CHAPTER 5

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MACRO MODELS AS WORKHORSES

1. INTRODUCTION

Macroeconomists are aware of the fact that a single model cannot fulfil all “goals” of macro modelling: (1) describe the (recent) past, (2) forecast future developments, and (3) carry out policy analysis. The work by Lucas (1976) typically initiated a departure from the notion that one full-fledged model could be used to reach these multiple goals. Apart from the new-classical critique, some economic schools advocated that models could not be used at all to analyse macroeconomic phenomena and/or decision-making. Some economists did so before Lucas presented his critique, but were only acknowledged thereafter. The (neo-) Austrian school for example had no confidence at all in modelling macroeconomic events or policy decision-making.1 The argument is simple. In a macroeconomic system, billions of economic agents interact. Modelling these decisions is impossible, certainly if one believes that agent A’s decisions depend on agent B’s plans. Post-Keynesians, a radical Keynesian school, gave a similar argument – but from a very different perspective. Both lines of thought are/were however not supported at a large scale, contrary to the third one, the new-classical critique, which is certainly adopted in mainstream economics.

How did macro modellers respond to the fierce new-classical critique? Two main reactions can be observed. On the one hand, academic macroeconomists tried to meet the Lucas critique by including forward-looking behaviour in their models. They also (partially) abandoned the so-called Cowles Commission approach by avoiding imposing economic structure on macro-econometric systems. In the Cowles tradition, economic theory is used to impose a priori restrictions on the endogeneity of the key variables in macro systems. Next, macroeconomists partly

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Johan J. Graafland and Arie P. Ros (Eds.), Economic Assessment of Election Programmes: Does it Make Sense?, 45-59.
switched from statistical to more theoretical general equilibrium models. In addition, microeconomic foundations of macro models became very popular. Ultimately, these developments led to an almost standstill in the traditional academic business of macro-econometric policy analysis, the exception perhaps being the work of the ESRC Macroeconomic Modelling Bureau at the University of Warwick. On the other hand, macroeconomists in government agencies gradually switched from a single large-scale macro-econometric system to “suites” of models, families of single-purpose models (“workhorses”) not necessarily linked to each other. Holding a portfolio of models (a “stable”) makes one less vulnerable for critique, but creates consistency problems in-house, since all the horses need to be trained for different courses.

Which route has our profession taken from here? In this chapter, we address this question. Implicitly we will argue that it is the task of macroeconomists to advise the public on future developments and (policy) alternatives. The problem is how to organise and monitor this activity. There is public demand for forecasts and policy advice that the market cannot offer at high quality. The government is responsible for offering this public good, but a serious co-ordination problem exists here. In the Netherlands, the main solution to this co-ordination problem was the establishment of CPB Netherlands Bureau for Policy Analysis (CPB), previously the Central Planning Bureau, just after World War II. CPB plays a key role in producing macroeconomic forecasts and in analysing policy alternatives. The latter task is the main subject of this chapter. We discuss various methods to analyse election programmes of political parties. CPB analyses these election programmes about six months prior to each Dutch election, its latest publication being *Keuzes in Kaart 2003-2006* (CPB, 2002).

Section 2 reviews the type of models one can use to describe macroeconomic systems, to forecast future developments, and to provide policy advice. Section 3 compares the current CPB models with our classification and assesses CPB’s latest policy analysis exercise *Keuzes in Kaart 2003-2006*. Section 4 illustrates two of our main points of critique: (i) forward-looking behaviour and the intertemporal government budget constraint and (ii) the use of density forecasts to express forecast uncertainty. Section 5 concludes.

2. MODERN MACRO WORKHORSES

In the old days, the macroeconomist placed his bet on one horse. This horse, a standard Keynesian IS-LM-AS type model, was bred in the Cowles Commission tradition. Nowadays he/she owns a stable with different horses to satisfy macro-modelling demands. We will review modern macro instruments focusing on the three traditional goals of modelling: describing the past, forecasting the future and analysing policy scenarios.

*Descriptive models*

We select some of the models from the recent macroeconomic textbook of Heijdra and Van der Ploeg (2002):