

# Econometric Model Performance in Forecasting and Policy Assessment



American Enterprise Institute for Public Policy Research  
Washington, D.C.

# CONTENTS

---

	<b>INTRODUCTION AND OVERVIEW</b>	<b>1</b>
--	----------------------------------	----------

---

<b>1</b>	<b>BASIC CONCEPTS OF LINEAR ECONOMETRIC MODELS</b>	<b>5</b>
	Structural Form	5
	The Reduced Equation Form and Its Role in Forecasting	11
	Policy Assessments Using Multipliers and Final Forms	14
	The Separated Form	18

---

<b>2</b>	<b>NONLINEAR ECONOMETRIC MODELS</b>	<b>21</b>
	Nonlinearities in Econometric Models	21
	Forecasts from Nonlinear Models	22
	The Gauss-Seidel Algorithm	23
	Near-Triangular Rearrangements in Solving Nonlinear Systems	25

---

<b>3</b>	<b>STUDIES OF FORECAST ERRORS OF MAJOR ECONOMETRIC MODELS</b>	<b>29</b>
	Previous Major Studies	29
	The NBER/NSF Model Comparison Study	31

---

---

<b>4</b>	<b>A STUDY OF EX ANTE FORECAST ERRORS OF THE WHARTON, DRI, CHASE, AND BEA QUARTERLY ECONOMETRIC MODELS</b>	<b>39</b>
	The Data Base   39	
	Descriptive Statistics of Ex Ante Forecast Errors   40	
<hr/>		
<b>5</b>	<b>MAJOR ISSUES OF STATISTICAL INFERENCE IN ANALYZING FORECASTING PERFORMANCE</b>	<b>47</b>
	Limitations of Descriptive Measures   47	
	Correlation Structure of Forecast Errors and Statistical Inference   48	
<hr/>		
<b>6</b>	<b>POLICY MULTIPLIER STUDIES OF MAJOR ECONOMETRIC MODELS</b>	<b>51</b>
	Policy Assessments Using Generalized Multipliers   51	
	The NBER/NSF Model Comparison Study of Dynamic Policy Multipliers   53	
	Structural Change in Assessing Policy Multipliers of Econometric Models   56	
<hr/>		
	<b>APPENDIX</b>	<b>59</b>
<hr/>		
	<b>REFERENCES</b>	<b>73</b>

---