Contents

Acknowledgements v

Contents viii

List of Tables xii

List of Figures xiv

List of Acronyms xvii

1 Introduction 1

2 Are Credit Rating Announcements Contagious? Evidence on the Transmission of Information Across Industries in Credit Default Swap Markets 17
   2.1 Introduction ........................................ 17
   2.2 Credit Rating Methodology .............................. 20
      2.2.1 Rating Process .................................... 20
      2.2.2 Types of Rating Signals ............................ 21
   2.3 Previous Literature .................................... 21
      2.3.1 Impact of Rating Changes on the Firm that Experiences the Event ........................................ 21
      2.3.2 Spillover Effect of the Credit Rating Changes ................ 25
   2.4 Hypotheses ............................................ 29
      2.4.1 Intra-Industry Informational Transfer (Intra-Industry Informational Transfer (IIIT)) Hypotheses ..................... 29
      2.4.2 Conditional IIIT Hypotheses ........................ 32
   2.5 Data ................................................ 34
      2.5.1 Rating Announcement Dates .......................... 34
# Contents

2.5.2 Credit Default Swap Dataset ........................................ 34  
2.5.3 Data Cleaning Procedures ........................................ 39  
2.6 Methodology .......................................................... 40  
  2.6.1 Measuring the Abnormal Credit Spread Behavior .............. 40  
  2.6.2 Industry Portfolio Construction ................................. 41  
  2.6.3 Statistical Tests for Analyzing the Abnormal Credit Default  
    Swap (CDS) performance ........................................... 42  
2.7 Empirical Results .................................................... 42  
  2.7.1 Univariate Results ............................................... 42  
  2.7.2 Univariate Stratification Results: Testing the Conditional  
    IIIT effects ....................................................... 46  
  2.7.3 Multivariate Regression Analysis ............................... 56  
2.8 Conclusions .......................................................... 62  
2.A Corrado Ranksum Test ................................................ 64  
2.B Multivariate Regression in Section 1.7.3 ......................... 65

## 3 Anatomy of Bank Distress: The Information Content of Accounting Fundamentals Within and Across Countries

3.1 Introduction .......................................................... 67  
3.2 Bank Distress During the Global Financial Crisis ............... 73  
  3.2.1 Construction of the Database on Distressed Bank Resolutions  
    During the 2007-12 Crisis in the U.S. and Europe ............... 74  
  3.2.2 Sample .......................................................... 78  
3.3 Explaining Within-Country Variation in Bank Distress by Accounting  
    Fundamentals ....................................................... 81  
  3.3.1 Time Path of Bank Performance Indicators Prior to Distress  
    Event ............................................................... 82  
  3.3.2 Multivariate Prediction of Bank Distress ....................... 84  
3.4 Further Analysis on the Information Content ....................... 89  
  3.4.1 How informative is bank accounting disclosure in identifying  
    distressed banks within countries? ................................ 90  
  3.4.2 How informative are the pre-crisis bank accounting figures  
    in explaining the aggregate incidence of bank distress across  
    countries during 2007-10? ....................................... 96  
3.5 Bank Disclosure Quality ............................................. 97
3.5.1 Measurement of Bank Disclosure Standards and Their Enforcement by the Regulators ........................................... 99
3.5.2 Test 1: Bank Disclosure Quality and Accounting Information Content in a Cross-Section of Banks ...................... 100
3.5.3 Test 2: Disclosure Quality and Accounting Informativeness: Within-Firm (Time-Series) Evidence ......................... 108
3.6 Concluding Remarks .............................................. 109

4 Assessing Basel III Capital Ratios 111
4.1 Introduction ......................................................... 111
4.2 Hypotheses on Basel III Capital Regulation ...................... 117
4.3 Data and Methodology ............................................ 125
  4.3.1 Data ......................................................... 125
  4.3.2 Empirical Model ............................................. 128
4.4 Results ........................................................... 131
  4.4.1 Benchmark model estimation ................................ 131
  4.4.2 Association between bank capital and distress: Test of Hypothesis 1.1 ..................................................... 133
  4.4.3 Risk-sensitive vs risk-insensitive capital measures: Tests of Hypotheses 2.1 and 2.2 ............................................. 133
  4.4.4 The Role of Intangibles in Bank Capital: Test of Hypothesis 3.1 136
4.5 Discussion and Conclusions ...................................... 143

5 Effective Macroprudential Policy: Cross-Sector Substitution from Price and Quantity Measures 147
5.1 Introduction ......................................................... 147
5.2 Data ............................................................... 151
  5.2.1 Private credit to the non-financial sector .................... 151
  5.2.2 Macroprudential Policy Events ................................ 154
  5.2.3 Macroeconomic Fundamentals ............................... 156
5.3 Cross-Sectoral Substitution due to Macroprudential Measures 156
  5.3.1 Methodology .................................................. 156
  5.3.2 Results ......................................................... 158
5.4 Event Study of Macro-Prudential Policy Interventions ........ 161
  5.4.1 Methodology .................................................. 161
  5.4.2 Results ......................................................... 163
5.5 Robustness Checks ........................................173
  5.5.1 Placebo Tests ........................................173
  5.5.2 Effect of Macroprudential Policy (MaP) Events Prior to and During the Global Financial Crisis ...............174
5.6 Conclusions ..............................................177
5.A Importance of Cross-Border Claims ........................187

6 Conclusions ..............................................191

Bibliography ..............................................195
# List of Tables

2.1 Market Efficiency Literature on Bond Rating Changes .......................... 26  
2.2 Description of the Dataset .................................................................. 35  
2.4 Abnormal CDS-Spread Responses to Rating Announcements ............. 45  
2.5 Variables Used in Stratification and Multivariate Regression Analysis ... 47  
2.6 Industry Responses to the S&P Rating Announcements - Responses  
  Stratified by Event-Firm Characteristics ........................................ 51  
2.7 Industry Responses to the S&P Rating Announcements - Responses  
  Stratified by Industry Characteristics ............................................. 52  
2.8 Industry Responses to the S&P Rating Announcements - Alternative  
  Stratification Schemes .................................................................... 54  
2.11 Marginal Industry Responses ............................................................ 62  
2.12 Industry Announcement Window Responses Stratified by Event-Firm  
  Characteristics ................................................................................ 65  
3.1 Literature on the Bank Distress Prediction .......................................... 71  
3.2 Bank Distress Events ......................................................................... 77  
3.3 Sample Summary ................................................................................ 79  
3.4 Decomposition of Variation in Accounting Fundamentals .................. 81  
3.5 Modelling of European and the U.S. Bank Distress ............................ 88  
3.6 Informativeness of Accounting-Based Bank Distress Prediction Models:  
  Areas Under ROC Curve Across Countries ....................................... 91  
3.7 Definition of Regulatory Indices from Barth et al. (2013) .................... 100  
3.8 Within-Country Cross-Sectional Evidence on the Association between  
  Accounting Informativeness and Bank Disclosure Quality .................. 105  
3.9 Within-Firm/Time-Series Evidence on the Association between Account-  
  ing Informativeness and Bank Disclosure Quality ............................... 107
4.1 Literature on the effectiveness of risk sensitive and risk-insensitive capital measures ........................................116
4.2 Hypotheses on Basel III ..................................................................................................................124
4.3 Summary of the key banking measures for the non-IRB sample (bank assets below 10 billion USD). .................................................................................................129
4.4 Summary of the key banking measures for the IRB sample of banks (assets above 10 billion USD). .................................................................................................130
4.5 Benchmark Model Estimation .......................................................................................................132
4.6 Performance of risk-sensitive and risk-insensitive capital measures in explaining bank distress .............................................................................................................................134
4.7 Quality of bank capital and and its impact on bank distress ............................................................135
4.8 Estimation of the elasticities of Basel risk weights (RW)s with respect to Leverage Ratio (LR) .................................................................................................................................142
4.9 Basel III phase-in arrangements ....................................................................................................146

5.1 Summary statistics on credit, macroprudential policies and macroeconomic indicators .................................................................................................................................153
5.2 Classification of Macropudential Policies .........................................................................................155
5.3 Substitution from bank to non-bank credit ......................................................................................159
5.4 Substitution from bank to non-bank credit for price and quantity measures ..............................160
5.5 Drivers of growth in credit, investment fund assets and domestic private debt securities .....................169
5.6 Summary of event study results ......................................................................................................172
5.7 Event study using placebo event dataset. Summary of results. .....................................................175
5.8 Event study results before and after 2007Q3 ..................................................................................176
5.9 Cross-border credit to the non-financial sector (CB_NFPS) as a percentage of the total non-bank credit to the non-financial private sector (NBC) .........................................................................................................................188
5.10 Cross-border credit to the non-financial sector (CB_NFPS) as a percentage of the total non-bank credit to the non-financial private sector (NBC) .........................................................................................................................188
## List of Figures

2.3 Dataset construction process .............................................. 38
2.9 Conditional IIIT Effects - Rating Changes .......................... 59
2.10 Conditional IIIT Effects - Rating Reviews .......................... 60

3.1 Relative performance of distressed banks along select accounting ratios in years prior to the distress event .................................................. 86
3.2 Country-by-Country Areas under ROC Curve (AUC) for the Select Accounting Ratios ................................................................. 95
3.3 Cross-Country Variation in Bank Distress and its Correspondence with the Aggregated Bank Accounting Measures ............................... 103
3.4 Bank Regulation across Countries: Bank Disclosure .................. 104

4.1 How does Basel III regulation affect the regulatory capital ratio? .... 118
4.2 Asset size of banks involved in bank closures or open-bank assistance events. 125
4.3 Asset size of banks that follow Internal-Rating Based (IRB) and Standardized approach to the computation of the capital requirements. .... 126
4.4 Bivariate density plot of changes in LR and RWs ....................... 139
4.5 Association between RW and LR changes across bank size group .... 142

5.1 Credit flows in advanced and emerging economies ................... 164
5.2 Histogram of the substitution between bank/non-bank credit flows .... 167
5.3 Macroprudential policy measures .......................................... 168
5.4 Cumulative excess credit growth rates around macroprudential measures .... 179
5.5 Cumulative excess growth of non-bank FIs’ assets around macroprudential measures .............................................................. 181
5.6 Impact of MaP measures on bank credit .................................. 182
5.7 Impact of MaP measures on non-bank credit. .......................... 183
5.8 Impact of MaP measures on total credit ................................. 184
5.9 Impact of MaP measures on net sectoral credit flow .................. 185
5.10 Simulated macroprudential policy measures used in the placebo tests . . 186