# 1 EMILIAN DOBRESCU AT 75 YEARS

Born in Bucharest on May 22nd 1933. His father, Dobrescu Ştefan, was a carpenter, and his mother, Dobrescu Alexandrina, worked in a textile factory. He had a sister (Ana) and a brother (Marin). Married since 1959 to Eugenia Viorica, Ph.D. in Chemistry. They have a daughter, Ruxandra Adina, who is an architect.

Attended the classes of the Commercial High School "Regele Carol I" in Bucharest, which he has graduated in 1951. Alumnus of the Economics Faculty of Lomonosov University in Moscow (1956). He got his Ph.D. in Economics in 1963. Documentation and research in the USA (for the input-output analysis in 1970, and for transition issues in 1996).

Has been elected corresponding member (March 1st, 1974) and full member (January 22nd, 1990) of the Romanian Academy.

Member of the professional associations "L'Association de Comptabilité Nationale" (Paris), "The International Association of Research in Income and Wealth" (Ottawa), "The Society for Financial Econometrics" (New York).

## I. Researcher, professor, practician

A. Emilian Dobrescu has published over 100 papers and books (out of which 15 in collaboration), the main titles being listed in the enclosed Section II. The bibliographic references are presented hereafter by indicating the paper number as listed in the above-mentioned section.

Their topics revolve around the quantitative analysis of the Romanian economy development, resorting to the necessary conceptual support. The studies elaborated by Emilian Dobrescu over more than five decades show a clear evolution of its

doctrinal-epistemological vision, from the militant Marxian normativism towards a descriptive-pragmatic interpretation of the observed facts.

**1. Some of the frequently approached research directions are the theory and methodological issues of economic measurement.**

1.1. Back in the 60's and the 70's, Emilian Dobrescu advocated the need of matching the statistical system of material production to the structure of national accounts (5, 7, 12), as well as linking Romania to the international comparisons (regarding the purchasing power parity) organized under the aegis of the UNO. He has proposed an integrated classification of macro indicators (including their reciprocal algebraic relationships) designed for an economy like the Romanian one, applicable to statistics as well as to forecasting and planning (12).

1.2. As one of his constant preoccupations, he promoted modern methods of quantitative analysis. Thus, he has calculated the tables of growth rates using the parabolic mean (4). He has coordinated (1968-1973) the elaboration (based on American experience) of the first Romanian input-output tables (8, 12, 15). He is co-author of a typology of the national economies that employed the matrix multipliers of the international trade (13). He has proposed methods for the direct estimation of indicators for which the official statistical series were missing, such as: the size of the gross domestic product created by the informal sector (30-31, 35, 45), fixed capital indices in constant prices (59, 60), monetary distortion induced over the transition period by arrears and parallel forex market (25, 26, 30, 31, 36, 44), labour elasticity in the production functions (59, 60). He is the one who devised a new method to compute core inflation, based on the relative prices variation (38, 40). He has also proposed to determine the potential output not only in relation to the internal equilibrium expressed by inflation, but also in relation to the external equilibrium, reflected by the net export to GDP ratio (53).

1.3. Economist of his time, Emilian Dobrescu has systematically observed and commented on the performance of the Romanian economy during the second half of the 20th century. He identified the following evolution stages: a) the post war recovery and the transition towards socialism, b) the stabilization and relatively quick development of the centrally planned economy, c) its disintegration in the 80's and the establishment of market mechanisms, and d) integration into the European Union (4-6, 9, 11, 20, 22, 30-31, 41, 47, 49, 50-52, 54-55). By attempting to generalize the traits of the economic and social life functioning in stages a) and c), he defined the concept of institutionally weakly structured economy (22, 24, 28-30, 42).

1.4. In the 1980's, Emilian Dobrescu studied the validity domains and the interdependencies of the main forms of economic measurement: utility, labour content, energy intensiveness, economic value and prices (18). He has reformulated in dynamic terms the famous "transformation problem", illustrating by a simple numerical model the historical transition towards the modern multi-factor prices (19). Following a thorough mathematical and economic analysis, he set the grounds for the thesis according to which – in the context of the centrally planned system – "if correctly set, the multi-factor plan prices reveal themselves as useless, and if not correctly determined, they are damaging to the economy" (18, p.162). "The work which represented a total break-up with the economic <socialist> ideology imposed

upon the economic thinking, in general, and upon that regarding prices, in particular, was the fundamental research of Emilian Dobrescu, "Măsurarea economică" ("Economic Measurement") (1989)" (V. Pilat: "Funcţionarea economiei naţionale", Editura Rosetti Educational, Bucureşti, 2006, p.165).

**2. The bibliographic references included in Section II reveal a significant number of papers dedicated to the main macroeconomic correlations** (2-3, 5, 9-10, 12, 15, 30, 34, 40, 49, 56). The author has demonstrated that in Romania's case, sustaining a prolonged investment effort was the sine qua non condition for reducing the historical gap as against the developed economies. Nevertheless, his papers warned about the risks involved by any excess in that respect, generated especially by engaging resources of poor quality in the economic circuit, and by disincetives to the labour force (12, 15). Thus the efficiency of accumulation as a function of its rate has been econometrically expressed through a parabola with a maximum (12, pp. 67-70). In his public statements, he defined the imperative of a strong investment program for Romania as a "high, rationally dimensioned, accumulation rate".

**3. Emilian Dobrescu also concerned himself by the cyclicity problem.**

3.1. One of his approaches targets the dynamic equilibrium of the economy (12, 15-16). It is based on the fact that, irrespective of the dominating macroeconomic production function at a given time, its yield will be influenced by the restrictiveness of certain factors (such as the active population, physical capital, available technologies, access to energy sources and raw materials, etc.). In order to accelerate economic growth such a restrictiveness can be surpassed by inputs from outside the given system (immigration, foreign loans, etc.), over-utilisation of productive capacities, of labour force and natural resources, environment pollution, etc., and all these ways involve future compensating expenditures.

Therefore, both amplifying (the plus induced by the supplementary attracted resources) and limiting (the minus triggered by the later "pay for" the costs induced as such) effects occur, which trigger a certain oscillation of the overall output rate, and even of its level.

Each of the previously mentioned categories manifests itself in several ways, two of which – gradual development and sudden occurrence – being retained as typical. As a function of this behaviour, there can be identified: a) the moderate cycle (both types of effects are achieved gradually), b) the abrupt cycle (both types of effects occur suddenly), and c) the combined cycle (they evolve differently). Because they appear in a development context, they have been considered cycles of the dynamic economic equilibrium.

Using a numerical model based on the time expression of the amplifying and limiting effects as exponential functions, the author admits as preferable the combined cycle, where the amplifying effect is achieved suddenly, and the limiting one gradually. These contributions were positively commented by I. Rachmuth (Revue Roumaine des Sciences Sociales, Serie des Sciences Economiques, Tome 21, No.1, 1977, p. 87), Gh. Mihoc and V. Urseanu (Revista Economica No .7, 1977, p. 25).

3.2. The second approach refers to "the long waves" (of Kondratieff type). Based on research in their technological, investment, social and demographic components, three types of such possible macro-cycles have been identified: a) inertial, b) sequentially controlled and c) optimal (17). M. Alter pointed out that "The approach of Prof. Emilian Dobrescu is centred upon the thesis of the objective existence of the economic macro-cycle in all the social systems. Being a complex result of the whole functioning mechanism of the national economy, the economic macro-cycle … might be an impulse for the economic progress, and restrict the economic growth as well" (Revue Roumaine des Sciences Sociales - Serie des Sciences Economiques, Tome 29, No.1, 1985, p. 79).

**4. Emilian Dobrescu is one of the steady promoters of the econometric and modelling techniques**. He has not limited himself to revealing their cognitive and predictive advantages (1, 48-49), but has also devoted the greatest part of his research efforts to developing applications relevant for Romania.

He is the author of the first Romanian econometric models – single-sector and pluri-sector – published in the early 70's (9-10). They generated an extensive debate at that time (*Probleme Economice*, no. 2-6 and 10, 1972; *Contribuţii la dezbaterea problemelor teoretice ale economiei socialiste*, Editura Politică, 1974, pp.139-201). Suggestions and appreciations have been formulated by M. Altăr, F. Bash, M. Capătă, N. Costake, Em. Florescu, M. Horowitz, A. Iancu, I. Iliescu, V. Pescaru, V. Rausser, I. Saphier, N. Teodorescu, E. Topală. T. Schatteles showed at that time that: "In our country several studies regarding the economic growth, especially of a methodological nature have been published … However, it is for the first time that someone attempts a numerical simulation of the growth process of our economy, and in an exemplary manner. The various known models in the literature to which we resort so often do not always possess the ability of materializing themselves numerically with the help of the existing statistics. The model(s) in the discussed paper is (are) a beautiful technical solution in this respect" (Probleme Economice, No. 6, p.115). These models were updated in 1976 in the form of a dynamic three-sector system (12).

**5. After 1989, Emilian Dobrescu focused on elaborating macromodels suitable to the transition to market economy. Several experimental variants were tested during 1991-1995** (21-24). The debates initiated in that period by institutes of the Romanian Academy, the Bucharest economic faculties, the General Association of the Romanian Economists, and the Romanian Economic Society constituted an exciting environment for these studies.

5.1. The first operational version (30) was finalised after the author's visit at the Hoover Institution, where he had the opportunity to discuss the transition and modelling problems with J. Taylor (Stanford University), I. Adelman (Berkeley University), E. Lazear (Hoover Institution), J. Raisian (Hoover Institution), M. Bernstam (Hoover Institution).

This version, as well as the following ones, took into consideration the peculiarities of transition economies, which can be regarded as, at least in the case of Romania, a

weakly structured system (from an institutional point of view).  This state is characterised by specific features:

- for a relatively long period, the property rights are not clearly defined;
- the economic life is also marked by a mixture of old and new rules;
- the discretionary intervention of public authorities is substantial and submitted to changing political interests;
- the formal institutions are incomplete and soft, but the informal ones have an important role in the economy and society.

Under such circumstances, the modelling problems are very complex. The theoretical standard assumptions must be correspondingly accommodated. At the same time, econometrics has to be based on unreliable statistical series.

The main relationships of the 1996 operational version of the macromodel referred to: real output, consumption, investment, foreign trade, labour force, labour productivity, exchange rate, price indices, labour income, general consolidated budget, interest rate, and other monetary variables. The real output was estimated separately for the following five sectors: a) industry and constructions; b) agriculture, forestry, hunting and fishing; c) transport, post and communications; d) public services; and e) trade, banking and other services.

5.2. The second operational version of the macromodel (32-33) underwent some changes:

- the introduction of a special block for demographic variables (population, population over 15 years, labour force, retired people);
- the connection of the annual indicators to a monthly block for the evolution of export and exchange rate;
- the aggregation of the previous five sectors into three, namely: a) industry, constructions and agriculture; b) transport, communications, trade, banking and other services; c) public services.

The 1997 version took into account valuable suggestions from W. Charemza (Leicester University), S. Hall (Imperial College and London Business School), and J. W. Velthuijsen (University of Amsterdam).

Beginning with this version, C. Scutaru, C. Ciupagea, P. Fomin and afterwards B. Păuna, I. Ghizdeanu, C. Sâman published systematically predictions using the "Dobrescu macromodel" (Internet Securities ISI Emerging Markets Inc. Boston, US; Romanian Journal of Economic Forecasting, Romanian Academy).

5.3. The third operational version of the macromodel (34, 37) modified the previous one through:

- improved estimation of the expected income of households, firms, and public budget;
- delimitation of the most important consequences of the budget deficits;
- more detailed elaboration of the possible scenarios concerning the future evolution of the Romanian economy, depending on internal macroeconomic (especially structural) policies and international environment.

The interesting suggestions formulated by J. Bradley (Economic and Social Research Institute of Dublin) have been introduced into the Romanian macromodel.

5.4. The fourth operational version (39) was characterised by the following main changes:

- the determination of the real output for the entire economy, without branch division;
- the estimation of the main components of the domestic aggregate demand (absorption) using econometric relationships;
- the determination of export using exclusively relationships reflecting the market conditions, while the influence of the historical trend was abandoned.
- the use of the  bootstrap techniques.

This version was presented at the 1999 Fall Meeting of the International LINK-Project.

5.5. The fifth version of the macromodel (40-41, 49) introduced relationships concerning foreign direct investment, non-reimbursable foreign loans, public debt and total external debt. It was divided into three main blocks:
- output and absorption (aggregate demand);
- production factors and labour income; and
- financial and monetary variables.

This version continued to operate preponderantly with annual indicators. However, in the following cases, both annual and monthly ones were involved: consumer price index, monetary base, exchange rate, export, and import. C. Ciupagea and G. Țurlea added a block for the foreign trade, disaggregated according to the SITC LINK classification.

The 2000 version has been used in projection of the "Romania's medium term economic strategy" for integration into European Union. The estimations of its subsequent updated forms (during 2001-2004) were included into yearly national "Pre-Accession Economic Programmes" (47, 50-52, 54).

5.6. The series of the 1996, 1998, and 2000 operational variants have been presented in „*Journal of Economic Literature* (An American Economic Association Publication)": Volume 35, no. 2, June 1997, p.843; Volume 37, no. 1, March 1999, p. 246; Volume 39, no. 2, June 2001, p.644. This series of the macromodel was also awarded in 2001 The Prize of the National Bank of Romania. In his speech on that occasion, Mugur Isărescu, Governor of the National Bank of Romania, mentioned: "The prize for *an outstanding study in the economic or finance and banking area* is granted to Academician Emilian Dobrescu. Due to his efforts a remarkable study, "Macromodels of the Romanian Transition Economy", has been published, in three editions, in 1996, 1998 and 2000. The prize was granted especially for the original contributions in the field, and the applicability of the presented model to the Romanian economy; ever since 1998, the Dobrescu macromodel has been used by the NBR to formulate and enforce the monetary policy of Romania" (49, p.94-95).

**6. Over the period 2003-2006, Emilian Dobrescu worked on a new version of the Romanian macromodel** (56, 58-60), which incorporated the experience accumulated

through the utilisation of previous forms and, at the same time, introduced some important methodological and informational changes.

6.1. The most significant of them was the reverse to the structural analysis, associated with input-output techniques. Being the first such attempt for the Romanian economy, a reduced number of sectors have been preferred. Consequently, the output and absorption are divided into six sectors, namely: a) agriculture, silviculture, forestry, hunting, and fishing; b) mining and energy; c) manufacturing industry; d) construction; e) transport, post, and communications; f) trade and services. They are computationally interconnected through input-output coefficients, derived from extended tables for 105 branches.

6.2. The model contains annual variables. The nominal indicators are expressed in denominated local currency (RON). Taking into account the great share of the European Union in Romanian's foreign trade, the export, import, and exchange rate series were transformed into euro.

6.3. Due to the relatively advanced stage of the transitional processes in Romania, the behavioural functions were worked up - as much as possible - through standard relationships. Moreover, unlike the previous versions, that used statistical series beginning with 1980, the last one is based exclusively on information regarding the period 1989-2004. As a result, the author has considered more adequate to name the 2005 version as a macromodel of the Romanian market (not transition, as before) economy. On its basis a set of stochastic simulations have been operated (61)

This version is currently used by the National Commission for Prognosis in their own predictive estimations.


B. Emilian Dobrescu has also pursued with the same dedication a long teaching career. He was, in turn, assistant, lecturer, senior lecturer and professor at university cathedras in Bucharest, teaching courses in the field of economic theory, analysis and econometric modelling. He is co-author of several economics textbooks for university and high school education. About 20 graduates got their Ph. D in economics under his guidance.

Since 1990 he has been researcher and member of the Scientific Council of the National Institute for Economic Research, and since 1993 he has been member of the Scientific Council of the Romanian Academy Library.

In June 1990 he founded the Macroeconomic Modelling Seminar at the National Institute for Economic Research of the Romanian Academy (site: www.ipe.ro Seminarul de Modelare Macroeconomica).

C. Advocate for active researches, with finality within the social reality, Emilian Dobrescu has held a range of public positions in the field. Thus, he was member of the Economic Council and President of the Scientific and Methodological Council of the Central Division for Statistics (1969-1973).

He was the first vice-president (1972-1978) and president (1981-1982) of the State Planning Committee, position from which he resigned due to the rejection of the proposals for the restructuring of the Romanian economy he had formulated on behalf of himself (excerpts from his memo at that time have been published by C. Ionete in

his book *Criza de sistem a economiei de comandă şi etapa sa explozivă*, Editura Expert 1993, pp. 207-209).

Between 1983 and 1988 he was vice-president of the National Council for Science and Technology. In this position, he was member of the Central Council for standardization, (1984-1986).

At the National Institute for Economic Research, he has participated in studies for grounding possible strategies of switching Romania to the modern market mechanisms. Over the periods 1993-1995 and 1998-2002 he was member of the Consulting Economic Group of the Romanian Presidency. In 1997 he becomes member of the Council for Science and Technology of the Ministry of Research and Development. Since 1998, he has been member of the National Council for Coordination of the Statistics Activity in Romania.

## II. Representative papers and books

1. "About Utilisation of Mathematics in Economic Research", *Probleme Economice,* No. 8 1961, pp. 98-115 (Romanian).
2. "The Correlation between Technical Progress and Growth of the Social Labour Productivity", *Probleme Economice,* No. 6 1963, pp. 3-18 (Romanian).
3. "Some Aspects of the Correlation between the Labour Productivity Growth and Increase of Standard of Living", *Probleme Economice*, no. 8 1963, pp. 3-11 (Romanian).
4. *Social Labour Productivity*, Editura Politică, 1964, 280 pages. (Romanian).
5. *The Rate of Economic Growth*, Editura Politica, 1968, 400 pages. (Romanian). This book has been awarded in 1989 the "P.S. Aurelian Prize" of the Romanian Academy.
6. *The Structure of Romanian Economy*, Meridiane Publishing House, 1968, 103 pages. (English, German, Russian, French).
7. "Concerning the Social Labour Sector which Creates National Income", *Probleme Economice*, No. 3 1970, pp. 68-72 (Romanian).
8. "The Inter - branches Balance - an Instrument of Structural Analysis of Economy", *Economic Computation and Economic Cybernetics Studies and Research*, No.4 1970, pp.27-51 (English).
9. *The Correlation Between Accumulation and Consumption*, Editura Politica, 1971, 214 pages. (Romanian).
10. "Models of the Correlation between Accumulation and Consumption for the Forecast of the Development of Romanian Economy", *Revue Roumaine des Sciences Sociales*, Tome 16, No.1 1972, pp.93-109 (Russian).
11. *The Structure of Romanian Economy* (with I. Blaga), Meridiane Publishing House, 1973, 216 pages. (English, Russian, French).
12. *The Optimum of the Socialist Economy*, Editura Politica, 1976, 483 pages. (Romanian).
13. *Tipology of the National Economies* (with C. Burtică – coord., Gh. Dolgu, C. Murgescu, T. Postolache, C. Moisuc, I. Dumitru, Şt. Pătruţ, I. Şerbănescu, A. Baciu), Editura Politica, 1977, 296 pages. (Romanian).

14. "The Revolution in Science and Technology and Some Problems of Macroeconomic Modelling", in Vol. *The Revolution in Science and Technology and Contemporary Social Development*, pp.103-112, Romanian Academy Publishing House, 1979 (English).

15. *The Optimum of the Socialist Economy*, Romanian Academy Publishing House, 1979, 304 pages. (English).

16. *Economic Growth Compensation Elements: On Cycles in Socialism*, International Center of Methodology for Future and Development Studies, Bucharest University Press, 1980, 40 pages. (English).

17. "The Optimum Economic Macrocycle", *Revue Roumaine des Sciences Sociales*, Tome 27, No.2 1983, pp.105-130 (English).

18. "Economic Measurement", in *Tratat de Economie Contemporana*, Vol. 2, Cartea II (coord. T. Postolache), pp. 29–198, Editura Politica, 1989 (Romanian).

19. "Again about < the Transformation Problem >", *Romanian Economic Review*, Tome 33, No.2 1989, pp.205-232 (English).

20. *Economic Notes* (with T. Postolache), Romanian Academy Publishing House, 1990, 119 pages. (Romanian).

21. "Macroeconomic Modelling and Transition to Free Market Economy", *Romanian Economic Review,* Tome 35, No.1-2 1991, pp.15-20 (English).

22. "The Transition and Economic Behaviour", *Romanian Economic Review*, Tome 36, No.1 1992, pp.3-16 (English).

23. "The Scheme of an Experimental Macromodel", *Romanian Economic Review*, Tome 36, No.2 1992, pp.117-126 (French).

24. "The Transition and the Macroeconomic Modelling", Cinquieme Colloque de Comptabilité Nationale, Association de Comptabilité Nationale, Paris-France, 12-14 December 1993, *Romanian Economic Review*, Tome 37 , No.2 1993, pp.157-165 (French).

25. "The LM Function in a Transition Economy", SOREC-IRLI, *Oeconomica*, No. 5 1993, pp. 21-22 (English).

26. "Money Velocity in a Transition Economy: The Case of Romania", *Romanian Economic Review*, Tome 38, No.2 1994, pp.111-120 (English).

27. Econometric Tests of some Monetary Hypotheses, SOREC Seminar Bucharest, February 25-26 1994, 5 pp., (English).

28. "Unstable Processes and Macroeconomic Modelling" - *Romanian Economic Review*, Tome 41, No.1 1996, pp.17-34 (English).

29. "Transition Economy – a Weakly Structured System" – *Romanian Economic Review*, Tome 41, No.2 1996, pp.111-120 (English).

30. *Macromodels of the Romanian Transition Economy*, Expert Publishing House. 1996, 160 pages. (English).

31. "The Dichotomy Real-Nominal in the Romanian Transition Economy", *Microeconomia Aplicată*, no.1 1997, *Supplement*, 48 pages. (Romanian).

32. "Macromodel of the Romanian Transition Economy – 1997 Version", *Microeconomia Aplicată*, No. 4 1997, *Supplement*, 88 pp. (Romanian) and *Romanian Economic Review*, Tome 42, No.2 1997, pp.137-198 (English).

33. *Macromodel of the Romanian Transition Economy – Econometric Functions of the 1997 Version*, National Institute for Economic Research, CIDE 1997, 25 pages. (Romanian).

34. *Macromodels of the Romanian Transition Economy*, Expert Publishing House, 1998, 275 pages. (English).

35. "An Attempt to estimate the Non-accounted Economy (the Romanian Case)", Septieme Colloque de Comptabilite Nationale, Association de Comptabilité Nationale, Paris-France, 28-30 January 1998; *Romanian Economic Review*, Tome 43, No.1 1998, pp.15-26 (French).

36. "Monetary Distortion in a Transition Economy (The case of Romania)", The 25th General Conference of The International Association for Research in Income and Wealth, Cambridge-England, August 23–29, 1998, 23 pages. (English).

37. "Macromodel of the Romanian Economy in Transition", The 25th International Conference "Macromodels '98" and the 3rd Conference of The International Association AMFET, December 3-5, 1998, Jurata-Poland, Vol. 1 1999, pp.131-152 (English).

38. "Core Inflation in a Transition Economy (The Romanian Case)", Proceedings of the Measurement of Inflation Conference, Cardiff University, August 31– September 1 1999, Editors:M.Silver and D.Fenwick, 1999, pp. 206-223 (English).

39. "Macromodel of the Romanian Transition Economy – 1999 Version", Project LINK Fall Meeting, November 1-5, 1999, Athens-Greece, 52 pages.(English).

40. *Macromodels of the Romanian Transition Economy*, Expert Publishing House. 2000, 224 pages. (English).

41. "Medium-run Scenarios of the Romanian Economy", *Romanian Journal of Economic Forecasting*, No.1-2 2000, pp. 8-28 (English).

42. "Romanian Transition Economy as a Weakly Structured System", in E.Zamfir, I. Badescu, C. Zamfir (coord.) – *Starea societăţii româneşti după 10 ani de tranziţie*, Expert Publishing House, 2000, pp. 54-80 (English).

43. "Macromodel of the Romanian Transition Economy - 2000 Version", *Romanian Economic Review,* Tome 45, No. 1, Jan.- June 2001, pp. 3-20 (English).

44. "The Financial Blockage of the Romanian Economy" (with  C. Mereuţă), *Romanian Journal of Economic Forecasting*, First Part no. 3-4 2000, pp.11-28; Second Part No.1-2 2001, pp.64-69 (English).

45. "Some Estimations Concerning the Informal Economy in Romania", *Romanian Journal of Economic Forecasting*, No.1-2 2001, pp.7-15 (English).

46. "Core Inflation in a Transition Economy", Proceedings of the Romanian Academy, Series C: Humanities and Social Sciences, No.1 2001, pp.27-35 (English).

47. "Macromodel Estimations for the Romanian <Pre-Accession Economic Programme>", *Romanian Journal of Economic Forecasting*, *Supplement* 1 2002, pp.5-38 (English).

48. "Introduction into Macroeconomic Modelling Foundations", *Romanian Journal of Economic Forecasting, Supplement* 1 2002, pp.39-88 (English).

49. *Transition in Romania – Econometric Approaches*, Editura Economica, 2002, 526 pages. (Romanian).

50. "Macromodel Estimations for the Romanian <Pre-Accession Economic Programme> (The 2003 Version)", *Romanian Journal of Economic Forecasting*, No. 4 2003, pp.23-49 (English).
51. "Macromodel Estimations for the Romanian Economy", IRIS Regional Partnership Project Conference, St. Petersburg, 7-9 June 2003, 25 pp. (English).
52. "Possible Evolutions of the Romanian Economy (Macromodel Estimations)", - *Romanian Journal of Economic Forecasting*, Supplement 2003, pp.32-64 (English).
53. "Double Conditioned Potential  Output", English, Paper Prepared for the 28th General Conference of  The International Association for Research in Income and Wealth Cork, Ireland, August 22–28, 2004, *Romanian Journal of Economic Forecasting*, No.1 2006, pp. 32-50 (English).
54. "Macromodel Estimations for the Updated 2004 Version of the Romanian Pre-Accession Economic Programme", PHARE programme RO2003/005-551.02.03, *Romanian Journal of Economic Forecasting,* No. 1 2005, pp.5-29 (English).
55. *Durable Development of Romania* (coord. with L.L. Albu), Expert Publishing House, 2005, 271-294 pp. (Romanian).
56. "Macromodel of the Romanian Market Economy (Version 2005)", PHARE programme RO2003/005-551.02.03, Romanian Center for Economic Policies; *http://www.cnp.ro/pdf., Site NCP*, 66 pages. (English).
57. "An Adaptive Retraining Method for the Exchange Rate Forecasting" (with I. Năstac and E. Pelinescu), *Romanian Journal of Economic Forecasting*, No. 1 2006, pp. 5-23 (English).
58. "Integration of Macroeconomic Behavioural Relationships and the Input-Output Block (Romanian Modelling Experience)", Paper presented at the International Conference on Policy Modelling (Ecomod 2006), Hong Kong, June 28-30, http://www.ecomod.org/files/papers/1564.pdf.  2006, 43 pages. (English).
59. *Macromodels of the Romanian Market Economy*, Editura Economică, 2006, 326 pp. (English)
60. "Modelling the Romanian Economy: Some Data Problems", *Romanian Journal of Economic Forecasting*, No. 1 2007, pp. 7-25 (English).
61. "Stochastic Simulations on the Romanian Macroeconomic Model" (with B. Păuna), Paper presented at the Thirty-Fourth International Conference Macromodels'2007 and Modelling Economies in Transition, Warsaw-Poland, 5-8 December, http://www.econometrics.uni.lodz.pl/macromodels/macromodels.html.,  2007, 80 pages.(English).
62. "Adaptive Forecasting Method for Non-stationary Time Series" (with I. Năstac and E. Pelinescu), The 27th Annual International Symposium on Forecasting (ISF), New York, June 24-27 2007, 30 pages. (English).

\*\*\*

Emilian Dobrescu is also a specialist in chess composition. He is co-author (with V. Nestorescu) of the monographs *Compoziţia şahistă în România* (Editura Stadion 1973, 312 pages.) and *Studii de şah* (Editura Sport-Turism 1984, 199 pages.). He has approached the chess study as a possible application of the principles of the Pareto optimality (*Chess Study as a Multi-Criteria System*, EG No.123, Vol. VIII, London

1997). He is the first Romanian to whom FIDE conferred in 1989 the title of International Grandmaster in chess study composition (the title of International Master has been conferred to him in 1980). His book *Chess Study Composition* (in English) has been published by ARVES (Amsterdam 1999, 301 pages.) as "Book of the Year".

**Romanian Journal of Economic Forecasting**