

Investment Opportunities in the Auto Parts Industry in Taiwan

I. Introduction

Taiwan's auto industry achieved a historic high output value of NT\$615.9 billion in 2012, at which time the industry accounted for 4.43% of total manufacturing value. In contrast, the auto industry had an output value of NT\$441.1 billion in 2009, and accounted for only 4.17% of total manufacturing value. The auto parts industry is extremely important, and Taiwan's whole vehicle manufacturing quality is already approaching the standards of the most advanced nations. The industry has invested heavily in R&D and design in recent years, has introduced differentiated products meeting the needs of domestic and foreign consumers, and has striven to boost service and customer satisfaction. As a result, domestically-made cars now receive universal accolades from citizens.

The market share of domestically-made cars increased steadily in the past, and reached a peak of 87.2% in 2004 before falling slightly to roughly 80% in 2009. Although the domestic finished automobile market has undergone great fluctuations in recent years, auto parts exports have grown steadily as Taiwanese firms have acquired ever greater competitive skills. 2011 exports amounted to NT \$ 1,374 million, compared with 2010 NT \$ 1,275 million, growth of 7.8%. The size of the domestic auto parts market is chiefly influenced by fluctuations in finished automobile production; the growing finished automobile market in 2010 and 2011 stimulated the auto parts market, which grew by 33.4% and 2.5% respectively. It is projected that finished automobile production will continue to grow throughout 2012, boosting demand for auto parts, and it is estimated that auto parts output will reach NT\$206.4 billion for the year.

After many years of effort, Taiwan's automotive industry has acquired the ability to produce diversified products in relatively small quantities, and has also acquired considerable product development capabilities. However, Taiwan's car production use is constrained by the small size of the domestic market, making it difficult to achieve greater economies of scale. Most manufacturers of such auto parts as car lamps, bumpers, and rubber & plastic parts develop products chiefly for the after market, and account for 80-90% of global after market supplies. Taiwan's auto parts manufacturers are gradually entering markets with price differentiation, and are also entering the OEM sector through investment in offshore production facilities and cooperation with major international manufacturers. In addition, as intelligent, clean & green energy, and electric cars gradually appear, new auto parts opportunities are constantly emerging. Promoting investment in auto parts firms will therefore usher in another economic miracle for Taiwan.

II. Strengths of Taiwan's auto parts firms

1. Taiwan's exported AM auto lamps have the world's leading market share (accounting for a 60-70% share of the global AM), and account for 70-80% of lamps sold in the European and North America markets.
2. Taiwan's exported AM collision parts (bumpers, auto sheet metal, rearview mirrors, rubber/plastic parts) have the world's leading market share (collision rubber/plastic parts: 85%, bumpers: over 90%).
3. Taiwan is No. 1 in the world in terms of quantity of molds, mold manufacturing technology, and mold quality.
4. Taiwan's ICT (Information Communication Technology) and electronic parts industry chain, which extends from OEM production to IC design, is No.1 in the world.

5. Taiwan possesses a complete auto parts industry supply chain; Taiwan's auto parts firms are chiefly SMEs, and they form a close-knit up-, mid-, and downstream supply network.
6. Taiwan has the world's leading finished automobile auto parts center-satellite system, and can supply numerous types of parts. Parts firms have a proven track record of supplying parts to finished auto manufacturers.
7. As the world's leading auto manufacturers shift their gaze to China and the other BRIC nations, they are increasingly purchasing parts from Asia and China. Taiwan and China share the same language and ethnicity; Taiwan's convenient geographical location gives it an advantage as an order-taking hub.

III. Characteristics of Taiwan's auto parts industry

1. Since Taiwan's domestic market is gradually shrinking, the focus of development in the auto parts industry will be on exports.
2. Taiwan's OEM parts are chiefly supplied to auto manufacturers in China; all Taiwanese auto parts firms have established plants in China.
3. A high percentage of AM parts are exported, including auto sheet metal and auto lamps, etc.; these parts are chiefly exported to the European and US markets, and account for 85-90% of the global supply.
4. Taiwan's auto and parts industries formed a classic center-satellite system; finished automobile manufacturers outsource parts production to Tier 1 satellite plants, and Tier 1 satellite plants outsource production of smaller parts to Tier 2 and Tier 3 satellite plants, forming a multi-level pyramid-shaped division of labor.

5. Taiwan's auto firms currently have approximately 300 OEM vendors. If Tier 2 and Tier 3 satellite firms and suppliers providing AM repair parts are included, Taiwan's auto parts suppliers include more than 2,800 firms, and over 200 of these firms have invested in plants in China.
6. The majority of parts firms have adopted partial process automation and developed flexible manufacturing systems (FMS) enabling the production of small batches of diverse products; quality meets international standards. However, because Taiwan's auto market is too small, and cannot sustain economies of scale in auto manufacturing, and firms have limited room to serve as OEM suppliers to finished automobile producers, there little leeway for increased profits.

IV. Structure of Taiwan's auto parts industry, industry value chains, and product categories

1. Taiwan's auto parts industry chiefly consists of SMEs, and there are numerous firms; Taiwan's aggregate auto parts output was valued at NT\$172.23 billion in 2010.
2. The upstream industry value chain consists of parts and materials suppliers, while the downstream part consists of various manufacturers; the chief downstream areas are the auto and metal processing industries.
3. Product categories are very extensive; the most important products in terms of sales include auto electronics parts and collision parts such as various types of auto lamps, rubber/plastic parts, and auto sheet metal.
4. Since Taiwan's domestic market is limited, the auto parts industry will focus on developing export markets.
5. Auto parts industry clusters and firms are distributed throughout all counties and cities in Western Taiwan.

6. Representative leading firms serving the after market include Tong Yang, Kai Yih, Depo, TYC, and Gordon.

7. The industry is characterized by extensive center-satellite systems and seamless cooperation between central and satellite plants. Satellite plants are highly willing to develop parts needed by central plants, and central plants are similarly very willing to help satellite plants improve their product quality. By shortening shipping distance between up- and downstream firms, promoting a high degree of mutual trust, and fostering specialization, this type of system has created unique economies of scale, and the auto parts industry can simultaneously offer cost advantages and flexible production arrangements.

Table 1 Rank of Taiwan's auto parts export destinations

Rank	Country	2011		2010		2009		2008	
		Export Value	Growth Rate	Export Value	Growth Rate	Export Value	Growth Rate	Export Value	Growth Rate
1	USA	529.29	5.89%	499.83	2.04%	489.81	-11.03%	550.52	7.01%
2	Japan	81.11	13.58%	71.41	-22.94%	92.67	-15.10%	109.15	65.88%
3	China	85.23	26.11%	67.58	34.35%	50.30	-17.97%	61.32	-23.76%
4	Germany	46.74	7.82%	43.35	5.62%	41.04	-18.52%	50.37	34.28%
5	Austria	31.62	-4.67%	33.15	-13.64%	38.39	-14.17%	44.73	40.53%
	Other	602.16	7.57%	559.76	-2.23%	572.53	-22.87	742.3	29.65%
	Account	1,374.8	7.81%	1,275.1	-3.67%	1,323.8	3.65%	1,312.39	3.18%

Table 2 Comparison of sales revenue of Taiwan's leading auto parts manufacturers

Units: NT\$100 m

	2011		2010		2009	
	Sales	Return of sales (%)	Sales	Return of sales (%)	Sales	Return of sales (%)
Tong Yang	129.23	9.13	105.52	11.24	83.82	18.67
Depo	98.83	-3.95	96.38	11.66	82.61	12.74
TYC	84.13	0.57	83.79	1.53	80.85	6.83
Auto parts	32.32	0.28	34.72	-3.75	36.06	-0.45
Gordon	31.45	0.19	33.2	-1.11	32.92	-0.91
Ta Yih	41.85	7.77	38.71	9.85	31.01	8.26
Jui Li	28.10	2.60	26.13	4.97	28.38	-0.31
Hsin Chong	43.62	16.58	43.35	15.55	25.69	20.37
Super alloy	27.23	4.53	25.69	6.70	23.85	
Uni Auto parts	26.59	7.75	23.75	13.51	17.75	11.49
Fine Blanking	23.83	13.64	21.7	11.67	17.51	11.54
Ho da	26,36	7.93	23.29	5.03	12.45	-78.69

Source : ITRI/IEK (2012/07)

Table 3 SWOT analysis of Taiwan's auto parts industry

Strengths	Weaknesses
<ul style="list-style-type: none"> • Quality meets international standards, products have passed European and US certification for AM parts, international marketing channels are extensive. • Smoothly-functioning center-satellite systems enable rapid mutual support. • Taiwan's mold industry and electronics technology possess huge competitive advantages. • Product manufacturing is highly flexible and supply management capabilities are excellent. • The government is providing active assistance. 	<ul style="list-style-type: none"> • Almost all of Taiwan's parts manufacturers consist of SMEs with poor economy of scale. • Since the domestic auto market is small, firms must seek to obtain foreign orders. • Manufacturers must depend on foreign technology in the case of some key parts and components. • Raw materials are dependent on imports, costs remain persistently high. • Traditional industries have insufficient manpower, plant buildings and land are more expensive than in competing countries.
Opportunity	Threats
<ul style="list-style-type: none"> • Domestic auto manufacturers are establishing R&D centers, stimulating the development of up- and downstream auto-related industries. • Exporting firms are engaging in production-marketing cooperation and avoiding harmful competition. • Inter-industry cooperation is occurring between the auto parts and electronics industries. • Major international firms are releasing more orders, allowing the industry to participate in international supply chains. • The auto electronics product use rate will increase. • The Chinese auto parts OEM and after market offer great potential. 	<ul style="list-style-type: none"> • Small firms lacking international competitiveness will be eliminated. • Japanese firms are increasing their investment in China and Southeast Asia, posing a threat to Taiwan's auto parts industry. • The reduction in tariffs and elimination of self-made content ratios following accession to the WTO is impacting Taiwan's parts manufacturers. • Low-price competition from China and Southeast Asian countries such as Thailand has reduced profit margins.

V. Development opportunities for Taiwan's auto parts firms

1. Auto collision market, including rearview mirrors, rubber/plastic parts, and sheet metal parts, is the mainstream segment of the after market, and most firms have obtained product certification (such as SAE/ECE/CAPA/AQRP). Barriers to entry are relatively high, which can help preserve profitability.

2. The after market is characterized by production of small batches of diverse products; if firms can improve their mold production ability and product quality, and large firms increase their foreign purchases, there will be increasing OEM opportunities for auto parts suppliers.
3. As vehicles incorporate more intelligence, there will be growing demand for active and passive safety auto electronic products. Taiwan possesses the world's best electronic parts industry supply chain and many fine design houses, which will help firms enter major manufacturers' parts supply systems.
4. Taiwan's auto parts firms possess the R&D capabilities needed to produce small batches of diverse products and offer flexible manufacturing; firms may be able to enter the European, American, and Japanese markets if they are able to make best use of core technologies.
5. Many Taiwanese firms have established plants in China and may be able to profit from the rapid growth of the Chinese car market.

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