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# Asset Pricing, Real Estate and Public Finance over the Crisis

Edited by

**Alessandro Carretta**

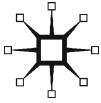
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# Contents

<i>List of Figures</i>	vii
<i>List of Tables</i>	viii
<i>Preface</i>	xi
<i>Acknowledgements</i>	xiii
<i>Notes on Contributors</i>	xiv
<i>Abbreviations</i>	xviii
Introduction	1
<i>Alessandro Carretta and Gianluca Mattarocci</i>	
<b>Part I Asset Pricing during the Crisis</b>	<b>5</b>
1 Does Investor Attention Influence Stock Market Activity? The Case of Spin-Off Deals	7
<i>Alessandro Carretta, Vincenzo Farina, Elvira Anna Graziano and Marco Reale</i>	
2 The Effects of Derivatives Trading on Stock Market Volatility and Market Efficiency: Some Evidence from European Markets	25
<i>Giovanni Liccardo</i>	
3 How Much Globalization Is There in the World Stock Markets and Where Is It?	38
<i>Gianni Nicolini and Ekaterina Dorodnykh</i>	
4 Financial Analyst Recommendation Driven Funds: A Risk Adjusted Measure Analysis	56
<i>Giuseppe Galloppo</i>	
5 Alternative Neural Network Approaches for Enhancing Stock Picking Using Earnings Forecasts	77
<i>Giuseppe Galloppo and Mauro Aliano</i>	
6 Market Timing with the Black-Litterman Model	97
<i>Ugo Pomante</i>	
7 Performance and Governance in Investment Management Companies	112
<i>Maria Cristina Arcuri</i>	

<b>Part II Real Estate Investment Vehicles and Markets during the Crisis</b>	127
8 The Quality of Real Estate Data: The Italian Case <i>Francesca Battaglia, Claudio Porzio and Gabriele Sampagnaro</i>	129
9 Real Estate Trends and Portfolio Rebalancing: Evidence from Main European Markets <i>Gianluca Mattarocci and Georgios Siligardos</i>	152
10 The Role of Risk Measures Choices in Ranking Real Estate Funds: Evidence from the Italian Market <i>Claudio Giannotti and Gianluca Mattarocci</i>	165
<b>Part III Public Sector Issues in a Crisis Scenario</b>	191
11 Economic and Financial Determinants of the Italian Local Government Ratings: An Empirical Analysis <i>Anna Valeria Venneri</i>	193
12 Evolution of the Finance Function in the Italian Local Public Bodies <i>Fabrizio Quarta and Pasquale Stefanizzi</i>	214
13 Project Finance Exposures in the Supervisory Slotting Criteria Approach: Pricing and Judgemental Analysis <i>Pietro Marchetti and Anna Valeria Venneri</i>	228
<i>Index</i>	253

# Figures

1.1	Media sentiment and the percentage variation of spin-off returns one day after the deal	12
1.2	The change in attention indicator series around the date (-5gg, +5gg) of spin-off deals	13
1.3	The attention level and the percentage variation of spin-off returns one day after spin-off deals	14
1.4	The attention level and the percentage variation in trading volumes one day after spin-off deals	14
1.5	The attention level in relation to volatility over the time horizon considered	15
1.6	The media sentiment, the change in attention indicator and the percentage variation of spin-off returns one day after the deal	15
1.7	Time plots of the variables considered in the dynamic model	16
1.8	Conditional independence graph for the variables in a SVAR(1)	18
1.9	Sub-graph of the CIG including just the current variables	18
1.10	All the possible DAGs explaining the CIG between current variables	19
1.11	DAG of model 4	20
4.1	Key readings of portfolio labels	67
5.1	ANN architecture: multilayer perceptron	85
6.1	Tactical changes	110
8.1	Summary of cointegration analysis results	140
8.2	Comparable efficient frontiers	147

# Tables

1.1	Sample of spin-off deals considered for the analysis	10
1.2	SVAR order identified by different information criteria	17
1.3	Number of parameters and values of information criteria for different models	19
2.1	List of equity indexes and data period	28
2.2	Descriptive statistics pre- and post-derivatives	30
2.3	Test for unit root in level	32
2.4	Estimates of the GARCH	33
2.5	Estimates of GARCH before and after the introduction of derivatives	34
3.1	Geographical distribution of stock market indexes	42
3.2	Average correlation between stock markets from 1995 to 2010	44
3.3	Average correlation of weekly indexes in Western Europe	46
3.4	Average correlation of weekly indexes in Northern Europe	47
3.5	Average correlation of weekly indexes in Eastern Europe	48
3.6	Average correlation of weekly indexes in North America	48
3.7	Average correlation of weekly indexes in Latin America	49
3.8	Average correlation of weekly indexes in Asia-Pacific and Oceania	50
3.9	Average correlation of weekly indexes in Africa and Middle East	51
3.A1	Summary statistics of weekly data from 30 December 1994 to 31 December 2010	52
4.1	Recommendation meaning	62
4.2	Portfolio results – holding period: 20 days	68
4.3	Portfolio results – holding period: 30 days	68
4.4	Portfolio results – holding period: 40 days	69
4.5	Portfolio results – holding period: 60 days	69
4.6	Portfolio results – holding period: 120 days	70
4.7	Portfolio results – holding period: 180 days	70
4.8	Standard and Poor's 500 index performance breakdown by year	70
4.9	Excess return of portfolios with positive Sharpe ratio	71
4.10	Association Spearman test between number of recommendations and portfolio return to maturity	73
4.11	Portfolios with Sharpe ratio greater than zero: Spearman test results	74
5.1	Results for the prediction of returns: quarterly horizon	89
5.2	Results for the prediction of returns: yearly horizon	91
5.3	Trading model results: quarterly horizon	92



6.1	Asset classes and market indexes	106
6.2	The strategic portfolio composition	106
6.3	The covariance matrix	106
6.4	Strategic versus tactical expected returns	109
7.1	IMCs: sample and sub-samples composition	115
7.2	Profitability of AMCs	119
7.3	Relation between ownership and profitability	119
7.4	Relation between ownership, market share and receivable commissions	120
7.5	Relation between ownership, market share and payable commissions	122
8.1	Data description: time intervals and geographical markets	133
8.2	Dissimilarity ratio analysis	136
8.3	Correlation matrix	137
8.4	ADF unit root test (time interval: June 1997 to June 2008)	138
8.5	Cointegration analysis between two real estate data sources	139
8.6	Simulating IRR calculation: main results	143
8.7	Simulation of loss given default prediction	144
8.8	Map of Decile Average Risk adjusted Performance (DARaP) values	148
9.1	Sample composition (number of funds)	158
9.2	Indexes of summary statistics	158
9.3	Portfolio rebalancing over a one-year time horizon	159
9.4	Pairwise correlation results	160
9.5	Minimum distance from the efficient frontier in percentiles	161
9.6	A comparison of Sharpe ratio real and optimal portfolios (mean value)	161
9.7	F-test results	162
10.1	Sample description	168
10.2	Shapiro–Wilk test of normality for Italian real estate performance	169
10.3	Summary statistics on ranking constructed on different RAPs (time horizon: 2001 to 2009)	175
10.4	Contingency persistence matrix (time horizon: 2001 to 2009)	178
10.5	Summary statistics of pairwise correlation among rankings defined by different RAP measure (time horizon: 2001 to 2009)	180
10.6	Performance of the investment strategy – equally weighted portfolios	183
10.7	Performance of the investment strategy – value weighted portfolios	185
11.1	A linear transformation of ratings	203
11.2	Set of explanatory variables: a description	205
11.3	Results of the ordered probit model for local governments rated by Moody	207

11.4	Results of the ordered probit model for local governments rated by S&P	208
11.5	Results of the ordered probit model for local governments rated by Fitch	209
12.1	Summary of outstanding debt at 31 December 2010	223
12.2	Exposure with respect to derivatives for local authorities as on 31 December 2010	224
12.3	Comparison of notional/debt	225
13.1	The risk weights for unexpected loss (UL) and expected loss (EL)	232
13.2	A sample of banks operating in the PF sector in Italy	233
13.3	Main indicators on pricing (2004 to 2007 period)	234
13.4	The PF classification in a judgemental model	235
13.5	The risk weights assigned to PF exposures in the SSCA	238
13.A1	Pricing of PF exposures (2004)	242
13.A2	Pricing of PF exposures (2005)	243
13.A3	Pricing of PF exposures (2006)	244
13.A4	Pricing of PF exposures (2007)	245
13.A5	Supervisory slotting criteria for PF exposures: a judgement-based model	246

# Preface

The recent and continuing economic instability demonstrates how excessive financial innovation can cause a global crisis if investors are not able to correctly evaluate new financial instruments and business models adopted by financial intermediaries.

The real estate industry was the first sector affected by a price bubble driven by excessive demand for housing that pushed the price of real estate units above their fair values. Due to the high relevance of mortgage-backed securities (MBS) and collateralized bond obligations (CBOs) in financial intermediaries' balance sheets, the crisis spread across all the financial markets and the price of almost all assets was biased by the pessimistic views of investors and the lack of liquidity. Even bonds issued by governments with an excessive amount of debt were affected by a loss of investor confidence that caused a significant increase in the cost of capital and the probability of default of the issuer. In this new scenario, investors have been looking for the best criteria to measure the value of their investments independently with respect to any irrational market behaviour.

During the crisis, financial markets have shown the increasing role played by investor sentiment in the price definition mechanism and higher volatility of returns. In order to develop profitable investment strategies, investors have to consider the impact of qualitative data and news on the value of financial instruments.

The increasing risk of default of the Sovereign demonstrates lack of knowledge about their risk drivers and proves the usefulness of a more detailed analysis of issuer characteristics for selecting investment in the fixed income sector.

The trend of the real estate sector during recent years supports the thesis of the lack of transparency and quality in the information available in the direct investment market and demonstrates the usefulness of a more detailed evaluation procedure for selecting the best indirect investment.

This book is intended as a tool for policy makers, practitioners and scholars to understand and discuss the new issues related to value measurement in the financial markets. It looks separately at the asset management industry, Sovereign bonds and the real estate market. It is the result of extensive academic experience and strong theoretical and empirical work conducted by the authors, all engaged in research activities in their universities. Most contributors are participants in the PhD programme in Banking and Finance at the University of Rome 'Tor Vergata'.

Ideas and preliminary drafts of the papers relating to the research programmes from which this book was assembled have been presented and discussed in various academic workshops and international conferences. These include ADEIMF (2009, Palermo); AISRe (2011, Turin); European Real Estate Society (2010, Milan); Global Business Conference of Finance Research (2010, San Jose de Costarica); International Finance and Banking Society (2011, Rome); 5th International Symposium on Economic Theory, Policy and Applications (2010, Athens); 8th International Conference on Applied Financial Economics, (2011, Samos); 20th International 'Tor Vergata' Conference on Money, Banking and Finance (2011, Rome).

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# Abbreviations

ADF	Augmented Dickey Fuller
AFIN	financial autonomy
AIC	Akaike Information Criterion
AIMP	fiscal autonomy
ANN	artificial neural network
ARIMA	Autoregressive Integrated Moving Average
B-L	Black and Litterman
BPN	back propagation neural network
Burke	Burke ratio
CAIC	Consistent Akaike Information Criterion
Calmar	Calmar ratio
CBO	collateralized bond obligation
CDS	credit default swap
CIG	conditional independence graph
CIU	Collective Investment Undertakings
CO	operating costs
CVAR Ratio	conditional value at risk ratio
DAG	directed acyclic graph
DARaP	Decile Average Risk adjusted Performance
DJIA	Dow Jones Industrial Average index
DW	Durbin Watson
E(RV)	expected recovery value
EAD	exposure at default
ECB	European Central Bank
ECM	Error Correction Mechanism
EGARCH	exponential generalized autoregressive conditional heteroskedasticity
EL	expected loss
ELR	expected loss rate
EMH	efficient market hypothesis
FDI	foreign direct investment
GARCH	generalized autoRegressive conditional heteroskedasticity
GDP	gross domestic product
GLS	generalized least squares
HIC	Hannan and Quinn test
I/B/E/S	Institutional Brokers' Estimate System
ICT	Information and Communication Technology
IDR	Issuer Default Rating
I.I.D.	independent and identically distribute

IMC	Investment Management Company
INDL	local debt per capita
IPO	initial public offering
IRR	internal rate of return
Kappa (n = 3)	Kappa corrected for skewness
Kappa (n = 4)	Kappa corrected for asymmetry
Ke	cost of equity
LAFP	loan arbitrage-free pricing
LGD	loss given default
LRG	local and regional governments
M	maturity
MACD	Moving Average Convergence and Divergence
MBS	mortgage backed securities
MCOR	current balance
MLP	multilayer perceptron
MPT	modern portfolio theory
MVAR ratio	modified value at risk ratio
PD	probability of default
PF	Project Finance
PILL	local GDP per capita
PMN	positive minus negative words in the news
RAROC	risk-adjusted return on capital
RE	real estate
REITs	real estate investment trusts
RMSE	root mean square error
ROA	Return on Asset
ROAS	Return on Absolute Shortfall
ROE	Return on Equity
ROPS	Return of Probability Shortfall
SALD	net borrowing respect to total revenues
SDEB	expenditure on loans repayment
SEC	Security Exchange Commission
Sharpe	Sharpe index
Sharpe	Omega Sharpe Omega ratio
SIC	Schwarz test
SING or SINT	spending on debt
SME	small and medium enterprises
Sortino	Sortino ratio
SSCA	Supervisory Slotting Criteria Approach
Sterling	Sterling ratio
SUR	seemingly unrelated regressions
SVAR	structural vector autoregression
TA	total assets
TEV	Tracking Error Volatility
TIT	internal transfer rate
UL	unexpected loss
VAR	Value at Risk ratio