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# INFLUENCE OF THE INFORMATION (POST-INDUSTRIAL) STAGE OF PRODUCTIVE FORCES DEVELOPMENT ON CAPITAL CYCLE FLOW NATURE

# WPŁYW ETAPU INFORMACYJNEGO (POSTINDUSTRIALNEGO) W ROZWOJU SIŁ WYTWÓRCZYCH NA CYKLE PRZEPŁYWÓW KAPITAŁU

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**Streszczenie.** Niniejsza praca bada wpływ etapu informacyjnego w rozwoju sił wytwórczych na cykle przepływów kapitału. Celem pracy jest określenie zmian, które powinny być uwzględniane w cyklu kapitałowym będącym w procesie przejścia od etapu przemysłowego w rozwoju sił wytwórczych ku etapowi postindustrialnemu (informacyjnemu). W pracy poddano analizie elementy, trendy rozwojowe i znaczenie cyklu przepływów kapitałowych. Zwrócono również uwagę na podstawowe zmiany w cyklu kapitałowym zachodzące pod wpływem sił wytwórczych, jak i na wynikające z tych procesów korzyści i niekorzyści. Ponadto, autorka przeprowadziła analizę cech charakterystycznych cyklu kapitałowego.

**Key words**: capital cycle, information society, post-industrial economy, productive forces, scientific and technological progress.
**Słowa kluczowe:** cykl kapitałowy, gospodarka postindustrialna, postęp naukowy i technologiczny, siły wytwórcze, społeczeństwo informacyjne.

## FORMULATION OF PROBLEM

At any stage in the development of humanity an economic essence of “capital” category and the nature of its cycle are unchangeable. However, quality changes of productive forces and production relations’ improvement cause fundamental changes in the capital cycle process. The development of globalisation, information technology improvement, transformation of information into an important factor of production, legalisation of new forms of business are influencial factors that demand a new vision of the capital cycle and give the possibility to broaden its conception considerably.

The concept of capital and its cycle in various aspects are actively being studied by scientists. However, the problems of the influence of information technologies, up-to-date communication and other achievements on progress on capital cycle flow are being insufficiently studied.

**The aim of this research is** to find out the changes that should be taken into account in the capital cycle under the influence of transition process at the industrial stage of productive forces into postindustrial (information).

## METHODS

During the study the following theoretical generalization methods were applied – analysis and synthesis, induction and deduction, systematic approach, comparison, analogy,

abstraction. Methods of theoretical generalization and comparison are used to research changes in the capital turnover. Historical and systematic approaches are used to research the historical background of the emergence of the concept of capital. The graphical method used for visual display transformation of capital in the cycle, used methods of mathematical statistics – to assess the market value of the capital turnover.

## THE ANALYSIS OF RECENT RESEARCH AND PUBLICATIONS

Both terms – postindustrial and information society that come from the west are distinguished by an inaccuracy in their literal interpretation. What does the term “postindustrial society” mean literally? How can society exist without an industrial base? A society needs quite a powerful industry to survive and develop. Could we arrange society's essence and nature and its productive forces to information, as it is becoming more and more important? Of course, we could not. Moreover, on the one hand, collection, processing, generation of information and organisation of its flows should serve the goals that are not arranged into information and on the other hand rely on material basis developed industry.

The term “information and industrial stage of productive forces” proposed by professor M.I. Butynets, M.P. Voinarenko, S.F. Holova, M.S. Pushkar, Ya.V. Sokolov, V.F. Paliy, V.D. Bazilevich and V.V. Ilin fairly points out that: “Transition from industrial to spiritual and informative society, transformation of economic development models under the influence of economy globalization, labour intellectualization, production dematerialization and capital change into the dominant factor of economic development result into fundamentally new problems that need other conceptual decision and reconsideration of a number of profound theoretical and methodological principles and concepts of economics (Bazilevich, Ilyin 2008) A. Buzharin and A. Kolhanov note”. Globalisation occurs as an immediate reaction to the previous development: the capital having reached the maximum limits of its concentration within the national boundaries strives for its realization in a wider spatial economic continuum and transforms into a global capital in such a way (Sidenko 2008). In the formative and industrial stage of productive forces, development is a new quality stage of society’s material and technical base meeting the requirements of both the economic and social system of a brand new quality and economic mechanism. Determination of the essence, nature, principal direction and forms of future societal development runs into the definition of quality novelty in three fundamental parameters: productive forces (material and technical base); economic and social system; economic mechanism. Yu. Ishikava relying on K. Marx's theory researched the changes in the capital cycle in XX century. In his opinion, the transition from industrial to financial and investment capital is being observed and this caused the transition from the production capital accounting paradigm to loan or fictitious capital paradigm and results in the separation real and fictitious capital cycle (Golov 2007).

The transition to a new quality stage of society and its productive forces development as we can see on the example of the developed countries of the west is realizing in its own manner in the Ukraine but some unreasonable economic reforms impede it. Despite the development of this process at present, only separate features and tendencies of information and industrial society formation can be determined.

## RESULTS OF RESEARCH

Referring to a new quality social and economic system establishment in society the opinion of I. Larionov seems to be the most acceptable. He specified it according to the peculiarities of modern times. I. Larionov thinks that it is necessary to create a social and economic system aimed at the revelation of a person's creative potential and based on the continuity of national and historical traditions. They, in their turn, affect the post-industrial stage of development that ensures the synthesis of civilization and culture in the future and develops informative and ecological economy. It consists of the best features of both market and capital and planned and distributive economies (Larionova 2001).

In addition, the process of integration of national states into common society and national economies into a common world economy is seen not in the form of states and their economies merger into common nonstructural unit but in the form of the synthesis of national states and economies into certain integral community and with the national states integrity, accordingly concerning separated national economies taking into account objective differences of national and state interests of world countries.

Obviously the specific nature of any country should be traced in economic mechanism. General principles and regularities of economic mechanism at the stage of eco-humanism (from ancient Greek οἶκος – house, home and Latin *humanitas* – humanity); some authors equate this concept with the postindustrial or informative stage of society's development (Ekologicheskaya filosofiya) also occur and demand thorough study. New quality money, informative by its nature and electronic be its bearers (Larionov,Timerbulatov 2000), as well as a corporate economic mechanism with an advanced technologic orientation, is among the basic principles that have an important meaning (Motylev 1990).

The elements, development tendencies and peculiarities that have fundamental importance for the examination of capital cycle flow can be distinguished concerning informative and industrial stage of productive forces development.

1. The meaning of the informational component (constructions and technological realisation of research and developments projects) greatly increases in the use value of finished products.

2. Research and development projects and organisational and administrative developments play a leading role in the process of production; while the process of material production is changing into materialisation of intellectual and informational activity.

3. Real values are produced by labour in the sphere of material production. Intellectual and informative labour itself is not able to produce real values despite being connected with the sphere of material production it is able to be a factor (multiplicator) of a product value (cost) raising it in the succession of chances by tens, hundreds, thousand etc. times.

4. Science, education and management become not only the sphere of productive activity but transform into a leading factor of productive force development.

5. The introduction of a new quality sample of machinery and technologies causes a sharp intensification and acceleration of moral depreciation of fixed capital particularly machinery and equipment. Accelerated replacement of machinery and equipment become predictable according to this fact.

6. A bigger part of the population is moving into service industries especially consumer services and tourist and entertainment services with the increase of social labour efficiency and the increasing displacement of direct labour from the real sector of economy. The mechanisms of state regulation providing redistribution of value that are produced in a real sector of economy into the service industry and should be created.

7. The informative and intellectual component is becoming a more and more important part of product cost and price.

8. The level of payment for labour among the most qualified workers in the sphere of information and management is increasing by several times.

9. Use of certain types of intellectual and information flows and services should be popular and free of charge. This is needed for rapid and sustainable development of a society and its productive forces. The use of other types of intellectual and information flows and services should be paid, those being needed for material reward of those who generate intellectual and information values and maintain the functionality of the infrastructure of their storage and distribution. According to each stage of development of society and its productive forces, one should observe the balance between free and paid use of products of intellectual and information labour.

10. A product of intellectual and information activity has a social value including price in the case of its sale, only at the highest quality level and recent achievements. If tangible goods, because of their scarcity and deficit, are needed by the society not only in their best specimens but in mediocre ones (for example, the best clothes and shoes are not available for all residents, but everybody should have shoes and clothes), then the intellectual and information product reasonably should be used only in its best quality as it is relatively easy to copy and distribute. For example, if a more advanced machine is designed or a better technology is developed, the "good" being at a lower level of engineering and technology

are unnecessary (if the access to a higher level engineering and technology is closed for the part of their potential consumers).

11. The main and leading value in society is the predominating part of social wealth that comes from information, that is understood in its broadest sense ranging from discoveries, invention, technical and technological developments a number of information.

12. Introduction of a more perfect intellectual product depreciates the value (and cost) of the preceding product according to the function of intellectual and information product, no matter what this value (cost) was before its depreciation.

13. Labour or a labour product in the humanitarian sphere, culture and art being a (variety) of intellectual and information labour and its products plays an increasing role in the basicdevelopment of all branches of society's life including the field of industrial and economic activity.

14. The importance of the ecological factor in industrial and economic activity concerning nature, but also man, is increasing extraordinarily. The latest technologies should simultaneously support nature conservation and revival and meet the requirements for lifestyle and human creative potential.

15. The latest technologies meeting the information and industrial stages of production force development enable the simultaneous increase of the level of social labour in times and not only conserve environment but also revive and ennoble it.

All this leads to the formation of new accounting and control objects. Taking into consideration the above mentioned processes in the transformation of material and technical base of the society, consider the influence of these processes on capital cycle under the conditions of the formation of information and industrial stage of productive forces development.

The capital goes through the following stages in the process of a complete cycle:

1) at the first stage capital in the form of money (Cm) is invested into specific factors of production – the means of labour, objects of labour, that are transforming into productive form;

2) at the second stage productive capital (Cpr) is gradually converted into commodity form that includes the form of produced services in the process of production;

3) at the third stage commodity capital (Cc) is converted into monetary capital.

At the third stage of capital cycle (C' – F), the excess over the invested value (F – M, Mp, Lf) at the beginning of the capital turnover, can be clearly seen and is expressed in the creation of value added product.

This process is expressed as:

$$C' = C + m \qquad (1)$$

$$F' = F + f$$

where: C, C' – commercial commodity after turnover;

F, F' – funds invested into production and obtained as a result;

Mp – means of production;

Lf – labour force;

M – materials.

The formation of information and industrial stage of productive force development cannot avoid influencing the nature and structure of additional products, trying to identify the nature and mechanism its cost of this effect.

In this case the basis of the additional product is the combinative economic effect that is often called synergic or synergetic economic effect (Larionov, Timerbulatov 2000, Motylev 1990, Motylev 2001).

V. Motylev distinguishes quantitative and qualitative economic growth in social reproduction system conforming to conditions of quality growth. An additional product is formed in the form of synergetic economic effect, that is defined as the difference between the integrated value (cost) of all production factors and the finished products and the mechanical amount of the same factors provide their effective combination in the reproduction process (Motylev 2001b).

The term “synergetic effect” or “synergic” (from the word “synergetics”) came to economics from cybernetics. We think it is better to use the term combinative economic effect, although we do not dispute the above mentioned term.

Combinative economic effect (CEE) is a surplus value (cost) of the finished product over the mechanical amount all factors of production consumed in the manufacture of these products, though while assessing these factors value of labour is taken into account instead of labour force (cost) (Marks 1960).

Combinative economic effect (CEE) is sure to arise only under the effective combination of production. The phenomenon of anti-effective production occurs by their ineffective combination, when the value (cost) of the finished products is lower than the mechanical sum (amount) of all production factors consumed in their manufacture including the labour value (cost).

An additional (extra) cost such as the difference between the value created by a worker labour and the cost of his labour force also occurs in the social reproduction system and is realised according to the mechanism exposed by K. Marx in his “Capital”. However, our conflict with K. Marx is that we do not consider the production and appropriation of additional (extra) cost based on the exploitation of hired labour as general-purpose situation that takes place under the option of a worker hired in capitalist production. We consider employment to be this type of hiring a worker. Other options of hiring a worker can be the following: payment for labour; payment for the results of labour; payment of expenses and payments for labour results simultaneously. The following items may be the basis of additional product depending on the nature of labour force hiring and the efficiency of production factors combination:

1) only the additional (extra) cost (in the sense exposed by K. Marx in the “Capital”);
2) only combinative economic effect;

3) partially added value, partially combinative economic effect, moreover, depending on the specific economic situation with the domination of one or another.

The difference in the sources of education of added product can be represented by Figure 1.

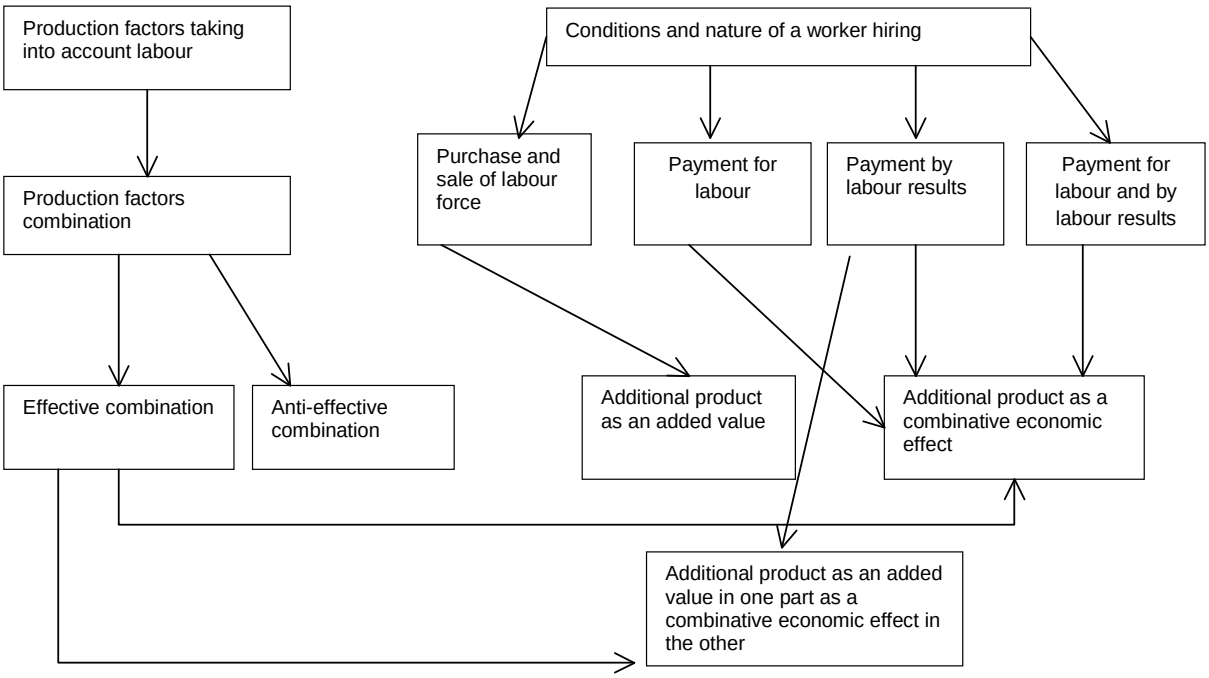


Fig. 1. The formation of an additional product in the production process
Source: own study

Analysing the given scheme should mean that the result of labour is not of equal value to combinative economic effect that occurs precisely as a result of combination of all production factors, labour included. The labour itself as one of the production factors, even the leading one, has its own efficiency or productivity, which is inherent to it as a production factor. For example, one worker can produce 100 articles, and the other – 120. Obviously, efficiency (productivity) of labour is different. But this difference is not a distinction in the creation of combinative economic effect, determined by the combination and interaction of all production factors, without exception and not only labour in the production process.

The possibilities of production factors combination and moreover the possibilities of their more effective combination are increasing at times during the information and industrial stage of productive forces development.

The rise of society as a whole through the stages of social maturity is taking place with the formation of information and industrial stage of productive forces development; namely: a) the strengthening of a workers' position on the labour market; and, b) the increase in the degree of a person's social protection. Both these factors cause the tendency to the displacement of the purchase and sale of the labour force by the process of its hiring by the

payment for labour and by results. Accordingly, the share of added value in the value structure of added product is reduced with the increase of the added product value amount due to the growth in it. The share that is the result of combinative economic effect.

Taking into consideration the above mentioned, the elements of the cycle formula (1) are specified:

$$C' = C + \grave{o}\,(Adv \Rightarrow 0; CEE \Rightarrow \infty);$$
$$F' = F + f\,(Adv \Rightarrow 0; CEE \Rightarrow \infty), \tag{2}$$

where: $Adv$ – added value,

$CEE$ – combinative economic effect.

The combinative economic effect occurs as a result of highly skilled labour realizing its creative potential primarily in two spheres – science and management. Information and combination of organization and management that are understood in the broadest sense are the products of these spheres.

As already mentioned, society needs the combination of free of change egalitarian access and addressed payment while consuming a specific product of these two kinds of labour that along with labour in the spheres of education, culture and art all play a decisive role at the information and industrial stage of development.

Concerning science, the element of free of change in the information circulation is obvious and concerning organisational and managerial labour, it is necessary to pay attention to the fact that society scale consumption of a number of organisational and managerial decisions is free of change while paying expenses.

The central problem of the capital cycle is dialectics of continuity and interruption of capital cycle stages nation and industrial epoch this dialectics is laid over by the dialectics of payment and free of change provision of labour results in the fields of science and organization and management combination.

The capital cycle formula is specified as follows (Fig. 2)

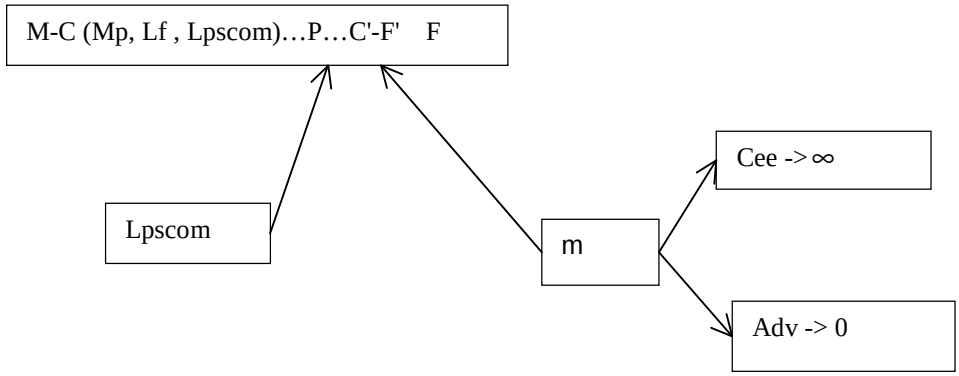


Fig. 2. Specification of capital cycle
where: Lpscom – labour product in science and combination of organization and management.
Source: own study.

While the share and the absolute value of CEE in the structure of an added product value is increasing with growth corresponding to its value, the monopoly concerning a small part of highly qualified staff who has creative potential resulting in exclusively high payment for their labour is simultaneously increasing. However, such payment, as a rule, is compensated with excess by the value of combinative economic effect generated by their labour.

Scientific and technological progress, the rate and scope of which are considerably growing at the information and industrial stage of productive forces development creates the following elements of material and technical progress.

Firstly, not only mechanisation but also automation of loading and unloading operations are provided.

Secondly, the favourable storage of material assets and corresponding high level of safety are provided.

Thirdly, transport vehicles are becoming more technically advanced, reliable and economic.

Fourthly, the amount and quality of road networks, their infrastructure and air and water transport are expanding.

Fifthly, the movement of production goods and wholesale consumer items consignments are fully and thoroughly computerised based on computers and computer programme improvement.

The above mentioned elements of scientific and technological progress in commodity circulation influence capital cycle:

1. It is becoming more profitable to concentrate production stock and finished products not in warehouses of consumers or producers enterprises but in big, technically highly equipped warehouses and depots. It enables one:

a) to provide high stock mobility; b) to use the most effective technologies of goods loading and unloading, storage and transport; c) to save on the expenses of production goods and finished products storage, transport, loading and unloading, correspondingly pay the share of these savings in the form of profit to big warehouses and deports and the other share of funds can be spent on the reduction of expenses of enterprises turnover.

2. Every enterprise is surrounded by the network of specialised warehouses and depots supplying it with the necessary production goods and as well network of other warehouses and depots accepting its products to supply to enterprises – consumers, retail chains or for export. Thus, mezoeconomic network is practically created around each enterprise. The network includes specialised depots, warehouses and transport enterprises with (correspondingly) adequate infrastructure and industrial and agricultural enterprises.

3. The enterprise's capital turnover included into above characterised mezoeconomic network is increasing considerably, while monetary capital turnover and real movement of goods are also accelerating.

The process of production is intensified due to a better organisation of product delivery and as a result its volume increases at the same production capacities and with the same worker's contingent.

The development of marketing methods on the basis of computer monitoring of sales demand and development flow combining with the development of flexible technologies enable the production of the most desired consumer products with its address delivery to a buyer. The following trends are developing on this basis along with the improvement of goods movement process based on the scientific and technological progress:

1) The relative number of production stock and finished products in society as a whole is reducing with regard to volume of production not only at the warehouses of producers and consumers but also at warehouses and depots serving a lot of enterprises.

2) Interindustrial (mezoeconomic) capital cycle is increasing considerably and due to this flow of fund is accelerating at all cycle stage and each enterprise.

3) The period of the introduction of new technologies and scientific developments is significantly reduced.

The unwise, from the position of social interests, use of scientific and technological progress with the initial stages of information and industrial society leads to significant deformations of capital cycle at all levels: micro (an enterprise), mezzo (chains of interbranch connections), macro (national economy), mega (world economy).

The computer revolution as well as its various positive effects on the economy, caused two huge negative consequences.

Firstly, the enormous economic impact of computerisation (relates) to the fact that costs of the new generation of computer technologies decreased and the efficiency increased in times was substantially used as a trademark of speculative and brokerage operations that began to snowball. At the beginning of the third millennium the volume of production in the world (total GDP) was 49 trillion USA dollars annually and speculative and brokerage operations in the form of purchase and sale of various kinds of securities reached a sum 10 times greater about 500 trillion dollars (Mirovaya ekonomika).

Secondly, computers have been used as a material and technical basis of speculative and brokerage operations, their internationalisation that has increased the volume of speculative and brokerage capital.

Both absolute and relative growth of speculative and brokerage capital effects the development of the real sector of the economy in the following way:

1) by diverting capital from production investment reducing the real investment level;

2) by reducing the capacity of mass solvent market that also reduces volume of production regarding the possibilities possessed by the society.

In this case a unique combination of negative trends of human societal development is observed.

The Ukraine is entering the mainstream of world progress as a result of the reform of the past two decades. Science, innovation, education and technology have become the priority branches of development at the postindustrial stage. Unfortunately, these branches in the Ukraine are slowly developing testifying that our country is just approaching the post-industrial epoch. These conclusions are based on the analysis of the given below tables.

Table 1. Financing of scientific and technological work according to activity sectors

| | 2000 | | 2005 | | 2009 | | 2010 | |
|---|---|---|---|---|---|---|---|---|
| | hr.ths | % | hr.ths. | % | hr.ths | % | hr.ths | % |
| Total | 2 046 339.0 | 100.0 | 5 160 399.8 | 100.0 | 7 822 209.8 | 100.0 | 8 995 893.9 | 100.0 |
| Government sector | 740 980.3 | 36.2 | 1 556 935.1 | 30.2 | 3 025 558.4 | 38.7 | 3 274 433.9 | 36.4 |
| Business sector | 1 202 417.1 | 58.8 | 3 359 716.8 | 65.1 | 4 284 503.7 | 54.8 | 5 156 185.7 | 57.3 |
| Higher education sector | 102 836.4 | 5.0 | 243 747.9 | 4.7 | 511 935.4 | 6.5 | 565 054.2 | 6.3 |
| Private non-profit sector | 105.2 | 0.0 | – | 30.2 | 212.3 | 0.0 | 220.1 | 0.0 |

Source: Naukova ta innovatsyina diyalnist v Ukrayini: statystychnyi zbirnyk. 2011, s. 81.

Analysing the data in Table 1 we can see that the financing of scientific developments has increased more than fourfold in the recent 10 years while the business sector is the dominant financing structure.

Table 2. Average staff monthly earnings according to the types of economic activities in 2010

| Branches of economy | Average earnings | |
|---|---|---|
| | UA hrivna | per cent according to average in economy |
| Total | 2239.0 | 100.0 |
| Education and science | 1889.0 | 84.3 |
| Financial activities | 4601.0 | 205.5 |
| State administration | 2747.0 | 122.7 |
| Industry | 2580.0 | 115.2 |
| Construction activity | 1754.0 | 78.3 |

Source: Naukova ta innovatsyina diyalnist v Ukrayini: statystychnyi zbirnyk. 2011, s. 39.

Table 2 provide data about proportion of average monthly nominal gross payroll to education, science, state administration, construction staff and financial and credit organization to average level of wages salaries in the Ukraine.

The wage level in education and science should be substantially higher than the average level of wages, since the progress of human society and productive forces development depends mainly on these spheres. Respectively, a higher salary should not only reward the labour in these branches but also attract the most talented and active people into the sector. The opposite situation has developed in the Ukraine. In 2010 the level of salary in education was 84.3% of the average salary level of the Ukraine. Salaries in finance, industry was in 1.5–2 times higher than in education and science. This leads to the highly qualified staff turnover from science and education into different business spheres that does not assist the development of the former (Table 3).

Table 3. Number of people employed in scientific organisations (ths. person)

| Years | Full-time staff | Specialists involved in research and scientific and technological activities | | | Support personnel | Part-time staff involved in research and scientific and technological activities |
|---|---|---|---|---|---|---|
| | | total | out of whom | | | |
| | | | Doctors of sciences | Candidates of sciences | | |
| 1991 | 449.8 | 295.0 | 3.4 | 27.8 | 103.1 | 36.1 |
| 1995 | 293.1 | 179.8 | 4.1 | 22.9 | 62.8 | 41.7 |
| 2000 | 188.0 | 120.8 | 4.1 | 17.9 | 35.6 | 53.9 |
| 2005 | 170.6 | 105.5 | 4.2 | 17.0 | 32.0 | 68.5 |
| 2010 | 141.1 | 89.6 | 4.5 | 17.0 | 26.0 | 69.4 |

Source: own study.

Staff numbers involved in research and developments has decreased more than three times (from 295.0 ths to 89.6 ths persons) over the last twenty years. Keeping this tendency may affect the future development of science and education in the Ukraine.

## CONCLUSIONS AND PROSPECTS OF FUTURE RESEARCHES

The development of productive forces and production relations cause fundamental changes in the nature of the capital turnover. In today's world, the basis for the creation of added value is not labor, and synergy effect. It causes more attention to capital and combining factors of production, innovation and integration of science and production.

Thus, the Ukraine has been building an information and industrial society in the process of the market reforms of the last two decades. The results of these reforms have been obtained and at present the Ukraine is entering the direction of universal progress. However, a lot of problems have not yet been solved, including the necessity of technical and technological re-equipment of enterprises focusing more on science and education development. And this, in turn, accelerates the capital cycle, increases its efficiency that will improve enterprises' profitability and satisfy social needs. Further development of productive forces and its influence an capital cycle may be the subject (objects) for future researches.

## REFERENCES

**Bazilevich V.D., Ilyin V.V.** 2008. Intelektualna vlasnist: kreatyny metafizychnogo poshuku. Kyiv, 687.

**Bard V.** 1988. Finansovo-investitsionnyi kompleks. Moskva, *Finansy i statistika*, 329.

**Bragin N.I.** 2000. Gosudarstvo i rynok. Moskva, 339.

**Bukhgalterskij oblik**: nauch. posibnyk za red. prof. F.F. Butyntsya. 2000. – Zhitomir, ZhITI, 448.

**Ekologicheskaya filosofiya**. Bioetika. Ekogumanizm. Electronnyj resurs – Rezhym dostupu: http://turboreferat.ru/ethics/jekologicheskaya-filosofiya-biojetika-jekogumanizm/28044-136503-page2.html

**Ekonomicheskaya teoriya**: pod red. Larionova I.K. 2001. Moskva, Izdatelski Dom "Dashkov i Ko", 732.

**Golov S.F.** 2007. Bukhgalterskij oblik v Ukrayini: analiz stanu ta perspektyvy rozvytku: monografiya. Kyiv, TsNL, 522.

**Larionov I.K., Timerbulatov T.R.** 2000. Finansovo-promyshlennye gruppy: pod red. Larionova I.K. Moskva, MUPK, 183.

**Marks K.** 1960. Kapital: Soch. – 2-je izd. T. 23, 24, 25. Moskva, 907.

**Mirovaya ekonomika.** Electronnyj resurs – Rezhym dostupu: http://www.ereport.ru/stat.php?razdel=country&count=world&table=gpecia

**Motylev V.** 1990. Uchyet sinergeticheskogo effekta pri postroyenii sistemy nalogooblozheniya. Predprinimatelstvo. No. 2. 146–156.

**Motylev V.** 2001. Mezoekonomika. Moskva, 443.

**Motylev V.** 2001. Ekonomicheskaya teoriya. Moskva, Izdatelski Dom Dashkov i Ko, 378.

**Naukova ta innovatsyina diyalnist v Ukrayini: statystychnyi zbirnyk**. 2011. Kyiv, DP "Informatsyino-vydavnychyi tsentr Derzhstatu Ukrayiny", 282.

**Paliy V.F.** 2006. O predmete bukhgalterskogo uchyeta. Bukhgalterskij uchyet. No. 5. 55–58.

**Pratsya Ukrayiny u 2010 rotsi: statystychnyi zbirnyk**. 2011. Kyiv, 325.

**Pushkar M.S**. 2007. Stvorennya intelektualnoi systemy obliku: monografiya. Ternopil, Kart-blansh, 152.

**Sidenko V.R.** 2008. Problemy formuvannya modeli natsionalnogo ekonomichnogo rozvytku v konteksti globalizatsyi. Visnyk Kyivskogo torgovelno-ekonomichnogo universitety, No. 1, 5–14.

**Sokolov Ya.V.** 2004. Istoriya bukhgalterskogo uchyeta. Moskva, Finansy i statistika, 272.

**Vernimont D.L.** 1998. Finansovyje potoki i realnaya ekonomika. Predprinimatelstvo. No. 4. 140–147.

**Voinarenko M.P., Osaulenko O.G., Skorobagata L.V., Shevchuk V.O.** 2010. Ekonomichnyi potentsial pidpryjemstva oblikovo-statystychnyj ta informatsyino-tekhnologichnyi konteksty: monografiya/za nauk. red. chl.-kor. NAN Ukrayiny O.G. Osaulenka. Kyiv, Derzhkomstat Ukrayiny, 282.