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## Cognitive Capital and its Profitability

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### Abstract

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Transformation of competition in cognitive capitalism makes the creation and increment values on the basis of intangible assets - knowledge, developments and ideas. The knowledge economy is becoming a significant resource of scientific and technical knowledge, which is made on the basis of a new form of capital - cognitive capital. Due to lack of development of a new type of economic system, formalization remains low. The concept of cognitive capitalism recognizes the predominant form of accumulation by misappropriation and exploitation of knowledge. The article analyzes the current economic processes in terms of the transition to a knowledge-based economy. At the article is been made the attempt of the scientific definition of cognitive capital. Have done an example of return on cognitive capital. The cognitive component of the national capital identifies monopolistic competition, that is competition for new ideas it promotes the search for new combinations, new applications, new knowledge, which reduces the overall price level. Of course, initially these new developments costs are included in the price structure, and initial development can be costly enough, but as the general price level is reduced scale. That is, this new application is possible more resource-saving, it allows you to receive the overall economy and thus contribute to lower prices.

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**Keywords:** Cognitive capital, knowledge economy, return on capital.

### 1. Introduction

The theme of transformation of the economic system in the direction of formation of economy based on knowledge, acquired a special significance at the present time. The development of the economic system makes advancing the creation and increment values on the basis immaterial resources - scientific and technical knowledge. Science turns to the imperative of growth and development of the national economy, and cognitive capital - the main factor of production. In the knowledge economy the competition initiates innovative activity of all its subjects.

In the knowledge economy it is a transition from abstract analytical frameworks and descriptions of dynamic changes to system analysis of the subject's behavioral characteristics. In the institutional and evolutionary theory of the economy be organized by macroeconomic order, reflecting the interaction of two processes: spontaneous self-organization of the market and the state-controlled economic subsystem. (Rozhdestvenskaya, 2016).

Since the basis of the progress of economic systems is the process of intellectualization of advanced factors of capitalist production, it changes significantly the relationship between the action of spontaneous market forces and motivated concerted action by all his subjects. As a result, there is a gradual transformation of the competitive market pricing of spontaneous primary regulator of capitalist production, the proportions of an instrument consciously purposeful process of formation of macroeconomic regulation of scientific knowledge.

Under these conditions, the preservation and protection of the competitive environment becomes a function of the state, is implemented through the national medium-term pro-competitive policies.

## 2. Cognitive capital in the knowledge economy

### 2.1. The capital structure of the knowledge economy

The knowledge economy is a qualitatively new stage in corporate capital development, which is not based on a real-industrialized, and cognitive-computer form (fig.1). In this regard, a growing need for the study of the functioning of the new system, particularly with regard to defining the role and place of the state in economic processes management. The impact of the new technological order for the development of economic structures is a promising direction in economic theory.

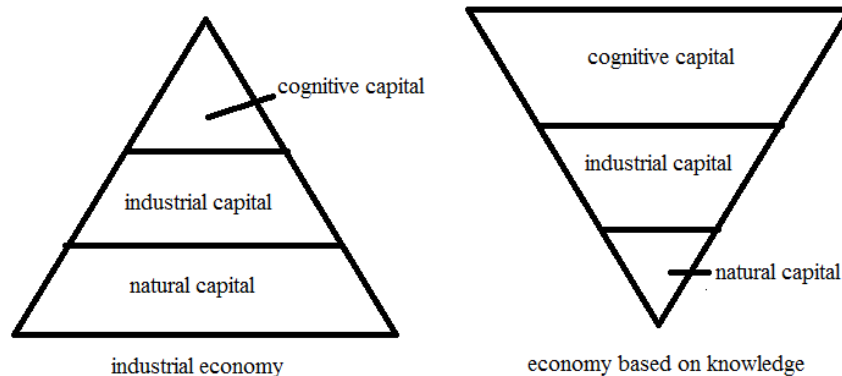


Fig. 1. The capital structure of the industrial economy and knowledge economy.

One of the most urgent problems of the modern economy - ensuring long-term sustainable economic development. It is well known that its decision includes a number of basic conditions for sustainable development: the value of the capital consumed in the year must be less than or equal to the value of its growth. In industrial-type economy based on extensive development and use of largely drying up the resources to fulfill this requirement is problematic. At the new stage of development, the capitalist economy is based on the production cycle of a new form of capital - cognitive capital.

Knowledge is the main productive resource and source of value. Then the cognitive capital is based on a resource of scientific and technological knowledge has its peculiarities in the formation of yield.

### *2.2. The concept of cognitive capital*

At the moment, common category's definitions of the cognitive capital have not developed in the economic theory. The first definition gives F. Machlup in his works (Machlup, 1966). He soon found a new trend, what defined the essence of the new category. Cognitive capital like any other capital is based on a special resource - share of scientific and technical knowledge.

Cognitive capital – is the result of the application of accumulated knowledge and intangible fundamental human intellectual activity, manifested in the generation of innovations, ideas, invention or improvement of techniques and technologies, including endo-resources technologies (Kirshin, & Titov, 2012). Cognitive capital has the properties of non-material resources - safety (not subject to physical wear and tear), unlimited (storage limit does not exist), the accumulation of economic resources spent on its production (human capital, industrial capital, natural capital, intellectual capital). Knowledge can be defined as «a set of subordinate facts or opinions constituting a reasoned statement or experimental result that can be transmitted to other people using the means of communication in a certain systematic form» (Litvak, 2010; Polre, 2007). In this interpretation of knowledge - it is the result of cognitive human perception of the accumulated information. Knowledge becomes a form of cognitive capital accumulation value invested for its creation of a capital - human, intellectual and physical.

Knowledge is not a guide value used for its creation of resources; knowledge contributes to the generation of new forms of capital. There is a problem of commercialization of cognitive capital and convert it into cash (Rullani, 2007). The open question is the formation of surplus-value to a new form of capital.

### *2.3 Return on cognitive capital*

What is the income on cognitive capital? One can cite the following example. One Russian defense enterprise «Strela» in addition to military developments launched in the production technology of manufacturing titanium golf club, which reduced the cost of production in the aerospace facilities of the plant up to \$ 20 per share (Prosvetov, & Filippov, 2003). The best-known global branding firm Golfsmith sells similar goods, but under its own brand for \$ 400 apiece. Accordingly, the co-operation of the Russian aerospace company with famous brands allowed it, on the basis of cognitive capital, a new method of production of titanium stick, make a profit. Under its own brand company would be selling these sticks less than \$ 100 apiece, while cooperation with the international well-known company, she received a return on capital by paying a certain percentage (25%) of the trade mark by getting extra income. And this income in its pure form is the income on cognitive capital, the application of new knowledge. That is, the stick was made completely new way, the same stick. Unfortunately, the project did not last long, the production stood out in a small independent firm that could not stand competition.

Cognitive capital is not some kind of a new category, it is that part of the intellectual capital that allows you to earn an income multiple of the above. That is the intellectual capital of the company

branding allowed receiving 25% royalty, and everything else gets a Russian company, that is, receives income on cognitive capital.

That is, income for cognitive capital is the income that creates a temporary monopoly. When competing companies have mastered a new technology production of titanium stick, which, according to the chief technologist of the plant «Strela», «superior technology to produce housings aircraft missiles» the Russian small innovative firm could not stand competition (Gromer, 2003).

The state's task is to protect innovative production on the basis of cognitive capital. Such a policy will strengthen the position of the national economy in the international market, as the yield of cognitive capital is a multiple greater than all other forms. In addition, the use of cognitive capital allows us to pass on a sustainable mode of reproduction of the economy because of its special properties.

### 3. Conclusion

The concept of the knowledge economy is linked with the emergence of a new group of economic relations of production and use of scientific and technological knowledge, which led to the emergence of new forms of capital.

Stability of capital growth should be ensured of its internal structure. The basis of the national capital should be resistant to external influences and structure factors. Thus the potential for sustainable development is the cognitive potential of the person. Indeed, unlike other factors of production, human cognitive abilities are not lost in the production process, and the results of intellectual work be duplicated at a cost that tend to zero. We call the newly created capital with the help of cognitive human cognitive capital.

Thus, the source of sustainable growth becomes a cognitive capital and its intrinsic property of a continuous growth, which is not achieved with all other forms due to the growth limit.

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