

Crumbling divide between foreign, local automakers in China

Pan-Asia Auto

- Traditional divide between high-quality, high-priced foreign autos and lower-quality, cheaper local autos coming down, spurring growth in new market for affordable, quality offerings
- European, US parts suppliers better positioned, but Japanese players could regain market share, with Denso still in pole position
- Among local makers, our focus on Geely and Great Wall Motor, which lead the way with quality improvement

How do we justify our view?

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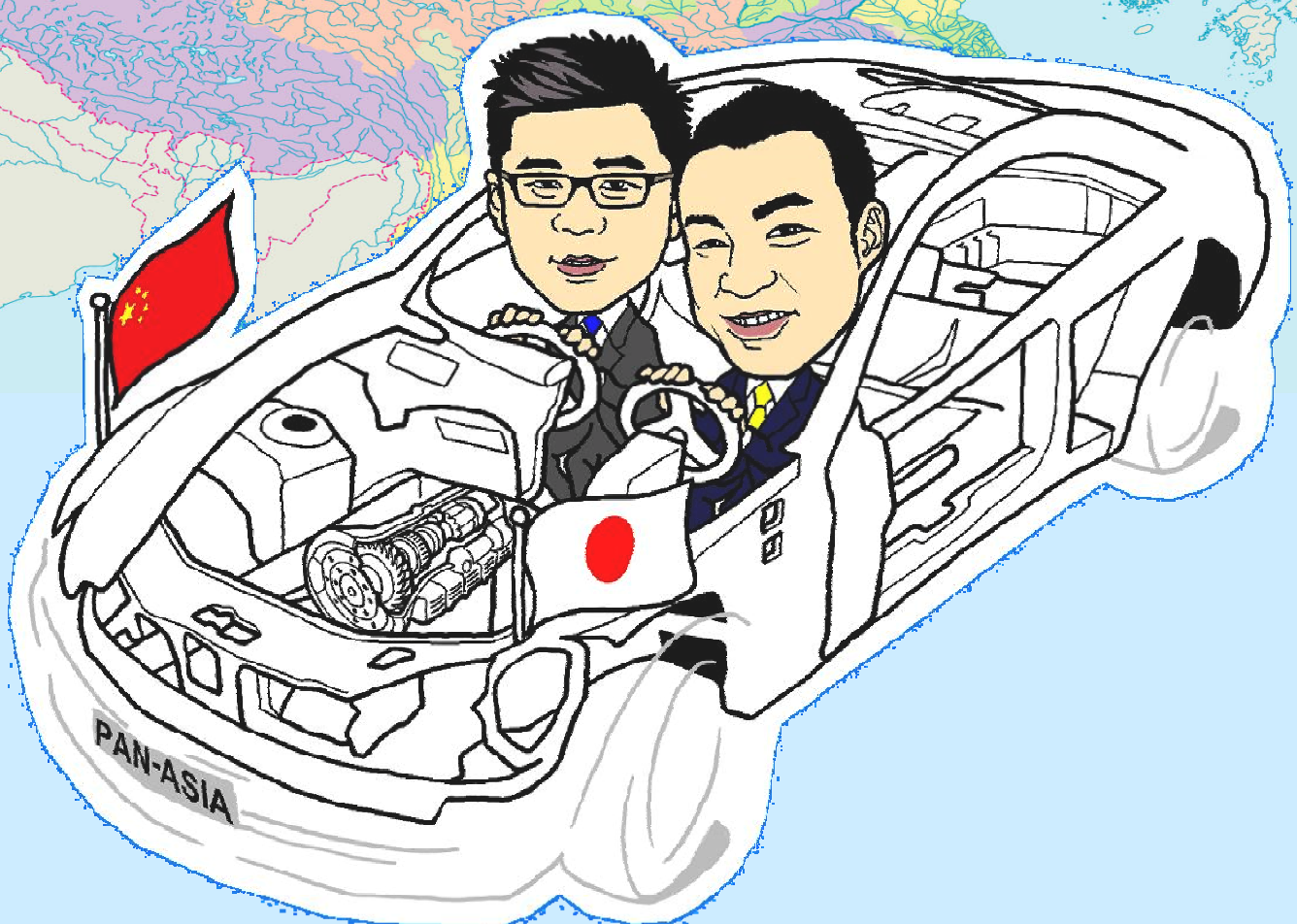


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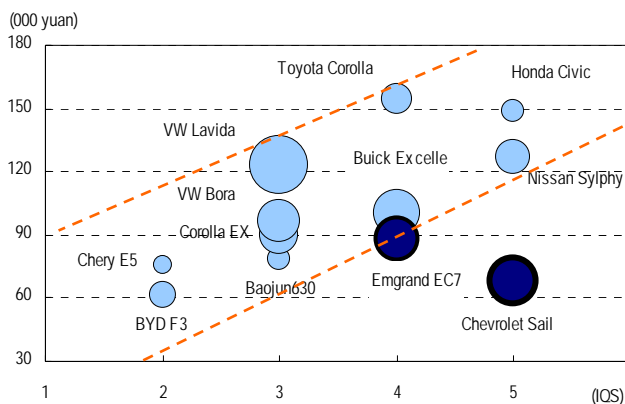
1. Overview: changes in market structure; our stock picks

Shiro Sakamaki

Sector overview

The Chinese automobile market to date has been divided between high-priced, high-quality foreign autos and lower-quality, inexpensive local offerings. However, a number of years have passed since the increased buying power of China's middle class was pointed out. Targeting this middle class, local and foreign automakers are going beyond their traditional boundaries to start launching models to tap a new market—one for affordable autos with sound quality. The Chevrolet *Sail* and Emgrand *EC7* are prime examples. The *Sail* accounted for roughly one in five General Motors models made in China in 2012, while the *EC7* accounted for around one in three Geely Automobile (175 HK) models.

■ Chart 1: Launch of High-quality, Low-priced Models



Source: sina auto, JD Power; compiled by Daiwa.

Notes: 1) Prices based on avg. for dealership price range according to sina auto (<http://auto.sina.com.cn/>).

2) IQS (Initial Quality Study) calculates scores based on number of complaints about problems by new-car owners. In separate model studies, quality rated 1-5 based on number of circles awarded. Chart shows rating for overall quality based on circle numbers (quality highest for greatest number of circles). Size of circles in chart represents production volumes in 1H 2013.

With the emergence of this new market, we envision competition among automakers for market share being affected by efforts to respond to this new market. Also, we see possibility of auto parts suppliers that are able to provide affordable parts of satisfactory standard with even higher competitiveness as a result of catering to both foreign and local automakers. Additionally, growth in this new market could lead the automobile sector to shift from sourcing parts from affiliated suppliers to a more horizontal structure, where parts makers are relatively independent.

Bearing the above in mind, we are focusing on (1) trends in the auto parts sector and (2) developments at local automakers. We visited China over 8-11 July to research this report, traveling mainly to Beijing, Chengdu, Wuhan, and Guangzhou. This report includes content from that research trip.

This project initially started with the hypothesis that Japanese auto parts makers and local automakers are building win-win relationships—in other words, local automakers are accelerating their growth by leveraging the technology of Japanese parts suppliers to improve technology. It gave us the opportunity to look again at the history of the automobile sector and make new discoveries.

Japanese auto parts sector

Bearing in mind the history of the Chinese automobile industry, US and European auto parts suppliers seem better positioned than Japanese players to capitalize on opportunities for business growth stemming from the new market.

That said, we have in fact heard occasional talk of late of Japanese auto parts firms in China scoring orders from local and other non-Japanese automakers. Given the many years required to develop automobiles, we cannot rule out the possibility of further changes afoot below the surface. In particular, the Chinese government's revised Catalogue for Guidance of Foreign Investment Industries (effective as of Jan 2012) included policy for luring foreign auto parts suppliers with core technology. For foreign players, this could be a tailwind for business expansion.

On a global perspective, auto parts suppliers' competitiveness not only in China but on the entire global stage is in the spotlight amid automakers of advanced nations adopting strategies for so-called mega-platforms.

Against this backdrop of automakers whittling down auto parts suppliers to a few mega-suppliers, we still think Denso is the lead contender among Japanese players to be a winner. The fact that Denso (6902) has scored HVAC orders for the Chinese micro-van market, which has been dominated entirely by local players, is probably the result of its efforts to make affordable, quality parts bearing fruit.

In our opinion, four-speed automatics, which are relatively inexpensive among automatic transmissions, could be common in the Chinese affordable, quality automobile market. In light of this, we still favor Aisin Seiki (7259). However, competition is rising from DCT and other automatic transmission technologies.

Although the market for automatic transmissions is likely to expand, we feel visibility is clouded over whether Aisin AW can increase its market share.

Chinese automobile sector

Since the Chinese government gradually began winding down subsidies in 2011, almost all local automakers are facing drops in sales volumes. As we see it, a new cycle of industry restructuring began in 2012, whereby brands with inferior product quality will

be swallowed up by brands with higher quality, and prompted by already mentioned developments.

Geely and Great Wall Motor (2333 HK), which are in a strong position as leaders for improving quality, will probably reap the most benefits from industry realignments. Both are increasing sales volume further and seem to be in relatively strong bargaining positions with auto parts suppliers offering high quality items by leveraging the scale of sales.

■ Chart 2: Valuations

Code	Company	Rating	Share price	Market cap	P/E (X)			P/CF (X)			EV/EBITDA (X)			P/B (X)		Div. yield (%)
			(¥)	(¥ bil)	HA*	FY13 E	14 E	HA*	13 E	14 E	HA*	13 E	14 E	HA*	12	13 E
Toyota suppliers																
3116	Toyota Boshoku	3	1,299	240.7	19.5	12.4	12.2	8.6	4.5	4.4	6.3	3.3	3.1	6.9	1.29	1.4
6201	Toyota Industries	2	4,180	1,307.5	24.5	15.8	14.4	10.2	8.8	7.9	10.8	10.0	9.1	1.1	0.89	1.4
6902	Denso	2	4,630	3,686.3	17.0	13.7	12.8	7.9	7.9	7.4	6.1	5.4	5.0	1.8	1.60	1.5
7259	Aisin Seiki	2	4,130	1,164.2	15.2	13.4	12.7	4.8	4.8	4.4	4.0	3.3	3.1	1.7	1.36	1.8
7282	Toyoda Gosei		2,376	307.5	23.5	11.5	10.5	7.2	4.8	4.6	5.9	3.4	3.3	2.2	1.22	2.2
Honda suppliers																
7220	Musashi Seimitsu Industry	2	2,434	75.9	14.0	11.7	12.2	4.3	3.9	3.6	4.1	5.1	4.3	3.0	1.46	1.8
7230	Nissin Kogyo		1,795	116.4	12.2	11.1	10.6	6.6	6.3	5.9	3.9	3.3	3.0	2.2	1.25	2.2
7251	Keihin	3	1,574	116.4	12.1	14.4	12.5	5.6	5.0	4.6	3.6	2.9	2.6	1.7	0.89	1.9
7296	F.C.C.		2,202	110.5	14.3	9.0	10.9	14.3	5.6	6.0	-	4.0	3.6	1.89	1.24	1.8
7313	TS Tech		3,755	255.3	-	11.7	10.7	-	8.4	7.7	-	4.3	3.9	-	2.08	1.1
Nissan suppliers																
5949	Unipres		1,964	92.8	8.9	7.7	7.2	8.2	3.4	3.2	-	3.1	2.8	0.87	0.94	1.3
7248	Calsonic Kansei	3	522	139.9	27.8	8.0	7.6	5.7	3.5	3.2	4.2	3.6	3.3	1.4	1.04	1.4
Other/independent suppliers																
5334	NGK Spark Plug	3	2,171	472.5	21.7	14.9	13.8	-	10.6	9.7	-	6.8	6.2	-	1.77	1.0
5991	NHK Spring		993	241.2	16.9	8.9	8.4	7.4	5.1	4.9	7.2	4.2	3.9	2.4	1.27	1.6
6923	Stanley Electric		2,094	355.0	18.3	14.9	13.8	7.4	7.8	7.3	7.2	5.0	4.7	2.41	1.51	1.4
7240	NOK		1,486	256.2	17.9	11.7	10.5	9.5	4.4	4.0	7.6	4.3	3.8	3.84	0.87	1.3
7278	Exedy	3	2,384	114.4	14.3	11.0	10.0	6.9	4.9	4.5	4.7	3.6	3.2	1.7	0.90	2.1
7312	Takata	2	2,431	202.2	-	12.6	10.4	-	6.5	5.7	-	4.9	4.4	-	1.33	1.2
7988	Nifco		2,618	138.1	19.2	16.6	15.2	9.8	8.5	7.8	5.5	6.5	6.1	1.7	1.58	1.8
Simple average					17.5	12.2	11.4	7.8	6.0	5.6	5.8	4.6	4.1	2.3	1.29	1.6

Bloomberg code	Company	Rating	Target price	Share price	P/E (X)		EV/EBITDA (X)		P/B (X)		ROE (%)	
			(HK\$)	(HK\$)	FY13 E	14 E	13 E	14 E	13 E	14 E	13 E	14 E
1114 HK	Brilliance China Automotive	2	11.77	11.92	19.0	15.6	175.8	145.2	4.7	3.6	29.3	26.4
489 HK	Dongfeng Motor Group	2	12.72	11.64	7.2	7.0	3.0	2.5	1.3	1.1	18.7	16.7
175 HK	Geely Automobile	1	5.84	4.17	9.6	7.5	4.0	2.8	1.9	1.5	20.7	21.9
2333 HK	Great Wall Motor	1	50.65	42.5	12.2	8.6	8.4	5.9	3.7	2.9	34.2	37.5
2238 HK	Guangzhou Automobile Group	5	5.05	8.45	36.7	17.9	26.5	15.8	1.5	1.4	3.9	7.7
Simple average					14.9	10.0	36.9	29.1	2.3	1.9	22.0	23.4

Source: Compiled by Daiwa.

* Historical average.

Note: Historical averages refer to 5 years before Lehman crisis; loss-making FYs excluded from P/E multiple calculations.

E: Daiwa estimates.

Denso (6902)

Await cost-halving benefits, orders for mega-platforms

Business in China

Denso's first production base in China was joint venture Yantai Shougang Denso, which kicked off operations in 1994. Denso has since expanded its operations there, including the establishment of wholly owned subsidiary Denso (China) Investment (DICH) in 2003. In 2012, it announced plans to expand and relocate its technical center to Shanghai (to come on stream in 2013).

Strategy in China

As regards Denso's strategy, our focus is on it (1) winning local parts orders for affordable cars in China and (2) receiving orders for global platforms made by automakers from advanced markets. Denso's cost-halving initiative is an example of its efforts to win orders in emerging markets. By raising local procurement rates and localizing development, Denso is making a company-wide effort to halve manufacturing costs on 23 products in emerging markets. When it launched these efforts in 2009, Denso established an in-house division known as the DPEM office (Denso Project Emerging Market). The highlight of its early days was probably supplying HVAC systems to Wuling Motors. Wuling Motors, which boasts the best-selling model in China with its *Sunshine* micro-van, is the biggest player in the Chinese micro-van market, which will be discussed later. The fact that Denso has scored parts orders for the Chinese micro-van market, which is dominated entirely by local players, is probably the result of its campaign to halve costs bearing considerable fruit. Or in other words, the initiative likely paved the way for the firm to make affordable, quality parts. In addition to orders from local automakers in China, Denso's focus also seems to be on clinching parts orders for the mega-platforms of automakers from advanced markets. In the fight to win such orders, global competitiveness is requisite and we think Denso is one supplier fitting the bill. The proliferation of mega-platforms means that even though Japanese auto parts firms, which generally appear slightly lagging in the Chinese market, could be able to win global orders and increase market share based on competitiveness in other regions.

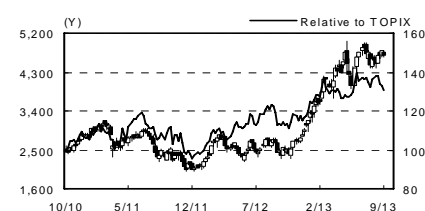
Investment opinion

We retain our 2 (Outperform) rating and six-month target price of ¥5,200 (15X our FY13 EPS estimate of ¥339). We believe the price objective can be justified given our fair P/E multiple for Toyota Motor of 13X and the five-year average premium of 30% afforded to Denso vs. Toyota Motor during the pre-Lehman crisis period of 2003-07.

Rating : 2

Target price: ¥5,200
Up/downside: +12.3%
Share price (2 Oct): ¥4,630

Share Price Chart



Source: Compiled by Daiwa.

Market Data (consol)

12-month range (Y)	2,310-5,000
Market cap (Y mil; 2 Oct)	3,686,332
Shares outstanding (000; 10/13)	796,184
Foreign ownership (%; 3/13)	23.0

Investment Indicators (consol)

	3/13	3/14 E	3/15 E
P/E (X)	20.4	13.7	12.8
EV/EBITDA (X)	7.0	5.4	5.0
P/B (X)	1.60	-	-
Dividend yield (%)	1.38	1.47	1.64
ROE (%)	8.4	-	-

See end of report for notes concerning indicators.

Denso (6902): Income Summary (Y mil; y/y %)

	Year to	Sales	Op profit	Rec profit	Net income	EPS (Y)	CFPS (Y)	DPS (Y)				
Consol	3/11	3,131,460	(5)	188,331	(38)	207,228	(36)	143,033	(95)	177.5	417.1	46.00
	3/12	3,154,630	(1)	160,732	(-15)	180,754	(-13)	89,298	(-38)	110.8	335.0	46.00
	3/13	3,580,923	(14)	262,376	(63)	296,017	(64)	181,682	(103)	226.6	452.5	64.00
	3/14 E	4,099,000	(14)	374,000	(43)	400,000	(35)	270,000	(49)	339.1	585.3	68.00
	3/15 E	4,242,000	(3)	407,000	(9)	432,000	(8)	287,000	(6)	360.5	625.5	76.00
	3/14 CP	3,890,000	(9)	335,000	(28)	361,000	(22)	244,000	(34)	306.5	-	68.00

E: Daiwa estimates. CP: Company projections.

Aisin Seiki (7259)

Can automatic transmission business start increasing floundering market share in China?

■ Business in China

Aisin Seiki established its first manufacturing base in China in 1995. In FY12, its Chinese sales (incl. exports from Japan) came to ¥278.8 billion. Chinese sales accounted for 11.9% of the consolidated figure in FY10, but fell to 11.0% in FY12.

■ Strategy in China

The market share of models fitted with automatic transmission in China has gained from 28% in 2009 to 33% in 2012, providing an earnings boost to the automatic transmission business of core subsidiary Aisin AW. That said, Aisin AW's automatic transmission business has seen its Chinese market share flounder. We will be watching prospects of Aisin Seiki expanding sales in other areas beyond automatic transmissions over the long term. Sluggish market share probably stems from intensifying competition. On top of Shanghai GM and SAIC Motor apparently starting in-house production of dual clutch transmission (DCT), Geely is leveraging the technology of Drivetrain Systems International, which it acquired, to establish its own automatic transmission plant. Looking at plans for constructing major automatic transmission plants in the future, Aisin AW has earmarked sites in Suzhou and Tianjin, while ZF, Toyota Motor, Volkswagen, Getrag, and others have plans to build such facilities as well. Bearing in mind too that the Chinese government's new Catalogue for Guidance of Foreign Investment Industries encourages foreign investment in DCT, we feel visibility is clouded over whether Aisin AW's automatic transmission business can increase its market share. Our attention will be on whether a trend emerges for consumers to prefer automatic transmission models over those with DCT, triggered by product recalls for Volkswagen's DCT technology. Additionally, our eyes will be on developments at Aisin Seiki itself. In 2011, it opened its second overseas R&D hub, adding to its first in the US. In April 2013, the company revealed that Aisin Seiki (China) Investment, its subsidiary overseeing Chinese operations, had opened a new sales base in Shanghai. The branch is its third in China, joining the main branch in Tianjin and another base in Guangzhou. Given its location, the base is expected to increase sales in the future.

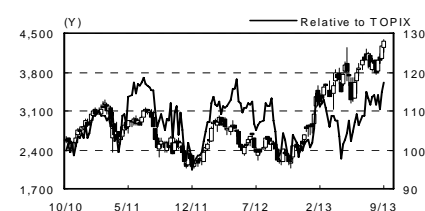
■ Investment opinion

We retain our 2 (Outperform) rating and six-month target price of ¥4,500 (14.5X our FY13 EPS estimate of ¥309). We believe the price objective can be justified given our fair P/E multiple for Toyota Motor of 13X and the five-year average premium of 18% afforded to Aisin Seiki vs. Toyota Motor during the pre-Lehman crisis period of 2003-07.

Rating : 2

Target price: ¥4,500
Up/downside: +9.0%
Share price (2 Oct): ¥4,130

Share Price Chart



Source: Compiled by Daiwa.

Market Data (consol)

12-month range (¥)	2,077-4,380
Market cap (¥ mil; 2 Oct)	1,164,151
Shares outstanding (000; 10/13)	281,877
Foreign ownership (%; 3/13)	23.6

Investment Indicators (consol)

	3/13	3/14 E	3/15 E
P/E (X)	15.0	13.4	12.7
EV/EBITDA (X)	4.0	3.3	3.1
P/B (X)	1.36	-	-
Dividend yield (%)	1.82	1.82	1.99
ROE (%)	9.8	-	-

See end of report for notes concerning indicators.

■ Aisin Seiki (7259): Income Summary (¥ mil; y/y %)

	Year to	Sales	Op profit	Rec profit	Net income	EPS (¥)	CFPS (¥)	DPS (¥)				
Consol	3/11	2,257,436	(10)	137,266	(57)	147,894	(56)	69,643	(319)	247.5	762.1	50.00
	3/12	2,304,168	(2)	121,832	(-11)	129,140	(-13)	55,497	(-20)	197.0	686.1	50.00
	3/13	2,529,964	(10)	148,892	(22)	158,725	(23)	77,518	(40)	275.1	769.2	75.00
	3/14 E	2,828,000	(12)	183,000	(23)	198,000	(25)	87,000	(12)	308.6	858.5	75.00
	3/15 E	2,920,000	(3)	197,000	(8)	208,000	(5)	92,000	(6)	326.4	929.5	82.00
	3/14 CP	2,730,000	(8)	170,000	(14)	180,000	(13)	80,000	(3)	283.8	-	75.00

E: Daiwa estimates. CP: Company projections.

2. Growing new market

Shiro Sakamaki

(1) Shrinking division between foreign, local automakers

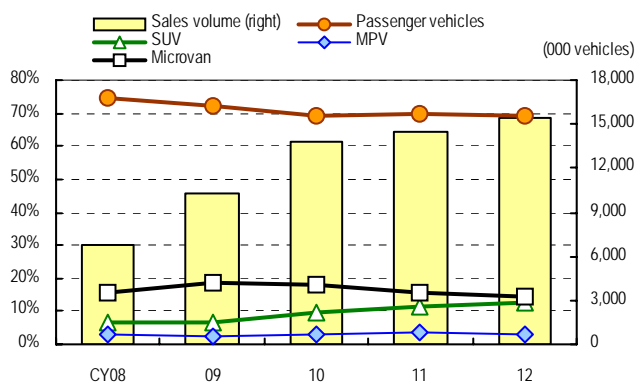
Divided market

In the Chinese automobile market to date, foreign automakers and local Chinese ones have had different customer followings. Generally, the somewhat wealthy consumers able to buy cars have been split: those with higher incomes favoring foreign makes, and those with lower incomes opting for local ones.

One example is the market for so-called micro-vans, which are similar to mini-vans in Japan's mini-vehicle segment. This market is awash with models made by domestic automakers and there is little room for foreign rivals to break in.

At roughly 50%, Wuling Motors commands the largest share of this market. Its *Sunshine* micro-van, the firm's top seller and best-selling model in China, is very similar to minivans in Japan, but the manufacturer's suggested retail price is comparably low at 29,800-33,000 yuan (around Y500,000).

■ Chart 3: Chinese Automobile Market, Segment Share

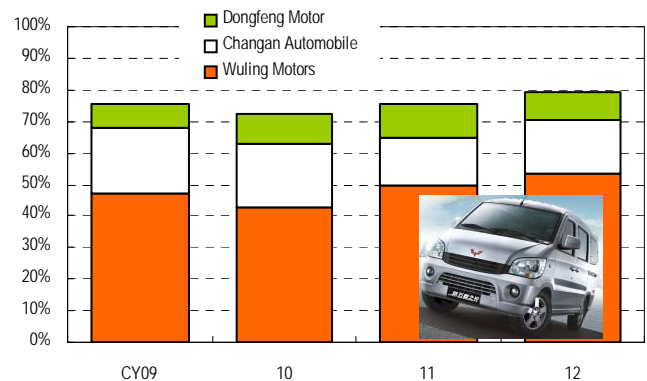


Source: China Association of Automobile Manufactures (CAAM); compiled by Daiwa.

However, rather than the four segments of passenger vehicle, sport utility vehicle (SUV), multi-purpose vehicle (MPV), and micro-van used to classify the Chinese automobile market, our eyes are on the division between high-quality, high-priced foreign automakers and lower quality, but inexpensive local automakers within each of A, B, C, and other segments for passenger vehicles. The division is gradually narrowing due to the launch of new models with both quality and low prices,

and competition looks set to heat up. Put another way, we see likelihood of future growth in a new market for automobiles that satisfy consumers with low price tags but still offer good quality.

■ Chart 4: Major Automakers' Shares of Microvan Market



Source: CAAM; compiled by Daiwa.

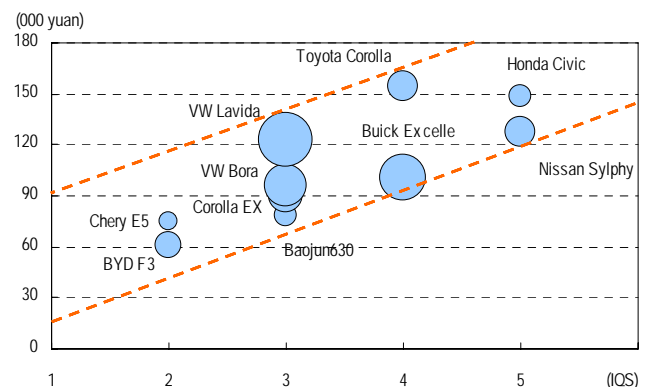
Notes: 1) Market shares of automakers beside big three not shown, but rest of market dominated by local automakers.

2) Photo shows Wuling Motors' *Sunshine* micro-van, company's No. 1 seller and best-selling automobile model in China.

Chart 5 looks at the models offered by major automakers in the midsize sedan C segment, comparing dealer prices and J.D. Power Initial Quality Study (IQS) ratings (see Chart 13 for further detail). The size of the circle for each model depicts production volumes for Jan-Jun 2013.

A glance at Chart 5 suggests a tendency that the more expensive the model, the higher the quality. The market also seems to trend in two directions, with (1) local models, such as the *Chery E5* and *BYD F3*, with lower IQS ratings and dealer prices, while (2) foreign automakers' models have higher quality and prices.

■ Chart 5: Correlation Between Major Models' Selling Prices and Quality



Source: sina auto, JD Power; compiled by Daiwa.

Notes: See notes for Chart 1.

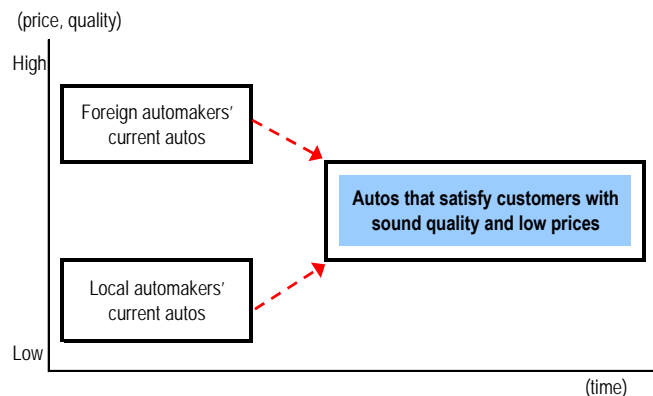
Focus on growing new market

Nevertheless, the barrier separating local and foreign automakers is breaking down given that (1) foreign automakers are launching inexpensive models and (2) local automakers are debuting models with improved quality, suggesting a new growth market is being created.

In addition, both foreign and local automakers could procure parts from the same suppliers for models launched on this new market.

In other words, suppliers that can offer parts that have sufficient quality to satisfy customers and yet be inexpensive are likely to be beneficiaries of expansion in this new market, regardless of whether foreign or local automakers end up on top. We see this as a significant business opportunity for them.

■ Chart 6: Vision of New Market



Source: Compiled by Daiwa.

Below we focus our attention on (1) the *Sail*, which was launched by General Motor's (GM) Chevrolet brand, as an example of an affordable offering by a foreign automaker, and (2) the *EC7*, which is offered by Geely's Emgrand brand, as an example of a model with improved quality from a local automaker.

■ Chart 7: Chevrolet *Sail*



Source: Company website.

■ Chart 8: Emgrand *EC7*



Source: Company website.

(2) Launch of good quality, inexpensive models

Chevrolet *Sail*: inexpensive model from foreign automaker

Of the global automakers, GM sparked the creation of a new market. With the launch of the Chevrolet *Sail* in 2010, it beat international rivals in bringing to the Chinese market a model under 60,000 yuan.

The *Sail* shares the same platform as a former GM Daewoo model. In addition, its cost has been reined in through various initiatives. For instance, the usual headlamp arrangement has two individual lamps, one each for high and low beam. However, the *Sail* has just one lamp since it uses reflectors.

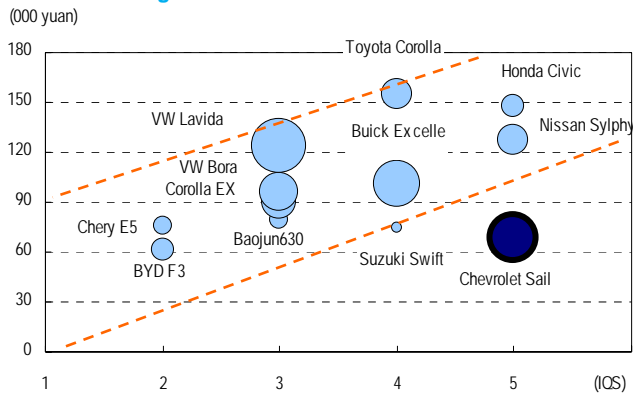
Not only is the dealer price an affordable 56,800-79,300 yuan, the *Sail* also gets high marks for quality, getting a five-star IQS rating.

Based on length, the *Sail* belongs in the C segment, but its engine displacement is slightly less than other models in this classification (see Chart 13). Therefore, in Chart 9 we have added Suzuki's *Swift*, which is the top-ranked model in the small-car B segment, to the Chart 5 mix. While both the *Swift* and *Sail* are relatively low priced, reflecting their engine sizes, of the two, we think the *Sail* is the high-quality, inexpensive model.

GM's Chinese sales volume is being driven by the hit *Sail*. Last year, it accounted for roughly one in five GM models sold in China.

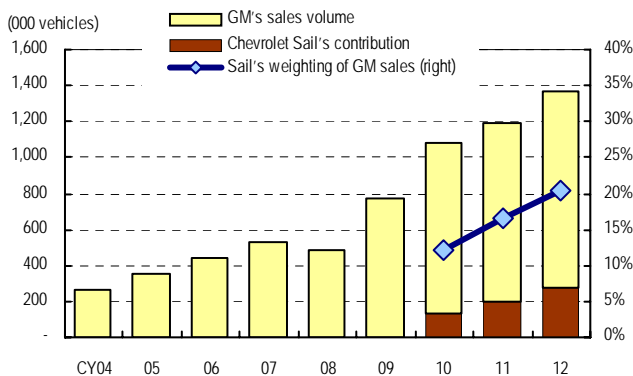
Other automakers are taking similar steps, with Nissan last year establishing the Venucia brand. Based on an old *Tiida* model, the brand launched the new *D50* priced at 66,300-84,800 yuan, on par with offerings by rival local automakers.

■ **Chart 9: Sail Creating New Market Breaking Divide Between Foreign/local Automakers**



Source: sina auto, JD Power; compiled by Daiwa.
Notes: See notes for Chart 1.

■ **Chart 10: GM's Sales Volume and Sail's Sales Weighting**



Source: CAAM; compiled by Daiwa.
Note: GM sales volume uses Shanghai General Motors' figures; excludes SAIC-GM-Wuling Automobile and others.

At present, there is no quality assessment data from J.D. Power for the Venucia *D50*. However, the model probably shares the same concept as behind the Chevrolet's *Sail* considering the objectives behind it were to (1) enter the low end of the C-segment priced comparably with local brands and (2) offer consumers a high-quality product boasting Nissan technology.

On the other hand, Honda has also launched China-only models. Even though the *Ciimo* at 111,800-119,800 yuan and the *Crider* at 114,800-149,800 yuan, sell for less than the *Civic*, which carries a price tag of 123,200-173,200 yuan, the price range is not competitive with local automakers.

Meanwhile, Guangqi Honda launched the *Everus* brand in 2011. Its *Everus S1* is priced competitively with local automakers' offerings, with the manufacturer's suggested retail price set at 69,800 yuan or higher. However, the *S1* comprised only 4% of Honda's total sales volume in 2012, showing sluggish growth in the weighting.

Toyota unveiled the new *Vios* subcompact model at this year's motor show in Shanghai. While it is said to procure 18% of parts for the model locally, a sixfold increase from the previous edition, the new *Vios* will not be priced as low as 60,000 yuan, according to media reports.

These examples show just how tall an order it is to bring down prices without greatly sacrificing quality.

Emgrand's EC7: improved quality from local automaker

On the other hand, emerging from among local automakers are those that are launching new models with higher quality and prices than current model lineups. One example is Geely, which sells the *EC7* under its Emgrand brand.

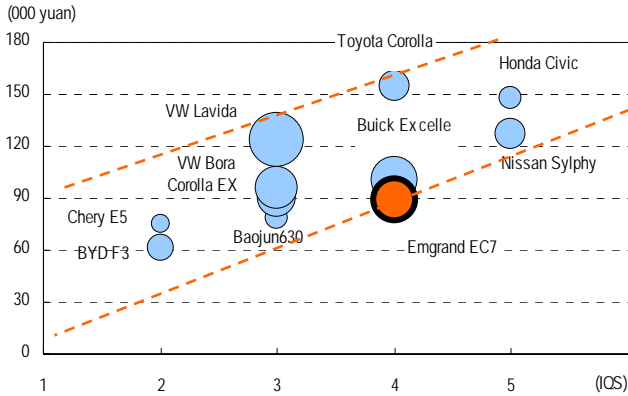
The *EC7* hit the market in 2009. From the beginning it was earmarked for export. The use of parts from foreign suppliers, including electronic control technology from Germany's Siemens, interior parts from US firm Lear, and glass from France's Saint-Gobain, likely helped lift quality. Partly as a result, the *EC7* in 2011 became the first Chinese automobile to be awarded four stars in Euro NACP tests, which are the safety benchmark for Europe.

In our view, the speed at which the Chinese auto industry has improved its technological capabilities is astounding bearing in mind the Brilliance *BS4* sedan that went on sale in Europe in 2008. It was given a zero-star rating in crash tests in 2009.

Although to be discussed later, local engineering firm CH-Auto praised the *EC7*'s high quality among local models during our interview with him on our trip to China.

In Chart 11, we have added the Emgrand *EC7* to Chart 5. In the IQS, the model received four stars. Reflecting this, the dealer price is set at a premium to other midsize sedans made by local automakers, ranging from 66,700-112,000 yuan (avg. 89,500 yuan). Generally speaking, while not yet at the level of the *Sail*, the *EC7* is likely playing a part in creating the new market for good quality, inexpensive automobiles.

■ **Chart 11: Emgrand EC7 also Plays Role in Creating New Market**

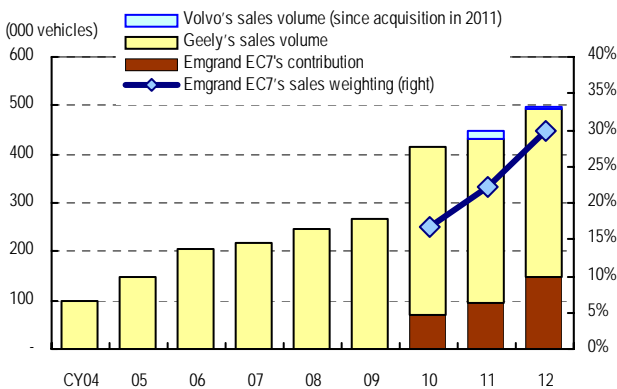


Source: sina auto, JD Power; compiled by Daiwa.
Notes: See notes for Chart 1.

Chart 12 depicts sales volume for the Emgrand EC7 as a proportion of the Geely total.

Geely has five brands under its umbrella: Geely, Emgrand, Englon, Gleagle, and Volvo (acquired in 2011). Emgrand was established in 2009 as a mid/high-end luxury car brand for Geely. Out of all its models, the EC7's sales have been expanding steadily, with roughly one in three Geely cars (excl. Volvo) sold in 2012 an EC7.

■ **Chart 12: Geely Sales Volume, Emgrand EC7 Sales Weighting**








Source: CAAM; compiled by Daiwa.
Note: Volvo sale volume not included in calculating EC7 sales weighting.






As previously mentioned, we envision intensifying competition for models with adequate quality as well as low prices.






That said, considering that COGS at automakers is mostly comprised of spending on parts procured externally, suppliers look set to play a major role in the new market for automobiles that are inexpensive but also offer sufficient quality to satisfy consumers.

In light of these market changes, in the following chapter we discuss (1) the overall trend for parts suppliers and (2) Chinese operations at Japanese parts suppliers.

■ Chart 13: Leading Models on Midsize Sedan Market (B,C segments)

	Chevrolet Sail	Suzuki Swift	BYD F3	Chery E5	Emgrand EC7
					
Market price (000 yuan)	56.8 – 79.3	59.2 – 88.8	48.4 – 73.8	56.7 – 84.7	66.7 – 112.2
Length (mm)	4,249	3,850	4,533	4,580	4,635
Engine displacement (cc)	1,248	1,242	1,500	1,497	1,498 - 1,792
Transmission	5MT	5MT/4AT	6MT/5MT	5MT	5MT/CVT
IOS					
Powertrain	Mechanical	5	4	2	2
	Design	3	4	4	2
Overall rating	5	4	2	2	3

	Baojun630	Buick Excelle	Hyundai Elantra	Volkswagen Bora	Volkswagen Lavida
					
Market price (000 yuan)	62.8 – 94.7	83.4 – 117.8	81.4 – 95.2	99.3 – 147.2	109.3 – 159.3
Length (mm)	4,597	4,515	4,530	4,523	4,605
Engine displacement (cc)	1,485 - 1,796	1485	1,591 - 1,797	1,390 - 1,598	1,395 - 1,598
Transmission	6MT/5MT	6MT/5MT	6MT	6MT/5MT/7DCT	6MT/5MT
IOS					
Powertrain	Mechanical	2	3	3	4
	Design	2	3	4	5
Overall rating	3	4	4	3	3

	Toyota Corolla	Toyota Corolla EX	Honda Civic	Nissan Sylphy	Venucia D50
					
Market price (000 yuan)	123.8 – 184.8	80.7 – 111.8	123.2 – 173.2	90.7 – 163.8	66.3 – 84.8
Length (mm)	4,545	4,555	4,535	4,615	4,480
Engine displacement (cc)	1,598 - 1,798	1,598	1,798 - 1,997	1,598 - 1,798	1,598
Transmission	6MT/5MT/4AT/CVT	5MT/4AT	5MT/5AT	6MT/5MT/4AT/CVT	5MT/4AT
IOS					
Powertrain	Mechanical	4	3	5	4
	Design	4	4	5	5
Overall rating	4	3	5	5	NA

Source: Company websites, company materials; compiled by Daiwa.

Notes: 1) In IOS, categories rated 1-5 based on number of circles given. We show powertrain and overall ratings, with number representing circles awarded.

2) For mechanical quality of powertrain, score based on problems with engine and transmission, incl. noise, vibration.

3) For design quality of powertrain, score based on problems with engine and transmission, incl. steering system, handling, safety.

3. Impact on auto parts suppliers

Shiro Sakamaki

(1) Impact of the new market

Business opportunities for parts suppliers to grow

As discussed in the second section, should the market for affordable autos of a more or less satisfactory standard expand in the future in China, auto parts suppliers able to provide low-priced quality parts are likely to have the opportunity to grow their business by offering products to both foreign and local automakers.

As one example we highlight Geely's Chengdu plant, which makes the *Gleagle GX7* SUV, and which we visited on our trip.

Geely officials told us that there are good parts makers supplying Toyota and Volkswagen in the area where their plant is and that they could procure molds/other parts that had been used for the SUVs of these major automakers from such parts makers. They added there was a chance Geely is paying less for parts than other automakers.

■ Chart 14: Geely's Chengdu Plant



Source: Photo by Daiwa.

■ Chart 15: Geely SUVs Made at Chengdu Plant



Source: Photo by Daiwa.

One possible reason Geely is able to procure similar parts for less than other automakers is that local auto parts suppliers enjoy economies of scale since Geely is ordering the same parts as other automakers.

Whether Geely is actually procuring parts cheaper than other automakers is uncertain, but there is a trend among local automakers, when they try to improve car quality, to order auto parts from makers that supply foreign automakers.

There is a good chance that foreign and local automakers will procure parts from the same suppliers down the road, according to Chinese engineering firm CH Auto Technology, which will be discussed later.

More horizontal procurement model possible in the long term

Over the long term, the procurement model of China's automobile sector could shift from one where players source parts from affiliated suppliers (essentially in-house procurement) to a more horizontal one where parts makers are more independent and supply wherever demand is (real outsourcing).

Spurring this is (1) the fact that automakers are flexible in terms of procuring engines and other key components from outside the group, as evidenced by Shenyang Aerospace Mitsubishi Motors Engine Manufacturing and Chery supplying engines to Fiat, (2) prospects for auto parts firms with quality products and low prices to supply both foreign and local automakers, as mentioned previously, and (3) increasing parts standardization owing to automakers from advanced markets adopting mega-platform strategies, like Volkswagen's MQB platform, which will be discussed later.

Though varying by industry, it is said that cost structures change and outsourcing picks up speed once a market exceeds 100 million units and the product life cycle becomes shorter than three years.

Using televisions as an example, Japan's electronics makers were slow to ride the wave of outsourcing and were unable to maintain their competitiveness once the global market for flat-panel TVs topped the 50 million mark. Originally, the TV life cycle was 10-12 years and the market stood at an annual 50 million units. However, the current life cycle is 3-5 years and the market has swollen to 200 million units a year.

Of course, the necessity of optimizing technology along with safety requirements sets automobiles apart from TVs and other consumer goods and will likely be an obstacle to shifting to real outsourcing.

That said, global automobile production is estimated hitting 100 million units in 2020. Also, recently in North America, Honda's *Civic* and the Mercedes *E Class* were given almost entirely new specs soon after a full-model change, i.e. part way through the regular model cycle. This suggests that the effective cycle for product launches is getting shorter by the year due to the harsher competitive environment, similar to the TV industry.

Indeed, Bosch's Chinese engine control unit appears to be developing its business with multiple automakers.

US firm BorgWarner too has allied with 12 Chinese automakers, including Shanghai Automotive Industry, First Automobile Works Group, and Great Wall Motor, to establish a joint venture that manufactures dual clutch transmissions (DCTs), and is attempting to make its technology the de facto standard.

We should point out that BorgWarner's stake in this joint venture is around two-thirds and key components are apparently imported from Europe. The joint venture started shipping DCTs to Shanghai Automotive Industry, its first customer, this year.

If the above assumptions are correct, the strength of mega-suppliers that can provide standardized parts on a global scale looks set to grow over the long term.

Bearing this in mind, in the following we touch on auto parts makers that will likely capture a competitive edge in the future.

(2) US, European auto parts suppliers in the lead

US, European suppliers have longer history in China

US and European auto parts suppliers, rather than their Japanese counterparts, seem to be better positioned to capitalize on the above-mentioned opportunities for business growth stemming from the launch of low-priced automobiles of acceptable quality.

In 2002, after joining the World Trade Organization, China scrapped the policy to promote domestic production, which mandated local procurement rates. However, Volkswagen and other automakers with a long presence in China have a history of striving to lift levels of local production and have built supply chains. As such, Bosch, Delphi, Visteon and other major US and European auto parts makers entered the Chinese market relatively early during the 1990s and have become cost competitive through accumulated capital investment.

They also lead the way in transactions with local automakers, which will be discussed later.

Reasons for local automakers' improving quality

There are many research reports regarding how Chinese automakers have acquired development capabilities and production technology for major parts over a short period of time, including those attributing it to the use of reverse engineering.

We think the following three points explain the meteoric growth of local automakers, taking into account research reports mentioned above and comments by Chinese engineering company CH Auto Technology, which we visited on this trip, as well as Tomoo Marukawa, a Tokyo University professor.

■ Chart 16: Visit to CH-Auto



Source: Photos by Daiwa.

Note: Left photo shows in-house display, with right photo showing reception sign.

Firstly, local automakers outsourced design and development to independent engineering firms, both Chinese and foreign, including TJ Innova, CH Auto Technology, IAT, Pininfarina, and AVL. Secondly, for core technologies, they collaborated or set up a joint venture with foreign auto parts suppliers, and, thirdly, to set up production lines, they employed engineers that had worked (or were working) with US, German, and Japanese automakers.

We use Chery as an example. As for the first point, design, Chery receives support from Italian Pininfarina (a designer/manufacturer of automobile bodies). Initially, it procured engines and transmissions from Shenyang Aerospace Mitsubishi Motors Engine Mfg. and Brazil's Tritec, but later, in 2002, formed a joint-development partnership with Austria's AVL and has introduced their jointly developed ACTECO engines, achieving in-house engine production.

As an example of the second point, Chart 17 outlines the joint ventures that the Chery group, via Chery and

its wholly-owned subsidiary Chery Technology, has formed with foreign auto parts makers.

■ **Chart 17: Chery's Joint Ventures with Foreign Suppliers**

Year	Joint venture	Partner	Country	Parts
2003	Tower Automotive (Wuhu)	Tower Automotive	US	Structural components
2007	ArvinMeritor Chassis Systems Wuhu	Arvin Meritor	US	Suspension (shocks/struts)
2008	Johnson Controls (Wuhu) Automotive Interiors	Johnson Controls	US	Interior/exterior
2010	Wuhu Kasai Interior Trim Parts	Kasai	Japan	Interior
2011	Wuhu Bonaire Auto Electrical Systems	Visteon	US	HVAC/engine cooling systems
2011	MCC Wuhu Exteriors	Magna	Canada	Front/rear exterior
2012	Wuhu Valeo Automotive Lighting System	Valeo	France	Lighting systems
2012	Bosch Car Multimedia Wuhu	Bosch	Germany	Instrument clusters/ car infotainment

Source: Company materials, media reports; compiled by Daiwa.
Note: Year established.

Note that in addition to the above joint ventures, Chery has enjoyed strong backing of the Anhui provincial and Wuhu city governments. The Wuhu Economic Development Zone adjacent to Chery's plant is home to plants of major global auto parts suppliers, including German giants Continental and Siemens VDO Automotive as well as Magneti Marelli, which is under the umbrella of Italy's Fiat.

An example of the third point of acquiring production technology via headhunting is the multi-model assembly line for Chery's mainstay *Eastar Cross*, which is the famous Terada assembly line. In September 2008, China's State Administration of Foreign Experts Affairs awarded Mr. Terada, who had worked on production control at Geely since 2003, with the Friendship Award of China, the highest award conferred on foreigners.

In fact, during our visit to Great Wall Motor, it was remarked that if a part was needed from a Japanese supplier, it would be more preferable to head hunt someone with experience at that firm. Headhunting veteran engineers appears to be part of standard business practice.

Additionally, the location and history of both Chery and Geely have also probably had an influence on their procurement and development of parts.

The Anhui Province-based Chery is just under 300km in a straight line from Shanghai. As such, from the start it could procure from existing auto parts makers supplying Shanghai Volkswagen. It was originally established as an auto parts maker and paved the way to becoming an automaker by transferring without compensation its assets to Shanghai Automotive Industry (it became independent from Shanghai Automotive Industry in 2004). We suspect the

establishment of its supply chain was also shaped by its experiences during its time under the umbrella of Shanghai Automotive Industry.

Geely, which is based in Zhejiang Province, initially studied molds and technology from South Korean automaker Daewoo. Its procurement of commodity-grade parts from local companies has promoted development of an industrial cluster in the vicinity of its headquarters. Since the distance from its plant in Ningbo to Shanghai, via Hangzhou, is roughly 300km, it has probably been able to source electronic components and other sophisticated products from US and European suppliers that have been supplying Shanghai Volkswagen.

(3) Challenges and opportunities for Japanese suppliers

Japanese suppliers falling behind in business with Chinese automakers

As shown in Chart 17, Chery mostly operates joint ventures with Western suppliers, and only one with a Japanese supplier (Kasai Kogyo).

Additionally, Great Wall Motor, which we had an interview with, said that (1) it now manufactures engines and transmissions in-house, while it outsources ABS and other components, and (2) it plans to aggressively adopt parts from Germany-based Continental and TRW Automotive in the US in order to improve the performance and quality of its cars. Great Wall Motor also pointed out that, compared with Western suppliers, Japanese ones are not very open when it comes to a business relationship in the first place, and do not generate much attention when promoting products.

■ **Chart 18: Great Wall Motor**



Source: Photo by Daiwa.

■ Chart 19: Great Wall Motor's Mainstay Hover H6



Source: Company website.

In fact, Great Wall Motor has announced a succession of strategic alliances with foreign suppliers over the past several years (Chart 20).

While Chart 20 shows that Great Wall Motor recently signed tie-up agreements with Valeo and Autoliv, the firm seemingly had procured starters and wipers from Valeo and seatbelts and airbags from Autoliv beginning 2005.

In other words, recently announced tie-ups suggest that (1) relationships between Great Wall Motor and each partner will likely be enhanced, (2) it may become increasingly difficult for Japanese suppliers to start business with Great Wall Motor, and (3) in several years Great Wall Motor could introduce attractive new models utilizing technologies offered by these alliance partners based in the US and Europe.

■ Chart 20: Great Wall Motor's Spate of Strategic Tie-ups

Year	Partner	Country	Components
Jun 2011	Mahle	Germany	Engine parts
Jul 2011	Autoliv	Sweden	Active/passive safety parts
Jul 2011	Valeo	France	Powertrains, drive assistance systems, thermal systems
Jul 2011	Brose	Germany	Door locks, door modules
Sep 2011	Borg Warner	US	Diesel engine technology
Nov 2011	Delphi	US	Powertrains, thermal systems
Dec 2011	Hella	Germany	Audio control modules, lamps
Feb 2012	Posco	South Korea	High-strength steel, hydroforming/hot forming technology
Sep 2012	Schaeffler	Germany	Engine parts, transmissions, chassis, electric motors

Source: Company materials, media reports; compiled by Daiwa.

Comeback opportunities for Japanese suppliers

However, Japanese suppliers have not lost growth opportunities completely. We are monitoring (1) changes in Catalogue for the Guidance of Foreign Investment Industries announced by the government, (2) recent trends showing that Japanese suppliers have started to receive some orders from local Chinese automakers despite relatively weak performance in the past, and (3) the impact stemming from “mega-platform” strategy implemented by foreign automakers.

Changes in Catalogue for the Guidance of Foreign Investment Industries

The 2011 revision of Foreign Investment Industrial Guidance Catalogue (Ordinance No 12 of the National Development and Reform Commission and the Ministry of Commerce) was released 24 December 2011. The catalogue classifies foreign investments in China into encouraged, restricted, and forbidden—those not listed are permitted.

The catalogue is an important list that forms the basis of China's policy for guiding foreign investment in the country and also serves as justification for approving foreign firms' investments and M&A deals in China. Note that the 2011 edition marks the fourth update to the original released in 1995 and follows revisions in 2002, 2004, and 2007.

The latest amendments dropped “manufacture of complete automobiles (foreign investments shall not exceed 50%)” from the encouraged category, but added to the same category the “manufacture of key parts and components of new energy vehicles,” reflecting a change in the Chinese government's automobile industry policy, which to date has been a cornerstone for policy in guiding foreign investment.

Though Japanese automakers, which excel at automatic transmission, may be disadvantaged by the addition of manufacture of DCTs to the encouraged category in the transmission area, the Chinese government has signaled its proactive stance on luring foreign auto parts makers by including (1) safety-related electronic devices and (2) batteries and related products under key components for new energy vehicles, which the government focuses on as a strategic new industry. Japanese auto parts players could see increased business opportunities by demonstrating their superiority with cutting-edge technology.

We should point out that the manufacture of complete automobiles is no longer included in the encouraged category since (1) the majority of foreign automakers have already developed automobile production businesses in China, and (2) instead, there is a need to ensure the health of the Chinese automobile industry as it seems to be saddled with excess domestic production capacity.

On the other hand, this move could perhaps reflect a policy change to switch preferential treatment from foreign automakers to local ones. In fact, BMW did not get approval for its plant expansion plans.

However, also bearing in mind the actions of other foreign automakers, Beijing's intentions seem to be that foreign automakers need to consider inland areas rather than coastal regions when making new plans for automobile plants in China.

■ **Chart 21: Changes to Encouraged Industries for Investment 2007, 2011 (Catalogue for Guidance of Foreign Investment Industries; Focus on Entry for Transportation Equipment Industry)**

2007 Version	2011 Version
(XIX) Transportation equipment manufacturing industry	(XIX) Transportation equipment manufacturing industry
<u>1. Manufacture of complete automobiles (foreign investments shall not exceed 50%) and establishment of automobile research and development institutions</u>	
<u>2. Manufacture of automobile engines, recycling of engines, establishment of engine research and development institutions: gasoline engines with power of not less than 50 kW per liter, diesel engines with power of not less than 40 kW per liter and displacement of less than 3 liters, diesel engines with power of less than 30 kW per liter and displacement of not more than 3 liters, and engines using new energy resources such as fuel cells and mixed fuels</u>	<u>1. Manufacture of automobile engines, establishment of engine research and development institutions: gasoline engines with power of not less than 70 kW per liter, diesel engines with power of not less than 50 kW per liter and displacement of less than 3 liters, diesel engines with power of less than 40 kW per liter and displacement of not more than 3 liters, and engines using new energy resources such as fuel cells and mixed fuels</u>
<u>3. Manufacture of key automobile parts and components as well as research & development of key technologies: disc brake assembly, driving rod assembly, automatic gearboxes, diesel engine fuel pumps, superchargers, viscous coupling (for four-wheel drive), hydraulic tappet, electronic gauge clusters, automotive crankshafts and connecting bars (diesel engines with displacement of more than 8 liters), Anti-Lock Brake System (ABS, ECU, valve body, sensor), electronic stability programs (ESP), Brake-by-wire systems (BBW), electronic braking distribution systems (EBD), drive control systems, gas generators for automobile safety airbags, electronic fuel injection systems for diesel engines, common rail fuel injection technology (with maximum injection pressure of more than 1,600 pa), variable geometry turbochargers (VGT), variable nozzle turbochargers (VNT), engine emission control devices meeting China's Phase IV pollutant emission standards, intelligent torque management (ITM) systems and coupler assemblies, steer-by-wire systems, diesel particulate filters, intelligent cylinders, special rubber automobile components</u>	<u>2. Manufacture of key automobile parts and components as well as research & development of key technologies: dual clutch transmissions (DCT), automated manual transmissions (AMT), gasoline engine turbochargers, viscous coupling (for four-wheel drive), actuators for automatic transmission (electromagnetic valves), hydraulic retarders, eddy current retarders, gas generators for automobile safety airbags, common rail fuel injection technology (with maximum injection pressure of more than 2,000 pa), variable geometry turbochargers (VGT), variable nozzle turbochargers (VNT), engine emission control devices meeting China's Phase V pollutant emission standards, intelligent torque management (ITM) systems and coupler assemblies, steer-by-wire systems, diesel particulate filters, special-purpose axles for low-floor large buses, energy-absorbing steering systems, variable frequency air-conditioning systems for midsize/large buses, special rubber automobile accessories, key parts and components of abovementioned parts and components</u>
<u>4. Manufacture and research & development of automobile electronic devices: electronic control systems and key parts and components of engine and chassis; automotive electronic technologies (automobile information systems and navigation systems), automotive electronic bus network technologies (limited to joint ventures); input (sensor and sampling systems) and output (actuators) components of electronic control systems; electronic controllers for electric power steering systems (limited to joint ventures); embedded electronic integrated systems (limited to joint ventures, cooperation), electronically controlled air springs; electronically controlled suspension systems, electronic valve system devices; electronic throttles, power cells (NiH and Li-ion) and control systems (limited to joint ventures); integrated motor and control systems (limited to joint ventures); hub units; multifunction controllers (limited to joint ventures); fuel cells and components; automotive hydrogen storing systems; testing systems for automobile and motorcycle testing and maintenance</u>	<u>3. Manufacture and research & development of automobile electronic devices: electronic control systems and key parts and components of engine and chassis; automotive electronic technologies (automobile information systems and navigation systems), automotive electronic bus network technologies (limited to joint ventures); input (sensor and sampling system) and output (actuator) components of electronic control systems; electronic controllers for electric power steering system (limited to joint ventures); embedded electronic integrated systems (limited to joint ventures, cooperation), electronically controlled air springs; electronically controlled suspension systems, electronic valve system devices; electronic combination instruments; ABS/TCS/ESP systems; Brake-by-wire (BBW) system; transmission electronic control unit (TCU); tire pressure monitoring system (TPMS); on-board diagnostics (OBD); engine anti-theft systems; automatic collision avoidance systems; and testing systems for automobile and motorcycle testing and maintenance</u>
	<u>4. Manufacture of key parts and components of new energy vehicles: high-energy power batteries (energy density \geq 110 Wh/kg, cycle life \geq 2000 times; proportion of foreign investment not exceeding 50%), anode materials of batteries (specific capacity \geq 150 mAh/g, cycle life of 2000 times with not less than 80% of initial discharge capacity), battery separators (thickness of 15-40 μm, porosity of 40-60%); battery management systems, motor management systems, and electronic control integration of electric vehicles; driving motors of electric vehicles (peak power density \geq 2.5 kW/kg, high-efficiency area: 65%, working area efficiency \geq 80%), automotive DC/DC (input voltage of 100-400 V), high-power electronic devices (IGBTs, voltage class \geq 600 V, current \geq 300 A); and plug-in hybrid electromechanical coupling drive systems</u>
<u>5. Manufacture of key parts for motorcycle: electronically-controlled fuel injection technology for motorcycles (limited to joint ventures, cooperation), and engine emission control devices meeting China's Phase III emission standards for motorcycles</u>	<u>5. Manufacture of key parts for high-emission (\geq250 ml) motorcycles: electronically controlled fuel injection technology for motorcycles (limited to joint ventures, cooperation), and engine emission control devices meeting China's Phase III emission standards for motorcycles</u>

Source: JETRO; compiled by Daiwa.

Note: Parts in bold and underlined in blue represent content deleted and revised in 2007 edition; parts in bold and underlined in red represent content revised and added in 2011 version.

Orders from local automakers

Chart 22 outlines orders Japanese auto parts suppliers have received from Chinese automakers.

Among the Japanese firms listed is TPR, which has embarked on a three-way joint venture in China. State-owned firm Anqing Huanxin Group owns 28.6% of the joint venture, Anqing TP Goetze Liner, and US firm Federal-Mogul and TPR each hold stakes of 35.7%. This provides TPR a solid base in China.

Even after China dropped its policy to promote domestic production after joining WTO, foreign automakers have continuously strived to increase the proportion of local parts procured in order to increase efficiency and reduce costs by applying the just in time (JIT) strategy to the procurement of parts. Of late, we have seen (1) improvements in products that previously were of questionable quality contributing to greater local procurement as well as (2) strategies to incorporate Chinese parts procurement into global procurement frameworks (Tachi-S seat frames).

We should point out that transactions with local automakers listed in the chart are probably just the tip of the iceberg and in actuality there are likely to be even more deals.

Even in the micro-van market, which is completely dominated by local automakers, Denso has received orders to supply HVAC systems, perhaps because Japanese mini-vehicles are the platforms for these autos. We will discuss this later.

■ **Chart 22: New Chinese Orders Received by Japanese Parts Suppliers**

	Parts suppliers	Chinese automaker	Parts	Agreement start
5196	Kinugawa Rubber Industrial	Dongfeng Motor	Rubber, plastic parts	Aug 2012
6584	Sanoh Industrial	BYD Auto	Brake hose parts	
		Beijing Automotive Group	Brake hose parts	
		Dongfeng Motor	Brake hose parts	
7256	Kasai Kogyo	Dongfeng Motor	Seats for 500,000 autos per year	Feb 2012
7214	GMB	BYD Auto	Valve spools	Around summer 2011
		Geely	Valve spools	Around summer 2011
6463	TPR	BYD Auto	Piston rings, other engine parts	
		Dongfeng Motor	Piston rings, other engine parts	
		First Automobile Works Group	Piston rings, other engine parts	
6473	Jtekt	First Automobile Works Group	Steering	2012
7298	Yachiyo Industry	Geely	Sunroofs	Sep 2013
-	Jatco	Geely	4-speed automatic transmissions	Nov 2013
7248	Calsonic Kansei	Geely	Engine cooling modules (ECM)	2014
7274	Showa	Guangzhou Automobile Group	Four-wheel-drive propeller shafts	May 2014
7239	Tachi-S	Geely	Seats for 80,000 autos per year	Sep 2014
7243	Shiroki	Geely	Door sashes	Dec 2014

Source: Media reports; compiled by Daiwa.

Foreign automakers' mega-platform strategies

Volkswagen intends to bring its MQB platform to China in 2013. The mega-platform will be produced at three factories, in Shanghai, Changsha, and Fushan. The architecture is slated to be phased in for building the Volkswagen *Golf* and Audi *A3* in Fushan and the Skoda *Octavia* in Shanghai.

New strategies being pursued by global OEM players are known by differing names—MQB at Volkswagen, CMF (Common Module Family) at Nissan, and TNGA (Toyota New Global Architecture) at Toyota—but all generally appear to be taking the same path. Volkswagen's MQB paves the way for standardizing parts and structures across a range of models by building automobiles from a uniform set of components, just like *Lego* blocks.

■ **Chart 23: Volkswagen's MQB Platform**



Source: Company materials; compiled by Daiwa.
Note: Configurations outside standardized area vary by model.

The key word here would appear to be communalization. The first of two meanings is to bring down costs by sharing platforms and parts as much as possible across the C and D segments as well as small SUVs. These classifications encompass the models that are big sellers across the globe, so platform sharing here offers considerable advantages. The second meaning likely refers to reining in parts costs through bulk orders after whittling down the number of suppliers.

One example of communalization is the Renault-Nissan group's efforts. At Nissan-affiliated auto parts makers to date, sales to Renault have accounted for just a few percent of their sales. Therefore, we suspect that it has been rather rare for them to get orders that are for both Nissan and Renault.

However, for the small SUV that will be the first model riding on the CMF platform, slated for launch this autumn, Nissan has ordered almost the entirety of one subset of parts from Japanese auto parts makers. Apparently these parts will be used in new models delivered by both Renault and Nissan.

The mega-platform strategies being adopted by these automakers require auto parts makers to be globally competitive. Clinching orders from automakers will prove an enormous business opportunity, but missing out will shake their foundations.

Put another way, even auto parts firms slightly lagging in the Chinese market could be able to win global orders and increase market share based on competitiveness in other regions.

Next we discuss the business developments of particular Japanese auto parts players in China.

4. Japanese parts suppliers: Key points

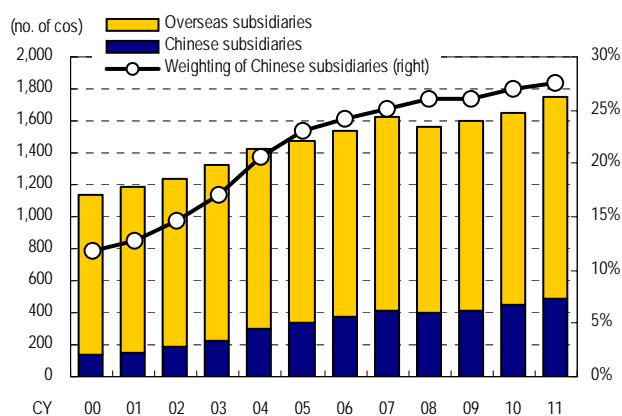
(1) Japanese suppliers' China ops

China: growth region for Japanese suppliers

We will start our discussion of Japanese parts suppliers by looking at how their Chinese bases stack up in the context of their overseas operations as a whole.

Chart 24 shows Japan Auto Parts Industries Association data on overseas subsidiary holdings among its member firms. The number of such holdings has increased in every year but 2008, in the wake of the Lehman crisis. The weighting of Chinese holdings in this number has been on a rising trend, demonstrating rapid business expansion in China relative to other overseas operations.

■ Chart 24: Japanese Parts Suppliers' Overseas Subsidiaries



Source: Japan Auto Parts Industries Association; compiled by Daiwa.

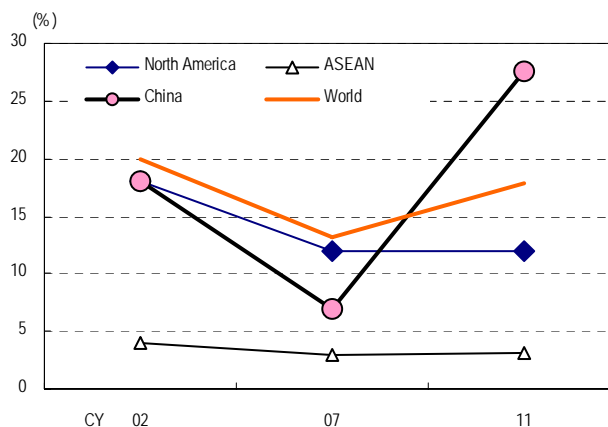
Taking our investigation a step further, we broke down the sales figures for Japanese suppliers' overseas operations into local sales and exports. We then broke the local sales figures down among sales to Japanese automakers, non-Japanese automakers, and maintenance/repair-related sales. Chart 25 shows trends in the weightings of local sales to non-Japanese automakers.

The chart shows that from 2002 to 2007, just before the Lehman crisis, brisk global sales of Japanese cars created a declining trend in the weighting of local sales to non-Japanese automakers in all regions. After that, however, the weighting of such sales in Chinese operations rose sharply relative to other bases, jumping from 7.0% in 2007 to 27.5% in 2011.

Japanese parts suppliers expanded their bases in China after that country's entry into the WTO in 2001 led to an influx of Japanese cars there. These bases have

outpaced Japanese suppliers' other overseas operations in raising their weighting of sales to non-Japanese automakers.

■ Chart 25: Weightings of Local Sales to Non-Japanese Automakers



Source: Japan Auto Parts Industries Association; compiled by Daiwa.
Note: Weighted averages used. Readings for World exceed those for North America and Asia due to substantial weightings of sales to non-Japanese automakers particularly in Europe.

Chart 26 compares consolidated operating profit for listed parts supply majors by region, and highlights the weightings of Chinese operations.

Few companies give a clear picture of their Chinese businesses in their financial statements, usually lumping them in with Asia ex Japan operations. It is also quite difficult to accurately gauge the true impact of Chinese operations on a company's overall earnings since domestic accounts may include factors such as overseas royalties and earnings on components for knockdown shipments bound for China.

Speaking broadly, however, our view is that firms like Toyota Boshoku and automobile seat maker TS Tech tend to see a relatively high proportion of their consolidated earnings come out of their Chinese operations. We also think, based on the scales of their operations, that firms such as Denso make a significant amount of their profit there.

Finally, when on our recent trip to China we asked which was the most attractive Japanese parts supplier operating locally, a frequent answer was Shanghai Koito Automotive Lamp. Koito Mfg. established this firm in February 1989 together with SAIC Motor (China). As one of the earliest Japanese parts suppliers to operate in China, many observers view this as an exceptional name.

■ **Chart 26: Japanese Parts Suppliers' Regional Operating Profit Weightings (y/y %)**

	FY07					FY12				
	Japan	North America	Europe	Asia and other	China	Japan	North America	Europe	Asia and other	China
Toyota suppliers										
3116 Toyota Boshoku	30	12	NA	56	**	23	-14	-24	111	***
6201 Toyota Industries	85	4	8	5	NA	136	-7	-32	12	NA
6902 Denso	57	12	8	23	*	64	6	1	28	*
6995 Tokai Rika	61	6	4	28	**	72	6	0	25	*
7259 Aisin Seiki	71	6	2	21	*	80	3	2	15	*
7276 Koito Mfg.	76	8	0	20	9	71	3	-2	28	16
7282 Toyoda Gosei	50	16	3	30	**	51	20	-4	31	*
7283 Aisan Industry	65	2	5	29	**	56	3	-4	48	**
Honda suppliers										
7220 Musashi Seimitsu Industry	27	5	4	59	NA	382	47	99	-409	***
7230 Nissin Kogyo	33	4	NA	61	*	23	8	NA	68	**
7251 Keihin	24	32	4	43	8	4	6	1	93	30
7296 F.C.C.	24	19	9	47	NA	34	18	3	42	*
7313 TS Tech	40	1	NA	72	33	22	42	NA	54	34
Nissan suppliers										
7248 Calsonic Kansei	28	12	10	50	**	63	-16	8	47	**
5949 Unipres	47	26	12	17	NA	50	2	13	37	***
Other suppliers										
5191 Tokai Rubber Industries	59	14	6	19	7	5	43	NA	53	15
5991 NHK Spring	66	-1	NA	35	*	60	7	NA	33	*
6923 Stanley Electric	49	10	4	31	14	28	3	0	59	36
7238 Akebono Brake Industry	65	27	1	6	-2	53	2	-18	56	11
7240 NOK	64	0	NA	35	*	43	1	NA	55	NA
7278 Exedy	69	6	2	24	*	58	11	1	31	**
7312 Takata	14	39	16	25	*	42	32	-14	42	**
7988 Nifco	71	5	2	38	*	79	5	2	43	*

Source: Company materials, interviews; compiled by Daiwa.

Notes: 1) For companies listing Chinese ops as a single segment in disclosures, Asia and other represents sum of results for China plus elsewhere in Asia. Weightings of Chinese ops are shown in China.

2) Daiwa estimates for weightings of Chinese ops used for firms that do not disclose those figures: *** over 30%; ** 10-30%; * less than 10%.

3) As Toyota Industries, Stanley Electric stopped disclosing segment figures by region from FY10, we used FY09 results for FY12.

4) As NOK stopped disclosing segment op profit by region from FY11, we used FY10 results for FY12.

5) Denso's, Musashi Seimitsu Industry's North American ops include South American ops.

6) Nissin Kogyo's, F.C.C.'s Asia and other results include South America, Europe.

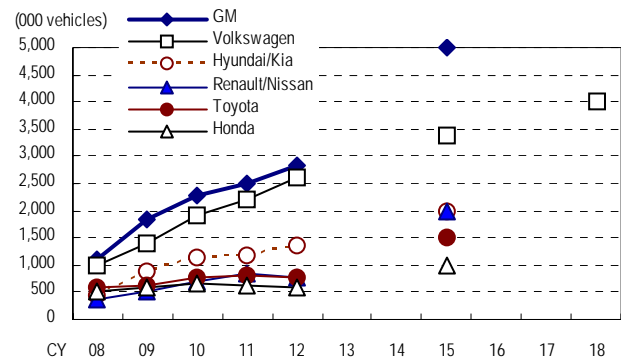
Core customers: trends for Japanese automakers

Charts 27 and 28 show local production volumes for major foreign automakers operating in China, as well as their plans to increase capacity.

GM has projected Chinese production of five million units in 2015, and Volkswagen says it will make four million cars there in 2018. The Hyundai-Kia Automotive Group and Nissan have both targeted two million units for 2015.

Chart 28 also projects the relative weightings of local auto production by six foreign majors for FY11-15, excluding impacts on sales from the Senkaku Islands dispute.

■ **Chart 27: Major Automakers' Chinese Production Volumes, Plans to Lift Capacity**



Source: Company materials, media reports; compiled by Daiwa.

Note: Actual production figures used through to 2012; firms' plans to lift production capacity used for 2013 and later.

■ **Chart 28: Major Automakers' Chinese Production Volumes, Shares of Production**

	2011	2012	2015	11 vs. 15
Six automakers' total production (mil vehicles)	8.1	9.0	14.9	
Share				
GM	31%	32%	34%	3% pt
Volkswagen	27%	29%	23%	-4% pt
Hyundai/Kia	15%	15%	13%	-1% pt
Renault/Nissan	10%	9%	13%	3% pt
Toyota	10%	8%	10%	0% pt
Honda	8%	7%	7%	-1% pt

Source: Company materials, media reports; compiled by Daiwa.

Note: Shares based on proportion of total for six automakers. Total production at six automakers based on actual figures for 2011, 2012, and plans for increased production capacity for 2015.

Of course the Senkaku dispute has indeed impacted the car sales of Japanese makers, and that may have made it difficult for them to hammer out concrete medium/long-term estimates for their overseas production.

That said, not only GM but also the Renault-Nissan group have announced relatively aggressive plans to expand their operations.

Another point regarding Japanese automaker operations in China would be our impression, as discussed in the second section of this report, that aside from Nissan's rollout of the *Venucia* brand, Toyota and the rest have yet to fully take on the strategy of developing high quality cars at lower prices.

Business with Japanese automakers accounts for some 70% of sales for Japanese parts suppliers' Chinese operations. As such, if Japanese automakers encounter difficulties in expanding their production share and thus their sales in China, Japanese parts suppliers there will also suffer accordingly.

(2) Individual companies: Denso, Aisin Seiki focal points

Japanese parts suppliers: strong in core components

Generally speaking, perhaps the biggest chance for Japanese auto parts makers in China to expand lies with powertrain- and electronics-related parts. This is something we confirmed in our interview with previously mentioned CH Auto Technology.

Of course, we also point out that Japanese players fear technology leaks when expanding in China.

In fact, during our visit to Dongfeng Motor, company officials commented that it is no easy task preventing auto parts suppliers from selling counterfeits to local automakers. They added that parts for Japanese cars are especially easy to counterfeit given longer model cycles than European and US autos.

However, during the same visit, company officials remarked that they were unperturbed by counterfeits since (1) automakers basically keep a tight grip on their powertrain technology, such as engines and transmissions, making it harder for technology to leak out, and (2) airbag ECU technology, along with other electronics and control system-related technology, is complex and therefore difficult to imitate.

Put another way, the best business opportunities for Japanese auto parts suppliers may be centered on such hard-to-copy technologies and products.

■ Chart 29: Dongfeng Motor's Office Exterior



Source: Photo by Daiwa.

We add that in March 2013, IDE-JETRO (Institute of Developing Economies-Japan External Trade Organization) released a research report as a recommendation to the Guangdong provincial government. The report suggested that, based on the thinking of local managers, product sophistication levels for survival in China can be ranked A, B, C, etc. The report defined A as the level where Japanese firms have overwhelming strength. The B level included Taiwanese and Chinese firms and is an area where competition is expected to intensify going forward; while in the C level, other players have no chance against Chinese companies. Included in the A classification were key automobile components related safety and stability in stopping, driving, and turning.

Individual firms: Denso best prospect as winner, but Aisin Seiki another contender?

Turning to individual players, we still believe that the leading prospect among Japanese firms is Denso in light of (1) prospects of a more horizontal procurement model in the industry over the long term and the trend to whittle down the number of players to a few mega-suppliers, as mentioned previously, and (2) the firm's track record for landing orders for low-priced products, which is to be discussed.

However, bearing in mind the growth potential of the market for automatic transmissions, which are seen accounting for a higher proportion of transmissions in the future, we expect business expansion at (1) Aisin Seiki, (2) F.C.C. and Musashi Seimitsu Industry, which supply parts to Germany's ZF, and (3) Exedy, which has won orders for friction material for Volkswagen's dual-clutch transmissions.

Aisin Seiki, in particular, tends to be in the spotlight considering the size of its Chinese automatic

transmission business. In fact, we had expected Aisin Seiki's Chinese automatic transmissions to be picked up by a wide spectrum of automakers over the medium-to-long term. However, in researching this report, we came away with the impression that Aisin Seiki faces numerous hurdles in striving for fast growth in the Chinese automatic transmission market.

Below, we discuss our focal points for Denso and Aisin Seiki.

Denso: cost halving initiative

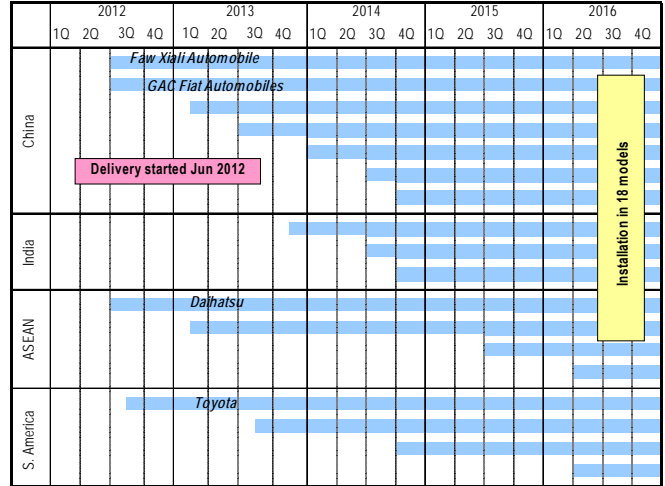
We turn attention to Denso's cost-cutting efforts in emerging markets. By raising local procurement rates and localizing development, the company is making a companywide effort to halve production costs in emerging markets on 23 products.

Initially when it launched these efforts in 2009, Denso established an in-house division known as the DEPM office (Denso Project Emerging Market). The highlight of its early days was probably supplying HVAC systems to Wuling Motors.

Wuling Motors, which boasts the No. 1 selling model in China with its *Sunshine* micro-van, is the biggest player in the Chinese micro-van market, which we discussed in the second section. The fact that Denso has scored parts orders for the Chinese micro-van market, which is dominated entirely by local players, is probably the result of its campaign to halve costs bearing considerable fruit. Or in other words, the initiative likely paved the way for the firm to make affordable, good quality parts.

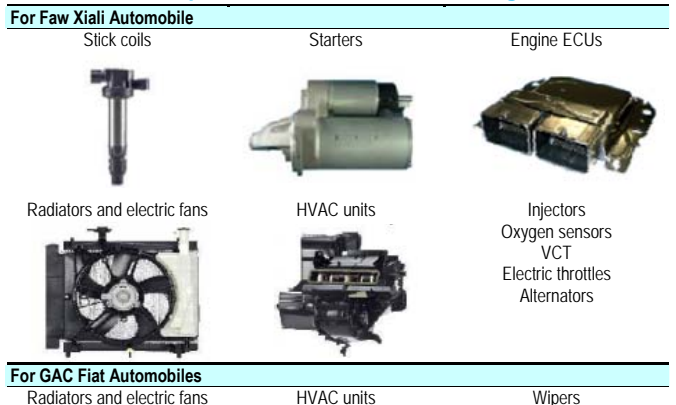
By stepping up these efforts, Denso started receiving engine part orders from Faw Xiali Automobile as well as component orders from GAC Fiat Automobiles from June 2012. Including also India, ASEAN, and South America, Denso aims to have parts included in the cost-halving initiative phased into 18 models by 2016 (Chart 30).

Chart 30: Adoption of Cost-halving Initiative Products



Source: Company materials; compiled by Daiwa.

Chart 31: Examples of Parts Under Cost-halving Initiative



Source: Company materials; compiled by Daiwa.

Aisin Seiki: challenges in automatic transmission market

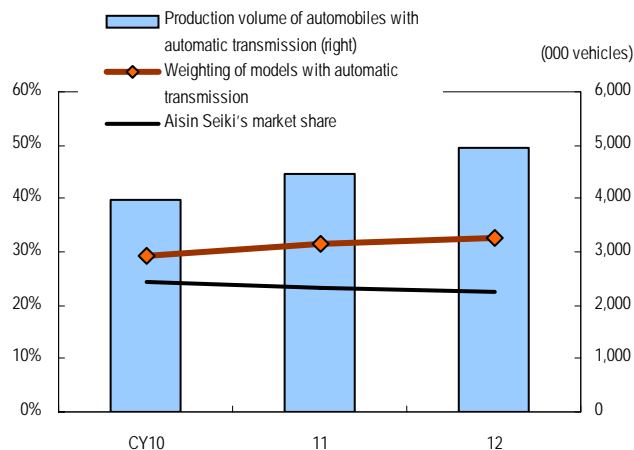
We now discuss our main focal points for Aisin Seiki. Despite demand in China shifting from manual transmission to automatic transmission, the automatic transmission business of Aisin AW, Aisin Seiki's core Chinese subsidiary, has seen its market share flounder in the face of intensifying competition from DCT sold by Volkswagen and BorgWarner (Volkswagen dubs its DCT, direct shift gearbox [DSG]). As such, we will be watching prospects of Aisin Seiki expanding sales in other areas beyond automatic transmission over the long term.

Chart 32 shows production volumes for models fitted with automatic transmission in China. Here, automatic transmission also includes continuously variable transmission (CVT) and DCT.

Models with automatic transmission had grown to account for 34% of Chinese production volumes in 1H

2013. While Aisin Seiki's automatic transmission shipment volumes to China account for more than an impressive 20% of this market, in recent years its market share appears to have languished.

■ **Chart 32: Transmission Market Trends**



Source: CEIC, other materials; compiled by Daiwa.

The sluggish market share probably stems from intensifying competition from (1) increased in-house production by automakers and (2) rivals.

One example of automakers stepping up in-house production is SAIC Motor and GM announcing plans to jointly develop DCT in August 2010. These in-house production efforts and the like could put the brakes on Aisin AW's automatic transmission shipments to Shanghai GM. Also, as mentioned earlier, US firm BorgWarner's joint venture also began DCT module shipments to SAIC in 2013.

Additionally, Geely, which acquired Australian automatic transmission maker Drivetrain Systems International (DSI) in 2009, has since started automatic transmission production using DSI technology. Even local automakers that had depended on foreign auto parts makers for automatic transmissions to date, seem to be making the switch to in-house production.

Chart 33 shows plans for construction of major automatic transmission plants in China going forward and the plants' production capacity. Although the new plants are unlikely to be at full production and utilizing maximum planned production capacity when they come on stream, the chart simply shows planned final production capacity in the year of coming online.

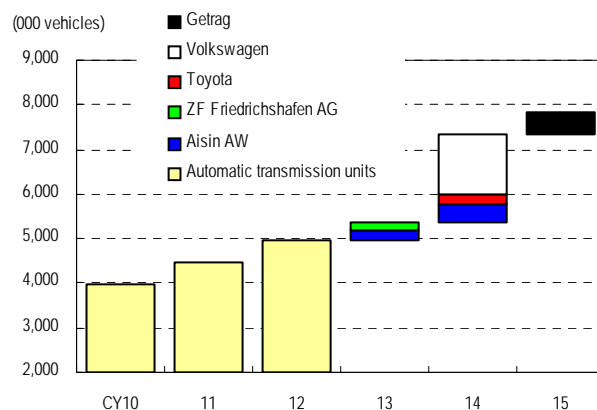
Aisin AW seeks to ramp up local production by starting operations at a plant in Suzhou at end-2013 and building and bringing on line another in Tianjin in 2014. However, competition looks set to heat up in

2014, with Toyota building a CVT plant in Changshu and Volkswagen slated to start DCT output in Tianjin.

Volkswagen's new DCT plant to be built in Tianjin will initially have production capacity of 450,000 units, but the automaker plans to hike output capacity to 1.35 million units. In China, Volkswagen plans to increase production to 4 million automobiles by 2018. Including the capacity of 600,000 DCT it currently has in Dalian, the company will probably be able to use DCT for half the 4 million automobiles.

Bearing in mind that the Chinese government's Catalogue for Guidance of Foreign Investment Industries encourages foreign investment in DCT, as discussed earlier, we feel visibility is clouded over just how far Aisin AW can increase its share on China's automatic transmission market.

■ **Chart 33: Plans for New Major Automatic Transmission Plants**



Source: CEIC, company release; compiled by Daiwa.
Note: Chart depicts plans for new major automatic transmission plants, excl. capacity expansion at existing plants, etc. Likely developments include JATCO announcing plans to lift production capacity at Guangzhou plant by 10% from 900,000 units to over 1 mil.

Chart 34 shows the transmissions used in Volkswagen's main lineup. A closer look shows that many models are outfitted with DCT.

That said, in our view, opportunities are not inexistent for Aisin AW to increase market share, rather we feel there is scope for market share growth.

In China, Volkswagen has suffered problems with DCT and has been forced to make recalls. Company officials during our trip to Great Wall Motor remarked that DCT is still a technology in its infancy.

If consumers turned off by product recalls opt for models equipped with automatic transmissions rather than models with DCT, Volkswagen could increase offerings featuring automatic transmission. Thus our

eyes are on prospects of a tailwind to Aisin AW's efforts to claw back market share for automatic transmission.

Our focus is also on whether Aisin AW will start to produce a broader range of products at its Suzhou plant, in addition to offerings for the group's bases in Tianjin and Guangzhou.

■ **Chart 34: Transmissions Fitted in Volkswagen's Major Models**

Model	Transmission	2012 production volume	
		(000 vehicles)	(% of total)
Jetta	7DCT/6AT/5MT	251	10
Lavida	7DCT/6AMT/5MT	250	10
New Bora (model X)	7DCT/6MT/5MT	225	9
New Passat (NMS)	7DCT/6AMT/5MT	198	8
Sagitar	7DCT/6DCT/5MT	195	7
Magotan	7DCT/6DCT	174	7
Tiguan	7DCT/5MT	169	6
Audi A6	6MT/DCT/CVT	145	6
Octavia	7DCT/6AMT/5MT	137	5
Golf A6	7DCT/5MT	127	5
Polo	6DCT/5MT	124	5
Santana	6AT/5MT	110	4
Santana Vista	5MT	101	4
Audi A4L	7DCT/6DCT	99	4
Audi Q5	8DCT/6MT	89	3
CC	7DCT/6DCT	38	1
Shanghai Volkswagen + FAW-Volkswagen		2,625	100

Source: Company website; compiled by Daiwa.

Note: Audi's S tronic transmission shown as DCT, multitronic as CVT.

Furthermore, we will be watching not only Aisin AW's automatic transmission business, but also developments at Aisin Seiki itself.

In 2011, Aisin Seiki announced it would open its second overseas R&D hub in China, adding to its first in the US. In April 2013, the company revealed that Aisin Seiki (China) Investment, its subsidiary overseeing Chinese operations, had opened a new sales base in Shanghai. The branch is its third in China, joining the main branch in Tianjin and another base in Guangzhou. Given its location, the base is expected to increase sales in the future.

Aisin Seiki has exhibited a demonstration vehicle at motor shows to date, which brings together the overall strengths of the company. It enables Aisin Seiki to make multiple proposals to automakers using various modules (Chart 35).

Over the long term, we will be watching to see whether Aisin Seiki can boost its position further as a successful mega-supplier by expanding sales.

■ **Chart 35: Aisin Seiki's Demonstration Vehicle**



Source: Company website.

Note: Photo shows demonstration vehicle exhibited at latest Frankfurt Motor Show, which is fifth iteration since 2001. Features 40 major parts made by Aisin group.

5. Quality names still doing well

Jeff Chung, Xiong Li
Daiwa Capital Markets Hong Kong

(1) Quality China brands still seeing growth in shipment volumes

Quality of domestic brands has been improving

We believe the manufacturing standards of some Chinese auto makers have improved appreciably over the past three years. This is a theme we have been tracking for several months; please see the following reports:

- 1) [Safety matters \(published 2 November, 2011\)](#)
- 2) [Six drivers beyond the inflection point \(2 May 2012\)](#)
- 3) [Buy the future stars \(15 February 2013\)](#)

Daiwa's preferred volume play: the compact car segment

■ Chart 36: JD Power's 2012 China Initial Quality Study Rankings (compact cars)

Ranking	Compact cars	Overall quality
1	Suzuki Alto	5
2	Baojun Spark	4
3	Changan Benben Mini	4
4	Chery QQ3	4
5	Gleagle Panda	4
6	Suzuki Wagon R	3
7	Tianjin Xiali N5	3
8	BYD F0	2
9	Tianjin Xiali N3	2

Source: JD Power; compiled by Daiwa.

According to auto industry research firm JD Power's initial quality study for China for 2012, Changan (000625 CH, Not rated), Chery (Not listed) and Geely's (175 HK, HKD3.96, Buy[1]) compact car models ranked in the top 5 in this segment, indicating to us that the quality of local compact car brands has improved significantly in recent years. Compact cars are the largest segment of the market in China, accounting for more than 35% of unit sales.

Daiwa's preferred margin play: the mid-size car segment

■ Chart 37: JD Power's 2012 China Initial Quality Study Rankings (mid-size cars)

Ranking	Mid-sized cars	Overall quality
1	Honda Civic	5
2	Buick Excelle XT/GT	5
3	Honda City Fengfan	5
4	Kia Forte	5
5	Nissan Sylphy	5
6	Buick Excelle	4
7	Hyundai Elantra	4
8	Hyundai Yuedong Elantra	4
9	Kia Cerato	4
10	Nissan Sunny	4
11	Nissan Tiida	4
12	Peugeot 307	4
13	Skoda Octavia	4
14	Toyota Corolla	4
15	Volkswagen Santana Vista	4
16	Baojun 630	3
17	BYD L3	3
18	Chery A3	3
19	Emgrand EC7	3
20	Ford Focus	3
21	Mazda 3	3
22	Peugeot 308	3
23	Toyota Corolla EX	3
24	Volkswagen Bora	3
25	Volkswagen Golf	3
26	Volkswagen Lavida	3
27	Volkswagen Sagitar	3
28	Zhonghua Splendor FRV/FSV	3
29	BYD F3	2
30	BYD G3	2
31	Changcheng Tengyi C30	2
32	Chery Cowin3	2
33	Chery E5	2
34	Chevrolet Cruze	2
35	Citroen C-Quatre	2
36	Dongfeng Fengshen S30/H30 Cross/H30	2
37	Faw Besturn B50	2
38	Haima Family	2
39	JAC Heyue	2
40	Roewe 350	2

Source: JD Power; compiled by Daiwa.

Within the high-margin mid-size car segment, the Japan and Korea brands take 8 of the top-10 positions in JD Power's initial quality study rankings (see table above). Still, we are encouraged to see that Geely, BYD (1211 HK, Not rated) and Chery's (Not listed) models achieved rankings similar to those of Volkswagen and Chevrolet. Margins in the mid-size car segment are typically 2-4pp higher than for the compact-car segment.

Daiwa's preferred earnings growth play: SUV car segment

■ Chart 38: JD Power's 2012 China Initial Quality Study (SUVs)

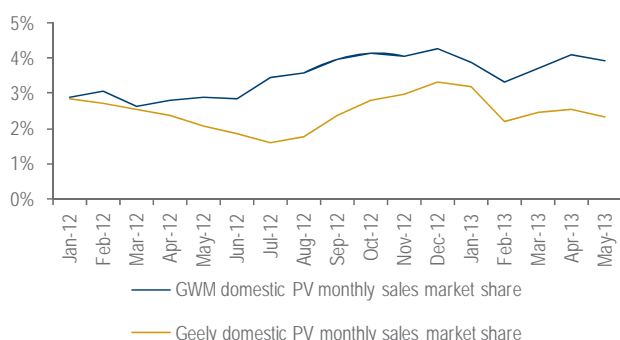
Ranking	SUV	Overall Quality
1	Toyota RAV4	5
2	BYD S6	4
3	Honda CR-V	4
4	Hyundai IX35	4
5	Hyundai Tucson	4
6	Kia Sportage R	4
7	Subaru Forester	4
8	Toyota Highlander	4
9	Great Wall Hover H3/H5	3
10	Kia Sportage	3
11	Nissan Qashqai	3
12	Volkswagen Tiguan	3
13	Changcheng Hover H6	2
14	Chery Tiggo	2
15	Zotye 5008	2

Source: JD Power; compiled by Daiwa.

Within the list of the top-10 best-quality SUVs, we are encouraged to see that while 8 of the 10 positions are secured by Japanese and Korean brands, Great Wall Motor (2333 HK, HKD42.85, Buy [1]) and BYD (1211 HK, Not rated) rank 9 and 2, respectively (see table above). In the year-to-date, unit shipments of SUVs in China are up by around 40% YoY.

Great Wall and Geely's monthly domestic China sales market share

■ Chart 39: Great Wall Motor (GWM) and Geely: Domestic Passenger Vehicle Monthly Sales Market Share Trends



Source: Companies, CAAM; compiled by Daiwa.

We believe the improvement in product quality has helped Great Wall maintain its new passenger vehicle sales market share in China (excluding exports) at more than 3% so far in 2013, and Geely's at more than 2% in 2013.

Given that we expect the market to consolidate further, we expect both of these names to gain additional market share domestically over the next five years, and believe they will be able to capture market share relinquished by non-competitive local brands.

(2) Growth opportunities: volume is the key

In China, we like the auto makers more than the auto-parts makers

We expect the auto makers to maintain their dominant position in China's industrial supply chain as they are the ultimate decision makers when it comes to end-products. This gives them the upper hand over other players in the supply chain and allows them to squeeze: 1) the margins of the up-stream auto-parts makers, and 2) the margins of the auto dealers.

Volume + ASP upgrades = significant earnings growth

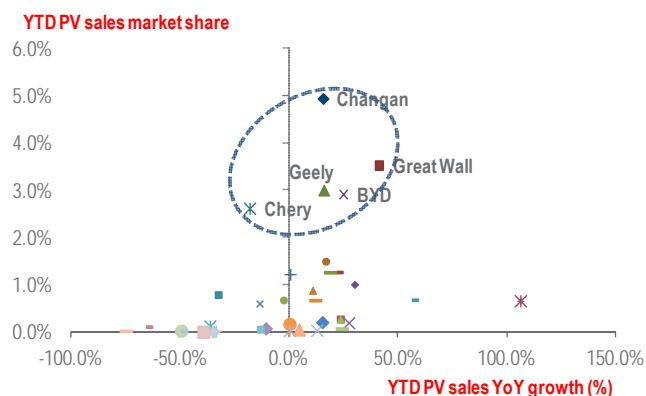
We believe that for the auto makers, their ability to leverage volumes will be even more significant when shipments increase at the same time as ASPs increase, with higher-quality products accounting for a rising proportion of total sales.

We note that, in 1H13, auto-parts maker Minth Group's (Not rated) gross margin declined from 34.8% in 1H12 to 33.2% in 1H13. Moreover, the new-car sales margin for auto dealer ZhongSheng Group (881 HK, HKD6.2, Buy [1]) has been trending down over the past 18 months, with its new-car sales as a percentage of total revenue declining from 49% for 2012 to 44% for 1H13.

By contrast, among the auto makers, Geely and Great Wall posted 1H13 gross margins of 19.2% and 29%, up from 18.5% and 26.9%, respectively, in 2012. We see this as illustrating the volume-leverage effect enjoyed by auto makers, together with the benefits of their enhanced product quality.

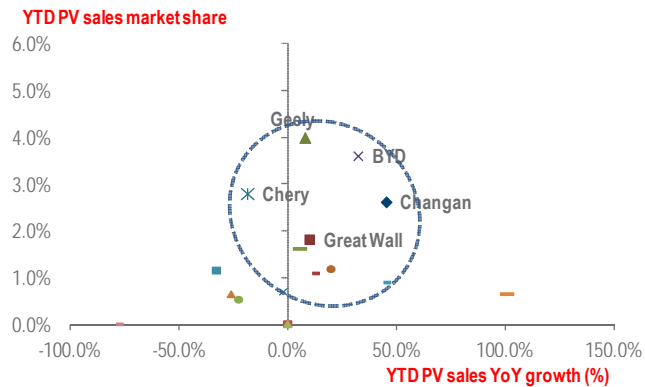
Industry consolidation: 2013 versus 2009

■ Chart 40: 7M13 PV Sales Market Shares and YoY Sales Growth (local brands)



Source: CAAM; compiled by Daiwa.

■ **Chart 41: 2009 PV Sales Market Shares and YoY Sales Growth (local brands)**



Source: CAAM; compiled by Daiwa.

The two preceding scatter charts show the extent of the industry's consolidation (2013 YTD) versus 2009, when most of the auto makers experienced strong shipment volume growth, driven by government subsidies. With the gradual removal of these subsidies in 2011, we believe most of the local auto makers are now seeing negative sales volume growth.

In our view, this situation has triggered another wave of industry consolidation, a process that started in 2012, with poor-quality brands being swallowed up by higher-quality ones. In turn, we expect this to boost Geely's and Great Wall's sales volume, giving them the upper hand when it comes to negotiating with quality auto parts makers with even higher sales volume.

Conclusion

We believe Geely and Great Wall will benefit the most from this latest round of industry consolidation, on the back of the improvements they have made to their product quality.

6. Appendix: trends in China's auto-parts industry

Jeff Chung, Xiong Li

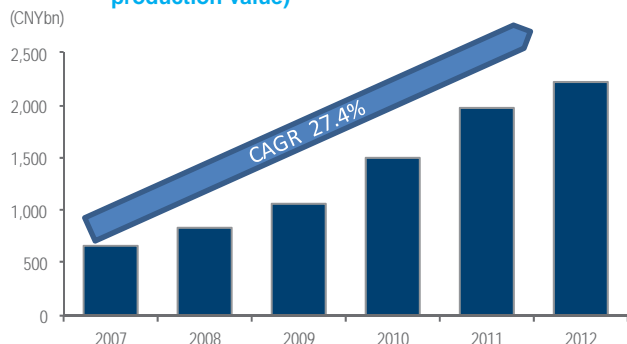
(1) Demand growth for auto parts exceeding that for autos

A fast-growing domestic market

China's auto-parts industry has grown significantly over the past six years (2007-12). Sector revenue rose by 236% to CNY2,227bn, representing a CAGR of 27.4%, over 2007-12 (this compares with a revenue CAGR of 23% for China's auto makers in the same period).

We believe the strong auto-parts revenue was driven mainly by the high level of car production, after-sales service and exports since 2009. China's auto production saw a CAGR of 17%, to 19m units, over 2008-12. Over the same period, the value of exports of China-made auto parts recorded a CAGR of 98% to USD59bn.

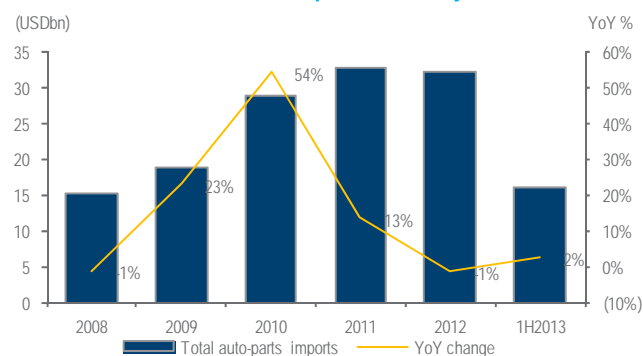
■ Chart 42: China Auto-Parts Industry: Revenue (total production value)



Source: WIND; compiled by Daiwa.

Absolute value of auto-parts imports peaked in 2011

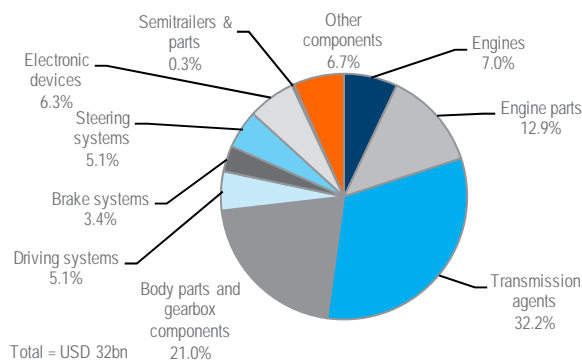
■ Chart 43: China Auto-Parts Imports: Industry Value



Source: CAAM; compiled by Daiwa.

The value of China's auto-parts imports saw a CAGR of 21% over 2008-12. The 2008-10 period was a time of rapid import growth, driven by economic development and the government's imports stimulus policy. However, from 2010, import growth slowed in step with the slowdown in China's economic growth.

■ Chart 44: Breakdown of China's Auto-Parts Imports (2012)

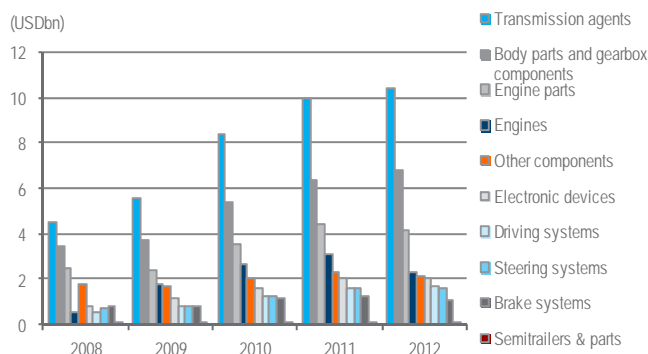


Source: CAAM; compiled by Daiwa.

In 2012, the following three auto parts categories accounted for the most imports into China: 1) transmission components (including gearboxes, clutches, and axles) at 32% of total auto-parts imports, 2) auto-body and parts (including seats, air bags, and bumpers) at 21% of the total, and 3) engines and engine parts (including engine bodies and engine electric control systems) at 20%.

Meanwhile, transmission and engine-related parts accounted for 52% of the value of total components imports in 2012, which indicates to us that only a few domestic companies have the requisite technology to build a complete car.

■ Chart 45: China: Breakdown of Auto-Parts Imports (2008-12)

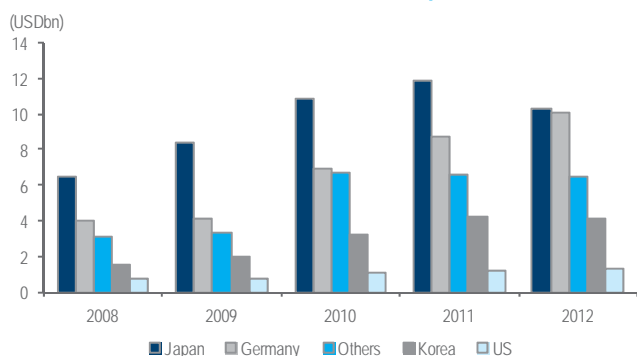


Source: CAAM; compiled by Daiwa.

(2) Imports

Imports into China by region

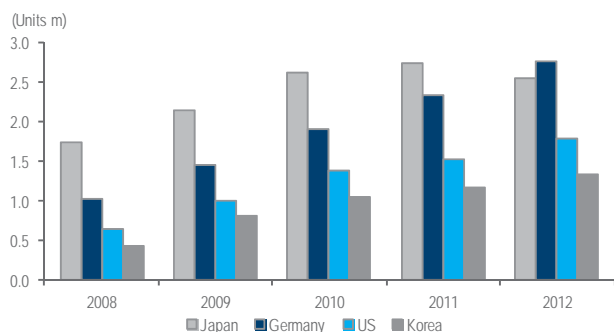
■ Chart 46: China: Source of Auto-Parts Imports



Source: CAAM; compiled by Daiwa.

In 2012, the main sources of auto-parts imports into China were Japan (32% by value), Germany (31%), Korea (13%) and the US (4%). On a year-on-year basis, Japan's share of China auto-parts imports declined by 4pp for 2012, while Germany's share increased by the same amount.

■ Chart 47: Breakdown of Passenger Car Sales Volume by Brands' Country of Origin

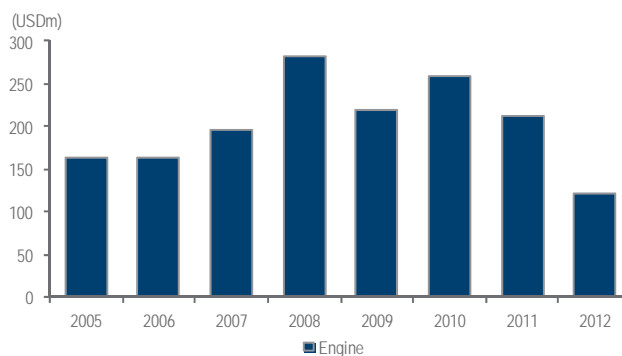


Source: CAAM; compiled by Daiwa.

The trend in auto-parts imports into China is mainly driven by new car sales. This is because joint-venture manufacturers typically import core components from their home countries. In 2012, passenger vehicle sales of Japanese brands in China fell by 7% YoY, for a China market-share decline of 3pp to 16%, while the sales volume of German brands increased by 19% YoY, for a market-share gain of 2pp to 18%.

By value, auto-parts imports into China have declined in recent years

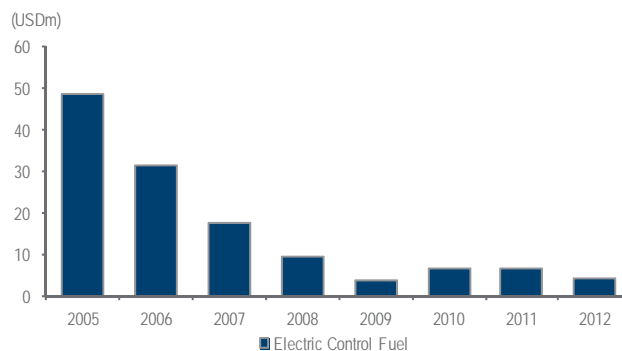
■ Chart 48: China: Engine Imports By Value (declining)



Source: CAAM; compiled by Daiwa.

Engines are the third-largest segment of auto-parts imports by value in China, but the value of these imports declined YoY over 2010-12, mainly owing to: 1) China's increased in-house production of engines (the in-house ratio stood at 51% for 6M13, up from 41% in 2008), and 2) the coming-on stream of supply from large multinationals in China.

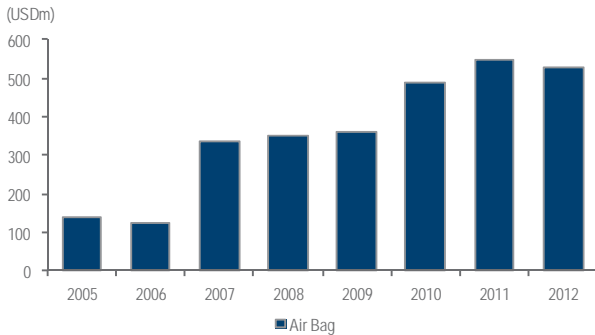
■ Chart 49: China: Imports of Engine Electric Control Systems



Source: CEIC; compiled by Daiwa.

Imports of engine electric control systems have continued to decline since 2010, though ASPs have been rising. We believe the increase in ASPs flows from the fact that most high-end cars still use imported engine electric control systems, whereas mid- to low-end locally-made cars tend to rely on domestically produced parts.

■ **Chart 50: China: Imports of Airbags (growth slowing)**

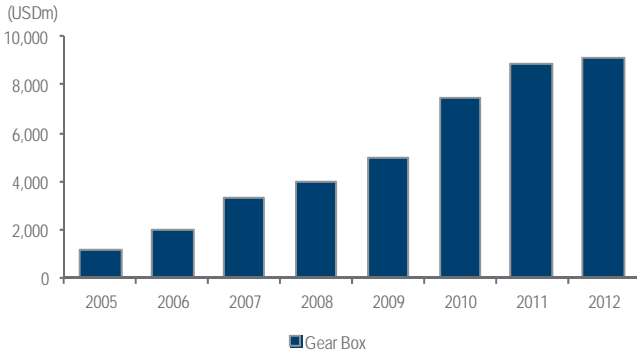


Source: CEIC; compiled by Daiwa.

Imports of air bags into China increased sharply in 2007, supported by policy moves aimed at enhancing vehicle safety. China's domestic producers have expanded their market share in recent years in step with the adoption of air bags in low-end vehicles in the domestic market.

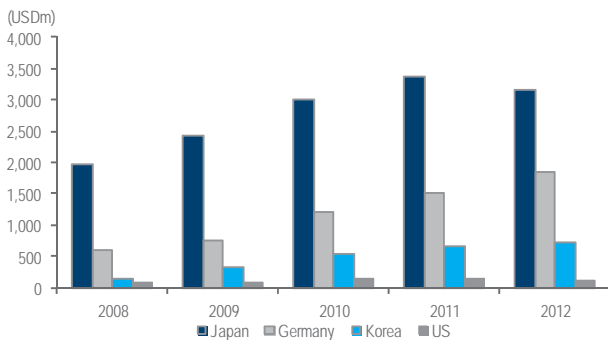
Gearbox imports continue to grow steadily

■ **Chart 51: China: Gearbox Imports (stable growth)**



Source: CEIC; compiled by Daiwa.

■ **Chart 52: China: Source of Gearbox Imports**



Source: CEIC; compiled by Daiwa.

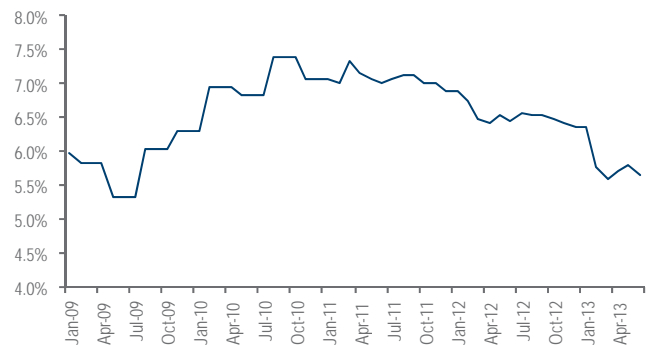
Imports of gearboxes into China have seen sustainable growth over the past eight years. Japan remains the largest importer in this segment, though by value its imports were down by 7% YoY in 2012. Imports by

Germany and South Korea last year were up by 22% YoY and 12% YoY in value terms, respectively, offsetting the decline for Japan.

Two key trends behind rising gearbox imports

Trend 1: China's diminishing reliance on imported auto parts

■ **Chart 53: China: Ratio of Imported Auto-parts Revenue as A % of Car Revenue**

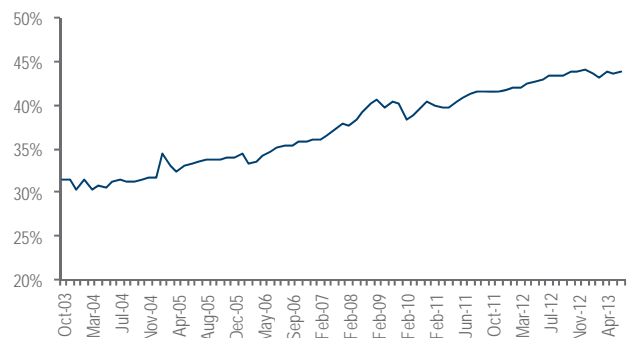


Source: CAAM; compiled by Daiwa. Include our estimates.

Imported auto-parts revenue as a proportion of total auto revenue in China has been declining since mid-2010, primarily owing to a change in the government's tax policy on imported auto parts in August 2009.

Trend 2: more auto parts now being made in China

■ **Chart 54: China: Ratio of Domestic-Made Auto-Parts Revenue as A % of Car Revenue**



Source: CAAM; compiled by Daiwa. Include our estimates.

In turn, revenue generated from auto parts made in China as a percentage of the country's total auto revenue has risen steadily since 2010, as imports of auto parts have declined.

Why are gearbox imports to China still strong?

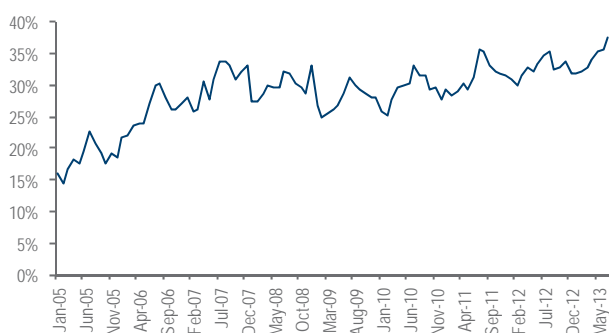
Reason 1: gearboxes are a high-end product

There are several types of gearboxes: automatic transmission (AT), automated manual transmission (AMT), continuously variable transmission (CVT), and dual-clutch transmission (DCT). In past years, Chinese car manufacturers could choose between these gearbox types, and tended to favour the AT type, but none was able to produce sufficiently advanced products.

In general, AT technology is still controlled by major international auto manufacturers and their suppliers.

Reason 2: gearboxes fall into the high-growth PV sub-sector

■ Chart 55: China: Percentage of Total PVs Sold with AT Gearboxes



Source: CEIC; compiled by Daiwa.

In China, the percentage of new PVs equipped with AT gearboxes increased to around 40% in 1H13 (from 15% in 2005), and the total sales volume of new PVs with automatic transmissions expanded 10-fold over the same period. But this ratio compares with one of over 90% in the US auto market, pointing to significant upside; and thus we expect the ratio in China to continue to trend up going forward.

Reason 3: ratio of locally produced AT gearboxes remains very low

■ Chart 56: China: Still Heavily Reliant on Automatic Gearbox Imports

Year	Locally-made automatic gearboxes (000 units)	China auto production (000 units)	Locally-made automatic gearboxes/auto production
2005	0	5,705	0%
2006	0	7,238	0%
2007	0	8,873	0%
2008	2	9,324	0.02%
2009	0	13,764	0.00%
2010	704	18,243	3.86%
2011	1,648	18,432	8.94%

Source: Wind; compiled by Daiwa.

The ratio of locally made automatic gearboxes to locally manufactured auto vehicles is still very low in China, reflecting the fact that the country's AT production is insufficient to meet the needs of the market. We believe this is due to two factors: 1) independent automakers in China generally lack the core technology and do not have large-scale production capacity for automatic gearboxes, and 2) international manufacturers have been slow to set up local production facilities for automatic gearboxes in China.

In turn, international automakers in China do not appear to be in a hurry to produce automatic gearboxes locally because they want to maintain high profit margins. Domestic car brands have not yet achieved large-scale industrial AT production, so competitive pressure in this segment in China is relatively low.

Although both automatic gearboxes and engines belong to a vehicle's core power-train components, there are major differences on the supply side between engines and automatic transmissions. For PVs, generally OEMs produce their own engines in-house. A joint venture between the OEM and a foreign company usually imports the engine technology to China, then the OEMs produce the engines locally. However, gearboxes are usually supplied by foreign independent transmission companies. For them, building factories in China would represent a big investment, but would also entail the risk of loss of technology.

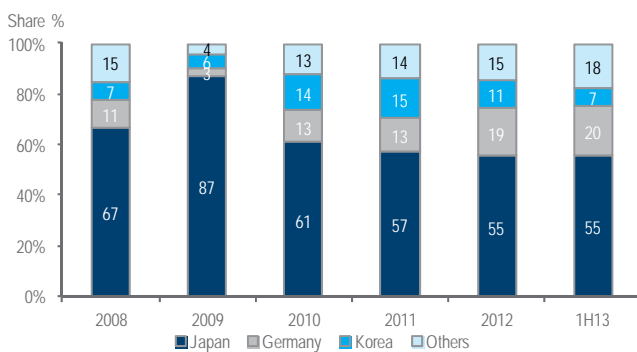
■ **Chart 57: China: Net Importer of Transmission Systems Vs. Other Auto Parts (2012)**



Source: CAAM; compiled by Daiwa. Include our estimates.

China's gearbox imports by region

■ **Chart 58: China: Gearbox Imports' Volume Market Shares for Key Regions**

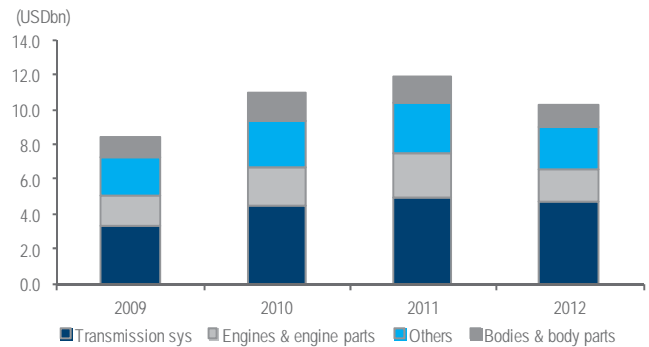


Source: CAAM; compiled by Daiwa. Include our estimates.

Imports of Japanese-made gearboxes to China saw their market share by volume decline between 2009 and 1H13. We believe this was due to German automakers catching up with Japanese automakers in terms of the quality of the materials used, which has brought about large improvements to their products by making them lighter and therefore more fuel efficient. This has diluted the fuel-efficiency edge of Japanese automakers over the past three years.

Summary: key auto-parts imports by region

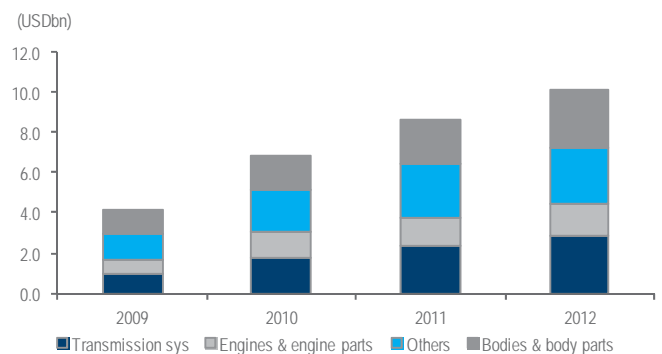
■ **Chart 59: China: Auto-Parts Imports by Value From Japan**



Source: CAAM; compiled by Daiwa.

Regarding auto-parts imports from Japan to China in 2012, the largest segment was transmission systems (46% of Japanese imports). Total imports of Japanese auto parts to China fell by 14% YoY in value terms in 2012, with declines in all segments. Imports of transmission systems were down only slightly, by 5% YoY, reflecting very strong demand from China for imported gearboxes.

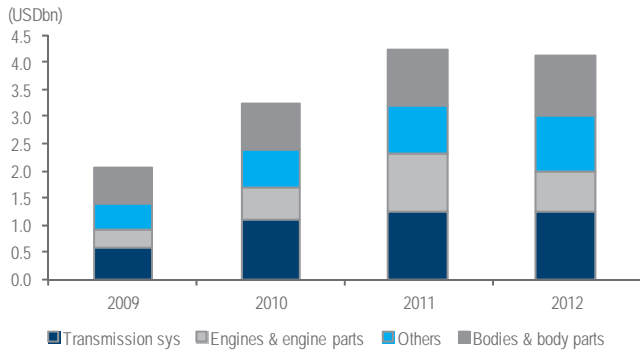
■ **Chart 60: China: Auto-Parts Imports by Value From Germany**



Source: CAAM; compiled by Daiwa.

The two largest segments of auto-parts imports to China from Germany in 2012 were transmission systems (29% of total German imports) and auto bodies (28%). Germany's overall auto-parts imports to China rose by 16% YoY by value in 2012, with all segments seeing increases. Imports of body parts were up the strongest, by 25% YoY.

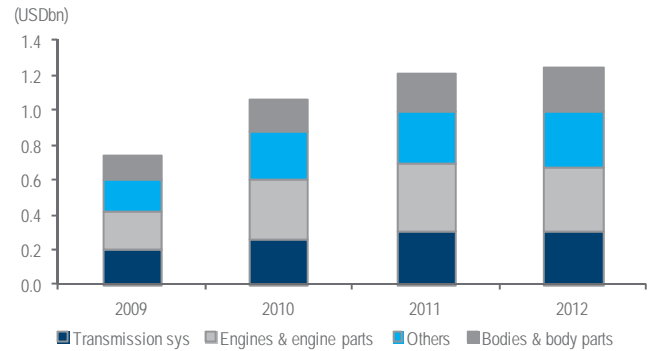
■ **Chart 61: China: Auto-parts Imports by Value From Korea**



Source: CAAM; compiled by Daiwa.

Imports of auto parts to China from Korea declined slightly, by 3% YoY, by value in 2012. Imports of Korean-made engines and engine parts fell by 25% YoY last year, due to a high YoY comparison base with 2011.

■ **Chart 62: China: Auto-parts Imports by Value From the US**



Source: CAAM; compiled by Daiwa.

Imports of US-made auto parts to China rose slightly, by 5%, YoY in value terms in 2012. China mostly imports engines and engine parts from the US (29% of its total US-made auto-parts imports last year), and those declined by 5% YoY in 2012.

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- Estimates by Daiwa
- Shares outstanding: Common shares outstanding (excl. treasury stock)
- Market cap: Based on shares outstanding as of indicated date
- EV: Market cap + interest-bearing debt – liquidity on hand
- EBITDA: Operating profit + depreciation
- EV/EBITDA (prospective): Based on recently disclosed figures for interest-bearing debt and liquidity on hand
- ROE: Net income / average of start-FY and end-FY shareholders' equity (for SEC-reporting firms net income attributable to shareholders of the parent / average of start-FY and end-FY shareholders' equity)
- Share Price Chart and per-share figures retroactively adjusted to reflect stock splits/reverse stock splits

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Benchmark index: TOPIX for Japan, S&P 500 for US, STOXX Europe 600 for Europe, HSI for Hong Kong, STI for Singapore, KOSPI for Korea, TWII for Taiwan, and S&P/ASX 200 for Australia.

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"1": the security could outperform the local benchmark index by more than 15% over the next six months.

"2": the security is expected to outperform the local benchmark index by 5-15% over the next six months.

"3": the security is expected to perform within 5% of the local benchmark index (better or worse) over the next six months.

"4": the security is expected to underperform the local benchmark index by 5-15% over the next six months.

"5": the security could underperform the local benchmark index by more than 15% over the next six months.

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