The information that appears in this section has been prepared by Frost & Sullivan and reflects estimates of market conditions based on publicly available sources and is prepared primarily as a market research tool. References to Frost & Sullivan should not be considered as the opinion of Frost & Sullivan as to the value of any security or the advisability of investing in us. Our Directors believe that the sources of information contained in this section are appropriate sources for such information and have taken reasonable care in reproducing such information. Our Directors have no reason to believe that such information is false or misleading or that any material fact has been omitted that would render such information false or misleading. The information prepared by Frost & Sullivan and set out in this section has not been independently verified by us, the Sole Sponsor, the Joint Bookrunners, the Joint Lead Managers, the Underwriter(s) or any other party or affiliate involved in the Share Offer (which, for the purpose of this paragraph, excludes Frost & Sullivan) and neither they give any representations as to its accuracy and the information should not be relied upon in making, or refraining from making, any investment decision. Our Directors confirm that, after taking reasonable care, there is no adverse change in the market information since the date of the Industry Report which may qualify, contradict or have an impact on the information in this section.

#### SOURCE AND RELIABILITY OF INFORMATION

We have commissioned Frost & Sullivan, an Independent Third Party, to conduct a study of China's wire and cable market and aluminium material market. We agreed to pay Frost & Sullivan a fee of HKD652,000 for the preparation of the Industry Report, and our Directors consider that such fee reflects market rates and are of the view that the payment of the fee does not affect the fairness of conclusions drawn in the Industry Report. Founded in 1961, Frost & Sullivan has over 40 global offices with more than 2,000 industry consultants, market research analysts, technology analysts and economists.

#### RESEARCH METHODOLOGY

The methodology used by Frost & Sullivan in gathering the relevant market data in compiling the Industry Report included primary interviews and secondary research. Primary interviews are conducted with relevant institutions to obtain objective and factual data and prospective predictions. Secondary research involves information integration of data and publication from publicly available resources, including official data and announcements from PRC government departments, and market research on industry and enterprise player information issued by our chief competitors.

# **BASIS AND ASSUMPTION**

The Industry Report was compiled based on the following assumptions: (i) China's economy is likely to maintain steady growth in the next decade; (ii) China's social, economic, and political environment is likely to remain stable from 2019 to 2024 ("Forecast Period"); (iii) Stable GDP growth of the PRC, the increasing purchasing power of Chinese

residents, stable development of China's wire and cable market, increasing demand from downstream applications, government support, as well as rich upstream resources are likely to drive the future growth of the industry.

Our Directors are of the view that the sources of information used in this section are reliable as the information was extracted from the Industry Report. Our Directors believe the Industry Report is reliable and not misleading as Frost & Sullivan is an independent professional research agency with extensive experience in its profession.

#### CHINA'S WIRE AND CABLE MARKET ANALYSIS

#### Overview of Wire and Cable Market

Wire and cable products mainly include wires and cables and semi-finished products used for manufacturing wires and cables. Wires and cables refer to electrical products that are used to transmit electrical or magnetic energy, deliver signal information and achieve electromagnetic energy conversion. Semi-finished products refer to semi-finished materials such as aluminium rods and copper wires used to manufacture finished wires and cables.

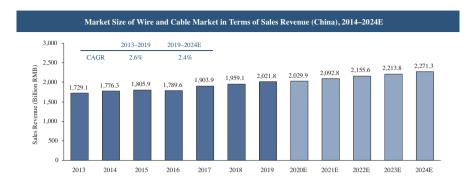
At this moment, the PRC is the largest wire and cable manufacturing country in the world. The wire and cable market is also the largest supporting industry in the PRC, providing strong support to various industries like power generation and construction, as well as fueling the growth of national economies.

In terms of product type, wires and cables can be divided into six major categories: power cable, wire and cable for electrical equipment, communication cable, winding wire, bare wire and semi-finished products.

# Market Size of China's Wire and Cable Market

Along with the steady growth of macro economy in the PRC, the wire and cable market in the PRC has witnessed a stable growth over the past five years. The sales revenue in the PRC has increased from RMB1,729.1 billion in 2013 to RMB2,021.8 billion in 2019, representing a CAGR of 2.6%. The sales revenue of China's wire and cable market slightly dropped in 2016 as a result of the implementation of diminishing the industrial capacity starting in late 2015. A large number of low-end wire and cable manufacturers are facing overcapacity problems. The market then gradually recovered and restored growth in 2017 and 2018. Special cables are special wire and cable products that are different from classic wires and cables in terms of application, use environment, performance and structure. Special cables are developed on the basis of classic wires and cables by using new materials or processing techniques, and they are used in special environment or for special purpose. In 2019, the sales revenue of special cables in China took approximately 15% of the sales revenue in China's wire and cable market.

Going forward, China's wire and cable market is facing development opportunities mainly driven by strong demand from downstream industries and government supporting policies. The sales revenue of China's wire and cable market is expected grow at a CAGR of 2.4%, reaching RMB2,271.3 billion in 2024.



Source: National Bureau of Statistics; Frost & Sullivan

In terms of the conductor type, wires and cables can be divided into copper wires and cables, aluminium wires and cables and others (mainly including optical fibre cables). The comparison of copper wires and cables and aluminium wires and cables is set out below:

# Raw Material Cost Weight Electrical Resistivity Construction Requirement Reserves of Raw Materials

#### **Copper Wires and Cables**

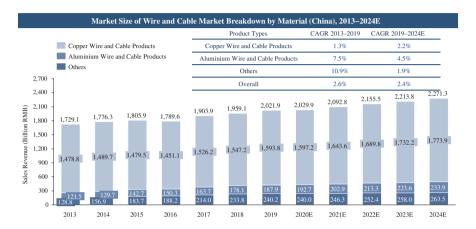
- Expensive
- Average spot price of copper in 2019 was RMB47,768.1/tonne
- · Heavier in comparable volume
- · Low electrical resistivity
- · Easier to crimp for workers
- Proved reserve of copper mine in 2017: China: 1.0 billion tonnes Sichuan: 2.6 million tonnes Guangyuan: not available

#### **Aluminium Wires and Cables**

- Cheap
- Average spot price of aluminium in 2019 was RMB13,943.4/tonne
- · Lighter in comparable volume
- Approximately 1.68 times higher than that of copper wires and cables
- · Require special tools to crimp
- · Higher requirements for workers
- Proved reserve of bauxite in 2017: China: 5.1 billion tonnes
   Sichuan: approximately 40.0 million tonnes
   Guangyuan: approximately 6.0 million tonnes

Note: 2017 data is the most latest available information of reserves of raw materials.

Copper wire and cable products are the largest product type in terms of material in China's wire and cable market, taking approximately 79% of total sales revenue of wire and cable products in the market. The market share of copper wire and cable products is expected to slightly decrease due to the application of aluminium and other wire and cable products. Aluminium wire and cable products have witnessed an upward trend from 2013 to 2019. This was mainly due to its cheaper price, abundant reserves and universal applications advocated by the government.



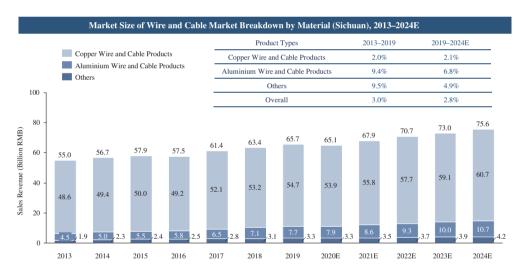
Source: Frost & Sullivan

# Market Size of Sichuan's Wire and Cable Market

The wire and cable market in Southwest China is relatively less developed than regions like East China, North China, and Central South China. In terms of sales revenue, Southwest China took 7.5% share in China's wire and cable market as of 2019. Sichuan is one of the major components of Southwest China's wire and cable market, contributing 43.4% of sales revenue in Southwest China in 2019. Sichuan's market has experienced a faster growth rate as more manufacturers emerged, especially in late 2000s and early 2010s. From 2013 to 2019, the sales revenue of Sichuan's wire and cable market has increased from RMB55.0 billion to RMB65.6 billion. Sichuan takes 3% of total sales revenue in China's wire and cable market. The sales revenue of Sichuan market also slightly dropped in 2016 due to overcapacity. The market then gradually recovered and restored growth pace in 2017 and 2018. In 2019, the sales revenue of special cables in Sichuan took approximately 10% of the sales revenue in Sichuan's wire and cable market. Going forward, the sales revenue of Sichuan's wire and cable market is expected to reach RMB75.6 billion in 2024, growing at a CAGR of 2.8%. The market is expected to be driven by government's supporting policies such as the Implementation Opinion of Promoting Electric Energy Replacement in Sichuan Province, which will further stimulate the demand for wires and cables in the power industry.

Beneficial from the Western Development Strategy (《西部大開發戰略》), Sichuan Province has long been acting as an important role in the economy development of Southwest China. The development of multiple industries such as power generation, infrastructure construction, communication and petrochemical has created strong demand for wire and cable products. In particular, the power industry in Sichuan is rather developed in terms of power generation and power consumption, which makes Sichuan a good place for wire and cable manufacturers. In the meantime, Chinese government has officially started the planning and construction of Sichuan-Tibet Railway with a total investment of approximately RMB270 billion in October 2018. The expected construction of Sichuan-Tibet Railway project starting in the second half of 2019 is likely to further drive the development of Sichuan's wire and cable market in the following years.

Copper wire and cable products are also the largest product type in terms of material in Sichuan's wire and cable market, taking approximately 83% of total sales revenue of wire and cable products in 2019. The sales revenue of copper wire and cable products is expected to remain as the largest segment in the next five years. The sales revenue of aluminium wire and cable products have witnessed an upward trend from 2013 to 2019, increasing from RMB4.5 billion to RMB7.7 billion with a CAGR of 9.4%. Going forward, the sales revenue is expected to reach RMB10.7 billion in 2024 with a CAGR of 6.8%.



Source: Frost & Sullivan

#### Market Drivers of China's Wire and Cable Market

On-going Development of Power Industry in China: Along with the stable economic development, on-going urbanisation process and improving living standard of Chinese residents, both the power consumption and generation in China showed steady growth from 2013 to 2019, representing CAGRs of 5.3% and 5.2%, respectively. Meanwhile, in order to meet the growing electricity demand, the cumulative installed power generation capacity in China also demonstrated rapid growth from 1,259.3GW in 2013 to 2,010.7GW in 2019, representing a CAGR of 8.1%. The ever-increasing power consumption demand and power generation capacity in China directly drive the demand on wire and cable products and is estimated to continuously ensure the development of the wire and cable market in China.

Massive Promotion of Renewable Energy: Along with the massive promotion of renewable energy from the PRC central government under the call for building a sustainable energy structure, the cumulative installed power generation capacity of photovoltaic power, wind power and hydro power in China realised CAGRs of 50.7%, 18.3% and 4.1%, respectively from 2013 to 2019. Also, the share of renewable energy in power generation capacity increased from 29.7% in 2013 to 38.4% in 2019.

Substantial Investment into Rail Transit Construction: The PRC government puts significant effort into the construction of nationwide railway network and invests a lot annually into the construction of rail transit system of both national operated railway network and urban rail transit. The national railway operating mileage in China reached 139.0 thousand kilometres in 2019, representing a CAGR of 5.1% from 2013 to 2019. Meanwhile, the electrified railway mileage among the total railway operating mileage increased from 56.0 thousand km in 2013 to 100.6 thousand km in 2019 with a CAGR of 10.3%. The urban rail transit operating mileage also showed significant growth from 2013 to 2019, representing a CAGR of 17.0%. Along with the rapid process of urbanisation in China, the demand for inter-city railways and urban rail transit are estimated to be further generated, which is also expected to bring constant demand on the wire and cable products and further drive the development of China's wire and cable market.

Sustained Growth of Telecommunication Industry in China: Along with the promotion and application of 5G network, the investment in telecommunication industry is forecasted to have a rebound since 2019, reaching RMB450 billion in 2024 with a CAGR of 2.4% from 2019 to 2024. Moreover, the construction of base stations for mobile communication in China showed a substantial growth in the five years from only 2.4 million base stations in 2013 to 7.5 million base stations in 2019, mainly driven by the nationwide promotion of 4G networks during that period. The number of base stations in China is estimated to be further increased to 12.6 million units in 2024 along with the new round deployment of 5G base stations after 2019. The telecommunication industry in China is expected to have a sustained growth, thereby also creating more demand on telecommunication cable products.

Rapid Growth of Aluminium Wire and Cable Market: Compared to traditional copper wires and cables, aluminium wires and cables are relatively cheaper and is actively promoted by government policy such as the issuance of "the Suggestions on Expanding the Application of Aluminium Alloy Cables in the Power Industry" (《關於擴大鋁合金電纜在電力行業應用的建議》) in 2014. The sales revenue of aluminium wire and cable products have witnessed an upward trend from 2013 to 2019, representing a CAGR of 7.5%, which is much higher than the sales revenue of copper wire and cable products during the same period. The aluminium wire and cable market is likely to maintain stable growth trend with a CAGR of 4.5% from 2019 to 2024.

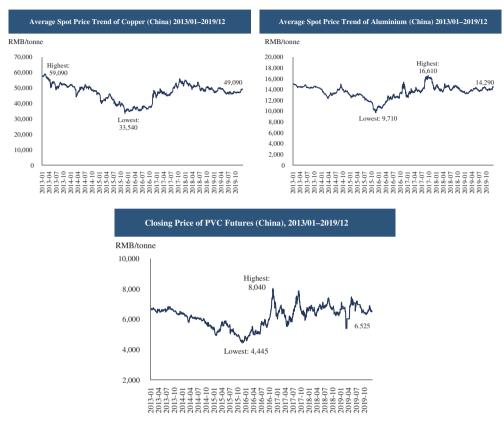
Foreseeable Increase in Domestic Demand of Wire and Cable Products Due to the Trade War Between the U.S. and China: The Trade War between the U.S. and China since 2018 is likely to be another potential increase in domestic demand of wire and cable products in China. The PRC government is estimated to boost infrastructure investment in the following years in order to bolster the economic growth and offset tensions and impact caused by the trade war between the U.S. and China. The foreseeable infrastructure investment of PRC government is also expected to stimulate the demand of wire and cable products for infrastructure construction, which is likely to be another growth driver of China's wire and cable market.

Continuous Investment and Development Policy Support in West China: Since the PRC government launched "China Western Development" (西部大開發) strategy in 2000, the PRC government offers strong policy support and massive investment to facilitate the development in West China. According to the Report of the State Council on 2019 (2019年 國務院政府工作報告), the supportive policy such as income tax preferential policy for the enterprises in West China will continue to execute after expiration. New policy measures focus on the development and opening up of West China will be further formulated and issued in the following years. According to the 13th Five-year-plan (2016 to 2020) of China Western Development (西部大開發「十三五」規劃) issued by the NDRC in 2017, infrastructure network such as transportation, water conservancy, energy and telecommunication will be further invested and constructed during the 13th Five-year-plan period (2016 to 2020). As a result, continuous investment and development policy support in West China are anticipated to stimulate the demand for wire and cable products in West China and thereby further sustain the development of wire and cable market.

# Raw Material Price Analysis of China's Wire and Cable Market

In the wire and cable market, the costs of raw materials usually account for a large proportion of the total production costs. Major raw materials such as copper and aluminium generally takes over 80% of total production costs of wires and cables. In such case, the market is highly sensitive to the price change of raw material prices. The fluctuations of raw material prices may directly affect the economic profits of wire and cable manufacturers. The rise of average spot price of copper in 2017 was mainly due to the issuance of the ban on importing seven kinds of wastes including waste copper. The sharp increase of average spot price of aluminium in 2017 was mainly caused by the sanction of Russian aluminium by the U.S., which decreased the global supply of aluminium. Recently, the average spot price of copper and aluminium is displaying a downward trend due to the weak demand in downstream industries.

The prices of major raw materials of the wire and cable market are highly volatile over the past five years. By the end of December 2019, the spot price of copper and aluminium were RMB49,090/tonnes and RMB14,530/tonnes respectively. By the end of December 2019, the latest closing price of PVC futures was around RMB6,525/tonnes.



Source: Yangtze Non-ferrous Metal, Dalian Commodity Exchange, Frost & Sullivan

# Competitive Landscape of China's Wire and Cable Market

As of 2019, China's wire and cable market is highly fragmented with approximately 18,000 players in the market. From 2013 to 2019, the number of companies has displayed an upward trend with fluctuation. The number of companies decreased in 2016 due to overcapacity but gradually increased in the following years. Going forward, the number of companies is expected to maintain at relatively stable level with an increasing concentration rate in the next five years. In 2019, our Company only took 0.03% share in China's wire and cable market.

Rev	Revenue of Top Five Players in Wire and Cable Market (China), 2019				
Ranking	Company Name	Revenue (Billion RMB)	Market Share		
1	Company I	33.3	1.6%		
2	Company J	26.9	1.3%		
3	Company K	24.0	1.2%		
4	Company L	20.5	1.0%		
5	Company M	15.9	0.8%		
Top 5		120.6	5.9%		
Others		1,901.2	94.1%		

Market Size of China Wire and Cable Market: RMB2,021.8 Billion

#### Notes:

- (1) Company I, established in 2000 and headquartered in Yangzhou, is a company listed on Shanghai Stock Exchange that mainly manufactures power cables, wires and cables for electrical equipment, bare wires, etc.
- (2) Company J was established in 1991 in Suzhou. It is a company listed on Shanghai Stock Exchange focusing on providing optical fiber cables for communication industry and energy industry.
- (3) Company K is a private company established in 1967 in Changzhou. It mainly manufactures wires and cables for customers in various industries such as power generation, transportation, new energy, mining, etc.
- (4) Company L is a company listed on Shanghai Stock Exchange and established in 1992 in Nantong. It mainly provides a wide range of wire and cable products for telecom, power, renewable energy and oil and gas industries.
- (5) Company M, established in 1985 and headquartered in Yixing, is a company listed on Shanghai Stock Exchange that mainly manufactures power cables, wires and cables for electrical equipment and special cables.

Sichuan's wire and cable market is also fragmented with over 300 wire and cable manufacturers. Over the past years, the number of companies has kept an upward trend, increasing from over 200 companies in 2013 to over 300 companies in 2019. Going forward, the number of companies in Sichuan is expected to keep increasing in the next five years. In

2019, the top five players together took approximately 6.72% market share in terms of revenue in 2019. Our Company took approximately 0.97% market share and ranked 4th position in Sichuan's wire and cable market.

Revenue of Top Five Players in Wire and Cable Market (Sichuan), 2019				
Ranking	Company Name	Revenue (RMB Million)	Market Share	
1	Company A	1,948.3	2.97%	
2	Company B	757.6	1.15%	
3	Company C	652.5	0.99%	
4	Our Company	639.5	0.97%	
5	Company D	408.6	0.62%	
Top 5		4,406.5	6.72%	
Others		61,212.5	93.28%	

Market Size of Sichuan Wire and Cable Market: RMB65,619.0 Million

Source: Frost & Sullivan

Note:

- (1) Company A, headquartered in Leshan, was established in 2003. It is a company listed on Shanghai Stock Exchange that specialised in manufacturing special cables.
- (2) Established in 2008, Company B is a Chengdu-based wire and cable manufacturers that mainly manufactures power cables, special cables, etc.
- (3) Company C is a company listed on Shenzhen Stock Exchange that mainly manufactures wires for electrical equipment and power cables. It locates in Chengdu and was established in 2013.
- (4) Company D, headquartered in Chengdu, was established in 1998. It mainly manufactures bare wires, power cables, etc.

# Entry Barriers Analysis of China's Wire and Cable Market

Qualifications & Certificates: To be an eligible player in China's wire and cable market, wire and cable manufacturers need to obtain a series of qualifications and certifications. First, manufactures should acquire the "National Industrial Product Permit" (《全國工業產品生產許可證》) to manufacture certain type of wires and cables. In addition, manufactures should also apply other certificates, as the case may be, like "CCC Certificates" (《強制性產品認證證書》), "Quality Management System Certificate" (《品質管制體系認證證書》), etc. Multiple qualifications and certificates have set entry barriers to new entrants.

Capital support: The wire and cable market is highly capital-intensive. Wire and cable manufacturers usually have many heavy assets such as production equipment, which require large amount of capital investment. In addition, the raw material prices of wire and cable market fluctuate frequently, and have short billing period. A lot of capital may be occupied

to avoid price volatility of raw material prices. The wire and cable products also requires high capital liquidity and large capital investment in research and development. Therefore, the capital support has created a high entry barrier for new entrants.

**Technical Barrier:** The production of wire and cable products usually involves multiple processes technologies. Especially for high-end wires and cables, strong entry barriers have been formed for research and development capabilities, equipment operation levels, process improvement and quality testing. It is rather difficult for new market players to compete with exiting players who have mature technical capabilities.

Customer Resources: In the wire and cable market, major clients of manufacturers are usually large-scale institutional clients such as the State Grid, municipal railroad transit system and other leading players in downstream industries. In addition to qualifications and certificates, existing players also have strong sales capabilities and fine brand name in the market. New entrants cannot establish such advantages in a short time, which created high entry barriers for them.

**Resources** Availability: Wire and cable manufacturers usually should have stable supply of upstream raw materials. Some existing players have a shorter distance of upstream resources which creates a lower transportation cost. In addition, they also established a long-term contract cooperation relationship with local players.

# Opportunities and Threats of China's Wire and Cable Market

*Industrial Integration:* Along with adjustment of economic structure, a considerable number of merger and acquisition activities is expected to occur in the foreseeable future. The market concentration level in the wire and cable market is likely to raise. Under this circumstance, the wire and cable market tends to develop in a more regulated market environment.

Favourable Policy Support: Recently, the government has carried out urban power construction projects, agricultural power transformation and rail transit projects, which in turn raises the demand for wires and cables. In addition, the Belt and Road Initiatives provided overseas opportunities to manufacturers. Many countries alongside the road of the Initiative usually locate at the industrialization and urbanisation process, and they have large demand for wires and cables.

**Excess Capacity:** As the largest electrical manufacturing industry, China's wire and cable industry have been facing the problems of excess capacity, especially for the low-end wires and cables. Large products inventories have blocked the sustaining development of China's wire and cable market.

Fluctuating Raw Material Prices: The wire and cable market is very sensitive to the raw material price. Fluctuating prices may adversely affect the operating efficiency and performance of market players.

#### CHINA'S ALUMINIUM PRODUCT MARKET ANALYSIS

# Introduction and Industry Value Chain Analysis of China Aluminium Product Market

Aluminium products are intermediate processed products produced within the industry value chain of aluminium industry. The applications of aluminium products are widely used in different industries such as power industry, machinery manufacturing, electric manufacturing, transportation, construction, etc.

Dealerships of aluminium products are widely exited in the aluminium industry. Due to the highly fragmented market environment, local trading companies are relatively more familiar with local downstream market and can easily penetrate local customers, as well as providing more value-added services such as better after-sale services and short delivery period. It is not uncommon in the aluminium industry that upper stream players seeking financing support from local government or downstream players to facilitate their purchase.

#### Market Size of Aluminium Product Market in the PRC and Sichuan

Driven by the stable demand from downstream industries, the sales revenue of aluminium products in the PRC has experienced a steady growth pace. The sales revenue increased from RMB452.5 billion in 2013 to RMB689.8 billion in 2019, representing a CAGR of 7.3%. Going forward, the sales revenue of the market is expected to grow at a CAGR of 2.4%, reaching RMB775.0 billion in 2024. The growth is mainly attributed to the fine government policy in related to manufacturing such as "13th Five-Year Development Plan of Non-Ferrous Metal Industry"(《有色金屬工業十三五發展規劃》).

The market size of Southwest China's aluminium product market has increased from RMB36.8 billion in 2013 to RMB56.5 billion in 2019, representing a CAGR of 7.4%. It took 8.2% of China's aluminium product market. Sichuan and Chongqing are the two largest markets in Southwest China. In terms of sales revenue, Chongqing and Sichuan each took 48.0% and 29.0% market share in the market as of 2019.

Along with the development of national aluminium product market, Sichuan's aluminium product market has also shown an increasing trend. The sales revenue increased from RMB10.3 billion in 2013 to RMB16.2 billion in 2019, representing a CAGR of 7.8%. Going forward, the sales revenue in Sichuan is likely to reach RMB19.1 billion in 2024. Guangyuan is one of the important aluminium industry bases in Sichuan Province and has now become a major component of Sichuan's aluminium product market. According to Guangyuan City government in 2018, the government will vigorously develop six industries including aluminium industry till 2020. Such supporting policy is expected to the key driver for the future development of Sichuan's aluminium product market.

Guangyuan has also enacted several policies to support the development and transformation of aluminium industry. For instance, the government of Guangyuan issued "Investment Promotion Policy of Guangyuan City" (《廣元市招商引資優惠政策》) in 2017 to offer tax benefits for newly established industrial companies including aluminium enterprises. The management committee of Guangyuan Economic and Technological

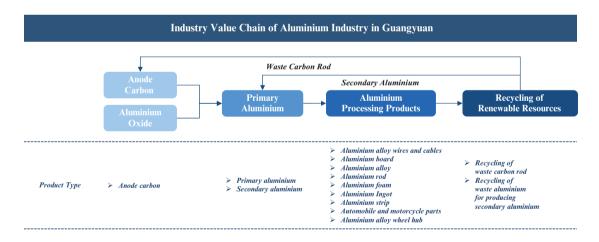
Development Zone also puts an emphasis on the introduction and cultivation of professional talents in aluminium industry to better promote the development of the market.



Source: Frost & Sullivan

#### Industry Value Chain Analysis of Aluminium Industry in Guangyuan

Guangyuan is one of the important aluminium industry based in Sichuan province and has now become a major component of Sichuan's aluminium product market. Through years of development, Guangyuan has established a completed aluminium industry value chain integrating aluminium oxide, primary aluminium and aluminium processing products. Our Company is one of the players that manufactures and sells aluminium processing products in Guangyuan.



Source: Frost & Sullivan

# Market Drivers of Aluminium Product Market

Sustaining Demand from Downstream: Due to the excellent performance, low price and high recycling rate, aluminium products are widely used in multiplying industries such as construction, transportation, power industry, machinery manufacturing, packaging industry, etc. The sustained development of downstream industries has boosted demand for aluminium products. In such case, the market is still expected to have great development potential in the foreseeable future.

Government Policy Support: In recent years, the government has issue several policies and measures to support the development of aluminium industry. For instance, the "13th Five-Year Development Plan for Nonferrous Metals Industry"(《有色金屬工業十三五發展規劃》) announced in 2016 clearly stated that it is necessary to accelerate the development of high-performance light alloy materials. With the continuous deepening of the supply-side structural reform, the development environment of China's aluminium product market is facing a fine market environment.

**Rich Upstream Resources:** Aluminium is the most abundant metal element in the earth's crust. There are many kinds of aluminium minerals and rocks in nature, such as bauxite, shale, and alum. Bauxite has greatest commercial exploitation value among them. In 2017, China's bauxite production reached 69 million tonnes, ranking second in the world. The total reserves have exceeded 1 billion tonnes. As the main upstream raw material of various aluminium products, rich bauxite reserves will further drive the development of aluminium industries.

# Competitive Landscape of Aluminium Product Market

China's aluminium product market is highly fragmented with over ten thousands of companies, most of which are medium-to-small sized companies.

Revenue of	Revenue of Top Five Players in Aluminium Product Market (China), 2019				
Ranking	Company Name	Revenue (RMB Billion)	Market Share		
1	Company N	92.6	13.4%		
2	Company O	73.4	10.6%		
3	Company P	23.6	3.4%		
4	Company Q	20.1	2.9%		
5	Company R	11.9	1.7%		
Top 5		221.6	32.1%		
Others		468.2	67.9%		

Market Size of China Aluminium Product Market: RMB689.8 Billion

Source: Frost & Sullivan

Note:

- (1) Company N is a state-owned company headquartered in Beijing. It is a company listed on Shanghai Stock Exchange that specialized in manufacturing and selling primary aluminium, aluminium oxide and aluminium products.
- (2) Company O is a large-scale private company headquartered in Shandong. It is a company listed on the Stock Exchange that specialized in manufacturing aluminium alloy products.

- (3) Company P was established in 2010 and headquartered in Liaoning. It is a company listed on the Stock Exchange that specialized in manufacturing and selling aluminium products.
- (4) Company Q is a company listed on Shanghai Stock Exchange and headquartered in Shandong. It mainly manufactures and sells aluminium products and aluminium oxide.
- (5) Company R is a company listed on Shenzhen Stock Exchange and headquartered in Henan. It mainly manufactures and sells aluminium products such as aluminium ingot.

Although there are over 300 aluminium products companies in Sichuan, Sichuan's aluminium product market is concentrated that top five players took 30.5% market share. Our Company took approximately 0.3% market share in 2019.

Ranking	Company Name	Background	Revenue (RMB Million)	Market Share
1	Company E	Private-owned	2,504.8	15.4%
2	Company F	Private-owned	1,121.7	6.9%
3	Company G	State-owned	621.0	3.8%
4	Company H	State-owned	446.5	2.8%
5	Company S	Private-owned	257.8	1.6%
Top 5			4,951.8	30.5%
Others			11,266.2	69.5%

Market Size of Sichuan Aluminium Product Market: RMB16,218.0 Million

Source: Frost & Sullivan

#### Notes:

- (1) Company E, headquartered in Emeishan city, was established in 2003. It is a large-scale aluminium industry company that sells aluminium ingot, aluminium alloy, aluminium oxide and other aluminium products.
- (2) Company F, is a large-scale privately-owned company headquartered in Chongqing. It sells aluminium products by operating a subsidiary in Aba.
- (3) Company G was established in 2001 and headquartered in Meishan.
- (4) Company H, a subsidiary of China Aluminium Corporation, was acquired and established in 2015.
- (5) Company S, is a privately-owned company established in 2003 and headquartered in Emeishan City.

# Opportunities and Threats of Aluminium Product Market

**Expanding Application:** As a pillar material of modern economic and high-tech development, the application of aluminium products are expected to be further expanded. In the meantime, the public has gradually accepted aluminium as a green, environmentally friendly and lightweight preferred material. New types of aluminium products are constantly emerging. The potential demand will create more market development opportunities.

*Industry Integration:* As more companies in the industry is paying attention to the integration within the industry value chain, potential mergers and acquisitions activities in the industry are expected to boost in the future, which in turn raises the competitiveness of market players.

Lack of Innovation: At present, the PRC are facing overcapacity in medium-to-low end aluminium products, which was mainly attributed to the low innovation capacities of domestic companies. In such case, the homogeneity of products may further worsen the market.

Strict Environmental Restriction: The production of related products in the market may threaten the environment to some degree. As the government is tightening the environment policies, the price of aluminium products may face fluctuating issues.

**Price Volatility:** The market can be seriously affected by the volatile sales price. For instance, the supply-demand relationship, international trade, macro economy may cause price risk to aluminium oxide and aluminium product market.

The Supply-side Reform in Aluminium Industry: The supply-side reform in aluminium industry in the PRC mainly refers to the elimination of backward production capacities in aluminium industry, which is likely to affect the production of some aluminium products. Hence, the supply-side reform in aluminium industry might lead to changes in the procurement practices of the companies in the aluminium industry or their demand for various kinds of aluminium products.

# Overview of China's Copper Product Market

Copper products refer to the products made of pure copper or copper alloy. Copper products generally include copper rods, copper busbar, copper tube, copper board and strip, copper bar, etc. In 2019, the total sales revenue of China's copper product market was approximately RMB774.9 billion, growing at a CAGR of 4.2% from 2013 to 2019. Going forward, the copper product market is expected to grow at a CAGR of 2.9% in the five years from 2019 to 2024. As the raw materials of manufacturing copper wires and cables, copper rods are the largest product type in terms of sales revenue, taking over 50% of total sales revenue of copper products in 2019.

# Major Factors Affecting the Gross Profit Margin of Wires and Cables Manufacturing and Gross Profit Margin Range of Specified Wires and Cables Products in the Industry

The gross profit margin of wires and cables manufacturing is normally affected by the following factors: (i) the raw material price of wires and cables such as copper, aluminium and PVC; (ii) production technics applied in the wires and cables production; (iii) product specifications required from the customers such as product types, application environment, requirements for product performance, etc.; (iv) other special requirements from the customers such as urgent demand from customers, shorter lead time, customised product requirements, etc.; (v) product delivery radius to the customers; (vi) the relationship with the customers; (vii) the sales volume for each sales order, etc.

Above factors generally determine the bargaining power and product pricing of manufacturers for each specific transaction made with the relevant customers and thereby affecting the gross profit margins of each transaction of wires and cables. As the factors affecting the gross profit margin of wires and cables are various, the gross profit margins of wires and cables produced by different manufacturers usually change in a wide range. According to the primary and secondary market research of Frost & Sullivan, the industry range of gross profit margins of some specified wires and cables products are as follows:

- (i) The gross profit margin of classic copper wires and cables (including classic copper power cables) ranges from 5% to 25%.
- (ii) The gross profit margin of special wires and cables ranges from 5% to 85%.