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Modelling Europe
A History of Multi-Country
Models at the European
Commission (1970–2005)

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ABOUT THIS BOOK

What has been the role of economists and economics in the building of the European Union? How did it evolve, from the early stages of the European integration in the 1960s to the completion of the Economic and Monetary Union in the early 2000s? What kind of expertise economists have been producing? What were their theoretical views and their methodologies when practicing economic analysis in this context?

The purpose of this book is to shed light on the activities of a particular type of economic experts: the macroeconomic modellers of the Directorate General for Economic and Financial Affairs (DG II), and their main activity, the building of multi-country macroeconomic models of the European Economic Community. These models aim at studying the macroeconomic interactions between national economies and at providing insights about the effects of coordinating (or not) national economic policies. The book documents the origins, the challenges and progresses faced by DG II's modellers in building these models.

Chapter 2 of the book focuses on the background that led to the inception of these models: it compares the development, in the late 1960s and in the 1970s, of macroeconomic modelling in Italy, France and Belgium. It highlights the key role of international networks in establishing these practices.

Chapter 3 documents the first attempt by the DG II of building an in-house multi-country model, named EUROLINK. The peculiar modelling approach chosen, and the institutional context brought, in few years, to the dismissal of EUROLINK. Thanks to the use of the DG II archives, we document the debates surrounding this pivotal experience.

Chapter 4 illustrates the establishment of a permanent Modelling Unit within the DG II and describes the continuous development of new models in the 1980s, 1990s and early 2000s. It emphasises a shift in the theoretical perspective underlying DG II's modelling, moving away from the "disequilibrium approach" towards "microfoundations" and "dynamic stochastic general equilibrium" modelling.

Chapter 5 discusses the theoretical underpinnings of the "linkage systems" adopted by the various models described in the previous chapters, that is, the systems of equations accounting for the trade and financial flows mechanisms linking national economies.

CONTENTS

1	Modelling Europe: Introduction	1
2	European Macroeconometric Modelling: The Early Years	19
3	The EUROLINK Experience (1978–1983)	61
4	Beyond EUROLINK: COMPACT and the QUEST Series	83
5	Lesson for the History of International Macroeconomics: Multi-Country Models and Linkage Systems, Their Challenges and Opportunities	107
6	Concluding Remarks	131
	Appendix: Archival Sources	141
	Index	145

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ABBREVIATIONS

CEQC	Centre of Quantitative and Comparative Economics
CERMAP	Centre de recherches mathématiques pour la planification
CORE	Center for Operational Research and Econometrics
CEQC	Centre of Quantitative and Comparative Economics
CEPS	Centre for European Policy Studies Group
DG II	Directorate General for Economic and Financial Affairs
DP	Direction de la prévision
EEC	European Economic Community
ENSAE	National school of statistics and economic administration
EMS	European Monetary System
EMU	European Monetary Union
EHESS	Hautes Etudes en Sciences Sociales
INSEE	Institut national de statistique et d'études économiques
ISoM	International Seminar on Macroeconomics
SEEF	Service des études économiques et financières
SVIMEZ	Associazione per lo sviluppo Industriale del Mezzogiorno
TPSC	Tommaso Padoa-Schioppa Collection
ULB	Université Libre de Bruxelles
UCL	Université Catholique de Louvain

LIST OF FIGURES

- Fig. 5.1 A flowchart of the trade linkages of EUROLINK. (Source: 13/11/1981, TPSC AF, p. 461) 118
- Fig. 5.2 A flowchart of the trade linkages of QUEST. (Source: Italianer (1987, p. 116)) 121

LIST OF TABLES

Table 1.1	DG II's models	7
Table 1.2	The EUROLINK model (1980)	11



Modelling Europe: Introduction

Abstract This introductory chapter provides a general overview of the main chronological and thematic elements developed in the book. We start by describing the institutional framework in which DG II's economic modellers have been developing their models. We then provide a brief description of the main models developed by the DG II, emphasising the main differences across various “generations” of models. Finally, a detailed outline of the book is provided.

Keywords History of economics • History of macroeconomics • European Union • European Commission • European integration • Economic experts • Macroeconometric models • Multi-country models

What has been the role of economists and economics in the building of the European Union? How did it evolve, from the early stages of the European integration in the 1960s to the completion of the Economic and Monetary Union in the early 2000s? What kind of expertise economists have been producing? What were their theoretical views and their methodologies when practicing economic analysis in this context? The purpose of this book is to bring a modest contribution to these broad questions, by investigating the activities of a particular type of economic experts working within the European Commission: the macroeconomic

modellers of the Directorate General for Economic and Financial Affairs (DG II hereafter). The activities of DG II modellers, since the 1970s, consisted, most notably, in building *multi-country macroeconomic models* of the European Economic Community (EEC, hereafter).¹ These models should have been capable of studying the macroeconomic interactions between the EEC Member States and of providing insights about the effects of coordinating (or not) national economic policies.

Multi-country macroeconomic models, such as those built within the DG II, constituted a specialised endeavour within the practice of macroeconomic modelling—this latter being widely used across national institutions. Multi-country models are systems of simultaneous equations that include (1) equations representing at least two national economies, and (2) a set of equations describing the trade or financial linkages between these economies. Multi-country models are different from single-country models (which represent only one country’s national economy) insofar as the latter treat all foreign countries as an exogenous “rest of the world”. Conversely, in a multi-country model, national economies are related by mutually determined variables. Thus, such models provide a comprehensive account of the mechanisms at play within international macroeconomic relationships, and, thus, highlight the channels throughout which national economies and national policies can affect (or be affected) by other countries’ economic dynamics.

Our book narrates the successes, challenges and difficulties experienced by DG II’s modellers over almost five decades of multi-country model building—from the late 1960s to the mid-2000s. We resort to publications, to archive materials and to oral history to document the various aspects encompassing modelling activities within a policymaking institution such as DG II: the building of a theoretical framework, the tailoring of solution methods, the collection of data, the routine of (re-)estimation and simulation of the models, the confrontation between the needs of the institution and the capabilities of the model, the debates about computational, human and financial resources allocated to modelling. In this sense, our historiographical perspective is one rooted in the history of economics

¹ For a reminder, EEC is the “former” appellation of what became, at the beginning of the 1990s, the “European Union” (EU). Note that, for obvious reasons of space, this book does not expand on general aspects related to the history of the European integration or of the European institutions.