

# Firm Size, Innovation and Market Structure

The Evolution of Industry Concentration  
and Instability

---

Mariana Mazzucato

*Open University, Milton Keynes, UK*

NEW HORIZONS IN THE ECONOMICS OF INNOVATION



**Edward Elgar**

Cheltenham, UK • Northampton, MA, USA

# Contents

---

<i>List of figures</i>	ix
<i>List of tables</i>	xi
<i>Acknowledgments</i>	xiii
<i>Introduction</i>	xv
1 Firm-size dynamics: new ideas and dynamic methods	1
1 Introduction: variety, order and complexity	1
2 Stylized facts regarding firm-size dynamics	7
3 The theory of market structure and the measurement of competition	8
4 Empirical work on firm size and innovation	16
5 Summary	19
6 Dynamic techniques to model firm-size dynamics	20
2 A computational model of economies of scale and market share instability: a deterministic analysis	26
1 Introduction	26
2 Empirical regularities and the measurement of competition	29
3 Firm size and innovation	32
4 The model	35
5 Comparison of simulation results to empirical data in the US automobile industry	60
6 Conclusion and discussion	63
3 The effect of idiosyncratic events on the feedback between firm size and innovation: a stochastic analysis	67
1 Introduction	67
2 Randomness in economic models	67
3 Industry-specific nature of market share instability	70
4 Modeling the effect of idiosyncratic events on positive/negative feedback	71
5 Conclusion	91
4 Market share instability and stock price volatility during the industry life-cycle: the US automobile industry	93
1 Introduction	93
2 Stylized facts regarding stock price volatility	95

3	Brief historical background of the US automobile industry	96
4	Theoretical insights: life-cycle and finance theory	99
5	Empirical analysis: the US automobile industry	107
6	Conclusion	115
	Concluding statement	119
	<i>Appendix</i>	123
	<i>Bibliography</i>	125
	<i>Index</i>	135