

Contents

Preface	vii
Abbreviations	ix
I Overview	I
<i>Marco Piñón</i>	
Monetary Policy in a Dollarized Economy	1
External Linkages Under Dollarization	2
Financial Vulnerabilities and Insurance Mechanisms	3
Part I. Monetary Policy in a Dollarized Economy	
II Inflation Process in Uruguay	7
<i>Gaston Gelos and Fernanda Rossi Iriondo</i>	
Inflation Dynamics and Inflation Expectations	7
Determinants of Inflation Expectations	10
Conclusions	13
Appendix 2.1. Cointegration Tests, Bivariate Vector Error Correction Model, and Tests of Efficiency of Inflation Forecasts	14
Bibliography	16
III Pass-Through, Dollarization, and Credibility in Uruguay	17
<i>Alejandro López-Mejía, Alessandro Rebucci, and Carolina Saizar</i>	
Background	17
Has Pass-Through Declined in Uruguay?	20
Is Monetary Policy Credibility Linked to Financial Dollarization?	22
Conclusions	24
Appendix 3.1. Measuring Credibility	25
Bibliography	25
Part 2. External Linkages Under Dollarization	
IV Role of Bank Lending in the Transmission of Macroeconomic Shocks	29
<i>Gaston Gelos and Marco Piñón</i>	
Descriptive Evidence on the Importance of Bank Lending for Economic Activity	30
Banks' Response to Shocks: Microeconomic Evidence	30
Conclusions	33
Bibliography	33

V	What Is the Degree of Competition Intensity in the Uruguayan Banking System?	34
	<i>Gaston Gelos and Marco Piñón</i>	
	Assessing the Degree of Competition	35
	Conclusions	37
	Bibliography	37
VI	What Drives Uruguayan Sovereign Spreads? The Role of Global Factors and Regional Spillovers	39
	<i>Gustavo Adler and Stephanie Eble</i>	
	Stylized Facts	39
	What Drives Sovereign Spreads?	43
	Conclusions	47
	Bibliography	47
Part 3. Financial Vulnerabilities and Insurance Mechanisms		
VII	Has the Uruguayan Financial System Become More Resilient to Shocks? An Analysis Adapting the Merton Framework to a Country Without Equity Market Data	51
	<i>Marcos Rietti Souto</i>	
	Merton Framework	51
	Stress Tests	52
	Modified Merton Framework	53
	Conclusions	56
	Appendix 7.1. Estimating Risk Indicators for the Corporate and Banking Sectors	57
	Bibliography	59
VIII	Optimal Level of Reserves in Financially Dollarized Economies: The Case of Uruguay	60
	<i>Fernando M. Gonçalves</i>	
	Vulnerabilities and the Role of Reserves in Uruguay	60
	Optimal Level of Reserves	62
	Sensitivity Analysis	65
	Conclusions	67
	Appendix 8.1. A Model of Optimal Reserve Levels in Financially Dollarized Economies	67
	Appendix 8.2. Level of Reserves Required to Cover a 2002-Like Crisis	69
	Bibliography	69
Figures		
	2.1. Actual and 12-Month-Ahead Expected Inflation	8
	2.2. Recursive Coefficient Equation (1) (Recursive ordinary least squares estimates)	9
	2.3. Determinants of Inflationary Expectations: Recursive Coefficients	11
	2.4. Twelve-Month-Ahead Expected Inflation: Actual Versus Fitted (Generalized method of moments–based model)	12
	2.5. Recursive Estimates of Coefficient on Inflation Target (Recursive ordinary least squares estimates)	12
	2.6. Dispersion of Inflation Forecasts	13

3.1. Inflation in Uruguay	18
3.2. Nominal Exchange Rate and Foreign Exchange Rate Intervention	19
3.3. A Measure of Financial Sector Development	20
3.4. Pass-Through Rolling Regression Coefficients	21
3.5. Deposit Dollarization	22
3.6. Credit Dollarization	22
3.7. A Measure of Credibility	23
3.8. Financial Dollarization and Credibility	24
3.9. Impulse Response Functions	24
4.1. Bank Lending in Uruguay	29
4.2. Correlations Between Leads and Lags of the Cyclical Components of Credit and GDP	31
5.1. Bank Credit to the Private Sector in Selected Countries	34
5.2. Concentration Index	35
6.1. Uruguay, Latin America and Global Emerging Markets Bond Index (EMBI) Spreads, 1996–2006	40
6.2. Country Fundamentals and External Factors, 1996–2006	41
6.3. Selected Country Spreads and Latin American Emerging Markets Bond Index (EMBI) Spread, Pre- and Post-Uruguayan Crisis	42
6.4. Standard & Poor's Credit Rating for Selected Latin American Countries, 1996–2006	44
6.5. Uruguay and Selected Latin American Country Spreads, Pre- and Postcrisis	45
7.1. Merton Framework	52
7.2. Liquidity Ratios After Stress Shocks	53
7.3. Capital Adequacy Ratio (Percentage of Risk-Weighted Assets) After Stress Shocks	54
7.4. Expected Losses Given Default in the Corporate Sector	55
7.5. Banking Sector Default Probability	56
7.6. Relationship Between Assets and Asset Volatility in Uruguay	56
7.7. Default Probabilities: A Scenario Analysis	57
7A.1. Uruguay's Corporate Sector: Components of Distance to Distress	58
7A.2. Uruguay's Banking Sector Volatilities	59
8.1. Financial Account Reversal, Dollar Deposits, and Reserves in Uruguay	61
8.2. Short-Term Foreign Currency Debt and Foreign Currency Deposits in Uruguay	61
8.3. Withdrawal of Foreign Currency Deposits in 2002	62
8.4. Benchmark Measures of Reserve Adequacy	62
8.5. Optimal Versus Actual Level of Reserves in Uruguay	65
8.6. Actual and Implied Reserves	65
8.7. Sensitivity Analysis	66

Tables

2.1. Consumer Price Index Inflation Regressions with Survey Data	8
2.2. Determinants of Inflation Expectations	10
2.3. Tests of Unbiasedness of Inflation Forecasts	14
2A.1. Johansen Cointegration Test Results	14
2A.2. Adjustment Coefficients in a Bivariate Vector Error Correction on Actual and Expected Inflation	15
2A.3. Tests of Efficiency of Inflation Forecasts	15
3.1. Short- and Long-Run Exchange Rate Pass-Through, Selected Countries	21
4.1. Financing Structure of Firms in Uruguay, 2004	30
4.2. Selected Indicators of Uruguayan Banks by Type, 2006	31
4.3. Differential Response of Local Currency Loan Growth to Monetary Policy Shocks by Bank Characteristic	32

4.4. Differential Response of Foreign Currency Loan Growth to Foreign Shocks	33
5.1. Panzar and Rosse’s <i>H</i> Statistic	36
5.2. Results from Revenue Estimations	36
6.1. Sovereign Spread Correlation, Pre- and Postcrisis	43
6.2. Pairwise Granger Causality Tests	44
6.3. Unit Root Test: Augmented Dickey-Fuller (ADF)	46
6.4. Variance Decomposition	47
7.1. 2006 Financial Sector Assessment Program: Stress Tests Assumption	53
7.2. Total Government Assistance to Banks	55
8.1. Variable Parameters	63
8.2. Fixed Parameters	63
8.3. Implicit Parameters	67

The following conventions are used in this publication:

- In tables, a blank cell indicates “not applicable,” ellipsis points (. . .) indicate “not available,” and 0 or 0.0 indicates “zero” or “negligible.” Minor discrepancies between sums of constituent figures and totals are due to rounding.
- An en dash (–) between years or months (for example, 2005–06 or January–June) indicates the years or months covered, including the beginning and ending years or months; a slash or virgule (/) between years or months (for example, 2005/06) indicates a fiscal or financial year, as does the abbreviation FY (for example, FY2006).
- “Billion” means a thousand million; “trillion” means a thousand billion.
- “Basis points” refer to hundredths of 1 percentage point (for example, 25 basis points are equivalent to ¼ of 1 percentage point).

As used in this publication, the term “country” does not in all cases refer to a territorial entity that is a state as understood by international law and practice. As used here, the term also covers some territorial entities that are not states but for which statistical data are maintained on a separate and independent basis.