

## STRUCTURAL NATURE OF UNCOMPETITIVE PRICING FACTORS

**Kramarenko A.O., PhD (Economics)**  
*V.N. Karazin National University, Ukraine*

Стаття присвячена виявленню як зовнішніх, так і внутрішніх детермінант, що здійснюють вплив на домінування принципів ціноутворення, а також на загальну цінову динаміку. Розглянуто основні фактори, що обумовлюють підвищення ролі витрат у структурі ціни і підвищення ролі неконкурентного ціноутворення. Динаміка структури ціноутворення тісно пов'язана з поведінкою ринкових суб'єктів, а також зі змінами індексу споживчих цін та індексу цін виробників. Підвищення питомої ваги витрат при формуванні ціни синхронізує динаміку цінових індексів, а відтак і інфляційні процеси на різних ринках і на різних рівнях. Основними факторами динаміки структури ціноутворення є товарна структура імпорту, галузева та інституційна структура національної економіки. Підвищення ролі витрат у результаті впливу цих факторів обумовлює зближення динаміки різних цінових індексів, які є показниками рівня інфляції. Синхронізація кількісних показників інфляції на тлі відповідної динаміки співвідношення структурних елементів національного господарства характеризує структурну інфляцію, яка виявляє особливості національного економічного розвитку. При цьому описані в статті чинники ціноутворення з урахуванням їх яскраво вираженого структурного характеру можуть вважатися факторами структурної інфляції.

**Ключові слова:** структура собівартості, індекс споживчих цін, індекс цін виробників, структурна інфляція.

**Introduction.** The market prices represent both the result of market interaction and the factors influencing the business entities' behavior. The dynamics of prices subjects to the influence of many factors, and entrepreneurs' price expectations and forecasts are an important basis for making operational decisions and developing long-term strategies. In this regard, understanding the basic principles of market pricing and factors of price formation is an important scientific problem.

**Brief Literature Review.** Contemporary foreign publications, which address the issues of price dynamics and pricing problems, explore features of external influence on prices, as well as issues of non-price competitiveness. [1] While little attention is paid to internal determinants of price fluctuations. Other publications to the contrary are aimed at description of endogenous models of price dynamics, not paying enough attention to the analysis of the external shocks impact [2, 3].

**The purpose of the article.** Given the lack of knowledge of the pricing factors issues, as well as mainly one-sided approach to price dynamics study, the goal of this article is to identify both external and internal determinants that influence the dominance of certain pricing principles and general pricing dynamics.

**Results of the research.** Prices of products and services consist of two elements, which are costs and profits of producers and intermediaries. The weight of each of these elements in the price structure changes under the influence of various factors. Profit of entrepreneurs is mainly affected by the factors of competitive environment. This influence is based on the expectations of producers and intermediaries, as well as on the willingness to refuse short-term gain in favor of long-term monopoly profits. Factors that do not relate to competition, have a predominant impact on costs in the price structure. The dynamics of the ratio between cost and profit in the price structure affects synchronization of the main indicators of inflation – consumer price index (CPI) and producer price index (PPI). The raising role of costs in the pricing leads to the rapprochement of inflation indicators, and the increasing role of profits reveal itself in tougher competition, the outcome of which is more evident in the consumer market than the market of resources.

Consider the main factors responsible for the enhancement of the costs' role in the prices' structure of and, accordingly, increasing the role of non-competitive pricing.

1. Increase in imports of raw materials. Depending on specific weight of raw materials in total imports the impact of costs on pricing is evident to a greater or lesser extent. The smaller the share of raw materials, the smaller is the role of costs in price dynamics.

Import of raw materials determines the producers' dependence from world market conditions. This is one of the ways of the cyclical fluctuations and external economic trends transmission. Thus, the share of imports of raw materials is also determined by the specific gravity of the material resources in the cost price. The latter is closely connected with the degree of diffusion and adoption of technological innovations in the production process.

It should also be noted that an important role in strengthening or, on the contrary the lowering of the degree of innovativeness is played by economic cycles, which are closely connected with the process

of technological modes' substitution. The process of the dominant technological structures replacement dues to the emergence and expanding of new technologies, which gradually penetrate into the key elements of the economic system. Naturally, implementation of these technologies is motivated by the reduction of production costs, primarily material costs. Thus, since the beginning of active introduction of innovations into the production process, the need of material resources for the products and services production is automatically reduced. The declining of raw materials' consumption is evident not only in reducing material costs but also in reducing demand for imports of material resources.

The consequence of all the above is the convergence dynamics of CPI and PPI. A leading role in the market is played by the ability to cut costs, to improve production efficiency, to create a new product or update an existing one with the new demands of consumers and market trends. In this situation, producers who were able for correctly use of the available benefits, receive profits and are leaders. They have no need to play the price fluctuations, trying to gain a monopolistic advantage.

The above-described patterns and trends can be seen in the development of both domestic economy and foreign countries such as Germany, UK, Japan, and the Netherlands. In Ukraine by available statistical data analysis it can be argued that a period of stable increase in the share of crop products and mineral raw materials in the structure of import (from 29 to 39% of total imports) in 2009-2011 is characterized by the convergence dynamics of consumer price index and producer price index [4]. In Germany, the most rapid growth in imports of raw materials occurred in 2005-2006 (20-30 % annually), as well as in 2010-2011 [5]. Thus, according to OECD data, in 2010-2011 CPI and PPI in Germany are almost equal (104,2 104, respectively) [6]. In the UK, the greatest growth in imports of raw materials accounts for 2002-2003 and 2011-2013 (10-11% of total imports). In 2011-2013 in the UK the consumer price index and producer price index were the closest (108 and 107.4 in 2011; 109 and a 109.7 in 2012; and 110 of 110.9 in 2013) [7]. A Similar trend is observed in Netherlands. The highest level of raw material imports in 2011 coincides with the closest values of price indices (110.7 and 111), which in other years of the past two decades are very different [8].

2. Increase in the public sector share within the institutional structure. The public sector plays an important role in market interactions, controlling the rules of competition and using a variety of tools for production efficiency motivation and improvement. The public sector is also an economic entity, which is actively involved in the creation of a specific market. Government tools and management options affect the behavior of business entities. This effect is enhanced by significant developments in the institutional structure. With the public sector increase so-called "effect of expectation" reveals. This is the situation, when market actors involve the possibility of increasing the tax burden or other negative shocks in the planned costs. Thus, negative expectations actually increase costs due to the growth in the profit margins. In fact the profit element in the price becomes the cost because it is this part of the profit economic subjects are not willing to sacrifice. Market actors understand that the effect of a favorable outcome of the competitive struggle is short-term, and the consequences of negative shocks in the public sector are the long term.

Thus, the increase in the share of public sector in the process of the dynamics of institutional structure contributes to the growth in the profit margins, which transform to the raise of costs' share in the price structure. And this, in turn, strengthens the role of producers in the market interaction. On the surface this process reveals itself in the form of synchronization of price indices.

For example, in Ukraine in 2004-2006 a sharp increase in the share of public sector within the institutional structure (from 12 to 15% in net gross value added) took place. Thus, in 2006, the consumer price index and the producer price index are almost equal (109,1 and 109,6 respectively) [4]. In Germany, in 2011-2014 an increase in the share of public production costs in total GDP (from 22.23 to 22.69 %), takes place at the same time with the leveling of inflation indicators [6]. The same trend is observed for Japan, where in 2008-2009 the public sector raised (from 19.86 to 21.22 % of GDP). That resulted as almost equal indicators of inflation rate (106 and 105.4, respectively) [9].

3. Growing share of economic activity in the structure of the national economy. The growth of the industry compared to other sectors of economy is the result of production efficiency increase and possible strengthening of monopolization of the relevant market. The last point characterizes the strengthening of industry in national output and improving producer confidence in the favorable conditions of future development. In this case, the company holding a strong position in the market and is less exposed to external price and currency risks.

Thus, the role of profit in pricing is reduced, since more confident manufacturers are not inclined to include possible external risks in pricing. Their behavior is characterized by the desire to consolidate their monopoly position by raising production efficiency and reducing production costs. While minor risks, reducing the proportion of profit in pricing, as well as the easing of competition on the background of stabilization

of the market situation, determine the synchronization of changes in the consumer price index and producer price index in the relevant industries.

On the example of the Ukrainian economy growth, in particular, we can see that the food industry increase (from 3.77 to 4.2% of total exports in 2005-2006) can be associated with the synchronization of the consumer price index for food and non-alcoholic beverages and producer prices of food industry at the level of 105.8 and 105.3 respectively in 2006. The textile industry of Ukraine is characterized by the same trends. In 2006 the producer price index in textile industry (103.8) synchronized with the consumer price index for clothing and footwear (102.3), while the share of industry products in exports increased (from 3.2 to 3.27 %) [4]. In the German economy a similar trend is also observed. Producer prices of durable goods and consumer price index for furniture, lighting equipment, appliances and other household equipment are synchronized in 2009-2012. In the same period, the share of manufacturing in GDP increased (from 19.3 to 22.9 % of gross value added) [5, 10].

Thus, the prevalence of certain pricing principles in the economy, synchronization of price changes in production and consumer context are considered to be the factors of structural inflation. Structural inflation reveals itself as a tendency to increase the average level of prices as a result of changes in economic structure. The latter can be considered in various contexts, ranging from features of industry structure to changes in technological structure.

**Conclusions.** On the basis of the materials discussed above, but also guided by the results of the study, we can make the following conclusions:

1. The dynamics of pricing structures closely linked with the behavior of market actors, as well as with changes in the consumer price index and producer price index. The increase in the share of costs in price formation contributes to synchronization of price indices dynamics and to inflationary processes in different markets and at different levels.

2. The main factors of the pricing structures dynamics are commodity structure of import (in terms of the share of raw materials in import), sectoral and institutional structure of the national economy. The role of costs as a result of influence of these factors determines the convergence dynamics of the various price indices, which are indicators of the level of inflation.

3. Inflation indicators synchronization on the background of corresponding dynamics of the ratio of national economy structural elements characterizes the structural inflation, which shows characteristics of national economic development. The pricing factors described above, taking into account their pronounced structural nature may also be considered as the structural factors of inflation.

### Література

1. Giordano C., Zollino F. Shedding Light on Price and Non-price-competitiveness Determinants of Foreign Trade in the Four Largest Euro-area Countries / Review of International Economics. – Vol. 24 (3). – 2016. – P. 604–634.
2. Hatfield J. W., Plott C. R., Tanaka T. Price Controls, Non-Price Quality Competition, and the Nonexistence of Competitive Equilibrium. - Games and Economic Behavior. – № 99. – 2016 – P. 134-163.
3. Bloch H. Prices In Motion : Towards A Schumpeterian Price Theory. – № 67 (4). – 2016. – P. 742-767.
4. State Statistics Service of Ukraine [Electronic resource]. – Accessed mode : <http://www.ukrstat.gov.ua>.
5. Statistisches Bundesamt [Electronic resource]. – Accessed mode : <https://www.destatis.de>.
6. OECD [Electronic resource]. – Accessed mode : <https://data.oecd.org>.
7. Office for National Statistics [Electronic resource]. – Accessed mode : <https://www.ons.gov.uk>.
8. Centraal Bureau voor de Statistiek [Electronic resource]. – Accessed mode : <https://www.cbs.nl>.
9. World Bank national accounts data [Electronic resource]. – Accessed mode : <http://wdi.worldbank.org/table/4.2>.
10. Eurostat [Electronic resource]. – Accessed mode : <http://ec.europa.eu>.

### References

1. Giordano, C. & Zollino, F. (2016). Shedding Light on Price- and Non-price-competitiveness Determinants of Foreign Trade in the Four Largest Euro-area Countries. Review of International Economics, 24 (3), 604–634.
2. Hatfield, J. W. & Plott, C. R. & Tanaka, T. (2016). Price Controls, Non-Price Quality Competition, and the Nonexistence of Competitive Equilibrium. Games and Economic Behavior, 99, 134-163.
3. Bloch, H. (2016). Prices In Motion: Towards A Schumpeterian Price Theory. Metroeconomica, Volume 67 (4), 742-767.
4. State Statistics Service of Ukraine (2017). Official web-site. Retrieved from <http://www.ukrstat.gov.ua>.
5. Statistisches Bundesamt (2017). Official web-site. Retrieved from <https://www.destatis.de>.
6. OECD (2017). Official web-site. Retrieved from <https://data.oecd.org>.
7. Office for National Statistics (2017). Official web-site. Retrieved from <https://www.ons.gov.uk>.
8. Centraal Bureau voor de Statistiek (2017). Official web-site. Retrieved from <https://www.cbs.nl>.
9. World Bank national accounts data (2017). Retrieved from <http://wdi.worldbank.org/table/4.2>.
10. Eurostat (2017). Official web-site. Retrieved from <http://ec.europa.eu>.

Стаття надійшла до редакції 15.05.2017.