

International Financial Markets

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Working Rules

- Planification of sessions, bibliography and information about assessment.

International Financial Markets

- Financial Market – Financial Intermediation
- International Financial Market - Financial intermediation between parts residing in different geographical zones.
- International transactions – goods, services, financial assets.
- Different geographic spaces– Different currencies (most of the times).
- The exchange of different currencies takes place in the Foreign Exchange Market (FOREX).

- **Foreign Exchange Market**

- **Dimension**

\$4.0 trillion average daily turnover (April 2010, BIS)

- An annual turnover of about 20 times the world GDP.

- **Impact**

- Output
- Employment
- Inflation
- Capital flows
- International trade

Table 1: FX turnover and growth: Comparison with trade, GDP and equity trading volume

	1992	1995	1998	2001	2004	2007	2010
a) Volumes							
All instruments	857	1135	1713	1480	2013	3296	3981
Spot total	434	475	637	461	657	996	1490
Forwards total	65	93	143	156	217	359	475
Growth, spot and forwards		44%	54%	9%	40%	65%	32%
b) Ratios							
Spot/Trade	31	29	30	18	21	23	36
Spot/GDP	10	10	11	7	10	12	16
Spot/Equity volume	35	25	14	4	9	7	9

Source: King, Osler and Rime, 2011, Foreign Exchange Market Structure, Players and Evolution, Norges Bank WP 10

- Decentralized market, works 24h/day. Australasia, Europe, America.
- Main financial centres concerning foreign exchange trading (data from 2010) :
 - United Kingdom 36.7% of all foreign exchange market turnover;
 - the United States 18%,
 - Japan (6%),
 - Singapore (5%),
 - Switzerland(5%),
 - Hong Kong (5%)
 - Australia (4%).
- Main international currencies (data from 2010)
 - 85% of all foreign exchange trades - US dollar. *Vehicle currency*
 - 39% of all foreign exchange trades - Euro

- Participants. Intervenients.
 - Dealers (international banks)
 - Clients
 - Brokers (mainly electronic brokers)
 - Central Banks
- Segments
 - Interbank Market (39% in 2010)
 - Retail (less than 20%)
 - Non-bank financial institutions. http://www.norges-bank.no/upload/import/english/research/published/bjonnes_rime_04.pdf

- Technology

- Until middle 1990's: technology based on telephones, credit lines.
 - Phone calls in the interbank: to cover the risk (symmetric transactions), to obtain information about quotations.
- During the 90's electronic platforms became dominant (Reuters Dealing and Electronic Broking Services - interdealer).
 - Smaller minimal size of orders and no need to provide two-sided quotes.
 - Lower working costs.
 - Larger price transparency.
- Less need of interbank transactions and larger incentive to trade with clients.

Table 3. Dealers were asked to give the proportions of their FX transactions that (a) relate to interbank and customer business and (b) are traded via the interbank network, traditional and electronic brokers

	1998	1993
(a) Interbank business	67.7	67.4
Customer business	32.3	32.6
(b) Interbank trades	33.5	47.2
Traditional broker trades	15.9	47.1
Electronic broker trades	50.6	5.7

Source: CHEUNG, CHINN and MARSH, 2004, How do UK-based foreign exchange dealers think their market operates? *Int. J. Fin. Econ.* 9: 289-306

- Appearance and development of new financial institutions in the foreign exchange market
- PTC: Professional Trading Community.
 - Hedge Funds (Fundos de cobertura), Pension Funds.
 - Risk managers of foreign currency accounts and futures
 - Commodity traders associations.
- Retail aggregators: electronic trading platforms that cater to individual retail traders: individuals, firms and small institutions. Retail size: less than a million dollars.

TYPES OF FOREIGN EXCHANGE RATES

- **Certain for Uncertain** *versus* **Uncertain for Certain** quotations

Ao certo *versus* **Ao incerto** ; Depreciation/ Appreciation
Asymmetry in the % FX changes

- $S(j/n)$
 - Price of j in terms of n
 - How many units of n for each unit of j
 - Ao certo para o j , certain for uncertain with respect to j . Ao incerto para o n , uncertain for certain with respect to n .
- $S(n/j) = 1/S(j/n)$
- **Bid-Ask spread**
 - A bank buys at the Bid and sells at the Ask
 - $S(j/n)_b$
 - The dealer buys j paying the S quantity of n . If the bank buys j , it sells n →
 - $S(j/n)_b = 1/S(n/j)_a$

- **Spot** or **À vista** $S_t(j/n)$ *versus* **Forward** ou **A prazo** $F_{t,t+h}(j/n)$ (notação da disciplina)
 - If $F_{t,t+h}(j/n) > S_t(j/n) \rightarrow$ Currency j is at a (forward) premium.
 - If $F_{t,t+h}(j/n) < S_t(j/n) \rightarrow$ Currency j is at a (forward) discount.
 - Calculation of the j 's premium or discount
 - $[F_{t,t+h}(j/n) - S_t(j/n)] / S_t(j/n)$
 - Notes:
 - Positive/Negative
 - Currency n at a discount \Leftrightarrow Currency j at a premium (different value)
 - Someone who buys forward, takes a *long position*. Someone who sells forward, takes a *short position*.

Exercise

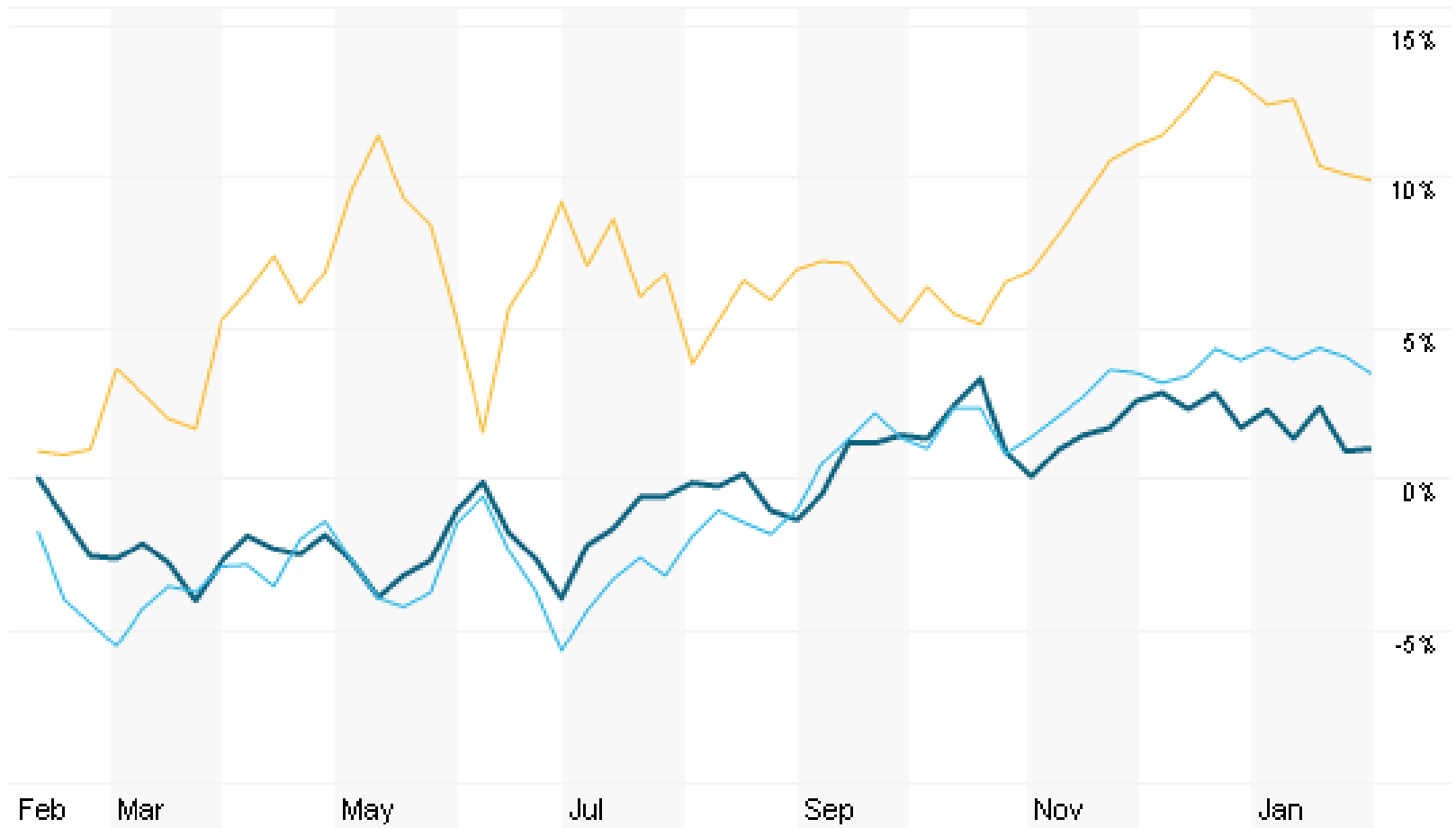
- Based on the following quotations:

Euro Spot Forward	Closing mid-point	One month	Three months
UK	0,7830	0,7889	0,7896
USA	1,4047	1,4058	1,4058

- a) Is the euro at a discount or at a premium in relation to each of the currencies, in each time maturity?
- b) What is the value of the premium (discount) of the euro against the sterling pound, for each maturity? What is the value of the discount (premium) of the sterling pound against the euro?

<http://www.reuters.com/finance/currencies>

■ Euro / USD ■ GBP / USD ■ USD / JPY



Feb. 3, 2014 9:09 AM

Currency	Last	Day High	Day Low	% Change	Bid	Ask
<u>EUR/USD</u>	1.3493	1.3518	1.3475	+0.01%	1.3493	1.3496
<u>GBP/USD</u>	1.6345	1.6445	1.6320	-0.60%	1.6345	1.6347
<u>USD/JPY</u>	101.85	102.40	101.65	-0.17%	101.85	101.88
<u>USD/CHF</u>	0.90510	0.90810	0.90320	-0.15%	0.90510	0.90560
<u>USD/CAD</u>	1.1062	1.1133	1.1049	-0.58%	1.1062	1.1066
<u>AUD/USD</u>	0.88020	0.88080	0.87360	+0.59%	0.88020	0.88070

- **Nominal** *versus* **Real**

- $S_r(j/n) = S(j/n) \times (P_j/P_n)$

- **Competitiveness**

- Increase in S_r : Larger S and/or larger (P_j/P_n) . The country that uses the currency n gains competitiveness in relation to the other.
- Decrease in S_r : Lower S and/or Lower (P_j/P_n) . The country that uses the currency j gains competitiveness in relation to the other.

- **Bilateral** *versus* **Effective**

- Example: If the USD appreciates 10% in relation to JPY, not changing in relation to the rest of the currencies and trade with Japan accounts for 25% of the international trade of the USA, the dollar appreciated 2,5% in effective terms.
- Real effective exchange rate.