

3 European Outlook⁷

3.1 The Baseline Scenario: the European Economy to 2030

The baseline scenario⁸ simulates a dynamic path of the EU economy up to 2030. It is derived from exogenous assumptions about the evolution of technology progress associated to production factors, the change of the world context (prices and demand) and a continuation of current pattern of public finance policy.

3.1.1 Introduction

The purpose of the present study is to provide a preliminary long run scenario up to 2030 for each EU member states for use as the baseline in several studies of energy and environment policy analysis for the European Union member states. The present projection aims to consistently delve into considerable detail at the level of sectoral disaggregation provided by the GEM-E3 model.

Deriving projections for the longer term is very difficult given the considerable uncertainties involved. Two are the main difficulties of such an undertaking.

- The first is projecting aggregate regional GDP and population growth. Several studies are available concerning the medium and long term (usually up to

⁷ The principal authors of this chapter are Pantelis Capros, Leonidas Mantzos and Panagiotis Georgakopoulos of NTUA.

⁸ The baseline scenario is the one previously prepared for the European Commission and reported in "European Macro-economic Projections for Baseline Scenario", March 1997, Report of NTUA to the EC.

2020) covering the whole planet such as with the LBS-EGEM model (which however does not include Europe) or the world projections with the World Scan model, as these were prepared for the OECD, where Europe is just one region. This latter study was the basis for the present projection.

- The second, and perhaps even more elusive, difficulty reflects the sectoral changes. As the past has shown these changes can often be very dramatic and move in different directions in different countries. No study is available at the level of disaggregation needed for the energy models, so this part of the projection after 2000 is original.

The present scenario draws from the macro-economic and sectoral projections available for the short term (up to 2000) and then uses the aggregate world assumptions derived with the World Scan model, extending them to 2030. From a sectoral perspective, there has been an attempt to build a separate “story” describing the evolution of each EU country. The projections were made in two steps:

- assuming gradual conditional convergence of the EU economies in terms of per capita income, the GDP of each country was derived;
- understanding the present situation of each country and identifying already existing trends, the driving forces of growth for each economy were identified and served to derive sectoral growth.

3.1.2 Short Run Projections: 1995-2000

Three were the main sources consulted for the preparation of the projections for the period 1996-2000.

The *DGII projections* for each member state, from which GDP, private consumption, consumers’ price indexes, GDP deflator, interest rate and exchange rate were taken.

Sectoral projections were taken from the *DRI study “Europe in 1999 - Economic analysis and Forecasts”*. These projections were only available for 6 EU member states and covered only some of the industrial sectors. Information on services was derived from the *HERMES projections* (again for six countries), which were also used to cross evaluate the DRI assumptions. Both studies only gave one average figure for the whole 1996-2000 period, so assumptions had to be made about the changes in each particular year. The assumption of a linear trend was mostly followed. For the other EU countries no sectoral forecast was available, so current trends were assumed to continue, in such a way however, that the EU total for each sector matches the DRI forecasts.