

16. THE DOBRESCU MACROMODEL OF THE ROMANIAN MARKET ECONOMY - 2005 VERSION¹ YEARLY FORECAST SPRING FORECAST 2011², MARCH ESTIMATE

Macromodel of the Romanian Market Economy³

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 incorporates the experience accumulated through the utilization 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 information improvements. 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 behavioral 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 the Spring forecast for 2011.

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

JEL Classification: C5, E2-E6, H6

¹ 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 Office – Romanian Center for Economic Policies.

² 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 Saman etc.

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

Spring Forecast 2011, March Estimates⁴

As the previous estimations, the present ones are based on the 2005 version of the Romanian macroeconomic model, amended with several corrective coefficients, which reflect some methodological changes in the statistical indicators and the specific conditions induced by the global environment.

In the case of several indicators, the preliminary data for 2010 (published in *RJEF* 4/2010) were corrected according to the first official estimates of the National Institute of Statistics. The input-output coefficients were also updated based on the all available tables.

1. The main scenario (base one) of the macromodel simulations are based on the following premises:

- The post-crisis recovery of the world economy (including international trade) is continuing; the Romanian export and import also expand.
- As a result of a possible improvement of the domestic business environment, the foreign direct and portfolio investments in Romania move at slightly positive rates and the absorption of European structural funds improves significantly.
- The main components of the general consolidated budget are estimated according to the agreements of the Romanian Government with the International Monetary Fund, the European Commission and the World Bank.
- Either the monetary framework or the policies concerning the nominal revenues continue to be cautious.
- The Romanian economy comes out of recession and the inflation is kept under control. These circumstances and the available international reserves allow to the National Bank of Romania to maintain the fluctuations of the exchange rate of RON within reasonable limits.

The simulated indicators for the Base Scenario are presented in Table 1.

Table 1

Base Scenario for 2011, March Estimates

| Indicators | Symbol | Dobrescu Macromodel |
|--|--------|---------------------|
| GDP, current prices, bill. RON | GDP | 547.63437 |
| GDP index, current prices | IGDP | 1.06068 |
| GDP index, constant prices | IGDPc | 1.01210 |
| Household consumption index, constant prices | ICHc | 0.99240 |
| Gross fixed capital formation index, constant prices | IGFCFc | 1.00643 |
| Export of goods and services, bill. EUR | XGSE | 46.07293 |
| Import of goods and services, bill. EUR | MGSE | 54.37068 |
| The deficit of the trade balance (% of GDP) | rNX | -0.06456 |

⁴ For a short description of the model, see *Romanian Journal of Economic Forecasting*, 8(1): 115-125.

| Indicators | Symbol | Dobrescu Macromodel |
|---|--------|---------------------|
| Labor force, mill. persons | LF | 9.93600 |
| Employment, mill. persons | E | 9.15228 |
| Unemployment rate | ru | 0.07888 |
| GDP deflator | PGDP | 1.05475 |
| Consumption price index | CPI | 1.05120 |
| Exchange rate, RON/EUR | ERE | 4.26089 |
| The general consolidated budget deficit (% of GDP). | cbb | -0.04619 |

2. The second scenario (slightly improved one) takes into account a possible stabilization of the business environment, inducing a relaxation of banking credits for the private sector, a more favorable context for the foreign direct and portfolio investments, a small recovery of the domestic demand.

The simulated indicators for the Slightly Improved Scenario are presented in Table 2.

Table 2

Slightly Improved Scenario for 2011, March Estimates

| Indicators | Symbol | Dobrescu Macromodel |
|--|--------|---------------------|
| GDP, current prices, bill. RON | GDP | 550.26210 |
| GDP index, current prices | IGDP | 1.07088 |
| GDP index, constant prices | IGDPc | 1.02183 |
| Household consumption index, constant prices | ICHc | 1.01228 |
| Gross fixed capital formation index, constant prices | IGFCFc | 1.03304 |
| Export of goods and services, bill. EUR | XGSE | 46.72840 |
| Import of goods and services, bill. EUR | MGSE | 55.78768 |
| The deficit of the trade balance (% of GDP) | rNX | -0.06990 |
| Labor force, mill. persons | LF | 9.93600 |
| Employment, mill. persons | E | 9.15465 |
| Unemployment rate | ru | 0.07864 |
| GDP deflator | PGDP | 1.04972 |
| Consumption price index | CPI | 1.05007 |
| Exchange rate, RON/EUR | ERE | 4.24594 |
| The general consolidated budget deficit (% of GDP). | cbb | -0.04639 |

3. A third variant – worsened scenario – has been also simulated. It takes into account a possible aggravation of the international oil market, which would accentuate the inflationary pressure on economy. Under these conditions, a new wave of bankruptcies is unavoidable. The recession could not be surpassed. Due to the limited growth of exports and growing difficulties in accessing the foreign financial resources, the imports would be compressed. The main indicators of such a scenario are detailed in Table 3.


Table 3

Worsened Scenario for 2011, March Estimates

| Indicators | Symbol | Dobrescu Macromodel |
|--|--------|---------------------|
| GDP, current prices, bill. RON | GDP | 551.40389 |
| GDP index, current prices | IGDP | 1.04362 |
| GDP index, constant prices | IGDPc | 0.99582 |
| Household consumption index, constant prices | ICHc | 0.95355 |
| Gross fixed capital formation index, constant prices | IGFCFc | 0.99584 |
| Export of goods and services, bill. EUR | XGSE | 45.65902 |
| Import of goods and services, bill. EUR | MGSE | 50.38884 |
| The deficit of the trade balance (% of GDP) | rNX | -0.03874 |
| Labor force, mill. persons | LF | 9.93600 |
| Employment, mill. persons | E | 9.14468 |
| Unemployment rate | ru | 0.07964 |
| GDP deflator | PGDP | 1.07937 |
| Consumption price index | CPI | 1.07598 |
| Exchange rate, RON/EUR | ERE | 4.51686 |
| The general consolidated budget deficit (% of GDP). | cbb | -0.05123 |

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