Acta Oeconomica Vol. 18 (3-4), pp. 213-225 (1977)

B. CSIKÓS-NAGY

THE PRICE OF NATURAL RESOURCES*

The author surveys the theoretical views about monopoly rent and diminishing returns and their historical backgorund. He outlines the historical development of the price structure, with particular attention to the problem of oil price. He reviews one by one the theories explaining the price of oil. It seems that the price of oil is not determined by purely price-theoretical criteria, but mostly by the price policies of producers and users motivated by power politics.

Monopoly rent and the law of diminishing returns

It has been assumed that the disparity between the price level of products in extractive and nonextractive sectors is unfavourable to the former and this affects mainly the developing countries. If this assumption is correct, then how can the continued exploitation of natural resources in the developed areas be explained? The Soviet Union and the USA are the main producers of natural resources in the developed areas. Concerning the Soviet Union, one can argue that the price structure does not play a decisive role in the structural policy of planned development. But in the case of the USA, we have to deal with a free market economy in which the profit motive has always been decisive in investment activities.

Marx explained the specific features of the pricing of natural resources by the transformation of surplus-profit into ground rent. According to him, when the utilization of a parcel of land ensures but the average rate of profit, then only the landlord is in a position to cultivate it. Any contract of lease presupposes, in addition to the average rate of profit, a ground rent. Therefore, under capitalist conditions, the market prices of agricultural goods must be determined by the production conditions of the least productive land in cultivation. This logically applies to the rent of mining too [1].

These interrelations changed in virtually only a single respect after World War II. Owing to *European agricultural protectionism*, the price level of agricultural products is lower than it would be if the states did not grant budgetary subsidies to producers with unfavourable natural conditions (mountain area, etc.), if they did not subsidize certain agricultural products, or if they did not provide facilities for purchasing of goods, credits, etc., for encouraging intensification (investments, modern agrarian technology). In summary, the following can be stated:

- the price level of manufacturing industries is regulated by the average rate of profit,

*This study was written using the paper presented to the 5th World Congress of the International Economic Association held in 1977 in Tokyo.

- the price level of extracting industries is regulated by the average rate of profit complemented with land rent (mine rent),

- and the prices of goods produced under particularly favourable natural conditions contain monopoly rent as well.

Let us take the world market price of crude oil for an example. This decreased markedly at two instances in the late 50s. When it was at its lowest 1 barrel of crude oil was available for \$ 1.76 (fob ME port). This price decrease resulted in the setting up of the OPEC in 1960. At that time the objective was merely to ward off price fluctuations. But even at the rockbottom, the world market price of crude oil included monopoly rent. In the period about the establishment of the OPEC the cost conditions developed according to the data of Table 1.

1	0	h	0	
	L a	U,	0	

Share in world	Cost	
(per cent)	\$/barrel	US $cost = 100$
38	1.63	100
30	0.17	11
16	0.68	42
	production (per cent) 38 30	production (per cent) \$/barrel 38 1.63 30 0.17

Crude oil costs in 1961

Source: La Cooperation économique européenne. Troisième rapport de l'OECD Paris, 1962. Petroleum Press Service, January 1962.

What is actually detrimental for the developing countries lies in their historical background, in their earlier colonial dependence on the industrially advanced countries. This dependence produced and preserved their oligocultural production pattern. Moreover, the majority of the natural resources were exploited by enterprises of the industrially advanced countries, thereby the ground rent or monopoly rent was – partly or wholly – accumulated by these companies. Finally, the price policies of the multinational companies were controlled by the interests of the industrially advanced countries. This point will be discussed below.

According to conventional views in the long run the *relative prices* of agricultural goods and of minerals can't but rise because of the diminishing returns of land. As is known, this law was formulated by Ricardo [2].

The general formulation of the law of diminishing returns is as follows: with a given level of technology, if a certain type of inputs (e.g. labour) is increased relative to the other unchanged inputs (e.g. land) the total output will grow, yet beyond a certain point the additional output belonging to identical additional inputs will be smaller and smaller. Economists usually consider this interpretation of diminishing returns to be a *fundamental* law of economics and technology. [3] However, if we consider the rules of socio-economic *development* as fundamental the above hypothesis is open to debate.

Acta Oeconomica 18, 1977

214

It is worth while to recall the dispute of *Lenin* with the Russian economist *Bulgakov:* "...if each additional investment of labour and capital in land produced not a diminishing but an equal quantity of products, there would be," Lenin wrote, "no sense in extending the area of land under cultivation; ... This is the customary (and the only) argument advanced in favour of this 'universal law'. A very little reflection, however, will prove to any one that this argument is an empty abstraction, which loses sight of the most important thing – the level of technical development, the state of productive forces. Indeed, the very term 'additional [or successive] investments of labour and capital' presupposes changes in the method of production, reforms in technique ... It is true that in relatively small dimensions 'additional investments of labour and capital' may take place (and do take place) even when the technique of production has remained unchanged. In such cases, the 'law of diminishing returns' is applicable to a certain degree, *i.e.*, it is applicable within the comparatively very narrow limits which the unchanged technique of production imposes upon the investment of additional labour and capital. Consequently, instead of a 'universal law', we have an extremely relative 'law'."[4]

However, the law of diminishing returns of land was formulated by *Ricardo* in connexion with the expansion of the cultivated area. According to his assumption, with growing needs mankind would be forced to make use of areas cultivable at worse and worse efficiency. The proportion of areas with yields below the average and located far from the market would increase. In mining the proportion of minerals exploitable at higher per unit cost than the average would increase due to unfavourable natural conditions. This is in the background of the hypothesis about the rising relative price of natural resources. Forecasts for the last quarter of the 20th century seem to justify this idea.

In the so-called *Leontief* model, representing the future of world economy, the generalization of specific inputs of the USA assumes that the average relative prices of minerals would increase some 2.7 times between 1970 and 2000; the average price of agricultural goods by 14 per cent, while the average price for manufactured goods would decline by 6.8 per cent [5].

Similar tendencies are predicted for the Soviet Union by Yu. Yakovets. He claims that in 1973 the wholesale price level of heavy industry exceeded that of the year 1940 by 9 per cent, but within that the price level of the coal extracting industry increased to 4.71 fold, of iron metallurgy to 2.42 fold, and of the building materials industry to 1.73 fold. For the long-term he assumes an even more marked rise in the costs of mining products because, with high rate of exploitation, the natural conditons of production worsen. There will have to be a shift to exploiting new, qualitatively poorer and more remote areas. [6]

Nevertheless, when studying the price trends of natural resources, the findings of the researches by Harold J. *Barnett* and Chandler *Morse* should not be disregarded. Investigating data of almost a century they proved that the relative costs of extractive output diminished in the United States, that is, the evidence shows increasing, not diminishing returns. [7]

1*

Labour and capital inputs per unit of extractive output in the United States (1929 = 100)

Period	Total extractive	Agriculture	Minerals	Forestry
1870-1900	134	132	210	59
1919	122	114	164	106
1957	60	61	47	90

Reference: Barnett, H. J.-Morse, Ch.: op. cit.

Table 3

Labour-capital input per unit of extractive output compared with the unit costs of non-extractive goods in the United States (1929 = 100)

Total extractive goods	Agricultural goods	Minerals	Forest products
IG	elative to non-extr	active goods	
99	97	154	37
103	97	139	84
87	89	68	130
	extractive goods re 99 103	extractive goods relative to non-extr 99 97 103 97	extractive goodsAgricultural goodsMineralsrelative to non-extractive goods999715410397139

Reference: Barnett, H.J.-Morse, Ch.: op. cit.

According to statistical data processed by ourselves unit costs in the extracting branches decreased to about half. Cost reduction was even greater in mining. Returns diminished only in forestry: unit costs increased between the Civil War and World War I. However, in the post-World War I period the returns in forestry were approximately constant (or somewhat rising).

Ricardo's hypothesis: the effect of technological advance is mostly nullified by the decline in resorce quality. Unit costs in the extractive sector must consequently increase relative to manufacturing. But in reality unit costs in the United States extractive sector decreased relative to those in manufacturing in the period under review. In this respect, too, forestry was once again an exception.

We are, of course, aware that the market motifs for development projects have always been very powerful in the USA. Except for state of war, capital investments for the utilization of domestic natural resources were made only when this proved more profitable than capital exports.

In connexion with the trend of value relations in the United States the circumstances of the birth of the law of diminishing returns on land are remarkable. Ricardo formulated this law relying on the experiences of the situation in Britain following the Continental Blockade of the Napoleonic wars. This was really a specific situation, relying on which a "universal law" can hardly be based.

The likelihood of the diminishing land return in the last decades of this century cannot be excluded. Nevertheless it seems that price of natural resources between 1970 and the year 2000 will be determined less by input than by scarcity, and *efforts to get the highest ground (monopoly) rent*, that is to say by related conflicting interests.

The historical and the expected price structures

The trend of the relative prices of natural resources is measured in international trade by the terms of trade. The terms of trade between products of the extracting and the manufacturing branches were the following in the past fifty years:

Table 4

Terms of trade between extractive and non-extractive goods (1950 = 100)

	Extractive	Non-extractive	Terms of trade	
Year	sectors		Terms of trau	
1928	87	129	146	
1938	34	62	182	
1948	100	121	121	
1958	98	123	126	
1965	102	136	133	
1970	105	149	142	
1975	317	271	85	

References: Review of World Trade

U.N. Monthly Bulletin of Statistics

In the last half a century there were two extremely favourable opportunities for the extractive sectors: one in 1950–52 following the Korean war, the other one in 1974–75 following the oil price explosion. For the non-extractive sectors the last peace year in the interwar period was an advantageous one. Price movements of different intensities and, sometimes, in different directions were induced by factors of demand and supply, concerning extractive and non-extractive goods.

The price dispersion intensity around the average price is greater with extractive goods than with non-extractive ones. In the wake of growing demands caused by war or a

The intensity of world price dispersions around the average price

Extractive	Non-extractive		
sectors		Average	
8.7	5.7	7.5	
2.2	0.9	1.0	
25.8	5.9	17.5	
	8.7 2.2	sectors 8.7 5.7 2.2 0.9	

References: Review of World Trade

U.N. Monthly Bulletin of Statistics

break of production owing to a natural disaster, the prices of natural resources rise steeply to fall again because of overproduction brought about by new investments or favourable climatic conditions. Short run price fluctuations bring about elements of instability. This instability means grave disadvantages.

- In the case of an excessive decline of prices difficulties arise concerning exporting countries, because of the shortcomings of foreign exchange earnings reckoned with in their development policy. This disadvantage is particularly great if it affects a developing country with monocultural economy.

-A price jump causes sudden excessive expenses in foreign exchange to the importing country and may upset the equilibrium of its international payments.

The 1973 oil price explosion seems to have created a profoundly new situation. Since then hectic price rises could be experienced in the sphere of natural resources. But whereas in case of most natural resources the business-cyclical sensitivity of prices has remained more or less unchanged, the relative price of oil has got stabilized for nearly four years on the top level reached with the price explosion. The oil price deserves, irrespective of the above, special attention. *First*, oil is the most important mining product, as shown by the convincing calculations of *Friedensburg* (see Table 6).

-		1			1
	я	n	1	e	6

Share of some important minerals in the value of world mining (per cent)

1860	1913	1962
0.1	8.1	41.4
_	0.5	3.9
54.1	52.4	21.4
54.2	61.0	66.7
45.8	39.0	33.3
100.0	100.0	100.0
	0.1 	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

References: Friedensburg, F.: Die Entwicklung der Bergwirtschaft der Welt in den letzten hundert Jahren, Glückauf, 6. Jan. 1965. pp. 63-77.

Second, in the foreseeable future, energy may be the main barrier to economic growth. Almost every international conference discussing problems of economic growth reached such a conclusion - among them the seminar* held in December 1973 in Stockholm under the auspices of the ECE, chaired by Erik Lundberg where a team of economists discussed issues relevant to the factors and conditions of long-term growth.

Thus we intend to approach the expectations for the price tendency of natural resources through the oil price, although there are several specifics in the background of the universal laws valid only for some of them. However, we may put it as a general assumption that the hectic price movements of natural resources in the world market cannot be explained entirely by the market price theories.

According to market price theories, *demand is determined by prices*, and it changes as a function of prices. The 1973 oil price explosion increased the world price of crude oil four times overnight. According to the course prescribed by the demand curve, demand should have decreased. But the price explosion has had hardly any influence on the oil demand. What has actually happened is that development projects rejected in the past for their inefficiency have been revived and energy savings have been given greater importance. All this is significant, yet in its character it differs from the suppositions of conventional price theories.

Mostly it is the theories of "imperfect" competition and of "monopolistic" competition that provide a basis for a scientific analysis of price movements in modern market economics. [9, 10] According to the theory of "monopolistic" competition, the substitution of products transform the competition between enterprises into a competition between products. Owing to its suitability for heating purposes, oil can be brought to a common denominator with other energy carriers; e.g., with coal. Comparison, in this case, is based on heating values. It could basically be supposed that the relative world market prices of energy carriers would adjust themselves to their relative heating values. Actually, divergencies from parity prices are substantial in both directions; the coincidence of the two is only incidental. (See Table 7.)

Let us take the cost of *oil substitution*, considered today the most important price determinant. Table 8 shows the different evaluations of these costs.

The price of 7 dollars per barrel is the lowest limit-confirmed in declarations by several industrially developed countries – encouraging investments in sectors capable of producing substitutes. The price of 20-30 dollars per barrel is explained in the H. *Ager-Hanssen* paper, based on which the "Offshore North-Sea" oil conference held in Stavanger in the autumn of 1976 investigated the costs of substitutes [11]. At the November 1976 meeting of the Oxford Energy Policy Club, several experts considered a price of 18 dollars per barrel as reasonable for the future. We could carry on with other versions of prognoses but the aforesaid give a good insight into the complicated problems

*The discussion were attended by: Blanc, L. P., Horvat, B., Mason, E., Pajestka, J., Stone, J. R. N. and Tinbergen, J. [8]

The relative world market prices of crude oil expressed in coal equivalent* (coal price = 100)

Year	Relative price	Year	Relative price
1929	131.5	1958	112.0
1938	125.0	1965	87.7
1948	98.0	1970	54.6
1954	101.0	1975	242.1

*Calculations based on statistical data of the Federal Republic of Germany (oil price cif FRG port, coal price fob FRG mine).

- 71	1.1		0
Ta	D	le	ŏ

Prognosticated relative world market oil price about 2000

	(at 1975 \$ value) \$/barrel
Lowest price limit	7
basic price (1976 price)	11.5
Top price limit:	
Estimation I.	18
Estimation II.	20-30

arising around the measure and ways of substitution, the judgement of marginal cost, etc., and which might lead to substantial disagreements.

It is a relevant question to ask whether the criteria of price theory based on market patterns illustrated by abstract models could apply to the conditions prevailing in the world economy. This is the really debatable point. The prices of natural resources operate as equilibrium prices: however, in their background a definite price policy is to be found, which in its character is power policy. That is why, in the analysis — both present and future — of the prices of natural resources the limits set for market mechanism to operate are rather narrow. What differentiates the future from the past in this respect can be summarized in the point that the price policy of natural resources is slipping under the control of multinational companies, and that the role of the raw product exporting countries is ever growing in its significance.

The oil resources of the developing world used to be exploited mostly by international monopolies of the Western world. Through foreign investments these enterprises could establish favourable market relations for their own - i.e., industrially developed -

countries. It was their real business interest, too, that part of the ground and monopoly rent should not be realized in the price of crude oil; and as big a part as possible of the rent should be realized in the higher verticalities of production - i.e., in domestic production. This was the way in which the oil price policy could mostly contribute to the general industrialization of the home countries.

Multinational companies used to keep the price of oil generally below its relative use value. This price structure brought about a definite production structure very favourable for industrially developed countries and contributed to the financing of industrialization. This price policy was supported by a specific budgetary policy, in which two elements are of major importance: (1) The tariff system in which the imports of natural resources are free of duty and customs tariffs increase — as a general rule — in the function of the degree of processing. (2) The consumer price system, according to which a part of the ground rent of natural resources is charged at the stage of consumption goods (petrol, sugar, etc.); i.e., not on the spot of the exploitation of natural resources, but at the spot of the comsumption of end products. Thus, the historical price-structure can be explained only if we know the power structure that characterized the oligocentric world economy together with its organic parts, the countries of colonial or semi-colonial status.

Consequently, as the formerly colonies became independent countries, the criteria of economic decisions, among others pricing, have changed. Both inside and outside of the UN the developing world pursues a price policy to revaluate natural resources. The OPEC price policy is the most spectacular manifestation of a challenge outside the UN. In essence, it transforms an end-product-centered price policy dictated by multinational companies into a raw-product-centered price policy pursued by the oil exporting countries. This is the very point which can be considered as relevant in the assessment of future prices of all natural resources.

The OPEC's *price policy* has raised the world market price of oil above its relative use value. This price policy has laid the foundation for a new policy regarding the pattern of production and as such is a carrier of a transitory structural crisis.

Price stability or trade war

The prospective relative price trends of the natural resources are closely linked with the so-called North-South problem since the economic pattern of the economically advanced world is a polycultural one while the production pattern of the developing world is oligocultural. The bigger share of exports by the developing world consists of minerals and agricultural products. In certain developing regions 80 to 90 per cent of foreign currency revenues derive from them. Under such circumstances it is supposed in the developing world that throughout from the historical point of view a rather long period of transition rising relative prices of natural resources could provide the firmest basis to finance a fast economic growth.

All this is at the same time an ambiguous process, since the rising relative prices of natural resources are not unequivocally advantageous for the developing world either. From time to time different groups of countries benefit from the differentiated price movements while other developing countries are facing simultaneously grave economic difficulties. It is, however, a fact that the uprating of the natural resources is one of the central issues which the developing world has put on the agenda in the institutional system of the new international economic order.

The increase of the relative prices of natural resources need not necessarily induce a general rise in the price level, provided that harmony is maintained between the extent and way of raising the price and the requirements of price stability. Such a rise of the relative prices of natural resources involves a re-distribution of incomes

among countries as a function of the commodity pattern of exports and imports;

inside the countries among economic branches, in favour of the extracting ones.

It seems that the change of the price pattern specified in the Leontief model indicates how the rise in the relative prices of natural resources may be reconciled with the requirements of price stability. The UN resolution on the new international economic order may provide the grounds for such a transformation of the world market price pattern. In the interest of a favourable treatment of the countries of the developing world, this resolution calls for

- an improvement of the competitivity of natural materials as against synthetic ones (plastics),
- the recognition of the raw material extracting cartels,
- the indexing of raw material prices (simultaneously and proportionately with the prices of finished products),
- conclusion of long-term commodity agreements; establishment of an interdependent system of stabilizing stocks and of price equalizing funds (pools).

It was in accordance with this UN resolution that the fourth UNCTAD adopted *the integrated raw material program.* This covers the following products: bananas, bauxite, cocoa, coffee, copper, cotton, hard fibres and products therefrom, iron ore, jute and products therefrom, manganese, meat, phosphates, rubber, sugar, tea, tropical timber, tin, plant oils, including olive oil and oily seeds. The objective of the integrated raw material program is to stabilize raw material prices at a level which

- is just for producers and fair for consumers
- takes into consideration the inflationary effects and the economic, monetary and financial changes in the world,
- enhances the equilibrium of demand and supply.

However, for the time being, *the forces paving the way of stabilization* by coordination of mutual interests are weak. This is shown by the disputes about the Integrated Raw Material Program too. According to the Integrated Program, negotiations are carried on in two main fields.

For 18 raw materials commodity agreements are to be concluded till the end of 1978. In the context of these agreements the following are to be laid down: the prices

deemed desirable for the given commodities, the principles and methods of forming these prices, the instruments and rules that could in principle provide for keeping the actual world market price within the limits of the price zone agreed upon. Such instruments may be: international buffers for the purpose of intervention purchases and sales; export quotas, mutual supply and purchasing commitments of exporters and importers, etc.

Discussion of a common monetary fund. The goal is to set up a \$ 6 billion fund to finance the price levelling stocks of the 18 prime raw materials. Exporters and importers would contribute to this fund in a rutin of fifty-fifty per cent. The amount payable by each country would be determined according to its share in the world trade of the 18 commodities specified in the Integrated Program, or in that of all raw materials (excluding crude oil) the GNP, and the value of per capita GNP.

The agreement is hampered by the natural conflict of interests, i.e. by the fact that price stability is preferred by the exporter at a high, and by the importer at a low, price level. Any price fluctuation is the expression of some average. In a period of high export price the exporting country could set aside a part of the price revenue and from this reserve it could complement its income when the export price is low. On the other hand, the importing country could build up reserves in a period of low import prices and could subsidize therefrom imports when the price is high.

It may provide some guidance in this problem to recall that the search for an institutional solution of price stability always occurs at times when the prices of raw materials and of agricultural (tropical) products are low in the world market, but never happen when these prices are high. This means that the generally exporting countries are the initiating ones. In other terms: what is favourable for the producer has a more powerful representation than what is fair for the consumer.

The complexity of the problem of the relative price of natural resources is augmented by its arising alongside *inflation*, and thus by its being coupled with the problem of *indexation*. I.e. in the long run inflation is accelerated by indexing because it exempts a given range of commodities from the rule of the average inasmuch as in this case the average is considered to be the minimum of price increase.

The analysis of world market price conditions suggests that the signs of a trade war have strengthened as an aftermath of the oil price explosion. This is at the same time an indication that it is hardly possible to see a rational solution in the conventional way: i.e., in the framework of a market mechanism. One is inclined to believe that the free market system was workable only in a period when power political discipline — and as a last resort, war — could be used.

The 1973 oil embargo decided by OPEC and the price explosion following it (or rather the success of these actions) pointed to the relative vulnerability of developed capitalist countries, of their conflicting interests and to the limits of possible retaliations. Beyond this, the OPEC countries have evidently taken into account the rigidity of demand, determined by basic interests in economic growth and employment in the industrially advanced capitalist countries.

	Aver			
Period	on	Within		
	extracting branches	non-extracting branches	total	countries**
1950-1959	-0.5	2.4	1.0	3.1
1960-1969	0.6	1.3	0.8	3.0
1970-1975	25.4	12.9	17.9	9.0

The average rate of inflation within countries and on the world market

*Monthly Bulletin of Statistics and Yearbook of International Trade Statistics.

**Data obtained by the Research Department of the International Monetary Fund, from averaging the annual rates based on data of 14 industrially developed capitalist countries. (Wholesale price index).

Such a challenge of the developing world has obviously played a part in the *changing attitude of industrially developed capitalist countries in their export price policy*. Up to the 1970's there was a relative price stability on the world market in spite of the ever growing inflation in the industrially developed capitalist countries. This inflation extended in the 1970's also over the world market.

From World War II. up the 1970's the industrially advanced capitalist countries attampted to avoid the effect of home-inflation to invade the international market. The business policy of enterprises considered this important with a view to preserving their *international competitiveness*, an endeavour supported by the state in the interest of *preserving the value of its currency*. Thus' in a way, the domestic inflation helped to finance the policy of relatively stable export price. But in the 1970's a change took place. In that period – at least in some industrially advanced capitalist *purposes of an antiinflationary policy at home*. This is one of the new features to be taken into consideration when examining the future prices of natural resources.

The influence of government policies on the formation of world market prices is steadily increasing. Consequently, an economic stability can be expected only from an internationally harmonized price policy on the level of governments. An agreement about the interpretation and practical application of the basic principles of a new international economic order should be reached as soon as possible, to be followed by a coordinated operative price policy of all governments.

References

- 1. MARX, K.: Capital. Volume III. Moscow, 1966. Progress Publishers, pp. 614-802
 - 2. RICARDO, D.: Principles of political economy and taxation. London, 1817.
 - 3. SAMUELSON, P. A.: Economics. New York, 1973. McGraw-Hill, Inc.
 - LENIN, V. I.: The agrarian question and the "Critics of Marx". Selected works. Vol. 12. New York, 1943. International Publishers. pp. 52-53
 - 5. The future of the world economy. New York, 1976. United Nations. Department of Economic and Social Affairs. This Report was prepared under the direction of Wassily *Leontief* and included Anna P. *Carter* and Peter *Petri*.
 - 6. ЯКОВЕЦ, Ю.: Движение цен минерального сыря. Вопросы экономики, 1975. № 6
 - 7. BARNET, H. M. MORSE, Ch.: Scarcity and growth. The economics of natural resource availability. Baltimore, 1962.
 - 8. UN: Factors and conditions of long-term growth. Seminar on Factors and Conditions of Long-Term Growth, Stockholm (Sweden), 3-7 December 1973. New York, 1974.
- 9. ROBINSON, J.: Economics of imperfect competition. London, 1954.
- 10. CHAMBERLIN, E. H.: The theory of monopolistic competition. Cambridge, Mass. 1947.
- 11. AGER-HANSSEN, H.: Norwegian oil and alternative energy resources. Manuscript.

ЦЕНА ПРИРОДНЫХ РЕСУРСОВ

Б. ЧИКОШ-НАДЬ

Статья написана на основе доклада, представленного автором на V. всемирный конгресс Международной экономической ассоциации в Токио.

Во вступлении автор рассматривает теоретические взгляды на монопольную ренту, закон убывающего плодородия и их исторический фон. Затем он прослеживает историческое развитие структуры цен, обращая особое внимание на вопрос цены на нефть. Он останавливается на различных теориях, объясняющих формирование цены на нефть. Ог останавливается на различных теориях, объясняющих формирование цены на нефть. Согласно теории монополистической конкуренции, цена нефти определяется затратами на добычу остальных энергоносителей, способных заменить нефть, например, угля. Автор указывает, что и эта теория не дает возможности для относительно точного прогнозирования будущей цены на нефть: прогнозы цены нефти на 2000 год расходятся в диапазоне 18–36 долларов за баррель. Складывается впечатление, что цена нефти определяется не просто критериями теории цен, а главным образом политикой цен производящих и потребляющих стран, мотивируемой политическими аспектами.

Далее автор распространяет анализ на проблему цен остальных природных ресурсов, обращая особое внимание на требования развивающихся стран о создании справедливых и прочных цен на сырье.