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Ewa Bogacka-Kisiel

FINANCIAL ASPECTS OF STATE ACTIVITY IN ENVIRONMENTAL PROTECTION*

The subject of this work is the role of the state in environmental protection, and in particular its real aspect.

Environmental protection is a typical interdisciplinary problem, strongly connected with economics. The transformation of the Polish economy to a market orientated one could suggest that this problem might also be left to the free market. However, environment pollution is often seen as a market failure. Thus, especially in Polish conditions, where the state is in great part responsible for the present status of the environment, government action is still necessary. The commonly used instruments of these actions in Poland: fees, penalties and ecological funds are described in Chapters 3 and 4. Their efficiency has been analysed basing on investigations done between 1985–1991, and found wanting. Also, international cooperation as a new field in the activity of the state in environmental protection has been discussed in Chapter 5, stressing the increasing role of eco-conversion and multilateral funds.

In Poland, due to the still existing relicts of a centrally planned economy and general under-development in environmental issues and structures, the role of the state remains important. Existing economical instruments should not be removed, but rather adapted to the new conditions of a market economy.

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Jan Borowiec

DEVELOPMENT STRATEGIES OF THIRD WORLD COUNTRIES*

This paper aims to analyse and appraise the growth strategy of Third World countries from the point of view of economic growth, structural changes, social evolution and the role of the state in the process of development.

The development strategies are taken to be certain concepts of development realized with the use of a suitable set of tools. The strategies presented here are global, i.e. concerned with the development of the economy as a whole, not just with particular sections of the economy.

There are six chapters based on a logical order. Chapter 1 is concerned with the general presentation of development strategies in the Third World. Chapter 2 characterizes the liberal strategy, which is based on investments in the market; the author considers not only the experiences connected with its introduction into Third World countries, but also the relationship between prices and effectiveness, as well as price distortions which are widely present in these countries. Chapter 3 presents in a broad way the problems of an open market economy strategy, starting from a critical appraisal of free trade and state protectionism theories; it presents the role played by exports in economic growth – its expansion in the world economy and the economies of particular developing countries. Chapter 4 is devoted to the problems of industrialization; there is a detailed analysis of two models of the strategy; import substitution and pro-export development. There is also a detailed analysis and evaluation of the policy of industrial development which supports such a strategy, i.e. the production of goods and public services by the state which facilitates industrialization and the interventions of public authorities into the markets. Chapter 5 concentrates on the strategy of agricultural development. It presents the role played by farming in the Third World, the most important activities within this strategy and the appraisal of the influence of macroeconomic and agricultural policies on the development of agriculture. Chapter 6 deals with the redistribution of the development strategy. The author draws attention to the simultaneous existence of growth and significant income discrepancies in Third World countries; he presents certain concepts of this strategy and experiences of selected countries in its practical realization.

* This book was published in: *Prace Naukowe AE [RW of WAE] No 655. The Series: Monographs and Elaborations No 102, Wrocław 1993, 125 pp.*

Józef Dziechciarz

**ECONOMETRIC MODELING
OF ECONOMIC PHENOMENA.
MODELS WITH VARYING
AND RANDOM COEFFICIENTS***

The book contains a comprehensive survey of various econometric model formulations in which the assumption is accepted that coefficients may vary across observations. A wide argument for econometric models formulation with varying parameters is given. The classification covering all possible constructions with fixed and varying coefficients is proposed. Depending on the accepted parameter variation structure, one may classify such models into several groups:

- models with fixed parameters;
- models with variable but nonstochastic parameters; and
- models with randomly varying coefficients.

The latter group consists of two types – models where coefficients are generated from stationary and models in which parameters are generated from non-stationary processes. All three groups are surveyed. Additionally the fourth type of constructions with the parameter variation allowed – those based on the Bayesian methods – are mentioned.

Several representative models from each group are shown. Special emphasis is placed on estimation, testing the specification and possible fields of implementation. Justification for the various model formulations is given. Numerical examples of possible implementations of some models illustrates the practical problems arising while modeling economic phenomena.

A detailed list of references covering books, articles and unpublished contributions in Polish, English and German languages ends the survey.

Zofia Hasińska

**REGIONAL AND LOCAL LABOUR MARKETS
IN LOWER SILESIA****

Regional and local labour markets in a complex market system are interconnected, particularly with commodity and service markets and with higher level

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** This book was published in: *Prace Naukowe AE [RW of WAE] No 652. The Series: Monographs and Elaborations No 100, Wrocław 1993, 256 pp.*

labour markets. They perform a role of labour force reproduction regulator and that of goods and services production.

The investigations carried out in Lower Silesia served to state the actual, spatial range of these markets as well as showing the whole complexity of socio-economic and demographic conditioning of supply situation broken up by territory and the socio-occupational picture. Also essential differences of a centrally planned economy rebuilt towards a market economy became manifest. The result of these differences was that the most significant role in forming a high labour force deficit in the period of socialism was played by industrialization and urbanization processes assisted by population migrations, whereas decisive for the territorial differentiation of unemployment in the period of transformation were structural factors, particularly the concentration of traditional industrial branches and of specialized service activities in the field of tourism and of health resort treatment.

Future changes in regional and local labour markets will proceed under the influence of restructuring, privatization and of badly understood adaptation processes in the material and immaterial sphere. The complexity of these transformations and the severity of their social results constitutes justification of the necessity of multilateral activity, regularizing in relation to labour supply and demand and of close co-operation of the four forces responsible for the employment and labour market policy: state administration, trade unions, employers' organizations, and local self-government. It needs a balanced connection of liberal and Keynesian approach in socio-economic policy as well as of working out regional and local solutions in counteracting unemployment and reducing its negative results. The monograph may prove useful in showing the results of the analysis of the past course of the processes on the investigated labour markets, and descriptive and quantitative research methods, which have been verified in practice.

Stanisław Heilpern

DECISION MAKING UNDER UNCERTAINTY*

The aim of this book is the analysis of decision making under uncertainty, especially with regard to the representation of space of states of nature. The distribution of uncertainty – the mathematical model of different kinds of uncertainty – is a basic notion of our paper. It reflects the state and character of our knowledge about the space of states of nature.

The main distributions of uncertainty: distribution of probability, belief

* This book was published in: *Prace Naukowe AE [RW of WAE] No 619*. The Series: *Monographs and Elaborations No 91*, Wrocław 1992, 156 pp.

structures, fuzzy sets, the families of probability measures and the fuzzy families of probability measures are studied. The basic relationships between different distributions of uncertainty and the problem of combining and updating them are presented too. The optimal decision is treated as decision maximizing the expected payoff. The methods of deriving expected payoff under different distributions of uncertainty are presented. The expected payoff depends on the kind of distributions of uncertainty. The choice of optimal decision is based on a selection function taking into account the proclivity of the decision maker to risk and assurance. The problem of representation of uncertainty knowledge in expert systems and decision support systems is mentioned.

The book contains numerous economical examples showing the potential possibility of applying the theory to practical problems.

Andrzej Kardasz

THE RESULTS ACCOUNT AND ITS FUNCTIONING IN THE ECONOMIC SUBJECT*

The financial results of an economic subject are of interest to many other subjects in its environment as well as the persons it employs. The needs related to that interest make it permanent throughout the whole period of existence of the economic subject or even beyond it.

Giving, and earlier compiling the suitable information on financial results, is a task of results account. It is generally treated as a financial statement or just a procedure to establish a result. Such a view is typical not only of Polish conditions but also some other more developed economic systems. However, its scope should be acknowledged in a broader sense, not just within the general realm of accounting.

The results account is a sub-system within the system of economic information of the enterprise. It is defined by its precise subject and methodology and also its functional structure, which can be divided into three parts: planning; records and statement; retrospective. The methodological development of these levels of applied results account was uneven in Polish conditions. There was strong pressure from outside recipients and users of information about the financial result. Hence such a strong intervention of legal controls, particularly with the records and statement account; less so in the case of retrospective and planning accounts. Today all these parts are on a different 'evolutional level'. The most backward in its methodology is the planning account, centred in the

* This book was published in: *Prace Naukowe AE [RW of WAE] No 616. The Series: Monographs and Elaborations No 90, Wrocław 1992, 135 pp.*

past around the statement comparing the expected takings and the costs of obtaining them, and not concerned with searching and shaping the desired size of profits.

The requirements of implemented financial policy demand such results which could become a factor assuring the permanent ability to self-finance which in turn implies activities without incurring losses. Most importantly this policy maintains or even improves the proportion of financing existing assets, maintaining (or at least not decreasing) the substance – purchasing power – of the funds and saving the means to finance development. The necessary available result account is the only one that can function under these conditions.

Jacek Karwowski

EXCHANGE RATE FORECASTING*

The book covers selected topics and issues concerned with exchange rate forecasting. The author examines the volatility of the most important exchange rates and provides an assessment of these changes on debt servicing, foreign reserves and firms involved in foreign trade.

Exchange rate forecasting may be considered as one possible reaction to exchange risk exposure. Another major topic discussed in chapter one is the description of the exchange rate system in Poland and its implications for the economy.

Chapter two covers exchange rate forecasting techniques, as well as their theoretical justification. In addition, the author examines the performance of the forecasts prepared by Bank Handlowy w Warszawie SA and other institutions.

In chapter three, some concrete forecasting methods are proposed, i.e. modifications of filter rules and neural network. The simulation results seem to be quite encouraging.

The implementation of exchange rate forecasting methods in Poland is the main topic of chapter four. Only some methods (technical ones) should be used, preferably by the financial institutions (mainly banks) and big firms. Because exchange rate forecasting is a rather risky business, a broad range of hedging instruments against exchange rate fluctuations should be available on the market too.

* This book was published in: Prace Naukowe AE [RW of WAE] No 648. The Series: Monographs and Elaborations No 96, Wrocław 1993, 191 pp.

Irena Kociszewska

EMPLOYMENT CHANGES IN THE AGRICULTURE OF THE SOUTH-WEST MACROREGION*

In this work the author presents the results of extensive research into agricultural employment of the region with specific economic demographic and historical features. These features are presented in detail in Chapter I describing the region.

The research is concerned with seven provinces in the period 1960–86 and for its purpose the author used data from national censuses, unpublished statistics of GUS (the main office of statistics; tables of provinces), her own materials based on questionnaires conducted in 13 villages of the macroregion. They form a picture of the size and conditions of mobility of the agricultural labour force in the region and compares it with the rest of the country. The results of research into the dynamics and structure of employment in the state-owned and private sectors of agriculture and the very detailed analysis of those problems within private farming, and also the examination of the migration from agriculture in both compared territories, prove that the results of mobility – defined in terms of the demand for labour – are better in the south-western regions than in the rest of the country. Such a conclusion is based on the relatively lower age of the labour force, the smaller percentage of women and the higher than national average levels of education.

The reason for this situation rests in the particular characteristics of the region, those connected with farming and others. The region had in the past a large share (around 40%) of state-owned agriculture and was one of the most urban and industrialised parts of the country. Therefore the research should distinguish the appearance of the following features typical for industrialised regions like for example, the higher than average growth of professional activity among women. Another more locally pronounced feature was the slowing down of the ageing process among the agricultural labour force connected with the different demographic structure of the region. Among the other reasons for the differences in factors was the migration between provinces connected with the localization of the industrial centres attracting the labour force.

In this work, apart from the empirical results, there are also given several statements of a general and theoretical nature. An extensive (275) list of the subject's literature is shown; there is also an appendix containing 35 tables.

* This book was published in: *Prace Naukowe AE [RW of WAE] No 609. The Series: Monographs and Elaborations No 88, Wrocław 1992, 171 + 34 pp.*

Adam Kopiński

EVALUATION METHODS OF ENTERPRISE ECONOMIC CONDITION*

The methodology of researching the enterprise economic condition as well as the simulation of enterprise behaviour in various changing critical situations including short and longterm forecasts of market trends tends to minimize the risk concerned with starting or continuing an economic activity. This problem belongs to the very modern but rather difficult statistical, economic and computer tasks connected with decision support systems. This paper gives some propositions for constructing an indices system for measuring the enterprise economic condition, which enables the observation and analysis, as well as the diagnostics and forecasting of basic economical indices.

Based on the scheme of managerial, productional and financial connections in an enterprise, the set of indices has been divided into monothematical subsets (module structure) and the possible application areas of each indices system module (area structure) was defined as follows:

1. informational – presentation area,
2. structural – warning area,
3. dynamical – prognostic area,
4. analytical – simulation area,
5. decisional – consulting area,
6. synthetical – strategic area.

The applications area described in the following chapters of this paper define simultaneously the functions postulated for the system of economic condition indices, which can be realized through some adequate mathematical, statistical and computer techniques. The module – area structure determines the possible development directions of the economic condition indices system, which follows from the actual tendencies for time and team-sharing in project and programming jobs.

* This book was published in: *Prace Naukowe AE [RW of WAE] No 590. The Series: Monographs and Elaborations No 86, Wrocław 1992.*

Mieczysław Przybyła

IDENTIFICATION OF THE ORGANIZATIONAL STRUCTURE OF AN ENTERPRISE*

Problems concerning the description of organization structures of enterprises are the issues being discussed in this book. Three key research questions have been asked. First: are there any universal attributes that relate to all organization structures? And if yes, what are these attributes? Second: can these formerly identified attributes be quantified in order to measure them in the particular time? Third: what are the similarities and differences among enterprises of different size considering the formerly identified structural attributes? The search for the answers to the above questions has resulted in the discussion of them on three interrelated levels: analytical description, postulated approach, and examples consideration.

In considerations regarding analytical description, diversified research approaches applied by different streams of management theory to perceived dimensions of organization structures have been indicated.

On the postulative approach level, the situational point of view has been accepted by the author. The author's own conceptual and operational proposals have been presented in this part of the book. In respect of the scope of the book, conceptualization has been applied only to a limited extent, i.e. the organization structure has been defined and its specific dimensions constituting the so-called dependent variables identified. The operationalization, however, has been more extensively applied to the measurement of organizational attributes formerly identified in the conceptualization stage. Each attribute measured has been formalized. In measurement the quotient scaling method has been used, thus achieving the natural zero point in relation to all attributes measured.

In examples consideration, the proposed measurement methods of the attributes under study have been practically verified. The research work has been carried out in 21 enterprises of the clothing industry. The research findings indicate that the methods applied allow us to univocally measure particular attributes. And so, besides a qualitative statements saying, for instance, that a particular enterprise is 'more' or 'less' centralized, a concrete index showing the centralization degree can be obtained with the method proposed in the book.

Additionally, the correlation coefficient between the enterprises' size and structural attributes, and among these attributes themselves, have been calculated, presented and discussed in the book.

* This book was published in: *Prace Naukowe AE [RW of WAE] No 630. The Series: Monographs and Elaborations No 93, Wrocław 1992, 170 pp.*

Jerzy Rymarczyk

PROTECTIONISM IN THE ECONOMIC THEORY
AND TRADE POLICY OF THE EUROPEAN
ECONOMIC COMMUNITY*

The book is a theoretical-empirical study. As regards theoretical issues, the author carried out the reconstruction of trade protectionism related achievements of foreign trade theory. The analysis of the economic theory of protectionism has, among other things, a historical dimension which means the presentation of the following approaches to trade protectionism: autarkical concepts in the ancient world, classical 19th century approach with its developments and revisions in the modern economic theory, as well as a thoroughly new interpretation of the New Political Economy. Against this general background, the author presents the economic consequences of applying tariffs and non-tariff trade barriers, also paying attention to the problem of their equivalency. Achievements of modern economic theory in the range of estimating the total influence of both the above mentioned kinds of constraints to foreign trade have also been included (concepts of total nominal and effective trade protection level). Later, the author relates theorems of foreign trade theory to the real performance of international trade relations, analyzing classical protectionism and neo-protectionism in the context of EC trade policy. Other points of reference for this analysis are general trade rules and the principles of GATT. When investigating the limitation of tariff protectionism (it manifests itself in essentially decreasing nominal and effective trade protection levels of EC countries, as well as in the development of a tariff preference system for developing countries), the author proves that this limitation related outcomes of trade liberalization have been, to a big extent, compensated by increased non-tariff protectionism. This conclusion is based in particular on the analysis of development of non-tariff protectionism in the years 1966-1986 that shows the leading role of EC member countries in the whole group of highly developed economies from the standpoint of the frequency of using non-tariff trade barriers.

The author discusses in detail the performance of the most important non-tariff trade barriers that are used by the EC in order to protect the internal market of industrial and, particularly, agricultural products. Moreover, he describes the scope and nature of the barriers concerned in EC trade with the U. S., Japan, developing countries and CEE states, with the emphasis on liberalization measures vis-a-vis EC countries and member states of the former CMEA. The liberalization under examination has led to the establishment of the European

* This book was published in: *Prace Naukowe AE [RW of WAE] No 629. The Series: Monographs and Elaborations No 92, Wrocław 1992, 339 pp.*

Single Market and, on the other hand, treaties on association with some CEE countries.

The last chapter of the monograph is a discussion of the possibilities to confine protectionism in international trade. The author analyzes this problem from two points of view: (1) liberalization perspectives in conjunction with the GATT Uruguay Round; (2) European Single Market related chances of – and threats to – international free trade development. The author draws a conclusion about the persistent character of trade protectionism. He also points to the fact that in the real world trade liberalization and, on the other hand protectionism, have to be regarded as interrelated (self-supporting) processes.

Urszula Siedlecka

WARNING FORECASTS*

Warning forecasts belong to a great area of research dealing with the diagnosing and forecasting of economic processes. The recognition of a current economic situation itself can be perceived as an aspect of a forecast due to the delay of data. This monograph presents the methodology of warning forecasting and the analysis of Poland's economic system using a computer system of early warning, thus proving that the symptoms of an economic crisis may be noticed early enough. It is presumed that properly developing economic systems exhibit monotone economic growth. Therefore, as this monotonicity is disturbed resulting in the change of the growth rate, warnings should be given. A simple tool device has been developed to produce such warning signals and to forecast the moments of decrease in value of phenomena under study. The breakdown of the growth's monotonicity, as statistical research presented in the monograph had proved, mostly leads to the unfavourable economic situation that is defined in the work.

The computer implementation of the warning forecasting system resulted in the automation of an early warning procedure, thus becoming an important tool for the decision-making process where economic breakdowns may be really foreseen so as to take measures against them.

The problems of warning forecasting being tackled in the work do not cover the whole of the subject due to its enormous scope. The warning forecasting system presented here should be followed and completed by researches of conjuncture.

* This book was published in: Prace Naukowe AE [RW of WAE] No 651. The Series: Monographs and Elaborations No 99, Wrocław 1993, 227 pp.

Juliusz Siedlecki

BINARY EQUILIBRIUM IN ECONOMY*

The beginning of the 1990s in Poland has been marked by the struggle with hyper-inflation. This struggle should result in equalizing demand and supply. Such an equilibrium, as it appears, does not bring about the phenomenon of universal welfare and its generating mechanism means (in simplification) a budget equilibrium produced mainly by the increase of prices and taxes and by the limitation of incomes.

The interpretation variety of the notion of equilibrium encouraged the author to present his own concept of economic equilibrium. While analyzing economic relations one can observe that, in spite of their complexity, most of them are characterized by strong dependences between distinguished pairs of variables. It means that the decisive influence upon the given variable under control is generally exercised by only one of the control variables connected with it. Moreover, the occurring feedbacks make it possible to specify many chains of dependences in the national economy which build up cyclic systems. The author introduces the notions of binary dependences and binary cyclic equilibrium and verifies them with many examples using real data from Poland's economy.

With due appreciation to the role of econometric models in the analysis of economic equilibrium (and disequilibrium), the author asserts however that their binary construction presented in this work and based on the method of iterative regression not only makes it possible to detect and quantify the nonlinear dependences but also to constantly, by eye, verify the quality of constructed models thus enhancing their practical applicability.

* This book was published in: *Prace Naukowe AE [RW of WAE] No 612. The Series: Monographs and Elaborations No 89, Wrocław 1992, 131 pp.*