Off-exchange market, financial instruments

11th March 2009

Off-exchange market

- Off-exchange market is market where operations are not limited by exchange statue
- Its operations are also limited by directions or rules but there are more moderate then in exchange market.
- Off-exchange market is a competitor of exchange market.

Off-exchange market

- Existence and function of off-exchange market is determined by several circumstance:
  - Strict conditions for quotation of financial instruments in exchange market.
    - For instruments that do not fulfill quotation in exchange market is off-exchange market alternative way for trading, liquidity and pricing of issued instruments.
  - Trading in stock exchange is determined by schedule.
    - After exchange hours is possible to trade only in off-exchange markets (some of them trading 24/7).
  - Off-exchange market as a competition
    - lower transactional payments, or
    - favorable trading conditions for particular investors (ARIEL, TRADEPOINT, etc. – trading system for institutional investors with lower transactional costs).
  - Because Off-exchange markets are not bound by so strict rules as stock-exchanges they are able to offer techniques of trading according to particular investors requirements.

NASDAQ

- Organized off-exchange market in USA is supported by electronic system NASDAQ (*National Association of Security Dealers Automated Quotations*) –quote driven system.
- Nowadays in NASDAQ is traded with
  - More than 3000 stock issuances
  - More than 2000 debt issuances
- There is more than 500.000 traders and about 500 market makers.

NASDAQ

- Trading system in NASDAQ works in several levels.
  - Lower level (the cheapest) – offers the flow of information through information agencies Reuters or Quatron. There are no to disposal of information about quotation of market makers.
  - Upper level – information about quotations of market makers. It is possible to trade with them.
  - Top level (the most expensive and the largest) - traders operate as a market maker.

NASDAQ

- Conditions for quotation in NASDAQ
  - Minimal volume of emission – 4 millions USD
  - Minimal number of public trade securities in emission:
    - 100.000 securities – segment of small companies
    - 500.000 securities

Specific market segments in NASDAQ

- Nasdaq National Market
  - More strict condition for trading
  - More traded securities – blue chips
- SmallCap Market
  - Segment for small, new starting companies
- SOES (*Small Order Execution System*)
  - Trading with at most 1000 securities in one trading order
  - Guarantee trading with the best price in the market
- NASDAQ International
  - Trading in standard (London) time
- NASDAQ Canada, NASDAQ Japan, NASDAQ Europe.

Investment instruments and their characteristics

- Investment instrument
  - Asset that brings claim for future revenue
  - Revenue is in the form of:
    - Dividends
    - Coupon payments
    - Interests
    - Exchange rate profits

Financial instruments

- Stocks
  - Long term security without maturity day.
  - Type of stocks
    - Common stocks
      - most widespread and most traded
    - Prior stocks
      - Limited voting rights, priority for dividends
      - In USA two types of prior stocks. Common and cumulative prior stocks.
        - Common prior stocks – dividends only if company gets profit.
        - Cumulative prior stocks – lower dividend payment but together with commutation of dividend payment claims for years when company gets loss. Cumulated claims from bad years are paid out in good years.

Financial instruments

- Bonds
  - Debtor security with
    - owner right for redemption and
    - issuer duty of settle a claim.
  - Maturity day is fixed.
  - Short-term bonds – several months
  - Long-term bonds – till 30 years
  - Issuer of bonds undertakes to
    - redeem face-value of bond and
    - pay coupon payments in regular intervals.
  - Coupon payment has several forms:
    - Fix interest rate
    - Difference between face value and emission price
    - Variable interest rate derivates from different interest rates or revenues, foreign exchange rates, etc.

Financial instruments

- Types of bonds
  - Straight Coupon Bonds
    - The oldest type o bond.
    - It is also known as a Vanilla Bond.
    - Purchase of this bond investor gets right to fixed coupon payment and face value that are paid at the same moment on maturity day.
    - For investor is this type of bond profitable in non-inflation environment and in time of interest rate decrease.
    - For issuer is this type of bond profitable in inflation environment and in time of interest rate increase.

Financial instruments

- Floating Rate Notes – FRN
  - Bonds with floating coupon payment.
  - The high of coupon payment is very often derived from particular referential value (PRIBOR, LIBOR, BRIBOR, etc.).
  - Interbank referential rate is only starting point for coupon payment. To this variable level is very often crediting fixed premium (6M PRIBOR + 0,1%).
  - Coupon payment imitates with delay the development of market interest rates. Investor participate in the growth and decline in market interest rate (risk and chance).

Financial instruments

- In same types of FRN there are strictly defined borders for movements of coupon payments.
  - Floor FRN minimal border for decline of coupon payment.
  - Cap FRN maximal border for growth of coupon payment.
  - Minimax FRN maximal and minimal border
  - Droplock FRN if interest rate decline under determine border FRA is converted into Straight Coupon Bond.

Financial instruments

- Zero Coupon Bonds
  - Bonds without coupon payment.
  - This type of bond is issued with discount it means that issue price is lower than face value.
  - In the maturity day is paid back face value.
  - The profit for investor is difference between issue price and face value.
- Index-Linked Bonds
  - Coupon payment is determined by development of some index - wages, prices, oil or some market index.
    - With real indexing
      - Development of index-linked bonds is determined by changes in real asst prices.
      - During growth of inflation the price of most real assets is growing
      - This bonds retain value in high inflation environment because the value of real asset is rising.
    - With financial indexing
      - Development of index-linked bonds is determined by changes in financial instruments prices e.g. stock index.

Financial instruments

- Mortgages bonds
- Municipal bonds
- Convertible bonds
  - This bond links classical bonds rights with right to convert this bond into another
    - Bond or
    - stock of the same issuing company
  - Investor into this convertible bond must decide in particular day if
    - converts bond into another instrument or
    - retains bond till maturity when takes face value and regular coupon payments.

Financial instruments

- The coupon payments of this bond are lower than in case of standard bonds.
- Suitable for situation when investors assume that stocks of issuing company are underestimate and expects future growth in their price.

Financial instruments

- Subordinated bonds special type of bonds
  - in case of liquidation or bankrupt the claims of owner of subordinated bonds will be settled after settlement of all other claims.
- The best know subordinated bonds are follows:
  - Junk Bonds
    - Bonds of poor quality
    - Rating in level of speculative (Ba, BB, B)
    - Issued by
      - companies where occur decline in financial situation – Fallen Angels or
      - young, starting companies with high risk profile
    - Junk Bonds
      - High risk but also above-average revenue
      - The value of Junk Bonds reacts to sensitive in economy cycle

Financial instruments

- Callable Bond
  - According to predefined conditions can be withdraw by issuers or investors.
- Perpetuity Bond
  - Without maturity
  - Coupon payments for unlimited period
  - Issued usually by government

Rating

- Revenue that is expected from particular bond is derived from level of risk related with particular bond.
- For appreciation of credit risk is used rating.
- Credit risk – depends on issuers and possibility to settle their obligations.
- Rating offer information how is particular subject able to fulfill engagements in time and in full extent.

Rating

- First rating is related with debenture bonds of railway companies in USA. Made in 1909 by John Moody.
- In 1914 first rating company Moody's Investor Service.
- In 1916 rating company Standard & Poor's.
- The development of rating from the 1960's-70's in USA and 1970's – 1980's in Europe.
- The first activities was related with rating of debenture bonds and bill of exchange.
- Nowadays rating companies carry out rating of
  - Bonds, mortgages, derivatives or instruments as a result of securitization.
  - Companies, cities, countries, etc.

List of Ratings

Credit Quality	DBRS		Moody's		S&P		
	Long Term	Short Term	Long Term	Short Term	Long Term	Global CP Scale	Canadian CP Scale
Superior	AAA	R-1 high	Aaa	P-1	AAA	A-1+	A-1 (high)
	AA high	R-1 high	Aa1	P-1	AA+	A-1+	A-1 (high)
	AA	R-1 mid	Aa2	P-1	AA	A-1+	A-1 (high)
	AA low	R-1 mid	Aa3	P-1	AA-	A-1+	A-1 (high)
Good	A high	R-1 low	A1	P-1	A+	A-1	A-1 (mid)
	A	R-1 low	A2	P-1	A	A-1	A-1 (mid)
	A low	R-1 low	A3	P-2	A-	A-2	A-1 (low)
Adequate	BBB high	R-2 high	Baa1	P-2	BBB+	A-2	A-1 (low)
	BBB	R-2 mid	Baa2	P-2	BBB	A-2	A-2
	BBB low	R-2 low	Baa3	P-3	BBB-	A-3	A-3
Speculative	BB high	R-3 high	Ba1	Not Prime	BB+	B	B
	BB	R-3 high	Ba2	Not Prime	BB	B	B
	BB low	R-3 high	Ba3	Not Prime	BB-	B	B
Highly Speculative	B high	R-3 mid	B1	Not Prime	B+	C	C
	B	R-3 mid	B2	Not Prime	B	C	C
	B low	R-3 low	B3	Not Prime	B-	C	C
	CCC	R-3 low	Caa	Not Prime	CCC	C	C

Financial instruments

- Options

  Options are financial instrument which give the holder the right, but not the obligation, to buy (call) or to sell (put) an underlying asset at a predetermined price (exercise price or strike price) on or up to a certain date (European or American exercise style).

Financial instruments

- Underlying assets
  - The option derives its price from the value of an underlying asset. This can be a
    - stock,
    - index,
    - basket or any other financial asset.
  - A basket is a group of two or more assets, such as shares or indices.
  - Usually baskets have an investment theme, commonly a region or a sector (such as shares of banking or telecommunications companies).

Financial instruments

- European and American style
  - Options can be classified as a European or American style according to time period when holder may use its right to receive payment.
  - European style holder can use its right only in particular predetermined maturity day.
  - American style holder can use its right on any business day till particular predetermined maturity day.

Financial instruments

- First option exchange was established in 1973 in Chicago.
  - Chicago Board Options Exchange
  - About 60 % of all option trades is in North America
  - About 30 % in Europe and the rest is Asia
- According to embodied right
  - Call Option – right to buy underlying
  - Put Option – right to sell underlying
- Premium
  - The price of option

Financial instruments

- Motions to use options
  - Speculation
    - bear or bull market trend
  - Hedging, especially
    - Interest rate risk
    - Exchange rate risk

Financial instruments

- Call option
  - A call option is an financial instrument which gives the holder the right, but not the obligation, to buy an underlying asset at a predetermined price (exercise price or strike price) on or up to a specified date (European or American style).
  - A call option gives the holder the possibility to benefit from an increase in the value of the underlying asset, while limiting potential losses to the premium paid.

Financial instruments

- A put option is a financial instrument which gives the holder the right, but not the obligation, to sell an underlying asset at a predetermined price (exercise price or strike price) on or up to a specified date (European or American style).
- A put option gives the holder the possibility to benefit from a decrease in the value of the underlying asset, while limiting potential losses to the premium paid.

Financial instruments

- In case of put or call options there are different expectations between buyer and seller.
- According to character of trade:
  - Exchange trading options
  - Off-exchange trading options
- Exchange trading options are traded together with financial futures in derivative exchanges from the 1970's. All options parameters are standardized:
  - Underlying, exercise price, maturity day
- Off-exchange trading options are designed according to investor requirements, esp. to hedge against risks.

Financial instruments

- Warrants
- A call warrant is a tradable security which gives the holder the right, but not the obligation, to buy an underlying asset at a predetermined price (exercise price or strike price) .
- A put warrant is a tradable security which gives the holder the right, but not the obligation, to sell an underlying asset at a predetermined price (exercise price or strike price).

Financial instruments

- Warrants are in some characteristics similar to options but there are also differences:
  - Warrant is security issued by one issuer
  - Option is not security and it is issued by more persons.
  - Warrants are traded in spot markets, are not under strong standardization and offer several types of underlying.
  - Options are traded in future exchanges, are under strong regulations and types of underlying are limited.
  - Warrants has duration several years
  - Option has duration several mounts
  - Number of issued warrants is fixed determined
  - Number of options is daily changeable.
  - According to right dominates call warrants
  - Number of call and put options are almost similar

Financial instruments

- Warrants has been traded since 1850's.
- The interest of investors has increase since the 1980's.
- Motivations to use warrants
  - Hedging of current low price of financial instrument for future buy.
  - Hedging of current high price of financial instrument for future sell.
  - Speculation for future bull or bear market – leverage effect.
- Leverage effect
  - Investor profit from warrant investment can rise in some conditions quicker than profit in particular rising underlying.
  - The reason is that investor invest less money in warrant then is direct investment in underlying.
  - But leverage effect works in both ways in decline of underlying the decline in warrant price is higher.

Financial futures

- Financial futures contract is a standardized contract, traded on a futures exchange, to buy or sell a certain underlying instrument at a certain date in the future, at a specified price. The future date is called the delivery date or final settlement date. The pre-set price is called the futures price. The price of the underlying asset on the delivery date is called the settlement price.
- A futures contract gives the holder the obligation to buy or sell .
- Financial futures contracts are not issued but it is necessary to meet buyer and sell of contract.

This process is called as a matching.

Financial instruments

- Real assets
  - Financial instruments in physical, material form.
- Advantages of investment in real assets
  - Hedging again inflation
  - Diversification in portfolio
  - Hedging against political uncertainty
  - Revenues
- Disadvantages
  - High transactional costs
    - Spread between bid and offer about 20-25%
    - financial assets spread about 0,5-2 %.
  - Non-existence of liquid and effective market
  - Volatility of revenues in short time period

Financial instruments

- Precious metals, especially
  - Gold, platinum, palladium
  - The revenues from precious metals are volatile and investment in precious metal is related with higher risk.
- Investments in gold instruments
  - Nowadays in the world there is about 150 000 tunes of gold, yearly is mined about 1600-2000 tunes.
  - Investment n gold instruments are in form of
    - Direct investment - goldbrick, ingot
    - Indirect investment - “paper gold” - stocks of mining companies, gold bonds, etc.

Financial instruments

- Direct investment
  - Centers: London, Zurich, NY, Hong-Kong, etc.
  - Spot or future trades
  - Spot trades
    - Physical buy of goldbrick, ingots with delivery till 2 days
    - Investor can gold takes physically or deposit in bank -> gets certificate about proprietorship.
    - With spot trading of gold are related storage and insurance costs about 2-3% per year.
    - Standard goldbrick weights 400 troy ounce (12,44 kg) and it is called bar.
    - For retail investors are created tola bars or Ten tola bars with weight about several grams.

Financial instruments

- Future trades in form of
  - Gold swaps, gold loans and gold forward sales
  - Traded in OTC markets
  - Main traders: gold producers, central banks and gold dealers.

Financial instruments

- Gold loans
  - Financing of gold mining, used since 1982.
  - Before gold mining a company borrows gold that sells and moneys uses for gold mining financing.
  - Mined out gold is used as a payment for first gold loan.

Financial instruments

- Forward sales are used by mining companies to sell gold that will be mined in several years.
  - Main purpose is a hedging against decline in gold price.
  - Forward sales are mediated by banks called bullion banks.
  - This bank borrows (usually from central bank) gold in volume that is expected to be mined and sells the gold in spot market.
  - Money from this transaction are deposited in money market.
  - Several mounts later mining company returns mined gold together with interest payment to central bank.
  - Mining company gets back money from money market together with interest payments minus interest payments paid central bank and provision for bullion bank.

Financial instruments

- Investing in stocks of gold mining companies
  - The value of gold mining companies is determined by development of price of gold.
  - Movements of these stocks are under leverage effect it means that 1% change in price of gold effect several percentage change in price of gold mining companies stocks.
  - Beside price of gold these stocks are determined by
    - Mining costs, political and economical situation in the country, labour costs, etc.
- Gold bonds
  - Index bonds their price is related with price of gold.
  - The best know – France government issue – Pinay and Giscard.

Financial instruments

- Diamonds
  - The most of diamond supply is under control of South African company DeBeers Consolidate Mines Limited that
    - keeps 1/3 of all diamond mine.
    - controls about 75 % of world trade with not-cutted diamonds.
- Real Estate
- Arts

Thank you for your attention