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## INSURANCE AS A SIGNIFICANT FACTOR OF ECONOMIC DEVELOPMENT IN ORGANIZATIONS

**Abstract.** *The existence of a relationship between financial development and economic growth has already been highlighted in numerous scientific publications. W. Bagehot (1873) [1], J. Schumpeter (1960) [2] identified empirically proven functioning of this relationship over a century ago based on the work of historical laws in economics. Temporary globalization tendencies underline this connection even more, than many years ago, as the new participant of the financial market occurred – insurance companies.*

**Keywords:** *economy; effectiveness; finance; globalization; insurance.*

**JEL Classification:** *M12, G10, G20, G22*

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### **СТРАХОВАНИЕ КАК СУЩЕСТВЕННЫЙ ФАКТОР ЭКОНОМИЧЕСКОГО РАЗВИТИЯ ОРГАНИЗАЦИЙ**

**Аннотация.** Взаимосвязь между финансовым развитием и экономическим ростом была признана как ключевая в многочисленных научных публикациях. У. Беджет (Bagehot, 1873) [1] и Й. Шумпетер (Schumpeter, 1960) [2] более чем столетие назад опытным путем идентифицировали и доказали, что взаимодействие между финансовым развитием и экономическим ростом осуществляется на основе исторических законов в экономике. Современные тенденции глобализации подтверждают существенную роль данной причинно-следственной связи еще в большей мере, чем много лет назад, поскольку появился новый участник финансового рынка – страховые компании.

**Ключевые слова:** экономика, эффективность, финансы, глобализация, страхование.

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### **СТРАХУВАННЯ ЯК СУТТЄВИЙ ФАКТОР ЕКОНОМІЧНОГО РОЗВИТКУ ОРГАНИЗАЦІЙ**

**Анотація.** Взаємозв'язок між фінансовим розвитком та економічним ростом була визнана як ключова у численних наукових публікаціях. У. Беджет (Bagehot, 1873) [1] і Й. Шумпетер (Schumpeter, 1960) [2] більш ніж сторіччя тому дослідним шляхом ідентифікували й довели, що взаємодія між фінансовим розвитком та економічним ростом відбувається на основі історичних законів в економіці. Сучасні тенденції глобалізації підтверджують суттєву роль цього причинно-наслідкового зв'язку ще більшою мірою, ніж багато років тому, оскільки з'явився новий учасник фінансового ринку – страхові компанії.

**Ключові слова:** економіка, ефективність, фінанси, глобалізація, страхування.

**Introduction.** Today's economic activity faces many both domestic and international problems. They are partly possible to predict but, in the context of natural disasters, the probability of shutdown point realization is very crucial in the long term planning, particularly in the strategic assumptions of this process. Moreover, A. Janowski and B. Balewski (2011) [3] claim, insurance companies has become the most important players on the financial market, holding up to 70% of national government bonds and creating countless jobs for people worldwide. As a consequence the mentioned institutions together with banks could make impact on international and even global politics. Hence, the financial sector becomes the most powerful sector all over the world, including insurance companies as leaders.

**Purpose.** This article shows the growing role of financial sector in the global economy and particularly the significance of insurance sector and its impact on future perspectives and threats of economical stability within Eurozone and the whole

world. The conclusions are based on statistic data analysis and meta-analysis of subject literature papers.

**Brief Literature Review.** Such scientists as D. Rule, F. Allen, A. Santomero, R. King, R. Levine, P. Rousseau, R. Levin, S. Zervos, T. Beck, R. Levine, B. Balewski, A. Janowski and others were engaged in research in the context of factors determining the growth of domestic and international economy in the context of insurance sector activity. Research based conclusions determine, that present scientific literature underestimate the role of insurance sector for the global economy as a whole. As a consequence, the world wide financial problems are not being solved in the context of opportunities and threats related to global insurance activity.

**Results.** The significance of the interconnection of security and economic development increases as the share of the former in the aggregate financial sector almost anywhere, both developing and developed country (Table 1).

Tab. 1: GDP and the total value of premiums written in the Eurozone

Year	2003	2004	2005	2006	2007	2008	2009	2010
GDP in Eurozone, current prices [mln EUR]	10894275	11458136	12025798	12731845	13510254	13643257	12845621	13543827
Insurance premiums collected [mln EUR]	884170	935518	1015517	1100704	1181351	1059731	1059674	1104221

Source: Insurance Europe, Statistics N°46, European Insurance in Figures, January 2013, Insurance Europe aisbl rue Montoyer 51 B-1000 Brussels

The growth of gross domestic product and the volume of premiums for insurance have strong positive correlation. Insurance companies, along with mutual and investment funds are the largest institutional investors in the securities and real estate. It is expected that the impact of these institutions on the financial markets, in relation to the expected aging of the population and income inequality and globalization will grow rather than diminish (Figure).

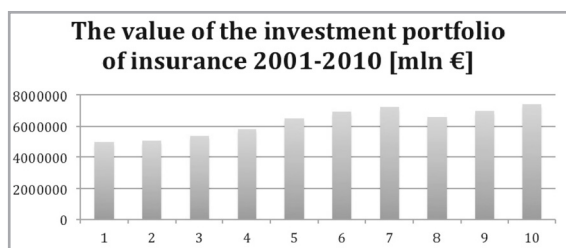


Fig.: The value of the investment portfolio in the insurance sector  
Source: Insurance Europe, Statistics N°46, European Insurance in Figures, January 2013, Insurance Europe aisbl rue Montoyer 51 B-1000 Brussels

The global insurance industry has increased by over 10% each year since the fifties of the last century, which was a much higher percentage than the entire global economic growth (Table 2).

Extending the relationship between insurance and other financial market participants on the supply side, also confirmed the existence of significant influence activities of insurance companies on growth [4]. The penetration of mutual activity of financial holding companies and insurance companies, as the main forms of financial conglomerates, provide the financial sector a leading role in the national economies. With credit insurance, loans, credit cards, insurance companies have begun switching activity in the market for credit risk, now reserved for non-insurance financial market participants [5], and their role in the creation of national income has been the subject of specific studies in the nineties of the last century [6]. This situation was reflected in a number of applications research between 1960-1980 [7], and later confirmed, among others: R. Levin's (1998) [8] publications and conclusions of the panel techniques, T. Beck's (2003) [9], which showed clearly that for both the banks and the stock market have a positive effect on economic growth. In addition, regardless of the applications cited researchers, P. Boescheid (2001) [10] and F. De Fiore, H. Uhlig (2005) [11] verified the existence of a positive relationship between the activity directly proportional bond sector and economic growth. Availability of insurance is essential for the stability of the economy, as well as supporting economic projects through the acquisition of potential risks. By accep-

Tab. 2: Contributions in the world in 2000-2010, bln USD

Country/Region	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Europe	786	767	847	1 036	1 206	1 335	1 489	1 763	1 704	1 614	1 620
Asia	647	595	629	685	739	765	779	812	935	1 014	1 161
USA	906	949	1 054	1 117	1 179	1 188	1 262	1 339	1 344	1 249	1 282
Other	106	104	102	120	140	158	181	212	238	232	276
Total	2 445	2 416	2 632	2 958	3 264	3 446	3 711	4 126	4 220	4 110	4 339

Source: Insurance Europe, Statistics N°46, European Insurance in Figures, January 2013, Insurance Europe aisbl rue Montoyer 51 B-1000 Brussels

ting the claim, an insurance company collects premiums and creates a reserve fund. As a result, insurers play an important role in the internal transfer of cash flow positive basis of findings obtained from the insured. Then, providing a large number of assets in the financial market stimulating economic growth.

The multiplicity and complexity of relationships with other institutions, insurance companies and other financial institutions is not less than the banks. It should be stressed in particular role of life insurers. In 1997-2007 the total contributions around the world, collected by life insurance companies, increased by about 5.5 times from 0.6 to \$4.13 trillion, while lifelong insurers increased their share of the financial market of about 7.5 times. In 2009, insurance companies collected \$4.07 trillion from direct contributions, which accounted for around 7% of global GDP (According to the Swiss Reinsurance Company report), the insurance sector will play an increasingly important role in the development of the financial market. Continuing increase of premiums for life insurers, not only emphasizes the importance of this type of activity in the area of risk transfer, but also emphasizes the importance of life insurance companies as institutional investors. The main issue is to identify the relationship between life insurance and economic growth both in theory and practice of business. In the context of the theory, developed two approaches: supply and demand, have empirically demonstrated in the work of H. Patrick (1966) [12], who claims economic growth can be generated both through the development of financial systems, and alternatively by the growth of the economy, which in turn increases the activity of the institution financial statements. Practical aspects of this relationship enhance the utility of time series and cross-industry data to predict future major issues related to the height of premiums and macroeconomic aggregates [13]. The purpose of the financial sector is to manage the flow of measures obtained from institutional investors and individuals with investment projects. Thus, the principal of the financial sector is expanding spectrum of opportunities for seeking funding and monitoring of the recipients of these funds, as well as improving the allocation of resources, mobilization of saving, lowering the cost of capital by exploiting economies of scale and specialization, liquidity and risk management [14]. Insurance undertakes the primary role in this process, which is reflected in the product-specific functions performed by the insurance industry, of which the most important is the transfer of risk, responding to this product potential buyers demand. Traditionally, the policyholder pays the premium, and yields a certain protection against the other types of uncertainty.

Moreover, by reducing the risk, insurance companies contribute to the flattening of the curve of the business cycle and reduce the impact of emergencies on the micro-level and macro-economic aggregates. There is a significant demand for collateral for potential losses in the assets of organizations, which are the subject of natural disasters, crime, accidents and other events, the implementation of a negative degree can affect the financial situation. In the run, the insured operations, acquisition, possession or sale of goods, assets and services, is facilitated by taking financial responsibility for potential losses by insurers.

Therefore, ensuring the economic security of the assets contributed to the development of transport, trade and money lending institutions, and many sectors are directly dependent on the insurance. Additionally, in the case of individuals, securing purchased vehicles or property, it determines the increase in the national consumption. Finally, the insurance also provides protection against adverse financial results, occasioned by the actions of individuals

or other organizations representing the mutual threat or adverse results of their future. Lack of access to insurance product liability, render that organizations could not develop and market products needed societies. With reference to the examples aimed at promoting economic development, supporting for a derivative to increase the level of efficiency, the development of new goods and services determines the formation of additional profits from business ventures compensation that would not be possible without the security mechanism provided by the minimizing risks, including management and identification of risk, also at the macro level. As a consequence, insurance companies are able to perform more efficiently than those individual – insurers may use the collected volume of premiums as a factor in minimizing the risk to the whole economy, and if there is a need for insurance of large risks, the implementation of which could result in significant deterioration of the financial situation of a single insurer, insurance companies can form conglomerates or coinsurance [15]. Enterprises with more risky activities and those at risk of equally high probability of an accident insurance should pay much higher insurance costs less than the claims in insurance industries. The same tendency is typical in the area searching for insurance (negative selection). Subjects at risk are usually looking for a wider coverage than the units that carry less risky activities (e.g. flood-prone areas or industrial pollution, where the plant has paid a claim, customers can have serious difficulties in obtaining insurance or re-insurance company may introduce significant restrictions on the sums insured and scope). In cases meeting the conditions of fairness, governments can support access to health insurance for people vulnerable because of the high probability of risk realization. Insurance thus extend their clients, which, although in the short term, may result in higher costs, but in the long run increase the revenue and cost efficiency by creating new goods and services. After all, it should be noted that there are some negative factors associated with risk transfer and payment of compensation. These effects can occur by changing the attitudes of the insured. Risk transfer not only allows the insured to cover its potential losses, including «discouraged» him to take action to prevent and care for the subject matter of insurance. Therefore, in most cases, insurance contracts records exist regarding franchises and deductibles. A survey conducted by R. Butler (1998) [16] shows that was prepared for employees health insurance reduces efficiency and increases further number of reported cases and extend the periods of incapacity for work (so-called «sick»), compared to the organizations in which it was decided not to implement this. That is why insurance companies prepared mechanisms minimizing losses as a derivative of the mentioned behaviors in the context of the function savings insurance product – through the sale of various types of contracts, the insurer can diversify covered risks and manage the reject flow of money, which is the basis of capital separated into two parts: technical reserve and surplus. To meet the needs of appreciation, synchronize maturity of assets and compensation, and protect company of insurance against the loss of liquidity, premiums collected from policyholders should be invested in a professional manner. Loss of liquidity may, however, take place, because the amount of premiums is now independent of the amount of claims paid. Sudden onset of a natural disaster may require the payment of extremely high compensation. Traditionally, however, a sufficient element to ensure the liquidity of the placement of business, is in derivatives. Hence, increasing the rate of return is possible through economies of scale by insurers. In this way, yield, developed in the financial market is higher. Moreover, insurance companies are placed among the investors in the economy with the highest potential, and their role in the financial market is regularly increasing, which is a derivative of the effectiveness of asset management by insurers, and the configuration of the assets of the organization:

- the type of assets that are invested in funds derived from contributions,
- the nature of the markets in which financial transactions are effected,
- acquired maturity debt instruments,
- ability to use the difference between moral and physical gambling (Table 3).

Therefore, the increase of assets of insurers, it can be, without making a mistake, considering in the context of economic development. However, unlike the bank assets and liabilities to customers of banks, insurance companies have greater flexibility in lower investment policy. Thus, in the case of investments insurers, in contrast to the bank, insurers can:

- extend the range of investment – bank deposits are usually defined by the liabilities of banks, and their coverage is limited to a certain limit values [20]. The number of customers of banks is lower than the population of contributors to insurance companies, and the average value of the deposit is above average amount of premium insurance cover. Insurance liabilities are based on the calculation of the probability of risk and unpredictable damage values. Banks are focused on the acquisition of assets whose value is difficult to determine, while insurance is difficult to quantify the amount of damage [21]. So the financial risk of insurers is more uncertain and subject to higher fluctuations and investment policy focused on maintaining stability. Insurance assets are characterized by higher liquidity [22];
- extend the time horizon – the assets available in an organization are usually a reflection of their commitment to the insurance companies are more distant [23], which is particularly evident in the case of life insurance contracts or specific risks (such as liability for product) where commitments laid out for many years and therefore not covered financial instruments for the correct term. In addition, insurance companies are not dependent on short-term contracts and play a particularly important role on the long-term investments. Customers of banks, making the transfer of savings to the insurance industry, also extend their maturity, which may be obvious to them, but usually short-term deposits of households are transferred to long-term assets managed by insurance companies, would then become a component of technical provisions;
- increasing the volume of investment – insurance companies are key investors in the stock market, bonds, loans and real estate in Europe. In this way, the ratio of total investments made by insurers to GDP growth should be the main trajectory analysis of the relationship of insurance/growth. Both indirect and direct insurers provide funds for investment, which in turn provide to meet the demand for particular financial instruments, which improves the efficiency of the system, and the high liquidity of the assets of insurance allows individual and institutional investors to more easily diversify the portfolio by investing in instruments of higher or high-risk projects. In addition, the possibility of early liquidation of assets freed investors from other potential necessary after-sales values riskier but higher profitability during the downturn.

Tab. 3: The structure of the investment portfolio of insurance in 2000-2009 [%]

Structural elements	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Land and buildings	5.0	4.9	5.0	4.5	4.2	4.0	4.2	3.9	3.7	3.1
Investments in associated undertakings	3.9	4.8	5.4	5.3	4.8	4.5	4.4	4.5	5.0	4.7
Shares, stocks and bonds with fixed and floating rate	41.1	37.2	31.7	32.2	32.5	35.9	37.4	38.7	31.2	31.8
Treasury bills	30.6	32.9	36.8	37.7	38.5	36.8	35.7	35.3	39.9	40.4
Loans, including Mortgage	12.9	12.3	12.5	12.3	11.9	10.9	10.6	10.4	12.1	11.8
Deposits with credit institutions	0.9	1.2	1.6	1.5	2.6	2.4	2.4	2.5	3.3	2.4
Other	5.5	6.7	7.0	6.5	5.4	5.5	5.3	4.7	4.9	5.7

Source: Insurance Europe, Statistics N°46, European Insurance in Figures, January 2013, Insurance Europe aisbl rue Montoyer 51 B-1000 Brussels

It appears to be a legitimate claim of this intensification of pressure on the economy and supporting economic development by ensuring the provision of liquidity to the highly capital-intensive projects [24] through:

- the extension of the capital markets – as that insurance companies play a leading role in the stock market and bond – their associated economic growth can be at least partially derived from their activities. Analysis of the impact of investment insurance, by the impact (stocks, bonds, real estate), on the economy, may be another area of research, especially as there is evidence casual relationship between the development of contractual savings and the market, in the context of progressive analysis of market capitalization and value of transactions on the stock exchange in dim relation to the assets of mutual funds and life insurance companies [25];
- increase the efficiency of financial markets – in the context of an increased propensity to savers-management and focus on creating a national rate of return and the effects obtained in this way scale. Increasing the efficiency of the insurance market can cause additional pressure on other financial intermediaries and intensify their activities in the field of real economic growth [27]. Therefore, insurance companies, investment activity has different effects on the capital market and consequently on the economy as a whole, from the development of the market, by expanding and spreading, as well as the transfer of knowledge on effective risk management. Moreover, the regulations and constraints specific to banking can extend the strength of ties insurance/economic growth. The more intense compared to the banking sector, the increase in insurance has been made through the processes of liberalization, privatization and financial consolidations. Type of banking products offered by insurance companies (in particular, life insurers), strengthened the position of the insurance sector in the capital markets. Currently, most financial transactions in the Eurozone, made between intermediaries, is initiated activity insurance, banking using distribution channels for their products and the possibility to diversify cash flows. The solution that has been the subject of research institutions supervising the financial market, as a result there has been a consolidation of banks, capital markets and insurance supervision in the single government department (in Poland – the Polish Financial Supervision Authority). In Europe, it was done through the introduction of the Financial Conglomerates Directive of December 2002. In the United States while they were Act of 1993 and the Bank Holding Company Act in 1996, which dealt with issues of involvement of banks and insurance companies in the joint venture. They also concluded the ban on the agency banks as retailers of securities, accepting deposits in insurance societies-pressure. These restrictions were then gradually inactivated by unfavorable for supervisor court judgments. As a result, the Gramm-Leach-Bliley Act in November 1999 was introduced, which sanctioned ignoring in legislation by creating the so-called organization's financial holding companies. However, created in this way, institutions were under special supervision, and obligation to register and obtain a certificate of the Federal Reserve Bank, which, to a large extent, limited the likelihood of making the insurance companies to risky financial operations that could destabilize the financial condition of the insurer or lead to its bankruptcy – the minimum capital required to obtain a permit must be maintained throughout the period of activity in some countries, however, it is obligatory to adjust this amount to the level of development of the financial institution. In the European Union, insurer must meet the established criteria of solvency, described the relationship of assets to commitments, and including the amount of the contribution dedicated re-insurers. However, in the United States, this system is used to assess the financial condition of insurers, risk-sensitive, which falls on assets. Prudential Financial and reflected macroeconomic indicators have been developed in the program implemented by the International Monetary Fund and the World Bank to assess the financial sector (e.g., the ratio of capital to the technical provisions), used to calculate the risk associated with any of the investment and the economy as a whole.

In a direct way, this translates into the formation of the solvency margin of insurers, defined by the following regulations portfolio [28]:

- quantitative – the need to comply with certain asset diversification, aimed at channeling funds in accordance with the intentions of the politics (the advantage of these regulations lies in their easy estimation, introduction and comparability, while the investment opportunities of business organizations are limited),
- prudent investment – decree introduced a certain way of management's insurance ensures relative freedom to choose how to invest. The depending on predetermined regulate insurance companies may change the investment strategies and decide on the scale of the risks involved.

These two elements are the extreme conditions, but in most cases the legal regulation is between boundary ones. The European Union is dominated by the financial constraints, while in the United Kingdom and the United States preferred a focus on prudent investing, but the degree of risk insurance assets, the net position of insurance in relation to GDP or control system represents a potential variables included in the models of growth. As the activities of insurers are subjected to a regulations and accounting, the results derived from the study of that sector may not be representative. The net position is reflected in the rate of «economic freedom», offered by insurance companies, the economy as a whole and, regardless of the difficulty of measuring seems to be a recognition between economic growth and during the depression and crisis. In theoretical terms, the insurance sector activity significantly affects the economic stability and growth, in practical terms, however, show that the impact is not so simple. Several studies based dedicated insurance – increased just been attempts to create a framework plan and shown only the negative aspects of that transformation can take place with the insurance sector to the economy [29], insurance or linked to specific product lines based on statistical analysis.

**Conclusions.** The strength of links between the insurance sector and economic growth is no static. As the relationship between the activities of banks, capital markets and economic growth varies with the level of economic development. The relationship also applies to operating and financing activities as examples of insurance. Weave between financial institutions is significant and specialized investment and international common and acceptable. The potential impact of insurance on economic growth is higher than in developing countries, where the insurance industry is generally perceived positively, so that GDP per capita seems to be the primary factor in determining the efficiency of the insurance sector in relation to the rate of return and inflation, in addition to demographic factors and social sciences. However, the amount of the insurance premium in the context of the needs of the market, it is not seen as inversely proportional. In most jobs, insurance is defined as a good higher-order dependent on the elasticity of demand in lesser extent than the general.

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## КОНТРОЛЛИНГ КАЧЕСТВА ЭНЕРГОРЕСУРСОВ КАК ЭЛЕМЕНТ ЭФФЕКТИВНОГО УПРАВЛЕНИЯ ПРЕДПРИЯТИЕМ

**Аннотация.** В статье проанализированы последствия влияния энергоресурсов ненадлежащего качества на продуктивность производства и финансовые затраты промышленных предприятий. Предложена программа действий по осуществлению контроллинга и оптимизации качества энергоресурсов на предприятии. В рамках каждого шага программы сформирована функциональная подсистема процедур на предприятии, которые предусматривают как взаимодействие с поставщиками энергоресурсов (в рамках инспекционного и оперативного контроллинга), так и мероприятия внутри его подразделений.

**Ключевые слова:** управление предприятием, контроллинг, качество, мониторинг, энергоаудит, энергоресурс.

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### КОНТРОЛІНГ ЯКОСТІ ЕНЕРГОРЕСУРСІВ ЯК ЕЛЕМЕНТ ЕФЕКТИВНОГО УПРАВЛІННЯ ПІДПРИЄМСТВОМ

**Анотація.** У статті проаналізовано наслідки впливу енергоресурсів ненадлежащої якості на продуктивність виробництва і фінансові витрати промислових підприємств. Запропоновано програму дій щодо здійснення контролінгу та оптимізації якості енергоресурсів на підприємстві. У рамках кожного кроку програми сформовано функціональну підсистему процедур на підприємстві, що передбачають як взаємодію з постачальниками енергоресурсів (у рамках інспекційного й оперативного контролінгу), так і заходи всередині його підрозділів.

**Ключові слова:** управління підприємством, контролінг, якість, моніторинг, енергоаудит, енергоресурс.

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### THE QUALITY OF ENERGY RESOURCES CONTROLLING AS A PART OF EFFECTIVE ENTERPRISE MANAGEMENT

**Abstract.** *Introduction.* The economic condition of a company is largely determined by the efficient usage of the main industrial energy resources. Energy savings, even within tenths of a percent via programs to optimize the energy efficiency of industrial enterprises, provide an opportunity to save considerable financial resources. *Purpose* is to justify the need of controlling the quality of industrial enterprises energy resources as an element of increasing energy efficiency and the development of its implementation program. *Results.* Reduction of equipment performance, quality of final products, cost overrun of energy resources, increase the dynamics of depreciation and reduction of maintenance intervals in usage of poor quality of electricity, industrial water and natural gas are identified. The program of energy resources quality controlling at an industrial enterprise is proposed. Quality of energy resources monitoring and improving is performed by several steps: the internal audit, optimization the supply contracts, operative controlling and the quality of energy resources monitoring, planning and implementation of measures to improve the quality of energy resources. Each step of the program includes a subsystem of action between the units of the company and interaction with energy suppliers. *Conclusion.* Understanding the need of controlling the quality of energy resources by managers and implementation of appropriate targeted programs in the future will significantly increase the competitiveness of industrial enterprises in the market.

**Keywords:** enterprise management; controlling; quality; monitoring; energy audit; energy resource.

**JEL Classification:** D20, D24, L60