

# Contents

<b>Acknowledgements .....</b>	<b>V</b>
<b>Part I Foundations .....</b>	<b>1</b>
<b>1 Introduction: China's Need for Efficient Logistics .....</b>	<b>3</b>
<b>2 The State of China's Logistics Sector and the Role of Chinese Railways.....</b>	<b>9</b>
2.1 China's Changing Role in Today's Global Economic and Political Context .....	9
2.1.1 Economic Development Record and Outlook .....	9
2.1.2 China's Pursuit of Political Influence and International Recognition .....	13
2.1.3 China's Current Transition Challenges .....	15
2.2 China's Economic Transition and the Need for an Efficient Logistics Sector .....	24
2.2.1 Definition of Infrastructure versus Logistics .....	25
2.2.2 Facts about the Chinese Logistics Sector .....	28
2.2.3 Logistics and Efficiency .....	39
2.3 The Particular Significance of Chinese Railways.....	41
<b>3 Methodology for Analysis of Chinese Railways .....</b>	<b>43</b>
3.1 The Macro Perspective .....	46
3.2 The Micro Perspective .....	63
3.2.1 Railroad Key Performance Indicators .....	64
3.2.2 Railroad Efficiency Improvement Framework.....	67
3.3 Sources of Research Information.....	70

---

<b>Part II The Macro Perspective on Chinese Railways' Efficiency: Railway Reform and Deregulation .....</b>	<b>71</b>
<b>4 Chinese Railways' Status Quo .....</b>	<b>73</b>
4.1 Chinese Railways' Current Regulatory Situation .....	73
4.2 Reform and Market Opening Efforts to Date .....	79
4.2.1 Impact of WTO Accession .....	79
4.2.2 MOR's Own Reform Initiatives .....	81
4.3 Main Sources of Inefficiency .....	87
4.3.1 Competition and Deregulation .....	87
4.3.2 Politics and Governance .....	90
4.3.3 Resources .....	90
<b>5 Approaches to Regulation of Railways .....</b>	<b>93</b>
5.1 Railway Regulation in Theory: Modern Industrial Organization ...	93
5.1.1 Conditions for Railroads as Natural Monopolies .....	93
5.1.2 Cases of Unnecessary Railroad Regulation .....	96
5.1.3 Options to Regulate a Railway and Implications for Railway Industry Structure .....	101
5.2 Railway Regulation in Practice: Experiences from Other Countries .....	107
5.2.1 US Class 1 .....	108
5.2.2 Germany .....	120
5.2.3 Russia .....	137
5.2.4 Japan .....	146
<b>6 Suggestions for Regulation of Chinese Railways .....</b>	<b>159</b>
6.1 Chinese Railways' Current Inefficiencies – Goals for Reform .....	159
6.2 Relevance of Modern Industrial Organization Theory for Regulatory Reform of Chinese Railways .....	161
6.3 Relevance of Other National Railways' Regulation Models for Reform of Chinese Railways .....	165
6.3.1 Competition and Deregulation .....	165
6.3.2 Politics and Governance .....	169
6.3.3 Resources .....	170

---

<b>Part III The Micro Perspective on Chinese Railways' Efficiency: Improvement of Operational Effectiveness .....</b>	<b>177</b>
<b>7 Chinese Railways' Current Sources of Inefficiency .....</b>	<b>179</b>
7.1 Inefficiencies Shown by Key Performance Indicators .....	179
7.2 Inefficiencies Indicated by Interviewees and Literature .....	183
7.2.1 Holding .....	183
7.2.2 Passenger .....	197
7.2.3 Freight.....	202
7.2.4 Infrastructure .....	211
<b>8 Approaches to Railway Efficiency Improvement .....</b>	<b>217</b>
8.1 Large Scale Efficiency Improvement Programs and Their Effects.....	217
8.2 Holding .....	221
8.3 Passenger .....	229
8.4 Freight.....	233
8.5 Infrastructure .....	238
<b>9 Suggestions for Improvement of Chinese Railways' Operational Efficiency .....</b>	<b>243</b>
9.1 Holding .....	244
9.2 Passenger .....	248
9.3 Freight.....	249
9.4 Infrastructure .....	252
<b>Part IV Conclusions.....</b>	<b>257</b>
<b>10 Conclusions.....</b>	<b>259</b>
<b>List of Abbreviations .....</b>	<b>267</b>
<b>References.....</b>	<b>271</b>
<b>Appendix.....</b>	<b>291</b>