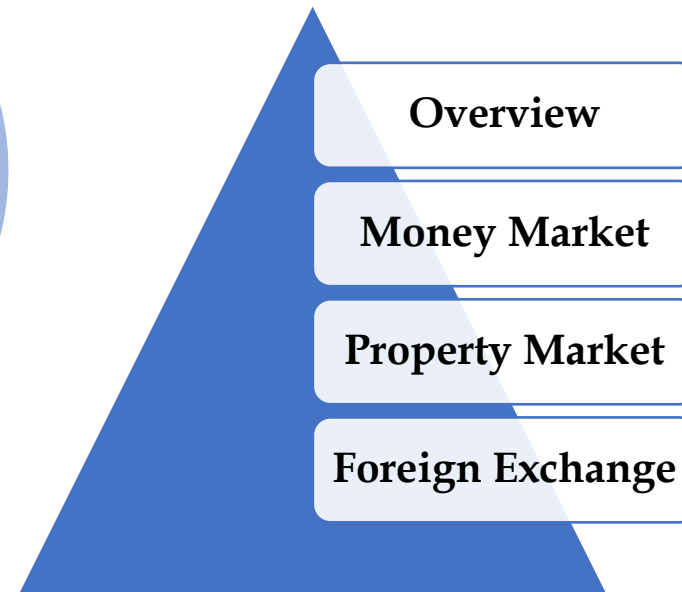
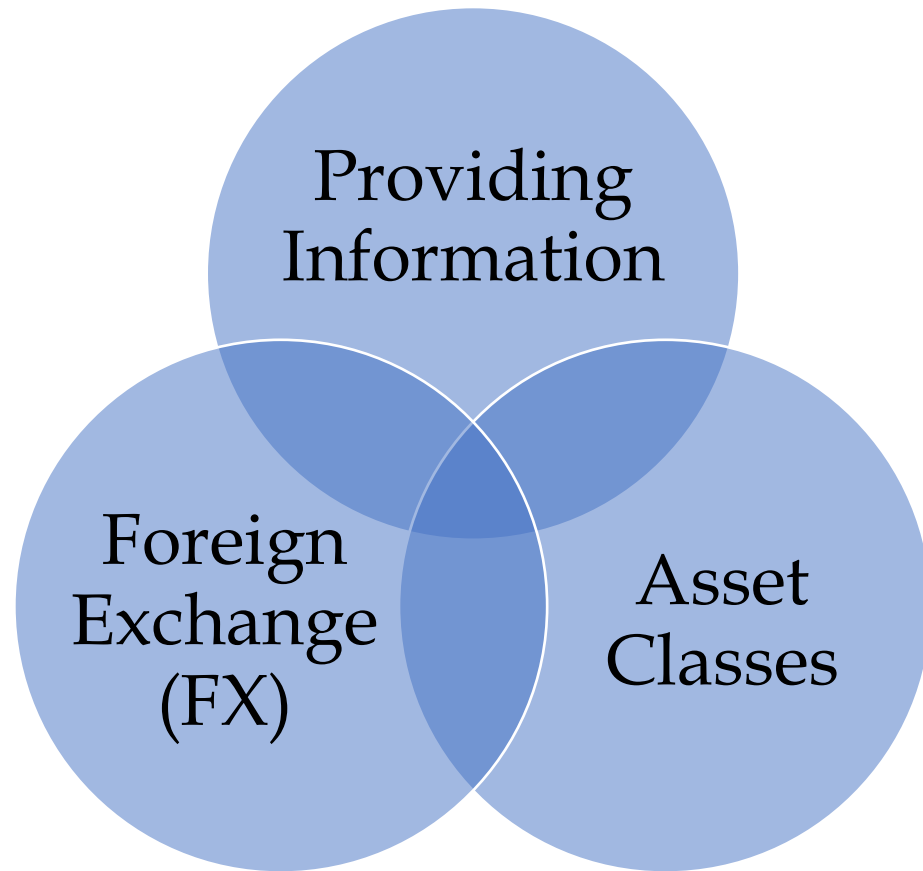




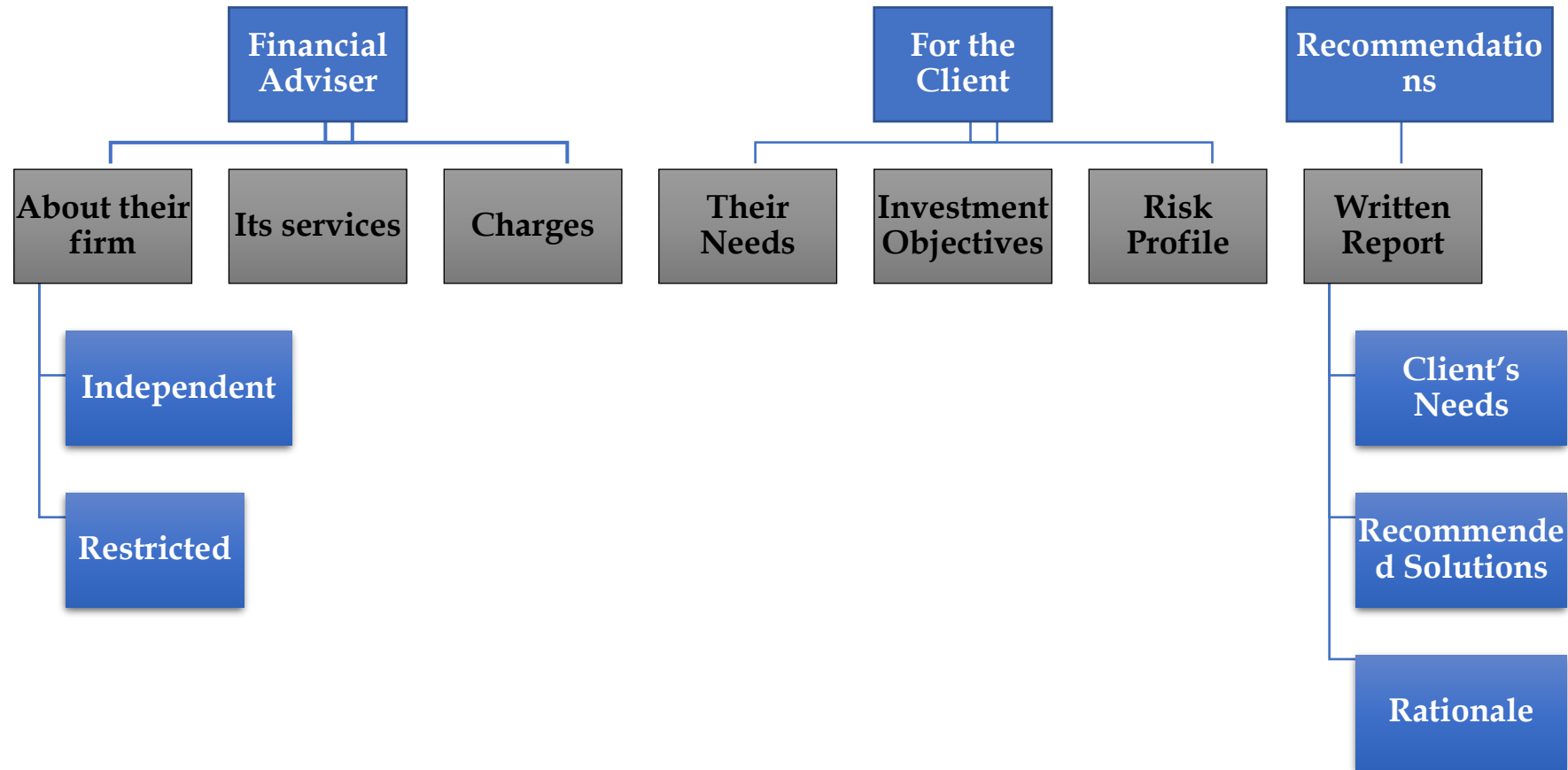
Chapter 5 – Other Markets & Investments

5 Questions

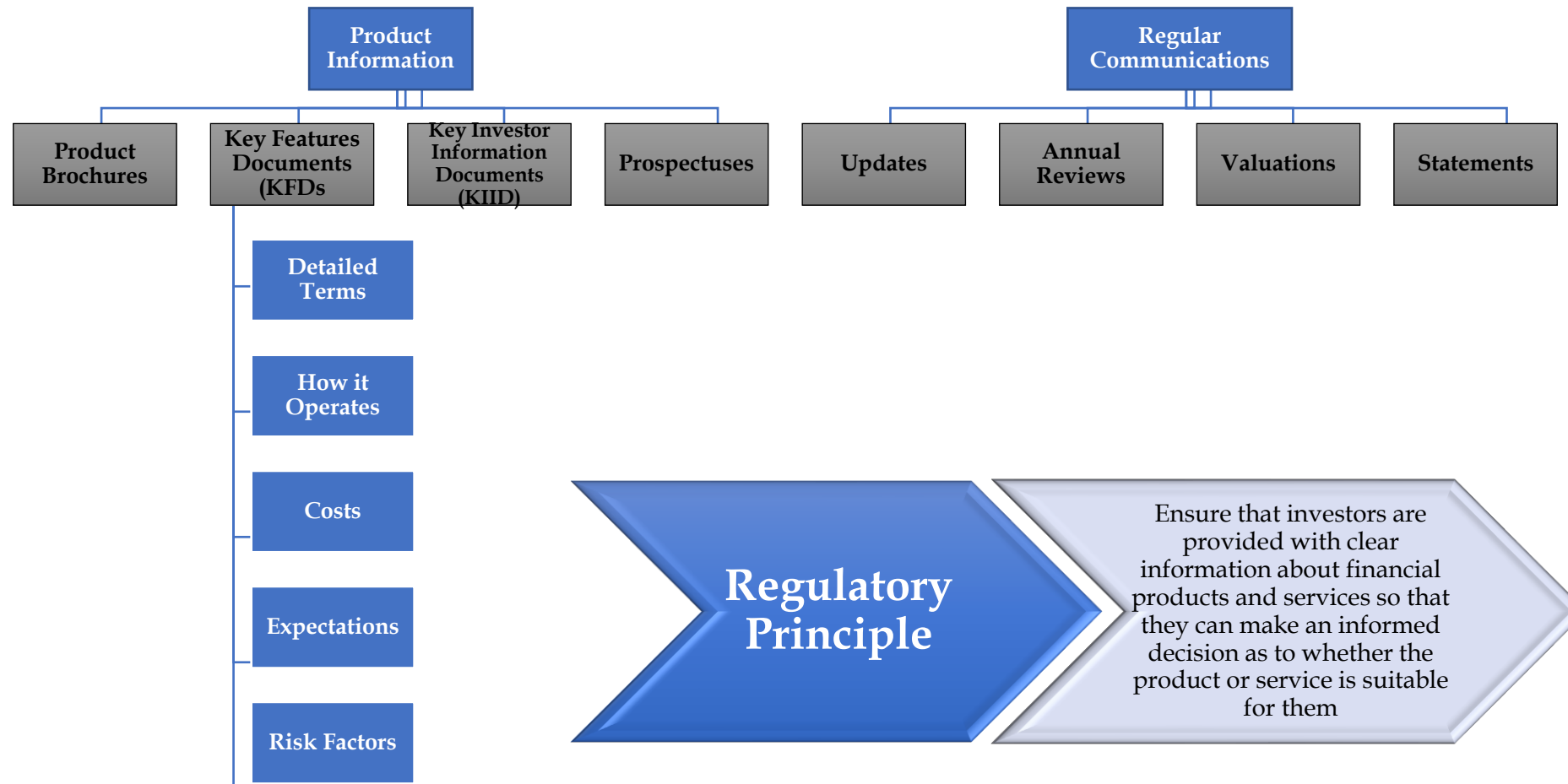




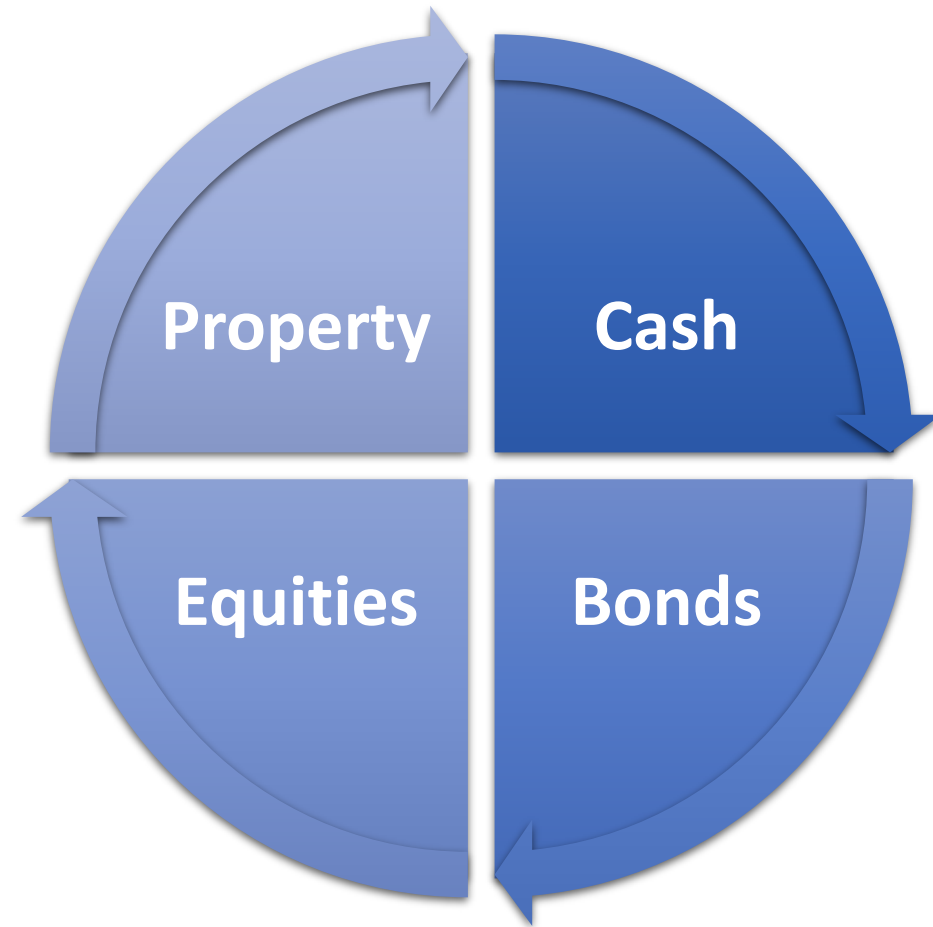
Providing Information



Providing Information



Asset Classes



Characteristics

- Return varies depending upon amount deposited, term and general level of interest rates
- Return comprises interest earned
- Real return depends upon level of inflation
- No potential for capital growth
- Amount invested is returned at end of term

Advantages and Disadvantages?

Protected by a government-sponsored compensation scheme

Factors to consider if cash is deposited overseas?



Exercises – Calculating Net Interest

Exercise 1

John pays tax at 20%, and all of the tax is deducted at source. He has had €3,000 on deposit at XYZ Bank for a year, earning 4% gross interest. How much interest does he receive, and how much tax is deducted?

Interest earned = $€3,000 \times 4\% = €120$

Tax deducted = $20\% \times €120 = €24$

Amount received by John = $80\% \times €120 = €96$

Exercise 2

Maria pays tax in her country at 20%. Maria has €10,000 on deposit at XYZ Bank earning 3% gross interest. What is the net rate of interest she is earning?

Gross rate of interest = 3%

Tax due = 20% of the gross amount

Net amount due = gross amount (3%) less tax ($3\% \times 20\% = 0.6\%$) = 2.4%



Exercise 3

Simone pays tax at 20%, all of which is deducted at source. She has had €10,000 on deposit at XYZ Bank for six months, earning 3% per annum gross interest. How much interest does Simone receive at the end of six months, and how much tax is deducted?

Interest earned = €10,000 x 3% = €300 pa and so, for six months = €150

Tax deducted = 20% x €150 = 30

Amount received by Simone = 80% x €150 = €120



The **money markets** are the wholesale or institutional markets for cash and are characterised by the issue, trading and **redemption** of short-dated negotiable securities.

[By contrast, the **capital markets** are the long-term providers of finance for companies, either through investment in bonds or shares.]

■ Money Market Characteristics

- Have a **maturity** of up to one year, though three months or less is more typical.
- Most money market instruments are issued at a discount to their face value to save on the administration associated with registration and the payment of interest.
- Relatively high minimum subscription - more suitable for institutional investors.
- Accessible to retail investors indirectly through collective investment (mutual) funds.
- Are all bearer instruments for which the issuer does not maintain a register of ownership.
- In practice, these are immobilised centrally in vaults by central securities depositories (CSDs) or similar agencies.



Money Markets

- Same settlement system that is used for equities and bonds - settled on same or following day of the trade
- Not readily accessible by private investors - need to utilise either money market accounts offered by banks, or money market funds.
- A money market account is perhaps better described as a money market deposit account.
 - A savings account that typically requires a substantial minimum balance and notice period.
 - Depositor generally has the safety net of some form of depositor protection scheme.
- A money market fund is actually a money market mutual fund, a collective investment scheme which pools investors' money to invest in short-term debt instruments, such as Treasury bills and commercial paper.



Money Market Instruments

Treasury Bills

- Issued weekly by Governments to fund short-term borrowing needs
- Non-interest bearing instruments
- Zero Coupons i.e. issued at discount to par

Certificates of Deposit

- Issued by banks in return for deposited money
- Can be bought and sold in the same way as shares
- If investor needs the money back before the fixed period has elapsed, can sell the CD to another investor in the money market

Commercial Paper

- Corporate equivalent of a Treasury Bill issued by large companies to meet their short-term borrowing needs



Advantages and Disadvantages:

- Provide a low risk way to generate an income or capital return
- Preserve the nominal value of the amount invested.
- They also provide a valuable role in times of market uncertainty
- Generally used in the short term as, historically, they have under performed most other asset types over the medium to long term.
- In the long term, the post-tax **real return** from cash has barely been positive



Bonds (In detail in chapter 5)

- **Bonds:** Are IOUs – the issuer of the bond receives money from the initial buyer of the bond and undertakes to pay the holder of the bond regular interest, and then return the money (the capital) at a particular future date.

- **Government bonds** are issued by national governments
- **Supranational bonds** are issued by agencies, such as the European Investment Bank and the World Bank.
- **Corporate bonds** are issued by companies, such as large banks and other large listed companies

What about Risk?



Equities (In detail chapter 4)

Holding **shares** in a company is the same as having an ownership stake in that company.

- Income will be in the form of regular dividends paid
- Potential capital gain if the company does well and the share price rises

What about Risk?

In the past, equity investments have outperformed bonds and cash over the longer term, that is a period of ten years or more, but the position today is less clear.



Characteristics

- Each individual property is unique in terms of location, structure and design
- Valuation is subjective as property is not traded in a centralised market place and continuous and reliable price data is not available.
- It is subject to complex legal considerations and high transactions costs upon transfer.
- It is highly illiquid as a result of not being instantly tradable.
- Investor has to sell all of the property, or nothing at all
- Diversification is difficult
- The supply of land is finite

Commercial and
residential
property

Direct and
Indirect
investment

Risk



Advantages:

- Positive long term real returns
- Largest investors can build a diversified portfolio
- Diversification can include residential property, commercial property, industrial property and farmland
- Smaller investors can gain indirect exposure
- Indirect investment media makes property a more accessible asset class to those running smaller diversified portfolios

Disadvantages:

- Only the largest investors, can purchase sufficient properties to build a diversified portfolio
- Can be subject to prolonged downturns
- Lack of liquidity
- Significant maintenance costs
- High transactions costs on transfer
- Risk of having property with no tenant
- Commercial property only really suitable for long term investing institutions such as pension funds



Key Factors to Consider for Property Investments

Key Factors
for Property
Investments

Due Diligence

Illiquid

Exchange Rate Risk

Costs

Other Risks

Tax

Your Time

Hassle

Financing

Diversification



Money History

- Historically, currencies were backed by gold - had 'intrinsic value'
- This prevented the value of money from being debased and inflation being triggered.
- This gold standard was replaced after the Second World War by the Bretton Woods Agreement - fixed all currencies against the US dollar and made the dollar convertible to gold at a fixed rate of US\$35 per ounce
- Countries were prohibited from devaluing their currencies by more than 10%
- This system was eventually abandoned in the 1970s.

The FX market refers to the trading of one currency for another

- always done in pairs

Example the EUR:USD exchange rate may be quoted as 1:1.1250

which means that €1 is worth US\$1.1250

- Euro is the **Base** currency
- USD is the **Counter / Quote** Currency



Features of FX trading:-

- FX is not traded on an exchange
- FX traders deal directly with each other using screen-based pricing systems and transacting by phone (OTC market)
- Two-thirds of FX transactions are bank-to-bank, with the remainder made up from brokers, central banks and customers

Settlement of FX trades:-

- As no central dealing exchange, traditionally involved settlement between counterparty banks
- Risk that one party to the trade may default before both counterparties have met their settlement obligations



Forex Transactions

Spot

- Rate quoted by a bank for the exchange of one currency for another with immediate effect
- Spot trades are settled two business days after the transaction date

Forward transactions

- A buyer and seller agree on an exchange rate for any date in the future, for a fixed sum of money, and the transaction occurs on that date, regardless of what the market rates are then.
- Duration of the trade can be a few days, months or years

Futures

- Are standardised versions of forward transactions that are traded on derivatives exchanges in standard sizes and maturity dates.
- The average contract length is roughly 3 months

Currency Swaps

- Two parties exchange currencies for a certain length of time and agree to reverse the transaction at a later date
- OTC trade



Spot and Forward Exchange Rate

The relationship between the spot exchange rate and forward exchange rate for two currencies is given by the **differential between their respective nominal interest rates** over the term being considered

Example

To calculate a 3 month forward rate for GBP:USD, we need the current spot rate and the 3 month interest rates in the UK and the US:

- The GBP/USD spot rate is 1.25.
- Three-month LIBOR rates in the UK are 0.50% and in the US are 1%.

Adjust them to quarterly.

- UK three-month rates are $0.50\% \div 4 = 0.125\%$.
- US three-month rates are $1.00\% \div 4 = 0.25\%$.



Spot and Forward Exchange Rate

We can then calculate the forward rate using the interest rate parity formula:

$$\text{Forward rate} = \text{spot rate} \times \frac{(1 + \text{quote currency short-term rate})}{(1 + \text{base currency short-term rate})}$$

Applying the formula, we can calculate the three-month forward rate as:

$$\text{Forward rate} = 1.25 \times \frac{(1 + 0.0025)}{(1 + 0.00125)} = 1.2516$$

As US interest rates in this example are higher than in the UK, the forward rate is higher. If it had been lower, the forward rate would have been lower.



Cryptocurrencies

Digital currency or asset that can be traded, stored and transferred electronically.

Common features of cryptocurrencies:

- Not issued by a central bank
- Virtual currency represented by a digital record

Bitcoin (well known cryptocurrency) that uses blockchain to build a decentralised network

The three main forms of crypto assets are:

Exchange tokens

Security tokens

Utility tokens

