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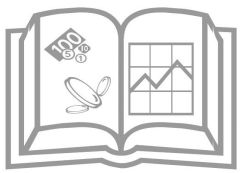

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ECONOMIC EXPERTISE OF A BUSINESS PLAN AS AN INSTRUMENT OF CONTROL IN THE FINANCIAL JUSTIFICATION OF AN INVESTMENT PROJECT

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Abstract. The article substantiates the role of economic expertise of a business plan, the integral part of which is the expertise of financial justification of an investment project, for making a final decision on its implementation. Special attention is devoted to the issue of real investment assessment, which remains controversial. The article underlines that in the course of economic expertise of financial justification of an investment project it is important to take into account that application of risk measures, used to evaluate the financial investment, will have a number of disadvantages if applied as a risk measure for real investment: a company's market portfolio cannot consist of business investment; it is inappropriate to single out unsystematic and systematic risks; business investment are not traded assets.

Key words: investment project, investment risk assessment, efficiency of investment projects

INTRODUCTION

Current Ukrainian economy is experiencing a pressing need for the increased investment. One of the conditions for the successful implementation of investment activities is to develop appropriate methods for evaluating the efficiency of investment.

Treating investments as monetary, property or intellectual valuables, which are invested into the businesses for profit and/or social and environmental effect, allows us to formulate a number of theoretical and methodological problems. The

issues of justifying investment decisions in terms of their feasibility, forecasting the results of such decisions and thus providing for the possible risk assessment have gained the leading position among those problems.

The volatility of market conditions and current market environment, as well as the long-term nature of the investment processes result in the necessity to evaluate the interdependence of these factors. The major systemic financial document for an investment project is a business plan. Since the investment management involves the actions that would allow compensating for the deviation of certain factors with some other factors and would provide for achieving the investment objectives, then, while developing a business plan, it is necessary to use the methods of evaluating the impact of possible fluctuations of investment factors with close attention to how those fluctuations might influence the composite efficiency index of investment performance. In each and every case, for each and every project we develop an individual financial model, which allows considering all the aspects of the investment project, provides for a detailed analysis and a favourable presentation of the results.

A business plan includes a comprehensive system of arguments that prove the financial feasibility of a particular type of investment, a detailed description and analysis of the environment in which the investment takes place (or will take place), a profound analysis of the risks associated with the investment activities, specification of prospects in the form of qualitative and quantitative indicators, as well as instantiation of the management system necessary to achieve the desired goals [Perevozova 2011, p. 170]. Expertise of a business plan is necessary for making a final informed decision about an investment project. There are two possible directions for the expertise that determine its cost and timing: evaluation of the methodology selected for developing a business plan and assessment of investment project feasibility as it is submitted, whereas the expertise of its financial justification becomes a component part of such assessment.

Allocation of financial resources for the project is the obvious and fundamental prerequisite for a management decision as such. It is important to note the relevance of economic expertise of the financial justification of investment projects, financed from the budget.

RESEARCH METHODS

Despite a wide range of advisory references available for developing a business plan, its certain parts often turn out to cause considerable difficulties. Practical experience has shown that most problems arise while developing such parts of a business plan as financial plan formation and risk assessment.

The results of conducted market research form the basis for all chapters of a business plan. Therefore, appreciable errors at this stage or failure to conduct appropriate market research will make it impossible to talk about accurate and realistic further calculations.

Assessment of the efficiency of investment projects is complicated enough; therefore this issue has been widely researched by a number of scholars. Research studies include scientific works by A. Amosha, V. Algin, R. Bazzel, G, Birman, I. Blanc, E. Boyko, J. Brigham, A. Vichevich, L. Galenski, M. Danyluk, G. Kleiner, L. Kruszwic, V. Kovalev, I. Kukukina, L. Labsker, E. Lapko, B. Livshits, J. Linter, V. Miklovda, S. Smollyak, E. Chetyrkin, W. Sharpe, S. Schmidt and others.

However, the issue of real investment assessment remains disputable. For example, risk assessment and temporal cashflow ratio are determined on the basis of criteria generated by financial markets, which, in fact, do not adequately reflect the nature of the processes that take place during real investment.

Evaluation methods are not universal in all cases for all investment projects, since they may differ a lot in their cost, project implementation period, as well as in intended results.

The simplest calculation methods are suitable for small investment projects that do not require considerable capital investment or are characterized by a relatively short period of implementation.

At the same time large-scale investment projects (new construction, reconstruction, development of new types of products, etc.), which entail high investment outlay, demand close attention to a number of factors that must be considered and, consequently, require more complex calculations, as well as revised methods for project performance evaluation. The larger the investment project scale is and the more significant changes in the economic results of a business entity it might cause, the more precise calculations of cash flows and methods of evaluating its efficiency it requires.

More than that, it is important to underline that there is a lack of practical recommendations, developed by our native scholars, on economic expertise methodology for real investment assessment. Best practices on the issue hardly cover 1–2 pages of a coursebook, determining the necessity of business plan expertise and listing the subject of such expertise and its disadvantages.

Methodological and procedural issues of economic expertise of a business plan remain an open question, and so does a unified approach to expert review. It would be perfect if person(s), responsible for economic expertise of a business plan, was/were not directly related to the investment project, but competent and honest enough to formulate a professional opinion on all the essential aspects, that would be critical for the success of the project. If we take into account the low cost of these services in Ukraine, it will become evident that this additional

step might be an exceptionally profitable deal that could significantly influence the result.

Systematic and logical approaches to the analysis of economic expertise of a business plan constitute the methodological basis of the current article. General scientific methods were used in the study to justify the expediency of business--plan expertise: dialectical method, abstraction, deduction and induction, analysis and synthesis.

The subject of the research is the process of economic expertise of a business-plan, the object are real investment evaluation methods that are useful for financial explanation of investment.

The objective of the article is to establish the method of evaluating the efficiency of real investment projects, carried out by an enterprise, in the process of business plan expertise.

RESULTS

Expertise of a business plan, as a certain direction of human activities, produces information (product of labor), has its production technology, conditioned by labor object, its purpose and objectives. With this in mind, we can define the subject of labor in the process of a business plan expertise: the objects specified in the requirements of a customer. Within the frame of the article, the object of economic expertise is financial justification for a particular investment project.

Basic evaluation criteria for a subject of expertise should include: clarity, completeness, reliability and quality of generated information. Apart from these, measurability, comparability and consistency are also considered while assessing investment project efficiency.

An important peculiarity of organizing the expertise process for a business plan is that the phases of research and practical procedures of financial explanation of investment are clearly associated with a specific task set by a customer of such expertise. Therefore, the main objective of investment projects (consequently, of a business plan) is to satisfy the needs of a customer in best possible way. At the same time, economic expertise can be used as an independent form of control of financial justification of an investment project.

Economic expertise of a business plan can be examined in two aspects: organizational-technological and methodical. Consequently, the consistency characteristics of the study should be based on such imperatives:

- connectivity (including reverse);
- division into parts;
- structural evaluation (presence of structured elements);
- purposefulness;

- the ability to maintain a certain stability within the prescribed limits under the influence of external factors;
- multidimensionality.

Current article focuses on the analysis of certain fragments regarding economic expertise of investment project feasibility. Only certain individual fragments are under study since a qualified expert will easily determine whether a project can be implemented at all, in other words, is there a technical and economic potential for successful implementation of a project. If there is, then it is possible to determine the efficiency of a project. Thus, the bulk of methods, applied to evaluate the efficiency of investment projects, are based on comparing its profitability to some required (recommended) value. Financial rate of return is determined on the basis of alternative profitability principle: investment project return rate should not be poorer than financial return rate for the best alternative investment directions at equal risk level, while in most cases different financial assets are understood as alternative investment directions. The basic concept, applied to evaluate the yield of financial assets, is the risk-free rate of return.

Risk-free assets are the ones with clearly defined associated expected return, that is, the actual return is always equal to the expected return [Damodaran 2004, p. 202]. Current economic conditions in Ukraine have turned risk-free assets into fiction: its stock market has a very short history of operations, inflation is extremely unpredictable. Nominal interest rate on securities varies significantly from one period to another. As a consequence, using its current value for long--term calculations may lead to significant errors. While evaluating real investment efficiency, a risk-free return rate is not considered even in theory.

Risk is a measure of uncertainty in further results of ongoing operations, but it is possible to determine the probability of potential events and the scope of their consequences. Risk can be understood in two ways:

- as the loss (pure risk);
- as a deviation from the expected result – the direction of deviations does not matter: positive or negative (speculative risk).

The following values are used as a measure of risk: dispersion, standard deviation, variation.

The variety of risk types has made it possible to group them in accordance with certain features [Orlova 2003, pp. 64–65]:

- by investment application object: financial investment risk, real investment risk;
- by type of ownership: State investment risk, private investment risk;
- by the nature of investment participation: direct investment risks, indirect investment risks;
- by organizational forms: risks of investment programs and projects, investment portfolio risks;

- by investment period: short-term investment risks, long-term investment risks;
- by regional characteristic: domestic investment risks, international investment risks;
- by the scale of risk: general economic, industrial, enterprise, individual;
- by the types of losses: profits risks, downside risk, risk of direct losses;
- by the degree of risk predictability: predictable risk, unpredictable risk;
- by the sources of occurrence: systematic (external) market risk, unsystematic (internal) risk.

Risk factors for real investment are as follows [Halikov 2003, p. 173]:

- production technology: traditional, modernized, new;
- resources: availability in free market, monopolization of resources;
- shifts in demand and prices for the products;
- the need for research and development.

Risk evaluation methods can be divided into four groups:

- sensitivity analysis;
- scenario analyses;
- market investment valuation (Capital Asset Pricing Model, options valuation);
- risk-free equivalent.

The methods of sensitivity analysis and scenario analysis usually cause no methodological difficulties.

The method of risk-free equivalent lies in minus adjustment of the expected cash flows in accordance with the expected value of risk for the project. The greater the risk, the larger the subtractive correction. Due to this method, it is easy to differentiate the risks by the year or by the risk type. Each type of risk has its time profile, their total amount being business's gross exposure at each moment. This method also helps to consider all the risks introduced by each new development project undertaken by a company. It should be noted that in case of real investment an investor is less exposed to inflation risk than in case of financial investment. An error in predicting inflation peril will not play a significant role for real investment, because if a company can boast a steady market position, it can raise its selling prices in accordance with the inflation rate, which means that its effective yield rate will remain unchanged. Consequently, the risk of shifts in real return rates as a result of inflation does not exist.

More than that, in most cases, it is impossible to widely diversify the risks of an enterprise: it makes no sense to single out unsystematic and systematic risks. Usually risks vary significantly over time.

Therefore, application of such valuation models as Capital Asset Pricing Model, Arbitration Pricing Model is unfeasible for the financial evaluation of a real

investment project. Risk taking by increasing the discount rate is also methodologically unsound.

It follows, that risk assessment by minus adjustment of the expected cash inflows, which means the use of risk-free equivalent method, is the best methodologically sound option. Such procedure of risk assessment may be organized through the scenario analyses. However, these analyses will not allow for risk assessment procedure. The choice of variables for this or that scenario is entirely subjective judgment of an expert, not limited by formal procedures. As a result, the range of opinions on probability of each scenario and its consequences can be wide enough, which will involve a question in difficulty.

We come to the conclusion that in most cases, to evaluate the efficiency of real investment projects, implemented by an enterprise, it is reasonable to use capital-growth model, which differs from the compound interest model.

CONCLUSIONS

A business plan is a comprehensive system of proofs of financial feasibility of a specific type of investment. To make a final informed decision about the investment project, it is appropriate to conduct economic expertise of a business plan, an integral part of which is the expertise of financial explanation of an investment project.

Allocation of financial resources for an investment project is an obvious and a fundamental prerequisite for a management decision. However, the issue of real investment assessment remains disputable.

In the course of economic expertise of financial justification of an investment project it is important to take account of the fact that application of risk measures, used to evaluate the financial investment will have the following disadvantages if applied as a risk measure for real investment:

- a company's market portfolio cannot consist of business investment, since the diversification opportunities for business investment are limited (in comparison with financial investment);
- it is inappropriate to single out unsystematic and systematic risks;
- business investment are not traded assets (even when they are, a range of customers is extremely narrow); therefore there is no reward for a higher level of risk.

Thus, in the process of economic expertise of financial justification of an investment project, a capital-growth model is suitable to evaluate the efficiency of real investment projects.

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EKSPERTYZA EKONOMICZNA BIZNES PLANU JAKO INSTRUMENTU KONTROLI W RAMACH UZASADNIENIA REALIZACJI PROJEKTU INWESTYCYJNEGO

Abstrakt. W niniejszym artykule uzasadniono celowość przeprowadzenia ekspertyzy planu biznesowego, której składnikiem jest ekspertyza projektu inwestycyjnego w celu podjęcia ostatecznej decyzji o jego realizacji. Skupiono uwagę na kwestii oceny realnych inwestycji. Ustalono, że w trakcie przeprowadzenia ekspertyzy ekonomicznej projektu inwestycyjnego należy uwzględnić, że wykorzystanie miary ryzyka stosowanej do oceny inwestycji finansowych ma wiele wad: brak możliwości tworzenia przez przedsiębiorstwo rynkowego portfela inwestycji produkcyjnych; brak możliwości wyróżnienia ryzyka niesystemowego i systemowego; inwestycje produkcyjne nie są aktywami do sprzedaży.

Słowa kluczowe: projekt inwestycyjny, ocena ryzyka inwestycyjnego, efektywność projektów inwestycyjnych

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ISSUES OF NON-BANK FINANCIAL INSTITUTIONS INVESTMENT ACTIVITY IN UKRAINE

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Abstract. The article states that non-bank financial institutions allow for an appropriate level to effectively accumulate and redistribute financial resources to the needs of the economy. The analysis of non-bank financial institutions role was made on the financial services market of Ukraine, non-bank financial institutions development issues were established and improvement methods of non-bank financial institutions activity in Ukraine were proposed. Strengthening the existing financial market, the creation of a new financial modalities and developing the legal framework of regulation, new financial relations in non-banking activities will increase the efficiency of the domestic market of non-bank credit institutions and ensure the development of the financial market of Ukraine.

Key words: non-bank financial institutions, financial market, regulation issues

INTRODUCTION

For a variety of reasons, modern Ukrainian investment climate is not favourable for both domestic and foreign investors. Therefore, necessity to increase investment activity in Ukraine involves non-bank financial institutions strengthening in investment processes.

So far, non-bank financial institutions are minor in Ukraine, and their participation in investment services provision mostly remains to be insignificant. However, upward dynamics of various financial services market segments development shows its significant potential and feasibility of its use in the future in order to ensure national economic growth [Lunchenko 2011].

Many national scientists dedicated their papers to non-bank financial institutions investment issues research: L. Balanyuk [2010], V. Lunchenko [2011],

N. Slavyanska [Slavyanska, Neznamov 2011], A. Neznamov [Slavyanska, Neznamov 2011], S. Ponomarenko [Ponomarenko et al. 2011], G. Kovalenko [Ponomarenko et al. 2011], A. Shulh [Ponomarenko et al. 2011], etc. However, a lot of issues have been left out by scientists and practitioners, in particular, competitive opportunities of non-bank financial institutions and their development prospects within financial services market have not been studied completely.

RESEARCH METHODS

Developed countries experience shows that effective performance of non-bank financial institutions produces significant economic effect. It enables to give substantial influence on investment resources increase in national economics by satisfaction of economic entities needs in requisite capital. Such course is especially relevant for Ukraine within modern conditions of investment and innovative model formation for national economics and its financial system development.

The purpose of this article is to define modern financial institutions issues in order to assign methods of their investment activity improvement and attempt to activities for further development of Ukrainian financial services market.

Modern Ukraine needs funds for economic development. Based upon western countries experience, the source of such funds can be developed system of non-bank financial institutions. They exist in Ukraine, however, their activity is not effective enough yet. For its further development and important economic development source formation on its basis, it is necessary to know, how good (or bad) they operate at the present moment, which problems they have in their performance, and what tendencies can be development of non-bank financial institutions further in Ukraine.

Non-bank financial institutions in Ukraine undergo initial period of their formation, their development remains to be slow-moving, even chaotic sometimes. They were established due to worsening of ordinary people living conditions, their needs in financial services, additional financial resources for their livelihood, provided by credit cooperation.

Non-bank financial institution is a legal entity, which in accordance with Law of Ukraine "On Financial Services and State Regulation of Financial Services Markets" provides one or a number of financial services and which is entered in the State Register of Financial Institutions under the procedure established by Ukrainian legislation [Resolution of the National Bank of Ukraine… 2004].

Non-bank financial institutions by the means of accumulation of individual investors' funds and their investment into various economic projects secure equilibrium at capital market upon matching of supply to demand on financial re-

sources, redistribute and reduce financial risks, secure upsurge of various investors' financial investments liquidity owing to obtained funds professional management [Balanyuk 2010]. Types of non-bank financial institutions are given in the Table 1.

TABLE 1. Types of non-bank financial institutions

Types of non-bank financial institutions	Definitions
Insurance companies	financial institutions established in the form of joint-stock, wholly owned, limited partnerships or double liability companies in accordance with Law of Ukraine "On Business Entities", considering that number of participants of each such financial institution should be at least three, and other peculiarities stipulated by this Law, and obtained insurance license in accordance with established procedure (hereinafter referred to as insurers-residents)
Pension funds	subject of the second level of pension provision system-private pension fund, which is established and operates in accordance with legislation regarding private pension provision, corresponds to requirements of this Law in order to obtain license for service provision in pension insurance accumulation system
Credit unions	non-profit organization established by individuals, trade unions, their cooperative associations with a purpose of satisfaction of its members' needs in reciprocal crediting and financial services provision for the account of credit union members' consolidated contributions
Co-investing institutions	corporate investment fund or unit investment fund
Financial companies	financial institutions providing only financial services specified in the Attachment to Certificate of Financial Institution Registration, including those, provision of which is possible only upon relevant licenses/ /permits issue by state authorities, which control relevant financial services markets
Pawnshops	financial institution, which at its own risk provides financial loans to individuals from its own or obtained funds, charged upon property for a fixed period at interest and other pawnshop related services
Leasing companies	legal entity, which transfers its ownership and use right for non-consumptive item (leasing subject), which has identifying details and classified as basic funds in accordance with legislation, to individual or legal entity (lessee) under leasing agreement

Source: Law of Ukraine "On Insurance" 1996, Law of Ukraine "Credit unions" 2001, Law of Ukraine Joint Investment Institutions (Unit and Corporate Investment Funds)" 2001, Law of Ukraine "Private pension provision" 2003, Order of the State Commission for Regulation of Financial Services Markets of Ukraine "Approval of the introduction of information about the financial companies in the State Register of financial institutions and the establishment of requirements for accounting and recording of financial companies" 2003, Order of the State Commission for Regulation of Financial Services Markets of Ukraine "Approval of the Regulation on the provision of financial services pawn shops" 2005, State Committee of Statistics of Ukraine "Approving the Classification of institutional sectors of Ukraine" 2005.

Along with personal business goals, non-bank financial institutions facilitate general economic tasks solving, economic growth in Ukraine.

RESULTS

Non-bank financial services market rapidly develops in Ukraine: there is growth trend of financial institutions, their assets and demand for their services [Ponomarenko et al. 2011]. Among non-bank financial institutions, insurance companies, pension funds, and credit unions dominate in the investment activity. They have social basis and raise funds due to social direction of their activities.

Insurance companies obtained life insurance licenses in Ukraine, are not entitled to carry out any other insurance activities. As long as Ukrainian insurance market has not insurers carrying out solely reinsurance activities (insurance companies obtained licenses for specific type of insurance, are also entitled to make reinsurance of such type), all insurance companies are classified as life and non-life (risk insurance) companies. Such classification is very important, as investment activity approach varies depending on cash flow specifics for each type of insurance companies.

Thus, as of 01.07.2012, Ukraine has 443 registered insurance companies, including 63 life insurance companies and 380 non-life insurance companies [Analytical review of the non-banking financial services... 2012].

Nature of insurance companies' investment activity depends on the following factors: insurance company size, insurer's equity, insurance portfolio factors (prevailing risks, average losses, frequency of losses), and insurance reimbursement policy.

Underliquidity of financial instruments remains to be an important issue for insurers concerning effective investment policy. Especially acute problem with single investment source support of the half of insurance reserves lies in bank deposits having permanent yield and relative deposit guarantee support in accordance with applicable legislation. Other available assets are mostly invested into securities (usually shares).

As for pension funds, their investment activity consists of three components: accumulation of fund members' pension contributions, pension assets management, pension payments.

Pension funds are divided into three types: opened, corporate, professional. Main purpose of the private pension fund is preservation and increase of pension assets value in order to save funds for full pension payment and keep citizens' savings gain level above the rate of inflation after full covering of the fund current expenses. Comparing with any other investment non-bank financial institutions, pension funds activity is mostly involves social responsibility. It is so, because

pension funds pay pension benefits to elderly people, who are no longer able to receive funds from other sources and have been saving funds on pension accounts during long period of time. Due to high level of social responsibility, the most important thing for pension funds is to save assets value than to earn high profit, but with high risk [Lunchenko 2011].

There are four types of investment portfolios, which are classified by investment policy riskiness and members' age criteria. All investors, being holders of individual retirement accounts, are fairly assessed with different risk tolerance levels. The elder an investor is, the more conservative he should be, and he has fewer chances to lose money. In the reports of State Financial Services members are classified by their age into four groups, which correspond to the proposed portfolios types: under 25 years (relevant, the most aggressive portfolio), 25–40 years (moderately aggressive portfolio), 40–55 years (balanced portfolio) and over 55 years old (conservative portfolio). Every portfolio should include available-for-investment assets types, but in different ratio [Analytical review of the non-banking financial services... 2012].

As of 01.07.2012, Ukraine had 97 private pension funds and 39 administrators of private pension funds. In reality, classification of private pension funds by members' by seniority is complex task due to the lack of relevant information. Significant structural changes have been made in classification of private pension funds members by age groups. Thus, during the first half of the year 2012 there was considerable participating share increase of private pension funds members aged from 25 to 40 years old. In comparison with a date 01.10.2011, when people aged from 40 to 55 years old constituted majority of private pension funds members, as of the date 01.07.2012, the share of members aged from 25 to 40 years old was 65.1%. Shares of members aged from 40 to 55, over 55 and under 25 years old decreased during the first half of the year 2012 by 15.8, 7.8 and 0.8% respectively [Analytical review of the non-banking financial services... 2012].

According to the results of the first half of the year 2012, prevailing directions of pension assets investment, as well as in the beginning of the year, remain to be bank deposits (27.2% of invested assets), Ukrainian issuer's shares (17.1%), corporate bonds issued by Ukrainian residents (30.5%), securities, yield of which is guaranteed by the Cabinet of Ministers of Ukraine (12.1%) [Analytical review of the non-banking financial services... 2012]. Therefore, general structure of pension fund assets cannot be clearly referred to any type of investment policy. However, such assets structure is acceptable for present pension fund members' structure.

Slow quality changes at domestic private pension provision market, likewise low level of population involvement in its system are caused by such factors as low level of trust to the private pension provision among population, relative non-transparency of private pension funds activity, lack of necessary investment instruments.

Over the last years, credit unions have very dynamic development in Ukraine. Expansion of crediting and deposit attraction by credit unions were made through loan value decrease and deposit accounts yield increase for credit union members, when bank deposits became less profitable [Slavyanska 2011]. Kyiv city, Donetsk, Lugansk, Cherkasy and Odesa regions are leaders by credit unions number in Ukraine. At that, Odesa region, Kyiv city, Zakarpattia, Lugansk and Cherkasy regions are leaders by the number of credit unions members [Analytical review of the non-banking financial services... 2012].

Despite the total growth of the absolute performance level of credit unions system in Ukraine, their growth rate has decreased considerably, comparing with previous year. According to the results of the first half of the year 2012, as before, the majority of credit unions (296) united relatively small number of members up to 1,000 persons (58.9% of total credit unions) [Analytical review of the non--banking financial services... 2012].

As of 01.07.2012, total credit unions assets amounted to 2,549 million UAH, and comparing with the beginning of the year 2012, its volume increased by 6.8% (as of 01.01.2012, assets volume was 2,386.5 million UAH). As of 01.07.2012, total credit unions equity amounted to 1,043.2 million UAH, and comparing with the beginning of the year 2012, its volume increased by 10.65% (as of 01.01.2012, it amounted to 942.9 million UAH) [Analytical review of the non-banking financial services... 2012].

Credit unions are popular due to more simple credit procedure, especially mortgage lending comparing with banks and higher rates than bank deposit rates. At the same time, credit unions development is hampered by such factors as lack of general information concerning mechanisms and operational principles of credit unions, low population trust to such financial institutions, lower transparency level in credit unions activity comparing with banks.

Thus, in consideration of the foregoing, it is possible to mark out key issues of non-bank financial institutions activity development in Ukraine (Figure 1).

State control of non-bank financial services domestic market is important, because its expansion, including creation of breakthrough financial conditions of operation and establishment of legal basis for regulation, new financial relations in the field of non-bank activity, take place in the age of financial supremacy globalization [Pace non-banking... 2011].

The conducted analysis of non-bank financial institutions development key issues enabled to mark out regulatory issues, scientific information issues, economic issues of non-bank financial institutions at Ukrainian financial market. It should be pointed out that implementation of ways and means of activation of non-bank financial institutions investment activity will promote investment process and make real improvements in the economic structure of society.

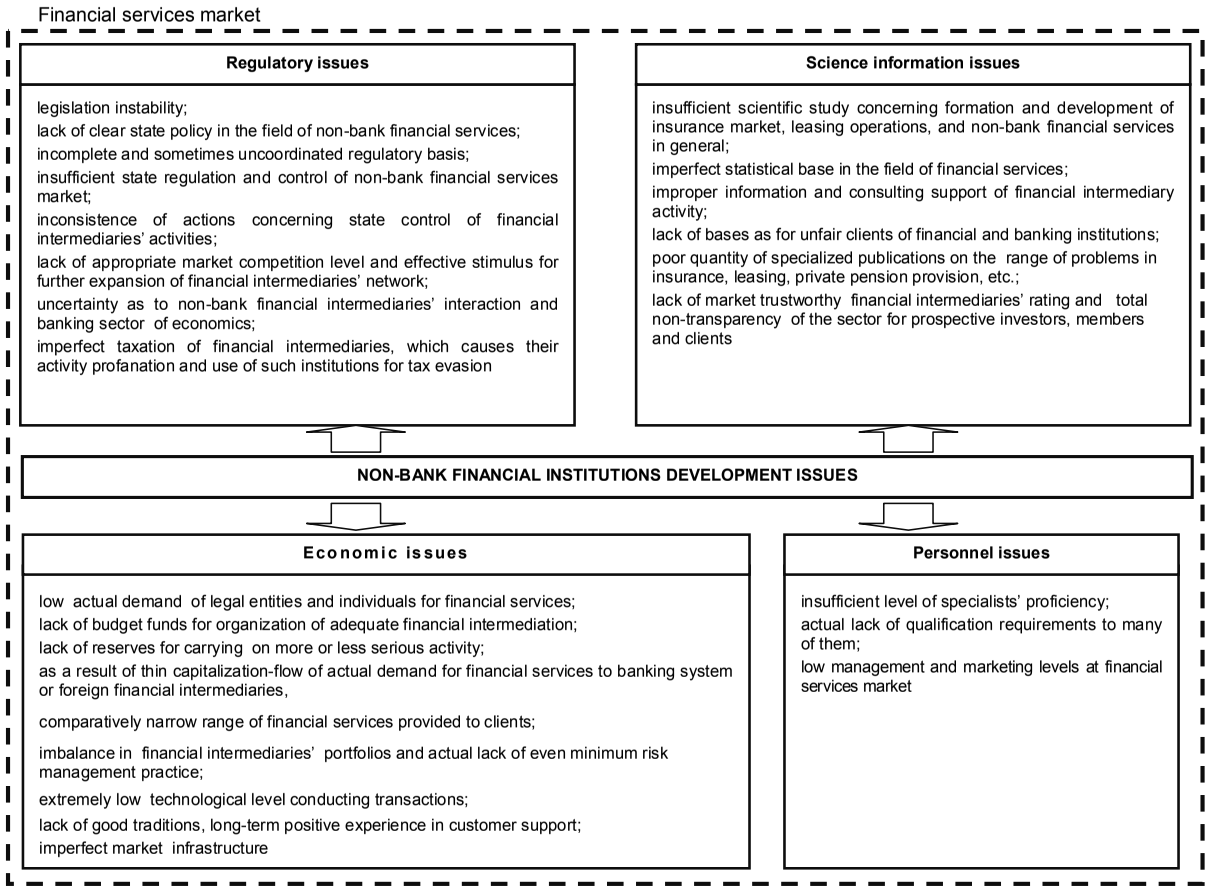

FIGURE 1. Issues of non-bank financial institutions development in Ukraine

CONCLUSIONS

With a purpose of solving the above-mentioned issues, there are marked-out ways and means of solving issues of non-bank financial institutions development in Ukraine, which would have positive influence on improvement of basic macroeconomic indexes of national development and reinforce standing on the world investment markets. They are oriented for improvement of investment climate of Ukraine and strengthening of relations with its strategic partners, as well as rising Ukrainian position in the international rating. In order to secure stability and further development of financial services market, it is necessary to implement series of measures. There are basic measures on improvement of non-bank financial institutions activity for insurance companies:

- tighten control and improve management of insurance reserves by the means of expansion of financial instruments list, wherein insurers' funds can be allocated, promotion of investments for designing and implementation of high-tech equipment, resource and power saving technologies;
- secure guaranteed insurance contributions (in particular, life insurance) in the event of insurance company bankruptcy;
- stimulate provision of combined services through the proposal of complex insurance products, which would increase operating efficiency at the time of financial destabilization; stimulate development of liability insurance against investment and financial risks;
- ensure regular monitoring of insurers' assets, who, on the reporting date often refill them on the account of bank loan funds; raise demands to the authorized capital, which would facilitate capitalization growth and development of insurance against financial risks requiring considerable reimbursement, reinsurance development.

For pension funds:

- secure positioning of pension provision on financial services market by the means of information distribution among the population concerning its advantages;
- introduce tax incentives (exemption from taxation of funds transferred to the private pension account, deferral of tax payments, etc.) for business entities;
- tighten control over maintenance of pension fund administrator's sufficient equity, requirements concerning fund assets diversification and quality;
- create adequate system of investment, operational and management risks monitoring.

For credit unions:

- extend credit cooperation potential through legal entities' involvement to it;
- transfer activity for cashless settlements with a purpose of tax control and reduction of shadow transactions;

- establish credit unions members' deposit insurance fund, which, at the same time, would require implementation of supporting mechanisms;
- tighten control over adherence of solvency criteria and standards, assets quality, transaction riskiness and liquidity;
- establish service infrastructure institutions providing training, financial risks minimization services to credit unions.

The foregoing measures will enable to increase performance efficiency of non-bank financial institutions and secure further development of financial services market in Ukraine.

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DZIAŁALNOŚĆ INWESTYCYJNA NIEBANKOWYCH INSTYTUCJI FINANSOWYCH NA UKRAINIE

Abstrakt. Przeprowadzone badania pozwoliły na ocenę niebankowych instytucji finansowo-kredytowych działających na rynku usług finansowych Ukrainy. Ocenie poddano zdolności akumulacyjne i redystrybucyjne tych instytucji w kontekście potrzeb gospodarki. Znaczenie dla gospodarki niebankowych instytucji finansowych na Ukrainie oceniono na podstawie usług finansowych świadczonych przez te podmioty. W artykule zaproponowano zmiany w regulacjach działalności tych instytucji. Zaproponowane zmiany dotyczyły wzmocnienia rynku finansowego poprzez stworzenie nowych zasad finansowania i opracowania ram prawnych regulacji tego rynku. Ponadto, wskazano iż poprawa relacji instytucji niebankowych na krajowym rynku kredytowym zapewni dalszy rozwój rynku finansowego Ukrainy.

Słowa kluczowe: niebankowe instytucje finansowe, rynek finansowy, regulacja rynku

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ENSURING THE COMPETITIVENESS OF UKRAINE'S GAS TRANSIT SYSTEM IN THE CONTEXT OF INNOVATION AND INVESTMENT DEVELOPMENT

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Abstract. In the development of market economy and increasing of integration and globalization became necessary to find new methods, ways and areas of improvement of competitiveness of all businesses. Of particular note in this respect deserves Ukraine's gas transportation system that provides energy and economic security of the State as a whole. Since the pipeline network in Ukraine is one of the oldest and longest among European gas networks, so it innovation and investment development is a determining factor in shaping its competitiveness in the global market. The article reflects the influence model of innovation and investment potential on its competitiveness, and also the relationship between innovation and investment on the basis of what defines the main directions of innovative activities and investments. The study singled out two hierarchical levels of innovation and investment GTS. Result the research shows that the main direction of innovation, which should be used to enhance the competitiveness of the Ukrainian gas transportation system, is considering upgrading it saving measures.

Key words: gas transportations system, investment, innovation, energy costs

INTRODUCTION

Innovation and investment development of the company is the determining factor in shaping its competitiveness in terms of deepening of integration and globalization of the world economy. Transformation processes of market economy

requires revitalization of industrial enterprises through quality and efficient transformation of the production updating process what will be impossible without the proper investment [Sai 2006, Cass 2008]. This is the fundamental basis for competitiveness of domestic industry and guarantee the successful integration of our country in the European Community.

The aim of the article is a theoretical substantiation of areas increase the competitiveness of Ukraine's gas transportation system based on its innovation and investment development, the determinants of mutual influence on innovation and investment companies, the relationship between innovation and investment.

Agricultural sector in Poland as energy resources mostly use natural gas transported to Europe via Ukrainian gas transportation system (UGTS). Because of its technical condition, operational efficiency, competitiveness directly affect the activity of the whole economy, including agro-industries.

THE METHODOLOGICAL PART

Ukraine gas transit system (UGTS) – one of the largest and most powerful, but at the same time one of the oldest in Europe – its development began in 1924, if at the initial stage of its operation UGTS was the single monopoly supplier of Russian gas to Europe, with intensify the search for alternative schemes of natural gas to European markets, bypassing Ukraine and development of innovative processes in the economy of the national gas transportation system has a significant impact of the emergence of competitors (North and South streams). Another threat of loss of UGTS competitiveness was considerable moral and physical aging pipelines in recent years due to neglect of the rational and much needed funding for modernization of UGTS. Back sustainable competitive position requires significant annual performance of major repairs and reconstruction of pipelines. Operation of the numerous and diverse fleet of gas pumping units (GPU), including in some cases, low efficiency, different motor resource, significant moral and physical aging requires proper service and causes to solve problems of development and implementation of highly economical and more environmentally friendly gas compressor units.

Thus, Ukraine's gas transportation system at the present stage of operation requires the solution of important and urgent scientific and technical issues related to improving the reliability and efficiency of the linear compressor stations operation, residual life assessment of gas compressor units for the purpose of re-filling stations and the influence of the environment.

In a highly competitive enterprises should pay particular attention to innovation and investment development, especially those who are guarantors of national, economic and energy security as the Company's gas transportation network. Intellectual production process in developed countries threaten their ability to compete on the world stage for all businesses. It should be noted that the gas transportation system of Ukraine (UGTS) integrated into Polish, Slovak, Hungarian, Moldavian and Romanian pipeline system transporting natural gas from Russia, Belarus, and thus comes to the international level and become member of securing energy security of the European world. The relevance of competitiveness is an issue of international level. On the territory of Ukraine's GTS is formed from 11 gas transmission companies that are harmonically integrated in the system of natural gas pipelines. The main competitors of the national transmission system is the North and South streams. These pipelines are constructed to meet modern standards of scientific and technological development in compliance with the energy-saving technologies.

Innovation and investment processes should be considered in combination. Enhancing innovation enterprises in a market economy is primarily linked with the search for the sources and forms of investment, which should ensure a balance between innovation expenditure and income [Adamanova 2006]. One of generalized quantitative evaluation criteria of innovation potential of the company is spending on research and development work and education. The current stage of the global economic system characterized by the growing role of innovation in a broad sense, not only as a competitive advantage [Ovcharenko 2007].

Most of the innovations are based on the development of innovative investment projects valued system parameters listed in Figure 1. To improve the efficiency of the company it is necessary to use all of its potential. Given that the potential in most scientific papers and in its etymological essence (translated from the Latin "Potentia" means "hidden features") is defined as the ability [Tugan-Baranovsky 1997], potential power source tools available resources, the system of material and labour factors system's ability to perform tasks [Maslak 2009], innovative capacity is the ability to generate new production system, rational ideas to improve production efficiency, while the investment potential of the enterprise – the ability to ensure that the manufacturing process necessary financial resources [Fedoseyeva 2007, Zaglumina 2011].

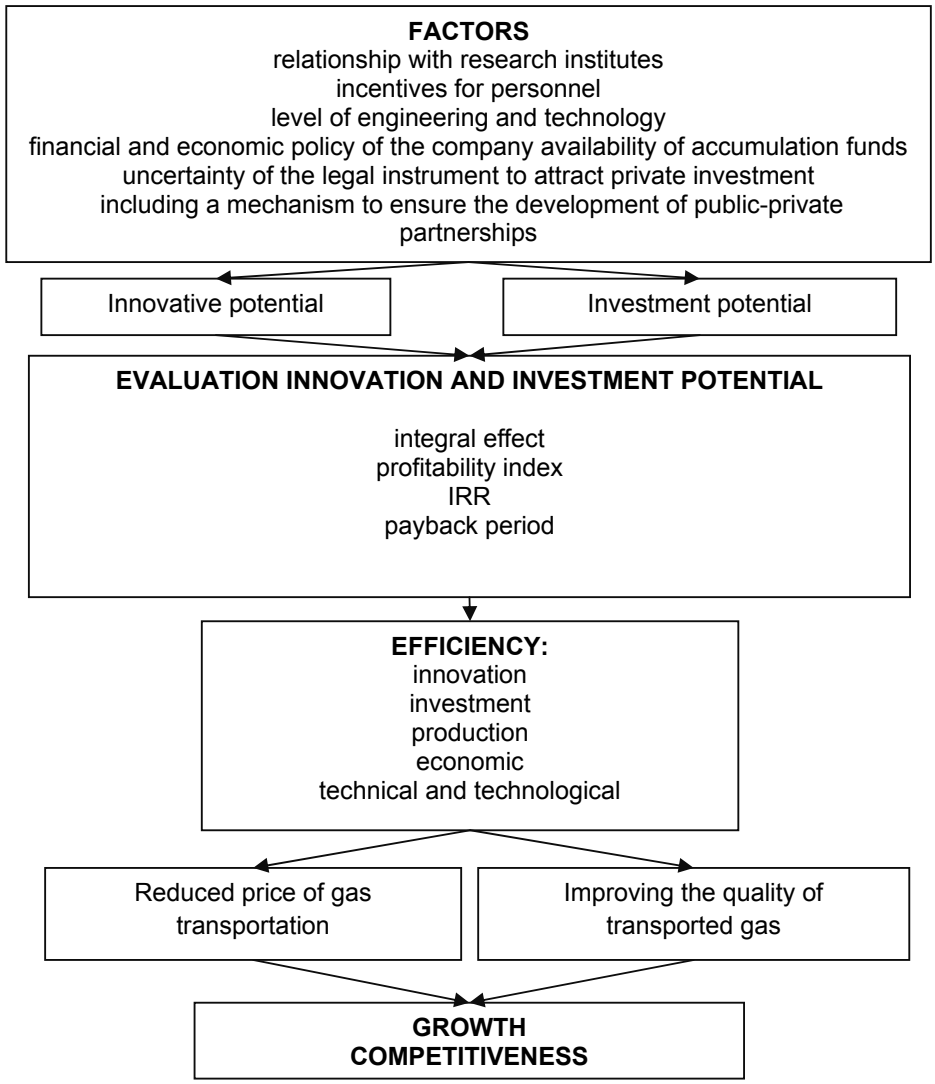

FIGURE 1. Effect of innovation and investment in the formation of competitive gas transportation company

Source: Constructed by authors.

RESULTS

Innovation and investment development of enterprises transmission network is a set measures focused on improving efficiency through innovation based on effective, appropriate, high-quality funding. Any improvement of production and improve its effectiveness, and any increase in its efficiency determines the appearance reserves increase competitiveness through the use of competitive advantages. The main innovative activities in the gas transmission industry can be divided into four main groups: technical, technological, managerial and organizational, and the last two are the least capital-intensive. Implementation of these measures reduces costs, of course, as innovative measures in most cases developed in the form of investment projects, at an early stage to reduce costs offset the cost of innovation. The release of funds is in the process of innovation is accumulated in a special investment fund, which is then used for innovation. Such a scheme of gas transportation industry enterprises innovative investment activity will provide their autonomy and independence from external funding sources, and thus protect the domestic economy from the loss of energy independence. While studying the impact of innovation on competitiveness introduces a new definition of innovation competitiveness, which is achieved through the development and production of new products and services. As for gas transmission industry, the competitive nature of innovation is going to consist in the improvement of existing production. Innovation and investment development of the production process are inextricably linked (Figure 2).

Innovative measures and effective funding ensure the optimal development of enterprise [Kryvoruchko 2009]. The successful operation of gas transmission companies and the strategic advantage in a competitive environment depends on the effectiveness of innovative development, which in turn can not be determined without investment security. In this industry, the competitiveness is one of the most required to solve, particularly since it is a factor in the competitiveness of energy, economic and national security issues in general. Innovative measures and effective funding ensure the optimal development of enterprise.

The successful operation of gas transmission companies and the strategic advantage in a competitive environment depends on the effectiveness of innovative development, which in turn can not be determined without investment security. In this industry, the competitiveness is one of the most required to solve, particularly since it is a factor in the competitiveness of energy, economic and national security issues in general.

The largest competitors in the national gas transportation system are newly built South and North flows, because they threaten the loss of 30% of the transported gas. Among their competitive advantages can be determined that these

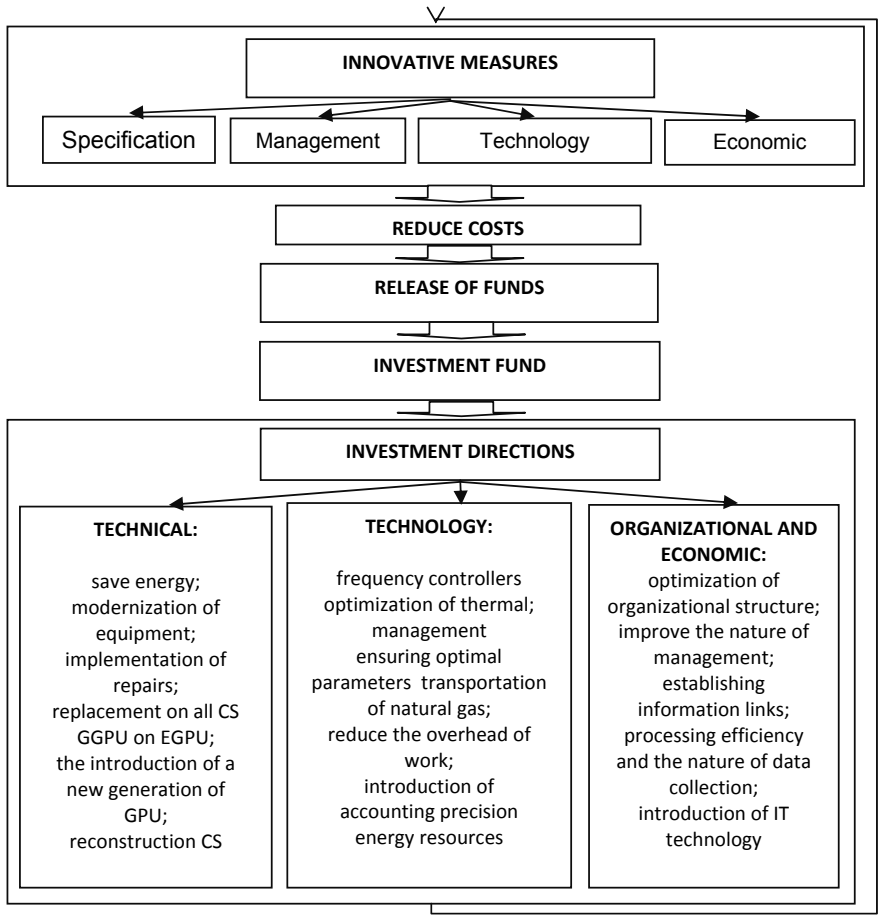

FIGURE 2. Effect of innovation and investment in the formation of competitive gas transportation company

Source: Constructed by authors.

pipelines are built taking into account new technologies that significantly reduce the cost of transporting natural gas through the use of energy saving, considering that they do not need repairs. Among the competitive advantages of Ukraine's gas transit system can be called its reliability and stability (despite other statements) only so it is necessary to focus on quality competitiveness using innovation and investment development. It is impossible to implement innovations without quality investment.

There are two hierarchical levels of innovation and investment activities in the business sector nationwide gas transportation and industry, their composition and structure are shown in Figure 3.

NATIONWIDE

Laws of Ukraine:
"On investment activity"
"On scientific and technical activities"
"On the scientific and technical expertise"
"On special mode of innovation technology parks"
"On special economic zone "Yavoriv"
"On priority directions of innovative activity in Ukraine"
"On innovation activity"
Applications:
Program of investment and innovation activity in Ukraine
Economic Reform Program for 2010–2014
The concept of development, modernization and re-equipment of gas transportation system of Ukraine for 2009–2015

INDUSTRY SPECIFIC

RESEARCH WORK

1. Project "MES" – standard operations management (Software)
2. Research to develop a mechanism for cushioning buffer gas underground storage facilities "Ukrtransgas"
3. Development of standards of Ukraine "Methods of assessing the actual technical state of pipelines and gas transmission systems operated in potentially – dangerous operating conditions (security zone transitions landslide hazardous area)"
4. Evaluation of the stress-strain state of TIR "Union" in the transition region. Aidar (1,239 km) determination of landslides in the area 1,152–1,154 km and evaluation of the residual life of the investigated sites
5. Determination of the corrosion activity of the soil in the area of laying pipeline "Resolution – Ishmael" and the adaptation of modified corrosion coating to protect it
6. Justification feasibility and organizational measures to increase the overhaul cycle GPA of UMG „Prykarpattransgaz"
7. Feasibility of proposals supplies compressed natural gas to Ukraine from African countries (Libya, Algeria, etc.)
8. Diagnostics and maintenance of gas and oil pipelines to develop methods of repair Defective parts tires of PPS composite
9. Scientific support technologies improving reliability of pipeline DUD-II in intermountain valleys
10. Development and installation of gage control system of the stress-strain state of beekeeping, Valley pipeline DN 500 for 5.1 miles
11. Development, production and application of structures couplings to eliminate gas leaks on gas pipelines with a diameter of 500 mm pressure

FIGURE 3. Hierarchical levels of innovation and investment UGTS

Source: Constructed by authors.

As seen in Figure 3 for gas transmission enterprises conducted innovative measures, but significant improvement in the efficiency of production of gas transmission companies are not observed, due to the constant rise in fuel and energy resources, the use morally outdated and worn-out technical and technological facilities are increasing material costs including energy and maintenance costs of technical equipment.

A significant share of the cost of gas transmission companies take energy costs that are on average 50–55% and increases annually.

CONCLUSIONS

Thus, effective innovation in enterprises transmission network should be based on the following basic principles:

- it is necessary to find quality sources and funding mechanisms that allow businesses to remain independent transmission network from external funding sources;
- in developing and implementing innovative measures to give priority to those that are energy saving because as mentioned above, namely energy costs are the biggest and the corresponding reduction will improve the efficiency of the transmission network.

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KONKURENCYJNOŚĆ SYSTEMU PRZESYŁU GAZU NA UKRAINIE W KONTEKŚCIE INNOWACJI I ROZWOJU INWESTYCJI

Abstrakt. W procesie rozwoju gospodarki rynkowej i zwiększenia procesów integracyjnych oraz postępującej globalizacji występuje konieczność znalezienia nowych metod, sposobów i kierunków wzrostu konkurencyjności dla wszystkich przedsiębiorstw. Na szczególną uwagę w tym zakresie zasługuje system przesyłu gazu Ukrainy, który zapewnia energię i bezpieczeństwo ekonomiczne kraju w całości. Rurociągowy transport Ukrainy jest jednym z najstarszych i najdłuższych, a jego rozwój innowacyjno-inwestycyjny jest ważny w kształtowaniu jego konkurencyjności na rynku światowym. Artykuł prezentuje model wpływu innowacyjno-inwestycyjnego potencjału rurociągu na jego konkurencyjność oraz określa zależność między innowacjami i inwestycjami. Na podstawie przeprowadzonych badań zidentyfikowano kluczowe obszary działalności innowacyjnej i kierunki inwestowania. W przeprowadzonych badaniach zostały wyróżnione dwa poziomy hierarchiczne zapewniające kompleksowość inwestycyjno-innowacyjnej działalności systemu rurociągowego. Głównym, innowacyjnym kierunkiem jest modernizacja systemu rurociągowego według zasad oszczędzania energii.

Słowa kluczowe: rurociągowy transport gazu, inwestycje, innowacje, koszty energii

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DILEMMAS CONCERNING DEPENDENCIES BETWEEN DIRECT PAYMENTS AND FARM INVESTMENT

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Abstract. The main aim of this paper was discuss theoretical and methodological difficulties referring to measurement of dependencies between direct payments (including decoupled payments) and farm investment. The article presents the critical overview of research approaches concerning the aforesaid relationship. Moreover, this paper discusses dependencies, based on the empirical data (from European FADN): between investment rate (gross investment/depreciation) and decoupled payments with the assessment by means of correlation analysis. Implementation of the integrated research approach should be recommended. Althought behavioural factors may be significant in analysis how direct payments affect, channels concerning agricultural policy should not be ignored. In the case of aggregated data from New Member States (NMS), dependencies were unequivocal. This may indicate the need to carry out detailed studies on uncertainty and farmers' expectations for the type and amount of future payments.

Key words: direct payments, investment, farms, FADN

INTRODUCTION

From a theoretical point of view, investing can be defined as an economic activity with deferred effects. Investment processes in the agricultural sector[1] may be treated as a function consisting of fundamental compounds, namely: disposable income of farmers, their disposition to investment, supply for preferential

[1] Soliwoda [2012, pp. 451–460] raised the issue of instruments for investment reporting (the example from dairy sector).

credits, as well as an interest rate on them. In addition, the access to EU funds should not be neglected [Sulewski 2005, pp. 233–238]. Although, general definitions of investment (or investment process) enumerate a great deal of financial and organisational consequences, terms referring to the agricultural sector put an emphasis on the linkage to the agricultural production. As Ziółkowska [2006, p. 8] underlined, from a theoretical point of view the agricultural production may be held, basing on only asset, circulation labour force and management. Czerwińska-Kayzer [2003, pp. 12–15] added that farmers' decisions on realising investment processes may be determined by the size of agricultural holding, farmers' educational background, their opinions concerning the future of farm, realising investment in the agricultural holding, as well as financing by means of the external capital. Moreover, that process is aimed at an improvement in business (general) performance, strengthening market positions and upswing in financial results both in the short and long term. Similarly, Julian and Seavart [2011, pp. 366–378] argued that effective farm management requires both long-term planning and deliberate decision making. As far the sustainable development of farm is concerned, major investments in new equipment and infrastructure with the environmental awareness should be prioritised.

According to Gallerani et al. [2008, p. 7], key factors affecting farm investment behaviour may be divided into three categories: technical and economic (mainly factor markets and policy) and, broadly speaking, farmer's attitudes. Particularly, the second group of factors has been more significant as a result of the impact of the agricultural policy in the US and European countries. The vast majority of developed countries experienced the shift from price support to income support of every description, mainly in form of direct payments. However, Viaggi et al. [2011, p. 7] stated that although the agricultural policy should strengthen invest process on rural areas, recent studies on the impact of the CAP reform process (i.a. decoupling), as well as on the structure of agricultural sector in New Member States (NMS)[2], underlined the role of non-policy and non-farm variables associated with farm households (e.g. demography, ageing) has been more significant.

[2] Kowalski [2006, pp. 6–7] mentioned that joining EU by Poland referred to opening the internal market and access to significantly higher than before 2004 a financial aid addressed to agricultural and rural development. Although the lower level of expenditures on realising national agricultural policy has been remarked since 2005, the level of budget disbursements on agricultural, followed by financing EU, funds has significantly grown. This may raise the question on the rational making use of EU subsidies and aids within the national agricultural policy.

RESEARCH METHODS

The main aim of this paper was to discuss theoretical and methodological difficulties referring to measurement of dependencies between direct payments (including decoupled payments) and farm investment. The article presents the critical overview of research approaches concerning the aforesaid relationship. Moreover, this paper analyses dependencies, based on the empirical data (from European FADN): between investment rate (gross investment/depreciation) and decoupled payments[3]. There are following research methods used: critical literature overview, documentary methods, statistical analysis. The secondary data comes from the collection gathered by European FADN and covers the year 2007–2010. In order to analyse the aforesaid dependencies, Pearson correlation coefficients were respectively computed.

Direct payments versus farm investment – a critical overview of methodological approaches and findings

Unfortunately, there is a limited number of findings concerning a linkage between the direct payments and farmer investments, particularly in NMS. This indicates that an influence of direct payments may be multi-pronged and involve a lot of channels. Recently there has been interest in the literature on relationships between direct payments and investment decision of farmers. One of early studies [Whittaker, Morehart 1991, pp. 95–105] indicated that direct payments have a positive impact on farm productivity, when more productive farmers invest more aggressively. This corresponded with studies of Roche and McQuinn [2004, pp. 111–123] who stated that the risk reducing properties of direct payments would induce farmers to shift to a riskier crop portfolio. Lagerkvist [2005, pp.1–23] examined how policy reform uncertainty affects farmers' land investment decisions and the price of farmland. He stated that adjustments in investment incentives

[3] According to European FADN, decoupled payments cover Single Farm Payment, Single Area Payment Scheme and Additional Aid. It should be noted that in accordance with 2003 CAP reform: "MS could opt for a historical model (payment entitlements based on individual historical reference amounts per farmer), a regional model (flat rate payment entitlements based on amounts received by farmers in a region in the reference period) or a hybrid model (mix of the two approaches, either in a static or in a dynamic manner). The new MS could choose to apply the single area payment scheme, a simplified area payment system, for a transitory period until end 2010 or to apply the same system as in the EU-15. In 2006 the DP were coupled in Slovenia and Malta. The remaining 8 MS who joined in 2004 applied SAPS. In the EU-15, no MS implemented a regional model. Denmark, Germany, Luxembourg, Finland, Sweden, England and Northern Ireland applied a hybrid model. The remaining MS implemented the historical model. In 2006, milk payments were still 100% coupled in the Netherlands, Greece, Portugal, and Austria and partly coupled in Sweden" [European Commission 2008, p. 2].

(connected with agricultural policy programs) can contribute to understanding of volatility in land rents. Previous findings show that direct payments may raise wealth and possibly reduce risk, which will lead to more risk-averse approach of farmers to increase production [Hennessy 1998, pp. 46–57; Antón, Le Mouël 2004, pp. 277–284]. Based on Hennessy's studies, in the case of direct payments that is fixed over time, the marginal impact of the payment on farm production is positive. On the other hand, according to OECD [2001, pp. 28–30], a binding credit constraint and farmer's anticipation that future payments will eventually based on the current level of production should be considered. Furthermore, farmers' investment decisions may be discussed under two different circumstances: a perfectly competitive capital market, an imperfect capital one on the other side. If the agricultural sector deals with the second aforementioned capital market, an income support will be partially reinvested in agriculture, which leads to generating additional production in next years. On the other hand, in the case of perfectly competitive markets, statically fully decoupled payments will not influence on investment decisions, whereas coupled payment affect investment decisions. Moreover, an effect of statically coupled payments carries over future years. Sckokai and Antón [2005, pp. 1220–1228] proved a positive relationship between farm investment and a direct payment was proved (on the basis of specialised arable crop data from the Italian Farm Accounting Data Network).

It is worth noting that the attitude of farmers to risk affect their willingness to make investment decisions. Studies of both Roche and McQuinn [2004, pp. 111–123], and Vercammen [2007, pp. 479–500] were based on a stochastic dynamic programming. This stems from the fact that an increase in investment typically leads to a higher farm production in both the short and long run. On the other hand, Roche and McQuinn [2004, pp. 111–123] exploited a portfolio theory that was adopted from corporate finance.

The interesting results from Vercammen's theoretical model farm investment [2007, pp. 479–500] refer to the linkage between a direct payment and farm investments in the context of farm bankruptcy risk:

- a direct payment may lead to higher investment by a farmer even if the farmer is presumed to be risk neutral rather than risk averse,
- the investment response is comparitevely large for farmers possesing a medium level of equity,
- the investment response depend on the farmer's time horizon: in the case of the larger this response the time horizon is longer.

As shown above, the analysis of the impact on direct payments on farm investment should include farmers' expectations. Sckokai and Antón [2005, pp. 1220––1228] underlined the fact that irreversible nature of agricultural investment may lead to delaying farm investment decisions. This raises the question on determining behavioural factors affecting farmers' approach to investing.

There is a limited number of Polish findings concerning the aforementioned research problem. This results from a relatively short period since joining EU by Poland. The majority of studies may be described as regional- or voivodedship--limited. Nevertheless, Smolarski [2013, pp. 35–49] found that during the period of receiving payments farmers in Silesian Voivodeship invested mainly in agricultural machinery and tools, whereas participated investment decisions in building, structures and agricultural machinery referred to repair and modernization purposes. Similarly, investment outlays of farms in Wielkopolskie region were addressed to machinery and tools, regardless of the farm area [Śmiglak-Krajewska, Just 2013, pp. 29–39]. Interesting conclusions concerning the regional differentiation of investment outlays in Polish agriculture were presented by both Kusz [2009, pp. 78–89], and also by Nowak and Kamińska [2013, pp. 17–27][4]. On the other hand, Gołębiewska [2010, pp. 60–68] found that with respect to agricultural holdings there was a dependency between investment structure and the level of market relation.

The issue of impact on direct payments has been treated as an empirical problem. Given the problem of the impact of direct payments, the research contribution of remaining literature may be divided into survey-based analyses, econometric analysis on secondary data, and farm/regional level modelling. The Table 1 shows selected five studies on the impact of direct payments on investment processes. It should be mentioned that researchers preferred the survey-based method as the way of collecting economic data. Only findings of Guastella et al. [2013, pp. 1–14] were based on the secondary data from EU-FADN. It should be noted that conclusions stemming from a majority of European aforesaid studies are limited to selected countries, for example findings of Latruffe et al. [2007, pp.1–12, 2008, pp. 1–8].

In general, researchers preferred survey-based methods. Only one of five studies that were shown in Table 1 was based on entirely a qualitative analysis of secondary data. It should be noted that authors of the aforementioned studies referred to international comparative analysis (with the exception of Genius et al. [2008, pp. 1–16] and Guastella et al. [2013, pp. 1–14]). There was a wide range of data processing method: from simple descriptive statistics to the advanced set of equations. As for processing of primary data from questionnaires, logit analyses seemed to be preferable.

Studies of Genius et al. [2008, pp. 1–16] referred to the problem of uncertainty connected with agricultural policy and the impact of the level of information on investment decisions. Latruffe et al. [2007, pp. 1–12] indicated that expectations for future payments influenced on incentives for agricultural investing.

[4] Nowak and Kamińska also concluded an inreasing labour productivity affects positively a growth in investment outlays per capita. Hence, structural transitions in Polish agriculture foster investment activity in the agricultural sector.

TABLE 1. Recent studies on the impact of direct payments – methodological approaches and results

Authors	Data	Methods	Main results and conclusions
Genius et al. [2008, pp. 1–16]	Farms in three different regions of the EU, namely the regions of Anatoliki Makedonia, Thraki in Greece (160 objects), Flevoland in the Netherlands (80) and the Southern Great Plain in Hungary (153)	Survey-based descriptive method; econometric modelling (equations linking the "propensity towards a choice")	The level of information may be very important to reduce farmers' uncertainty about the future. The more informed a farmer is, the more willing he will be to change his crop mix in the case of the Netherlands and Greece. Therefore, policies increasing farmers' level of information could be useful if farmers are prone to switching crops
Latruffe et al. [2007, pp. 1–12]	The sample of 152 corporate farms in Slovakia (101 cooperatives, 51 companies)	Survey-based method (face-to--face interviews with farm managers)	Farms that do not think the decoupled payments are credible are more likely to use their profit for investment. This means that they do not intend to change their behaviour as they think that the decoupled payments and GAEC are temporary policy instruments. The expectations for payments concerning production create incentives for investing
Latruffe et al. [2008, pp. 1–8]	The stratified FADN sub-sample of Lithuanian farms (a total number of 220 units), that were fairly representative in terms of Economic Size Unit (ESU)	Survey-based method (face-to--face interviews), the data analysis included an accelerator investment model	The introduction of the SAP had a significant, positive impact on farmers' intentions to expand their farm area compared to a baseline scenario. Constrained farmers are even more likely to be willing to grow than less constrained farmers. Payments are thus likely to facilitate expansion, particularly among farmers whose expansion plans were previously constrained
Revoredo-Giha, Leat [2008, pp. 1–20]	Beef and sheep producers in Scotland (611 of 1,778 farms, i.e. a response rate of 34.4%)	Survey-based method (with a detailed statistical analysis, i.a. contingency coeffiencts and logit analysis)	The nature of adjustment is uncertain, underlined by the high numbers of farmers that do not know what strategy to follow, or that will maintain the same production levels despite the reform. Moreover, a significant share of farmers indicate their intention to concentrate on the production of high quality output. This may refer to targeted investment processes to expand production
Guastella et al. [2013, pp. 1–14]	FADN data covering period between 2001 and 2004 (only for Germany, France, Italy, the UK) and 2005–2008	Simulating percentage changes in average net investment levels of a sample of specialised arable crop farms drawn from those subject, every year, to the survey each country carries out	Investment in machinery and equipment in France and Italy respond positively to the widespread reduction in support levels induced by the policy scenarios. The other instance of positive reaction of investment levels to the reform scenario occurs for the UK

Source: Author's studies.

It is worth noting that Genius et al. [2008, pp. 1–16] used the set of three equations concerning "propensity toward a choice". The third equation described the decision "to abandon or not", whereas the second one referred to the acreage (or livestock size) decision. The variables *y* informed whether farmers planned to continue or abandon. The main constraints resulted from the limited data and the regional approach, whereas the forte (strength) of the research methods figured on the combination of survey-based techniques with a substantial (solid) econometric modelling. The most detailed approach was presented by Guastella et al. [2013, pp. 1–14] who implemented elasticity of investment to agricultural support at the yearly and regime-specific means.

All in all, the overview of selected studies indicates that modelling the impact of direct payments on investment processes (outlays, decisions and correlated categories) should involve a combination of advanced qualitative method. It may be noted that there is a pronounced lack of studies exploiting an interdisciplinary approach to analyse how direct payments (including, decoupled transfers) translate into a increase in net investment.

DECOUPLED PAYMENTS VERSUS INVESTMENT RATES – A COMPARATIVE ANALYSIS

Table 2 shows the amounts of decoupled payments in each of NMS of EU[5]. It is worth noting that, for example, Spain and Italy implemented a hybrid system of payments. Moreover, it should be noted that FADN data represents more than 95% of the EU-25 expenditure. Amounts of decoupled payments fluctuated over the period in the group of NMS: from 601 euro per farm (Romania) to 56,338 euro per farm (Slovakia). This resulted from the noticeable disparity in equipment in production factors in the agriculture sector of NMS. Generally speaking, in Slovakia and Czech Republic agricultural holdings in the form of the legal entities, based on assets of former state-owned agricultural enterprises, are dominant.

Decoupled payments referred to an averaged farm from FADN sample. This explains why the significant differences in amounts of decoupled payments existed. Firstly, it should be noted that in NMS decoupled payments increased in the most significant way: by over twice (Bulgaria) and three times (Romania).

[5] "In 2006, in the EU-15, 18% of the EU payments were still coupled and a large share of the decoupled payments was granted based on historical references. Therefore, in the EU-15 the level of DP per farm was also strongly linked to the products the farmers were producing in 2006 (often the same as those they used to produce during the reference period used to calculate the single payment scheme (SPS) entitlements)" [European Commision 2010].

As for NMS decoupled payments amounted to 9,638 euro per farm (the average weighted by agricultural outputs was evidently lower and was 5,910 euro per farm), whereas in the group of EU-15 this agricultural subsidies amounted to 15,629 euro per farm (respectively, the weighted average was slightly higher by 600 euro). As shown in Table 2, in 2007–2010 there was an upward trend indicating that the role of decoupled paymesnts has been strengthened.

TABLE 2. Decoupled payments in EU countries in the period 2007–2010

Specification	2007	2008	2009	2010	Average from 2007–2010	d / a × 100 (%)
	a	b	c	d	e	f
	euro/farm					
Bulgaria	895	1 234	2 382	2 836	1 837	316.9
Cyprus	1 224	1 368	1 716	1 851	1 540	151.2
Czech Republic	22 102	27 440	31 575	36 169	29 322	163.6
Estonia	4 735	5 808	8 368	8 870	6 945	187.3
Hungary	4 804	6 055	6 714	7 766	6 335	161.7
Lithuania	2 501	3 119	3 824	4 628	3 518	185.0
Latvia	2 194	2 765	3 499	3 960	3 105	180.5
Malta	601	1 258	1 267	1 158	1 071	192.7
Poland	1 439	1 866	2 134	2 582	2 005	179.4
Romania	370	499	746	787	601	212.7
Slovakia	43 888	50 165	60 777	70 522	56 338	160.7
Slovenia	2 850	2 897	3 013	3 404	3 041	119.4
NMS*	7 300	8 706	10 501	12 044	9 638	165.0
NMS (weighted)**	4 788	5 629	6 176	7 047	5 910	147.2
EU-15	15 286	15 317	15 779	16 135	15 629	105.6
EU-15 (weighted)	15 514	15 698	16 173	17 531	16 229	113.0

* NMS – New Member States (countries above); ** weighted averages by means of the agricultural output at producer price (source: Eurostat).

Source: European FADN and author's calculations.

Table 3 presents investment rates (as gross investment/depreciation, expressed in percent) in the agricultural sectors of EU countries. It should be noted that Romania as new member state, who with joined EU 1 January on 2007, was characterised by a low investment rate. Nevertheless, in 2008 the substantial depreciation dominated the investment process, and, as a result, the investment rate

was drastically negative (–472.8%). The most significant increase in investment rate was noted in Slovakia (25.4 percentage points over the period), whereas in Latvia there was the substantial weakeness of investment process. This shows how strong discrepancy in investment rates was noted. On the other hand, as averaged investment rates in two analysed groups indicate, a specific process of convergency between EU-15 and NMS might be observed. The investment processes in the agricultural sectors in post-soviet countries who joined EU were connected with adaptation to new quality regimes, as well as seeking solutions optimizing productivity and efficiency of agricultural holding. In contrast, the investment process in EU-15 concerned innovation transfer and improvement in production factor utilisation.

TABLE 3. Investment rates in the agriculture sector in EU countries over the period 2007–2010

Specification	2007	2008	2009	2010	Average from 2007–2010	Change (d – a)
	a	b	c	d	e	f
	%					
Bulgaria	143.9	293.2	166.9	139.4	185.8	–4.4
Cyprus	29.5	13.1	209.1	36.3	72.0	6.8
Czech Republic	122.2	123.2	103.8	106.6	113.9	–15.6
Estonia	233.5	288.7	105.5	145.0	193.2	–88.5
Hungary	111.2	88.0	143.2	80.1	105.6	–31.1
Lithuania	251.7	274.9	208.3	181.4	229.1	–70.3
Latvia	240.9	241.2	84.5	80.5	161.8	–160.4
Malta	143.3	–472.8	160.8	293.9	31.3	150.6
Poland	118.6	89.1	90.0	90.7	97.1	–27.9
Romania	51.8	40.4	55.4	50.6	49.6	–1.2
Slovakia	48.5	132.5	102.4	74.0	89.4	25.4
Slovenia	133.3	111.8	133.9	106.9	121.5	–26.5
NMS*	135.7	101.9	130.3	115.4	120.9	–20.3
NMS (weighted)**	107.5	102.9	99.5	86.5	99.1	–21.0
EU-15	131.7	127.7	110.7	107.9	119.5	–23.8
EU-15 (weighted)	108.3	102.7	98.3	94.7	101.0	–13.6

Explanations the same as in Table 2.

Source: European FADN and author's calculations.

As shown in Table 4, NMS countries were divided into four groups according two criteria: (i) the amount of decouple payments and (ii) the level of investment rate. The basis of the abovementioned classification referred to medians of decoupled payments (3,073 euro per farm) and investment rate (109.8%) of period averages. Polish agriculture was characterised by low decoupled payments and investment rates between median. On the other hand, the group of "leaders" (with high investment rates and decouple payments above median) covered agricultural sectors with large agricultural holdings, mainly based on former state-owned entities. This indicates that dependencies between decoupled payments and investment rates may be intricate and inconsistent.

TABLE 4. Matrix "decoupled payments versus investment rates" in NMS

Specification	Low decoupled payments counties	High decoupled payments countries
Low investment rates	Cyprus Malta Poland Romania	Slovakia Hungary
High investment rates	Bulgaria Slovenia	Czech Republic Estonia Lithuania Latvia

Source: Author's calculations.

Table 5 presents values of Pearson correlation coefficients. Analysing NMS, all correlation dependencies were not significant at 0.05 level and were heterogenic in terms of the direction. This results from the small sample and the strong heterogeneity of NMS in terms of production factor utilisation. In contrast, all dependencies between decoupled payments in 2007 and investment rates from 2007 to 2010 were statistically significant in EU-15. It should be noted the strongest relation referred to investment rates in 2008. This may indicate an existence of so-called a lead-lag effect. In addition, capisalisation of direct payments (including decouple payments) may affect at later times.

TABLE 5. Coeffients of correlation between decoupled payments (baseline = 2007) and investment rates (2007–2010)

Countries	2007	2008	2009	2010
NMS[A]	–0.324	0.105	–0.245	–0.203
EU-15[B]	0.635*	0.701*	0.629*	0.584*

[A] a critical value for n = 12 observations amounts to 0.576, whereas for n = 15 ([B]) the critical value equals 0.514;
* significant at 0.05 level.

Source: Author's computations.

CONCLUSIONS

1. Seeking for dependencies between, in general, agricultural subsidies (including direct payments and decoupled payments) seems to be a very complex empirical dilemma. Several findings referred to the problem how direct payments affected the condition of agricultural holdings, mainly their attitude to investments. Adaption of portfolio theory (from corporate finance), as well as investigation into risk profiles of farm managers may lead to clarification aforementioned dilemma.
2. Given strengths and weaknesses of methodological approaches presented in previous studies concerning dependencies between direct payments and a scale of investment processes in agricultural holdings, we propose to implement integrated research approach. It should be noted that behavioural factors that were found in many survey-based studies, may reduce the strength of exogenous agents. However, it is not recommended to ignore channels connected with the agricultural policy (first of all, agricultural subsidies). Modern research approaches should evolve towards a deeper integration with behavioural methods and using both primary and secondary data.
3. Based on aggregated data, dependencies between decoupled payments (as the significant part of direct payments) and investments rate in the agricultural sectors were inconsistent with respect to NMS. This may indicate a subtle mechanism where uncertainty and farmer' expectations for future payments[6] affect. Additionally, underlining the substantial variability between agricultural sectors of NMS, more detailed studies should focus on separate models based on FADN data.
4. Insignificant dependencies between decoupled payments and investment rates in NMS may indicate that the issue of credit constraint may be more vivid in "emerging" European countries (Bulgaria, Romania). The role of decoupled payments seems to be very multidimensional, given the fact that even farmers operating under less favourable conditions may be prone to increase their production and realise investment processes[7]. This can be explained by the fact that farmers in NMS countries have to face stiffening market mechanism for agricultural products.

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[7] See: Kropp and Whitaker [2011, pp. 25–40].

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DYLEMATY DOTYCZĄCE ZALEŻNOŚCI MIĘDZY PŁATNOŚCIAMI BEZPOŚREDNIMI A INWESTYCJAMI GOSPODARSTW ROLNICZYCH

Abstrakt. Głównym celem opracowania było przedstawienie metodologicznych i teoretycznych trudności związanych z pomiarem zależności między płatnościami bezpośrednimi (w tym, odłączonymi) a inwestycjami gospodarstw rolniczych. Przedstawiono krytyczny przegląd podejść badawczych związanych ze wspomnia-

nym związkiem. Na podstawie danych EU-FADN, w opracowaniu przedstawiono analizę wysokości płatności odłączonych i stóp inwestowania gospodarstw rolniczych w nowych państwach członkowskich UE. Oceniono zależności za pomocą analizy korelacyjnej. Stwierdzono, że niezbędne jest stosowanie podejścia integrującego kilka metod badawczych. Choć czynniki behawioralne mogą być istotne w analizie wpływu płatności bezpośrednich, to nie należy jednak lekceważyć kanałów oddziaływania polityki rolnej. W przypadku analizy dla zagregowanych danych dotyczących nowych państw członkowskich, zależności nie są tak jednoznaczne, jak dla EU-15. Może to wskazywać na potrzebę bardziej pogłębionych badań dotyczących niepewności i oczekiwań rolników co do rodzaju i wysokości przyszłych płatności.

Słowa kluczowe: płatności bezpośrednie, inwestycje, gospodarstwa rolne, FADN

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INTELLECTUAL CAPITAL IN THE ENTERPRISE VALUE FORMATION

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Abstract. This article deals with intellectual capital value, as it is a very urgent problem at present. The aim of the article is a complex analysis of asset valuation methods. The role of intangible assets in business is analyzed. The concept of valuation is given. Three categories of valuation methods of intellectual property are presented. Four groups of income valuation methods are analyzed. The analysis of brand value is considered. Direct and indirect methods of brand value determination are analyzed.

Key words: intellectual capital valuation, tangible and intangible assets, risk valuation, investments, calculation

INTRODUCTION

The completion of various forms of enterprise financial accounting causes nowadays huge difficulties for accountants, auditors and other specialists. It is necessary to determine specific value indicators of various intangible assets, brands and intellectual property (for example information computer systems, chemical or technological production formula) in balance sheets. Sometimes, even highly qualified specialists make mistakes filling in records that indicate this kind of an asset value. It often leads to fatal consequences: losses of partners, irrational economic actions, as well as to a decrease in product competitiveness and an overall enterprise activity, which may result in its bankruptcy. Taking possible negative consequences into consideration, the problem of intellectual capital valuation is of crucial concern.

ANALYSIS OF RECENT RESEARCH

The objective of the research is a complex analysis of assessed valuation methods that can give true information and may be used for intangible assets exactly. The completion of the objective has a great theoretical and applied importance as it facilitates the elimination of many mistakes and errors. This problem has been studied by a lot of scientists, such as V. Suhomlyn, V. Makarov, O. Kozyrev, V. Butyrskyj and others. Nevertheless, it has not been investigated yet. This problem has a certain degree of novelty as a unitary (single) positive system of intangible assets valuation has not been developed yet. Intellectual capital is considered to be the most important asset of a number of the largest and the most powerful world companies. It is a basis for the domination in the market and the support of a constant profitability for leading corporations. Intellectual capital often plays a key role in mergers and take-overs, and well-informed companies widely use license possibilities for the transfer of these assets to the jurisdiction with low taxation.

COMPONENTS OF INTELLECTUAL CAPITAL

However, a role of intangible assets in business is not interpreted fully. Common accounting standards cannot reflect the value of intellectual property rights, for they are not evaluated, used and managed at the required level. Despite the importance and complexity of problems concerning intellectual property rights, the necessary coordination between various professional specialists who are engaged in corresponding problems is, as a rule, absent.

The concept of intellectual capital in the form formulated in the convention establishing the World Intellectual Property Organization (WIPO) is really broad. It includes all the rights referring to literary, artistic and scientific works, performances of actors, phonograms, and radio and TV broadcasting, inventions in all fields of human activities, scientific inventions, industrial design, trademarks, service marks, firm names and commercial names, protection against unfair competition, and all other rights relating to intellectual activity in the industrial, scientific, literary or artistic fields. Such understanding of intellectual property rights includes not only property rights, but also moral rights, including the right to the integrity of the work, copyright etc. These rights do not necessarily generate revenue. Therefore, they cannot be attributed to intellectual capital.

While evaluating cost of capital of any enterprise, it is important to determine correctly sources of finance. Capital value of every separate capital investment should be calculated on the basis of a characteristic of the given capital invest-

ment-risk, borne by both creditors and shareholders, and an appropriate capital structure [Ogyer et al. 2007, p. 107].

"In recent years an increase of an intellectual capital share in a capital structure of an enterprise has been predetermining a necessity of the valuation of its protection level both the current enterprise activity and in business as a whole" [Kožuško 2010, p. 201].

One of the key factors that influences a company's successes and failures, is the level of efficient use of intellectual property and risk valuation. Without a doubt, the way how a company administration should know the value of intangible assets and interrelated risks (on the same account) and the value of tangible assets belonging to the company, because managers of an enterprise should know the value of assets and liabilities under this value. The use of these assets can have different forms starting with direct assets sale, an organization of a joint venture or a conclusion of license agreement. There is no doubt that their use increases risk valuation [Kozyrev, Makarov 2008].

PRECONDITIONS OF VALUATION OF INTELLECTUAL CAPITAL

Experience shows that a lot of firms do not tend to reflect the components of intellectual capital in their balance sheets, even though they are trying to demonstrate them to potential investors. The result is a huge gap between the book value of the company and its market capitalization. In the case of Microsoft, this gap reached by two orders of magnitude in 2011. Much the same is observed in many Internet firms. From this point of view, the desire for a more accurate reflection of intangible assets in the balance sheet [Wyat 2002] is controversial. The above does not, so the accounting should be radically changed. Here we deal with fundamental contradictions between the accounting principles and the properties of the knowledge economy (or algebraic properties of knowledge itself). Accounting is based on the principles of ordinary arithmetic. If somewhere came the same should go down elsewhere. Knowledge comply with quite different algebraic rules (non-rivalrousness), they lack rarity [Stiglitz 1999]. This property was highlighted by three Nobel Prize winners (L. Kantorovich, V. Leontiev, K. Arrow).

The valuation is, first of all, a complex of an economic conception of value and a legal conception of property. Assets availability represents the function of their possibility to ensure income and determines the discount rate of this income. The core rule of commercial valuation is the value of something that cannot be indicated abstractly; everything that can be indicated is a value of a thing in a specific place at a specific time under specific circumstances. This rule is especially important for the valuation of intellectual property rights. As a rule, we talk about one or two interested parties and valuation for each of them depends on specific

conditions. If these conditions and the conditions of a rights' owner are not to be taken into consideration, the valuation will be senseless.

Assessing tangible assets value is not problematic if they have gotten official protection with trademarks, patents or copyright. Though it does not refer to such intangible assets, as know-how (including talent, professional skills and knowledge of labour resources), systems and methods of technological processes, list of buyers, distribution systems etc. (Table 1)

TABLE 1. Comparison of evaluation parameters of tangible and intangible assets

Features	Tangible assets	Intangible assets
Basis of evaluation	costs made	evaluation made on the basis of future performance
Evaluation indicators	with value indicators	with non-value indicators
Evaluation frequency	periodic process	continuing process
Outcome	tangible (profit)	intangible (social effect)

Source: Own elaboration.

These assets can be actually valuable. Nonetheless, they are subjected to a more complicated definition regarding income and profit they provide with. It is necessary to carry out a thorough preliminary analysis of a lot of intangible assets together with company's lawyers and accountants.

In today's world, the role of intellectual capital in company value is increasing. Scientists believe that corporation value is usually several times higher than the value of its tangible assets. According to various sources, this ratio is from 3:1 to 16:1. In other words, the value of today's businesses is mainly determined by the presence of their intellectual capital (Figure 1).

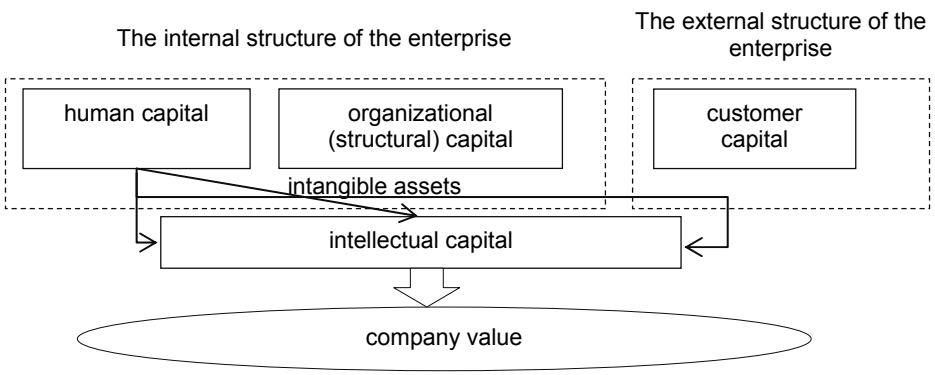

FIGURE 1. Formation of company value by intellectual capital components

Source: Own elaboration.

At the same time, one should be cautious when talking about intellectual capital value, since the intellectual capital largely consists of the elements that are, in principle, not sold, and therefore have no value in conventional sense. In any case, it is inappropriate to talk about the market value of intellectual capital. The situation in Ukraine is quite different from that in the US and the EU. Below is the data of the State Statistics Committee of Ukraine on scientific and technical works realized in Ukraine (Table 2).

TABLE 2. The volume of scientific and technical works in Ukraine

Year	Total, in current prices	Including				Significant share of completed scientific and technical activities in GDP (%)
		fundamental research	applied research	developments	scientific and technical services	
	milion EUR					
1996	111.17	14.06	32.16	60.69	4.26	1.36
1997	126.34	18.85	30.92	69.37	7.20	1.35
1998	126.90	20.55	29.75	68.28	8.32	1.24
1999	157.82	22.05	33.04	91.86	10.87	1.21
2000	197.84	26.66	43.67	110.63	16.88	1.16
2001	227.50	35.33	30.49	131.72	29.96	1.11
2002	249.68	42.49	34.36	138.66	34.17	1.11
2003	331.98	49.12	42.98	190.02	49.86	1.24
2004	411.24	62.97	57.37	221.40	69.50	1.19
2005	481.86	90.21	70.89	240.69	80.07	1.09
2006	535.46	114.10	84.15	274.16	63.05	0.98
2007	670.07	150.40	113.26	330.31	76.10	0.93
2008	853.89	192.74	154.57	408.82	97.77	0.90
2009	865.37	191.66	141.20	421.59	110.92	0.95
2010	986.71	218.84	161.71	503.70	102.46	0.90
2011	1 034.99	220.58	186.67	498.59	129.15	0.79

Source: the State Statistics Service of Ukraine.

According to Table 2, the amount of scientific work is increasing, but their share in GDP is very low and declining. This negative trend indicates that Ukraine does not build the intellectual capital which may cause economic problems in future. We have considerable scientific potential, though it remains unused as the majority of innovative deployments are imported today. The main reason for this situation is the lack of attention to scientific activity on the part of the state, as illustrated in Table 3.

TABLE 3. Sources of financing innovative activity (milion EUR)

Year	Total expenditure	Including funds			
		own	state budget	foreign investors	other sources
2000	175.71	139.93	0.77	13.31	21.70
2001	197.14	165.40	5.58	5.85	20.31
2002	301.38	214.18	4.55	26.41	56.24
2003	305.98	214.84	9.30	13.00	68.84
2004	453.46	350.15	6.34	11.24	85.73
2005	575.16	504.54	2.81	15.79	52.02
2006	616.00	521.14	11.44	17.62	65.80
2007	1 085.09	799.96	14.48	32.18	238.47
2008	1 199.42	726.40	33.69	11.54	427.79
2009	794.99	516.94	12.70	151.29	114.06
2010	804.55	477.52	8.70	241.14	77.19
2011	1 433.39	758.56	14.92	5.69	654.22

Source: the State Statistics Service of Ukraine.

As for 2012–2013 this indicator shows that the first country in the world was the United States of America. Nevertheless, in the coming decades, China could become the leader compared to 2012, in 2013 the US spending on research and development increased by 1.2% (to $424 billion, accounting for 2.66% of the GDP), out of which the budget allocations were $129 billion (1.4% higher than in 2012). However, the draft of the US federal budget for 2014 foresees an increase in funding to $143 billion. China costs for research and development in 2013 were $220 billion, which is 11.6% higher than in 2012, India – about $45 billion, 12% higher than in 2012.

As we can see, the main sources of financing scientific works are private investments. State financing is carried out insufficiently.

INTELLECTUAL CAPITAL VALUATION METHODS

The acceptable valuation methods of the determined intangible assets and intellectual property are subdivided into three general categories: methods based on market relations, value or valuation of past, and future economic benefits [Kozyrev, Makarov 2008, p. 91].

Under ideal conditions an independent expert always will prefer to determine market value by referring to comparable market operations. It is rather difficult to evaluate such assets. While evaluating the object of intellectual property, the search of the comparable market operation becomes practically senseless. This is

not only connected with the absence of compatibility but also with the fact that the criteria of intellectual property sale, as a rule, have not been developed yet. Many cases of sale are only a small part of a bigger deal, the details of which remain strictly confidential. There are other obstacles restricting the use of the methods: special buyers, various negotiation skills and distorting effects of economic cycles' peaks and troughs [Bočarova 2003].

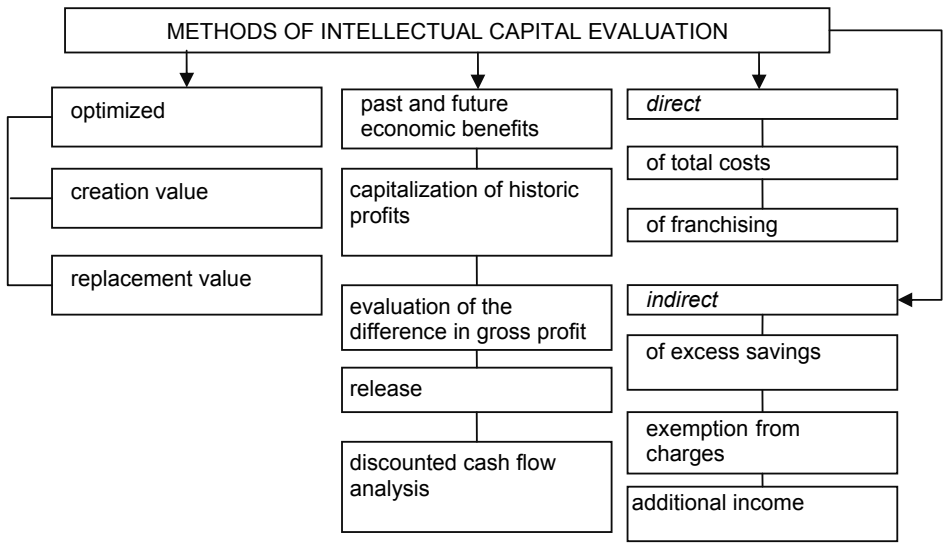

FIGURE 2. Classification of methods of intellectual capital evaluation

Source: Own elaboration.

Optimized according to the value methodologies, such as "formation cost" or "renewal cost" of a specific asset, assume that there is a definite interrelation between cost and value and this approach is of no interest but for its simple application. This method ignores the changes of money value considering time factor and it does not take into consideration different overheads [Moon 2006, p. 253].

The valuation methods resulted from the valuation of the past and future economic benefits (also called income valuation methods) can be divided into four groups: capitalization of historic earnings, all methods of gross profit difference, methods of excess earnings valuation, and exemption method [Suhomlyn 2004, p. 88].

Capitalization of historic earnings enables to determine intangible assets value by multiplication of supported historic earnings of asset multiple quantities (that was determined after the achievement of ITA relative comparative power). For example, multiple quantities are determined after brand valuation in the lights of such factors as leadership, stability, market share, internationality, profit-

ability trend, marketing and advertising support and protection. While the present process of capitalization takes into account some of the factors that should be taken into consideration, it has serious disadvantages mainly connected with the acquisition of the past income. This method almost does not take into account future possibilities.

Evaluation method of gross profit difference is often associated with trademarks and brands valuation. These methods consider the difference in trade (sales) price value corrected with the difference in market value that is the spread between the margin of fluctuation of a branded or patent product and a product without brand name or with a third name. This formula is used to provide the flow of funds and value estimation. The finding of sort equivalent for patent and definite distinctions in price is a more complicated task than the determination of price distinctions on retail brand.

The method of excess earnings valuation considers current value of net tangible assets used as a base for calculated rate of profit. It is used for calculation of profit needed for investors' encouragement to invest resources into these net tangible assets. Any income obtained above the profit necessary for investments' encouragement is considered as additional income provided by intangible assets. Though this method is based on the future economic benefits owing to assets used, it is related to the difficulty of alternative assets use adjustment.

The exemption method takes into account what a buyer can afford or what he is ready to pay for a license on similar intangible assets. After that the flows are capitalized reflecting the interconnection between investment's risk and profitability into the present asset.

Discounting cash flow analysis takes into account the latter three methodologies and is likely to be the most comprehensive valuation method. It is necessary to make thorough evaluation of potential profit and cash flows and then compare them with current value applying discount rate or rates. Mathematic modelling of discount cash flow proves the fact that €1 in our pocket today costs more than €1 next year or €1 in a year. The value of money taking into account time factor is calculated by the adjustment of expected future earnings in regard to current cash value applying discount rate. The discount rate is used to evaluate economic value and includes compensation for risks and expected inflation levels.

Considering an asset value should take into account an asset use environment to determine the increase potential of market earnings. Market earnings forecast will be a crucial stage in the valuation process. Potential income should be valuated by the proportion of long-lasting asset nature and its marketability, thus the expenses consideration should be coordinated with residual value assessment or final value, if they are [Firer, Williams 2003, p. 348].

This method takes into account market conditions, future efficiency and potential and cash value considering time factor. It indicates cash flow potential and it does not indicate property and is widely used in financial community. The discount rate applied to cash flows can be determined by using various models including the accumulation method, patterns of dividends' growth and pricing model of fixing assets using considered mean value of capital cost. The latter is likely to be a preferable variant.

Despite the fact that some of the above-mentioned methods are widely used, it should be noted that the valuation is more the art than the science and has an interdisciplinary research nature covering the fields of law, economics, finance, accounting and investments. It would be inconsiderately to make evaluation applying the so-called industrial (branch) standards without taking into account profound theoretical valuation basis. Evaluating intangible assets a valuer should take into consideration the context of actual assets cost.

Transactions of buying companies owners of well-known brands testify considerable price of intangible assets. Brand valuation is necessary for any company as it allows not only making a decision about brands purchase or sale, but also regulating accounting in companies and allocate available recourses efficiently.

Intangible assets including brands influence directly company's earnings and expenses. The determination of brand value is usually a combination of direct and indirect assessments. Direct assessments are made on the basis of money spent on communication investments into brand development. Indirect assessment is made on the possibility of brand to add something to commodity value without brand from the same category [Bontis 2004, p. 63].

Let's consider direct methods. The method of cumulative expenses is one of them. It consists of the calculation of old brand creation and promotion expenses on researched and development, artistic decision and package, incorporation and protection, advertising, promotion and public relations. The advantage of this method is the accessibility to each producer. The disadvantage is that this valuation is a highly internal affair of a company. You can invest $10 million into researches, developments, advertising and promotion, but the brand formation may not be a success. And brand value is naught. Another more interesting but rarely used direct method is franchise valuation. Brand managers planning future sales volume usually use equations that enable to transfer ad budget into publicity, publicity into specimen and specimen into final consumption volume. The valuation method uses the same way of judgment, but in reverse direction. The advantages of this method are: it is easily used and demands less researches comparing with the previous one. This method also gives the figure of current investment value into brand not depending on what kind of money was used and how it was spent in the past [Butyrskyj 2009].

Financiers prefer indirect valuation methods though they are more problematic than others. The method of excess accumulation determines how income increase depends on the definite brand. At first the cash flow that provides an ordinary product for 10 years (standard product life cycle) is determined, then discounted cash flow analysis is made. This analysis consists of the calculation of cash flow for each year per investment risks into brand and their realization at that moment. The amount of this flows per each year plus brand's residual value at present give brand value for the whole period of time [Chen 2005, p.159]. The method of exemption from allocations is based on the assumption that if a company does not use its brand itself, it can give the brand in use to companies for determined amount. These allocations are usually calculated based on sales volume. The amount of such allocations per year is calculated by this method and then is checked for expected brand life cycle [Kozyrev, Makarov 2008, p.103].

Additional income is the most popular method. Brand product is supposed to be sold at a higher price than no branded [Kannan 2004, p. 389].

CONCLUSIONS

As all these financial valuations are more or less precise with regard to brand value, it is impossible to count on any of them completely. Therefore evaluating brand several methods are used at the same time.

Thus, intellectual capital value is becoming more and more important aim both for enterprises under formation and well-established enterprises that have been operating for years. Though there are several various methods of brand value calculation in the world it is impossible to choose one multipurpose method. Each enterprise has its own indices set of its financial and economic activity, its own history and own possibilities. None of given methods can be used independently. The value calculated according to several methods can give a true result. Though, we cannot say that there is determined brand value. The fact that no one can positively predict the true of the brand is a peculiarity of the brand value evaluation.

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KAPITAŁ INTELEKTUALNY W KSZTAŁTOWANIU WARTOŚCI PRZEDSIĘBIORSTWA

Abstrakt. W artykule przedstawiono ważne i aktualne zagadnienia związane z wartością kapitału intelektualnego. Celem artykułu była kompleksowa analiza metod wyceny aktywów. Analizie poddano również znaczenie wartości niematerialnych i prawnych w działalności przedsiębiorstw. Przedstawiono koncepcję wyceny tych aktywów. W artykule zaprezentowano trzy kategorie metod wyceny wartości intelektualnej przy podziale analizowanych dochodów na cztery. Analizie poddano wartość marki oraz bezpośrednie i pośrednie metody szacowania wartości marki.

Słowa kluczowe: wycena kapitału intelektualnego, aktywa trwałe oraz wartości niematerialne i prawne, wycena ryzyka, inwestycje, kalkulacje

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THE STATE BACKING MECHANISM FOR THE DEVELOPMENT OF THE AGRARIAN SPHERE OF ECONOMY OF UKRAINE

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Abstract. The article deals with analysis of the current situation in agriculture sector and creation of the basic prerequisites of building the state backing mechanism for the development of the agrarian sphere of economy of Ukraine to improve its performance.

Key words: the state backing mechanism, development of agrarian sphere, credit support

INTRODUCTION

Due to its geographical location, climate and large areas of fertile soils Ukraine is one of the largest agricultural countries. The agricultural sector of economy has a special social status in relation to industrial and urban areas through its territorial, settlement and social autonomy, that is why its sustainable development is extremely important to Ukraine. The development of this brunch depends directly on the process of social reproduction, on the living standards of people and it consists almost 14% of GDP and insures the state food security. Furthermore, one third of the population of Ukraine resides in the rural areas. Hence, the problem of gradual development of the agrarian sphere of economy is of paramount importance for the state.

The question about the state backing mechanism for the development of the agrarian sphere of economy of Ukraine was raised by a number of prominent scientists, namely O.M. Borodina, V.V. Zinovchuk, P.K. Kaninskyy, Y.O. Lupenko,

O.M. Mogylnyy, L.V. Moldavan, B.Y. Paskhaver, O.L. Popova, I.V. Prokopa, P.T. Sabluk, A.E. Yuzefovych, V.V. Yurchyshyn. However, current situation and basic prerequisites of creating the state backing mechanism for the development of the agrarian sphere of economy of Ukraine require more detailed study and clarification.

RESEARCH METHODS

The main goal of our study is to explore the features of the state backing mechanism for the development of the agrarian sphere of economy of Ukraine and suggest ways to improve elements of this mechanism in order to improve its performance.

In the study of theoretical foundation of research and creation the state backing mechanism for the development of the agrarian sphere of economy of Ukraine, authors used a genetic method that aims to identify heredity in the formation of principles of the state backing of the agrarian sphere. Also, authors used a retrospective method, which provided an opportunity to reveal the genesis of development principles of the state backing of the agrarian sphere. Economic and statistical methods which cover qualitative and quantitative aspects were employed in order to investigate the major tendencies of agricultural development in Ukraine and their impact on transition to sustainable development. Information basis of the research are the results of scientific search of the problem solution, materials of state statistical agencies, publications in periodicals, official governmental information, scientific articles and monographs.

RESULTS

Further development of agrarian industry requires proper financial support. Practically, the funds sufficient for purchase of resources (machinery, fertilizers and fuels) are necessary. It is almost impossible to trace out problems, find solutions to them and manage them without profound objective analyses of agrarian financing of enterprises. The process of activation of marketing processes within agrarian sector has positively influenced the dynamics of agrarian production. From the year 2000 in all the categories of sectors of economy there have been gradual development of agrarian gross products (Table 1).

Gross products production by agrarian enterprises, farms and households in the year 2011 has reached the equilibrium proportions (Table 2).

TABLE 1. Production of agrarian gross products. Prices of the year 2010 (bn UAH)

Year	Gross products		In particular			
			crops industry		cattle-breeding industry	
	bn UAH	before the year 2005 (%)	bn UAH	before the year 2005 (%)	bn UAH	before the year 2005 (%)
2005	179.6	100	65.1	100	114.5	100
2006	184.1	102.5	67.5	103.7	116.6	101.8
2007	172.1	95.8	66.2	101.7	106.0	92.5
2008	201.5	112.2	65.3	100.3	136.3	119.0
2009	197.9	110.2	68.0	104.4	127.9	113.4
2010	194.9	108.5	70.3	107.4	124.6	108.8
2011	233.7	130.1	71.3	109.5	162.4	141.8

Source: The panorama of the agricultural sector of Ukraine 2011, MAP, Kyiv 2012.

TABLE 2. Contribution of the main categories of business enteties in producing gross output (in prices of year 2010)

Category of business entity	Measurement unit	2000	2005	2006	2007	2008	2009	2010	2011
Agrarian farms	bn UAH	54.8	64.6	69.0	66.1	87.3	84.1	82.1	104.8
Farms	bn UAH	3.1	8.1	9.8	8.3	14.1	12.1	11.9	16.2
Private households	bn UAH	93.0	106.8	105.3	97.7	100.1	101.7	100.8	112.6
The share of households in total scale	%	61.6	59.5	57.2	56.8	49.7	51.4	51.7	48.2

Source: The panorama of the agricultural sector of Ukraine 2011, MAP, Kyiv 2012.

Private rural households play a supplimentary role in formation of supply at the markets of dairy products and meat (beef and pork). In the year 2011 the enterprises have increased the production level for 6%, whereas the households of population have decreased the production level for 1.7%. The total crops in the year 2011 was 27.6 milion ha. The dominant position in the structure of the cultivation area is occupied by grain crops and industrial crops, that have augmentation tendency, while fodder crops tend to decline.

The positive change of the agrarian production is a result of establishment of new market systems in the rural areas. It can be traced on the base of alleviation of agrarian production on business entities (Table 3).

TABLE 3. The production efficiency on agrarian business entities of Ukraine

Indicators and industry	Average for 1996–1999	Average for 2001–2004 p.p.	2005	2006	2007	2008	2009	2010
Income (loss) from sales of agricultural products (m UAH)	–2 279	1 383.4	12 532	630.4	4 168.9	5 462.1	7 120.0	12 807.3
The level of profitability of agricultural production (%)	–22.2	11.0	6.8	2.8	13.6	13.4	13.8	20.6
Including crop production	12.2	30.0	7.9	11.3	32.7	19.6	16.9	26.4
livestock products	–47.6	–14.1	–5.0	–11.0	13.4	0.1	5.5	8.0

Source: Agriculture of Ukraine: Statistical Yearbook for 2008–2011 State Statistics Committee of Ukraine, Kyiv 2009–2012.

Disregarding the fact that in general this sphere of economy is unprofitable, the profit (since 2001) comes mostly from the crop sector. The productivity rate and remuneration of labour increase. Hence, by the year 2010 the industrial production index has three times increased since 1990, and the average monthly wages on the rural households have been increased from 73 UAH in 1995 up to 2,239 UAH in 2010 [Botwina 2011].

The agrarian sector of economy of Ukraine considerably contributes to the formation of the nation gross indexes of additional value. Its share in gross value added in 2010 was 13.2%, exceeding revenues from construction, metallurgy, energy and engineering together. The consolidated budget on agriculture in 2011, received taxes and fees of about 5 billion UAH [The panorama... 2012].

The reforms performed in the agrarian sphere have changed the patterns of ownership, but still a number of financial problems in the agrarian sector still remain unsolved.

These are [Hryvkivska 2012]:

- low level of technical equipment, poor marketing culture;
- the level of proficiency is low (it has both positive and negative consequences). On the one hand, it presupposes the decrease of the level loses at the expense of other activities, on the other hand, it leads to the deconcentration of financial resources;
- level of the development of infrastructure of the sector is insufficient;

- the increase of sums of state dotation without proper feedback;
- inadequate information supply of agrarian commodity producers;
- the absence of timely regulation of agrarian markets;
- the mechanism of governmental support for the sector is inefficient.

Within the period of transition agrarian sector of Ukrainian economy was deprived of proper governmental support. The government had to reduce the level of support of agrarian sector due to the lack of budgetary funds and structural changes within state economy.

Money spent from the budget for agriculture not always reach the declared destinations, sometimes even lead to the withdrawal of funds from the agricultural sector. In addition, the budget process in the agricultural sector is highly inefficient [Demyanenko 2005]. The ways of application of funds to finance agricultural support programs are adopted after the adoption of the budget. Thus, funds are allocated not to implement specific programs in science-based volumes, but to provide execution of the budget.

Under Ukrainian law, the share of expenditure to finance agricultural development should be at least 5% of government spending. However, the law does not provide an exact definition of government spending for the development of agriculture.

Of the total expenditure of the Ministry for research and development in agriculture was directed: in 2002 6.5% of all spending by the Ministry of Agricultural Policy, in 2003 – 1.9%, in 2004 – 2.5%, in 2005 – 2.6%, in 2006 – 1.9%, in 2007 – 1.9%. The share of these expenditures in recent years is much smaller comparing with the rate in 2002. It is triggered not by the decline of the total sum of budgetary spending on agrarian industry research, but it is a result of change of distribution of these funds between the agents of financial management that took place in 2003.

The large sums are spent on education (training institutions of higher education, postgraduate education, training and retraining) – from 84.4 to 95.1%, and the development of community services in rural areas, support for housing, spiritual and physical development. These expenditures can be considered as such that directly or indirectly influence the development of agriculture [Demyanenko, Ed. 2011].

It is worth mentioning that in Ukraine, except the Ministry of Agriculture, there are other agents of financial management of funds allocated from the budget for agriculture. Within three recent years these are: the Ministry of Industrial Policy, the State Committee of Ukraine for Water Resources, the State Committee of Ukraine for Land Resources, Ukrainian Academy of Agricultural Sciences, the State Committee of Ukraine for Construction, Architecture and Housing Policy, state local administrative bodies of areas of Ukraine and administrative bodies of the Autonomous Republic Crimea.

These financial resources are sent to the funding of such programs as: financial support for the production and creation of new national plant protection and plant growth regulators, their state testing and registration, management and administration in the field of water management, maintenance of national and inter-farm irrigation systems of government, leadership and management of land resources, land reform, titling the right of private ownership of land in rural areas and cadastre development; radical improvement of land research farms, breeding livestock and poultry in research farms, breeding crops in levels of primary crop. The largest share is devoted for the exploitation of national and inter-farm irrigation systems of government.

Figure 1 shows the structure of expenditures which, in authors' opinion, influence the development of agriculture (average data 2006–2011). Constructed according to the State Treasury of Ukraine.

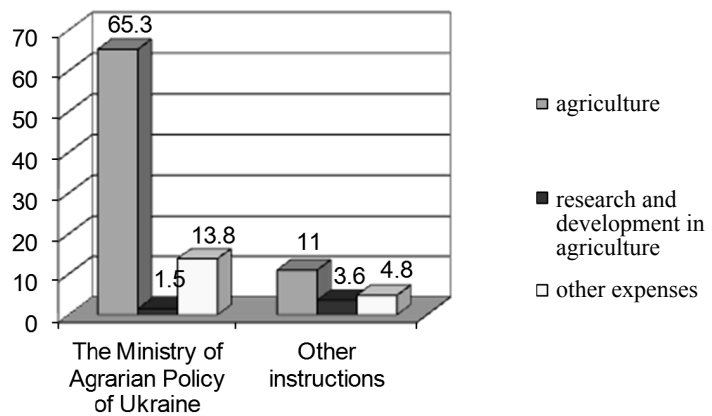

FIGURE 1. The structure of fiscal expenditures that affect the development of agriculture
Source: Calculated according to the State Treasury of the country.

As the Table 4 shows, the share of expenditures that affect the development of agriculture in recent years ranged from 5.2 to 7.7%.

The considerable share of government spending on agriculture is spent on current needs of institutions, so it can not influence the development of the agricultural sector.

The Ministry of Agrarian Policy of Ukraine remains the main agent of financial management of government spending on agrarian sector of economy. It provides funding for direct support to producers (grants to support crop and livestock, credit support measures to support agricultural enterprises in agricultural machinery, support for farmers) and the provision of public services: research,

TABLE 4. Budget expenditures that affect the development of agriculture

Expenditures	2006	2007	2008	2009	2010	2011
Agriculture (line 2)	1 329.7	2 739.8	2 749.4	4 628.0	6 310.2	7 475.0
Research and development in agriculture (line 6) (m UAH)	–90.4	128.3	184.8	275.9	309.6	349.6
Other expenditures undertaken by the Ministry of Agriculture (line 9 applications) (m UAH)	475.3	549.9	656.1	930.5	1 357.0	1 350.4
Total expenditures that affect the development of agriculture (m UAH)	1 895.4	3 418.1	3 590.3	5 834.4	7 976.8	9 175.0
The share of expenditures that affect the development of agriculture in the total expenditures of the state budget (%)	5.3	7.7	5.7	5.2	5.8	5.3
Share of the Ministry of Agriculture in the total expenditures of the state budget (%)	4.2	6.4	4.7	4.4	4.9	4.6

Source: Calculated according to the State Treasury of the country.

education, infrastructure, maintenance of budgetary organizations, socio-cultural development of the village. Recently, the positive tendency in financial backing of the Ministry can be traced as funds are allocated to the planned volumes. However, the allocation of large sums of money at the end of the fiscal year does not allow to use all appropriations [Demyanenko, Ed. 2011].

TABLE 5. State funding of agricultural sector

Rates	Measurement unit	2002	2003	2004	2005	2006	2007	2008	2009	2010
Expenditure on agricultural sphere	bn UAH	1.6	2.5	3.2	5.2	7.3	8.2	12.2	6.4	5.8
The share of expenditure in the budget structure	%	3.3	4.5	4.3	4.4	5.3	4.7	4.8	6.4	1.9

Source: Ministry of Finance of Ukraine.

The budgetary funding of agricultural sector is regulated by the State target program of the Ukrainian rural areas development until 2015 and the Agreement on Agriculture concluded with the WTO on the basis of the principles of free access of agents of management to budgetary resources with justification criteria of distribution of these resources. There are priority areas such as funding scientific research, professional training, social development of the village, quality control and standardization of food.

CONCLUSIONS

Government spending and financial backing for agriculture in Ukraine is significantly different from existing global trends and increase tendencies. The example of Ukrainian economy substantiates the fact that the existence of direct budgetary support and its gradual growth does not guarantee the receipt of the funds by the agrarian sector. State regulation of the agricultural sector in Ukraine is inefficient, since taxpayers pay far more than industry in general receives, and much more than actual manufacturers get.

Basic problems are: increased demand for loans, high cost of credit, low income households reduce the internal market potential, overproduction – the inability to sale products leads to revenue losses, which leads to loan defaults and finally leads to bankruptcy.

The guidelines for the increase of the agrarian production efficiency level include improving the financial condition of agricultural enterprises through enhancing the role of corporate finance and provision of funding.

For the improvement of credit support agricultural enterprises should implement the restructuring of credit debt (to extend the loan repayment in 3–5 years) and form a system of timely supply of credit through the creation of the Agricultural Bank, the system of credit cooperatives and cooperative banks. The credit risk insurance can be also essential.

The system of state budgetary support for agrarian commodity producers is also to be reconstructed. The reconstruction should include the following patterns following: it is necessary to point out the main lines for support in accordance with WTO requirements (enhanced support for rural development, environmental protection and the development of social infrastructure in rural areas), and optimization of budgetary programs simultaneously with their service (half of the existing programs are not funded, so the priority areas are to be defined).

Taking into consideration the fact that the development of livestock industry lags in it is necessary to encourage its development. The patterns to consider include problems of optimization of forms of business and development of cooperation. It is time to unite the efforts of credit, servicing and consumer cooperatives.

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MECHANIZM INTERWENCJI PAŃSTWA NA RZECZ ROZWOJU SFERY AGRARNEJ GOSPODARKI UKRAINY

Abstrakt. Artykuł zawiera analizę bieżącej sytuacji w sektorze rolnictwa, a także odnosi się do zagadnień tworzenia mechanizmów wsparcia państwowego na rzecz rozwoju sfery agrarnej gospodarki Ukrainy, celem poprawy jej kondycji.

Słowa kluczowe: mechanizmy interwencji państwa, rozwój sfery agrarnej, finansowanie kredytami

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PRIORITIES OF INSTITUTIONAL SUPPORT OF MODERN FORMS OF ECONOMY IN A SYSTEM OF AGRARIAN RELATION OF UKRAINE

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Abstract. International experience of state support of agriculture is analyzed. A necessity of development of socio-ecological-economic model of agriculture in Ukraine is proved. In the papers is proved the necessity of creation and function of social-ecological-economic model of agriculture development, where a social--ecological-economic development is characterized like economic development of rural territories, rural employment in agriculture, the efficiency of employment etc. Based on the analysis of scientific literature, it's confirmed that development socio--ecological-economical forms of economy are accompanied with modification of the institutional structure of regulation of agriculture.

Key words: agrarian sector, forms of economy, socio-ecological-economic model, agrarian policy, sustainable development, social capital

INTRODUCTION

In agriculture an effective management can be defined as a balanced mix of economic, social and environmental components, as over-exploitation of natural resources and human pressure on the soil, leading to a significant reduction in their rehabilitation and reproductive opportunities by reducing and cost-effectiveness of entrepreneurs in agriculture. This led to a development of socio-ecological-economic model of management in agriculture, which involves a simultaneous use not only economic, but also social and environmental indicators, which greatly enriches the scientific and practical approach to sustainable development in the agricultural sector of Ukraine.

Theoretical and practical aspects of management in the context of globalization, including property relations and institutional support are highlighted in the writings of such scholars as: V.D. Bazylevych, K.S. Bazylevych, V.M. Geets, J.M. Lopatynskyi, P.T. Sabluk, S. Zabolotny, M. Wasilewski and others.

Significant contribution to the scientific analysis of the development and operation of forms of economy in agricultural sector of developed countries commit such scholars: L.V. Moldavan, O.V. Shubravska, T.O. Semkina, B.P. Yakobchuk and others.

Despite the strength and solidity of scientific development, not illuminated remain priority aspects related to the study of modern forms of economy in agricultural sector.

RESEARCH METHODS

An importance and necessity of the study of modern forms of economy in agricultural sector in order to identify and to ensure not only their economic efficiency, but also sustainable use in the context of sustainable development led to the selection of topics and the relevance of the study. In the study are used general scientific and special methods. A methodological base of study as to determine rational and effective forms of economy are general scientific methods. Through systematic analysis are used the economic, social and environmental components of forms of economy in their relationship and interaction between them.

RESULTS

For ensuring an effective functioning of agrarian sector of national economy is required such institutional transformation by which the conditions for the sustainable development of the industry are provided. This primarily refers to the State as the main institution. In the theory of institutionalism, in particular in its choice of the public, the State is seen as a means of social cohesion, the main tasks, besides market regulation are to ensure rules and regulations in society.

The main functions of the State are [Lopatynskyi 2006, p. 204]:

- a legislative and regulatory framework;
- production of public goods and services;
- stabilizing the economy;
- support for competition;
- redistribution of income, etc.

In agriculture, the implementation of State functions should be provided with the principles of agricultural policy. The main objective of agriculture is a performance of complex economic, social and environmental functions, which can

only provide some form of production. Because agricultural policy of State regulation and State support for agriculture should be directed to:

- definition of the basic model of economy;
- providing a support of basic forms of economy in its infancy;
- State regulation of land use;
- providing an institutional environment for the socio-ecological-economic forms of economy.

One of the main goals of agricultural policy, in our opinion, is to determine the basic economic model and the formation of targeted public policy.

According to L.V. Moldavan, in Ukraine the concept of farming system as a base in the reform process was not established. The farms, in the opinion of scientist, "did not receive equal opportunities with corporate commercial forms of economy as collective enterprises, which initially were formed by heads of former collective farms with using land and property of their former members". Therefore, according to the scientist, farming in Ukraine is developing very slowly [Moldavan 2010, p. 17].

In developed countries, corporate forms are partnerships, S-corporations (USA), in France – associations of farmers with joint management (GAEC), and logistic companies (EARL, SCEA), a group of local agriculture (Japan), co-operatives with collective land lease (Italy, Spain), community manufacturers or simple company (Germany).

L.V. Moldavan studying a global practice of organizational forms of agricultural activities, said that a creation and development of social and economic organizations is supported by State. Thus, the association of farmers in GAEC Act provided subsidies amounting to 50% of initial capital, soft loans, exemption from some taxes.

Subsidies to agricultural producers in the EU make up 40% of the gross agricultural output. According to the State Statistics Service of Ukraine in Ukraine in 2009 were 41,906 farms while only 394 farmers were given financial support in the amount of 19,999.7 thousand, including the average amount of financial support provided to farmers on non-returnable basis amounted to 48.6 thousand per farm. Loans under the program of state support received only 966 farms in 2009[1].

The need for government support of farmers and their associations is proven by experience of Western countries. In general, agricultural policy of developed countries is aimed for providing a farm management model as a base.

According to J.M. Lopatynskyi, an effective agricultural policy is ensured through certain mechanisms which scientist includes [2006, p. 211]:

[1] Data obtained from website of Ministry of Agrarian Policy and Food of Ukraine http:/minagro.gov.ua.

- creation of market institutions (structural and functional);
- promotion of sustainable development.

In authors' opinion, a stimulation of sustainable economic development in agriculture should take into account of three components: economic, social, environmental. A special place in the economic component takes state support of agriculture (both target and financial).

According to European Commission's, public support of farmers in EU is in the following areas [Lopatynskyi 2006, p. 211]:

- public support for emerging farmers;
- State support for farmers who are in disadvantaged areas;
- special support for young farmers;
- support inheritance;
- public support for the creation of groups of farmers associations.

Social component of sustainable development includes the following elements:

- State employment policy;
- creation of social infrastructure in rural areas;
- counseling;
- sociological studies.

Environmental component of sustainable development, on our mind should cover the following elements:

- implementation of regulations and standards on environmental protection;
- implementation of a number of measures to conserve natural resources;
- ensuring an environmental control;
- consideration of environmental impacts in decision-making;
- ensuring an environmental safety and maintain an ecological balance in Ukraine;
- promotion of socio-ecological-economic forms of economy in agriculture.

An important factor in improving the competitiveness of national economy in agrarian sector is an establishment and functioning of the socio-ecological-economic model of agriculture. In authors' opinion, the socio-ecological-economic model of agriculture is a model of effective agricultural policy, which combines balanced economic, social and environmental components (Figure 1).

Therefore, authors proposed an economic-mathematical model of "An estimation of level of effective forms of economy in agriculture", which makes it possible to determine a level of effectiveness of forms of economy in agrarian sector in the context of its sustainable development, taking into account economic, social and environmental component [Pimenova 2012, pp. 77–88].

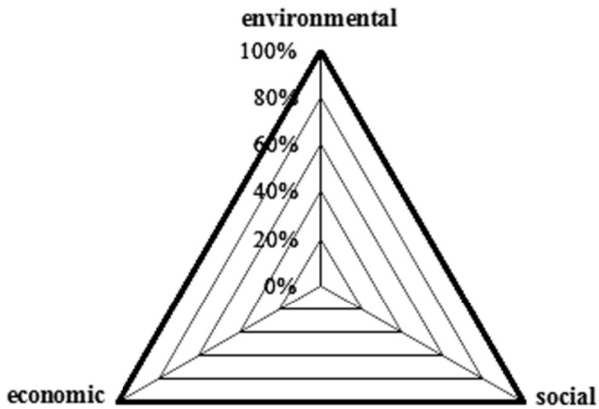

FIGURE 1. Triangle of balancing an economic, social and environmental components of agricultural activities

Source: Authors' compilation.

This model was developed on the basis of pair wise comparisons using scoring system and integral parameters that define an economic, social and environmental aspects of forms of economy. To socio-ecological-economic development in agrarian sector on one hand belong an economic development of rural areas, engaged people in agricultural land, employment performance, characterized by per capital income, ecologically safe production which is oriented on human needs and more. Socio-ecological-economic development in agrarian sector is a development which involves balancing of economic, social and environmental components. On other hand socio-ecological-economic development is determined by the role of social capital, which, in our opinion, should be taken into account when shaping agricultural policy.

Social capital is social relationships and bonds that are formed in agrarian sector, based on trust and encourage participants to more effective action to achieve common goals [Bazilevych, Bazilevych 2008, p. 78].

According to F. Fukuyama, social capital is a common norms and values that are practiced by a select group of people and allow them to collaborate [Fukuyama 2006, p. 8]. Namely the growth of level of social capital in agriculture will influence on forming the non-commercial and non-commercial productive unions. Due to this will increase an organic and ecological production from little farms and peasants, will develop the small business in rural territories.

V.M. Heyets, exploring a socio-economic model of a future of Ukraine, said that the determining role of social capital is to ensure a development of any country and interdependence of technocratic and social components of a new philosophy, which in turn requires a detailed analysis of a content of socio-humanistic

components [2009, p. 317]. On our opinion, agriculture such a branch of economy where very important the development not only socio-economic components but also and ecologic because ignore of ecologic component will influence the destruction of branch. So, as we see, in modern condition of agriculture development we could speak about necessity of creation and function of social-ecological-economic model of agriculture development, where a social-ecological-economic development is characterized like economic development of rural territories, rural employment in agriculture, the efficiency of employment, ecologically safe production focused on human needs and etc., on the one side and on the other side is a significant role of rural social capital.

Social development of agrarian sector currently investigated by Ukrainian scholars mainly without taking into account a problem of restoring a confidence of rural population and entrepreneurs to government and financial entities.

According to I.I. Mazur, trust is not only a social institution it is also the institution of the competitiveness of National Economy [2011, p. 29].

In Ukraine a level of confidence of rural population and entrepreneurs in agrarian sector to government and State institutions, to banks and financial institutions, insurance companies, collective investment institutions and to business is general low, according to J.J. Maly, means discouraged of citizens to themselves [2010, p. 77].

Thus, the sociological studies of Institute of Economics and Forecasting of National Academy of Science of Ukraine, which are presented in the monograph of V.M. Heyets "Society, State, Economy", show a low level of confidence of Ukrainian people to political parties and political leaders, trade unions, the Verkhovna Rada of Ukraine, the authorities, law enforcement leaders [2009, p. 364–371]. V.M. Heyets notes that "Ukrainian government has lost the confidence of the citizens and the ability to develop, resulting in the country for the sixth year in a row going political crisis. Under these conditions, in fact, the question of the formation of a new ideology and implementation of development policies aimed at mobilizing both as a social and economic resources, which will in future enter into the international community of countries with high living standards and democracy as a universal value of social order" [2009, p. 347].

Based on the analysis of scientific literature, it is confirmed that development socio-ecological-economical forms of economy are accompanied with modification of the institutional structure of regulation of agriculture. Functioning of effective forms of economy promotes the competitiveness of the agricultural sector of the national economy.

On our opinion in agriculture is manifested through:

- low level of confidence in banks and financial institutions, which hampers a development of agricultural production due to shortage of financial resources;

- low level of trust in insurance companies that inhibits a growth of certain types of crops that are more sensitive than others to weather conditions;
- low level of rural population to government is not conducive to an establishment and development of NGOs in agriculture, which would represent, meet and protect social interests of its members in a particular statute or field of activity.

The deputy head of district administration Radomyshl (Zhytomyrska oblast) V.M. Pustovit notes that a complexity of forming public organizations among beekeepers is in low confidence of beekeepers to power despite a current direct financial State support to beekeepers. At courses of training beekeepers in 2011, organized by the National University of Life and Environmental Sciences of Ukraine postgraduate education with the support of web browser "Brotherhood of Beekeepers of Ukraine", an overwhelming number of beekeepers claimed that officially they would not like to register an apiary despite direct financial support from the government, because the government distrust "today – support tomorrow – taxes" – say beekeepers. Low level of confidence to state institutions hampers the development of agricultural cooperatives.

Social capital is a common traditions and norms that promote cooperation, it is very important, because it reduces transaction costs by increasing the price of formal cooperation [Fukuyama 2006, p. 7]. An experience of developed countries, such as the US and EU countries, shows that namely an agricultural cooperation is the key to successful development of farming. A study conducted by F. Fukuyama in the book "Trust: the social virtues and the path to prosperity" shows that such countries are the ones with a high level of confidence.

Martin Sorrell, owner of the famous company WPP, which employs 163 thousand people in 110 countries, almost 60% invests in human capital, speaking at the World Economic Forum in Davos in January 2013, expressed the following, opinion: "reluctance to collaborate is the most destructive force for any company" [2013].

In his article "I am an Owner and I act like one", Martin Sorrell substantiates the idea that today division of responsibilities between an owner and manager destructive effects on productivity. In a situation where a manager without being a business owner, you control the business phenomenon of "business", he is excluded as an entrepreneur is someone who takes risks. An entrepreneur risks by own funds and property and the manager risks by money and property owner [2013].

Authors fully support this view and believe that sustainable development is important to exclude such a division.

Talking about modern forms of economy in the agrarian sector of Ukraine an emphasis should be placed on the fact that the peasant (owner) directly was personally involved in the manufacturing process, performing administrative,

organizational and executive function, which will provide consumers organic and environmentally friendly agricultural products. Peasant more responsible towards their work the land to farm, to the environment. The downside of this is small batch production that is unprofitable for processing and marketing institutions, so the release can be combining them in such a form of economy as an agricultural cooperative.

The complexity of the formation and development of agricultural cooperatives in Ukraine due, on one hand, imperfect legislation, lack of state support, and on other hand a low level of confidence of the rural population in State and reluctance to partnership. However, as international experience with agricultural cooperation is the key to successful development of agrarian sector.

According to F. Fukuyama, create the necessary legislation, constitution and electoral system even easier than have to trust people, especially at all levels of society. Therefore, the main task of State in agrarian sector, in authors' view, is to increase the level of trust of peasants, farmers and entrepreneurs to State institutions, the banking system, insurance companies, collective investment institutions, to businesses, and even to ourselves by creating public-private partnerships in agrarian sector.

CONCLUSIONS

Thus in agriculture an efficient management should combine balanced economic, social and environmental components as overexploitation of natural resources for personal gain leads to exhaustion, which eventually reduces and economic performance of businesses. The priority of the state agricultural policy is a creation and functioning of the socio-ecological-economic model of agriculture. Socio--ecological-economic development is determined by the role of rural social capital that should be subject to state regulation.

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PRIORYTETY WSPARCIA INSTYTUCJONALNEGO NOWOCZESNYCH FORM DZIAŁALNOŚCI W SYSTEMIE AGRARNYM UKRAINY

Abstrakt. Międzynarodowe doświadczenie w zakresie wspierania rolnictwa przez państwo zostało poddane analizie. W artykule przedstawiono konieczność opracowania modelu społeczno-ekologiczno-ekonomicznego dla rolnictwa na Ukrainie. W artykule udowodniono konieczność tworzenia modeli społeczno-ekologiczno-ekonomicznych celem rozwoju obszarów wiejskich, zmian w zatrudnieniu w rolnictwie, wydajności pracy itd. Na podstawie przeprowadzonego przeglądu literatury potwierdzono, iż rozwojowi społeczno-ekologiczno-ekonomicznemu towarzyszą zmiany struktury instytucjonalnej w zakresie regulacji w rolnictwie.

Słowa kluczowe: sektor rolny, formy gospodarki, model społeczno-ekologiczno-ekonomiczny, polityka rolna, zrównoważony rozwój, kapitał społeczny

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THE ROLE AND MODIFICATION OF ACCOUNTING IN THE SYSTEM OF PERSONNEL MANAGEMENT IN THE AGRO-INDUSTRIAL COMPLEX

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Abstract. The article describes the main directions of change in personnel management policy implementing the State program of agricultural development for 2013–2020. The concept of the organization's personnel role in the production system, the historical aspect and the possibility of expanding accounting institute under the influence of institutional environment are analyzed. It also substantiates the necessity of modifications in the accounting system of personnel management in the particular organization and agro-industrial complex as a whole.

Key words: personnel management system, agro-industrial, accounting information

INTRODUCTION

The state of affairs in the economy is very confident from the nature of the processes taking place in the investment field, which is an indicator of the general situation in the country, the size of the national income, the attractiveness for other countries.

One of the major priorities for the government of the Russian Federation should be the all-round development of the agricultural sector of the economy. In accordance with the changes that have occurred in recent years in economic and social development of the country, in the agricultural sector the policy of personnel management in agricultural organizations also varies considerably.

At present, in a changing economic conditions, occurs an objective need to correct the main trends and methods of personnel management and their registration

during implementation the government state program of agricultural development for 2013–2020 years.

State program provides a comprehensive development of all sectors and subsectors, as well as areas of agricultural complex, taking into account the Russia's entry into the World Trade Organization (WTO). At the same time two priority levels are highlighted.

The first level:

- in the economic sphere – increasing income of agricultural producers;
- in the social sector – sustainable development of rural areas as a prerequisite for saving labour force and territorial integrity of the country, creating the conditions for economic and physical access to food on the basis of rational norms of consumption of foodstuff for vulnerable segments of the populations;
- in the institutional sphere – development of integration in the agro-industrial complex and the formation of grocery subcomplex, as well as regional clusters;
- in the scientific and personnel areas – ensuring the development of innovative agribusiness.

The second level priorities include the following areas:

- development of import-substituting subsectors of agriculture, including horticulture and fruit growing;
- environmental safety of agricultural products and foodstuffs;
- increasing exports of agricultural products, raw materials and food as the saturation of the domestic market.

Based on the foregoing, we see that for the sustainable development of the agro-industrial complex organizations, of its modernization requires highly qualified personnel. Modern management system in the organization would not be considered effective if it in the first place does not put human resources.

At the moment, questions of theoretical justification organization methods of personnel management at the macro, meso and micro level and of its accounting support through appropriate organizational and economic mechanisms were not adequately reflected in the research scientists. Necessity to strengthen the role of methodical maintenance in the accounting system of personnel management in the agro-industrial complex organizations has ripened.

RESEARCH METHODS

At present, we can state the change of four concepts of the share of the organization' personnel in a production system, which are presented on Figure 1 [Banko, Kartashov 2006, p. 15].

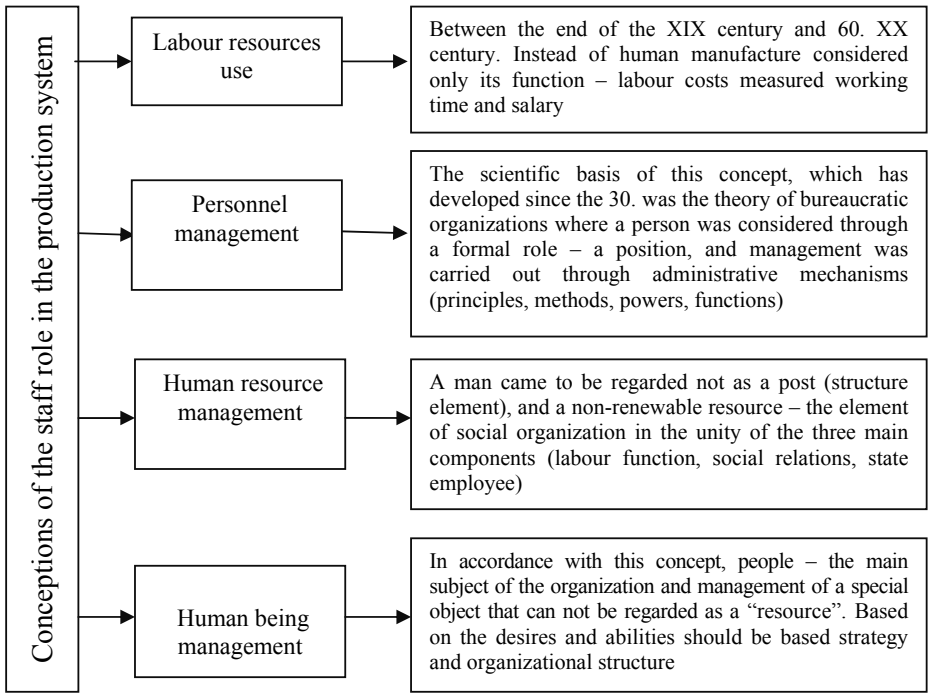

FIGURE 1. Concept of staff's role in the organization of the production system

Source: Own elaboration.

If you are using organizations the agro-industrial complex principles the fourth concepts to the forefront informational support. Consequently, there is an objective need to adjust the main trends and methods of accounting for managerial decision-making, in terms of personnel management, the implementation of the reform program of accounting and reporting in accordance with International Financial Reporting Standards.

Development problems the theory, methodology and improvement of cost accounting work and its remuneration, human resources management, especially in its industry agribusiness organizations covered in the works of famous Russian economists: A.P. Egorshina, A.K. Zaytseva, G.M. Lisovich, I.Y. Tkachenko, V.V. Pankova, A.J. Kibanova, N.A. Volgina, N.G. Belova, L.I. Horuzhy, A.I. Pavlycheva, I.Y. Tkachenko, N.A. Banko, N.S. Yashina.

Foreign experience consecrated in the works: W. Petty, R. Quesnay, A.R. Turgot, A. Smith, D. Ricardo, D.M. Keynes, K. Marx, D.B Clark, H.S. Ouchi.

The current economic and regulatory instruments accounting and human resource management organizations have not yet fully formed, due to a number

of factors, which include: underdeveloped state regulatory labour relations and inconsistencies labour, tax and civil laws; lack of consideration of the feedback system to motivate staff and as a result – the mechanism of reconciling personnel, organizations and other stakeholders.

An important feature of the present stage of development of the agricultural sector in Russia is that the processes of adaptation to market conditions imposed two types of interrelated global trends – globalization and competition.

However, the basis for economic development of any country is the people and their needs, quality of life, growth opportunities welfare. The fact that people – this is important in economy and that the economy and for the person to explore, wrote an outstanding agricultural scientists, professor N.D. Kondratiev.

RESULTS

Based on the foregoing, we see that there is a need for modification of the accounting process and the expansion of the institute of accounting for the formation of sufficient information for decision-making in the management of the organization's personnel.

First of all, it is management accounting as a system of: monitoring, measuring, collecting, registration, generalization, processing, analysis and distribution of information, which is necessary for taking managerial solutions [Kaplan, Norton 2001, p. 73]. It is a part of the system of internal operational management, which ensures the management of organization of information used for planning, managing, motivation and control of the activities of the organization. Consequently, the functions of management accounting will be associated with the functions of the management process that focuses on solving problems in the future.

In addition to accounting data in managerial accounting as input can be used managers reports, such as reports on labour productivity.

Formed in the system of management accounting, accounting information is the basis for the processes of forecasting, planning, rate setting, analysis and control, i.e. it is an important tool for effective management decisions.

The information management accounts must meet the following requirements:

- targeting – internal accounting information should be available to specific recipients according to their level of preparedness and hierarchy;
- efficiency – the information should be available in time which gives ability to orientate oneself and time to take in time effective economic solution, otherwise it is of little use for management purposes;
- sufficiency – the information should be provided in sufficient quantities to make the management solutions at the appropriate level. At the same time, it

should not be excessive and distract attention of the consumer on the minor or irrelevant information;
- analyticity – information used for internal management purposes, must contain data for the current rapid analysis or suggest the possibility of fulfillment of further analysis with the least expenditure of time;
- flexibility and initiative – the concrete block of information has to answer the above-named principles and provide all completeness of information interests in the conditions of changing administrative situations or in connection with changes in production factors;
- utility – information should attract the attention of management to the areas of potential risk and objectively evaluate the performance of managing organizations;
- sufficient economy – the cost of making of internal information must not exceed the economic benefits from its use.

As part of the management accounting, information is collected, grouped, identified, studied for the most accurate and fair statement of the operating results of the organization departments and the definition of partnership's share in the profit of organization.

It is evident that to meet all afore-mentioned requirements it is necessary to use different methods of collection, processing and generalization of the accounting management information.

On this basis, the main objectives of management accounting are:
- timely, full and reliable reflection of the actual expenses for production and production realization;
- calculation of the production cost indexes (planted, normative, factual);
- control of the economical and efficient use of material, human and financial resources;
- obtaining estimated data on various models of managing;
- determination of the financial results of activity of structural divisions.

On the basis of management accounting data, management decisions about the introduction of modern equipment and technology, the use of new forms of work organization, identification of the reserves of economy of material and human resources in order to reduce costs and increase profitability are taken.

Accounting for labour costs in the management accounting system should occupy a central place and be conducted in the following areas:
- accounting for labour costs by classification groups – the basic wage of production workers, wages as a part of the overhead cost;
- accounting of charges and deductions from the wages of each employee.

The purpose of the accounting of expenses for labour – definition of expenses of working hours on kinds of activity; sizes of development or extent of performance

of a replaceable task; reliable calculation of a salary; calculations with workers on compensation, control of use of fund of compensation.

Labour costs are not homogeneous and, therefore, they are classified in order to meet requirements of management. The principles characterizing the uniform phenomena have to be put in a basis of any classification. At the moment, the following grouping of organizations in labour costs:

- by types – primary and secondary;
- by elements – time-based, piecework, bonuses, payment delay allowance, and others;
- the composition of employees – listed-staff, dual jobholders, working under contracts;
- by category of workers – workers, civil servants, leaders are separated from them.

Presented grouping characterized by common features and is of little use for management. It does not contain cost information on such management processes, as the costs of recruiting, choice and rundown; the costs associated with the processes of planning and regulation of staff and labor directly related to the management of human resources, etc. Mainly detailed classification of costs is needed to determine the cause.

In addition, the organization's transitions to a market economy enterprises are given broad powers to determine the size and the order of payment, to apply different payment of compensation or incentive character, to provide additional labour and social benefits. Under these conditions, limited differentiation in labour costs can not meet management goals.

Guided by the basic objectives of management accounting, it is necessary to extract wages from labour compensation fund, that is included in the cost of production. In the classification of labour costs, it is necessary to focus on the following articles [Kharcheva 2012, pp. 120–121]:

- expenses for wages of workers directly involved in the process of production;
- incentive-based payments – premiums for quality work, for length of service, the reward for the years of service, various awards associated with industrial activity;
- unproductive payments – delay allowance, additional payments for deviations from normal operating conditions;
- costs of hiring, selection of employees;
- expenses for the labour rate setting;
- expenses associated with advanced training, retraining of workers;
- labour costs of the auxiliary workers employed in the equipment repair, servicing working places who are included in the overheads;
- labour costs of experts and executives employed in managing of organization included in the general expenses.

This grouping of labour costs are more consistent with the goals of job costing and calculation of profit and as well partially to goals for the control and adjustment of expenses. With regard to decision-making, it is necessary to bear in mind the problem of selection in the accounting expenses for future labour costs.

To increase productivity and employee motivation on the result, it is necessary to use the system of its participation in the profits.

Participation is one of the most powerful motivation to work in order to create a team spirit and corporate culture. At present four main models of corporate governance are known: Anglo-American, German, Japanese, and so-called entrepreneurial model. The basic principles of these models are fixed by law, which creates real conditions for the development of the motive of participation in organizations.

The basic principles of Anglo-American model of corporate governance consist in dividing the assets and liabilities of the company and the company's owners; separation of ownership and control of the company; the company's behaviour is focused on maximizing shareholders' income. In this model, motivation to work, including the motive of participation, is possible by giving shares to employees and, therefore, their inclusion in the circle of owners.

The German model of corporate governance adheres to the principle of social interaction: all parties interested in activity of the company, have the right to participate in decision-making process. The circle of people, interested in activity of the company includes shareholders, managers, labour collective, key suppliers and consumers of production, banks. The labour collective influences on adoption of corporate decisions through election of members of the supervisory board. Respectively a basis of the German model is the principle of social interaction directed on achievement of balance of interests of shareholders, labour collective and business partners.

The Japanese model of corporate governance is characterized by social unity and interdependence. Formally bodies of corporate governance in Japan do not differ from Anglo-American model, the informal parties of their activity significantly differ. The big role in Japan is played by various informal associations – the unions, clubs, professional associations. Intra group interaction is active at the level of an midrange administrative board, and also at the level of technical specialists. Key element of Japanese model – system of lifelong hiring of the personnel which covers about 50% of workers.

The entrepreneurial model of corporate governance is characteristic for the countries with a transitional economy. At this model formally there are all necessary elements, but the principle of division of the property rights and control does not admit real activity. Owners of the agricultural company can not reckon with professional managers, etc. Version of enterprise model is the Russian model of corporate governance.

Regardless of the direction of movement of the Russian model (towards Anglo--American or German model of corporate governance), the agrarian and industrial complexes organizations, in our opinion, are to introduce system of partnership in profit by means of conducting management accounting on the responsibility centers according to specific conditions of economic activity.

Thus, it is necessary to observe the principles defining efficiency of use of systems of partnership in profit:

- participation in profit is inefficient if workers are not involved in management, decision-making process, search and the solution of production problems, ways of advancing of production;
- determination of the size of bonuses has to be based on such indicators on which workers can really influence and they can supervise on the workplaces, production sites;
- workers have to participate in development of the system of participation in profit or distribution of results from labour productivity increase.

The following direction of development of accounting for human resource management is the organization at the agrarian and industrial complexes enterprises separately the accounting of human resources which has to include – the accounting of use of the personnel in the organizations and an assessment of efficiency of administrative activity in the agricultural organization. This type of the account will represent information system which reports to the management, what changes happen eventually in human resources of the organization.

Therefore, we can mark out features of the accounting of human resources:

- assessment of human resources;
- record of an assessment in accounting registers;
- information disclosure in financial statements.

It is possible to allocate the following purposes of the accounting of human resources [Pankov 2011, p. 124]:

- perfecting of management system on the basis of the analysis of investments;
- consideration of employees as organization assets;
- attraction and deduction of the qualified experts;
- profile of the personnel of the organization from the financial point of view.

Maintaining in the organization of this type of the account will allow to solve the following problems, first of all:

- possibility of providing information on estimation of cost of human resources for adoption of administrative decisions;
- to carry out the analysis of options of investments into human resources and granting the relevant information to the interested users;

- ensuring control over costs of human resources and determination of efficiency of their use;
- definition of the reasons of high turnover of staff at various levels and acceptance of preventive measures for its control, etc.

CONCLUSIONS

The complication of internal and external relationships, Russia's accession to the World Trade Organization (WTO), the need to implement an innovative development of the agro-industrial complex organizations are forced to adapt resource management system to modern economic conditions. In this regard, the development of the information required to ensure the process of management decisions, including the personnel management. The problem of obtaining qualitatively new accounting information has become the most important with a functioning organizations in the market. One of the most important tasks of accounting is a modification to the personnel management system for the formation of a permanent and reliable information necessary for owners, potential investors, as well as system management organizations. First of all, it is management accounting as a system of: observing, measuring, collecting, recording, compilation, preparation, analysis, and provide the information needed for management decisions and business enterprises the agro-industrial complex separate accounting of human resources, which should include consideration of the use of staff in the organization and evaluation of the effectiveness of management activities in an organization.

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ZNACZENIE I MODYFIKACJA RACHUNKOWOŚCI W SYSTEMIE ZARZĄDZANIA PERSONELEM W SEKTORZE PRZEMYSŁU ROLNEGO

Abstrakt. Artykuł opisuje główne kierunki zmian w polityce zarządzania personelem programu państwowego rozwoju rolnictwa na lata 2013–2020. Przedstawiono analizę pojęcia roli personelu organizacji w systemie produkcyjnym, historycznego kontekstu oraz perspektyw rozbudowy instytutu rachunkowości pod wpływem otoczenia instytucjonalnego. W artykule udowodniono konieczność zmian w systemie rachunkowości zarządzania personelem w organizacji oraz sektorze agrobiznesu jako całości.

Słowa kluczowe: zarządzanie personelem, przemysł informacje z systemu rachunkowości

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INVESTMENTS AS PART OF THE STRATEGIC DEVELOPMENT OF THE NATIONAL ECONOMY

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Abstract. The article presents the problems and trends in investment activity in Ukraine. In the study the structure of the investment process as the main source of investment and knowledge base for this process in Ukraine is revealed. The article also shows the factors that affect the trends in the investment field and proves the need to stimulate investment and improve the investment climate.

Key words: financial source of investment, investment decisions, investment process

INTRODUCTION

Economic reform and development of the modern market economy and provides connections to attract a large amount of resources, which is achieved through economic growth at the global and local level.

As experience of period from late XX to early XXI century shows, investments become super power factor of economic stabilization and intensive development at both the national and global levels, improve source of balance payments and stabilize national currencies. Also, this is the way to recovery and intensive development of all industries and sectors of the economy based on recovery of fixed assets on an innovative basis.

Competitive economic complex formation requires significant expenditures of all kinds of resources, while the state can not always ensure their own existence. For this purpose, the process of attracting investment resources performed, implement strategic and implementation priorities and contribute to the further development of the economy, based on the realities of today.

Development of investment activity in Ukraine now is the stage of active becoming, during which the formation of principles accumulation of investment resources and development methodologies investment, according to the functioning of the national market.

In determining the mechanism of investing an economic entity, it is imperative to consider all the features that may affect the outcome of the investment process, including special attention should be paid to sources of investment resources and their area of application.

RESEARCH METHODS

The problem of optimizing the investment as a key element of the overall strategy of national economic development is extremely important, it is engaged in the development of a large number of both foreign and domestic scholars, among which are the work of economists such as W. Sharpe, L. Hitman, M. Junks, J. Keynes, S. Behrens, K. Reilly, V. Shapiro, V. Bocharov. Significant contribution to the study of problems of investment made and Ukrainian scientists, namely I.O. Blank, A.A. Peresada, A. Mertens, V. Fedorenko, S.K. Reverchuk, A. Hal'chyns'kyi, V. Geets.

Despite the large number of research papers covering various aspects of investment as part of the strategic development of the national economy, this issue needs further refinement and comprehensive research.

Formation of the investment potential of the country is extremely important part of the strategic development of the state economy. It is by attracting investment resources the country can enforce an extremely important task, which in the future will form a number of competitive advantages in economic and social terms.

At its core, the investment can be defined as a long-term investment of different types of resources (material, financial, intellectual etc.). To further both economic and non-economic development of the investee, profit from investing resources and other effects that are consequence of the use of investment resources [Grinyova et al. 2002, p. 227]

Investment resources represent the diversity of borrowed capital investments, acting either in cash or in natural form. They are used as sources of real and financial investment. Investment resources are associated with the processes that take place within the accumulation and reproduction of capital. These processes occur at the level of the industry or the country. Size, the rate and extent of accumulation and retention of investment resources determined the general level of economic development, the level of financial support for companies and level of income.

During the economic crisis investment is contributed to solving urgent problems of economic stabilization, enhance its processes and increase its activity, according enhances overall economic attractiveness for investors and identifies potential opportunities for further development of the national economy.

Database of research investment process are the official data of the State Statistics Committee of Ukraine on capital investment.

It is on the priority areas of scientific and technological progress should be maximum target investment and resources. The development of current and future high-tech industries can claim only those countries that are able to provide a high level of science, technology, education, culture, organization management and labour discipline [Zhuchenko 2007, pp. 105–111].

Consequently, investment in national economic development aims two objectives: profit and social impact from the implementation of certain investment projects.

Accordingly, investing their funds in the national economy, investors are primarily interested in profit. Implementation of investment projects that have social effects to the society involved especially the central and local governments and local authorities.

In affiliation capital investments for the development of the national economy can be divided into domestic investment and foreign investment (Figure 1). Under each of these groups also includes various items in their economic, organizational entity significantly differ from each other and, therefore, their involvement in the economy is characterized by specific motives and expectations from the investment of such funds.

Accordingly, the investment policy should be based on these features and principles. Only in this case it will be really efficient and meet today's national economic development.

Foreign investments may be represented as investments of international organizations and other states of the real sector of the economy, including highlight important investment of transnational corporations and financial-industrial groups, small and medium business, investments individuals (Figure 1).

It should be noted that each of the sources of foreign investment has its own particular function and their motives for investment activities. For example, for transnational companies strategic issues may be building a new plant for the production of certain types of products in order to capture not only the market, where the company will be a bucket, but also in neighbouring countries. And for the small entrepreneur can be interesting, for example, the formation of a joint venture with domestic same small-sized investors to realize a small investment project in the border regions. Accordingly, these entities are interested in different business conditions in the country. However, the overall investment growth in Ukraine is disappointing.

Consider investing sources of national economy more detail.

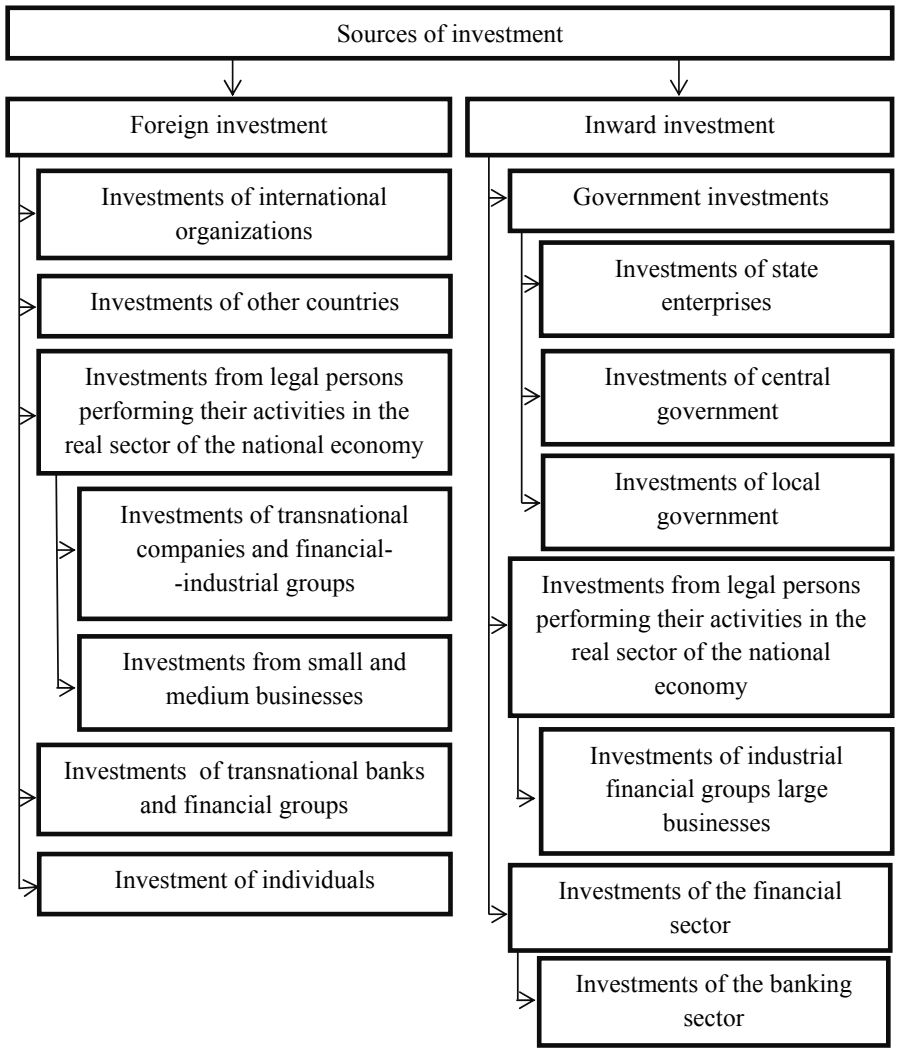

FIGURE 1. Sources of investment

Source: Problems of investment [Grinyova et al. 2002].

Negative trends in the investment sphere of the national economy due to the following factors [Lysenko 2004, p. 151]:

- increase investment risks due to political speculation regarding revision of privatization of state property and distributing the proceedings of past privatization cases;

- change the structure of the distribution of financial performance of domestic enterprises for the benefit of current consumption;
- a sharp change in tax rules and violation of a number of state obligations to foreign investors for industry development programs and policies on free economic zone and the territory of priority development;
- reduction of the investment component of public spending;
- channeling household savings rate primarily for consumption rather than investment because of lack of financial markets;
- a sharp increase in net income withdrawal of state enterprises, which significantly reduced investment capacity state sector of the economy;
- the development of the securities market and other financial instruments of protection of shareholders' rights, which prevents most companies to attract financial resources through financial market mechanisms.

Therefore, the fundamental strategic objective must be to create an environment that will encourage investment primarily in important socio-economic development sector and industry. Therefore, guidelines strategy to stimulate investment activity in Ukraine should be:

- increasing the efficiency of budget capital expenditure budget mastering modern development incentives;
- accumulation of the population within the systems of social and pension insurance and focus on long-term financing of investments;
- broadening the base of investment resources will be directed into the innovation sector, through the mechanisms of the tax, customs and regulatory policies;
- increased investment direction of the stock market and its infrastructure;
- investment focus privatization;
- introducing a mechanism of accumulation of surplus funds, particularly venture capital funds;
- provision of investment depreciation policy direction;
- increased investment activity of the population and provide guaranteed protection of their savings;
- facilitating access to long-term loans to enterprises, lower real interest rates due to restructuring and additional capitalization of the banking sector, the establishment of long-term lending institutions, increasing presence of foreign capital in the banking market of Ukraine;
- strengthening intersectional flows of capital through the stock market, the development of horizontally and vertically integrated companies;
- reform of corporate income tax, which should encourage their investment direction;
- formation of transparent and based on the experience of Member States, tax incentives investment process, ensuring equal access to these incentives;

- introduction to stimulate energy efficiency, switching to energy and resource-saving technologies as a means of increasing productivity and release of large investments;
- improve awareness of domestic and foreign business investment opportunities of firms, industries and regions, investment opportunities in Ukraine, terms of economic activity and macroeconomic situation in Ukraine, the situation in the markets, and production capacity of Ukrainian enterprises like.

Only the implementation of these guidelines strategy to stimulate investment in Ukraine will significantly increase productivity in enterprises improve efficiency and competitiveness, strengthen national investment potential. So fundamental strategic objective must be create an attractive investment environment that will attract investment, including foreign investment in all sectors and industries to further socio-economic development of Ukraine and will be the subject of further research in this paper.

Thus, the implementation strategy of the national economy is directly related to the increase in the volume and quality of investment, creation of favourable conditions for attracting investment resources.

The main determinants of the activity of the investment process are the state of the national economy and the effectiveness of macroeconomic controls, primarily, tax, credit, depreciation policy. Investment process responds to the phase of the business cycle in the phase of the crisis is rapidly decreasing investment potential and investment performance will decline faster than with other macroeconomic indicators. So in Ukraine in 2011 GDP decreased by 15.8%, industrial production by 22% the volume of assimilated investments in fixed assets – by 41.5%, the volume of construction works – by 48.2%.

In 2012, investments in fixed assets from all sources totaled 150.7 billion (excluding VAT), in comparable prices is by 40.4% less than in pre-crisis 2007. The main source of investment are equity entities, from which in 2012 financed 55.7% of investments in fixed assets. The share of state and local budgets in total investment amounted to 9.1%, of public funds for individual housing construction – 13.8%, bank loans – 13.7%, foreign investors – only 2.3%. Reducing public investment and increasing the share of capital investment from own funds of enterprises and organizations have led to a reduction of state support of investment unprofitable industries.

Figure 2 shows the structure of investments in fixed assets by sector in 2012: investments in real estate, renting and business activities (21.7%) exceeded investment in transport and communications (17.0%), and investments in trade, repair of motor vehicles and personal and household goods (6.9%) higher than investment in construction (2.9%).

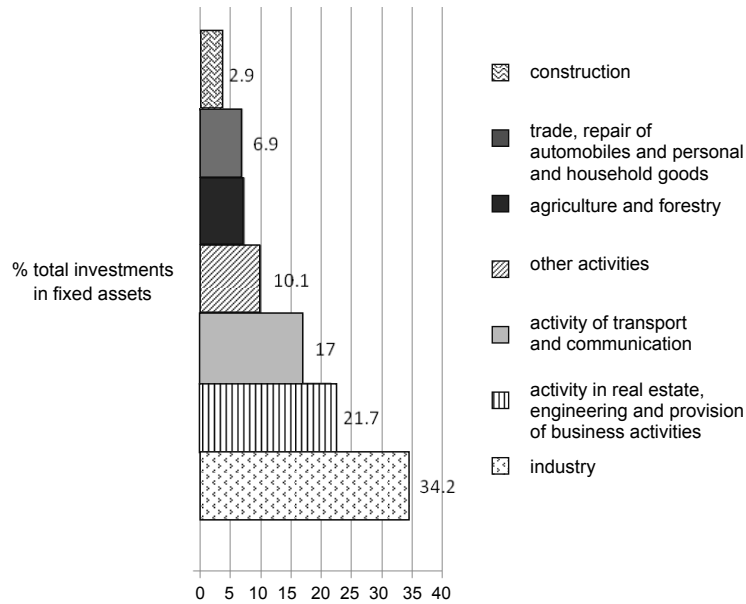

FIGURE 2. Structure of investments in fixed assets by economic activities in 2012

Source: Data from the website of the Ministry of Economy.

More than a third of all investments in fixed assets (34.2%) focused on the development of industrial production, more than half utilized in the processing industry. Attractive sector food, beverages and tobacco (24.2% investment in the manufacturing industry). Significant results were also part of the chemical and petrochemical industry (12.3%), manufacturing and electricity, gas and water (14.9%), industry (8.8%) and engineering (7.5%). Consequently, most of the investment resources that came into the industry was aimed at that industry, not in the high-tech innovation and multiply potential. The current distribution of fixed investment by sector plays imperfect structure of the national economy strengthens inherited macroeconomic imbalances.

CONCLUSIONS

Summing all the above said, it can be concluded that the investment process in Ukraine are developing not efficient enough. The amount raised through the investment of funds in the economy of our country are increasing from year to year, but the system of development should be improved.

The most advanced form of investment for the Ukrainian economy is investment in fixed capital and foreign direct investment. Although these types of investments do not belong to one classification group (not classified by the only sign), they form the largest group of investment.

Development and stable growth of investment in fixed assets is primarily due to the fact that domestic enterprises are extremely necessary to modernize and diversify with fixed assets. Indeed, a significant number of strategic industries was established in the days of the Soviet Union and now urgently need to bring data capacity in line with the present.

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INWESTYCJE JAKO ELEMENT STRATEGII ROZWOJU GOSPODARKI NARODOWEJ

Abstrakt. Artykuł przedstawia problematykę i tendencje w kształtowaniu działalności inwestycyjnej na Ukrainie. Ukazano strukturę procesu inwestycyjnego jako głównego źródła inwestycji i wiedzy o procesie inwestycyjnym na Ukrainie. Określono również czynniki mające wpływ na tendencje w kształtowaniu obszaru inwestycji, z uwzględnieniem potrzeby stymulowania inwestycji i poprawy klimatu inwestycyjnego.

Słowa kluczowe: źródła finansowania inwestycji, decyzje inwestycyjne, proces inwestycyjny