

TABLE OF CONTENTS

SECTION	PAGE
INTRODUCTION	ix
I. EXECUTIVE SUMMARY	1
II. MARKET ENVIRONMENT	4
General	4
Economic Overview	5
Recent Economic Performance	5
Economic Outlook	7
Construction Spending Outlook	8
Residential Building Construction	10
Nonresidential Building Construction	13
Office & Commercial Buildings	15
Other	16
Nonbuilding Construction	16
Improvement & Repair Spending Outlook	18
Building Stock Trends	19
Residential Building Stock	20
Nonresidential Building Stock	20
Demographic Overview	22
Population	22
Urbanization	25
Households	26
Industrialization & Manufacturing Trends	27
Fixed Investment Outlook	29
Retail Sales Trends	30
Cost & Pricing Dynamics	32
Regulatory & Safety Issues	34
Technological Trends	35
The Five-Year Plan	36
International Environment	37
World Elevator & Escalator Market	37
Foreign Trade & Multinational Investment	39

(continued on next page)

TABLE OF CONTENTS

(continued)

SECTION	PAGE
III. PRODUCTS & SERVICES	42
General	42
Elevator & Escalator Products	44
Passenger & Freight Elevators	46
Passenger	48
Freight	50
Escalators & Moving Walkways	52
Associated Products	54
Parts & Components	56
Controls & Electronics	58
Elevator & Escalator Services	60
Installation	61
Maintenance & Repair	62
IV. MARKETS	65
General	65
Nonresidential Buildings	67
Offices	70
Retail Establishments	72
Government & Institutional Facilities	74
Industrial Facilities	76
Lodging & Other Commercial Buildings	77
Transportation Facilities	79
Residential Buildings	81
Nonbuilding Settings	82
V. REGIONAL TRENDS	84
General	84
Regional Demand Determinants	87
Economic Trends	87
Demographic Trends	88
Construction Spending Trends	90
Elevator & Escalator Market by Region	91
Central-North	93
Overview	93
Elevator & Escalator Market	95

(continued on next page)

TABLE OF CONTENTS

(continued)

SECTION	PAGE
Northeast	97
Overview	97
Elevator & Escalator Market	100
Central-East	102
Overview	102
Elevator & Escalator Market	103
Central-South	105
Overview	105
Elevator & Escalator Market	107
Southwest	109
Overview	109
Elevator & Escalator Market	111
Northwest	113
Overview	113
Elevator & Escalator Market	114
VI. INDUSTRY STRUCTURE	116
General	116
Industry Composition	117
Market Share	120
United Technologies	120
Mitsubishi Electric	121
Hitachi	121
Schindler	121
KONE	121
Toshiba	122
Other Leading Companies	122
Product Development & Manufacturing	122
Marketing & Distribution	123
Financial Issues & Requirements	124
Cooperative Agreements	125
Company Profiles	129
Beijing Jingcheng Zhong’ao Elevator Company Limited	130
Canny Group Company Limited	131
China Ningbo Xinda Group Company Limited	132
Dalian SIGMA Elevator Company, see SIGMA Elevator	

(continued on next page)

TABLE OF CONTENTS

(continued)

SECTION	PAGE
Eastern Elevators Pty Limited	134
Fujitec Company Limited	135
Guangdong Ryoden Lift & Escalator Company, see Mitsubishi Electric Corporation	
Guangdong Winone Elevator Company Limited	137
Guangzhou Hitachi Elevator Company, see Hitachi Limited	
Hitachi Limited	138
Huasheng Fujitec Elevator Company, see Fujitec Company	
KONE Corporation	140
Mitsubishi Electric Corporation	143
Ningbo Hongda Elevator Company Limited, see China Ningbo Xinda Group Company Limited	
Ningbo Xinda Elevator Accessories Company Limited, see China Ningbo Xinda Group Company Limited	
Otis Elevator China Investment Company Limited, see United Technologies Corporation	
Schindler Holding Limited	145
Shandong Bester Elevator Company Limited	147
Shanghai Huasheng Fujitec Escalator Company Limited, see Fujitec Company Limited	
Shanghai Mitsubishi Elevator Company Limited, see Mitsubishi Electric Corporation	
Shanghai Yungtay Elevator Equipment Company Limited, see Yungtay Engineering Company Limited	
Shenyang Brilliant Elevator Company, see Shenyang Yuanda Aluminium Industry Engineering Company	
Shenyang Brilliant Elevator Fittings Company, see Shenyang Yuanda Aluminium Industry Engineering Company	
Shenyang Yuanda Aluminium Industry Engineering Company Limited	148
SIGMA Elevator Company	150
Suzhou DIAO Elevator Company Limited	151
Suzhou Dongnan Hydraulic Elevator Company Limited	152
Suzhou Jiangnan Jiajie Elevator Company Limited	153
Suzhou Schindler Elevator Company Limited, see Schindler Holding Limited	

(continued on next page)

TABLE OF CONTENTS

(continued)

SECTION	PAGE
Suzhou Shenlong Elevator Company Limited	155
ThyssenKrupp AG	156
Toshiba Corporation	158
United Technologies Corporation	160
Wellift Elevator Company Limited	162
Wuxi Lanling Elevator Company Limited	163
Xi'an Elevator Factory	164
Xi'an Express Elevator Company Limited, see United Technologies Corporation and Xi'an Elevator Factory	
XJ Elevator Company Limited	165
Yungtay Engineering Company Limited	166
Zhejiang Anliso Elevator Company Limited	167
Zhejiang AOLINGDA Elevator Company Limited	168
Zhejiang SYNEY Elevator Company Limited	169
Zhejiang United Elevator Company Limited	170
Zhujiang Fuji Elevator Company Limited	171

LIST OF TABLES

TABLE NUMBER		PAGE
SECTION I -- EXECUTIVE SUMMARY		
	Elevator & Escalator Product & Service Demand in China	3
SECTION II -- MARKET ENVIRONMENT		
1	Gross Domestic Product of China	8
2	New Construction Expenditures in China	10
3	New Residential Building Construction Expenditures in China	13
4	New Nonresidential Building Construction Expenditures in China	15
5	New Nonbuilding Construction Expenditures in China	18
6	Construction Improvement & Repair Expenditures in China	19
7	Building Stock in China	21
8	Population of China	24
9	Households in China by Region	27
10	Manufacturing Value Added in China	29
11	Fixed Investment in China	30
12	Retail Sales Trends in China	31
13	Elevator & Escalator Pricing Patterns in China	33
14	World Elevator & Escalator Market	39
15	Chinese Foreign Trade in Elevators & Escalators	41
SECTION III -- PRODUCTS & SERVICES		
1	Elevator & Escalator Product & Service Demand in China	43
2	Elevator & Escalator Product Supply & Demand in China	46
3	Passenger & Freight Elevator Supply & Demand in China	47
4	Passenger Elevator Demand in China by Type	50
5	Freight Elevator Demand in China by Type	51
6	Escalator & Moving Walkway Supply & Demand in China	54
7	Associated Product Supply & Demand in China	56
8	Elevator & Escalator Parts & Components Demand in China	58
9	Elevator & Escalator Controls & Electronics Demand in China	60
10	Elevator & Escalator Service Revenues in China	61
11	Elevator & Escalator Installation Revenues in China	62
12	Elevator & Escalator Maintenance & Repair Revenues in China	64

(continued on next page)

LIST OF TABLES

(continued)

TABLE NUMBER		PAGE
SECTION IV -- MARKETS		
1	Elevator & Escalator Products & Services in China by Market	66
2	Nonresidential Building Elevator & Escalator Market in	
China	by Building Type	69
3	Office Elevator & Escalator Market in China	72
4	Retail Establishment Elevator & Escalator Market in China	74
5	Government & Institutional Facility Elevator & Escalator	
Market	in China	75
6	Industrial Facility Elevator & Escalator Market in China	77
7	Lodging & Other Commercial Building Elevator & Escalator	
	Market in China	79
8	Transportation Facility Elevator & Escalator Market in China	80
9	Residential Building Elevator & Escalator Market in China	82
10	Nonbuilding Elevator & Escalator Market in China	83
SECTION V -- REGIONAL TRENDS		
1	Gross Domestic Product of China by Region	88
2	Population of China by Region	90
3	New Construction Expenditures in China by Region	91
4	Elevator & Escalator Market in China by Region	92
5	Central-North Region of China: Elevator & Escalator Market	97
6	Northeast Region of China: Elevator & Escalator Market	101
7	Central-East Region of China: Elevator & Escalator Market	105
8	Central-South Region of China: Elevator & Escalator Market	109
9	Southwest Region of China: Elevator & Escalator Market	112
10	Northwest Region of China: Elevator & Escalator Market	115
SECTION VI -- INDUSTRY STRUCTURE		
1	Revenue Data: Selected Elevator & Escalator Companies,	
2006		119
2	Selected Cooperative Agreements	127

LIST OF CHARTS

CHART NUMBER		PAGE
SECTION II -- MARKET ENVIRONMENT		
1	Population of China by Age	24
2	Elevator & Escalator Pricing Patterns in China	33
SECTION III -- PRODUCTS & SERVICES		
1	Elevator & Escalator Demand in China by Product & Service, 2006	44
SECTION IV -- MARKETS		
1	Elevator & Escalator Products & Services in China by Market, 2006	67
2	Nonresidential Building Elevator & Escalator Market in China by Building Type, 2006	70
SECTION V -- REGIONAL TRENDS		
1	Elevator & Escalator Market in China by Region, 2006	93
2	Central-North Region of China	95
3	Northeast Region of China	100
4	Central-East Region of China	103
5	Central-South Region of China	107
6	Southwest Region of China	111
7	Northwest Region of China	114
SECTION VI -- INDUSTRY STRUCTURE		
1	Elevator & Escalator Market Share in China by Company, 2006	120

INTRODUCTION

The Freedonia Group Incorporated is a leading international industry study/database company. Founded in 1985, Freedonia now publishes over 100 studies each year, covering such areas as building materials, chemicals, health care, packaging, pharmaceuticals, plastics, security and many other industries. Studies cover entire industry sectors as well as key niche markets. Each study includes such valuable intelligence as growth markets and products, market share, product analyses and forecasts, market analyses and forecasts, and company profiles.

This study analyzes supply and demand in China for elevators, escalators and related products and services. Elevator and escalator products are defined as passenger and freight elevators; escalators and moving walkways; and associated products (e.g., controls and electronics, elevator doors, architectural/structural products, power transmission equipment) sold separately (i.e., not packaged and sold with a complete elevator/escalator system). Elevator/escalator services are defined as repair/maintenance and installation. Excluded from the scope of the study are aerial work platforms, manlifts, ski lifts and material handling equipment such as lift trucks, hoists, conveyors and the like, which are also used to move equipment.

Historical data (1996, 2001 and 2006) and forecasts to 2011 and 2016 are provided in current yuan for sales, shipments and net exports for the elevator/escalator aggregate product category, as well as for the major segments. Historical data and forecasts for sales of detailed product classifications are in current yuan. The term “sales” -- used

interchangeably with “market,” “demand” and “consumption” -- is defined as all shipments from Chinese plants, plus imports minus exports. Market data for services are revenues generated from the performance of elevator/escalator installation and repair/maintenance work. Historical and forecast market data by application/setting (nonresidential building by type, residential building and nonbuilding) are also provided in current yuan, as is the market by region (e.g., Central-North, Central-East and Southwest).

In addition, major suppliers of elevator/escalator products and services are identified and profiled, and the key competitive variables for this industry are discussed. The entire report is framed within the Chinese elevator/escalator industry’s economic and market environments. Elevator/escalator-related revenues by company data presented in the “Industry Structure” section are estimates based upon consultation with multiple sources. Tabular details may not add to totals due to rounding. Macroeconomic indicators presented in this study were obtained from The Freedonia Group Consensus Forecasts dated April 2007.

A wide variety of primary and secondary sources were also used in the compilation of this report. These include Chinese government statistical agencies (principally the National Bureau of Statistics of China), other Chinese government agencies (including the Ministry of Commerce and Ministry of Construction), the China Elevator Association, industry experts, financial sources, and elevator/escalator companies.

Data and background information were obtained from various news and trade publications, including *Architectural Record*, *China Construction News*,

China Daily, China Elevator, Elevator Industry, Engineering News-Record, People's Daily and The China Business Review. Corporate annual reports, product literature and other company information were also used in framing the industry and market environments and as input for market size assessments.

Statistics from various sources were carefully examined during the preparation of this study, and contradictions and discrepancies among data sources were noted. The accuracy and reliability of figures from each source was evaluated, and adjustments were made where deemed necessary. This was done in order to arrive at a consistent set of industry statistics, which are based on the best available information at the time this study was published. As a result, the data presented here may differ, sometimes substantially, from figures issued by official governmental sources.

Freedonia Group Industry Studies covering related topics include #2113 *World Material Handling Products* (November 2006), #2016 *World Elevators* (February 2006), #1964 *World Heavy Construction Equipment* (August 2005), #1856 *Material Handling Equipment & Systems* (November 2004) and #1708 *Elevators & Escalators* (August 2003).