

# Currencies - FX

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## Financial Foundations





# Objectives

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> In this lesson, we will look at the FX business within the bank.



# FX – Foreign Exchange

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- > Forex (FX) is the marketplace in which various national currencies are traded. The Forex market is the largest most liquid market in the world, with trillions of dollars traded per day.
- > 24-hour trading available Sunday – Friday (GMT). However, there are three sessions across Asia, Europe and the US.
- > Although there is some overlap in trading sessions, the main currencies in each market are traded mainly in their corresponding regional sessions; e.g., trading with US dollars will do the most volume of trading in the US trading session
- > No centralized location: it is an electronic network of banks, brokers, institutions and individual traders.
- > Forwards and futures can be used to trade in the market.



# FX – How Does Trading Work?

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- > The spot market is where financial instruments such as commodities, currencies, and securities are traded for immediately delivery.
- > FX spot trades settle on a T+2 basis, except for USD/CAD which settles in 1 business day.

## Lots

- > Currency is traded in various sized lots
  - \ Micro lot – 1,000 units of your currency
  - \ Mini lot – 10,000 units of your base currency
  - \ Standard lot – 100,000 units of your base currency
- > The base currency is the currency your account is funded in

## Pairs

- > Currency trading is done in pairs: buy one currency and sell another
  - \ Majority of volume in currency trading is confined to only 18 currency pairs
  - \ The eight most traded currencies are USD, CAD, EUR, GBP, CHF, NZD, AUD, JPY



# Trading Currencies – How hard is it?

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- > With equity trading, you are making a decision based on the value of one company: try valuing a whole country!
- > Market analysis to predict long-term trends is complex, although some traders will do short-term trading strictly on news releases:



- > Even the Federal Reserve Chairman's comments on interest rates can have an influence on the market and cause volatility



# FX Trading Venues

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> FX trading is done across an electronic network rather than having a physical location. Here are some examples of trading locations:

**HotSpot**

**CurrenEx**

**FXall**

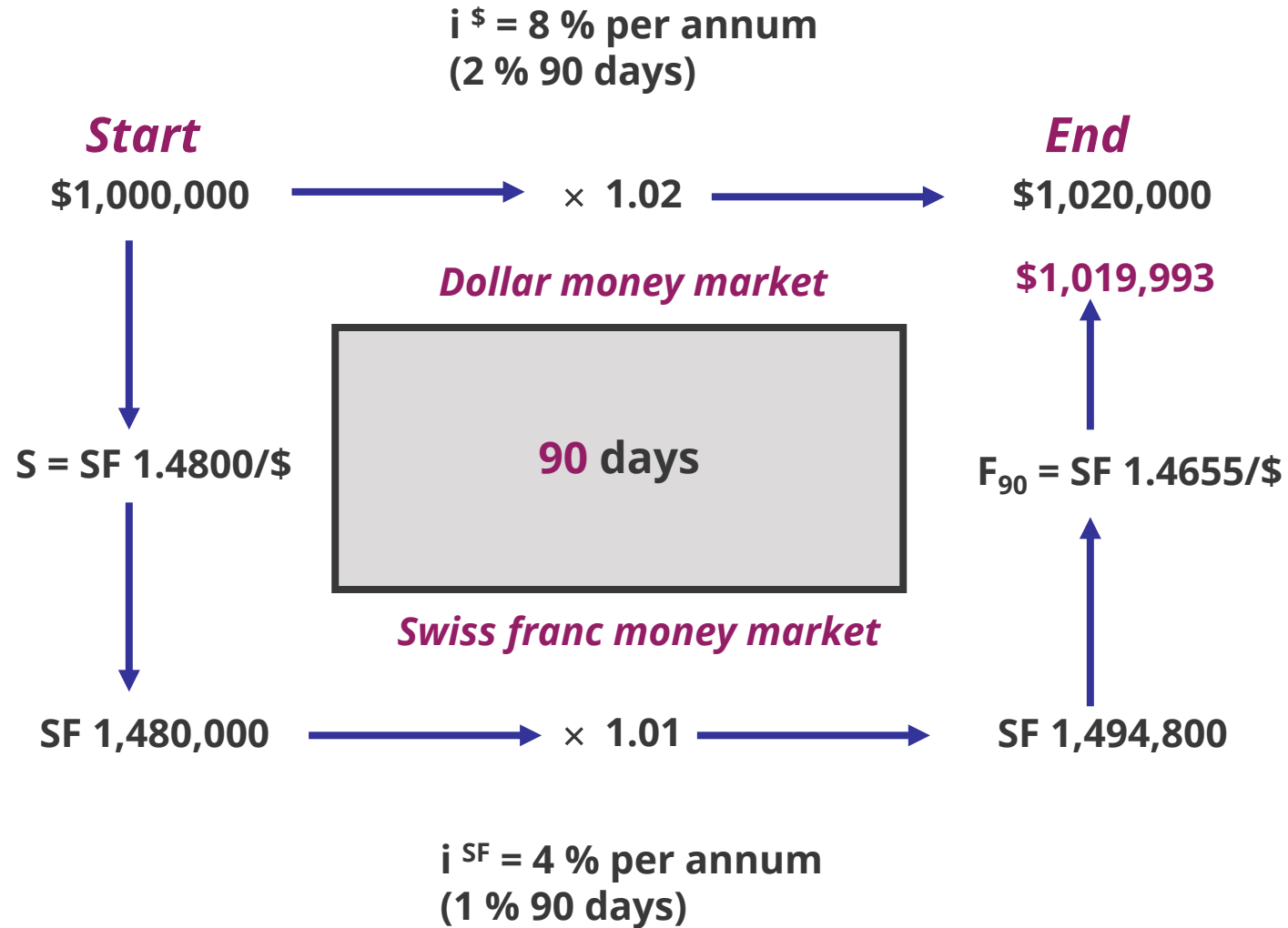
**BrokerTec**

**Deutsche Bank**

**Morgan Stanley**

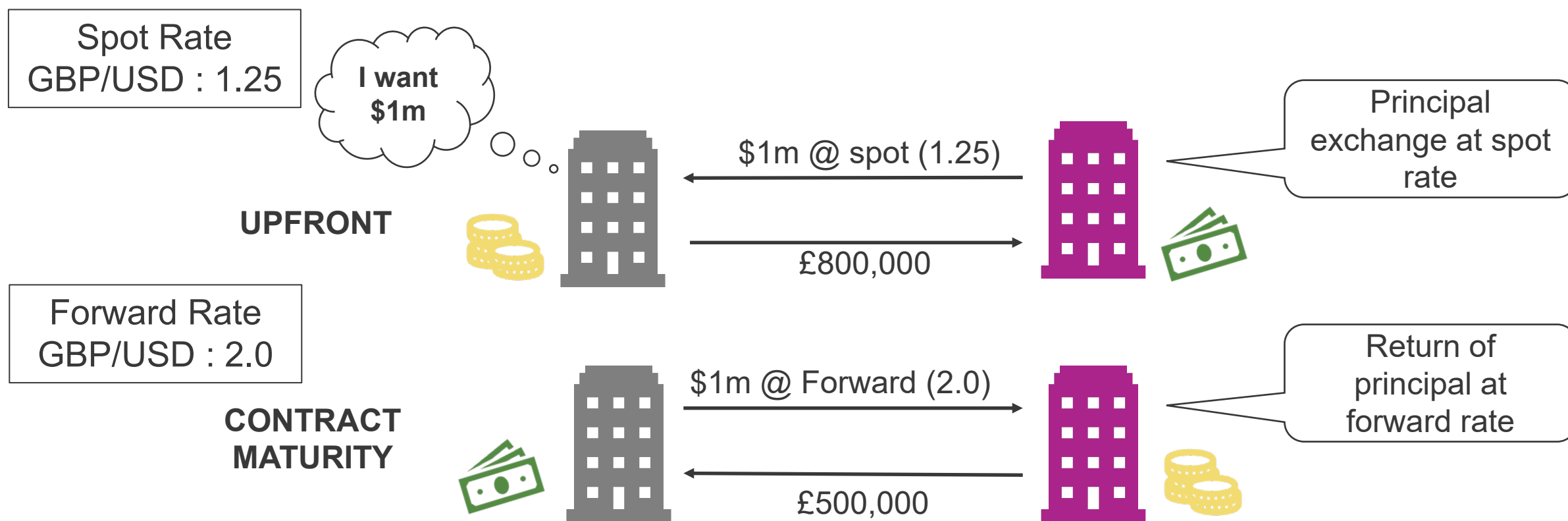
**BAML**

# Interest Rate Parity (IRP) for Forward Rate



# FX Swaps

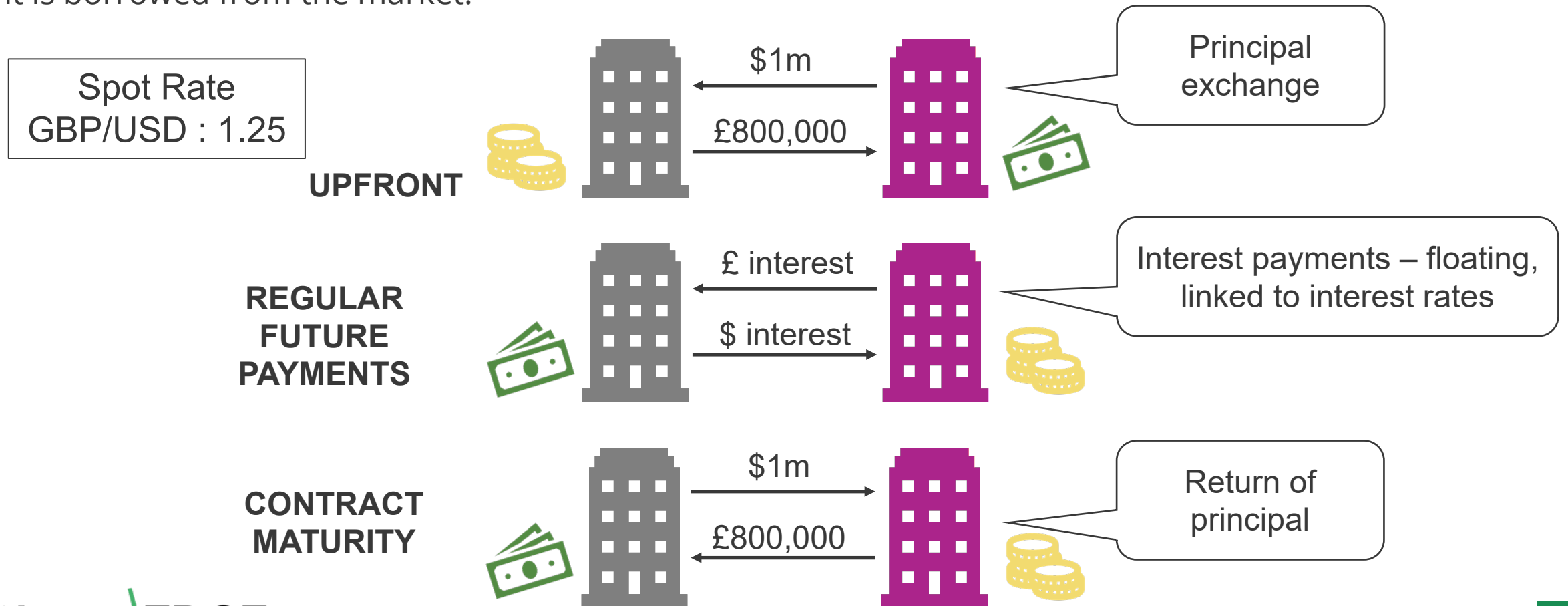
> **FX Swap:** a contract to exchange a matching amount of two different currencies with different value dates – spot vs. forward rate.





# Currency Swaps (aka Cross-Currency Swaps)

> **Currency Swap:** a contract to exchange fixed interest rate payments on a principal amount for floating rate payments. Usually done to procure loans in foreign currency at a more favorable interest rate than if it is borrowed from the market.





# Differences between FX and Currency Swaps

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## FX Swap

- > No exchange of interest during the contract term
- > Differing amount of funds exchanged at the end of the contract
- > Typically used to offset exchange rate risk

## Currency Swap

- > Interest payments are exchanged throughout the contract term
- > Principal and interest payments are exchanged
- > Typically used to offset both exchange rate and interest rate risk

# Exchange Rate Pass-Through

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- > **Pass-through:** change in prices of imported/exported goods when exchange rate changes
- > BMW made in Germany cost @ spot rate US\$ 35,000

$$P_{BMW}^{\$} = P_{BMW}^{\text{€}} \times S$$

- \ where  $P^{\$}$  is the price in US\$,  $P^{\text{€}}$  is price in euros, and  $S$  is spot rate
- \ Euro appreciates by 20%. But BMW is now only \$40,000

\ Pass-through:

$$\frac{P_{BMW,2}^{\$}}{P_{BMW,1}^{\$}} = \frac{\$40,000}{\$35,000} = 1.1429 \text{ or } + 14.29\%$$

- \ Degree of pass-through:  $14.29\% / 20\% = 0.71$  or 71%