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ABSTRACTS

THE THIRD INTERNATIONAL

SCIENTIFIC CONFERENCE

Statistics of the XXI Century:

New Challenges, New Opportunities

KYIV 2015

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ABSTRACTS

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Statistics of the XXI Century: New Challenges, New Opportunities. Proceedings of the international scientific conference. Kyiv.: Taras Shevchenko national university of Kyiv, 2015 – 58 p.

Responsibility for submitted material remains with the authors.

REGIONAL STATISTICS AS A COMPONENT OF REGION MANAGEMENT

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Last years regional policy in Ukraine becomes more important. The reason is politics of decentralization and federalization. Reorientation of the economy led to a change in priorities in the evaluation of regional development. In Article 2 of the Law of Ukraine "On the promotion of regional development" formulated in detail the purpose of promotion of regional development directions for sustainable development in the interests of all regions of Ukraine, improvement of living standards, overcoming poverty and unemployment and forming of middle class. In connection with need to achieve these goals is becoming more actual need for complete and reliable information support processes that take place on the basis of regional statistics.

Regional Statistics is a system of objective economic statistics, which based by territorial sign. On the basis of the regional statistics performed evaluation of the level economic development of the region, its investment attractiveness and market conditions. It allows you to define the goals and objectives of management, to develop socio-economic development, make decisions and monitor their implementation.

Perspectives Ukraine's integration into the EU also needs to determine the regional statistical information that meets the standards and requirements of Eurostat and should be the basis for comparisons of socio-economic development of Ukrainian regions with regions of the EU.

So it is advisable to make the following conclusions:

- Regional statistics as regional management information base is specific, which distinguishes it from other sections of statistical science. The difference is observed and analyzed geographically distributed statistics. Regional statistics creates a system of statistical indicators, which characterizing the economic structure of the region;

- Setting targets regional statistics and their realization will improve the quality of statistical base and meet the needs of the information provided in the management of the regions of Ukraine.

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PROBLEMS OF FORMING BUSINESS INFORMATION DATABASE RESEARCH - PROCESSES

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Statistical report is the main organization form of observation, which helps to compare, analyze and control different areas of economic system. Reports of enterprises, institutions and organizations are usually considered as the most important source of statistical information.

Currently, such types as state and industrial reports are used in most cases. The state reporting is a special system of reports, which provides information about the social and economic processes, providing further analysis and control of the Ukrainian economic development. Industrial statistical reporting is a system of reports which are characterized as intersectoral or sector-limited ones.

Since 2012 Ukrainian public stock companies, banks and insurance companies and companies of some branches (the list of which is approved by the government) must meet International Financial Reporting Standards in order to ensure transparency and comprehensibility for their foreign partners and investors.

The first step of international standards implementation was the governmental resolution of 28.10.1998 №1706 "Programs Accounting Reform of the International Standards".

There are both international and national financial reporting standards in Ukraine. These standards especially differ in details. Unlike national standards, international ones provide a large number of notes revealing the essence of operations in details. For example, the governmental resolution has no reports to disclose information by segments of business, the amount of unused credit facilities, etc. International standards provide more detailed disclosure requirements of the accounting policies and standards which are focused on the reflection of objective information about the current financial position of the company, because they are based on real data (fair market value of assets and liabilities).

As for prospects of the IFRS, we can state that it can become an effective tool for improving the transparency and clarity of the information that reveals the activities of the entity, creates reliable basis for income and expenses, so as assets and liabilities are estimates that enables objectively reveal and reflect existing financial reporting risks in business and to compare the results of their activity in order to ensure adequate assessment of their capacity and decision-making.

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THE ANALYSIS OF DYNAMICS OF THE FOREIGN TRADE IN SERVICES OF UKRAINE USING ECONOMETRIC METHODS

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The foreign trade in goods and services of Ukraine takes an important place in the structure of the Ukraine's balance of payments. The balance for the foreign trade in services of Ukraine unlike trade in goods has been positive in recent years.

The dynamics of the Ukraine's foreign trade in services was analyzed based on the relevant quarterly indices for 2010-2013 taken from the official website of the State Statistics Service of Ukraine. The dynamics of relevant indices of foreign trade in services was researched using additive models, separating trend and seasonal components.

Trade with the CIS countries, Europe and Asia takes the main place in the geographical structure of foreign trade in services of Ukraine. We can conclude taking linear trends as trend components that almost all models, except exports of services from Ukraine to CIS countries and imports of services to Ukraine from Asia, describe the export and import of services rather well. They describe from 57.1% (for imports of services from Europe) to 87.9% (for exports of services to Asia) established indices.

We investigated indices which exceeded 5% in total exports or imports of services in 2013, namely transport services; business services; services in the telecommunications, computer and information services (computer and telecommunication services till 2013); services related to financial activities; royalties and other services related to the use of intellectual property; public and government services; services related to travel took into consideration the structure of exports and imports of services.

Finally, we considered the exports and imports of services by region of Ukraine. We received that Odessa, Donetsk,

Mykolaiv, Dnipropetrovsk, Kyiv regions, Crimea and Kyiv took significant places (more than 3% in 2013) in total exports of services. Similarly Donetsk, Dnipropetrovsk, Kyiv regions and Kyiv took significant places in total imports of services. We shall note that only linear trends for exports of services from Dnipropetrovsk region, Crimeaan Kyiv so well as imports of services to Kyiv describe more than 50% of a variation of these indices.

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FORMATION AND DEVELOPMENT ISSUES OF STATISTICS OF AGRICULTURAL AREAS

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Under the present conditions, the development of agricultural statistics takes place in a new way- namely, through the transition to statistics of agricultural areas. The need to analyze the socio-economic and environmental development of agricultural regions causes an increased interest in the study and discussion of the process.

The primary goal of current stage is to define statistics of agricultural areas as an object of study, formulate its goal, objectives and develop appropriate methodology. The confirmation of relevance of these issues is the research of leading international organizations in the field of agricultural statistics, namely United Nations Statistics Division (UNSD), World Bank, Food and Agricultural Organization of the United Nations (FAO), European Statistical Office (Eurostat) etc.

They developed a conceptual framework for further improvement of agricultural statistics from global to national levels. This concept integrates economic, environmental and social aspects of agriculture in order to measure well-being of

households depending on fertility of the land the environment in which they live. A farm as an economic unit is considered in single complex with household as social unit that is inextricably linked to the land they occupy. The main source of statistical information is the national agricultural census, which contains data regarding land resources, irrigation and water management, cultivation of crops and livestock, food security and household management.

The transformation process of agricultural statistics based on this concept recognizes the necessity to take coordinated measures, both international organizations and national statistical offices. The first step in this direction could be shift from sectorial to functional approach to statistical analysis which implies statistics of agricultural areas. This notion has no clearly formulated definition nowadays, but the idea comes down to transition from descriptive to inferential statistics. Development of statistics of agricultural areas is a matter for further research in order to identify key indicators and database information management, improvement of observation programs and research methodology.

Therefore we can formulate the main tasks facing statistics of agricultural areas: definition of conceptual foundations for statistics of agricultural areas and development of program and methodological framework for statistical evaluation of potential of agricultural areas.

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STATISTICS OF THE STATE OF THE MARKET IN MANAGEMENT OF THE HIGHER EDUCTION QUALITY

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Practical realization of the regulation of the Law of Ukraine "About the Higher Education" concerning the estimation and management of the quality of training of the higher educational establishment and the quality of grounding of their graduating students requires making the appropriate methodology, working out the methods and terminological basis. The latter must be based on the generally accepted terms and notions regarding the quality, its estimation and management.

As it is know, the quality is defined by the object itself and its difference from the other objects. The use of the given definition in practice requires to solve the following two theoretical problems: 1) choosing the standard with which the other objects will be compared in order to establish their correspondence to the required notions; 2) working out the system of limits of deviation from the standard in relation to certain parameters of object, the exceeding of which will allow to assert that it doesn't correspond to the standard. Such approach corresponds to the definition of the notion "quality" given in the Standards of ISO 9000.

The initial point in estimating the quality of the higher education is to regard the system of higher education as the component of market economy. The above mentioned estimation, in this case, will be based on the statistics of the state of market (labor, graduating students, services of the special education) taking into account the peculiarities of the higher educational establishments in "producing" the specific "goods" – the

specialists with the higher education. Such approach causes the necessity to use while estimating the quality of the higher education, the regulation of the notion "quality", which is used in statistical provision of quality of goods and services. In particular, such regulation as "quality – it is the possibility to use". This requires the guaranteeing as the quality of the process of producing the product itself so correspondence of the finished goods to the demands of the specifications approved beforehand.

At the same time the direct use of the statistical methods of guaranteeing the quality of products and services in guaranteeing the quality of higher education is impossible in connection with the following: 1) variations of the demands of the employers to the knowledge and skills which the specialists must have in order to work at a corresponding positions; 2) variations the conditions of work of the similar positions at different employers; 3) changes of the time demands as to knowledge and skills of specialists, caused by the development of science, engineering, technique and organization of work.

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SUBSTANTIATION OF THE CHOICE OF THE HIGHER EDUCATION QUALITY STANDARDS IN UKRAINE

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Traditionally the system of education is regarded as the necessary condition of receiving the systematic knowledge, skills and habits, training a person for life. In modern conditions the development of world economy is defined by the knowledge in the form of ideas and technology. In the most countries it made the educational establishments and the bodies of educational management build their strategy of educational development on the principles of qualitative continuous education.

Taking into account the leading role of the quality of knowledge in determining the trends and the rate of development of the world economy the estimation of the quality of the higher education in Ukraine must be based on the following principles:

1) harmonization of the national system of education in Ukraine with the system of education in European countries, that will favour the entering of Ukraine into the European educational space;

2) spreading of information about the correlation of the contents of the curriculum and the trends of education in the higher educational establishments with the demand of the labour market, that will ensure the grounded formation of demand for the education of relevant level from the side of university entrants and for the graduating students from the side of employers.

Regarding the specialist with the higher education as the product in the labour market and taking into account the specificity of the state of the market of this product the theoretical-methodological principles of estimation of the quality of the grounding of specialists and the quality of their correspondence to the standards of the market must by considered in interconnection. Such estimation according to the definition of the notion "quality" in the standards of ISO requires to choose: 1) the standard of the educational activities, which will serve as the basis for building the system of higher education in Ukraine; 2) the criterion for characterizing the achievement of the degree of correspondence to this standard.

The structure of the curricula of the grounding and the contents of knowledge which students acquire at the higher educational establishments in European countries must serve as such standard. The systems of education in these countries have been functioning in the conditions of market economy for a long time it means that they form the offer of educational services and the graduating students-specialist according to the demands in the market.

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PROBLEMS OF INDUSTRY FORECASTING IN UKRAINE

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Today industry is the most important economic activity in Ukraine. It employs about 16% of the employed population. Moreover this activity is characterized with high level of employment multiplier. The average nominal wages of employees in this type of activity is by 15.2% higher than the average wages in the country. In 2014, in total volume of capital investments in Ukraine, excluding the occupied territories, almost 40.6% was accounted for by industry.

Strategy of industrial development of Ukraine requires development of efficient forecasting models.

Questions of economic and social forecasts are regulated by the Law of Ukraine "On State Forecasting and Development of economic and social development programs in Ukraine".

Because of cyclical character of economic crises that are currently inherent for Ukraine, the reliability of medium-term projections, not to mention the long-term, can not be high. That's why short-term forecasts become more important.

Unstable statistical classifications, especially NACE are quite an important problem in forecasting.

In new version of NACE (NACE 2010) the number of sections and divisions has been changed, the composition of the divisions has been changed too, subsections have been removed. Such changes in the structure cause difficulty in time series joining.

At the groups level, there can be set relations between components of two revisions of the classifier. For divisions we can only talk about the possibility of time series joining with relatively minor losses. There is also a problem of array integrity when it comes to forecasting of all industries simultaneously. The problem of economic researches may also be that the correspondence between two revisions of classifiers typically occurs at different

levels of the hierarchy. Time series forecasting needs time series calculated by NACE 2010 at least for 2009-2014.

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STATISTICAL ASPECTS OF MULTIVARIATE EVALUATION APPLICATION

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In modern statistical researches a usage of univariate estimates does not allow to create an adequate statistical models. Only a multidimensional evaluation of essence of socio-economic phenomena and processes complex allows to create an adequate statistical models, and therefore more accurately explore social processes.

Nowadays many scientists are actively applying multivariate analysis methods, but do not pay attention to the application of statistical prerequisites and specific of most methods of analysis. Each method has its own feature, which is conditioned to the mathematical properties of the algorithm application. The combination of a several diverse algorithms in a single multidimensional assessment inevitably lead to final estimates distortion. Therefore a very important task is to resolve algorithms compatibility issues and study of distortion estimates of research results patterns.

The paper studies the use of statistical and mathematical features especially in plural evaluation of social phenomena and processes. Detailed features description allowed to form a plural statistical evaluations that take into account the peculiarities of patterns of the phenomenon and the feature of algorithm analysis methods.

Solving these problems will increase the degree of reasonableness of the results of statistical evaluation and reveal a

new research direction – creating adequacy assessments at plural evaluation.

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STATISTICAL ANALYSIS OF THE SOCIAL INSURANCE FUND OF UKRAINE

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The critical state of the national economy, poverty and unemployment have increased the role of objective social funds. Along with this military aggression increases the vulnerability of citizens and requires the development of strategies to ensure the desired level of security. The above problems caused understanding that social protection should be an integral part of any process in the country.

Ministry of Economic Development and the State Statistics Service of Ukraine launched methodological approaches to integrated assessment of economic security of Ukraine. In this method, economic security is defined as the state of the national economy, which makes it possible to maintain endurance to threats and able to meet the needs of society. As part of economic security is social security, when the state is able to provide a worthy standard of living independently of the influence of internal and external threats.

For evaluation social security should be considered activities of Fund for Unemployment Cases. Currently termination of insurance payments by Pension Fund (pensions), Fund for temporary disability (unemployment benefits), Social Insurance Fund (payment of hospital, maternity services, payments due to injury at the workplace) can lead to social disorder in the country.

The social insurance system engulfs about 23 million insured and 12.8 million retired persons or 86% of the population

of Ukraine. The costs of social insurance in Ukraine in 2014 is about 18% of gross domestic product.

It is reasonable to consider the payment of social insurance types and how filled revenue and deficit of each of the Funds in determining social indicators of economic security component. Also it is necessary making analysis of the effectiveness of insurance rates that affect the financial stability fund.

Statistical analysis necessary for making effective management decisions concerning activities of the social insurance fund of Ukraine. This analysis should be based on a comprehensive research of each Fund (by type of social insurance) and study of both internal and external environment of their functioning. At the present stage adaptation is necessary also gained experience in applied statistics with the objectives of reforming the state social insurance during the crisis and fighting in the country.

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POSITIONING TOURISM ENTERPRISES IN THE TRAVEL MARKET OF UKRAINE

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Travel market is different from any other markets, especially complex structure, dynamic development capacity. These characteristics emphasize its uniqueness and consumer orientation. Active business market competition improves the quality of tourism services, variety of tourist offers.

The most common error management travel companies - no systematic work on positioning the company and / or its tourism products. If a travel company on the market for several years, perhaps the buyers already had some idea about it.

Positioning travel company and assessment of its competitive position required for:

- Development of measures to improve competitiveness;
- The choice of firm partner organization of joint activities;
- Involvement of the investor's perspective tourist destination;
- A program exit travel company into new markets and create a network for the promotion and sale of tourism products and others.

Despite the importance of these issues in the practice of travel agencies more common "natural" positioning travel agency or tourism products - on a "how come".

In any case, the assessment aims: to determine the position of a travel company in the marketplace tourism. Achieving this goal is possible only if timely and objective methodology for assessing competitiveness.

The main approaches to positioning:

I. Descriptive approach in positioning the travel agency. The easiest positioning technique is descriptive approach. The company is trying to formulate (orally or in writing) vision of its place in the market as opposed to the position of its nearest competitor. In this case descriptions can be quite simple.

II. "Hard" approach to positioning technology tourism products - widely used approach to product positioning of the company (product or service) described in the famous book by American marketers Kotler.

III. "Soft" approach to positioning technique proposed D. Ogilvie travel agencies (advertising agency Ogilvy and Meyzer).

For management and strategic decision-making analysis of the competitiveness of the tourism enterprises can be determined based on an integrated assessment of the tourist market.

To calculate the integral competitiveness of tourism enterprises defined system of indicators to be involved in the sales process proposed tourism product:

1) the cost of fixed assets;
2) Turnover and return on equity;
3) The turnover of working capital;
4) Performance of labor resources, including labor productivity.

5) The profitability of the company;

6) Selling price of a tourist product.

Methods ranking tour operator consists of the following stages:

- defining the goal;
- Development Scorecard for justification of rating communication policy and financial situation of tourism enterprises;
- gather information that reflects the status and dynamics of tour operators;
- choice of method standardization of indicators;
- generalizing the definition of standardized assessment of the indicators;
- ranking enterprise value ratings;
- Making appropriate management decisions.

According to the research of the tourism market Ukraine Ukrainian Marketing Group (UMG - International) was selected top 20 tourist operators in Ukraine. The results showed that the market is sufficiently large number of carrier companies. In the most popular segments of Turkey and Egypt, which account for over 50% of flows, are absolute leaders TEZ Tour, Turtess and Pegas. In its Croatia, Montenegro, Greece, Cyprus, Bulgaria and Tunisia are the leaders of NEWS Travel, which came in the top 3 completely across the board, with the four of them in the first place, and TUI, which came in the top 3 for three directions. If the price level agencies prefer to work with the following operators, recognizing their most comfortable (Top 5): TEZ Tour, Turtess, Pegas, NEWS Travel, Coral Travel.

For the construction of rating Ukraine tour operators used six parameters that characterize the financial position of 20 tourism enterprises by 2014: return of the tourist product, asset turnover ratio, capital intensity, the total coverage ratio, ratio of financial debt figure synergistic effect of integrated marketing communications (IMC). The indicators are considered Equilibrium, with capital intensity ratio and financial liabilities are destymulyators, the rest indicators - stimulators.

Conducted according to the financial statements and statistical analysis of financial and business tourism enterprises Ukraine suggests that the positioning of tourism enterprises is different segment of tourist flows, depending on the direction of travel.

Use rating Tour operator based integrated assessment possible to identify three groups of tourism enterprises: high, medium and low integrated assessment and to evaluate differences in responses by the rating and ranking based on integrated assessment. The influence on the value of integrated assessment index synergistic effect of integrated marketing communications was the largest that can offer include the calculation of this indicator in analytical work of the marketing department of tour operators to improve the policy of integrated marketing communications business travel.

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STATISTICAL BENCHMARKING OF CREDIT BUREAU: CONCEPTION AND APPLICATIONS

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An institute of credit bureau is important infrastructural element of the developed financial markets. It provides collection of credit reporting and their exchange between creditors. Existence and operation of bureau of credit histories enables to solve the number of economic problems. Namely, credit bureaus reduce the informational asymmetry in credit relations, decrease expenses of the information searching, and reduce the moral hazard risk. Together with this, credit bureaus have significant potential in a statistical sense. This potential can be effectively realized at the framework of the statistical benchmarking conception.

Conception of credit bureau statistical benchmarking consists in organization of comparative analysis between

parameters of concrete creditor and market as a whole. The comparative analysis may include near one hundred indicators which characterize credit activity comprehensively. In addition, such statistical analysis can be conducted on separate market segments and on the different stages of interaction between lenders and borrowers.

Application of benchmarking can be used for estimation of credit activity effectiveness, for the analysis of different market segments, for the strategic planning, for the increase of quality of creditor`s internal processes and for many other tasks.

The institute of credit bureaus has been developing in Ukraine since 2005 year. Nine bureaus are presented in the Ukrainian state register. Three largest bureaus have an enormous volume of information: 95% borrowers (physical persons) are already presented in one of these bureaus. Such volume of information allows effectively realize conception of statistical benchmarking at the Ukrainian market and forms basis for benchmarking using.

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MACROECONOMIC INDICATORS MODELING. MYTHS AND REALITY

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Nowadays, a confusion in the possibilities of using formal mathematical and statistical modeling system for macroeconomic indicators, begins at the conceptual apparatus. In fact, mathematical and statistical models in economics are mathematical related system that describes some economic object, process or phenomenon. Besides the similarities in the definitions, there is a similarity in developing goals of mathematical and statistical models in economics (SME) - a mathematical description of the patterns of economic phenomena and processes.

However, it has two distinctive features that are inherent for statistical model: (1) is not a result of mental abstract generalizations and (2) SME may describe both functional and stochastic relations (mathematical model - is always a function).

Choosing the structure and form for SME depends on: (1) the available information, (2) capabilities of theoretical phenomenon or process submission, (3) research purposes, (4) object specificity and data processing methods.

In contrast to mathematical models SME development faces difficulties related with the need of deep understanding of the essence of phenomena and processes. Secondly, SME, which are developed for sets of objects to characterize economic systems and based on consolidated statistics - impossible to unify.

An incorrect usage of mathematical models to predict macroeconomic indicators doesn`t bring benefits and likely harm for correct understanding of the nature patterns that occur in the macrosystem. This applies particularly to GDP simulation by regression analysis means. The possibility of using regression analysis requires compliance with certain requirements: the presence of a large sets, normal distribution of unit sets by features, homogeneity of sets and absence of interdependencies. It is clear that the simultaneously implementation of these requirements for macrosystem are only possible under the conditions of set formation on the basis of randomness which by itself is not possible in the absence of units sets.

Despite this, the question is arisen: why macroeconomic indicators are modeled by using regression?

There may be a few replies: (1) misunderstanding of the correlation-regression analysis principles; (2) misrecognition that they are not random variables but calculated indices; (3) lack of knowledge of other tools of macroeconomic analysis and modeling.

Thus, there is no need to model macroeconomic indicators, especially GDP by means correlation and regression analysis, as functional relationships are dominated and there is no need for averaging.

Regarding the GDP forecasting: it may be carried out only by assessing possible changes by components. GDP - it is specified value that not a random variable, not a mass process (there are no individual data on it) and which has an inherent inertia.

If we regard the dynamics of macroeconomic indicators, it must be understood that we are speaking not about the influence or relationship but about similarity or dissimilarity of trends.

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METHODOLOGICAL FEATURES OF COMPLEX ESTIMATION OF FOOD SECURITY AT THE REGIONAL LEVEL

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Passing of Ukraine to the market economy generated quite a bit factor that assist appearance of different dangers both at the level of person and firm and at the level of region and state the whole.

At the level of Ukraine has been developed the system of indicators for integral estimation of economic security, which consists of 10 blocks and 117 indicators. In this system are also included 34 indicators which, in our opinion, characterize the socio-demographic security, which has allocated a separate block and included a component of national security.

Among the indicators of socio-demographic safety, all more attention in recent years is paid to food security. In 2012, the experts of Economist Intelligence Unit (EIU) have developed in order of DuPont the Global Food Security Index, which contains 28 indicators and is calculated for 109 countries. By this index Ukraine occupies 52nd place with the index 56.4. In 2014, to the previously-developed indicators to calculate this index were added two more: the level of obesity and food loss.

Most of the indicators of the index received from special surveys of various international organizations. Many of them are absent the in the official survey of the State Statistics Service of Ukraine. From determined 11 indicators to measure the food security of Ukraine for areas can be offered only 8 indicators.

Complex evaluation of food security can be performed by the classical formula of multidimensional average .Also it is very important for integral estimation to evaluate the food security based on the definition areas of risk: normal, pre-crisis, crisis and critical.

Finally attribute characteristics using the scale advantages converted into quantitative characteristics and calculated average level. Such calculation makes it possible to determine the rating of regions of Ukraine by the indexes of food security. Such assessment makes it possible to make management decisions for further regional development.

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PROBLEMS OF CLASSIFICATION OF CONSISTENCY IN THE SERVICE SECTOR

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Services sector today - is one of the most promising sectors of the economy that is rapidly developing. In developed countries, the service sector is the largest sector of the economy, about 70% of the world's economic activity is associated with it. Services are 20% of world trade. In Ukraine, the service sector is 55% of GDP.

In recent years, Ukraine has a policy specifically for integration into the European community, seeks to strengthen its foreign economic relations with all countries. The rapid development and increasing of the share of services in the economy escalated the problem of statistical evaluation in this area.

A wide variety of services requires an effective system of classification. There are many developments in this regard. However, most authors are limited to the national economy and do not take into account the classification of international organizations.

Thus, in Classification of Economic Activities (CEA) to industries providing services include: trade, transportation, information and telecommunications, financial and insurance activities, real estate, public administration and defence, education, health, the arts, sports and other services, thus allocated 15 sections. This division is in harmonization with international standard on classification of economic activities types UN (ISIC / Rev.4).

In the System of National Accounts (SNA) services as economic activity are divided into four categories: consumer (restaurants, hotels, home services); social (education, health care, and charitable service); manufacturing (engineering, consulting, financial and credit services); distribution (trade, transportation, freight).

WTO GATS classifies services in: business; audio-visual communication services, construction and related engineering services; distribution services; educational services; financial services; Health and Human Services; tourism and travel; services, recreation, cultural and sporting activities; transport services and other.

Thus, the classification by GATS and national classifications of services are not always consistent with each other, due to the nature of first reference. Such differences do not create conditions for high quality analytical work.

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METHODOLOGICAL ISSUES OF IMPROVEMENT OF AGRICULTURAL STATISTICS

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According to general methodology of FAO agricultural censuses usually held once every ten years are the basis of integrated system of agricultural statistics. Agricultural censuses involve the aspects of agriculture that are changing slowly over the time – so-called "structural" data. These key data are collected within the scope of main module. More detailed data are obtained by the means of thematic agricultural surveys carried out by sampling method.

The integrated system also makes provision for the implementation of the program of periodic agricultural surveys based on agricultural census in order to obtain the necessary data on agricultural activity. These data are obtained from agricultural census in addition to structural data.

Due to Eurostat methodology structural surveys of agriculture include Farm Structure Survey (FSS) and Survey on Agricultural Production Methods (SAPM).

Statistical information obtained by the means of structural surveys of agricultural holdings plays a key role in developing, implementing, monitoring and evaluating policy in the field of agriculture. Structural surveys of agricultural holdings – agricultural censuses and sample surveys in between – are the basis of the system of agricultural statistics in EU countries. They provide micro-data on agricultural labour force, land use, livestock, equipment and non-agricultural activities. They are also statistical basis for sample surveys on land use, livestock and agricultural income of agraricultural holdings in EU.

Development of national methodology taking into account the peculiarities of domestic agriculture with the use of

recommendations and guidelines of FAO, Eurostat and some developed countries is very promising in Ukraine.

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CHANGES IN CLASSIFICATION OF ASSETS IN SNA 2008 COMPARED TO SNA 1993

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System of National Accounts (SNA) are international standard and a key to economic analysis. It plays an important role in both developing and monitoring economic policies. Ukraine at least initially compiled only a small part of the SNA 2008.

Implementation of the fully integrated SNA 2008 will take some time and will need to progress at a rate determined by the differing needs and circumstances of the Ukraine. Ukraine will need to revise its underlying accounting system to reflect the accrual accounting principles and revised classifications of the SNA 2008.

Discusses some of the changes in coverage and classification of assets in the SNA 2008 compared with 1993 SNA. Also characterized by their influence on key indicators of national accounts. The asset has been extended in the 2008 SNA in comparison with 1993 SNA, covering the issues such as risk, demonstrable value and constructive obligations. It is defined as a store of value representing a benefit or series of benefits accruing to the economic owner by holding or using the entity over a period. It is a means of transferring value from one accounting period to another.

It is shown, that with regard to the classification of assets, the 2008 SNA, like its predecessor, distinguishes at the first level of the classification between non-financial assets and financial assets/liabilities. The characteristic of produced and non-produced

assets had done. Described, that Non-produced assets in the 2008 SNA are split into three categories, natural resources, contracts leases and licences, and purchase and sale of goodwill and marketing assets.

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CURRENT TRENDS IN UKRAINE BIRTH RATE MODEL

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The second demographic transition describes the various changes in family relationships and reproductive behavior. The second demographic transition is a change in types of reproduction, i.e. transition from extensive type of reproduction of the population with high levels of mortality and fertility to the intensive type of reproduction with low levels of mortality and fertility.

Overall, in the early 21st century the model of age-specific birth rate in Ukraine is transformed similarly to the changes that have occurred in Europe in the late 20th century. The increase in fertility in recent years is tied to implementation of postponed in the 1990's first births and increase of the second/higher births in order of priority share. Government stimulus measures had a positive effect. The factor of age structure in recent years has boosted fertility, sometimes dominating contribution of intensive factor.

The sign of the second demographic transition is not so much a decline in fertility itself as postponing parenthood to a later age. "Aging" of the fertility age structure takes place in two phases. During the first phase of this process and as long as a new model age is established, fertility rates remain low for a long time and may not be used for prognostic assessment of the final birth rate of current generations. During the second phase the effect of

changes in births rates is a very strong factor that leads to a rapid drop in annual fertility rates frequently to levels significantly lower than required for population replacement. This state is maintained for a long time, because replacement of the old age family model to a fundamentally different model cannot happen immediately, within the period of one generation reproductive cycle.

In Ukraine, the transition to a new model of fertility was felt and probably would feel in the coming decades of social and economic reality. The degree of responsibility in taking marriage and making decisions on having children, while accounting for the current financial well-being, more likely will heighten, leading to a further increase in the average age of marriage and the average age of the mother at birth. The obvious trend towards the increase of vocational education terms, as evidenced by the thrust of young men and women to obtain higher education, give current postponements of births. This gives reason to expect that major changes in the birth rate in Ukraine will be linked with restructuring of the age curve along the way that has already been passed by Western Europe, and now being passed by Eastern and Central Europe.

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THE STATISTICAL ANALYSIS OF DEMOGRAPHIC CONSEQUENCES OF SOCIO-POLITICAL SHOCKS IN UKRAINE

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The population of Ukraine, like in the similar to most countries of Europe, is living within the narrowed regime of replacement, which leads to depopulation. This process is conditioned not only by objective demographic factors. On the

different historical stages depopulation in Ukraine was accelerated through negative influence of economic crisis and social catastrophes. During the 20th century the Ukrainian population suffered considerable tragic losses as a result of artificial famine in 1932-33, World War II and post-war repressions. Thus, it is not only about direct human losses but also accounting for the amount of unborn children as a result of deformed gender-age structure of population. During the last 12 years has been intensified the process of demographic potential recovery, increase of fertility and life expectancy, reduced the excess of males mortality, especially in active reproductive and working age. But in 2014 as a result of military conflict between Russia and Ukraine, occupation of the territory of Republics of Crimea and part of Eastern Ukraine, the population had experienced considerable losses.

In this work we attempt to estimate the demographic consequences of annexation of Crimea, in particular, size of the real and expected demographic losses in Ukraine. For this purpose, the statistical methods of modeling and cohort-component method had been used.

This study uses the data of the National Statistics Service and State Border Service, Ministry of Social Policy of Ukraine.

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POLAND AND UKRAINE IN THE LIGHT OF PARADYSZ'S PERIOD FERTILITY MODEL

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In the modern fertility analysis we distinguish the tempo and the structure of births. In the cohort analysis we dispose many

possibilities to describe human reproduction process. The period analysis is not so reach and we would like to use the same methods in the both one. Many years ago one of us have proposed a decomposition of the period total fertility rate in order to calculate period "theoretical" birth intervals. Combining the two systems demographic analysis (parity progression ration and increment-decrement tables) we decompose the "classic" total fertility rate (TFR) on the last and non-last children in period analysis. This allows you to calculate the number of useful parameters to better diagnose the current demographic situation in terms of cross-sectional analysis. Among these parameters are period birth intervals.

In the present article we are analyzing the tempo and structure of women fertility in Poland and Ukraine starting from 1960 in the terms of Paradysz's model. Through to our analysis we can conclude a few turning points. The most important seems to us year 1985 in Poland, Ukraine as well in Russia, which also was partially included for comparisons in the years 1960-2009. In terms of the number of non-last children Ukraine is very similar to Russia while "last" children without younger siblings were at a similar level to the Poland. The differences between the Poland and Russia were much large.

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FOREIGN-TRADE PARTNERS OF UKRAINE: STATISTICS OF TODAY'S CHANGES

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Creating a favorable investment climate is one of the most important tasks for Ukraine, because it determines the dynamics of social and economic development and the pace of modernization of the national economy. Amid the crisis that exhausts our country

today, improving international cooperation is extremely important for Ukraine.

Current events in Ukraine require fast and efficient economic reforms, reorientation to the European market, and searching for new markets of sales. The desire to achieve European standards and values poses Ukraine an extremely difficult task.

Trade between Ukraine and the EU has expanded during 2009-2013, according to the State Statistics Service of Ukraine. Exports of goods increased by an average of 1811 million US dollars or 15.2% a year, while imports of goods surged at an annual pace of 2902 million US dollars or 15.0%. The imports increased consistently each year over the period, however exports of goods declined in both 2012 and 2013, reaching a value of 16758.6 million US dollars in 2013. In 2013, Ukraine`s main EU trading partners were Poland, Italy, Germany, Hungary, the Netherlands, France, the United Kingdom, Germany and Cyprus.

According to the State Customs Service, in 2013 the largest group of Ukraine`s trading partners were CIS countries with 36% of total trade turnover. Then came the European Union countries - 31%, while Asia accounted for 23%. However, in 2014 the EU countries overtook the CIS with 35.5% of total turnover. The trade with CIS was responsible for 29% of total trade, whereas Asia remained the third with 24%. The year-to-year increase in Ukrainian exports was registered in the Netherlands (7%), Italy (5%), Poland (4%), Germany (1%).

In 2014-2015, the geography of deliveries of grain crops, one of the most important Ukraine`s export items, has expanded significantly. In addition to the traditional supply to Saudi Arabia (up 1.7 times year-to-year), substantial amounts were exported to Turkey, Iran and China, where Ukrainian barley was not exported last year.

Moreover, Ukraine has seen dramatic changes in the composition of natural gas purchases. Previously, 95% of the imported gas was purchased from Russia, whereas over the past year 67% was purchased from Europe and only 33% from Russia.

The main reason for the decline in exports outlined above is the continuing fighting in the Donbas. As a result, in the pursuit of continued development, Ukraine reorients its trade interests towards the European Union and other non-CIS countries.

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ANALYSIS OF USEING SAVINGS UKRAINIAN HOUSEHOLDS

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Attraction of savings to investment processes is a hot topic for Ukraine throughout the period of formation and development of its economy. An important issue is not only a more efficient use of already existing savings in an organized manner (the deposits in banks; the non-bank deposit-taking institutions deposits; the acquisition of securities investments in insurance policies, but also to convert to cash (unorganized) savings in organized form.

Critical analysis of the scientific research on household savings found insufficient to develop of methodology for statistical analysis of saving Ukrainian households. Hence the need for further theoretical justification, practical experiences, the development of the necessary methodological support solutions to increase savings and improve the mechanism of public-private partnership to in promoting savings processes in Ukraine. In addition, the lack of comprehensive measures and, as a result, significant improvement in the rate of economic growth in Ukraine, resulting from the underestimation of the importance and role of temporarily free funds in financing the expanded reproduction, creates a need for further in-depth study of the topic.

The relevance and practical value of savings of households, financial institutions, transforming them into an investment resource for financing of the domestic economy on the basis of the

results of scientific analysis determined the choice of research topic.

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MEASURING QUALITY OF LIFE: OBJECTIVE AND SUBJECTIVE INDICATORS

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Quality of life has been recognized as an important construct in a number of social and medical sciences such as sociology, political science, economics, psychology, philosophy, marketing, environmental sciences, medicine, and others. However, each academic field has developed somewhat different approaches to investigate the construct of quality of life.

Quality of life means different things for different people. Despite of this researchers are still attempting to define and measure it. During the last five decades of last century, two main scientific approaches have been initiated: the use of "objective," or social indicators, and the measurement of subjective well-being.

Objective measurement is achieved through the use of social indicators. The use of objective, quantitative statistics is the symbol of objective assessment. General indicators of quality of life are ascertained by an establishment of a variety of life conditions across the population, such as education, infant mortality, social welfare, standard of living, crime rates etc.

Objectivity is one of the major strengths in using social indicators to assess quality of life. The indicators can be quantify without relying on individual perceptions and relatively easy to define. However, many argue that objective indicators may not be reflective of people's experiences of well-being. There are those who argue that there is no such thing as objective indicators, since they are based on the subjective opinion of those experts who

deem them worth measuring. More and more, researchers are admitting the need to "hear" the voices of people with developmental disabilities. Subjective measurement attempts to do just this.

The major advantage of subjective quality of life measures is that they catch experiences that are important to the individual. Most social indicators are indirect measures of how people feel about their life conditions, whereas subjective measures provide important additional information that can improve and validate the data provided by objective indicators. Also, subjective measures tend to correspond more closely to people's value systems than objective measures do.

Most researchers agree that the use of both objective and subjective measures provides the best overall picture of life quality, as opposed to preferring one measure over another.

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VALUE-BASED MANAGEMENT OF THE BANK

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Bank valuation describes the effectiveness of management, performance, stability and its attractiveness of the bank. Used as a strategic management tool for attracting investments, address mergers, acquisitions, turnarounds, restructuring of banks. In addition, the valuation of the bank makes it possible to identify the financial problems faced by the bank, increases opportunities to provide the bank the necessary financial resources, contributes to a more rational use of the latest, and improves control over its activities.

The value of the bank plays a core role not only when it becomes the object of market processes, but is also useful for the effective management. The important element of estimation of bank value is determination of the cost of capital. This concept characterizes the cost of financial resources. In other words, it is the investors' margin.

As a result of the study received an equity valuation of Sberbank, using asset-based and market approaches, the generalized cost of capital is calculated.

As part of the asset-based approach, analysis was used by the accumulating net assets. The net asset value calculated on the adjusted balance sheet under independent auditors' conclusion. The results obtained by the independent auditors reflect the real value of tangible assets of the Savings Bank on the valuation date.

Valuation of banks within the market approach was performed using the agreements. Selection of bank-counterparts conducted on the basis of statistical information on the volume of exchange transactions concluded on the stock exchange.

Calculations have shown the practical possibility of using asset-based and market approaches to the valuation of domestic banks. The efficiency of the methods allows to apply a similar approach to the analysis of the financial activities of other legal entities in Ukraine.

The value of shares of Oschadbank was calculated by the Black - Scholes and Olson models. The two factor model is developed as the part of income valuation approach, the point and interval prognoses of capital cost are received. All estimates, calculated in different ways, are within the interval. Capital of Oschadbank will range from 17 217 392 thousand UAH to 18 718 321 thousand UAH with the probability of 0.95. In general, the bank capital will range from 17 699 202 thousand UAH to 18 236 511 thousand UAH with the risk of mistake not more than in 5% of all the cases.

The results showed the practical applicability of the known techniques based on Black - Scholes and Olson models and the proposed two-factor model for the banks' valuation. Methods for

bank's capital valuation, which have been tested on the example of Oschadbank, deserve wide practical use.

The capital value received in the end of the research confirms the importance of the value-based management in order to increase the effectiveness of bank's management, assure the certain levels of bank's competitiveness, investment attractiveness and credibility.

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ESTIMATION OF SOCIO-DEMOGRAPHIC PROCESSESS USING REPRESENTATIVE SYNTHETIC MICRODATA SETS

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In the field of modern socio-demographic problems – complex assessment of the current situation, determination of the relationship between various population characteristics, predicting of trends – there is a significant number of issues, studying of which requires application of new, different from classical, research methods .

The report deals with the results of using the synthetic populations approach and life tables to determine the relationship between socio-demographic characteristics and mortality in Ukraine. It should be noted, that herein mortality is characterized by an empirical probability to die at a certain age, in other words model-based estimates of the respective demographic indicators.

The synthetic model of population is formed based on representative data sets from state population sample surveys. These data sets are adjusted using the data from life tables (in the case in question the adjustments were based on the data from "short" life tables). The result of such adjustment is a representative synthetic population (microdata), in which the

proportions of the population by age-sex groups and type of residence area (urban – rural) at the national level correspond with the estimates in life tables.

The main assumptions of such approach are next: 1)the population surveys data representatively reflect the results of mortality, fertility and migration processes observed in the current period; 2)the population surveys data also reflect the population structure by the level of education, marital status etc.; 3)taking into account the data of life tables for the current period provides a leveling effect of the fertility and migration processes on the structure of the current (static) population in the corresponding age-sex groups; 4)for two adjacent five-year age-sex groups the differences in the population distribution by educational level and marital status can be neglected.

Application of the developed approach made it possible to estimate approximately the impact of such characteristics as gender, area of residence and person's level of education on the change in life expectancy. Some valuable examples are provided.

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THE STATISTICAL ANALYSIS OF THE INTERMEDIARY ACTIVITY LEVEL ON THE REAL ESTATE MARKET BY THE REGIONS OF UKRAINE

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A statistical study of the real estate market, in addition to analyzing the state and development of the market by real estate objects covers a study of the activity of its participants (subjects) who actively function and participate in transactions on real estate objects, and thus contribute to the effective development of market processes.

The period of study of the activity of companies that provide mediation services in real estate transactions covers only nine years – 2003-2011, due to the fact that monitoring of their activities in the property market was not undertaken earlier.

The typological grouping of regions by level of mediation activity in the real estate market in 2003–2010 has shown that most regions in these periods have low and below average levels of mediation activity in the market. It should be noted that in most regions these levels coincide with low levels of construction activity in the real estate market and low potential of the residential real estate market. The city of Kyiv and the Donetsk region stand out in the distribution of regions due to similar levels of construction activity and potential of the primary real estate market in Kyiv in the abovementioned periods. A decline in mediation activity in the Donetsk region to the above average level in the second and in the third periods took place as a result of a reduction in the potential of the residential real estate market.

The study of the regional differentiation of closed purchase and sales transactions of real estate objects in the residential and non-residential real estate markets was carried out by the index of temporal variations of their regional shares characterizing the width of the real estate market. It was concluded that significant changes in the regional structure of closed sales and purchase transactions of residential real estate objects took place in 2004, 2007 and 2009, which are the years notable for political instability and economic crisis.

The non-residential real estate market is characterized by temporal heterogeneity in the regional distribution of closed purchase and sales transactions of real estate objects. Most regions of Ukraine were notable for a low mediation activity on the non-residential real estate market due to a lack of closed transactions in the market and a low customer activity. Such temporal heterogeneity makes it impossible to forecast the trends in mediation at primary and secondary real estate markets.

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PECULIARITY OF THE RESEARCH MARRIAGE AND FAMILY PROCESSES IN MODERN UKRAINE

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Statistical study of marriage and family processes and structures are an integral part of the research population reproduction as a continual process of renewal of generations of human community combined all demographic, social and economic characteristics. The data sources for these processes are censuses, current statistical records and population survey.

In the modern world, when society is on a fundamentally new stage of development, complex transformation taking place in the family and marriage. Pluralistic forms of marriage and family, distribution of new forms, increase of divorce, decreased fertility families, spread of illegitimate births – ambiguity and contradictions of these processes, the uncertainty of long-term effects makes very actual of scientific evaluation. However deformalization marriage and family relations, which is a reflection of the general deformalization institutional environment, complicates the obtain data about the real situation of marriage and family processes.

The most complete picture of changes in family and marriage provides a census, but census round of 2010 in Ukraine was not carried out. Now its implementation is not possible because unfinished of the conflict in the east.

Monitoring changes in the basic processes of marital status – marriage, divorce – is carried out according to the data current statistical reporting, the advantage of which is the annual accounting. This allows continuous analysis of the dynamics of their total indicators and specification involving indicators of age, sex, premarital status and more. However, after changes in the procedure for recording statistics on divorces in 2010, we do not have data on age, duration of marriage, citizenship, the presence of

children of spouses who divorce through the courts (statistical forms P-1 – P-5); and this is 72.6% of registered divorces in 2013. The question of complete data about married couple that divorced through the courts must be addressed.

Current statistical reporting provides us information about "officially registered" processes in the marriage and family, but the analysis of new phenomena require specialized sample socio-demographic surveys; their significance in our time increases. Sample surveys conducted by the State Statistics Service of Ukraine and the Institute of Demography and Social Studies NAC of Ukraine in recent years, provide information about demographic processes and structures during the period between censuses, but their number is not sufficient for a comprehensive analysis of new processes in marriage and family.

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STATISTICAL RESEARCH OF SMALL BORDER TRAFFIC OF GOODS AND SERVICES BETWEEN UKRAINE AND POLAND

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Small border traffic is a form of facilitation of border crossing for citizens of both countries, living in the border area. These trips may have economic, social and cultural goals.

The questionnaires are the main source of information of goods and services turnover in border traffic.

Researches of goods and services turnover in border traffic are made by representative method, which allows generalizing the results for the total number of persons crossing the Polish-Ukrainian border.

Two-stage sampling is used. Research is made for both Ukrainian and Poles crossing the border simultaneously at all points of crossing. After some investigation we can state, that border trade has constant character. Significant quantities of it indicate significant private purchases of border residents. The intensity of these activities depends on changes in prices of certain groups of products (gasoline, food, building materials) on both sides of the border.

Cross-border trade positively impacts on economic development of the regions, it:

- stimulates employment in border areas;
- increases personal income of border traders;
- provides income to people who work in the markets, as well as those whose activities are related to markets and trade;
- reduces import prices, which are available to consumers in the border areas and enables exporters to benefit from greater added value;
- promotes tourism.

The analysis of the border traffic indicates that this phenomenon has a significant impact on the socio-economic development of cross-border regions. The border traffic is the most intensive in 50-km zone. Monitoring social and economic processes of border areas is an important tool of statistical studies of goods and services turnover in the small border traffic.

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STATISTICAL SERVICE OF IP-RELATED INDUSTRIES IN UKRAINE

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Under postindustrial society the intellectual capital turns to a major productive force and an accelerator of economic

development. Thus, the key factor of competitiveness of a modern economy are objects of intellectual property (IP) which get the form of the intellectual capital and provide an innovative orientation of national system of manufacturing. When share of the intellectual capital in assets of enterprises incessantly grows, results of intellectual activity turn to important object of the statistical accounting. Availability of the reliable and all-round statistical information which in dynamics characterises development of different spheres of economic activities which are connected with use of IP objects is the objective precondition for realisation of the effective state economic policy directed on a complex modernisation of national economy.

In Ukraine State IP Service annually discloses the statistical information concerning registration of different IP objects. Also, State Statistics Service of Ukraine publishes annual reports on scientific and innovative activity in Ukraine. Unfortunately, statistical information available in Ukraine does not give the chance to estimate efficiency of commercialisation of IP objects and economic contribution of IP-related industries to national economy.

It is necessary to notice that this statistical data is annually disclosed by the World IP Organisation and European Patent Office. First of all it concerns the data related to a share of intellectual capital in assets of enterprises and economic contribution of IP-related industries. Whereas IP objects play an important role in modernisation of national economy, we consider necessary to single out several ways of improving of national mechanism of statistical accounting of IP-related industries in Ukraine. Firstly, it is necessary to provide gathering, generalisation and promulgation of the information concerning usage of IP objects by Ukrainian enterprises. Secondly, it is necessary to develop a technique of the statistical accounting of contribution of IP-related industries to national GDP and labour market. Thirdly, it is necessary to provide gathering and promulgation of all-round information concerning forms and results of commercialisation of registered in Ukraine IP objects.

INNOVATIVE CONSTITUENT OF THE STATISTICAL ANALYSIS OF INSURANCE ACTIVITY

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New challenges of economic development include the need to develop its own model of market economy in general and the insurance sector in particular. An important component of effective insurance system serves wide information security. Therefore, the value of information provision in the insurance industry as a strategic resource is to accelerate the introduction of innovative technology-based investment.

Insurance system in modern conditions designed to promote active investment, so that it can meet the needs of today in solving interrelated problems of economic and environmental, social and ethical considerations that create risks at different levels: the business sector, insurance sector, sector public administration and society in general. Modern development of insurance associated with the creation of innovation types of insurance products in areas such as property insurance, shipbuilding complex, Engineering, Aviation Transport of agricultural production. However, life insurance and health occupies a special place in the innovation insurance. Studies show a significant deterioration in the overall health of the planet as a result of environmental pollution and global warming. In addition, assistance to countries in overcoming the effects of various kinds of global disasters require the creation of innovative insurance products.

It should be noted that an important organizational form today is a public-private insurance due to the fact that effective risk management insurance company spends on the terms of cooperation with all stakeholders, and government agencies, and private investors. This can be explained by the fact that they provide funds for building the infrastructure necessary for the prevention of environmental disasters and reduce social risks.

Of particular importance in the present conditions is economic and statistical analysis of financial entities, the results of which can cause a crisis in the financial markets and the cause of the imbalance of economic development in general. To determine the economic importance of these financial entities are different methods that involve the use of different indicators of qualitative and quantitative.

Determining the level of importance and significance of the financial entity pursuant to the integral rating index, which is based on partial performance rating, according to specific criteria. These criteria may include: the proportion of the contribution of the financial sector entity in volume; the ratio of equity and balance sheet; solvency ratio and so on.

The analysis shows that the leading position among financial data subjects have leading banks with foreign capital and insurance companies Ukraine, which is usually related to international insurance groups. So the choice of strategy development entities analyzed contributes to the stabilization of transnational economic system.

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THE STATISTICAL SUPPORT OF FOOD SAFETY RESEARCH

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The food safety is an important part of social government's security. The food safety is the degree of country's food supply in adequate quantities and appropriate range of quality at

affordable prices considering maintenance and improvement of the environment.

The degree of food safety can be measured by indicators such as demographics, health status, provision of population with food, food quality, food supply to all segments of the population, the state of the industrial and scientific base. Food safety indicators - quantitative and qualitative characteristics of the state, dynamics and perspectives of physical and economical availability of food for all social and demographic groups, quality and food safety, efficiency of usage of agricultural natural resource potential. According to the methodology Food and Agriculture Organization (FAO) main indicators of food safety are a consumer product per capita per year (day), compared with actual consumption regulations, energy production, including fat, protein, vitamins, and a number of other indicators. Despite the fact that there are many tools and systems for the analysis of food safety in Ukraine, the state control over the actual data of these indicators is almost absent. Although the methods of analysis and publicly registered documents exist, they do not have proper development and influence to improve the situation in the country.

Main principles of formation of food safety are: sustainability, balance, physical sufficiency, quality, affordability and economic accessibility. Equally important is the availability of statistic reporting of consumption. It is impossible to assess information on reserves because of its closeness. Later this information becomes a state secret.

Present data demonstrates neglected food safety in Ukraine. This is due to several factors: demographics, increasing food prices, low cost of living, lower quality products. Finally, we have a huge necessity in providing information about consumption in private, regional and government markets.

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MODELING OF INTERRUPTED TRENDS IN THE SYSTEM «STATISTICA»

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Among the logical and statistical prerequisites ensure of adequacy of the dynamics models to real processes dominates a qualitative homogeneity of time series, which means a continuity of time series, a stability of trends and fluctuations. However, in the ranks of socio-economic indicators, this condition is sometimes disturbed; through intervention of external factors to object of modeling (crisis, mergers and acquisitions of capital, various force-majeure) the nature of the dynamics of a rapidly changing. As the effective modeling tool of interrupted (broken) trends ARIMA model is used.

A general form of the model ARIMA (p, d, q) where parameters p, q are non-negative integers that refer to the order of the autoregressive and moving average parts of the model respectively, d can be applied to remove the non-stationarity. Integrating of time series components the model ARIMA adapts oneself to the specific of different dynamic processes.

To assess the impact of one or more external factors on the values in the time series make use of the Interrupt ARIMA model. Distinguish between three major types of impacts that are possible: (1) permanent abrupt, (2) permanent gradual and (3) abrupt temporary.

• An abrupt permanent - implies spasmodic stable impact of intervention when the values in the time series is rapidly dropped to a certain level and remains at that level; the overall shift is denoted by parameter ω (omega).

• A permanent gradual - a gradual steady increase or decrease the values in the time series due to the intervention, and the final permanent impact becomes evident only after some time.

• An abrupt temporary - when the instantaneous intervention causes a rapid jump in the series, which is gradually reduced, and the variation of the time series is restored.

In the case of gradually sustained intervention gradual, permanent influence of external factors is measured by two parameters: delta δ and omega ω. If the values of these parameters keep indoors for limits [0 - 1], a dynamic process is considered stable.

Model Interrupted ARIMA implemented in the system of Statistica (Module Time Series / Forecasting).

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INDEX METHOD ANALYSIS IN THE CONTEXT OF MODERN CHALLENGES OF FINANCIAL - ECONOMIC DEVELOPMENT

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Indexed analysis system, which is characterized by change of definition in time or in space has a deep history. It is used for analysis in all sectors of economic activity, defining functional relationships are the basis for modeling, definition of ratings, and more. However, according to the current challenges and index analysis gets transformed in areas such as financial and monetary sector, insurance, research activities and more.

To determine the characteristics of the main trends of transnational companies (TNCs) and regulation of foreign direct investment indices developed transnational. They characterize the spatial comparison of the proportion of foreign assets, sales and employment in the overall corporate performance. Attention may be taken as the ratio of foreign branches and subsidiaries in total.

To measure transnational companies are also index distribution network, which characterizes the degree of

diversification of TNCs and geographical prevalence index. For comparison, Ukraine's position in attracting foreign direct investment to be taken into account Index of FDI inflows, which indicates the success of the country in attracting foreign direct investment.

Index method used to determine the saturation of foreign currency in cash back country. Scientists have proposed several indicators by which determines the level of monetary currenciation country: code currency substitution; Code substitution assets; general index currenciation; currenciation comprehensive index, the system codes to determine the positive and negative sides of the penetration of foreign currency monetary circulation of the country.

Index method is reflected in the insurance system. Increasingly, insurance companies, mainly in property insurance is used nonparametric index insurance. This insurance allows you to make payments on the onset of a physical event, such reimbursement can take place when a particular area too much, or not enough rain, regardless of the actual claims of the insured. This method has both advantages and disadvantages.

A popular scientometric indicator was the citation index (number of publications referring to the author, whose works are analyzed). Citation index characterizes the response of the scientific community for authors, so it should be used to evaluate the results of basic research.

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A FLOW OF FUNDS TABLE AS A STATISTICAL TOOL OF MACROECONOMIC ANALYSIS

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Funding of social reproduction process takes place with the large number of participants and is mediated by numerous

financial instruments. In an efficient economy cash flows from the owners of temporarily free savings to their recipients, who apply received financial resources for productive use, are present.

During this interaction one institutional units issue financial liabilities and receive the status of net borrowers; others acquire to the ownership financial assets and are treated as net lenders. Financial account SNA reflects the net acquisition of financial assets (by their types) and net incurrence of financial liabilities for all institutional sectors.

According to financial account we can define:

1) which financial assets are used by borrowing sectors to finance the deficit of funds;

2) in which financial instruments lending sectors place their excess funds.

However, while the financial account shows financial instruments, by means of which the incurrence of liabilities is carried out, it does not allow to identify sectors, that provide funds. On the other hand, information of the financial account is not enough to determine, which sectors are funded by specific net lenders.

For complete understanding of these processes we need more detailed information about financial relationships between institutional sectors, which is provided by a flow of funds table. Presentation of financial statistics data, used in the table, provides information on both sides of a certain financing agreement and the nature financial instrument, used in it. This format of presentation information on cross-sectoral flows of funds is widely used in the industrialized countries as a basic information source, in general empirical research, and for financial policy analysis. To a lesser extent information potential of flow of funds is used in developing countries, despite its usefulness for studying the process of institutionalization of the financial sector and its relations with the real economy.

In view of the information intensity of this instrument of macroeconomic analysis and considerable positive experience of application it is rational to integrate it into the system of official statistics in Ukraine.

STATISTICAL ESTIMATION ECOLOGICAL COMPONENT IN THE MODEL OF SUSTAINABLE DEVELOPMENT: HISTORICAL ASPECTS

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There is an intensive involvement of natural resources in economic activity. World population is growing and the needs are increase too. Society, seeking to satisfy their problems, constantly expanding production scale. Current production in the conversion of natural resources into consumer goods has detrimental impact on the environment and on people. These changes are a significant determinant of economic development. The root cause of which is a violation of stability of the biosphere that a planetary ecological system serves as a source of natural resources' for the economy. Reducing these resources depleted due to terrestrial ecological systems (ecosystems), leads to disruption of the macroeconomic equilibrium. Moreover, when anthropogenic migration of chemical elements was the determining factor in environmental change, require the disclosure of the contents of environmental factors as an economic category. Thus, it is evident that the scientific and technical process leads to social development depends on natural resources.

A retrospective review of the views of representatives of world economic thought on the use of natural resources and the isolation of the environmental component of economic development shows that their research achievements begin with science and environmental issues, as based on anthropocentrism and examined only prerequisites for achieving economic equilibrium in the economic system. The main drawback in the classical economists' research is relations «nature-society-economy» - the interpretation of natural resources as «free gifts of nature»

Newest theoretical economics should be adapted to the requirements of environmentally sustainable development

paradigm and take into account environmental constraints of nature to preserve natural capital.

Environmental component requires the priority attention because of deepening economic crisis in Ukraine. Unfortunately, in terms of ruthless exploitation of natural capital and quality of the environment, the environmental component takes a secondary place. That is why the direction of economic research should focus on the fact what "ecological price" paid for these studies. In this context of this study, environmental sustainable development should be the guiding principle of economic development.

Evaluation of balanced economic development requires diversified statistical information. This will provide an opportunity to assess the limits of nature for natural capital and provide an effective system of environmental monitoring.

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TOURISM AS A TARGET OF STATISTICAL RESEARCH

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Nowadays tourism is viewed as a versatile phenomenon closely connected with economics, history, geography, architecture and culture. But none of the mentioned disciplines is unable to profoundly and overwhelmingly disclose it a target of their research.

There are different views on tourism as a branch of business activity, as well as an inter branch complex, where a tourist entity designs a tourist product from the production of different branches.

Some scientists view tourism as a form of population migration, which is characterized by people's temporary movements from one region to another within one country and from one country to another.

Law scientists add a legal aspect to defining tourism, mainly an international one, as " a system of tours provided on the basis of international agreements taking into account existing international traditions".

Most of definitions of tourism contain a cross-cultural function: tourism is a system and form of spending free time and due to the sphere of traveling services comprising leisure activities combined with improving health, enhancing cultural awareness and education.

The UN defines tourism as "a leisure activity influencing and strengthening people's health, physical stamina connected with their migration beyond the permanent place of living".

Economists view tourism as socially organized economic activity aimed at manufacturing products and services for satisfying needs and wants of non-residents.

But all studied definitions of tourism lack economic context. Since the second part of the 20-th century the importance of tourism for the development of the national economy has never been doubted. This approach has significantly contributed to the expansion of tourist business on other markets engaging a lot of people and thus creating new jobs. The economic gains generated from this kind of business, exceeding expenditure and input in several times, undeniably boost the local economy.

In our opinion the most overwhelming and universal definition of tourism is as follows: tourism is an activity of people who travel and stay at places which are beyond the permanent place of their living for a particular period of time which doesn't exceed a year for leisure and business purposes or pursuing other interests. This definition has gained the world recognition, mainly by the World Tourist Organization, Ukraine as well.

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THE INFORMATIVE PROVIDING OF STATISTICAL STUDY OF MIGRATORY STREAMS

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Informative providing of statistical study of migratory streams one of most problems of demographic statistics there is a receipt of complete and reliable information about migratory processes. The account of migrations gives less complete information, than account of births and deaths. A problem of account of migrations was and remains basic not only in Ukraine but also in other countries of the world. Research of problems of migration of labour force always is in a spotlight scientists of statisticians and demographers: A. A. Vishnevskogo, E. M. Libanovoy, O. V. Poznyaka, Z. O. Pal'yan, S. I. Pirozhkova, S. G. Stecenko, V. N. Steshenko, V. G. Shvecya. Boundary statistics are a basic information generator on international migratory streams. It engulfs all entrances and departures of foreign citizens and citizens of country with the high degree of exactness of reflection of time of crossing of state boundaries.

For the improvement of account of migrations of population it is necessary to perfect the system of collection of information and processing of basic data with the use of the newest informative systems, more wide to use already there are informative sources, to inculcate the periodic selective inspections of migrantiv and migratory blocks of questions to the existent surveys of population, which are carried out the State committee of statistics of Ukraine.

Since proclamation of independence of Ukraine the inspections of labour migrantiv were repeatedly conducted. Such inspections were organized scientific establishments part of which at support of International Organization of Migration and International Organization of Labour. In particular such inspections were conducted in the last years: “Vital ways of population of Ukraine”, sociological questioning of the Ukrainian

workers in Italy, inspection of labour migrantiv in m. Kyiv, Tchernivtsi and village of Priblichi of the Lviv area, inspection of labour migration of young people, survey of population from the questions of labour migration, conducted the Ukrainian center of social reforms with participation of the State committee of statistics of Ukraine and at financial and technical support of Fund of Arseniya Yacenyuka "Open Ukraine" jointly with Fund of Victor Pinchuka, representative Offices of the World bank in Ukraine and other.

Representative office International organization from migration in Ukraine with the purpose of the best illumination of information, in relation to labour migrciy of the Ukrainian population also conducts the special inspections and prepares reports after their results. Yes, in 2013 years the second edition of publication went out «Migration in Ukraine: facts and numbers», in obedience to information of which from January, 2012 to June, 2012 the quantity of labour migrantiv made 1,2 million persons. In obedience to the results of research of Government service of statistics of Ukraine and Institute of demography and social researches part of labour migrantiv makes a 3,4% population in age from 15-70.

Consequently, for the receipt of valuable information about migratory processes it is necessary to use information of different sources, as any one separately taken source cannot be examined as exhaustive.

The improvement of the informative providing will be given by possibility to decide the row of existent problems of scientific researches of labour migrations, namely: to develop terminology of external labour migration of population (for today there is not the unique determination "labour migration", as different researchers interpret him on different), form the system of indexes of external labour migrations.

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ABSTRACTS
III International Scientific Conference
"Statistics of the XXI century:
new challenges, new opportunities."

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