Contents

Tables, Figures, Maps, and Illustrations *ix*
Chinese Weights, Measures, and Money *xi*
Preface *xiii*

1. Salt Administration and Salt Technology 1
2. The Structure of Investment in Late Qing Furong 24
3. Fragmentation as a Business Strategy 50
4. Organization and Entrepreneurship in Qing Furong 74
5. The Growth of an Urban Workforce 116
6. Official Transport and Merchant Sales 140
7. Technological and Organizational Change, 1894–1930 161
8. The Changing of the Guard at the Furong Saltyard 184
9. Politics, Taxes, and Markets: The Fate of Zigong in the Early Twentieth Century 223
10. Zigong: Industrial City or Handicraft Enclave? 269

Epilogue 292

Notes *301*
Glossary of Selected Chinese Names and Terms *367*
Bibliography *377*
Index *391*

Tables, Figures, Maps, and Illustrations

Tables

TABLE 2.1 Shares in the Tianlong Well, 1933 46

TABLE 3.1 Average Monthly Cost of Major Inputs at a Ziliujing Brine Well Producing Over 100 *dan*/day c. 1916 70

TABLE 3.2 Net Monthly Income of Ziliujing Brine Well in Taels 70

TABLE 4.1 Brine Production of the Li-Gao Partnership, 1830s 82

TABLE 4.2 Salaries of Management Staff at Li Siyou Trust Furnaces c. 1880 91

TABLE 4.3 Salaries of Management Staff at Wang Sanwei Trust Furnaces c. 1880 92

TABLE 4.4 Well Development Under Three Generations of Hu Lineage Managers 101

TABLE 4.5 Profits from the Sale of Salt in Sichuan Sales Territories c. 1916 103

TABLE 4.6 Estimates of Brine Requirements at Main Gas Furnace Sites c. 1916 112

TABLE 5.1 Average Number and Types of Employees at Furong Wells, Furnaces, and Pipes c. 1932 121

TABLE 5.2 Wages at the Wang Sanwei Lineage Trust in Late Qing 124

TABLE 5.3 Wages at the Li Siyou Trust in Late Qing 125

TABLE 6.1 Accumulated Unsold Certificates in the Yunnan and Guizhou Salt Sales Territories as a Percentage of Current Certificate Quota Sold 150

TABLE 6.2 Taxes per Salt Certificate for Furong Salt According to Designated Market c. 1911 154

TABLE 6.3 Surplus Certificates Sold in the Yunnan and Guizhou Salt Sales Territories as a Percentage of Current Quota Sold 156

TABLE 6.4 Estimated Output of All Sichuan Yards by County c. 1900 158

TABLE 7.1 Wells by Type at the Furong Yard c. 1932 167

TABLE 7.2 Estimated Output by Well Type in *dan* c. 1932 168
TABLE 7.3 Advantages of *Baotui* for Well Owners 175
TABLE 8.1 Assets Covered by the 1928 Wang Sanwei Trust Debt Liquidation Agreement 195
TABLE 9.1 Furong Certificate Tax Quota by Market 235
TABLE 9.2 Furong Certificate and Ticket Taxes Collected, 1916 to 1929 236
TABLE 9.3 Authorized Furong Tax Rates c. 1933 236
TABLE 9.4 Outside Military Presence in Zigong, 1911–1932 238
TABLE 9.5 Basic Commodity Prices in Ziliujing, 1915 and 1919 250
TABLE 10.1 Paid-up Capital at Native Banks c. 1939 288

Figures

FIGURE 4.1 Staff Hierarchy at Li Siyou Trust Furnaces 89
FIGURE 4.2 Average Rice Price in Xuzhou Prefecture (1875–1899) 110
FIGURE 9.1 Furong Salt Sales, 1914–1929 246

Maps

MAP 1 Sichuan Saltyards and Sales Territories c. 1919 7
MAP 2 Gongjing, Ziliujing, and Nearby Cities 12
MAP 3 The Furong Saltyard, 1919 78
MAP 4 Zigong and Upper Yangzi Cities 83

Illustrations

ILLUSTRATION 1.1 Opening the Borehole 16
ILLUSTRATION 1.2 Turning the Wheel and Raising the Brine 18
ILLUSTRATION 1.3 The Gas Well and Gas Furnace 20
ILLUSTRATION 3.1 Brine Pans at a Zigong Furnace 66
ILLUSTRATION 4.1 The Wang Sanwei Lineage Hall 86
ILLUSTRATION 4.2 Ziliujing Brine Pipes c. 1919 107
ILLUSTRATION 4.3 Mule Pumps Raising Brine Over Rugged Terrain 108
ILLUSTRATION 5.1 Drill Workers Posing at Their Rig 128
ILLUSTRATION 7.1 Agitating the Brine 164
ILLUSTRATION 9.1 The Shaanxi Guildhall Today Houses the Zigong Municipal Salt Industry Museum 224
ILLUSTRATION 9.2 Entrance to the Sanduo zhai (fortress), 1989 240
ILLUSTRATION 10.1 Salt Junks Anchored at Shawan, Ziliujing, c. 1919 271
ILLUSTRATION 10.2 A Worker Dries Buffalo Pats on a Ziliujing Hillside c. 1919 280
IILLUSTRATION E.1 Contemporary Zigong—New Development in the Huidong Area 299