5 signs - criteria of world price

- 1. the price of large regular transactions in the international trade (i.e. must be the regularity of their realization)
- 2. transactions must bear commercial nature, but not special.
- 3. The payment of transactions must be produced in the freely convertible currency.
- 4. Transactions must consist by important exporters or importers of this goods (must be achieved the distinctiveness (mutual incoherence) of export and imported deliveries.
- 5. Export and import transactions must be achieved on the markets with the free regime. Free (open) commercial- political regime.

five criteria (signs) satisfied the demands for the world price:

- **World prices must be prices of large export-import bargains concluded regularly (have a regular base)**
- **These bargains must be carried out in the free convertible currency.**
- **these bargains mustn’t be connected in export-import exchanges (the import and export operations mustn’t have mutual connection, they must be carried out separately)**
- **These bargains must have commercial character but not special character**
- **Export and import operations must be carried in the markets (in the sectors of markets) with a free regime. Free (open) trade-political regime.**

PRICE’S FACTORS OF THE FIRST NUMBER

- The manufacture’s price. Prices of producers.
- The supply and demand ratio (correlation)
- The prices’ regulation (by government or big companies)
- The financial system’s state

THE PRICE'S FACTORS OF THE SECOND NUMBER

- The costs of production
- The real volume and relative dynamic of demand and supply
- The direct in indirect prices' regulation by a government and monopolies
- The currency rate

Specific price's factors

- consumption quality
- the quantity of sales
- a character of relations between exporters and importers
- the terms of payments
- the terms of delivery

PRICE'S FACTORS

- kinds of sales
- profitability of sales in foreign markets
- time and date of sale of goods
- delivery terms
- economic political, legal and cultural development of the importing country
- export duties

kinds of prices

- average prices
- Contract prices (solid, with subsequent fixation)
- The mobile price (the change of contract)
- sliding price

WORLD PRICES

- **the world prices.** it is possible to examine only the prices of the usual commercial operations, which are typical for the world commercial practice, they apply to the substantial part of the international commodity turnover and it is, as a rule, accessible to salesman and buyer, who appears on the world commodity market. They are different from the prices of the special transactions, accomplished in the closed sector of market

Price types

- **Prices of international markets (international stock quotes)** - the price of a permanent wholesale market of massive, similar goods. Stock prices are calculated and published by the Quoted Exchange Commission in exchange bulletins, information, press agencies, as well as a massive periodicals

PRICE CLASSIFICATION

- **International commodity prices auctions** - prices, operating in specially organized auctions for a certain period in advance due to local markets, the public sale
- **Prices of international trade** - the prices at a specialized form of international trade based on the issuance of orders for supply of goods or delivery of contracts for carrying out certain works. This type of pricing is subject to government interference.
- Price information and bidding auctions mostly irregular and closed.
- **price of actual transactions at the conclusion of direct international contracts**

Leaders in the world price's movement at the first decade of 21 century

- The dynamic of such goods like oil, gasoline, gold, heavy fuel oil, tin and lead had last decade a very high coefficient of elasticity - their dynamic is higher on about 1,2 – 1,5 points then world's price dynamic.
- dynamic of such goods like coffee, ammonium hydrate, steels lists was closed to the common world price growth rate.
- And a group of goods, like cotton, aluminum, cuprum, natural caoutchouc or rubber, wool, cacao-beans and some others, which dynamic was lower then world's price dynamic.
- oil and oil products are considered like the "leaders" in the world's price dynamic.

PRICE elasticity

- The degree of the price elasticity of supply and demand depends on:
- Type of goods (its technological special features and consumer properties)
- States of the production base
- Capacities and the firm structure of the market
- Nature of the monopolization of market and special features of its regulation
- From the initial values of the interacting market elements
- From other factors

CROSS elasticity

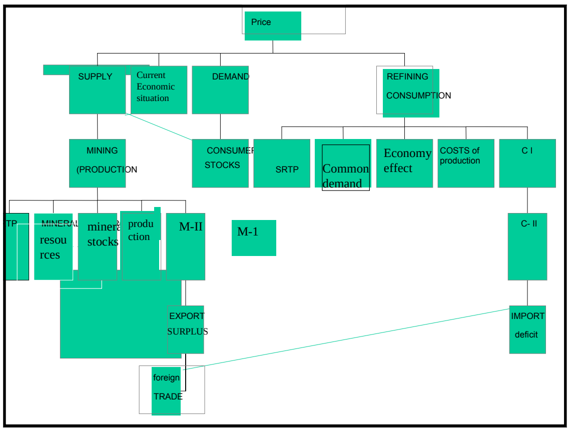
- Cross elasticity of demand - degree of the action of the prices of goods- substitutes or supplementing goods.
- If the coefficient of cross-elasticity of demand > 0, then the pair of products in question is called the interchangeable goods; if the coefficient < of 0, then goods are called mutually complementing. If = 0, then goods are turned on the market independently of each other.

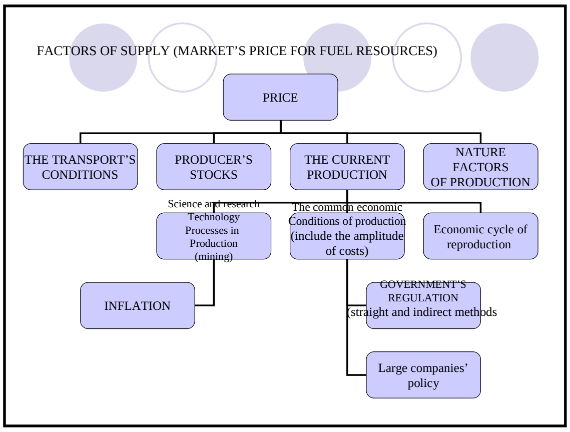
market capacity can be calculated

- **market capacity = the volume of the national production + the volume of the import - the volume of export + inventories**

MARKET'S CAPACITY

- $\sum_{t=1} p_t q_t \quad \max;$ (1)
- Where: **t** – one step of prognostication within the selling off fixed period the goods (t= 1, 2, 3, …n);
- **Pt** – predicted price on 1, 2, 3 …n step of fixed period;
- **Qt** – quantity of goods are intended to the sale on the conformable step of the selling off.
- In terms if:
- $\sum_{t=1}^{n} q_t \leq tQ \quad \text{with } q_t \geq 0$ **(2)**
- $Q_t \leq S_t$ **(3)**





Contract price for oil

- value of the goods
- seller's obligation to pay the costs of transporting and insuring the goods
- price specification on the basic conditions of supply
- indication of the total contract
- Proposal - FOB 91/barrel

Types of price's discounts

- Skonto – cash
- Bonus discounts – loyal customers,depending on the sales turnover
- Progressive discounts - the quantity, volume of purchase, serial
- Special discounts to customers, in which the seller is more interested
- Margins - improving the quality

Price types

- **Reference price** - the price of goods sold through the domestic wholesale and international trade. These prices are calculated and published by the association of producers in the press and information agencies and brokerage firms.
- Reference prices - not the prices of actual transactions. In the reference price is always provided to supply bargain price, (which hampers to use reference pricesin actual transactions), they are used for information only.

Price listings, catalogs, brochures.

- **List prices** apply to standard output public
- **Price proposals** are designed to produce small-batch equipment and individual production and they are reported to the manufacturers
- Bid prices - the prices of sellers

Price types

- **Stock market prices** - the market is competitive: sellers and buyers are not related to trade under the political agreements and mutual system of credits.
- Standardization, homogeneity of commodities leads to the regularity
- scale of transactions and, therefore, the regularity of submission of price information.
- Official exchange quotations - are prices of actual transactions

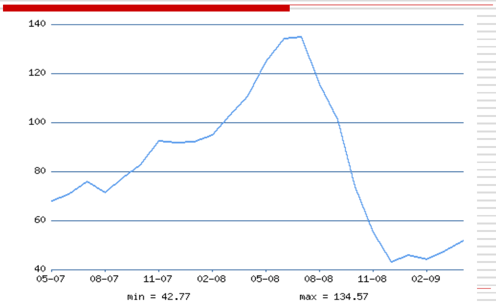
Price types

- **Stock Quotes (EXCHANGE) for basic raw materials and fuels** are formed under conditions of price «F» (usually under the FOB). This category of products has the broadest scope, sold in large volumes, so that the seller delivers the goods only to the basis points.
- And the main component in the basic price structure is not included.
- As the narrowing of the scope of a transition from commodity price group «F» for groups of «C» and «D», where the seller accepts a long list of expenses.

Amplitude in prices

- **You can see when you watch the dynamic of indicators in some market that the dynamic of prices movement for the mineral resources is characterized by large amplitude**
- **the decline in going up or going down, this behaviour of prices movement is named an amplitude of swings.**
- **Science-technology progress**

World price dynamic for oil bench mark Brent (IPE), USD/barrel



formula is used in current practice to correct for serialization

- The next formula

Psi = Ctech + Cp + K

Where,
•Psi - the price of a single product;
•Cteh - value engineering, pilot testing;
•Cp - production costs for manufacturing production (variable costs)
•K – constant part of prices of the (compulsory payments, income tax)

When the order is entered for only one product, price is enlarged by this formula

When ordering a series of products formula for calculating the price of the product takes the next form:

- **Psi = Ctech+ F1 <M x Cp + F2> Pc x Cp + K**

Where,
Psi - the price of a single product;
C**tech** - value engineering, pilot testing;
Cp - production costs for manufacturing production (variable costs)
K - constant prices of the (compulsory payments, income tax)
n - number of product series;
M - share in the cost of material costs and production costs;
Pc - the share of spending on wages in production costs;
F1 - coefficient taking into account cost reduction of material costs due to serialization order;
F2-factor, taking into account the cost reduction of wages at the expense of serialization order.

The calculation of the sliding price

With a large time lag between the date of signing the contract and the date of the practical delivery of the goods the price of this commodity often changes significantly. Usually this is due to rising prices for raw materials, fuel and wage increases. In this case, it's used the correction for slippage.

The contract price is determined taking into account these amendments which is the basis for the formation of foreign trade prices.

The practical use of this dependence is revealed in the so-called "sliding price", characteristic for the market for machines and equipment, which makes it possible to consider market fluctuations on the markets for raw materials with the conclusion of a contract to the equipment with the prolonged period of production.

The formula of the sliding price takes the form:

$$P = Po + \left(A \frac{a1}{a0} + B \frac{b1}{b0} + C\right),$$

- where,
- P- the price of final calculation after execution of the contract;
- Po- basic price;
- A - the share of expenditures for materials in the basic price;
- B - the share of expenditures for work force in the basic price;
- With the fraction
- C - of the constant part in the price (profit, overhead expenses), or the so-called coefficient of braking;
- a1 - initial index of internal wholesale prices on the raw material;
- a0 - average price index on the raw material during the period of billet;
- b1 - initial index of the rates of wages in the branch;
- b0 - average index of the rates of wages during the period of the direct work on order.

Market's reaction to the weekly data on changes in stocks

- the weekly data on changes in stocks, the most simple and natural approach could serve as a linear regression of the form (1)

$$\Delta P_t = a_0 + a_C \Delta S_t^C + a_G \Delta S_t^G + a_D \Delta S_t^D \qquad (1)$$

where, –

- S_t^C, S_t^G, S_t^D - stocks, respectively, of crude oil, gasoline and distillates in million barrels,
- ***Pt*** - the average spot price of mark WTI for Tuesday and Wednesday (dollars per barrel)
- $\Delta P_t = P_t - P_{t-1}$ - the price per week.

absolute level of prices depending on the level of reserves

$$P_t = a_0 + a_C S_t^C + a_O S_t^O + a_D S_t^D$$

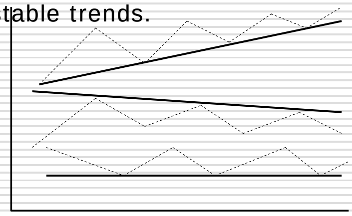
Next, we tested the hypothesis of the absolute level of prices depending on the level of reserves. For this linear regression was chosen as the prices of stocks:

$$P_t = a_0 + a_C S_t^C + a_O S_t^O + a_D S_t^D$$

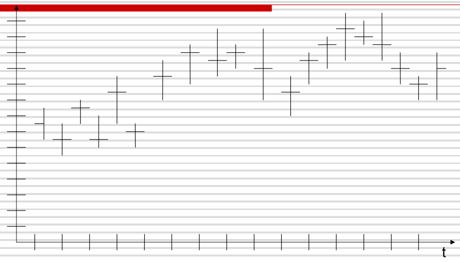
All coefficients are significant and the coefficient of multiply correlation is high and amounts to 0.709.

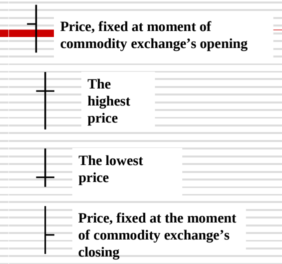
The graph's representation of different trends: "going up", "going down", "stable"

- going up trends, going down trends and stable trends.

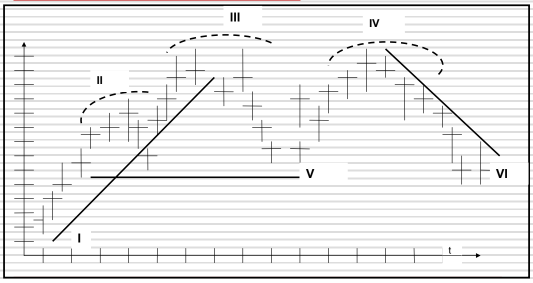


Price's amplitude representation





The transition from the trend of "going up" to the trend of "going down"



- I – the line of going up trend
- II – "left shoulder"
- III – "Head"
- IV – "right shoulder"
- V – "neckline"
- VI – the line of going down trend

The transition from
the trend of “going down”
to the trend of “going up”