

## Contents

24	5.3.2 Measuring the Weight: Aggregating the Components	114
25	5.3.3 Empirical Patterns	115
26	5.4 The Deliberative Principle	115
27	5.4.1 The Reasons for Suspicion	115
28	5.4.5 Web-based Coding and Administration	119
29	5.4.6 Quality Assurance and Data Cleaning	119
30	Democracy	120
31	5.5.2 Measuring the Weight: Aggregating the Components	120
32	5.6 Higher-Level Aggregations and the Variation Tradeoff	122
33	Data Validation	130
34	6.1 Introduction	130
35	6.2 V-Dem Validation Approach	131
36	6.3 Content Validity Assessment	131
37	6.4 Content Validity of the Core Civil Society Index	131
38	Content Validity of the Deliberative Index	131
39	Content Validity of the Egalitarian Index	131
40	Instrumental Validity of the Majoritarian Index	131
41	Instrumental Validity of the Liberal Index	131
42	Instrumental Validity of the Participatory Index	131
43	Instrumental Validity of the Consensual Index	131
44	Instrumental Validity of the Electoral Index	131
45	List of Figures	ix
46	List of Tables	xii
47	List of Contributors	xiii
48	Acknowledgments	xiv
49	1 Introduction: The Story of Varieties of Democracy	1
50	1.1 Timing: V-Dem Emerged to Address the Need for Better Measures of Democracy	4
51	1.2 Inclusion	9
52	1.2.1 Thematic Expertise	9
53	1.2.2 Geographic Expertise	10
54	1.3 Collective and Deliberative Decision-Making with Decentralization	12
55	1.4 Professionalization	16
56	1.5 Funding	18
57	1.6 Plan of the Book	25
58	2 Conceptual Scheme	27
59	2.1 The Electoral Principle	30
60	2.2 The Liberal Principle	33
61	2.3 The Majoritarian Principle	34
62	2.4 The Consensual Principle	36
63	2.5 The Participatory Principle	37
64	2.6 The Deliberative Principle	37
65	2.7 The Egalitarian Principle	38
66	2.8 From Conceptualization to Measurement	39
67	2.9 Caveats and Clarifications	41
68	3 Data Collection	43
69	3.1 Countries	44
70	3.2 Data Formats	44

3.3 Coding Types	45
3.4 Databases and Software	46
3.4.1 The Research Database	46
3.4.2 Web-Based Coding and Administrative Interfaces	47
3.4.3 The Administrative Database and Tools	48
3.4.4 Website for Public Access	50
3.5 The Surveys and the Expert Coding Process	51
3.6 Cross-National Comparability: Bridge, Lateral, and Vignette Coding	54
3.7 Data Cleaning	56
3.8 Personnel	58
3.8.1 Confidentiality	61
3.8.2 Staff	62
3.9 Phases of Data Collection	62
3.10 International Collaborations to Produce Data	64
<b>4 The Measurement Model and Reliability</b>	<b>66</b>
4.1 Basic Notation	68
4.2 Modeling Expert Ratings	68
4.2.1 Differential Item Functioning	69
4.2.2 A Probability Model for Rater Behavior	70
4.2.3 Temporal Dependence and Observation Granularity	71
4.2.4 Prior Assumptions and Cross-National Comparability	74
4.2.5 Model Overview	79
4.3 Estimation and Computation	80
4.4 Products	80
4.4.1 Interval-Level Latent Trait Estimates	82
4.4.2 Difficulty and Discrimination Parameters	82
4.4.3 Ordinal-Scale Estimates	83
4.4.4 Linearized Ordinal-Scale Posterior Predictions	83
4.5 Graphical Illustration of the V-Dem Data	84
4.6 Discussion and Future Plans	88
<b>5 Dimensions and Components of Democracy</b>	<b>90</b>
5.1 The Electoral Principle: Polyarchy	91
5.1.1 Measuring the Parts: Five Components of Polyarchy	92
5.1.2 Measuring the Whole: Aggregating the Components	97
5.1.3 Empirical Patterns	103
5.2 The Liberal Principle	105
5.2.1 Measuring the Parts: Three Components of Liberal Democracy	105
5.2.2 Measuring the Whole: Aggregating the Components	107
5.2.3 Empirical Patterns	110
5.3 The Participatory Principle	112
5.3.1 Measuring the Parts: Three Components of Participatory Democracy	112

5.3.2 Measuring the Whole: Aggregating the Components	114
5.3.3 Empirical Patterns	115
5.4 The Deliberative Principle	115
5.5 The Egalitarian Principle	119
5.5.1 Measuring the Parts: Three Components of Egalitarian Democracy	120
5.5.2 Measuring the Whole: Aggregating the Components	120
5.5.3 Empirical Patterns	122
5.6 Higher-Level Aggregations and the Variation Trade-Off	122
6 Data Validation	130
6.1 Introduction	130
6.2 V-Dem Validation Approach	131
6.3 Content Validity Assessment	133
6.3.1 Content Validity of the V-Dem Polyarchy Index	133
6.3.2 Content Validity of the V-Dem Corruption Index	133
6.3.3 Content Validity of the V-Dem Core Civil Society Index	136
6.4 Data Generation Assessment	139
6.4.1 Data Set Management Structure	139
6.4.2 Coding Procedures	140
6.4.3 Aggregating Coder Ratings to Point Estimates	141
6.4.4 Aggregating Indicators to Indices	142
6.4.4.1 Aggregating Indicators in the Core Civil Society Index	143
6.4.4.2 Aggregating Indicators in the Corruption Index	143
6.4.5 Coverage across Countries and Time	144
6.4.5.1 Temporal Variation in the Corruption Index	145
6.4.5.2 Temporal and Regional Variation in the CCS Index	146
6.5 Convergent Validity Assessment	149
6.5.1 Cross-Measure Convergent Validity	149
6.5.1.1 Cross-Measure Convergent Validity for the Polyarchy Index	149
6.5.1.2 Cross-Measure Convergent Validity for the Corruption Index	152
6.5.1.3 Cross-Measure Convergent Validity for the Core Civil Society Index	156
6.5.2 Cross-Coder Convergent Validity	158
6.6 Conclusion	170
7 Explanatory Analysis with Varieties of Democracy Data	178
7.1 Introduction	178
7.2 Large Number of Democracy Indicators	179
7.3 Accounting for Measurement Uncertainty	181

7.3.1 Method of Composition	183
7.3.2 Coder on Both Sides	188
<b>7.4 Long Panel Structure</b>	<b>189</b>
7.4.1 Simplifications with Long Panels	192
7.4.2 Heterogeneity over Time	194
7.4.3 Generalized Method of Moments (GMM)	195
<b>7.5 Spatial Dependence</b>	<b>198</b>
<b>7.6 Implied Causal Assumptions</b>	<b>202</b>
7.6.1 Implications of Unmodeled Heterogeneity	202
7.6.2 Indirectly Manipulable and Latent Treatment Variables	203
<b>7.7 Conclusion</b>	<b>204</b>
<b>References</b>	<b>205</b>
<b>Index</b>	<b>221</b>