

Designing Democracy

Hans Gersbach

Designing Democracy

Ideas for Better Rules

 Springer

Professor Dr. Hans Gersbach
University of Heidelberg
Alfred Weber Institute for Economics
Grabengasse 14
69117 Heidelberg
Germany

Cataloging-in-Publication Data applied for

A catalog record for this book is available from the Library of Congress.

Bibliographic information published by Die Deutsche Bibliothek

Die Deutsche Bibliothek lists this publication in the Deutsche Nationalbibliografie;
detailed bibliographic data available in the internet at <http://dnb.ddb.de>

ISBN 3-540-22402-5 Springer Berlin Heidelberg New York

This work is subject to copyright. All rights are reserved, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilm or in any other way, and storage in data banks. Duplication of this publication or parts thereof is permitted only under the provisions of the German Copyright Law of September 9, 1965, in its current version, and permission for use must always be obtained from Springer-Verlag. Violations are liable for prosecution under the German Copyright Law.

Springer is a part of Springer Science+Business Media
springeronline.com

© Springer-Verlag Berlin Heidelberg 2005
Printed in Germany

The use of general descriptive names, registered names, trademarks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

Cover design: Erich Kirchner, Heidelberg
Production: Helmut Petri
Printing: betz-druck

SPIN 11298984 Printed on acid-free paper – 43/3130 – 5 4 3 2 1 0

Preface

While liberal democracies are the best systems of self-governance for societies, they rarely invoke great enthusiasm. On the one hand, democracies have been known to fail in achieving efficient or fair allocations. On the other hand, many citizens take the democratic system for granted as they have yet to experience an alternative.

In this book the vision we propose is that the potential of democracies has not yet been exhausted, and that optimal democracies are both the utopia for societies and the aim that scientists should be committed to.

We present a number of ideas for drawing up new rules to improve the functioning of democracies. The book falls into two parts.

The first part examines ways of combining incentive contracts with democratic elections. We suggest that a judicious combination of these two elements as a dual mechanism can alleviate a wide range of political failures, while at the same time adhering to the founding principles of democracies.

The second part presents new rules for decision-making and agenda setting. Together with modern communication devices, these rules can sometimes transcend the limitations of liberal

democracies in achieving desirable outcomes. Examples of such rules include the flexible majority rule where the size of the majority required depends on the proposal, or the rule that only those belonging to the winning majority can be taxed.

At this stage, the scope and utility of these suggestions cannot be fully estimated. However, we hope that the ideas presented will at least to some extent revive an interest in the democratic system and an appreciation of its potentials.

I take great pleasure in expressing my thanks to many friends and colleagues who have helped me critically assess the ideas. Peter Bernholz, Ulrich Erlenmaier, Volker Hahn, Hans Haller, and Verena Liessem challenged the models and arguments presented in this book and prompted me to rethink the main implication of this work. I benefitted from discussions at the annual meetings of the European Public Choice Society, the Econometric and European Economic Association, the German Economic Association, at seminars on my tour of California (Universities of Los Angeles, Davis, Irvine, and San Diego) and at seminars in Basel, Leuven, Mannheim, and Rotterdam. I am deeply grateful for various comments and help along the way from Alexandrina Braack, Clive Bell, Jürgen Eichberger, Amihai Glazer, Hans-Peter Grüner, Martin Hellwig, Mark Machina, Wolfgang Merkel, Thomas Petersen, Till Requate, Annette Schiller, Manfred Schmidt, Armin Schmutzler, Otto Swank, and Eva Terberger. Finally, I would also like to thank Andrew Jenkins, Markus Müller, and Michael Neumann for their excellent research assistance.

Heidelberg, August 2004

Hans Gersbach

Contents

Part I. Incentive Contracts and Elections

1. Overview	3
1.1 The Ideas	3
1.2 The Theme	7
2. Unobservability and Short-Termism in Long-Term Policies	11
2.1 Introduction	11
2.2 The Model	14
2.3 Fixed and Conditional Reelection Probabilities	18
2.4 Incentive Contracts at the Reelection Stage	21
2.5 Other Sources of Inefficiencies	24
2.6 Practical Issues	25
2.7 Conclusion	27
3. Short-Termism and Competition for Incentive Contracts	29
3.1 Introduction	29
3.2 The Model	33
3.3 Elections	38
3.4 Competition for the Incentive Contracts	41

VIII Contents

3.5	Competition Without Commitment.....	44
3.6	Asymmetric Information	47
3.7	Conclusion	49
3.8	Appendix	50
4.	Reelection Thresholds	53
4.1	Introduction.....	53
4.2	The Model	55
4.3	First-Best Solution	58
4.4	The Reelection Mechanism	59
4.5	Threshold Incentive Contracts	62
4.6	Conclusion	66
5.	Effort Incentives and Monetary Rewards	67
5.1	Introduction.....	67
5.2	The Model	70
5.3	First-Best Solution	74
5.4	The Reelection Mechanism	76
5.5	Self-Financing Incentive Contracts.....	80
5.6	Robustness and Non-commitment	85
5.7	Conclusion	87
5.8	Appendix	88
6.	Limits to Incentive Contracts in Politics	97
6.1	Introduction.....	97
6.2	The Model	99
6.3	Fixed Wages	101
6.4	Competition for Wage Contracts	102

6.5 Welfare Comparisons 106

6.6 Conclusion 110

Epilogue to Part I 111

References to Part I 112

Part II. Rules for Decision-Making and Agenda Setting

7. Overview 119

7.1 The Ideas 119

7.2 The Theme 122

8. Examples for Agenda Rules 125

8.1 Introduction 125

8.2 Model and Treatment Rules 127

 8.2.1 The Model 127

 8.2.2 The Game 129

 8.2.3 Constitutional Principles 130

 8.2.4 Socially Efficient Solutions 135

8.3 Examples of Constitutions 136

 8.3.1 Constitutions for Socially Efficient Projects 137

 8.3.2 The Curse of Equal Treatment 142

 8.3.3 Constitutions for Socially Inefficient Projects .. 143

8.4 Discussion 144

 8.4.1 General Constitutions 144

 8.4.2 Amendments 146

 8.4.3 Secret Ballots 149

8.5	Conclusions	150
8.6	Appendix	150
9.	Flexible Majority Rules	157
9.1	Introduction	157
9.2	Model and Constitutional Rules	162
9.2.1	The Model	162
9.2.2	Socially Efficient Solutions	163
9.2.3	The Game	165
9.2.4	Constitutional Principles	168
9.3	First-Best Constitutions	171
9.3.1	No Negative Utility	172
9.3.2	Uncertainty Regarding p	176
9.3.3	Uncertainty Regarding p and $(1 + \lambda)k$	178
9.3.4	Uncertainty Regarding p, V_h , and $(1 + \lambda)k$	179
9.4	Conclusion	180
9.5	Appendix	183
9.5.1	Formalization of the Implementation Requirement	183
9.5.2	Proofs	185
10.	Democratic Mechanisms	191
10.1	Introduction	191
10.2	Motivation and Approach	194
10.3	Model and Treatment Rules	197
10.3.1	The Model	197
10.3.2	Socially Efficient Solutions	198
10.3.3	The Game	200

10.3.4 Constitutional Principles 203

10.4 First-Best Constitutions 207

 10.4.1 Uncertainty About Winners and Losers 208

 10.4.2 Uncertainty Regarding V_h 210

 10.4.3 Uncertainty Regarding p 211

 10.4.4 Higher Dimensional Uncertainty 213

10.5 Discussion and Alternative Democratic Mechanisms . . 213

 10.5.1 Dictatorial Agenda Setting 213

 10.5.2 Equal Treatment Rules 215

 10.5.3 Only Project-Winners 216

10.6 Conclusions 217

11. Fair Division 219

11.1 Introduction 219

11.2 The Model 223

11.3 A Finite Number of Periods 226

 11.3.1 Random Recognition 226

 11.3.2 Agenda Rules and Equal Distribution 228

 11.3.3 Uncertainty About Discount Factors 230

11.4 Division of Resources with Infinite Periods 233

11.5 Discussion and Conclusions 234

11.6 Appendix 235

Epilogue to Part II 238

References to Part II 239

Part I

Incentive Contracts and Elections