L A B O M S
For Microsoft

Windows

L A B O M S 2.1

A Large And Blockwise Oriented Modelling Software

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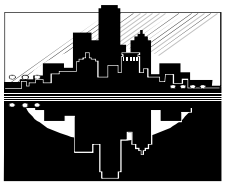

Modelling, a powerfull tool in decision support

Organisations in charge of the definition of economic and social policies are continuously confronted with the complexity of economic reality. That reality, whether pertaining to an economy, an industry, a firm or a market has basic features in common.

To cope with this complexity, it is common to use models as simplified representations of real world processes. Models are build upon relationships between variables. The behaviour of these variables is determined by the joint and simultanous operations of a series of relations. The basic idea is that the model captures the crucial features of the system being studied.

The modelling of complex systems serves three purposes. First, it adds to the understanding of the system. Second, it allows a prediction of the future movements of key variables of the system. Third, by simulating the effects of changes in variables under control of the organisation, one can evaluate the interactions between all the economic agents in public and private policy formulation and implementation.

From this perspective, the LABOMS software has the following main features.

First, it handles *large models* of several thousands of variables, for which it takes advantage of the repetitive structure of economic variables.

Second, it handles economic variables which have *different periodicities.* This allows a mix of monthly, quarterly and yearly observations in once and it allows also to include the more rapidly available data in the model.

Third and finally, data on the economic variables is not always all available to the same moment in time. The system automatically manages the information concerning the *availability of original data and calculated aggregates*, so that the most recent information can be included without the user having to manage the complexity of the differing simulation periods himself.

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Main features of the software

Minimum Hardware Requirements

? 128 Mb RAM for MS Windows 95, 98, NT, 2000
? Additional RAM for loading the Databank in memory (nice to have)
? 10 Mb hard disk space for the software
? 5 Mb hard disk space per 1000 variables
? Office 2000 Excel ? Microsoft

A blockwise organisation of the model

? Model structured in levels, blocks and variables.
? Blocks may have different periodicities.
? Dictionnary with detailed attributes of each variable
? Integrated management of different model environments.

A stage wise process of model building

? Managing multiple source of statistical data
? Importing data in the model databank
? Definition of the identity and simulation models
? Estimation of coefficients and residuals
? Definition of a reference situation
? Simulating different scenarios
? Analysis of simulation results

Large database management capabilities

? Management of available and non-available observations
? Interactive updating, printing and graphing
? Reporting of discontinuities and non-available observations
? Automatic transfer and extrapolation procedures
? Multiple selection procedures

Data import/export facilities

? ASCII files, multiple formats
? Excel, TSP formats

Management of the availability of the series

? Computation of identities limited to the available information
? Automatic update of endogenous period range

Main features of the software

Definition of relationships between the variables

? Standard mathematical operators and functions
? Lag operators
? Repetitive loop operators
? Periodicity dependent operators
? Anticipation mechanism

Multiple simulation projects

? Specific exogenous and endogenous lists of variables
? Specific exogenous values for data and residuals
? Specific endogenous period ranges
? Specific list of variables to test for convergence
? Specific use of residuals and smoothing parameters
? Step by step simulation of successive period ranges
? etc...

Powerfull simulation algorithm

? Gauss-Seidel (static or dynamic)
? Accelerated Gauss-Seidel
? General, model and specific iteration parameters
? Simulation of several models in a hierarchical or simultanous way

Various possibilities for results analysis

? Summary statistics printout
? Reference versus results presentation
? Multiple and pyramidal graph presentation
? Step by step debugging

Multiple reporting facilities

? Table printout
? Graph dictionnary
? Dynamic Link Library interface

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Twenty years of first hand experience in simulation: Publications and References

The simulation methodology emboddied in the LABOMS software has contributed to the developpement of major, mainly macroeconometric, simulation models. Over the last twenty years, it has been used, among others, for the following projects:

? COMET: This model was partly used for the macroeconomic evaluation of the European internal market of the study *Cost of Non-Europe* of the Cecchini-group with the Commission of the European Communities.
A.P.Barten,G.d'Alcantara and G.Carrin. COMET, A medium term macroeconomic model for the European Economic Community, European Economic Review 7 (1976) North Holland.

? MEGA project for the Junta del Acuerdo de Cargena, Grupo Andino (Bolivia, Colombia, Ecuador, Peru, Venezuela) Simulation of the intraregional trade and the evaluation of the interdependency relationship of the five member countries and relationships with the industrialised countries.
G.d'Alcantara and J.Ter Wengel (1986) Modelo Econometrico del Grupo Andino, in: G. Alarco (ed.) *Modelos Macroeconométricos en el Perú: Nuevos Aportes*, Lima, Universidad del Pacifico (CIUP), 249-319.

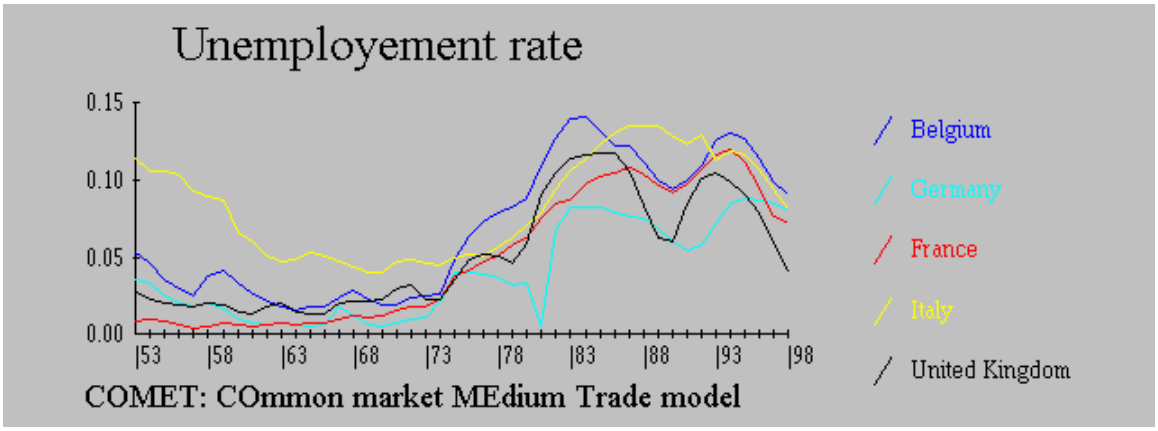
? Foundation and coordination of the HERMES program. DG II and XII of the European Commision. Project for building a multinational, multisectoral model for the study of European strategies.
Commission of the European Communities eds.(1993) *HERMES: Harmonized Econometric Research for Modelling Economic Systems,* Amsterdam, North-Holland.

? Dialogue worldmodel for refinery and petrochemics for the EURO-ARAB DIALOGUE (EC member countries and members of the Arab league) with the aid of the Belgian State Secretary for Energy and the Belgian Ministery of Economic Affairs.

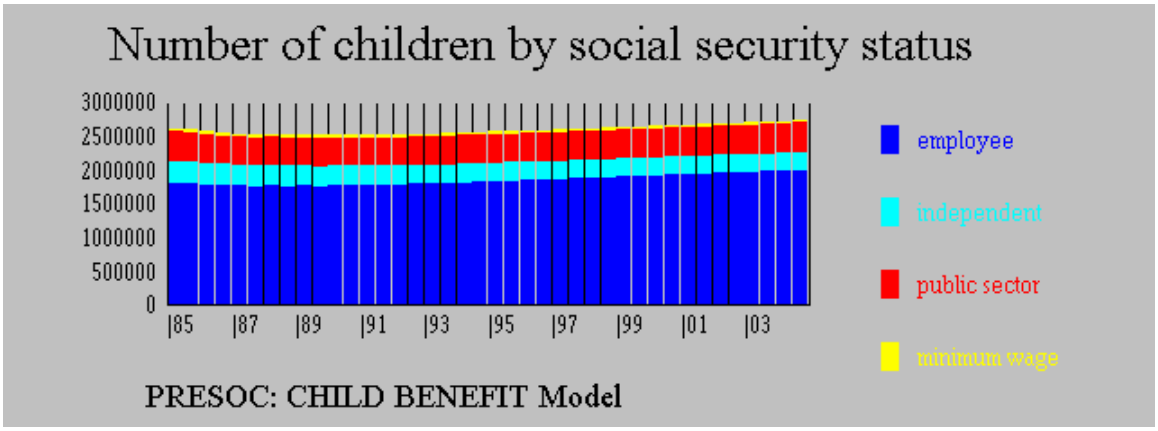
? PRESOC: A budget model for monthly prediction of income flows and expenses of the Social Security System of Belgium. It was constructed together with a Socio-professionnal model, which predicts the occupation and Social Security status of the population.

? ECOMOVE:
Ministerie van de Vlaamse Gemeenschap, Departement Leefmilieu en Infrastructuur, Mobiliteitscel

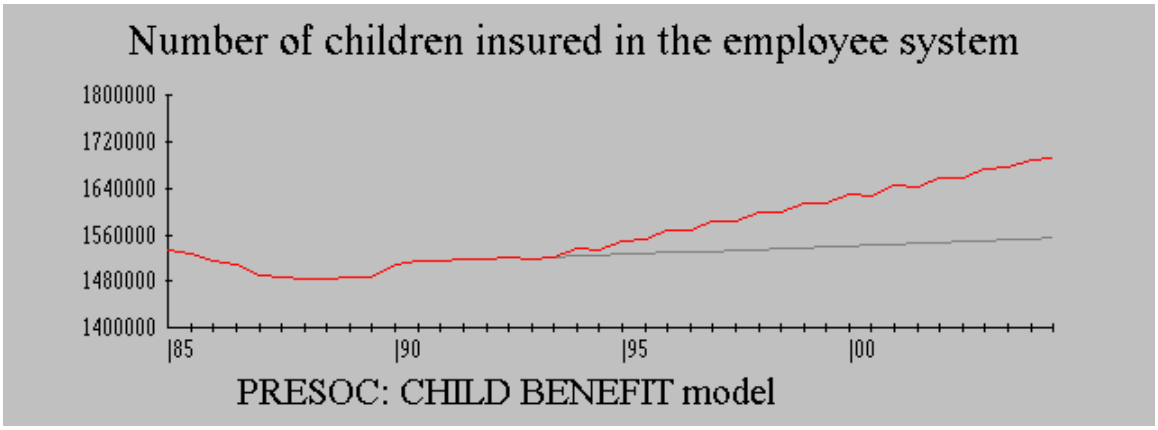
Twenty years of first hand experience in simulation:
Graphical extracts **Time series analysis**



COMET: COmmon market MEdium Trade model



PRESOC: CHILD BENEFIT Model



PRESOC: CHILD BENEFIT model

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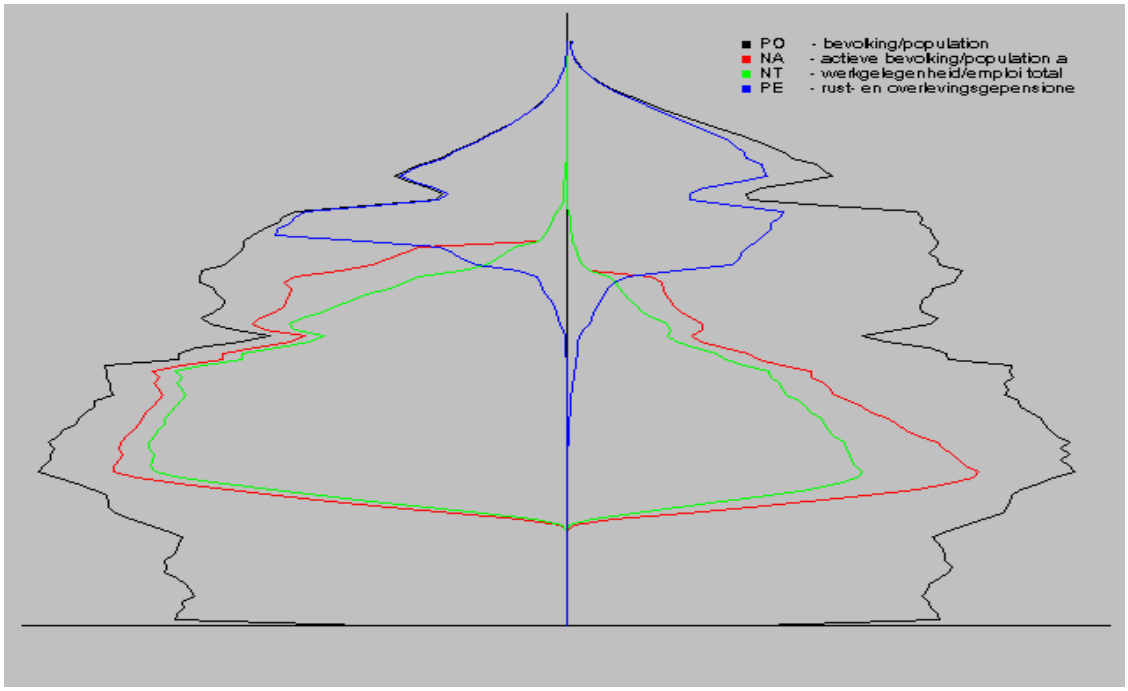
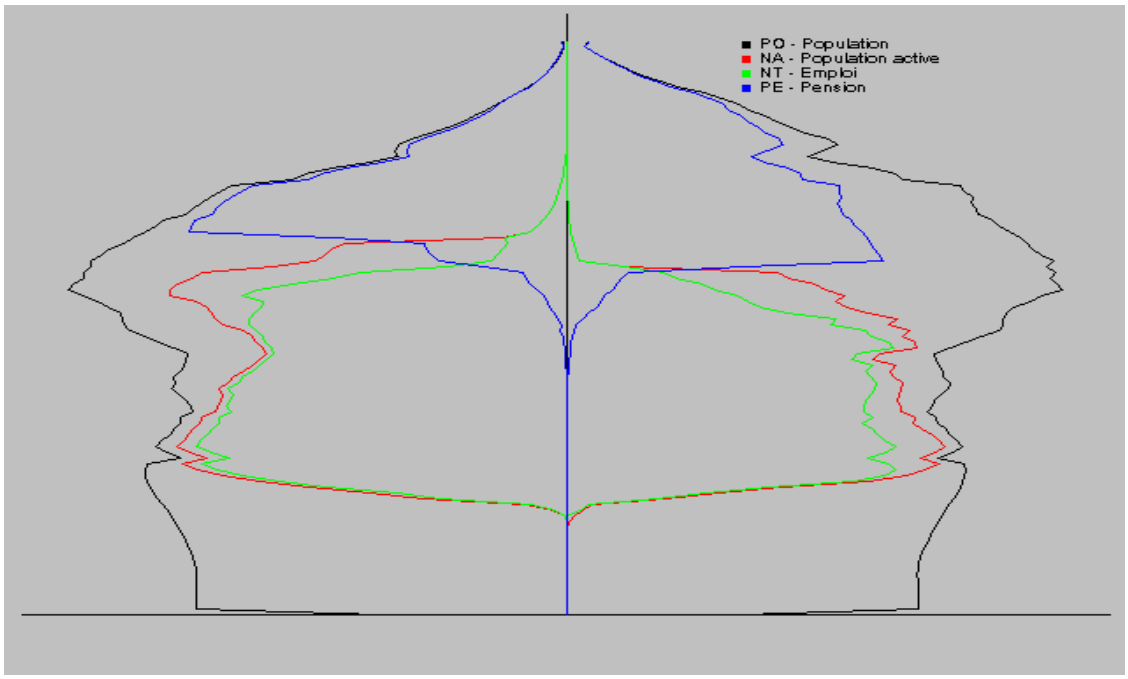
Twenty years of first hand experience in simulation:
Graphical extracts A pyramidal approach

1995



2020



PRESOC: A SOCIO-PROFESSIONNAL model The greying of the population

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Bruxelles 01/10/2001

Concerne: **LABO-MS - Logiciel de modélisation économétrique.**

Messieurs,
Veuillez trouver ci-joint notre meilleure offre pour la livraison et l'installation du logiciel de modélisation économétrique LABO-MS 2.1. Une description des caractéristiques principales du logiciel est jointe en annexe.

Licence d'utilisation

LABO-MS	Logiciel de modélisation économétrique, pour Windows 95, 98, ME, NT et 2000		
Code	Libellé	Quantité	Prix HTVA
LAB210	Licence LABO-MS Version 2.10 Les principaux modules du logiciel sont: NMS Gestion du dictionnaire des variables d'un modèle DMS Gestion des données (Données brutes, Banque de données et Modèle d'identité) EMS Gestion des équations du modèle CMS Gestion des coefficients (Coefficients estimés et Résidus) SMS Gestion des projets de simulation (Données de référence et Résultats de simulation) RMS Présentation des résultats (Lien dynamique avec Microsoft Excel) Définition et configuration des Modèles Personnalisation et configuration du logiciel	1 (*)	6000 EUR
LABHELP	Assistance en ligne (**) et mise à jour successive (10 % de la licence de base)	par an	600 EUR
LABDEV	Configuration et développement spécifique	par jour	500 EUR

(*) Prix global unique pour l'installation du logiciel sur 5 postes.
(**) Le délai d'intervention via Internet est de 24H00. Deux demi-journées de formation sont incluses dans le prix de base de la licence pour l'installation et la formation des utilisateurs au démarrage..

Nous vous remercions pour votre confiance et vous prions d'agréer, Messieurs, nos salutations les plus distinguées.

Pomes Yvan
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