

Contents

List of Figures	xiii
List of Tables	xiv
Abbreviations	xv
Mathematical Symbols	xvi
1 Introduction	1
1.1 Problem definition and objectives of the thesis	1
1.2 Course of Investigation	6
2 Brand-reputation risk in auto loan portfolios	9
2.1 Starting point and aims of the analysis	9
2.2 Diesel emissions scandal	12
2.2.1 Notices of Violation	12
2.2.2 Settlement programs	14
2.2.3 Development of attention to the scandal	15
2.3 Theory and hypotheses	17
2.3.1 The economics of default behavior	17
2.3.2 Borrowing on scandal-implicated durable goods	18
2.3.3 Scandal-induced defaulting	19
2.4 Data	22
2.4.1 Data sources and sample selection	22
2.4.2 Variables	24
2.4.3 Descriptive statistics	27
2.5 Regression analyses	28
2.5.1 Introduction of the main model (preliminary analysis)	28
2.5.2 Demand-during-scandal effect	31
2.5.3 Scandal-induced defaulting	37
2.6 Interim discussion	44
2.6.1 Implications	44
2.6.2 Limitations	47
2.7 Interim conclusion	47
2.8 Appendix	49
2.8.1 Technical details on data preparation	49

3 Securitization as a tool of risk transfer and refunding	54
3.1 The rise of securitization and its key functionalities	54
3.2 Benefits of securitization	56
3.3 Contribution to the 2007 financial crisis	58
3.4 Mechanisms of credit risk retention	59
4 Informational frictions and their mitigation in securitization markets: a literature review	62
4.1 Evidence on adverse selection in real securitization markets	62
4.2 Theory on pure adverse-selection problems	65
4.2.1 Typical elements of theoretical game design	65
4.2.2 Related studies and analyzed settings	66
4.2.3 The purpose of cash flow retention	68
4.2.4 Optimal design of securities and retention	69
4.2.5 Optimality of debt securities	69
4.2.6 Optimality of vertical retention	71
4.2.7 Existence and uniqueness of equilibria	71
4.2.8 Adding risk-free assets to the asset pool	73
4.3 Liquidation in the presence of heterogeneous investors	73
4.4 Evidence on moral hazard in real securitization markets	74
4.4.1 Post-issuance moral hazard	74
4.4.2 Pre-issuance moral hazard	79
4.5 Theory on pure moral-hazard problems	81
4.5.1 Typical elements of theoretical game design	81
4.5.2 Related studies and analyzed settings	82
4.5.3 Considered retention designs and overview of results	84
4.5.4 The benefit of capital charge reduction	86
4.5.5 Cash flow structure and sensitivity to effort	87
4.6 Moral-hazard problems and the primary loan market	89
4.6.1 Related studies and analyzed settings	89
4.6.2 Considered retention designs and summary of results	90
4.7 Combined problems of moral hazard and adverse selection	91
4.7.1 Typical elements of theoretical game design	91
4.7.2 Related studies and analyzed settings	91
4.7.3 Equilibria in the secondary market	94
4.7.4 Optimal retention design	97
4.8 Evidence on retention design in real securitization markets	98

4.9	Comparison of existing models with current market conditions	101
4.9.1	Informational frictions	101
4.9.2	Cash flow structure and sensitivity to effort	104
4.9.3	Originator preferences	107
4.10	Interim conclusion	110
5	The optimal alignment of incentives between ABS originators and investors	112
5.1	Starting point and aims of the analysis	112
5.2	Model	117
5.2.1	Set-up	117
5.2.2	First-best contracting	120
5.3	Equilibrium retention design and effort	121
5.3.1	Hidden effort and observable cost of effort	121
5.3.2	Hidden effort and hidden cost of effort	127
5.4	Interim discussion	135
5.4.1	Application to securitized mortgage loan pools	135
5.4.2	Regulation on retention in securitization markets	137
5.5	Interim conclusion	141
5.6	Appendix	143
5.6.1	Proofs	143
5.6.2	Derivation of effort sensitivity structure	155
5.6.3	Generalization of contract design	157
6	Conclusion	159