflow of profits from the foreign country could result in unnecessary losses. Instead by using forwards, swaps or put options on the foreign currency, one can successfully hedge a greater part of the translation risk to be faced.

Economic Risk

Economic exposure represents any impact of exchange rate fluctuations on a firm's future cash flows due to economic conditions such as changes in GDP, changes in per capita income and other external factors.

How is it measured ?

In order to analyze in further detail the impact of exchange rates on a company's total income, we can adopt a sensitivity table. See the sensitivity table below. Assume that the company is a US based company considering whether to hedge its exposure to exchange rate for sales in Europe.

	1 Euro = $ 1.40	1 Euro = $ 1.50	1 Euro = $ 1.60
Sales in USA	$100,000	$100,000	$100,000
Sales in Europe	€100,000 or $140,000	€100,000 or $150,000	€100,000 or $160,000
Cost of Sales (USA)	$50,000	$50,000	$50,000
Cost of Sales (Europe)	€50,000 or $70,000	€50,000 or $75,000	€50,000 or $80,000
Gross Profit	$120,000	$125,000	$130,000

All numbers above are quoted in '000s

The gross profit that the firm experiences can vary by $10 million. The company would like to adopt hedging strategies to minimize these fluctuations in gross profit. This form of a sensitivity table can take a more detailed form of an income statement to better gauge the impact of exchange rate fluctuations.

© Swapskills Pte Limited 2010

Try for Yourself

1) **Answer the following on the implications of current account and financial account balances for an economy—**
(a) Is a short term current account deficit bad?
(b) Is a short term financial account deficit bad?
(c) Is a short term current account surplus good?
(d) Is a short term financial account surplus good?
(e) How does a government typically fund a current account deficit?

2) **Are the following statements true or false?**
(a) When a restrictive monetary policy is implemented, the current account balance decreases.
(b) When a restrictive fiscal policy is implemented, real interest rate decreases.
(c) In a Fixed Exchange Rate System, the government must forego it's ability to control and implement monetary policy.
(d) The financial account is also called the capital account.
(e) Unilateral Transfers from other countries are accounted for on the reserve account.
(f) When inflation rate is higher, the currency trades at a premium.
(g) The currency supply curve is highly elastic
(h) Transaction risk is calculated using a VaR model.

3) **How will the supply and demand curves shift for the currency pair USD/JPY (keeping all other factors constant) if—**
(a) JPY interest rates increase
(b) Japanese incomes grow
(c) An innovation triggers a revolution of new businesses in Silicon Valley

Answers

1) (a) Not really, a current account deficit (Imports > Exports) might mean that there might be few good investment opportunities in the global marketplace, and residents of the country are channelizing their funds towards consumption. This typically corresponds to excellent economic performance and the economy is in the *mature* phase.

© Swapskills Pte Limited 2010

Answers

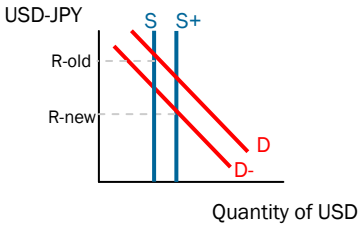
1) (b) Not really, a financial account deficit (Outflows>Inflows), might just mean that local residents prefer to invest within the country into capital and productive resources rather than in international financial securities. Yet again a sign of high growth and mature economic climate, but also sometimes possible when the economy is heavily invested in growth in early stage of growth cycle.

(c) Not really, current account surplus (exports > imports) might mean that there is a demand for imports but they're simply unavailable. This is possible upon a paradigm shift in technology, or if a country has a competitive advantage in manufacturing.

(d) Not really, a financial account surplus (Inflows>Outflows) need not translate into economic growth if the funds are channelled into financing consumption and not productivity growth. This can be observed in economies under *crisis*.

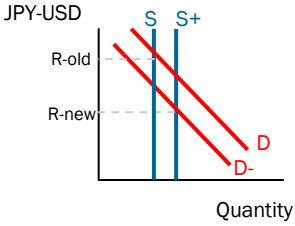
2) *Answer*:
(a) False (b) True (c) True (d) True (e) False (f) False (g) False (h) True

3) (a) Japanese interest rates rise. This means demand for USD decreases. People trade up their dollars to purchase yen and hence increase USD supply. As a result USD depreciates versus the JPY.

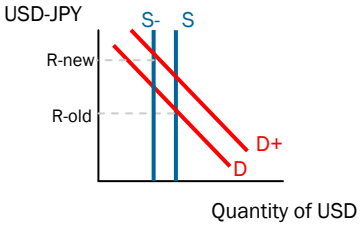


© Swapskills Pte Limited 2010

3) (b) Japanese incomes rise. Demand for imports increases in Japan, and hence the supply of JPY increases in the global markets. Demand for JPY decreases simultaneously because increased price inflation, makes exports expensive. As a result the value of JPY depreciates versus the dollar.



(c) If new innovation occurs in the USA, investment opportunities in the USD increases. Hence, the demand for USA increases. Local residents also seek access to these USD investments and hence supply of USD decreases. USD appreciates versus the JPY.



Notes

© Swapskills Pte Limited 2010

Notes

© Swapskills Pte Limited 2010

Every effort is made to ensure that the information provided on this booklet is accurate and up to date, but no legal responsibility is accepted for any errors, omissions or misleading statements. All information and material in this booklet are subject to copyrights owned by Swapskills Pte Ltd. Any reproduction, retransmission, republication, or other use of all or part of any document found on this site is expressly prohibited, unless prior written permission has been granted by Swapskills Pte Ltd.

Simon Rogers | http://www.swapskills.com | Email: simon@swapskills.com