Chapter 1.   Introduction

1.1   MAIN WORLD FINANCIAL MARKETS

1. The market of the exchequer obligations (fixed incomes). The exchequer obligations act as the goods in this market let out by corresponding state institutes of the countries, the state exchequers and the Ministries of Finance. As a rule, the profitability depends on a term of repayment and a discount rate valid in the country.

2. The precious metals market (commodities). The goods in this market are precious and rare metals (silver, gold, platinum, a palladium, etc.). As it is known from the past, practically all currencies have passed a stage of maintenance with that or another precious metal, from silver (silver dollar) and up to gold maintenance. Investment of funds of precious metals in the market allows to get profit, concerned to quotations of the prices on precious metals, because precious metals always can "be exchanged" for money. Investor always can place available precious metals in the banks and receive credit using "metal" deposits for realization of the other purposes. At a rise in prices of precious metals placed on deposit. The investor's property grows and the incomes received from the credit only increase his capital.

3. The share markets (Stocks). Stocks of the companies are the goods in this market. The formation of the share markets has started in the beginning of the last century – the market of stocks of the companies. The investment of funds in this segment of the financial market is attractive to the investor for two reasons. Firstly, investing funds in the stocks of this or another company, the investor acquires the right for reception of share of the company profit – dividends, so to speak that usually make up to 10 % of the invested funds sum. Secondly, the cost of the gained stocks can increase (at successful development of the company). Thus, profitability from investments into stocks has two components - the dividend and a difference between price of the stock and current price of the stock. Trade in stocks is carried out at regional stock exchanges, such as, the New York stock exchange, the Tokyo stock exchange, the Frankfurt stock exchange, the London stock exchange, etc.

4. The international currency market FOREX (currency). The goods in this market are currencies of various countries. It is the youngest and most roughly developing of all segments of the financial markets. Profitableness of investment in this market depends on change of currencies quotations. Attractiveness of investment in this market is concerned to quickness of transaction fulfillment and additional bank service (crediting of transactions with a credit leverage 1:100) also can make tens or even hundreds annual interest rates.

1.2. GENERAL FOREX MARKET DATA

At the end of 70th of the previous century after fixed rate system of national currencies in relation to US dollar was canceled formation of currency FOREX market has started. (Foreign Exchange Operations – set of operations on sale and purchase of foreign currency, and granting of loans on concrete conditions, (the sum, the exchange rate, and the period with execution for the certain date). The basic participants of the currency market are: commercial banks, currency stock exchanges, the central banks, the firms carrying out the foreign trade operations, investment funds, the broker companies and private persons. FOREX today is the global market incorporated by a uniform communication network which opens on Monday morning in New Zealand and gets closed on Friday night in the USA. FOREX trade is divided on some trading sessions.

Operating time of FOREX (round the clock) GMT(Winter time)

Region	City	Open Time	Close Time
ASIA	TOKYO	23:00	08:00 – 09:00
	HONK KONG	01:00	09:00 – 10:00
	SINGAPOUR	01:00	09:00 – 10:00
EUROPE	FRANFURT	06:00	14:00 – 15:00
	LONDON	10:00	18:00 – 20:00
AMERICA	NEW YORK	13:00	20:00 – 21:00
	CHICAGO	14:00	21:00 – 22:00
PACIFIC	VELLINGTONE	21:00	05:00 – 06:00
	SYDNEY	22:00	06:00 – 07:00

The American and Asian sessions are the most aggressive, and great volume of operations belongs to the European session. New Zealand and Australian sessions are the quietest. The main currencies which are shared on the basic volume of all operations in the FOREX market today are: Euro (EUR), Japanese Yen (JPY), Swiss franc (CHF) and English Pound (GBP) and US dollar (USD). The daily volume of conversion operations in the world makes about 2 billion US dollars. In the London market it was necessary about 32 % of turnover, on a share of the markets of the USA - 20 %, Germany - 10 %. Operations with US dollar make 70 %. About 15 % volume in FOREX market today is on a share of electronic brokers. The daytime volume of operations of the largest international banks (Deutsche Bank, Barclays Bank, Union Bank of Switzerland, City Bank, Chase Manhattan Bank, Standard Chartered Bank) reaches billions of dollars. (Spot) operations or current conversion operations are transactions of currency sale and purchase of refer to as actual execution (value) which is carried out for the second working day after the day the transaction was made. According to the data for 1998, about 40 % of all Forex-activity fell at the Spot-market.

Typical transaction volumes in interbank trade make 10 million dollars, but due to margin trade system, the output on the market is accessible also to the individuals with small capital. The brokers rendering margin trade services, demand entering of the mortgaging deposit and enable the client to make operations of currency sale and purchase for the sums, 40 - 50, sometimes a 100 times bigger, than plased deposit. The risk of losses is assigned to the client. The deposit serves as the maintenance insuring the broker.

Sources of the information about condition of the financial markets - systems of real time delivering the data on quotations of currencies, and also financial and economic news from the international agencies, REUTERS, DOW JONES, CQG, BLOOMBERG, TENFORE, etc.

Currency Rates

Currency Rate - is the price of monetary unit of one country, expressed in monetary units of the other country, at the sale and purchase transactions. Such price can be established proceeding from a parity of supply and demand of certain currency according to conditions of the free market, or to be strictly regulated by decision of the government or its main financial body, usually Central Bank.

Quotation - It is a cost of one currency unit (named base currency), expressed in terms of another currency (named quoted or counter currency). The base currency enters the first, quoted - the second, in designation of quoted currency pairs (for example, USD/CHF). The quotation will consist of two figures. The first figure - (Bid) - the price client can sell the base currency at; the second - (Ask or Offer) - the price client can buy the base currency for quoted. The difference between these rates is known as (spread). The size of spread depends on the considered pair currencies, from the sum of the transaction and from a condition of the market.

The minimal change of the quotation refers to - as (Point, Pip) item. Different tools (currency pairs) are quoted with different accuracy, with different quantity of decimal signs in the quotation. The majority of currencies quoted to within 0.0001, for example, yen and its cross-rates - to within 0.01. As the senior figures of the quotation (Big Figure) get changed slowly, the quotation, as a rule, is given in abbreviated form: CHF 1.2380/84 for example, USD/CHF 1.2380/1.2384.

Example:
Quote: USD/CHF 1.2380/84 means, that the client can sell dollars at the price - 1.2380 Swiss francs for 1 USD; The client can buy dollars at the price - 1.2384 Swiss francs for 1 USD; spread is 4 points; base currency - USD, quoted - CHF.

quote GBP/USD 1.8430/33 meaning, that the client can sell pounds at the price of 1.8430 dollars for 1 GBP; the client can buy pounds at the price of 1.8433 dollars for 1 GBP; spread is 3 poins; base currency - GBP, quoted - USD.

The direct and inverse quotation — *The direct quotation - quantity of national currency for one unit of foreign currency. The inverse quotation - quantity of a foreign currency for national currency unit.*

Use of the direct and inverse quotation has a historical substantiation. The basic world reserve currency is American dollar therefore quotations for the majority of currencies are used such as USD/JPY, USD/CHF, I.e. the dollar is base currency. However in the quotation of pound sterling (GBP/USD) the pound is base currency, and dollar - quoted. The European currency of

euro is also quoted to American dollar as a base currency (EUR/USD). It frequently should be known in information systems currencies reduce USD, i.e. USD/CHF designate as CHF, and GBP/USD designate as GBP.

Cross-countries-rates are parity between two currencies following from their rate in relation to the third currency rate. Cross rates with US dollar are frequently used at world market operations, as the US dollar is not only the basic reserve currency, but also currency of the deal in the majority of currency transactions

Example: EUR/CHF = (USD/CHF) * (EUR/USD)

Spot-Rate – The currency price of one country, expressed in currency of the other country, established at the moment the transaction made, under the currency swap condition by banks-contractors for the second working day from the date of the transaction making.

The spot-rate reflects, how high the national currency rated at the moment of operation carrying out outside following country

Basic rules of curreny pairs composing

1. EUR always represents itself as base currency.
2. GBP always represents itself as base currency, except for a case with EUR
3. JPY always represents itself as counter currency.

	Cross rates (without USD)
EUR/USD	EUR/GBP
GBP/USD	EUR/CHF
USD/CHF	EUR/JPY
USD/JPY	GBP/CHF
USD/CAD	GBP/JPY
AUD/USD	

Margin Trade

As against currency transactions with real delivery or real exchange, the Participants of FOREX, especially if they have a small capital, use trade with insurance deposit - margin or leverage trade. Each operation at margin trade necessarily has two stages: purchase (sale) of currency under one price and then obligatory sale of it (purchase) at another (or at the same) the price. The first action is defined as opening of position, and the second - closing of position. The real delivery of the currency does not occur at opening of a position, and the participant who has opened a position, brings an insurance deposit serving as an indemnification of possible losses guarantee. The insurance deposit comes back, and there is a calculation of the profit or losses, which are usually equivalent to the size of insurance deposit after position closing. Thus the deposit is frequently a hundred times less than that sum given the participant for use in this trading operation. Operation at margin trade necessarily consists of two parts: position opening and closing. For example, at the predicting rise in price (amplification) of yen in relation to dollar we want to buy a cheaper yen for dollars now and to sell it back when it becomes more

expensive. In this case operation will look as follows: position opening - purchase of yen, closing a position - its sale. All the time the position is not closed, we have "an open position of yen ". In the same way, if we suppose that yen will become cheaper (weak) in relation to dollar our operation will consist of such steps: opening of a position - sale of yen, closing a position - purchase of fallen in price yen. Thus, we have an opportunity to gain profit both at increase and decrease of an exchange rate.

Absence of uniformity in the quotations of different currencies makes certain inconveniences, especially for beginners. So, increase in a rate (movement of the chart upwards) for pound and for euro in relation to dollar (GBPUSD, EURUSD), means a rise in price of these currencies and downfall of dollar. And for franc, yen (USDCHF, USDJPY) means increase in rate (movement of the chart upwards), fall of these currencies and rise of dollar. Generally, during movement of the chart upwards the base currency raises in price, quoted currency becomes cheaper.

For extraction of profit from the transaction it is necessary to buy cheaper (below at the chart) and to sell more expansive (above at the chart). The sequence of these actions of value has no necessity i.e. it is possible to sell all over again above, and then to buy below.

Deal Making

The making of transaction consists of several stages: quote request, quote reception, submission of a command and confirmation of the transaction. It is necessary to specify interesting pair of currency (tool) and the sum of the transaction at request. Thus it is not necessary to inform the broker on the intentions - buy or sale. After reception of the quotation it is necessary to give Buy or Sell command. The decision should be accepted beforehand as the answer should be given within seconds - the market prices constantly change so the broker can cancel the quotation and offer another price. Then the broker will confirm the transaction conclusion and it already cannot be cancelled after the confirmation.

It is needed to specify the sum of base currency, and usually the transaction sum is multiple up to 100 000 units of base currency (1 Lot) at the Forex market.

Open position

The open position is a condition when the trader is under risk because when the change of the exchange rates influences a condition of his account or, being expressed in different way when he can get profit or loss because of change of the exchange rates. If the trader has leaded the operation of currency purchases then they say he's in a long position (long). Short position (short) - if he sold.

Example:
Position opening. If the transaction Buy 100 000 GBP is made at the rate 1.8400 and accordingly Sell 184 000 USD, that was the long position of pound (so to speak on GBP/USD) and a short position of US dollar. Position closing. If now you strike a Sell 100 000 GBP bargain, thus the position will be closed. Thus the profit or loss will be received, depending on a closing rate.

Profit or loss calculation If you have bought the goods (currency) at one price, then have sold it at another one, then the profit or loss will make a difference between the price of sale and purchase of the transaction multiplied by the sum of the transaction. Profit or loss= Transaction sum * (Sell price – Buy price)

In a general view the formula of calculation of the profit and losses looks as follows:

$$Profit/Loss = N_{lots}*100000*(Sell-Buy) - N_{lots}* Commission - N_{lots}*100000*Overnight*N_{days}/365,$$

where N_{lots} – quantity of lots 100 000each, used by trader

Sell – sell price of base currency

Buy – buy price of base currency

Spread – the commission raised by the dealing company

Overnight – difference in interest rates between base currency and counter currency for operations Sell or Buy, depending on operations made by the trader. It is raised only in a case if trader has not had time to close a position the same day. It can be positive (it is paid due to the trader), and negative (is paid extra to the trader) N_{days} – Quantity of days the trader has closed a position within.

Possible profit or the loss (Unrealized P/L)

If you have an open position, you will have a necessity of possible profit or loss calculation during concrete moments of time as rate constantly changes. While the position is not closed, the profit or loss data is not finalized and refer to floating (possible or unrealized). If you close your position during this moment at this rate you will receive such profit or loss. Same formula should be used for calculation of possible profit or loss

You can carry out an output on FOREX only through the intermediary. The commission house or the dealing center could be such intermediary. These organizations give you an opportunity to use one of computer information systems such as Dow Jones Telerate, REUTERS and have the allocated telephone or computer channel with the broker that gives you the quotation of currency and you can make operations through. You also can directly work with the commercial bank or the broker house. At the second variant you reduce the quantity of intermediaries between you and FOREX that allows receiving more favorable operating conditions. Even if you are so solvent and presume to buy and pay to yourself monthly services of one of the information systems, the output on the active market participant (market-maker) giving you the price for transactions is necessary for you either way.

The prices you see on the computer screen are the prices of real FOREX transactions. The prices constantly change. Therefore you cannot simply call the broker and order operation under the price convenient for you as this price can not suit him. Before you make a deal you request for the price and can buy or sell only at the price given to you by broker. Firstly, do not forget that you are a passive participant of the market and cannot establish the price. Secondly, the broker will give you quotation poorly distinguished from what you see on the computer screen. You should specify what operation we want to make - purchase or sale at the closing or opening of a position. The commands Buy (to buy) or Sell (to sell) are used for this purpose

Participants of FOREX

The participants of this market, first of all, are large commercial banks through which the basic operations under the instruction of exporters and importers, investment institutes are carried out, insurance and pension funds, hedgers and private investors. These banks also carry out the operations in the interests due to own funds, thus volumes of daily operations in the large banks reach billions of dollars, and the basic part of the profit is formed only due to speculative operations with currency at some banks. Except for banks, the broker houses carrying out a role of the intermediary between a plenty of banks, funds, commission houses, the dealing centers, etc. Commercial banks and broker houses not only make operations on sale and purchase of currency at the prices which are exposed by the other active participants, but also offer own prices. Thus, they actively influence the process of pricing and a life of all market, therefore they are called (market makers).

As against the active participants, the passive participants of the market cannot expose own quotations and make currency purchase-sale under the prices offered by active participants of the market. Passive participants of the market usually pursue following purposes: payment of export-import contracts, foreign industrial investments, opening of branches abroad or creation of joint ventures, tourism, gamble on a difference of rates, hedging of currency risks, etc. The Central banks of the different countries come on FOREX, not only with the purpose of extraction of the profit, as a rule. They usually do it with the purpose of stability check up, or correction of an existing rate of the national currency. The correction of an existing rate of national currency influences on the national economy condition. The central banks also come out on the currency market through the commercial banks. Profit extraction is not the basic purpose of these banks, but unprofitable operations do not involve them as well. The central banks of different countries can carry out also the joint coordinated interventions. If the active participants make the operations with the big sums of a few million dollars, the passive participants can use margin trade. They have an opportunity to temporarily operate the capital, in one hundred times exceeding their deposit. Such way of trade allows to take a part in work of the currency market to fine investors with small capital and thus to receive significant profit. The structure of the basic participants of the market testifies that this market is actively used by "the serious business ", for the serious purposes. That means not all the market participants use FOREX in speculative purposes.

Chapter 2.   FUNDAMENTAL ANALYSIS
2.1   THE FACTORS INFLUENCING THE EXCHANGE RATE

One of the most important and complicated components of currency dealing is an ability to carry out the analysis of the market change tendencies and accordingly to foresee, what factors will affect the exchange rates and how it may happen. There are the opportunities of fast profit extraction, and the opposite - opportunities fast and substantial losses possible in the market price movement. Therefore the correct forecasting of the market movements, estimation of those or the other events, and also manipulation with gossips and expectations is a necessary component of work of the broker or dealer and a pledge of his successful activity. There is a multitude of factors influencing both all currency market as whole and separate currencies. There are two basic ways of the market situation analysis - fundamental and technical ways. The first is

engaged in estimation of situation from the point of view of a political, economic and financial-credit policy. The second one is based on graphic research methods and the analysis based on mathematical principles. There are various messages about currency-financial events in the world studied within the framework of the fundamental analysis. The phenomena of political and economical life both the separate countries, and the world community as a whole which can influence the currency market development, the analysis is carried out, in exchange rates they can result in what change. The important factor here is the information about work of stock exchanges and the large companies such as market-makers, discount rates of the central banks, an economic rate of the government, possible changes in a political life of the country, and also every possible gossips and expectations. The fundamental analysis is one of the most complicated parts and at the same time, one of key parts of work in the currency market. It's much more difficult to carry out the fundamental analysis than any other type of it because the same factors render unequal value on the market in various conditions and may become absolutely insignificant from deciding factors. It is necessary to know interrelation and mutual influence of two various currencies, reflecting communications between the various states, history of currencies development, to define cumulative result of those or the other economic measures and to establish communication between absolutely different at first sight events. Besides any primary and most formal rules, here is the greatest degree of operational experience in the currency market required. The factors reflecting a national economical situation an influencing currency rates are such:

- Parameters of economic growth (a total national product, volumes of industrial production, etc.)

- The condition of trading balance, a degree of dependence on external sources of raw material

- Growth of monetary weight in a home market

- The inflation rate and inflationary expectations

- The level of the interest rate

- Solvency of the country and trust to the national currency in the world market

- Speculative operations in currency market

- The of development of the other sectors of the world financial market degree, for example a securities market competing to the currency market.

2.2 GENERAL ECONOMICAL QUESTIONS AND BANKING SYSTEM

Central Banks

The Central Bank watches a rate of inflation in the country, a rate of national currency and tries to adjust them by means of three basic interest rates.

11. The Discount Rate. The interest rate, Central Bank finances commercial banks at.

USA	1.75%
Japan	0.15%

Euro zone	2.00%
Great Britain	4.75%
Switzerland	0-0.75%
Australia	5.25%
Canada	2.25%

The American and English rates are high, that's why foreign investors show the big interest to these.

2. The Rate – *Repo rate*. The interest rate used by the Central Bank in the operations with commercial banks and other credit institutes at purchase (account) of the state exchequer obligations. The Central Bank carries out regulation of the market of loan capitals. Fed Funds (rate Repo USA).

3. The pawn rate - Lombard rate. The interest rate used by the Central Bank on the security of the real estate, gold and values exchange at delivery of credits to commercial banks. There is the business activity raising and inflation increasing at the reduction of the interest rates. Decrease in interest rates leads to price reduction of national currency. Increase of the interest rates leads to decrease in business activity, decrease in inflation and rise in price of national currency. There is the method of influence a national currency rate remaining in modern conditions. It is the practice of purchase and sale of foreign currency by the central banks, named continues to currency intervention.

USA

Anerican Centrall Bank is called *Federal Reserve System*. The President – Alan Greenspan. The decision to change the interest rate is getting made by *FOMC* – Federal Open Market Committee, which session passes time in six weeks two days: Monday and Tuesday. Financial Ministry USA - Treasure = TSY. The President – Lawrence Summerce. Usually, when Summers speaks, the dollar rises in price; when Greenspan speaks, - the dollar falls.

GERMANY

German Central Bank – Bundes Bank. Session is carried out once in two weeks on Thursdays in Frankfurt, but rate Repo may be changed every week on Wednesdays. The President - Ernst Welteke. Bundes Bank is considered one of the most professional participants of the market.

UK

The central bank of the Great Britain – Bank of England (*BOE*). The manager of the bank - George (George). Usually the important messages under accepted decisions BOE act at 15:30 GMT.

SWITZERLAND

The Central Bank of Switzerland – Swiss National Bank (*SNB*). The bank of Switzerland is considered silent and cautious in the market. Watches closely a parity of rate EUR/CHF привело к скачку швейцарского франка с уровня 1.1400 до 1.1480 в течение нескольких минут, и далее до уровня 1.1580 в течение последующего часаfrom a level 1.1400 up to 1.1480 within several minutes, and further up to a level 1.1580 within the next hour

JAPAN

The central bank of Japan – Bank of Japan (*BOJ).* Differs from the other Central Banks with unexpected and very powerful currency interventions.

Alongside with the central banks in the currency market, the broker firms also function, working with concrete bank and represent itself as intermediaries between currency seller and buyer. It is possible to attribute anonymity to the certain advantages of work via broker at fulfillment of transactions such as a continuity of process of the quotation, and an opportunity to offer own prices. There was a change of trade character with transferring accent on change of trade promptness last decades such as: significant growth of transactions. The execution of those occurs in the future. All this has led, on the one hand, to the raised susceptibility of the currency market, to tactical changes and to substantial growth of currency fluctuations, and on the other hand, to growth of opportunities of highly effective investment. There is a wide circulation alongside with the operations on purchase and sale of currency gotten by the operations with derivative financial tools - financial futures and options. Examples of such stock exchanges are: the London International Stock exchange of Financial Futures (London International Financial Futures Exchange - LIFFE), (European Options Exchange - EOE), the German Urgent Stock exchange in Frankfurt (Deutsche Terminboerse - DTB), the Singapore Stock exchange (Singapore International Monetary Exchange - SIMEX) (Sydney Futures Exchange - SFE) and the Stock exchange of Urgent Trade in Sydney.

MonetaryUnits

M_0, M_1, M_2, M_3 – MONEY SUPPLY.

M_0 - Cash in circulation, banknotes and coins;

$M_1 = M_0$ + Funds for settlement and current accounts in the banks, traveler's cheques;

$M_2 = M_1$ + Fixed deposits in the banks;

$M_3 = M_2$ + Valuable state papers.

The accelerated growth of monetary weight, both in cash, and in the non-cash form, renders lowering influence a rate of national currency. The consumer price index (Consumer Price Index - CPI) is a retail price index. The price index of the manufacturer (Producer Price Index - PPI) is an index of wholesale prices. When those indexes run high the national currency rate runs high as well. It is considered allowable growth of these indexes up to 3 % a year.

Gross Domestic Product – GDP

The economical situation gets up and down as same as GDP . Optimal change is up to 3% a year. If it is higher then it brings an inverse reaction. Then it is necessary to enter the raised rates that will cause rise in price of national currency. CPI and PPI once a month M/M are considered. *GDP - quarterly Q/Q also it is recalculated for a year Y/Y.*

It is necessary to pay attention to the following parameters at the analysis of a developed situation in the market: Incomes and charges of citizens

Personal Income

Sensation of the consumer, readiness of the person to spend money (*Consumer Sentiment*)

Construction Spending

Hosing Starts

*Building Permit**s*

New Houses Sales

Existing Houses Sales

Unemployment Rate – It is calculated once a month. At increasing in a parameter the national currency becomes cheaper. The primary reference on unemployment (*Imital Claims*).

Continued reference (*Continuing Claims*).

Retail trade (*Retail Sales*) – When the commodity circulation gets better, currency gets stronger

Orders of dealers for the durable goods (*Durable Goods*).

All the above shown information is usually broadcasted at 19:30 and 21:30 GMT (Reuters,CQG).

JAPAN

Fiscal year of Japan comes to the end on March, 31. By the end of the year, a plenty of foreign currency in yens is converted for leading balances that leads to to its rise in price. Many insurance companies of Japan are the largest players in the market: USD/JPY, USD/EUR, EUR/JPY, SFR/JPY, GBP/JPY. The big problems in Japan are caused with the growing old population. Deduction of the small interest rate for many years has caused a skew in bank sphere, But, nevertheless, banks of Japan remain the largest world banks. Strengthening of South-East economy for the long term will give chance to yen to become the basic currency for the Asian region.

SWITZERLAND

Switzerland is not going to enter the European Community, thus, emphasizing the independence. Appeal of CHF remains very high. But there are some problems associated to nazi gold which put reputation of large Swiss banks under doubt.

UK

Presence of high interest rates in England defines the big interest of world speculators that affects economic parameters as a whole. England - the conventional world financial center, the main offices of the largest investment giants are located here.Thre is a v very rigid legislation function regulating financial activity of the companies, banks and stock exchanges operates inn territory of the country.

Chapter 3. *TECHNICAL ANALYSIS*

3.1   SUBSTANTIVE PROVISIONS

TECHNICAL ANALYSIS – The research of the market dynamics by means of charts, as the purpose of forecasting the future direction of the price movement. The «dynamics of the market» term includes three basic sources of the information, at the disposal technical analytics, namely: the price, volume and open interest (with reference to the future markets). As the price we shall understand "thermodynamic" balance between a supply and demand on the following currency. And does not matter, what this balance is caused with: estimations of macroeconomic parameters, recommendations of experts, psychology of currency traders or any other circumstances. As well as any other scientific discipline, the set of axioms makes basis of methods of the technical analysis:

The axiom 1 - Dynamics of the market takes everything into account. That means that any factor influencing the price - political, economic and psychological - is taken beforehand into account and reflected in dependence of the price on time. Therefore the analysis of the price charts is a necessary condition for the forecasting.

The axiom 2 - The prices always move directive
The periods of growth and fall always alternate with each other so there is a tendency prevailing inside each of them. And it is active till the market opposite direction movement begins.

The axiom 3 - History repeating. That is so because the human psychology in the basis is constant. It is supposed, that if the certain types of the analysis worked in the past these will also work quite successfully in the future as this work is based on stability of human mentality. In the point of view of the technical analysis, the understanding of the future lays in studying the past so to speak. Methods of the technical analysis are subdivided into two parts - classical methods, and methods that basis strict mathematical laws lay in.

3.2   CLASSICAL METHODS

Movement Price Charts

It is possible to reveal the general laws of movement of the prices with the help of the visual analysis of the train diagram of the price. Graphic dependences of the price on time are called charts. There are a few types of price charts.
- ❑ *Line Charts*

Each point of the line chart can represent a level of the price the following trading day was closed or opened on. Or the average value of all price fluctuations for the certain period. By virtue of the simplicity, the linear chart is convenient for using at early stages of studying of the

market and making of the trading plan.

❑ *(Bar Charts)*

Way of the graphic analysis of the prices via of special objects - bars. The vertical line between the highest and lowest prices of the considered period is carried out for building of bars. There are the small strokes designating the price of opening and closing accordingly are represented on the left and on the right. Histograms are useful with the representativity and help to make the best forecasts via classical trend and reversal patterns.

❑ *(Candlesticks)*

There is as same data, as for bars are used for candle construction. The candle is under construction as follows: there is the rectangle named a body of a candle is drawn in an interval between the prices of opening and closing. Vertical sticks from above and from below bodies refer as shadows. Color of a candle body depends on a relative positioning of opening and closing prices. If an opening price is higher than a closing price, is green (or painted over). In another case the candle body is red (or unpainted).

The diagrams of the prices are under construction on various individual pieces of a time scale. These pieces can have the most different values – from minimally possible (determined by opportunities of all information-analytical system), up to sizes about hours, days, weeks and even years. It is necessary to always commensurate scales of considered time intervals, and sizes of individual pieces of an absciss scale analyzing charts. The scale of the price in different types of the price charts also can be different - arithmetic or logarithmic. The logarithmic scale reflects non absolute (as an arithmetic scale) and relative change of the price and can be useful at drawing up of long-term schedules.

Trend analysis. The basic kinds of trends.

Three types of trends (tendencies) on a direction of the price movement:
"Bullish" (up trend) – The prices move upward

"Bearish" (down trend) – The prices move downward
(flat, whipsaw, sideways trend) – There is no certain price direction.
        Three types of trends (tendencies) in duration:
Long - term – Trend for from 6 months up to several years.
Medium term (intermediate) - a trend for from 2 weeks up to 6 months.
        Short-term (small) - a trend within 2 weeks.

Organic laws of the price movement: The valid trend with the greater probability will be prolonged, than will change a direction. It will move in the same direction.

        Basic Rule: "Trend Is your friend"
   Consequence: " do not work against a trend ".
        Basis of all methods and means of the technical analysis is revealing a trend - a prevailing direction of the prices movement. There are three kinds of trends: "bullish", "bearish" and lateral. *"Bullish"* –the growing trend is characterized by that each subsequent rise and a hollow on the price chart, is higher than the previous one (Fig. 1). The line limiting such trend from below refers to as a line of a trend.
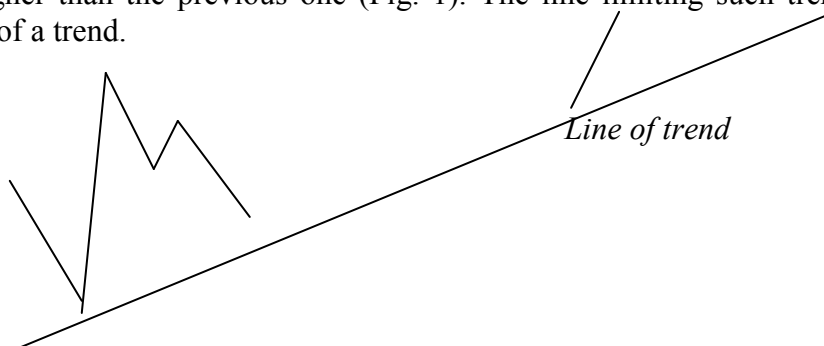

Line of trend

"Bearish" – Or the descending trend arises when the subsequent peaks and hollows lower than previous components (a Fig. 2). The line of a trend limits the price chart from above.
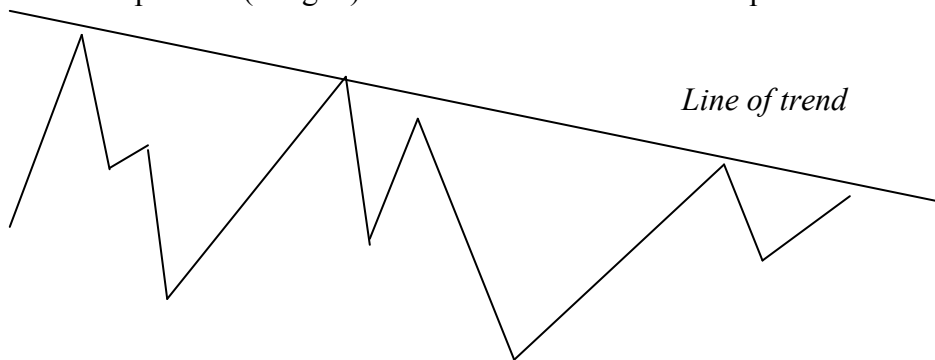
Line of trend

Line of support (resistance) – The line putting price minimum (maximum) together. In dynamics of the market these lines frequently pass each other.

Line of support (resistance)

15
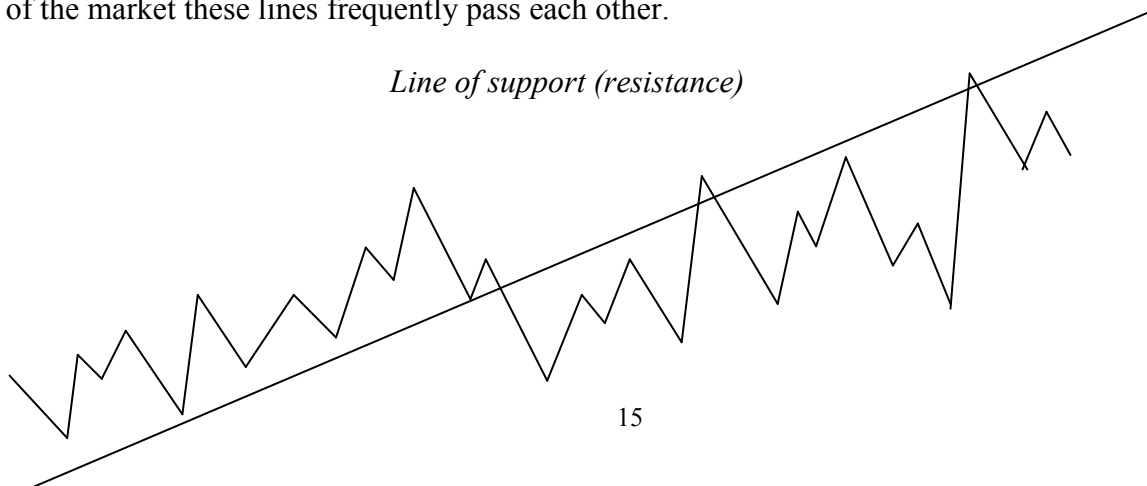
Lateral, or the horizontal trend is characterized by absence of the strongly pronounced ascending or descending tendency of price movement in the market. At a lateral trend the price changes in a horizontal range, in a vicinity of the average value.

Line of resistance
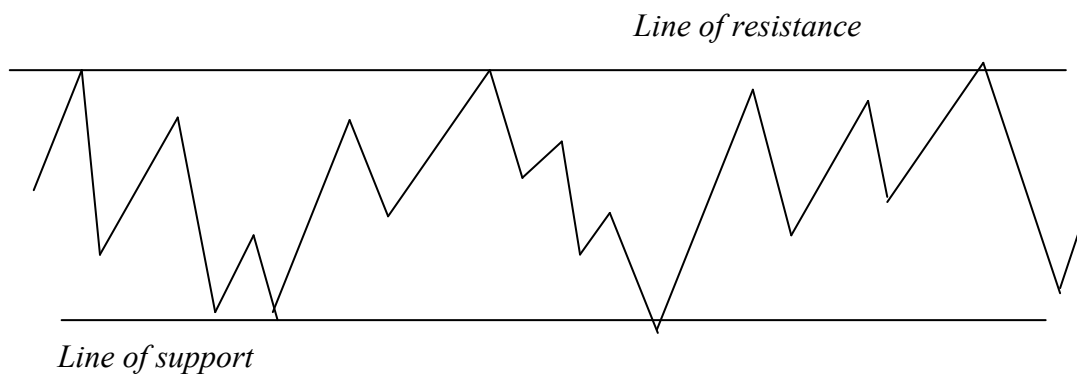
Line of support

Levels of support and resistance – Values of the prices that serve as original levels for the price chart by virtue of the certain reasons. Coming nearer to those levels the probability of rebound from values of the prices raises up. One of criteria of a trend power is his reaction to levels of resistance and support. Breakthrough of a support / resistance level means, that the dominating trend keeps the power. And if the trend encounters the resistance or support, being not capable to overcome those, we receive especially strong signal about a weakness of a trend, and there is more probability of a reverse in the future. Therefore the trading decisions in that levels area should be made how the price chart will lead itself after it contacts this level.

The line of the channel can be constructed, if movements of a trend are uniform at first approximation. The line of the channel is drawn in parallel a line of a trend and settles down above the schedule of the price at the bull trend, and lower - at bear trend. In the figure resulted below, 2 parallel lines designating an Up-trend, i.e. "bull" are shown. The red line lead from below is a line of a trend and simultaneously is a line of support. The line from above is a line of the channel and a line of resistance. Similarly the trend is under construction at a Down-trend ("bear") and Flat ` e (the lateral trend – there is no directed movement).

Following from above told information is necessary to work in a direction of movement at the bull trend I.e. buy at the line of support also we close a position at the line of resistance, it is similar at the bear trend. But there is already sell.

Lengths of correction

Exchange rates in FOREX change in zigzag way. Frequently the prices move against the existing tendency. Such movement is called rolling back or correction. Fibonacci numbers and factors have found a wide application in the technical analysis. Those numbers got certain mystical sense so to speak. At the calculation of correction lengths (sizes of recoil of the price against a trend) Fibonacci factors are used 0.382 and 0.618, and also factor 0.5.

There are three basic lengths of correction which apparently are equal accordingly 38,2 %, 50,0 %, 61,8 % from the gone length of a rate (between red horizontal lines) are visible in the figure resulted below. Thus, it is visible, that the first correction (movement against the general current tendency) there is up to 38,1 %, the second up to 50,0 % and the third accordingly up to 61,8 % from the gone length of a rate then there is a turn aside the basic movement.

Correction - temporary change of a trend

Turn back - global change of a trend

Patterns of technical analysis

All set of typical patterns of the technical analysis can be divided into 2 parts: continuation patterns and reversal patterns. *Continuation patterns* – the figures of corrective (temporary) character

Reversal Patterns – The figures signalizing global reverse of the trend.
Let us see it detailed.

(Reversal Patterns)

First of all it is necessary to make sure that well defined previous trend is available before you start to search for a reversal pattern. The first signal about correctness of the revealed pattern is a breakthrough of any important line of a trend.

1. Head And Shoulders – One of the most important and known разворотных figures for the bull trend. Its distinctive parts are a head and two shoulders. After you made sure that the Head and Shoulders pattern has appeared, it is necessary to wait for the neck line breakthrough that will define the end of all patterns and the beginning of a new descending trend. The minimal quantity to of the price fall will be equal to distance between head and neck.
The neck line and two shoulders are shown in the picture.

Reversed Head and Sholders - Mirror image of just considered figure. All considered rules also will be fair for this figure with necessary amendments on mirror reflection.

2. *Double Top and Double Bottom* are also frequently met figures. The parallel lines both types of top and a bottom develop between are the levels of resistance and support.

Threefold Top or Threefold Bottom are weaker patterns (According to the point of view of further back turn confidence)
Top is a signal about upcoming recession, and the *bottom* - about rise of the prices.

Basic (Continuation Patterns)
Triangles are the most widespread figures of such type. These triangles distinguished depending on position of limiting lines. The top line is a line of resistance, and bottom - a line of support. It is carried out for all fluctuations inside a triangle.

Most frequently it is possible to meet a narrowed triangle. Its frontlines converge into one point and get symmetrically inclined to horizon.   The narrowed triangle can correct any trend. The ascending and descending triangles are met less often. One of the parts is parallel to an axis of time, and another one is inclined, coming nearer to the first one with development of a triangle (in time). The ascending triangle is more characteristic as bear market correction. The explanation of this is such: its top front line is parallel to horizon and represents a strongly pronounced level of resistance. At the same time its frontline below is dimmer and it is difficult

to define a level of support clearly.

After the end of each triangle it is necessary to expect renewal of movement in a direction of a previous trend. It is possible to define the moment when the triangle is ended, by the following criteria: there is an odd quantity (not less than five) of waves inside each triangle. Narrowed, ascending and descending triangles usually come to the end close to the point of crossing of the frontlines, but not later. After the end of a triangle the price should change its value sharply (to raise or go down), i.e. to punch corresponding frontline. The phenomenon when the price starts to change after the end of a triangle is called *strike* or *impact*. The minimal purpose for strike is equal to the length of the biggest wave of a triangle. The strongest strike is observed in case if the last wave of a triangle does not touch the frontline, and comes to the end earlier. It is visible in the figure, that impact has taken place in 5/31 point area and has come to the end with a change of quotation level up to 0.8460, just on size of the biggest wave of a triangle - 80 pips.

Flags and Pennants are less often met figures. Their differences from triangles will consist in a relative positioning of the top and bottom borders. The flag and pennant remind descending and ascending triangles. *Wedge* is a model of the small triangle inclined against a direction of the tendency. If the bias is in a direction of the tendency then the crisis of the tendency is most probable. The breakthrough occurs between 2/3 up to 1 as a rule.

Analyzing "flag", "pennant" and "wedge " figures it is necessary to realize that potential of the price movement after break trough is equal to a size of "staff", as a rule. *The rectangle* - is very similar to threefold top. For definition of a kind of a formed pattern, the analysis of oscillators and the analysis with the help of parameters of volume are used. After the breakthrough the price will move in direction of it. The distance is not less, than height of a rectangular. Borders of a rectangular will serve in the future as good levels of resistance - support.

As the general recommendation to trading it is possible to notice that there is no point to trade "inside" a triangle or any other pattern of continuation, because there are more chances to lose money at such price fluctuations than chances to win. It is necessary to start the deal right after the terminations of a continuation pattern when the sharp rise or recession of the prices is expected.
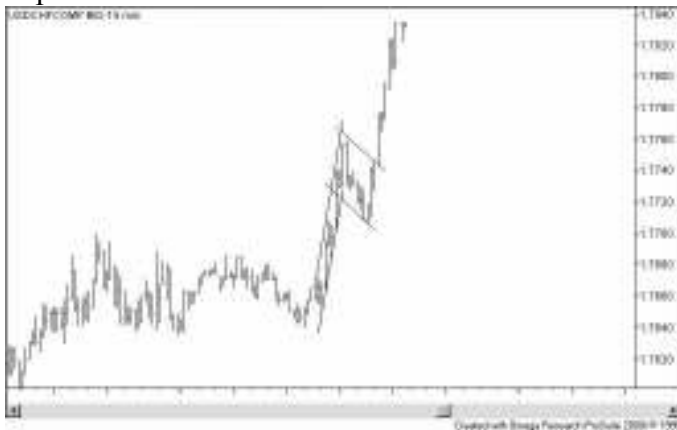
Summarizing all above said about patterns of the technical analysis we shall notice, that forecasting with only classical figures using is not too effective by virtue of criteria for definition of this or that formation are indistinct. All signals are perceived subjectively: where one person can see "Threefold Top ", another can see " Head and Shoulders ". However simplicity and presentation peculiar to methods of the classical analysis can always help with a choice of the

decision about the character of price change. For the quantitative description of dependences of the prices on time there are the strict mathematical parities included in the second branch of methods of the technical analysis exist - mathematical methods.

3.3   MATHEMATICAL METHODS

Statistical methods

Statistical methods separate trend price movements from non trend movements, extremes of the market from its uniform development. Methods of this group in the various ways submit signals about reverse of the bull or bear trend and also confirm this or that script of the price development - growth, recession or absence of significant movements. For construction of the indicators on the basis of statistical methods, the methods of mathematical statistics and probability theory are used.

(Moving Averages)

Moving Aaverage It is one of the oldest, simple and consequently most frequently used parameters. The following parameter is an arithmetical mean of closing prices of the fixed number of previous periods of time, including current period.

Basic rules of building:

The longer the period of time the average is under construction lasts, the smaller order of the most average should be chosen (For daily time charts the order is no more than 89, for weekly charts - not more than 21), short averages can be applied without restrictions

The more longly average is, the less its sensitivity is. The average of very small order gives many false signals. The average of very big order is constantly late. At a lateral trend the averages are applied with bigger order, than as usual.

(Moving Average - MA):

MA = (The sum of the prices for the period of time) / Order of average

Main lack of MA is that it reacts to one change of a rate twice: at reception of value and at Its leaving out of rate.

(Weighted Moving Average - WMA):

WMA = (The sum of generation of prices and weights) / (sum of weights)

(Exponentially Moving Average - EMA):

EMA(t) = EMA(t - 1) + (K x [Price(t) - EMA(t - 1)],

где t - *Current moment,*

  t - 1 - *previous moment,*

  $K = 2 / (n + 1)$,

  n – *Period of the average.*

Main advantage of EMA is that it includes all prices of the previous period, not just a piece apeared at the set of the period. Thus the greater weight is given to later values.

The general rules of the analysis:
to find crossing points of the average and the chart of the price
to find the points following maximum or minimum of the average
to find the points of the largest divergence the average and the chart of price.
Look after direction of movement of the average.

Moving averages work good on trend market and very bad in non trend (flat) market because delay of the moving averages will generate false signals.

(Bollinger bounds)

At the process building of the following indicator not only average, but also a standard deviation of sequence of closing prices is calculated. *Standard deviation* is a measure of disorder of random variables from average value that is equal to a square root from dispersion. Then three lines are drawn: average and two bounds which will defend from it on quantity of a standard deviation or the double value of a standard deviation.
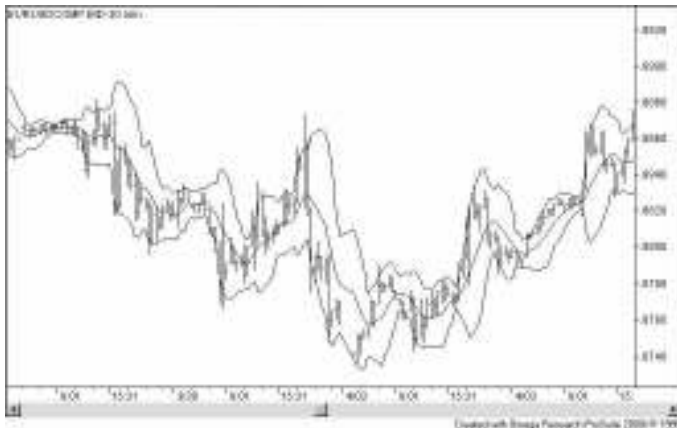
According to bases of probability theory in a corridor in width of two standard deviations gets about all 2/3 values of the prices, and there will be already 95 % of values in an interval in four standard deviations. Crossing of Bollinger bounds or its breakthrough is usually a good signal of the subsequent rebound.

(Parabolic Time Price System)

It is developed and described Wellas Wilder in 1976. The initial name ("stop and revers" - SAR).

Primary goal of PTP is to show the basic trend and thus to define the moment of closing open before positions during a reverse of a trend. The closing price is calculated daily under the formula:

Stop(Tomorrow) = Stop(Today) + AF x [EP(Today) - Stop(Today)], where
Stop(Today) - Current closing price;
Stop(Tomorrow) – Closing price of tomorrow;
EP(Today) - Extreme level of current day trading;

AF - The factor of averaging, in the first day is accepted equal 0,02, then calculated under the formula:

AF = 0,20 + n x 0,02,   where n - Number of new tops (lowlands).

Classical signal for transaction fulfillment is crossing of the price chart with PTP line is a reverse of a trend, or its time stabilization.

Oscillators Use of oscillator families is one of the most simple and at the same time reliable ways of reception of forecasts about further movement of the price. As against moving average the using of those oscillators is most useful for non trend market analysis. Oscillators can be useful also at advanced trend the markets - to submission of a reverse signal. These are more complicated indicators, than statistical, also represent a real attempt to find integrated parameters allocateing essential movements from price fluctuations. The basic purpose of oscillators - to reveal the moments of a trend reverse.

RSI - Relative Strength Index

The formula for calculation of values oscillator curve looks as follows:

RSI = 100 - (100/(1+RS)), RS = AU(n)/AD(n), где

AU(n) - Average value of the prices of closing appeared above previous prices for n days,

AD(n) - Average value of the prices of closing appeared below previous prices for n days.

The periods of time used for this oscillator can be different. As usual, if we will use a smaller order, the curve will be more sensitive, we will get more signals. The basic signal, this oscillator gives is the signal of extreme regions reaching (overbought and oversold). Range of the oscillator change is from 0 up to 100. As the optimum value for sale is considered the value, equal to 75, for purchase - 25. These zones are called:

1. Overbought - o/b

2. Oversold - o/s.

During the strong trend motions levels o/b and o/s respectively 80 and 20, while with the lateral market - 70 and 30. It is possible to search for all patterns of technical analysis on RSI charts as on the price charts. One additional important tool for prices forecasting via RSI index is the divergence research of the motion of the index chart with the price chart.

There are two cases considered as divergence:

1. Index grows and the price falls or remains at the same level.

2. Index falls, and price grows or remains the constant.

Here are some variants of met divergence of the index and price charts in the picture.

Here are points noted where it is necessary to enter the market according to the signals points supplied by the tool.

(Stochastics)

Stochastics in own formula consider not only prices of closing, but also maximum and minimum prices for the specific period of time, i.e. include more information about the movement of prices, than RSI. But in contrast to RSI, these indicators are more mobile, they may change and have large amplitude. Such mobility makes some difficulties for the analysis of these indicators.

$$K=(C-L)/(H-L)$$

Where :

K – the stochastic oscillator

C – the last close price

L – the lowest level for last n periods,

H – the highest level for last n periods. Offered number of using periods n 5 - 21.

Furthermore, it's recommended twice to smooth K out by the simple moving average of of 3 periods length: _%K (fast stockhastic)_ – this is the three period simple moving average from K, and _%D (slow stochastic)_ - this is the three period simple moving average from %K. In cases the price reaches a new maximum, and on%K chart the new maximum is not shown up (negative divergence), it should be expected that the trend will reverse downward. On the contrary, when the price falls to the level of new minimum, but %K does not fall lower then its own minimal price (positive divergence), the trend of price turn upward should be expected. The lift of %K above %.D is the signal to the purchase with such divergences, and to sale – the fall of %K in lower level than %.D.

(Momentum)

Momentum is one of basic often used oscillators. This indicator measures the of chahge of the prices

$$Momentum = C - C_x,$$

where

C – the last close price,

C_x – close price of n days (hours, minutes) ago.

Momentum can take both the positive and negative values. The first attest to the fact that the price of closing is located above the price of closing X days ago and therefore the prices grow. Negative values speak, that the price of closing is lower than the price of closing X days ago, and it means, prices diminish. The greater the positive or negative value of Momentum in the absolute value, the more rapid the motion of prices is occurred. The Momentum chart is fluctuated near the zero line. In this case the intersection says that the movement direction is changed, i.e., market lost the momentum of inertia. Price still can grow, when the momentum is already approached to zero. After the intersection of the zero line the movement higher than zero indicates signal to buy and to sale if it is lower than zero.

MACD - Moving Averages Convergence-Divergence

MACD - the most extended indicator, which is built on the difference of the averages. It was comprised by Gerald Eppel as a difference between two exponentially smoothed averages (EMA). These curves fluctuate around zero value. At the MACD analysis the standard methods of the oscillator research are basically used. Intersection is a signal to purchase or sale. Indicator reflects well the picture of divergence.

The intersection of zero level speaks about possible change of trend. If this level intersects from the bottom to the top, then this is a signal to the purchase, if the intersection from

the top to bottom this is a signal to sale.

The intersection of the slow and more rapid lines also gives the signal. If the rapid line intersects the slow one from the bottom to the top, then this is a signal to the purchase. If therapid intersects slowly from the top to the bottom, then this is a signal to sale. This signal is strengthened, if then confirmation of it is occured. Further parallel motion of lines to the zero level and intersection of this level comes out as confirmation. The most important and strong signals confirming the basic trend.

Recommendations regarding the use of oscillators of all types

1. Oscillators are best for using at the lateral trends. Otherwise the signals of those can prove to be premature or even false.

2. the most checked signals are those, the state of overbought or oversold markets
 is determined with.

3. The divergence between the price and oscillator always says about further strong reverse.

4. React only to the signals co directed with the main price trends.

3.4.   FIBONACCI NUMBERS AND ELLIOT WAVE THEORY

Fibonacci Numbers

As Ralph Elliott admitted in his work "The Laws of Nature" the sequence of the numbers discovered by Fibonacci in the XIII century became the mathematical basis of his theory. In honor of Fibonacci the sequence discovered by him started to be called "Fibonacci Numbers". Fibonacci had published three great works, the most famous of those is called "Liber Abaci". Because of this book Europe learned the Indus- Arab system of the numbers, which extruded Roman numbers traditional for that time. The works of Fibonacci had enormous value for the subsequent development of mathematics, physics, astronomy and technology as a whole.

Numerical sequence is such: 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144... (And so on to infinity). Fibonacci sequence has very curious special features - the almost constant interrelation between the numbers is not the last one from those features. The sum of any two adjacent numbers is equal to the following number in the sequence. Example: 3 + 5 = 8; 5 + 8 = 13 etc. The ratio of any number of sequence to the following approaches 0,618 (after the first four numbers). Example: 1: 1 = 1; 1: 2 = 0,5; 2: 3 = 0,67; 3: 5 = 0,6; 5: 8 = 0,625; 8: 13 = 0,615; 13: 21 = 0,619 etc. Note, as the value of relationships is fluctuating around value 0,618, moreover the spread of fluctuations gradually becomes narrow; and also to the values: 1,00; 0,5; 0,67. The ratio of any number to previous is approximately equal to 1,618 (reverse value 0,618). Example: 13: 8 = 1,625; 21: 13 = 1,615; 34: 21 = 1,619. The greater the quantity of those numbers is, the closer they approach to the value 0,618 and 1,618. The ratio of any number to the following it through one approaches to 0,382, and to that preceding through one - 2,618. Example: 13: 34 = 0,382; 34: 13 = 2,615. Fibonacci sequence contains and other curious correlations, or coefficient, but those, above shown are very important and well known. As we already emphasized above, indeed Fibonacci is not the original discoverer of his sequence. The fact is that coefficient of 1,618 or 0,618 was known to the even Ancient Greek and ancient-Egyptian mathematicians, and it was called " Golden coefficient" or "Golden Section". We find its tracks in the music, art, architecture and biology. Greeks used principle of " Golden coefficient" or "Golden Section"at the building of the Parthenon, Egyptians - great pyramid in Gize. Properties " Golden

coefficient" they were well known to Pythagoras, Plato and Lednardo.Da.Vinchi. The proportions of Fibonacci's numbers give the orientators not only of the possible levels of rebound, but also indicate the possible value of motion in the case of continuing the tendency. If market rebouns after motion, and then motion in the same direction continues, then in the typical case the value of the continued motion can compose 1.618.

Arcs. Fan and high-speed lines.

One of the methods of application of the Fibonacci numbers is the construction of arcs. Center for this arc is selected at the point of the important ceiling or bottom. A radius of arcs is calculated with the aid of the multiplication of Fibonacci coefficients by the value of the previous significant decrease or lift of prices. Selective coefficients in this case have values of 0.333, 0.382, 0.4, 0.5, 0.6, 0.618, 0.666. In accordance with its arrangement of arc they will play the role of resistance or support. Arcs are usually used with the fan or high-speed lines to obtain idea not only about the levels, but also the time of the various price motions appearance. The principle of their construction is relative to just described. We select the point (or points) of past extrema and it is constructed vertical line from the apex of the second of them, and horizontal - from the apex of the first one. Received thus vertical section is divided to the parts corresponding to the Fibonacci coefficients. After this, we draw the rays emanating from the first point and passing through those just chosen points. If we use relations into 1/3 and 2/3, we will obtain high-speed lines, if stricter 0.382, 0.5, 0.618 - we obtain fan lines. Both those and the others will serve as the lines of resistance or support for the price trend. The intersections of fan lines and arcs will serve as signals for the development of the rotary points of trend,

moreover both on the price and and

time.
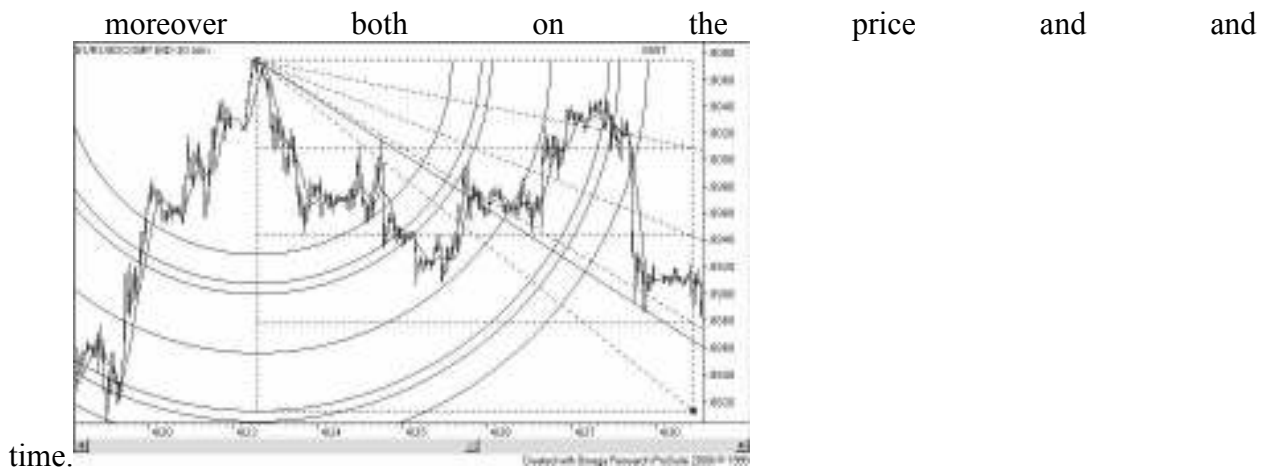
Elliot Wave Theory

Main discovery of Elliot consisted in the fact that the behavior of the"crowd" market merchants or participants of the stock exchange game is subordinated to the characteristic laws. In his opinion, social - mass psychological behavior is consecutive the stages of expansion, enthusiasm and euphoria, which follow the damping, decline and depression. This diagram is outlined in different periods of time, beginning from several minutes and concluding by centuries. The so-called wave diagram serves as the basis of theory. *Wave* is a clearly distinguishable price movement. Following the rules of psychological behavior, all motions of prices are divided into five waves in direction of stronger trend, and to three waves - in the opposite direction.

5
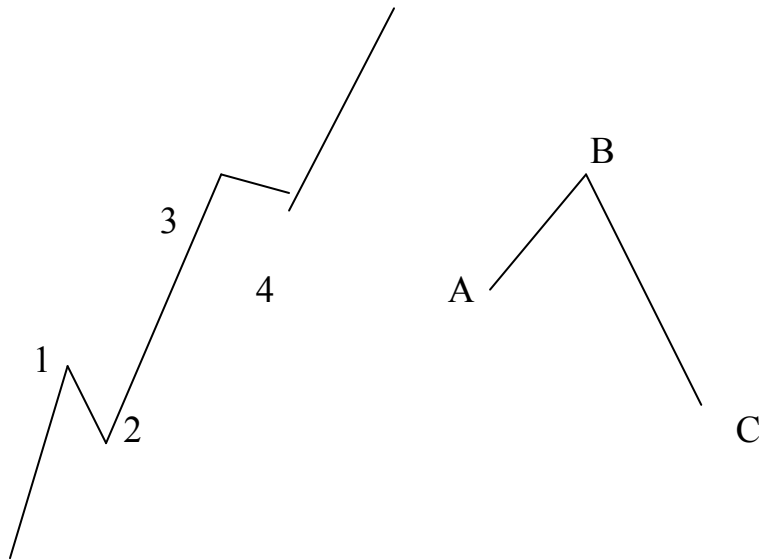
(1) (3) (5) (A) (C) - the pulse waves

; (2) (4) (B) – correcting waves. As soon as the increase, which consists of 5 waves, completes, 3 waves of the correction begin (A) (B) (C).

The tendency will be always developed on the basic 8- wave cycle independent on degree. Waves can be divided (3 or 5). This laying out depends on the direction of larger wave, partly which it is. Thus, waves (1)(3)(5) are divided into 5 waves each, since wave I - ascending. Waves (2)(4) are divided into 3 waves of smaller degree, since these two waves go against the tendency. Waves (A) (B) (C) compose the corrective wave of the II larger degree. (A) (C) - they are divided into 5 waves, since they coincide with the direction of the elder tendency II. (B) - it consists of three waves, as it goes against the tendency II.

General rule: Correction cannot consist of 5 waves.

If 5- wave drop is observed at a general growth trend, it is possible to establish with a high portion of confidence that we deal concerning the I wave 3- wave (A) (B) of (C) of drop, i.e., drop will be continued. At the "bear" market after 3- wave increase the tendency of drop must be renewed, and the reanimation, which consists of 5 waves, warning that it, follows to expect the more significant motion of prices upward. This wave can prove to be the I - st wave of the "Bull" tendency.

The signs of waves, independently on their hierarchical degree

Wave 1

Almost half of all first waves is conceived in the base of market and serves as rebound from the lowest levels. 1-st wave, as a rule, is the shortest of 5 waves, sometimes it is very dynamic, if this is a base of the market.

Wave 2

As a rule, pass completely or almost completely the distance, passed by the 1-st wave, but it is retained above the level of the 1-st wave base .

Wave 3

As a rule, the longest and most dynamic of all 5 pulse waves. The intersection with the wave of 3 level of apex 1 of wave register all types of classical breakthroughs and the signal to the opening of long positions. A sharp increase in the volumes of the trade is fallen to this wave. Wave 3 can not ever be short.

Wave4

This wave has a complicated structure, it just like a wave 2 is the phase of correction or consolidation;

however, it is characterized by its structure (rule of alternation) - triangles frequently appeaed

General rule: The base of wave 4 never intersects the apex of wave

Wave5

It is less dynamic than wave 3. When this wave comes to the market, many indicators (oscillators) lag behind the motion of prices, and appear negative divergences (divergence), preventing about the approximation of the market top.

Wave A

Partition into 5 smaller waves is the most convincing signal of the appearance of this wave, in this case an increase in the volume corresponds to reduction in the price.

Wave B

This wave reflects rebound of prices upward with the new descending tendency. Low volume is the characteristic for it. In case this double top is formed.

Sometimes even overlaps the apex of wave 5.

Wave C

Frequently it descends considerably lower than base of wave A, in particular, with drawing of the line of trend under the base of wave 4 and wave A on the chart appears the figure of "head and shoulders".
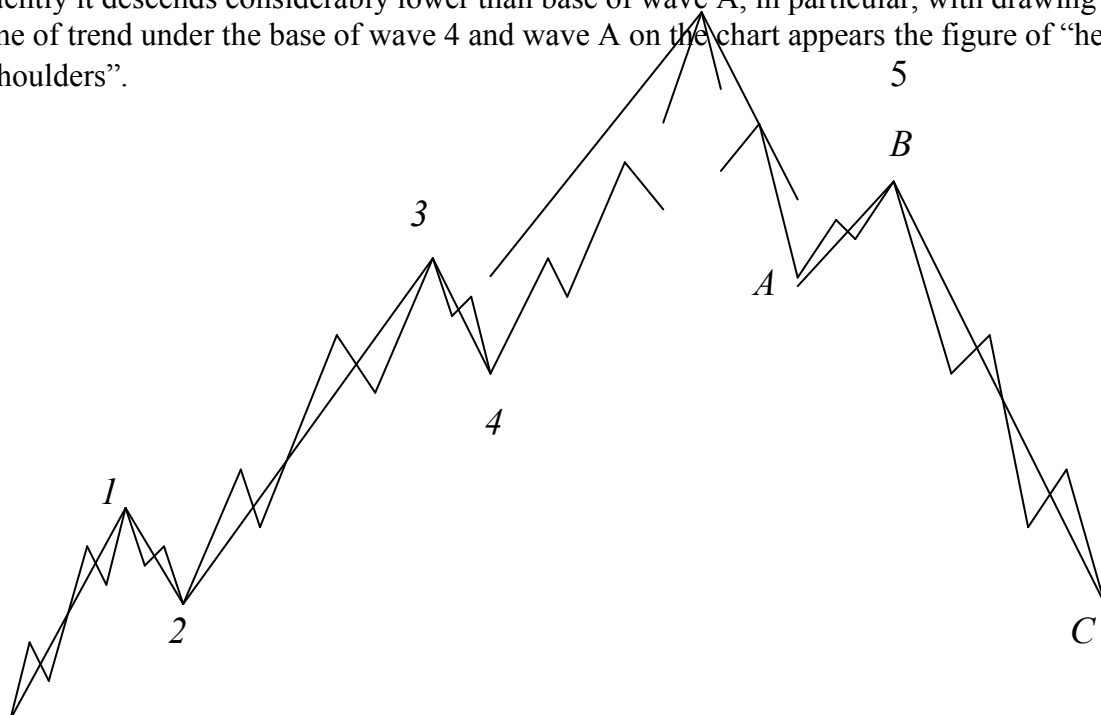
Conclusion

The complete cycle of the "Bull" market consists of 8 waves: 5 waves of increase, then 3 waves of drop follow. Tendency is subdivided into 5 waves in the direction of the following in the hierarchy, the more prolonged tendency. The correction always consists of three waves. Simple corrections are of two types: zigzags 5-3-5 and plane waves 3-3-5.

As a rule triangles are formed on the fourth waves (this model always precedes the last wave). Triangle can also be the corrective wave B.

Any wave is the part of the longer wave and it is subdivided into the shorter waves. Иногда одна из импульсных волн растягивается. Remaining two must remain equal in time and extent. Fibonacci sequence is the mathematical basis of the Elliott wave theory. A quantity of waves, forming tendency, coincides with Fibonacci numbers. The Fibonacci coefficients and the relations of the length of correction based on those are used for determining the price orientators. The ratio of the length of correction to the previous motion of market frequently is equal to 62%, 50% and 38%. The rule of alternation warns that there is no need to await the identical manifestation of price dynamics twice at once. The "bull" markets must not descend lower than base of the previous fourth wave. Wave 4 must not gush over wave 1.

The basic aspects of the Eliot wave theory (by way of significance) are waveform, the correlation of waves and time. The procedure of prognostic calculations is constructed on the numerical correlation of values "movement-rebound" must give the coefficients "Golden Section" i.e.,:1,618; 2,618; 4,236 (at the movement)

- 0,618;' 0,382; 0,236 (at the rebound);

These numerical values are those important levels, the market "Remindes" in the price change process. trader is oriented specifically on those levels in his work. The simplest use of Fibonacci numbers find at the level of recoil or rebound calculation. As prices cannot continuously grow or fall prolonged time, after each of those changes there is one or another value or another recoil to the other side. This phenomenon is evident after strong and prolonged motion especially vividly. In this case the rebound 33% is most probable, and the rebound 66% is least probable. The use of Fibonacci's sequence makes it possible to increase the most probable lower boundary from 33% to 38,2% (number of Fibonacci 0,382) and at the same time decrease the least probable distant boundary from 66% to 61,8% (Fibonacci number 0,618). The achievement of the level in 38,2% occurs extremely often, which is caused by the enormous popularity of Elliott Wave Theory. Actually, as the majority of participants in the market expects this rebound precisely, it occurs.

The calculation of recoil and rebound levels is a sufficiently simple occupation that makes this analysis very attractive. Besides, the recoils and rebounds function both on the main trends and on the secondary and the short term trends. Thus, it is possible to observe them both on the weekly and on the hourly charts.

Chapter 4. STOCKJOBBING PSYCHOLOGY

Trading results analysis

Analysis and prognostication of the market, the composition of trading plan and practical trade are considered as the necessary and only actions at work in the financial market. It is out of focuse in casethat the analysis of own actions in the market is not less important part of work. Without the analysis of own successes and failures, without making of the statistics of profits and losses it is impossible to increase the result of trade. Financial markets and analysing methods of the market are that contradictory and ambiguous so work in the financial market is a continuous scientific research. Necessary:

1. to keep records, not only recording economic indices and events, but also the reaction of the market at them.

2. to conduct the registration of making and falsity of all of technical and computer analysis signals;

3. to conduct the registration of the incomprehensible motions of the market prices;

4. to write down own emotions and moods that substantially influenced decision making;

Without the registrations of all events at the market and your reactions on them you will not be able to analyze the reason for successes and failures.

Furthermore, usually after the short temporary period it is possible to analyze situation on the market more accurately and to give the more precise explanation to those events, which were obscure in their time. For example, you can learn about intervention of one of the central banks only next day. The discovery new signals can become the result of the analysis of your records for the prolonged time interval. Even if you do not invent new methods, the registration of events will allow you to feel the market more thinly. It is necessary to constantly return to the records. The repeated analysis of past events on the basis of your new experience makes possible for you to be improved by more rapid rates. This scrupulous attitude to the market exploration is especially important in the initial stage, when you only study your work at the market.

The association of all data and different kinds of the analysis specific

Search the charts of three temporary periods

1. Good lines of trends - basic, average and short term trends. Moreover we draw such lines of trends not only through the maximum and minimum prices of entire chart, but we also search for the lines "inside" the chart, which are alternately for its different parts first the line of support, then the line of resistance.

2. The significant levels, where many maximal, minimal prices or closing prices were encountered.

1. we determine the force of each line or level.

2. in the absence of channel, build theoretical lines in parallel to existing lines.

3. we calculate the levels of recoils or rebounds from 38%, 50%, 62% levels.

4. we attempt to find the continuation or reversal patterns.

5. If such figures are visible distinctly, then we are prepared for the possible course of events and we calculate purpose.

6. we attempt to analyze charts in the point of view of the Elliott wave theory.

7. we carry out the high-speed and fan lines

8. we determine possible cycles and consider the right or left displacement.

9. we analyze the candlestick charts.

   1. at the computer analysis we analyze the only charts of the indicators, which we mastered sufficiently well, paying attention to:

   2. divergence;

   3. Trends of these indicators;

   4. Critical "overbought" and "oversold" areas;

   5. intersection of the rapid and slow lines;

   6. Intersection of the "zero" level.

With the fundamental analysis we attempt to reveal a main trend in development of the economy in order to determine the current tendency of strengthening or weakening currency. For our purposes with this analysis is important to determine current state of the economy of the individual country, as correlation between directions and rates of the development of the economies of the different countries. I.e., it is necessary to analyze not only the economic state of the individual countries, but also to achieve their comparative analysis. Currency rate is the relation between two currencies; therefore the greatest effect on it has precisely the difference between the levels of the development of the economies of these countries. It is necessary to analyze the cross - courses of currencies in order to have the capability to determine the relative speed of weakening or strengthening currencies, and also not to miss the rare case of their differently directed motion. It is necessary to analyze political events, statements and initiatives of the first persons of state. For this it is necessary to actively use the media: television, radio, newspapers and periodicals. To make entire enumerated work according to the analysis of the market during one day, week or even month is impossible. But, firstly, who said that this is an easy work? In secondly, what work does not require enormous efforts at the initial stage? Thirdly, there is no necessity to make daily its enormous part. For example, it suffices to carry out once a week or once two-three weeks for the analysis of weekly charts. You do not have to draw new lines on those charts, because the new significant lines appear not too often. Furthermore, you will remember well the majority of information such as significant levels, basic trends, the state of computer indicators and etc. therefore the analysis of new data will become practically instantaneous in a couple of years.

Capital management and trading tactics

The safest trade - in the direction of intermediate-term trend.

Buy on short term drops in the prices at the ascending tendency and sell on the short term with descending reanimations.

Preserve profitable positions as longer as possible, and close the unprofitable in time.

Use protecting stop - orders for limiting of the possible losses.

Do not yield to emotions.

Compile the plan of your work in the market and follow it.

Diversify your briefcase, but do not forget about "Golden Mean".

Adding positions (erecting pyramid), adhere to the following rules:

A) a number of positions at each subsequent level must be less than on previous;

B) add only to the profitable positions;

C) никогда не добавляйте к убыточным позициям;

D) place a stop- order as close as possible to the break-even sales level (break-even point).

First of all close unprofitable positions, then profitable.

Analyzing situation, move from the long-term chart to the the short termchart.

Train your self not to fear to remain in the minority. There is nothing terrible in this; when your estimation is accurate, the majority of the other participants of the market, will not agree with it, as a rule. It is necessary to constantly learn, to improve your knowledge and habits of all analysis forms.