

# 15. THE “DOBRESCU MACROMODEL” OF THE ROMANIAN MARKET ECONOMY - 2005 VERSION<sup>1</sup> YEARLY FORECAST AUTUMN FORECAST 2009<sup>2</sup>

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## Abstract

The macromodel estimates the short and medium-term economic implications for internal policies and changes in the international context. This version of the Romanian macromodel<sup>3</sup> incorporates the experience accumulated through the utilisation of its previous forms - either experimental (tested during 1991-1995) or operational (developed during 1996-2003). At the same time, it introduces some methodological and informational improvements, of which the most significant is the structural decomposition of the economy, associated with input-output techniques. Due to the relatively advanced stage of the transitional processes in Romania, the behavioural functions were accommodated - as much as possible - to the standard relationships. Unlike the versions that used the statistical series beginning in 1980, the present one is based exclusively on information concerning the period 1989-2004. Therefore, we have considered more adequately naming this variant the macromodel of the Romanian market (not transition, as before) economy. In this article we present two scenarios for 2009.

**Keywords:** model, input-output analysis, econometric relationships, simulations

**JEL Classification:** C5, E2-E6, H6

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<sup>1</sup> PHARE Programme RO2003/005-551.02.03 "Strengthening the capacity for analysis, macroeconomic forecast and elaboration of economic policies within the National Commission for Prognosis, the Ministry of Economy and Trade and the Prime Minister's Cabinet" – Romanian Centre for Economic Policies.

<sup>2</sup> This is a continuation of the forecasts published so far in Romanian Journal of Economic Forecasting. The team working on these forecasts consists of specialists from the Institute for Economic Forecasting, the National Commission for Forecasting and the Centre for Macroeconomic Modelling: Cornelia Scutaru, Ion Ghizdeanu, Lucian-Liviu Albu, Bianca Pauna, Corina Săman, etc.

<sup>3</sup> Source: Emilian Dobrescu, Macromodels of the Romanian Market Economy, Editura Economică, Bucharest, 2006.

## Scenarios for 2009

For a short description of the model, see *Romanian Journal of Economic Forecasting*, No. 1/2007<sup>4</sup>.

### Scenarios for 2009, August estimations

The methodological changes introduced in the last projections (*Romanian Journal of Economic Forecasting* No.2, 2009) were maintained. The assumptions adopted by the Stand-by Agreement with the International Monetary Fund, the European Commission, and the World Bank also have been taken into consideration.

Previous forecasts were accommodated to the actual evolution of the Romanian economy during the first semester of 2009, including the general consolidated budget revenues and expenditures.

1. The present forecast retains two scenarios as more plausible. Some of their common hypotheses are different as compared to the previous macromodel simulations:

- Thus, a slower growth of nominal revenues is taken into account;
- The predictions are conceived under a deterioration of the public budget deficit;
- The equation for imports is multiplied by a lower corrective coefficient - a result of compression of the domestic aggregate demand;
- Exogenous parameters concerning the global economic environment, capital inflows and EU structural funds were generally maintained at the levels of previous macromodel estimations;
- The broad money (M2) - as annual level - was slightly modified, according to new statistical data;
- The demographic indicators and the depreciation rate of tangible fixed assets were not changed.

2. The first scenario (A) is close to the macroeconomic framework negotiated by the Government with the International Monetary Fund, the European Commission, and the World Bank in August 2009. The main indicators of this scenario are presented in Table 1.

3. The second scenario (B) simulates a possible more accentuated deterioration of the business environment, amending the equations of total factor productivity (ITFP) and gross fixed capital formation (GFCF) by lower corrective coefficients. The estimations are presented in Table 2.

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<sup>4</sup> Bianca Păuna, Ion Ghizdeanu, Cornelia Scutaru, Petre Fomin, Corina Sâman: "The Dobrescu Macromodel of the Romanian Market Economy - 2005 Version - Yearly Forecast, Basic Scenario", *Romanian Journal of Economic Forecasting*, 1/2007.

Table 1

Scenario A for 2009

Indicators	Symbol	Dobrescu Macromodel
GDP, current prices, bill. RON	GDP	495.287
GDP index, current prices	IGDP	0.983
GDP index, constant prices	IGDPc	0.920
Household consumption index, constant prices	ICHc	0.985
Gross fixed capital formation index, constant prices	IGFCFc	0.929
Export of goods and services, bill. EUR	XGSE	38.314
Import of goods and services, bill. EUR	MGSE	44.795
The deficit of trade balance (% of GDP)	rNX	-0.056
Labour force, mill. pers.	LF	9.945
Employment, mill. pers.	E	9.125
Unemployment rate	ru	0.082
GDP deflator	PGDP	1.069
Consumption price index	CPI	1.044
Exchange rate, RON/EUR	ERE	4.290
The general consolidated budget deficit (% of GDP).	cbb	-0.072

Table 2

Scenario B for 2009

Indicators	Symbol	Dobrescu Macromodel
GDP, current prices, bill. RON	GDP	491.541
GDP index, current prices	IGDP	0.975
GDP index, constant prices	IGDPc	0.899
Household consumption index, constant prices	ICHc	0.962
Gross fixed capital formation index, constant prices	IGFCFc	0.862
Export of goods and services, bill. EUR	XGSE	36.976
Import of goods and services, bill. EUR	MGSE	42.687
The deficit of the trade balance (% of GDP)	rNX	-0.050
Labour force, mill. pers.	LF	9.945
Employment, mill. pers.	E	9.117
Unemployment rate	ru	0.083
GDP deflator	PGDP	1.085
Consumption price index	CPI	1.060
Exchange rate, RON/EUR	ERE	4.322
The general consolidated budget deficit (% of GDP).	cbb	-0.072

Both scenarios, therefore, describe a severe recession of the real gross domestic product, under a drastic adjustment of the commercial external deficit. Instead, the public budget deficit alarmingly expands.

The differences concerning inflation are explainable by the discrepancies between the variation of global output and of nominal income.

## References

1. Dobrescu Emilian, "Macromodel of the Romanian Market Economy (Version 2005)", PHARE Programme RO2003/005-551.02.03 "Strengthening the capacity for analysis, macroeconomic forecast and elaboration of economic policies within the National Commission for Prognosis, the Ministry of Economy and Trade and the Prime Minister's Cabinet" – Romanian Centre for Economic Policies; <http://www.cnp.ro/SiteNCP.pdf>
2. Dobrescu Emilian, "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, 2006, <http://www.ecomod.org/files/papers/1564.pdf>.
3. Dobrescu Emilian, *Macromodels of the Romanian Market Economy*, Editura Economică, Bucharest 2006, 326 pgs.

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