

**RYZIKO W PROCESACH GOSPODARCZYCH, SPOŁECZNYCH I INWESTYCJACH  
KAPITAŁOWYCH**

**Komitet Redakcyjny**

Halina Henzel (przewodnicząca), Anna Lebda-Wyborna (sekretarz), Henryk Bieniok, Anna Lipka,  
Krzysztof Marcinek, Maria Michałowska, Irena Pyka, Stanisław Stanek, Janusz Wywiół, Urszula Zagóra-Jonszta,  
Teresa Zabińska

**Redaktor naukowy**

Włodzimierz Szkutnik

**Recenzenci**

Paweł Dittmann

Krzysztof Jajuga

**Redaktor**

Paweł Sarna

**SPIS TREŚCI**

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# **STRESZCZENIA**

## **METHODS OF MEASURING THE COSTS OF BUSINESS CYCLES**

### **Summary**

The paper presents the methods of measuring the costs of business cycles and their results. It starts with Lucas calculation based on the representative agent and complete markets assumptions. Then its modifications concerning utility function and the aggregate consumption stream modelling are discussed as well as the papers dealing with the incomplete markets and idiosyncratic income risk. Further, the effects of fluctuation on the level of consumption and the economic growth rate are summarized. The results show that the welfare costs of business cycles are much higher than it was originally claimed by Lucas and they are likely at least as large as a few percent of the aggregate consumption per year.

## **UNEMPLOYMENT RISK AND THE COST OF BUSINESS CYCLES**

### **Summary**

The paper presents an original method of measuring the welfare cost of business cycles. It is based on the Lucas' framework with recursive utility function but it also deals with the idiosyncratic risk in employment process due to a modification of the stochastic consumption stream. The model is calibrated to Polish business cycle data ranged from 1994 to 2003 year. The results suggest that the business cycle cost is about 1-5% of the aggregate consumption per year and in special cases it could be even more. But it is still considerably less than the potential gains from the accelerating economic growth rate.

## **DEMOGRAPHIC DETERMINANTS OF RISK IN SOCIAL INSURANCE**

### **Summary**

The article focuses on the influence of the demographic changes on the occurrence of the adverse risk growth trends in social insurance. One symptom of the existing risk is a disturbed number proportion between insurance premium payers and social insurance fund beneficiaries. A cause for such a disproportion is a progressive process of society ageing as well as adverse direction of changes in the generation renewal processes. To support these theses a discussion concerning changes of the respective demographic factors has been carried out on the basis of time chains that show those changes

## **SUBJECTIVE ASPECTS OF RISK ASSESSMENT PROCESS IN THE REAL ESTATE EMERGING MARKETS**

### **Summary**

The paper touches the problem of the risk measurement in the real estate emerging markets. Subjectivity of the risk assessment is a key observation. Accordingly, the subjective probability is presented as typical for the risk assessment in the emerging markets. The final part of the paper shows usefulness of the Bayesian approach in the probability estimation process.

## **WS MODEL IN THE FUNDAMENTAL COMPARATIVE STUDIES**

### **Summary**

The article presents the Tesler model and the generalized statistical Tesler model that are used to create an effective portfolio of shares, i.e. a portfolio that would include criteria of maximisation of the expected rate of return and portfolio that would risk minimization.

The article show an exemplary construction of multi-component fundamental portfolios of shares on the basis of the model WS.

## **DEMOGRAPHIC SITUATION IN POLAND IN COMPARISON TO EUROPE AND THE WHOLE WORLD – A PROGNOSTIC ASPECT**

### **Summary**

The article presents a demographic trend in Poland and quality of life in enlarging Europe. This article provides an analysis of the views and experiences of the citizens of the new Europe on the aspects related to the fertility and family size, as well as responsibility for care and household tasks.

The analysis is based on the data from the European Commission's Eurobarometer.

## **USAGE OF THE SECURITIZATION PROCESS IN PREPARING THE INSURANCE CONTRACTS WITH THE DETERMINATION OF THE VALUE OF THE INSURED CAPITAL**

### **Summary**

Lately, we have been able to observe that the huge risk can increase the required insurer capital and/or reduce the availability of insurance. In case of such insurance lines, securitization is rapidly emerging as an alternative form of risk transfer or complementing traditional insurance and reinsurance products. This paper considers how insured losses might be decomposed into separate components, one of which is a type of "systemic risk" that is highly correlated among the insured. You will find out how insurance contracts may be designed to allow the insured a mechanism to retain all or part of the systemic component. Examples are provided to illustrate this methodology in several types of the insurance markets being subject to systemic risk.

## **USAGE OF THE MOVING AVERAGE IN PROGNOSED THE PIVOT POINTS IN THE INVESTMENTS ON THE CAPITAL MARKETS**

### **Summary**

The article, in its first part, presents the selected mathematical formulas used in computing moving average which is one of the most universal and common capital markets technical analysis tools. Next section shows a method of finding a pivot point in price trends based on the moment of crossing the moving average with price curve. This method was proposed as a signal of entering/exiting position in an investment strategy. The main purpose of this paper is to check whether the choice of the type of the moving average (considering weighing) and the averaged period may strongly affect the results of the proposed investment strategy. Simulations of the investments in main stock market indexes may lead into conclusions that both, computing formula and period of the moving average, have a significant influence on the simulated investment results.

## **ON SOME WAY OF INFLATION FORECASTING BASED ON THE SELECTED STRUCTURAL MODEL**

### **Summary**

In this article the basis for the theoretical considerations was British structural model – Batini and Haldane's model. This model consists of four equations: the equation describing IS curve, the equations describing LM curve and supply curve. The fourth equation represents the condition of non-secure interest rate parity. Using this structural model and the optimal control theory the conditional inflation forecasting has been determined in this paper.

## **TWO – REGIONAL DEMOGRAPHIC PROJECTION PREPARED WITH THE USE OF ROGER – WILLEKENS MODEL**

### **Summary**

The paper presents the results of two-regional demographic projection with the use of Roger-Willekens model for regional division: Silesia – the rest of the country.

Forecasting of the population number and structure in the regions has been performed with the constant, equal to the observed in the initial year, rates of birth, death and migration.

The results of forecasting for the subpopulation of females in Poland in two regions have been based on the data from 2003, and the forecast of the number of population has been calculated for the years 2008-2013. „Ex post” forecast constructed for the year 2004 on the basis of the year 1999 data showed quite big consistency with the observed ones.

Multiregional population dynamic models are nowadays standards in the population forecasting in many statistics offices in the West European countries.

## **EXPERTS' PROGNOSED IN THE PROCEDURE OF CONSTRUCTING A PORTFOLIO AND THE RULE OF MINIMALIZATION OF LOSS POSSIBILITY AND ITS ECONOMIC EFFECTIVENESS**

### **Summary**

The model issue presented in the article concerns the procedure of stopping a loss defined by the assumption that the loss level is established at a certain level and loss transfer. A real and ideal loss characteristic is considered which enables to minimize loss possibility. It is also significant to consider the loss evaluation up to the moment of revealing a bad functioning of the experts' prognosis system. A key question in the article is a choice of the optimal evaluation system rule. Assuming the minimax rule applied for the real loss surplus over the ideal loss leads to the pragmatic conclusions, since information concerning the process' condition is unsure. Attention is, however, paid to the conditions that prevent application of that rule and, consequently, also to other approaches towards the issue considered in the article.

## **PROGNOSTIC SCHEME OF THE EXPERTS' EVALUATION OF POLICY PORTFOLIO IN THE TWO-STAGE SYSTEM PROCEDURE**

### **Summary**

The author suggests a two-stage procedure of using experts' opinions in a prognostic evaluation of policy portfolio that is to be a basis for the insurance company to take decisions concerning a lack or the need for reassuring the evaluated portfolio. The evaluation procedure takes place by means of successively conducted experts' statements concerning the policy until a satisfactory amount of data necessary for the portfolio evaluation has been achieved.

When it comes to the interpretation a concept of probability, directions of studies concerning the issues of the insurance risk evaluation as well as reassurance of high and low damage risk portfolios are considered. It requires, however, an application of such an approach which amounts to issuing the insurance portfolio reassurance or insurance evaluation by the experts and which has been called a preventive expert's statement.