THE FINANCIAL REGULATION

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What do markets do?

- Basic functions:

  - Price setting
  - Asset valuation
  - Arbitrage
  - Raising capital
  - Commercial transactions
  - Investing
  - Risk management

The size of the markets

- OECD sought to estimate the total size of the financial market by examining the amount of financing raised by firms and goverments.
- Financing activity on international capital markets (USDbn)

State	1993	1994	1995	1996	1997
US	124,9	202,6	355	407,5	447,5
Germany	65,0	83,7	141,6	177,5	222,8
UK	51,3	77,4	87,2	116,4	181,2
France	58,0	62,7	46,2	89,3	84,9
Japan	85,4	74,2	121,4	83,2	79,2
Canada	38,7	39,1	37,1	44,3	42,7
Australia	27,3	23,4	19,9	35,1	38,4
Italy	31,2	28,0	32,1	29,9	30,7
Total incl others	**818,6**	**967,6**	**1 284,3**	**1 571,6**	**1 769,3**

The size of the markets

- Financial markets grew extremely rapidly during the 1990s.
- The general increase in financial-market activity can be traced to four main factors:
- **1. Lower inflation**
  - Inflation rates around the world have fallen sharply over the past decade.
  - Inflation erodes the value of financial assets and increases the value of physical assets.
- **2. Risk management**
  - Innovation has generated many new financial products whose basic purpose is to redistribute risk.
  - This has led to enormous growth in the use of financial market for risk-management purposes.

The size of the markets

- **3. Pensions**
  - Changes in demography and working patterns have made pay-as-you-go schemes increasingly costly to support, as there are fewer young workers relativve to the number of pensioners.
  - This has stimulated interest in pre-funded individual pensions, whereby each worker has an acoount in which money must be saved, and therefore invested, until retirement.
- **4. Stock and bond market performance**
  - The rapid increase in financial wealth feeds on itself: investors whose porfolios have appreciated are willing to reinvest some of their profits in the financial markets.
  - And the appreciation in the value of their financial assets gives investors the collateral to borrow additional money, which can then be invested.

Investors

- Investors can be divided into 2 categories:
  - **A) Individuals** – they own a small proportion of financial assets.
  - **B) Institutional investors** – they are responsible for most of the trading in financial markets.
- The driving force behind financial markets is the desire of investors to earn a return on their assets.
- This return has 2 distinct components:
  - **1. Yield** is the income the investor receives while owning an investment.
  - **2. Capital** gains are increases in the value of the investment itself, and are often not available to the owner until the investment is sold.

Attributes of the financial markets

- **Liquidity** – the ease with trading can be conducted.
  - In an illiquid market an investor may have difficulty finding another party ready to make the desired trade, and the difference, or „spread“, between the price at which a security can be bought and the price for which it can be sold, may be high.
  - Trading is easier and spreads are narrower in more liquid markets.
- **Transparency** – the availability of prompt and complete information about trades and prices.
  - Generally, the less transparent the market, the less willing people are to trade there.

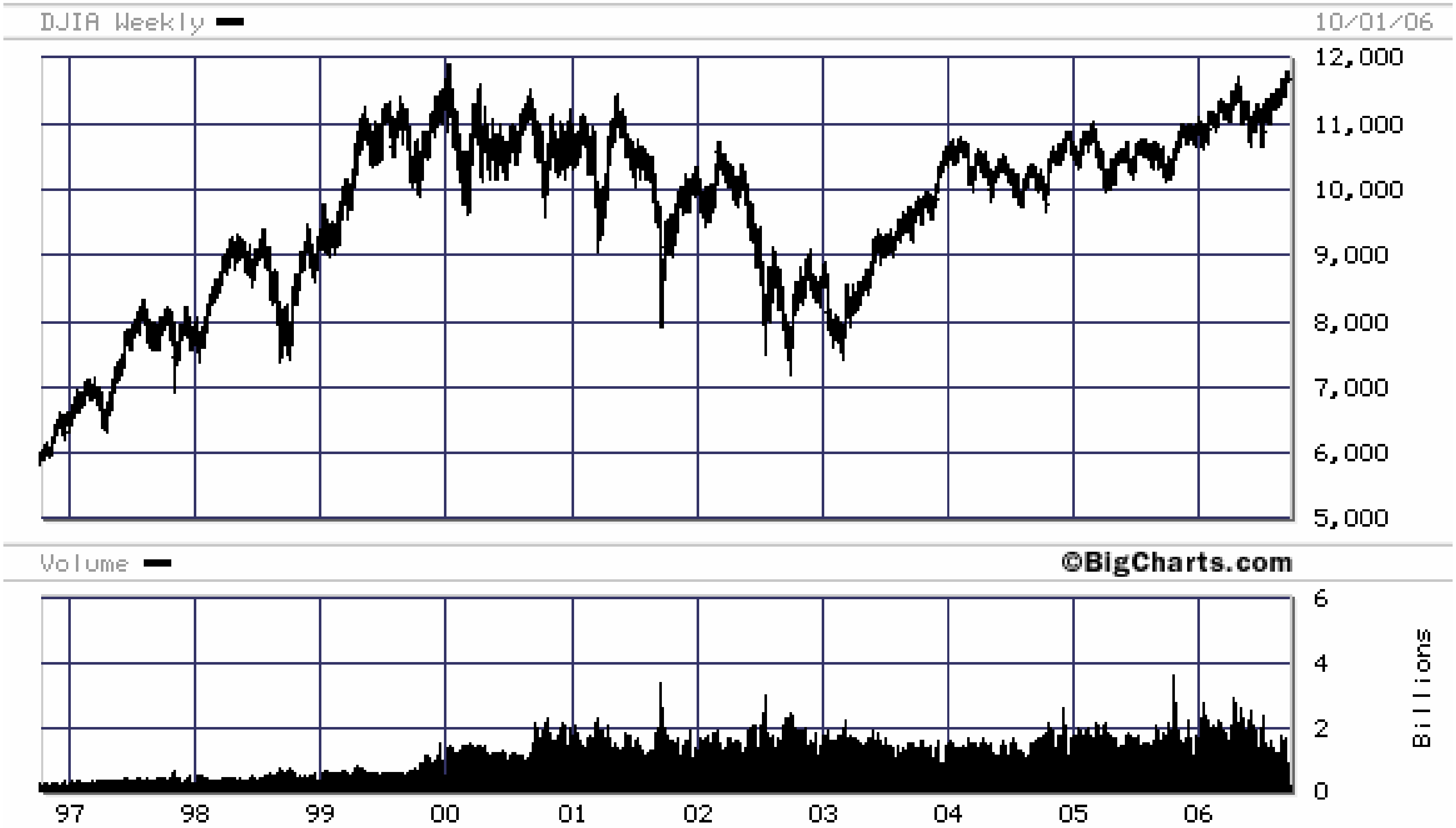
Attributes of the financial markets

- **Reliability** – particularly when it comes to ensuring that trades are completed quickly according to the terms agreed.
- **Legal procedures** – adequate to settle disputes and enforce contracts.
- **Suitable investor protection and regulation**
- **Low transaction costs**
  - Many financial-market transactions are not tied to a specific geographic location, and the participants will strive to complete them in places where trading costs, regulatory costs and taxes are reasonable.

The forces of change

- **Technology**
- **Deregulation** – the trend towards deregulation has been worldwide.
- **Liberalisation** – a general liberalisation of rules governing participation in the markets.
- **Consolidation** – liberalisation has led to consolidation, as firms merge to take advantage of economies of scale or to enter other areas of finance.
- **Globalisation**

DJI 10y



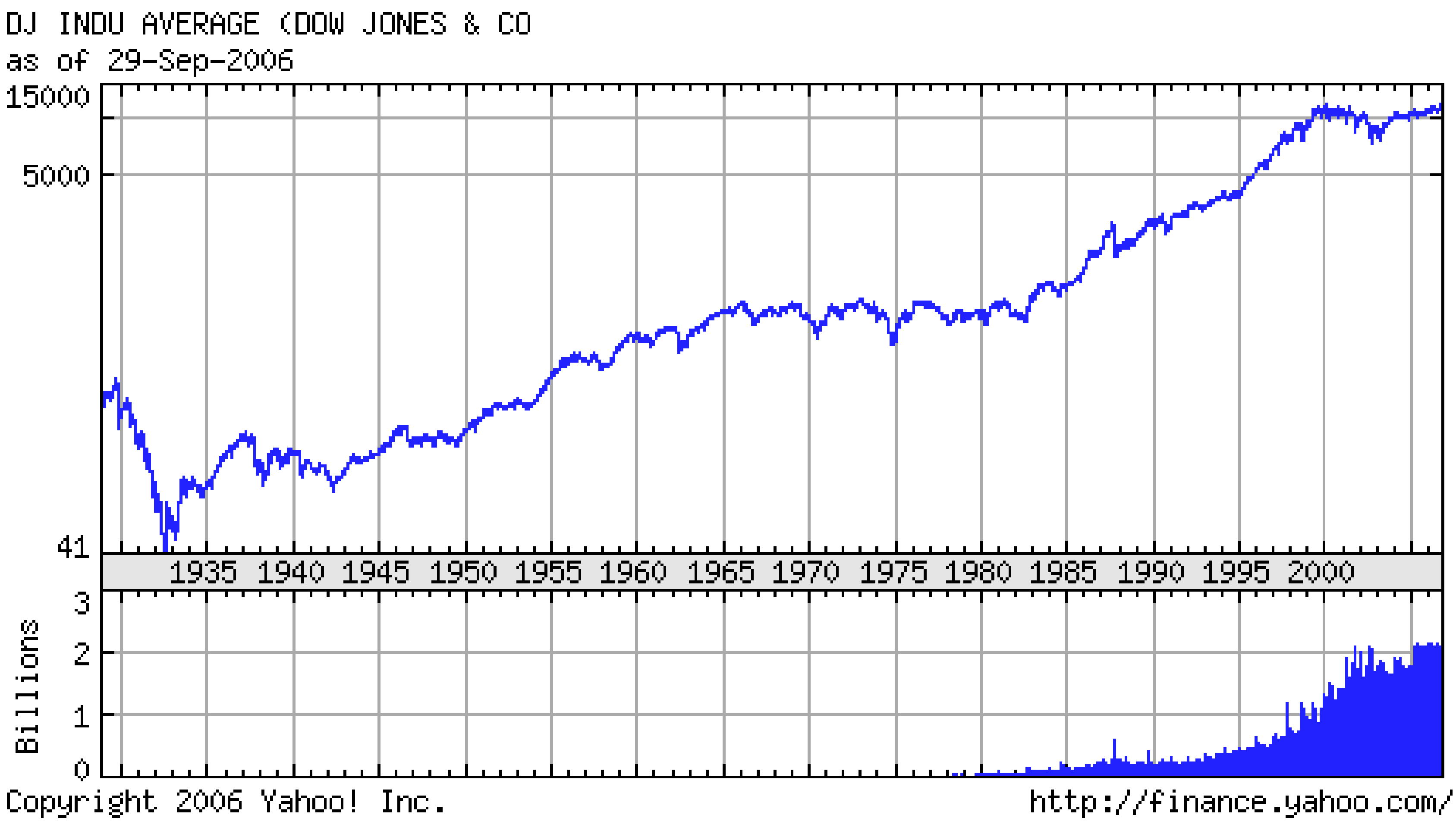
DJIA Weekly
10/01/06
12,000
11,000
10,000
9,000
8,000
7,000
6,000
5,000
Volume
©BigCharts.com
6
4
2
0
Billions
97
98
99
00
01
02
03
04
05
06

NASDAQ Composite 10y

S&P 500 10y

SP500 Weekly
10/01/06
1,600
1,500
1,400
1,300
1,200
1,100
1,000
900
800
700
600
Volume
©BigCharts.com
Exchange provides
no volume data.
97
98
99
00
01
02
03
04
05
06

DJI



DJ INDU AVERAGE (DOW JONES & CO
as of 29-Sep-2006
15000
5000
41
1935 1940 1945 1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000
3
2
1
0
Billions
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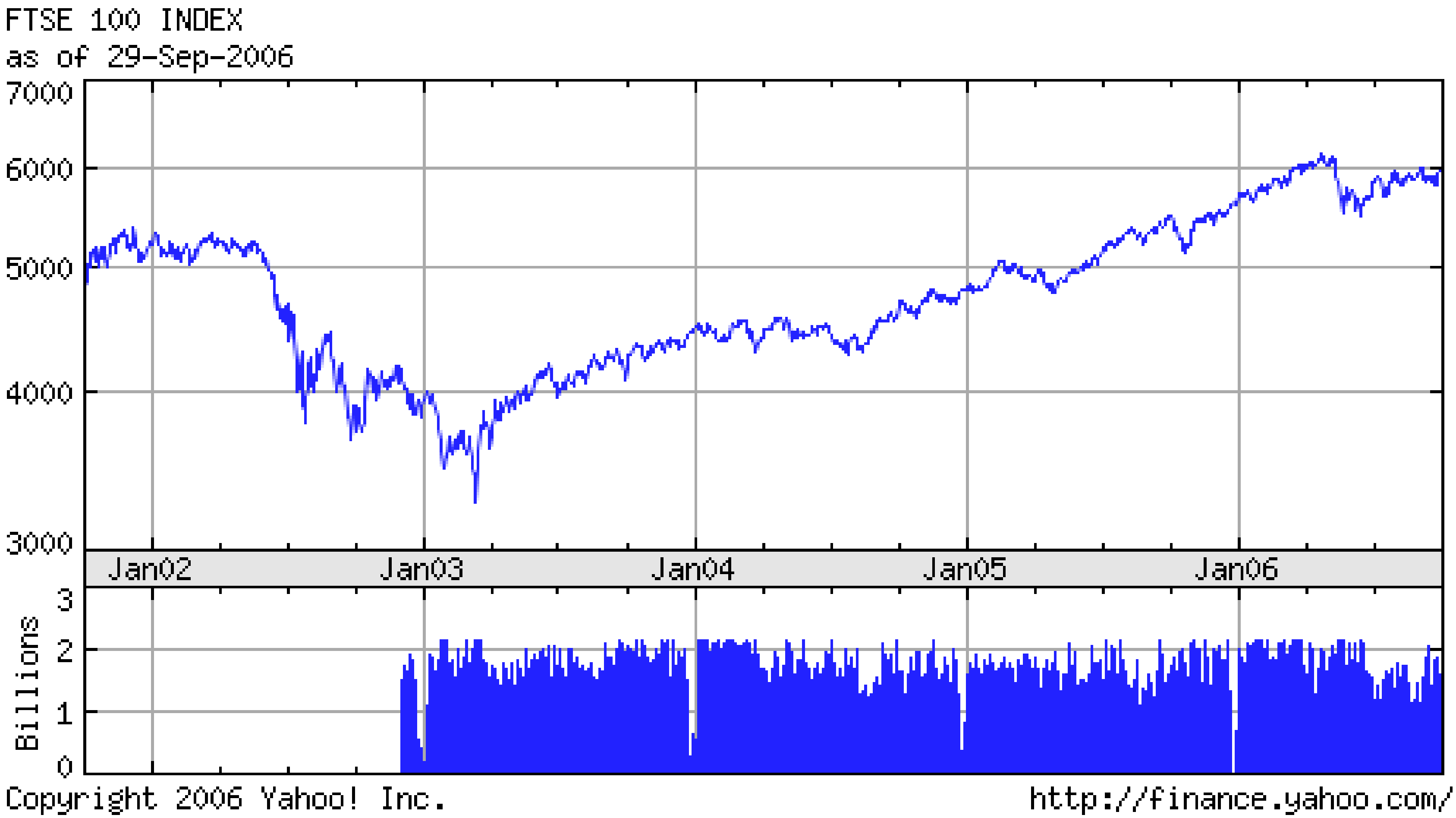
FTSE 100


FTSE 100 INDEX
as of 29-Sep-2006
7000
6000
5000
4000
3000
Jan02
Jan03
Jan04
Jan05
Jan06
3
2
1
0
Billions
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DAX 5y

GERMANY DAX INDEX
as of 29-Sep-2006
7000
6000
5000
4000
3000
2000
Jan02
Jan03
Jan04
Jan05
Jan06
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DAX 10y


GERMANY DAX INDEX
as of 29-Sep-2006
9000
8000
7000
6000
5000
4000
3000
2000
1000
1995
2000
2005
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NIKKEI 225


JAPAN NIKKEI 225 INDEX
as of 29-Sep-2006
40000
30000
20000
10000
7607
1985
1990
1995
2000
2005
1.5
1.0
0.5
0.0
Billions
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2. Foreign-exchange markets

Foreign-exchange markets

- In every country prices are expressed in units of currency.
- The value of the currency itself can be judged only against an external reference = the exchange rate. It becomes the fundamental price in any economy.
- Determining the relative values of different currencies is the role of the foreign-exchange markets.
- The foreign-exchange markets underpin all other financial markets.
- They directly influence each country´s foreign-trade patterns, determine the flow of international investment and affect domestic interest and inflation rate.

FX Market History

- 1944
  - Bretton Woods Agreement
  - National currencies fixed to USD & gold
- 1971
  - USD not exchangable for gold
- 1978
  - Free floatation
- +/- 1995
  - Public access

How currencies are traded

- The foreign-exchange markets comprise four different markets.
- **1. The spot market**
  - Currencies for immediate delivery are traded on the spot market.
- **2. The futures market**
  - The futures markets allow participants to lock in an exchange rate at certain future dates by purchasing or selling a futures contract.
- **3. The options market**
  - Currency options give the holder the right, but not the obligation, to acquire or sell foreign currency or foreign-currency futures at a specified price during a certain period of time.

How currencies are traded

- **4. The derivatives market**
  - Most foreign-exchange trading now occurs in the derivatives market.
  - There are traded financial instruments that include following:
- **A) Forward contracts**
  - are agreements providing for the sale of a given amount of currency at a specified exchange rate on an agreed date. Unlike futures contracts currency forwards are arranged directly between a dealer and its customer.

How currencies are traded

- **B) Foreign-exchange swaps**
  - involve the sale or purchase of a currency on one date and the offsetting purchase or sale of the same amount on a future date, with both dates agreed when the transaction is initiated.
- **C) Forward rate agreements**
  - allow two parties to exchange interest-payment obligations.
- **D) Barrier options and collars**
  - are derivatives that allow a user to limit its exchange-rate risk.

The players

- Participants in the foreign-exchange markets can be grouped into four categories:

  1. Exporters and importers,

  2. Investors,

  3. Speculators,

  4. Governments.

Favourite currencies

- The most widely traded currency is the US dollar.
- It has accounted for 40 – 45% of all spot trading since the first comprehensive survey in 1989.
- The most popular currency trade, the exchange of US dollars and euros.
- Accounted for 30% of currency-market activity.
- The dollar/yen trades accounts for 20%.

Favourite currencies

- Traditional foreign-exchange trading, by currency, April 2001

	% of average daily turnover
US dollar	45.2
Euro	18.6
Japanese yen	11.9
Pound sterling	6.6
Swiss franc	3.1
Canadian dollar	2.3
Australian dollar	2.1
Swedish krona	1.3
Hong Kong dollar	1.2

Why exchange rates change

- In the very short run exchange rates may be extremely volatile, moving in response to the latest news.
- In the longer run exchange rates are determined almost entirely by expectations of real interest rates.
- A country´s real interest rate is the rate of interest an investor expects to receive after subtracting inflation.
- The mechanism whereby real interest rates affect exchange rates is called covered interest arbitrage.

Black Wednesday of GBP

- 16th Sept 1992
- UK government of the day was forced to withdraw the Pound from the European Exchange Rate Mechanism (ERM) due to pressure by currency speculators—most notably George Soros
- GBP joined European Exchange Rate Mechanism (ERM) in 1990, GBP/DM rate 2,95
- Wrong timing
  - Current account + fiscal deficit
  - UK inflation 3x higher than in Germany

Black Wednesday of GBP

- Speculators pressure
- Government defense
  - Bank of England intervened on open market
  - Increase of interest rate to 15 %
  - unsuccessful
- Georg Söros

GBP/DEM 2,95

100 000 GBP sold, 295 000 DEM purchased

GBP/DEM 2,20

295 000 DEM sold, 134 000 GBP purchased

ECU

Currency	Weight in ECU
BEF	8.183%
DEM	31.955%
DKK	2.653%
ESP	4.138%
FRF	20.316%
GBP	12.452%
GRD	0.437%
IEP	1.086%
ITL	7.840%
LUF	0.322%
NLG	9.98%
PTE	0.695%

3. Money markets

Money market

- The term „money maket“ refers to the network of corporations, financial institutions, investors and governments which deal with the flow of short-term capital.
- Money markets are webs of borrowers and lenders, all linked by telephones and computers.
- At the centre of each web is the central bank whose policies determine the short-term interest rates for that currency.
- There is an identifiable money market for each currency, because interest rates vary from one currency to another.

What money markets do

- There is no precise definition of the money markets.
- But the phrase is usually applied to the buying and selling of debt instruments maturing in one year or less.
- Issuers of money-market instruments are concerned with cash management or with financing their portfolios of financial assets.
- Money markets attach a price to liquidity, the availability of money for immediate investment.
- The interest rates for extremely short-term use of money serve as benchmarks for longer-term financial instruments.

Money-market funds

- Investors typically purchase money-market instruments through funds, rather than buying individual securities directly.
- Money-market fund pools money-market securities, allowing investors to diversify risk among the various company securities in the fund.
- Money-market funds are a comparatively recent innovation.
- They reduce investors´ search costs and risks.
- They are also able to perform the role of intermediation at much lower cost than banks (they don´t need branch offices, etc.).

Individual sweep accounts

- Individual sweep accounts are multipurpose accounts at banks or stockbrokerage firms, with the assets used for paying current bills, investing in shares and buying mutual funds.
- Any uncommitted cash is automatically „swept“ into money-market funds or overnight investments at the end of each day, in order to earn the highest possible return.
- People with large amounts of assets often invest in money-market instrument through sweep accounts.

Interest rates and prices

- Borrowers in the money markets pay interest for the use of the money they have borrowed.
- Most money-market securities pay interest at a fixed rate, which is determined by market conditions at the time they are issued.
- Some issuers prefer to offer adjustable-rate instruments, on which the rate will change from time to time according to procedures laid down at the time the instruments are sold.
- The value of money-market securities changes inversely to changes in short-term interest rates.
- Because money-market instruments are short term, their prices are much less volatile than the prices of longer-term instruments.

Types of instruments

- 1) Commercial paper
  - Is a short-term debt obligation of a private-sector firm or a government-sponsored corporation.
  - In most cases, the paper has a lifetime, or maturity, greater than 90 days but less than nine months.
- 2) Bankers´ acceptance
  - An acceptance is a promissory note issued by a non-financial firm to a bank in return for a loan.
  - The bank resells the note in the money market at a discount and guarantees payment.
  - Acceptances ussually have a maturity of less than six months.

Types of instruments

- 3) Treasury bills
  - Often referred to as T-bills, are securities with a maturity of one year or less, issued by national governments.
  - Treasury bills issued by a government in its own currency are generally considered the safest of all possible investments in that currency.
  - Such securities account for a larger share of money-market trading than any other type of instrument.
- 4) Government agency notes
  - National government agencies and government-sponsored corporations are heavy borrowers in the money markets in many countries.

Types of instruments

- 5) Local government notes
  - They are issued by state, provincial or local governments, and by agencies of these governments such as schools authorities and transport commissions.
- 6) Interbank loans
  - Loans extended from one bank to another with which it has no affiliation are called interbank loans.
  - Many of these loans are across international boundaries and are used by the borrowing institution to re-lend to its own customers.

Types of instruments

- 7) Time deposits
  - Another name for certificates of deposit or CDs.
  - Are interest-bearing bank deposits that cannot be withdrawn without penalty before a specified date.
- 8) International agency paper
  - Is issued by the World Bank, the Inter-American Development Bank and other organisations owned by member governments.
- 9) Futures contract on money-market rates

Repos

- Repurchase agrrements (repos) serve to keep the markets highly liquid, which in turn ensures that there will be a constant supply of buyers for new money-market instruments.
- A repo is a combination of two transactions.
- 1. A securities dealer, such as a bank, sells securities it owns to an investor, agreeing to repurchase the securities at a specified higher price at a future date.
- 2. In the second transaction, days or months later, the repo is unwound as the dealer buys back the securities from the investor.

Repos

- The amount the investor lends is less than the market value of the securities to ensure that it still has sufficient collateral if the value of the securities should fall before the dealer repurchases them.
- In a reverse repo the roles are switched, with an investor selling securities to a dealer and subsequently repurchasing them.
- The benefit to the investor is the use of cash at an interest rate below that of other instruments.
- Repos and reverse repos allow dealers, such as banks, to maintain large inventories of money-market securities while preserving their liquidity by lending out the securities in their portoflios.