

**GREATWALL MOTOR (2333 HK)**

INDUSTRY: AUTOMOBILE

STUDENT: JIASHENG WANG

**COMPANY REPORT**

5 MAY 2016

24259@novasbe.pt

**Outlook is not so dim***GWM is underpriced despite of no growth prospect*

Consumers' affection for SUV didn't cool down in 2015 and will extend to next two years whereas the whole vehicle market of China regressed to the slowing GDP growth. Thanks to deep dedication to SUV segment (82% of total), the company achieved the sale target of 850k vehicles in 2015 with 21.5% revenue growth. But GWM's SUV growth was below the industry average. Company's net profit held on due to deterioration of margin rate. In Q1 2016, most of the models showed negative YoY growth apart from H1 and H6.

In 2015 the highest-end SUV H8 was eventually launched after several postponements but ended up with poor sale. The frequent price-off promotion propped up the double-digit growth but gross margin was hurt. The marketing strategy of "Blue-Red logo" would greatly enrich GWM's product lines and enhance effectiveness of marketing strategy. Also, the establishments of factory and sale branches oversea would bring to GWM more sources of income.

I hold bearish view on GWM's future performance because: (i)the price of upcoming SUV H7 is not friendly enough to become a hot sale model; (ii)the next generation of H6 might loss cost advantage given the current price war; (iii)the fail of equity financing delays GWM's entrance into NEV market.

Nevertheless, the current stock price of around 5.0x PER is the lowest among its peers and its history. I estimate a reasonable PER at 10.5x, justifying the "BUY" recommendation.

**Company description**

Located in Hebei province, the privately-owned company Greatwall Motor is the 7<sup>th</sup> largest(2015 sale) automobile manufacturer in China producing sedan, SUV, pickup and auto parts. It has been the No.1 in both SUV and pickup truck segment for consecutive 13 and 18 years respectively. In 2014, GWM established an auto financial company.

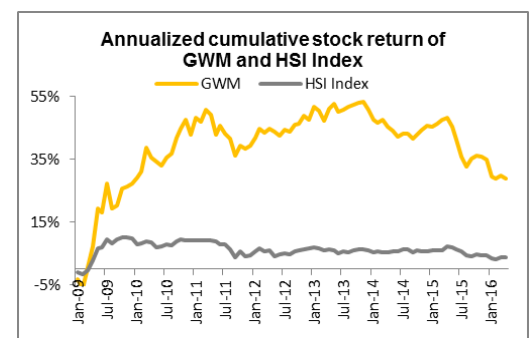
**Recommendation: BUY****Price Target FY17: 11.29 HK\$****Price (as of 4-May-2016) 5.88 HK\$**

52-week range (HK\$) 4.96-18.57

Market Cap (HK\$ m) 79,399

Outstanding Shares (m) 9,127

Source: Bloomberg and company file as of May 4, 2016



Source: Bloomberg (base date: Jan 2005)

(Values in RMB millions)	2015	2016E	2017E	2018E
Revenues	76,033	80,943	89,560	94,568
Gross profit	16,222	17,979	18,174	19,176
EBITDA	11,013	11,341	9,935	11,138
Net Profit	8,060	7,767	6,377	7,220
EPS	0.88	0.85	0.70	0.79
EPS Growth	0.2%	-4%	-18%	13%
P/E	8.6x	11	13	12
Pay out ratio	40%	40%	40%	40%
DPS	0.35	0.34	0.28	0.31

Source: Personal estimation and company file

THIS REPORT WAS PREPARED BY "STUDENT'S NAME", A MASTERS IN FINANCE STUDENT OF THE NOVA SCHOOL OF BUSINESS AND ECONOMICS, EXCLUSIVELY FOR ACADEMIC PURPOSES. THIS REPORT WAS SUPERVISED BY ROSÁRIO ANDRÉ WHO REVIEWED THE VALUATION METHODOLOGY AND THE FINANCIAL MODEL. (SEE DISCLOSURES AND DISCLAIMERS AT END OF DOCUMENT)

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## Executive summary

*The Q4 2015 right after this policy enforcement had YoY growth of 18% compared to that of 2.7% for last 3 quarters.*

*The past examples showed that the quota imposed by government would reduce 2/3 of new vehicle sale in Tier-1 cities.*

*By 2014, the motorization rate of China ranked at 91 out of 118 countries counted. The populations under 20-year-old are 25% less than the older age groups. Stock of vehicles has been over the alert level for 15 months. Average price of SUV fell by 12% in 2015.*

*GWM's market share of pickup segment used to be less than 28%.*

*GWM announced to raise 1.2 billion yuan to fund for the NEV project in 2015 but then abandoned since stock price was much lower than intended issue price.*

*The H6 model still kept its marked growth in Q1 2016, say 38.2% and remained No.1 in SUV segment due to frequent official discount.*

**The policy of purchase tax reduction would stimulate low-emission vehicle sale in 2016** although the effects are much milder than the same one in 2009. If this policy was not enacted, the year 2015 would have seen negative growth. But the segment of 1.6L vehicle which is the beneficiary of this policy has been saturated as this segment accounted for 70% of total vehicles sale in 2015.

**The policy of restriction to vehicle purchase will be unfolded in more capital cities.** All tier-1 cities have carried out restriction to the number of vehicles in cities as traffic system is overloaded. Tier-1 cities used to have strong demonstrative effects for tier-2 capital cities. If the growth is not curbed, each tier-2 city will have an increment of 1 million vehicles in five years. So restriction is a highly likely event.

**Despite of rapid growth in the past, the motorization rate of China remains at low level.** Due to the one-child policy in the 1990s, the population of youngsters who are potential buyers to low-price vehicles reduces distinctly.

**Excessive production capacity and overstock** are weighing on all producers in China. But aggressive sale goals of Chinese-brands<sup>1</sup> are still set to be double by 2020. Due to frustration with sedan segment, Chinese-brands crowd in SUV segment, making the average price of SUV slump for the past three years<sup>2</sup>.

**The spring of pickup truck seems to come soon** as the prohibition of pickup entering into cities is lifted. Actually, the pickup segment saw a slowing decline in 2015 and Q1 2016. Moreover, Chinese government starts to rule out small manufacturers, aiming to increase concentration. As the No.1 in pickup truck segment, GWM's market share increased to 33% in Q1 2016.

**The failure of equity financing was keeping GWM further from the peers in NEV<sup>3</sup> segment.** Every manufacturer is ambitious for this area and is investing a lot in production facilities and R&D. Compared to the public-owned opponents with abundant capital, GWM needs immediate external fund to fuel up NEV project.

**Outlook is tightly associated with the upcoming products.** Apart from H1 and H6, other products of GWM saw negative YoY growth in Q1 2016. None of current product lines could mitigate GWM's excessive reliance on H6. The mid-sized 7-seat SUV H7 launched in Apr 25, 2016 might have disappointed investors as the stock price fell by 12% on the same day. So the mere upside chance weighs on the next generation of H6 to be launched in the end of 2016.

<sup>1</sup> Hereafter Chinese-brands mean the vehicle brands as against the "Joint-ventures"

<sup>2</sup> It is illustrated in Appendix "5. Downward price evolution of China's PC in general"

<sup>3</sup> NEV is short for New Energy Vehicle

## Valuation

### DCF method

I use DCF method to value two separate businesses of GWM, the vehicle business and the financial business. In the long-run, the total vehicle market would follow the slowing growth of China's economy. Total annual sale are mainly constituted by vehicle replacement. Also, GWM's market share does not see hope to increase. So I don't expect perpetual growth of GWM.

I use 11.8% debt-free WACC for vehicle business in this model, based on the following assumptions: average US 10 year gov bond rate of 3.55% as proxy for risk-free rate; 10-year moving average return of MXWD(including emerging economies) as proxy for expected market return calculated with SOP method<sup>1</sup>, say 10%; unlevered beta of 1.28 benchmarking against MXWD. MXWD is an appropriate proxy for the aggregate market considering the international shareholders structure of GWM's H-Share. Regarding risk-free rate, using U.S. bond is sensible given two factors: nearly half of the investors are from the U.S., and; for the sake of consistency to the currency of MXWD index. Assumption of debt-free structure is also coherent to GWM's history and management philosophy.

Considering that the financial business of GWM is quite new and lack of comparable publicly-traded auto finance companies in China, I choose 12 traditional Chinese financial institutions listed in HK as peer group<sup>2</sup>. The WACC is 4.82% based on such assumptions: D/E ratio of 2.3, levered beta of 0.99 and Rd of 3.5%.

With these assumptions, I obtain an equity value of RMB 61,792M as of year ended 2017, corresponding to HK\$ 8.13 per share.

*GWM is listed both in mainland China and Hong Kong with totally different shareholders structure in two listing place. The shareholders structures will be discussed in next section.*

*Given strict regulation in financial industry, financial firms have similar capital structure and cost of debt.*

*1Y forward exchange rate.*

DCF Valuation	Vehicle business	Financial business
PV of FCFF	¥M 39,724	¥M 3,727
PV of continuation value discounted back to 2017	¥M 34,815	¥M 16,393
Net debt	¥M 0	¥M 6,341
Equity value	¥M 74,539	¥M 13,778
<b>Total Equity value</b>	¥M 88,318	
#Outstanding shares(M)	9127	
<b>Estimated share price(RMB)</b>	¥ 9.68	
Exchange rate of HKD:RMB	85.676	
<b>Estimated share price(HK\$)</b>	<b>HK\$ 11.29</b>	

<sup>1</sup> SOP could better predict total market return. See in appendix "3.SOP method to estimate market return".

<sup>2</sup> See in appendix "4.Peering financial groups listed in HK"

## Multiples valuation

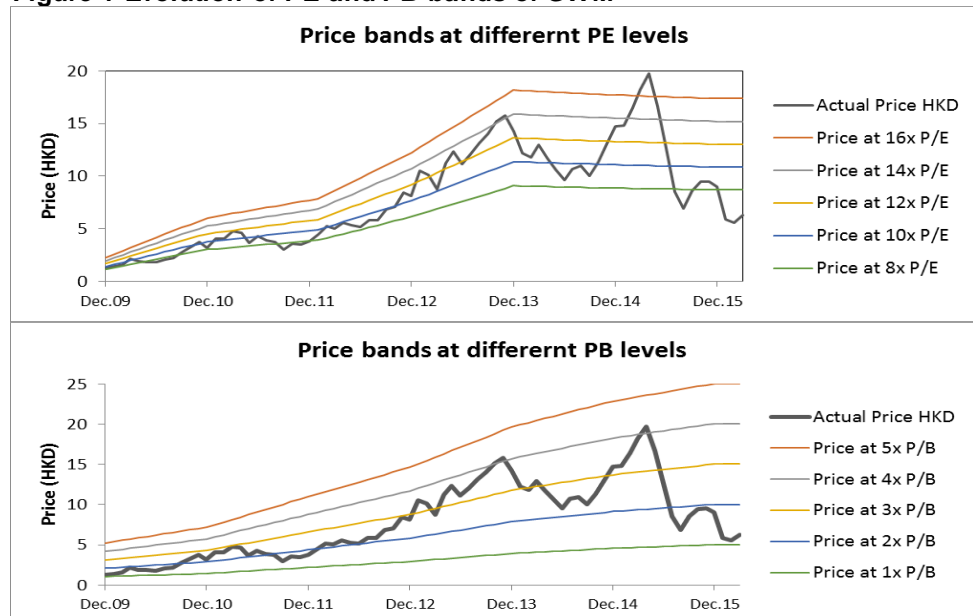
GWM's PER and PBR in the end of March 2016 hit the ever lowest for the last six years. It was rare to see price below 8.0x P/E, which indicates either price underestimated or investors losing faith in GWM's growth prospect.

**Except for BYD and GWM, other producers have joint-ventures. The Revenue, Gross Margin and EBITDA in Table 1 reflect only their own business, excluding joint-venture performance. But the EPS includes the income from joint-ventures. So Brilliance could have strong ROE even though it has negative EBITDA.**

When compared to peer group comprised of 7 Chinese-brand auto manufacturers listed in HK (Table 1), GWM is outstanding upon profitability as well as dividend yield although it underperforms the industry in terms of EPS growth and revenue growth. Actually, other opponents are not very comparable to GWM in terms of business risk. GWM, Wuling and BYD don't have joint-ventures. But Wuling is mainly a minivan maker while BYD is the largest NEV and battery maker in China. The rest of opponents sourced income from joint-ventures several times more than their own business. But the PER of GWM is lower than both the peer group and its own track record. In my views, the stock price of GWM at least should not underperform the Brilliance who had negative EPS and revenue growth as well as terrible profitability.

In the middle of 2015, GWM's vehicle sale appeared negative YoY growth, accompanied with slumping PER. However, the positive performance for the first season of 2016 seemed not be able to recover investors' faith. Considering dim growth prospect but strong profitability, I expect the range of PER from 10x to 11x, namely price around HK\$11.

**Figure 1 Evolution of PE and PB bands of GWM**



**The EPS and DPS in Table 1 have been adjusted for the number of share, based on end of 2015.**

Table 1 Financials comparison to the peers listed in HK

Year ended 2015	Profitability			Earnings			Dividend			Price ratio	
	Revenue growth(%)	Gross margin(%)	EBITDA margin(%)	EPS(HKD)	EPS growth(%)	ROE(%)	Gross DPS(HKD)	Dividend yield(%)	Dividend payout ratio(%)	PER	PBR
<b>Wuling</b>	10.80%	11%	4%	0.05	42%	9%	0.00	1%	10%	11.7	1.0
<b>Geely</b>	38.60%	18%	14%	0.26	58%	12%	0.03	1%	10%	13.5	1.6
<b>DongFeng</b>	56.30%	13%	2%	1.34	-10%	15%	0.20	2%	15%	6.5	0.9
<b>Brilliance</b>	-11.80%	4%	-11%	0.70	-35%	19%	0.11	1%	16%	11.7	2.1
<b>Qingling</b>	-5.10%	19%	12%	0.19	6%	6%	0.16	8%	84%	10.6	0.7
<b>BYD</b>	40.20%	15%	13%	1.12	522%	10%	0.05	0%	4%	31.9	2.7
<b>GAC</b>	31.50%	12%	5%	0.65	30%	11%	0.16	3%	25%	8.9	1.0
<b>Average(ex. GWM)</b>	22.93%	13%	6%	0.61	87%	12%	0.10	2%	23%	13.5	1.4
<b>GWM</b>	<b>21.50%</b>	<b>22%</b>	<b>15%</b>	<b>1.08</b>	<b>0%</b>	<b>22%</b>	<b>0.43</b>	<b>5%</b>	<b>40%</b>	<b>8.6</b>	<b>1.8</b>
<b>GWM ranking</b>	5	1	1	3	6	1	1	2	2	7	3

Source: Bloomberg and company report of GWM

## Company overview

### Vehicle business meets price ceiling

*The founder, Wei Jianjun, holds 56% of GWM's share (A+H share). The rest of top 8 groups are controlled by the state. Namely, the primary shareholders are local government.*

The GreatWall Motor commenced vehicle business in 1990s with pickup truck products. Then it engaged in SUV segment and sedan segment. GWM has secured the No.1 place in terms of sale in SUV and pickup segment for consecutive 13 and 18 years, respectively. GWM sold 750k units of PC<sup>1</sup> and ranked 7<sup>th</sup> among all auto groups in China in 2015 while the rest of top 8 were controlled by the state<sup>2</sup>.

In 2013, GWM split off the SUV business to establish a new professional SUV brand - Haval, while other vehicles still used GWM's brand. In 2015, the SUV business contributed 82% sale to the group, of which 44% from the backbone product Haval H6. In the same year, GWM announced a "Blue-Red" marketing strategy for which each product line would have two derived versions branded with blue and red logo respectively to cater for different consumer groups. Red logo version is designed for home use while the fashionable blue logo version is for younger people. The sale network was reorganized in a corresponding way that those two versions are sold in separate network. By this way, GWM is able to improve the effectiveness of marketing strategy, further differentiate potential customer groups, and better balance the resources allocated to different dealers.

Due to strong presence in SUV segment together with fine management, GWM's gross margin was at the top of peer group but dropped for recent two years (Table 1). Among the comparable Chinese-brands peers, GWM's products are identified as "premium" but its intention to migrate to high-end segment ended up with failure because the brand value of Chinese-brands are not adequate to justify premium price yet.

*See in appendix "7.GWM Product Lines Display"*

<sup>1</sup> PC is short for 'Passenger Car', equivalent to 'Passenger Vehicle' in this report.

<sup>2</sup> "6.Sale of top 10 auto groups in China in 2015 " in appendix

## Financial business rapidly grows

In 2014, GWM founded an auto financial subsidiary in Tianjin, providing auto financing services to GWM's dealers and other customers. It made loss at first year but earned a 17% net profit margin in second year. Revenue of financial business increased by almost 9 times. According to Deloitte's report in 2014, 54% of the automobile consumption credit is provided by banks while 24% by automobile financial companies. The penetration rate of automobile credit in 2015 was around 27%. Yet this 27% was shared by lots of competitors such as traditional banks, financial companies and Internet P2P. But currently traditional banks prevailed over others with 54% market share and auto finance company with 26%. The trend of credit consumption among the youngsters is swelling and as such I anticipate 50% penetration rate by 2023, as much as the neighbour country, Japan.

## Dual-listing structure<sup>1</sup>

**Price gap always existed in the dual-listed stock as a result of regulation. The price of GWM in mainland China is higher than that in HK. HK capital market is opened to international investors without barrier.**

GWM's stock is listed in both Hong Kong (H-Share) and mainland China (A-Share) with proportion of 1:2. But the shareholder structures are completely different in these two exchange centres due to capital regulation in mainland China. Table 2 shows that 84.86% A-Share of GWM is held by Wei Jianjun, the founder of GWM and the owner of Baoding Innovation. Then followed by Chinese governments. By contrast, the H-Share of GWM is evenly held by international investors, of whom 47% are from the U.S. and 95% are institutional investors. As such, I am convinced that the specific risk of GWM is offset by their diversified investment portfolios.

**Table 2 Top 10 shareholders of GWM in both stock markets**

H-Share				A-Share			
Shareholders names	%Outstanding	Institution Type	Country	Shareholders names	%Outstanding	Institution Type	Country
BLACKROCK	8.82	Investment Advisor	UNITED STATES	BAODING INNOVATION GREAT WALL AS	84.86	Investment Advisor	CHINA
JPMORGAN CHASE & CO	7.44	Investment Advisor	UNITED STATES	CHINA SECURITIES FINANCE CORP	2.53	Government	CHINA
INVESCO LTD	6.71	Investment Advisor	UNITED STATES	SOCIAL SECURITY FUND	1.44	Government	CHINA
HANG SENG BANK LIMITED	5.88	Bank	HONG KONG	CENTRAL HUIJIN INVESTMENT LTD	0.37	Government	CHINA
JO HAMBRO CAPITAL MANAGEMENT	4.99	Investment Advisor	BRITAIN	GATES FOUNDATION	0.22	Endow ment	UNITED STATES
CREDIT SUISSE GROUP AG	3.92	Investment Advisor	SWITZERLAND	AMC NEW ECO FLX ALLOC	0.21	n/a	n/a
BLACKROCK FUND ADVISORS	3.12	Investment Advisor	UNITED STATES	CH STH CONSUM POW FLX ALL	0.19	n/a	n/a
VANGUARD GROUP INC	2.97	Investment Advisor	UNITED STATES	GF FUND MANAGEMENT CO LTD	0.1	Investment Advisor	CHINA
NORGES BANK INVESTMENT MANAGEMEN	2.63	Government	NORWAY	ICBC CREDIT SUISSE ASSET MANAGEM	0.09	Investment Advisor	CHINA
SKAGEN FUNDS	2.57	Investment Advisor	NORWAY	FORTUNE SGAM FUND MANAGEMENT CO	0.07	Investment Advisor	CHINA

<sup>1</sup> See in appendix "8.Price differences of the dual-listed stocks"

Source: Bloomberg

## China vehicle market overview

This section will review some factors that will significantly affect China's total passenger vehicle sale. Then the following section will be specific to two PC segments (Sedan and SUV) and two groups of brands. The final step would narrow down to GWM's sale analysis.

### Policy - Purchase tax reduction

From Oct 1, 2015 till year ended 2016, the purchase tax of passenger cars of below 1.6L (includes 1.6L) reduced by 5%, which is equivalent to 5% discount on prices of eligible vehicles. By coincidence, a same policy was enforced in 2009 and 2010 just after the global financial crisis. Figure 2 compares the effects of both policies.

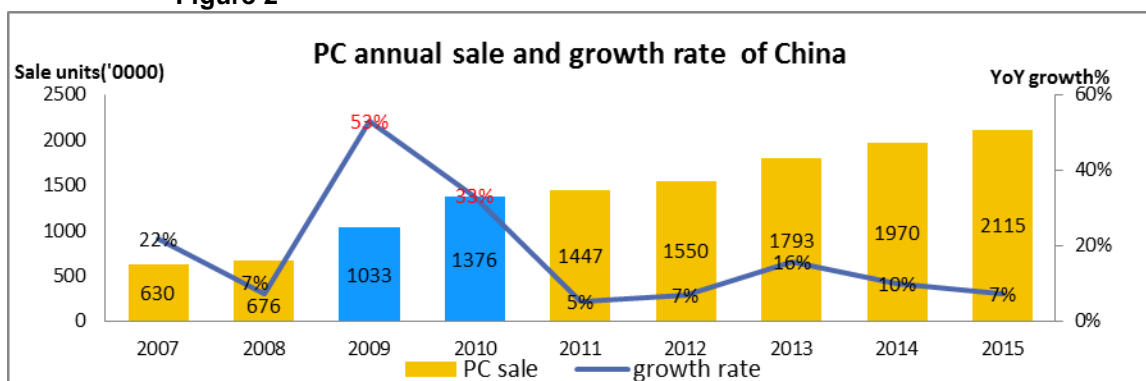
***The policy made mythical growth record of China vehicle market during the global financial crisis period.***

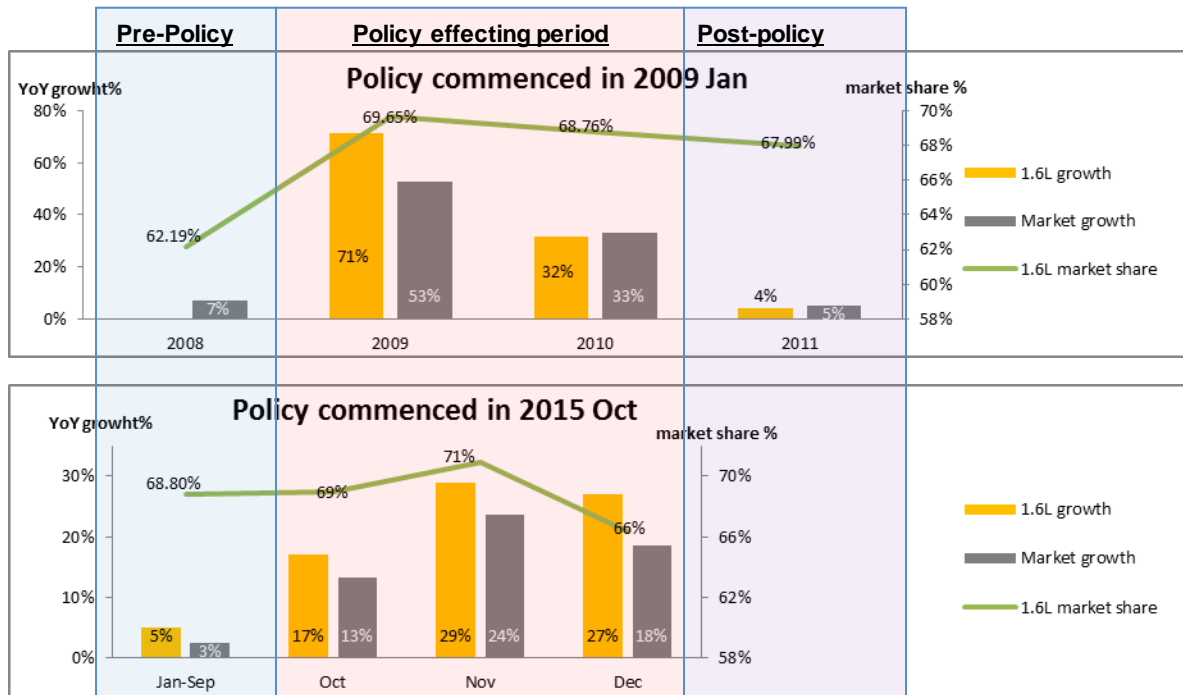
In 2009, the below-1.6L cars grew by 71%, much faster than total PC market growth of 53%. More accurately, the PC market was mainly driven by the below-1.6L cars as its market share immediately rose from 62% to almost 70%. By contrast, the pre- and post-policy period only saw less than 7% annual growth, which distinctly displayed the strong driving effects of this policy. Perhaps this amazing record was partly owed to other policies in the same year. The fuel tax policy was enforced with which the road maintenance fee, road passage fee and transportation fee were replaced. Low emission cars gained more from the fees reduction than loss from fuel price increase.

***The policy turned the bearish vehicle market into a bullish one at the last quarter of 2015.***

In 2015, the same policy commenced at Q4, making a big difference in the end of the year. For the first 3 quarters, the below-1.6L growth was only 5% on YoY basis. But in Q4 it soon soared to 17%, driving the total PC market to grow by 13% compared to 3% for the first 3 quarters. But the below-1.6L cars growth and total PC market growth slowed down in the Q1 2016, with 7.3% and 6.8 YoY growth respectively.

Figure 2





**The remarkably stimulating effect of tax reduction in 2009 will not recur in 2016**

How will this tax policy affect PC market in 2016? We have to admit that the same policy may be less powerful in 2016 given two facts: VIU in China in 2016 has enhanced greatly from 2009, and; the age of rapid GDP growth has gone. In addition, the below-1.6L segment seems a little saturated as it took 71% of total PC sale in Q1 2016. By the way, according to 2009's experience, this policy will overdraw the sale in 2017.

### Policy - Restriction to vehicles purchase in big cities

By Dec 2014, Shenzhen became the 6th cities in China imposing restriction to vehicle purchase as a result of traffic overload. The incremental number of vehicles is limited to a quota set by local government. But the current car owners are allowed to replace their cars with ones of equal or lower displacement. NEVs are less restricted. Table 3 lists the cities with vehicle restriction policy already.

**Table 3 Cities already with vehicle restriction policy**

City	Enforcement date	Annual Sale before restriction(units)	Quota(Units)
Shanghai	1994	N/A	100,000
Beijing	2010 Dec	917,045	240,000
Guangzhou	2012 Jul	330,000	120,000
Tianjin	2013 Dec	300,000	50,000
Hangzhou	2014 Dec	264,000	80,000
Shenzhen	2014 Dec	550,000	100,000

Source: Media

**The quota is assigned in ways of lottery and auction**

The enforcement of vehicle restriction policy in those cities shuffled the whole industry. According to a survey, annual vehicle sale in Beijing was cut by 56% immediately after policy enforcement<sup>1</sup> because nobody was allowed to buy a second car and many potential primary purchasers needed to wait for the quota. In Feb 2016, 665 people competed for one traditional car quota in Beijing because the quota has decreased to 90,000 units in 2016<sup>2</sup>.

New cars sale in Beijing in 2014 was 541.5k units while the quota was 150k units<sup>3</sup>, which implied 72% of new car sale was driven by replacement. The VIU of Beijing in 2013 was 5.2 million, which means 7.5%<sup>4</sup> of vehicles are replaced in 2014. The primary purchaser and replacement purchaser have distinct preference as follows:

**Table 4 Preference comparison of primary and replacement vehicle purchaser**

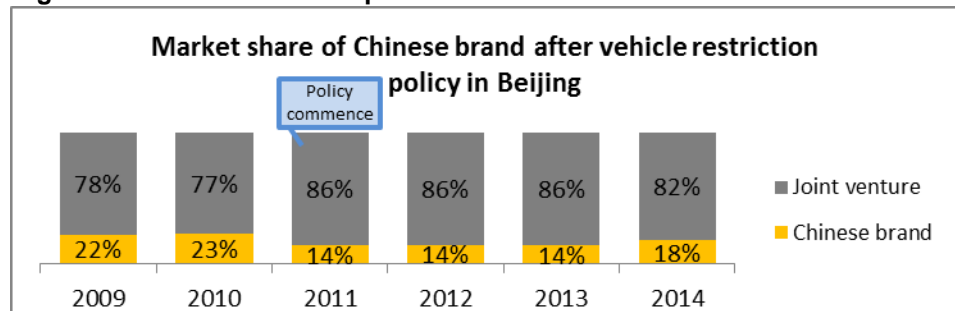
% of choice	Placement: 2.0L-3.0L	Budget: above RMB 150k	Type: SUV
<b>Primary purchaser</b>	11.4%	30%	17%
<b>Replacement purchaser</b>	42.9%	65%	29%

Source: State Information Centre

**Joint-venture means the foreign brand producers with joint-venture with Chinese local auto group such as FAW-VW and GAC-Honda.**

Judged on the information above, I am convinced that Chinese-brands are not potential choice for majority of replacement purchasers as they are usually low-placement (below 2.0L) and low-price (less than RMB150k). The report of State Information Centre (Figure3) certified this point as the market share of Chinese-brands in Beijing in 2011 dropped to 14% from 23%. Many dealers of Chinese – brands closed stores and exited, except for Changan and GWM<sup>5</sup>. Also, a survey on Guangzhou draw similar conclusion that consumers would increase purchase budget by 20k to 50k yuan after the restriction policy enforcement because the cars replaced in future cannot exceed the current car’s displacement. Moreover, 11 stores closed in Guangzhou in the following year, of which 8 are Chinese-brands<sup>6</sup>.

**Figure 3 Market shares comparison of Joint-Venture and Chinese-brands**



Source: State Information Centre

<sup>1</sup> <http://auto.hexun.com/2012-01-20/137455404.html>

<sup>2</sup> The quota for traditional car is 90,000 and 54,000 for NEVs. Source: [www.bjhjyd.gov.cn](http://www.bjhjyd.gov.cn)

<sup>3</sup> Source: GOV announcement : <http://zhengwu.beijing.gov.cn/tjxx/tjfx/t1378041.htm>

<sup>4</sup> 7.5% = (541.5k - 150k) / 5200 k = amount of replacement in 2014 / VIU in 2013

<sup>5</sup> Source: [http://www.cada.cn/Trends/info\\_92\\_1910.html](http://www.cada.cn/Trends/info_92_1910.html) ; <http://toutiao.com/a3612645637/>

<sup>6</sup> Source: [http://gzdaily.dayoo.com/html/2013-07/13/content\\_2317381.htm](http://gzdaily.dayoo.com/html/2013-07/13/content_2317381.htm)

**GWM's ranked 7 as brand loyalty and 15 in brand immigrant index. See in appendix "9.Brand Loyalty Analysis".**

Brand loyalty also plays an important role in replacement decision process. Two Chinese-brands do well in this aspect, which are GWM and Changan. They ranked No.6 and No.7, followed by Toyota, regarding the ability to retain customers. But they cannot attract customers from other brands in vehicle replacement process.

To sum up, the vehicle purchase restriction policy might cut local vehicle sale by half and the market shares of most Chinese-brands drop more although they were already quite low in those big cities before the policy. The effect of this policy on consumer choice is similar to the choice of replacement purchase, which is upgrading the budget. Despite of this fact, some Chinese-brands are survivals of this disaster as they have loyal customers and excellent products such as GWM and Changan.

#### ▪ Who are the next to be restricted?

What are the criteria underlying vehicle number restriction policy? I would say no absolute criteria are applicable to all cities because the conditions of different cities vary greatly. The classification of city territory has more political sense than practical sense such as Chongqing, which includes immense area of suburb. This makes it not comparable to Beijing in terms of road length when looking into the reasons for vehicle restriction. Since the reality is so complex, I estimate the possibilities of enforcement of vehicle restriction policy with a congestion index made of big data by a large map company. The ranks of congestion level are shown in order in Table 5.

**Table 5 Profile of most congested cities**

Congestion index rankings	Vehicle in use('0000)	Length of road (km)	Population('0000)	#Vehicles per 1000 residents	#Vehicles per km of road	Rushing hour delay index <sup>12</sup>
1.Beijing	532	21892	2152	247	24	2.056
2.Ji'nan	138	12846	707	195	11	2.039
3.Harbin	120	22534	987	122	5	1.989
4.Hangzhou	252	16024	889	283	16	1.984
5.Dalian	115	12454	594	194	9	1.907
6.Guangzhou	223	9219	1308	170	24	1.885
7.Shanghai	255	12945	2426	105	20	1.867
8.Shenzhen	311	1647	1078	288	189	1.863
9.Qingdao	132	16301	905	146	8	1.851
10.Chongqing	441	127392	2991	147	3	1.845
11.Kunming	153	17602	663	231	9	1.805
12.Wuhan	164	14520	1034	159	11	1.804
13.Zhengzhou	218	12209	938	232	18	1.803
14.Nanning	89	12800	730	122	7	1.785
15.Chengdu	336	22789	1443	233	15	1.767
16.Changsha	144	15830	731	197	9	1.765
17.Xi'an	180	13251	863	209	14	1.764
18.Hefei	98	17012	770	127	6	1.738
19.Fuzhou	223	12456	743	300	18	1.732
20.Tianjin	283	16549	1547	183	17	1.72

Note: The source of data is seen as “10.Data source of congested cities profile “in appendix

The compilation of this congestion index considers the average speed of traffic flows at rushing hours and ordinary hours in the downtowns of 45 big cities in China. The cities are ranked by delay index<sup>1</sup>. Beijing and Ji’nan spend traveling time on road at rushing hours as double as at ordinary hours. But Ji’nan and Harbin are tier-3 cities with much lower Vehicles per 1000 residents and Vehicles per km of road than Beijing. When comparing the cities (Shenzhen, Guangzhou, Shanghai and Beijing) already with vehicle restriction policy, they are not common in terms of these two dimensions of data, either. So the congestion index might be a simpler and more effective way to measure the possibilities of vehicle policy. Actually, the administrators of the cities above have clarified their attitude on vehicle restriction policy to the public because the citizens heard rumours about vehicle restriction. Ironically, the mayor of Shenzhen also made promise to the citizens but eventually it became the 6<sup>th</sup> cities in China imposing vehicle restriction policy.

In my views, Kunming, Zhengzhou, Chengdu, Xi’an and Fuzhou are more likely to be the next imposing vehicle restriction policy based on over 2 million Vehicles per 1000 residents and large amount of vehicles per km of road. The amount of new registered vehicles in those cities in 2014 was 228k, 370k, 506k, 292k, NA, respectively. If each of them grows at this speed, the vehicles owned per 1000 residents will exceed 300 in less than 5 year, which are much higher than any of the cities with vehicle restriction policy currently. I am convinced that the cities which are not municipality cannot sustain for such amount of vehicle in the city. So I anticipate that these cities will impose vehicle restriction one by one in next five years. If the amount of new registered vehicle is cut by half, then 150k units sale are lost annually on average.

## Long term factors – Macro profile didn’t predict well in the past but might do better in future

- Motorization rate<sup>2</sup> – rapidly growing but still at low level

China’s motorization rate is among the lowest in the world (104 vehicles owned per 1000 residents in 2014), ironically contrasted to the title of second largest economy. Upon such level, the growth path of motorization rate of South America (Figure 4) might shed light on China’s vehicle market in next 8 years as the current motorization rate of China is close to that of South America 10 years ago. Also, the GDP per capital of China as of 2014 was similar to that of South America 6 years ago. China’s current slowing GDP growth rate also finds similarity to South America

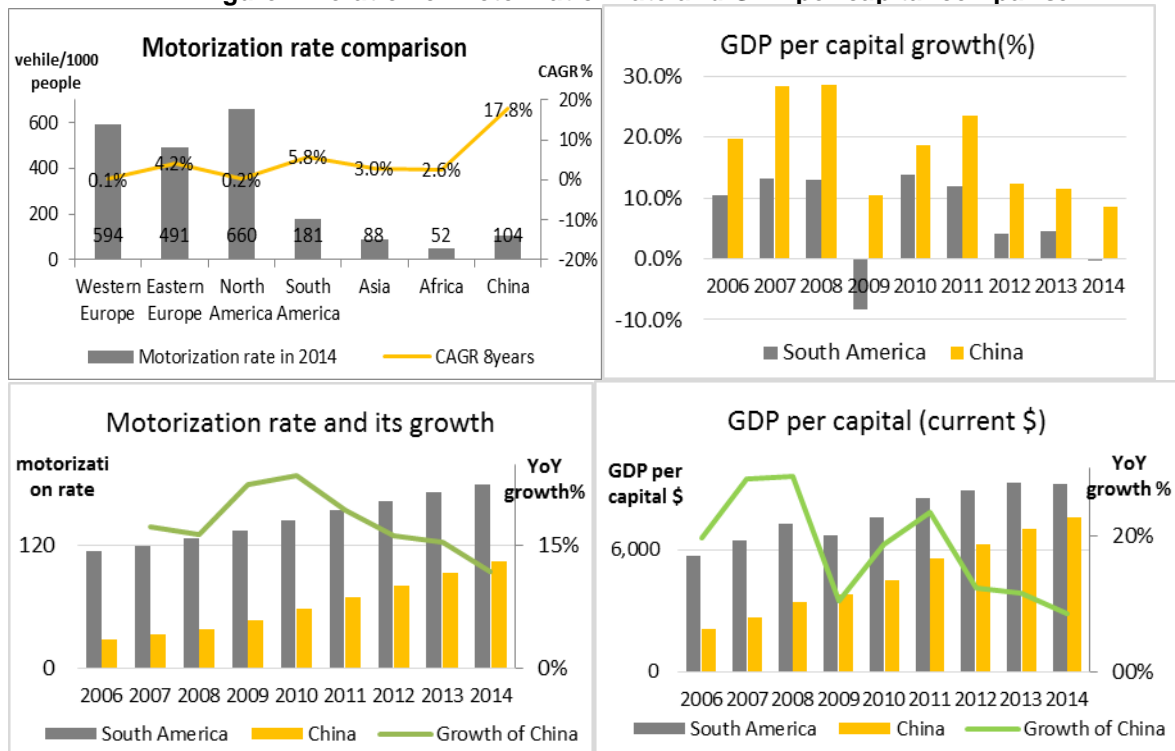
***China’s vehicle market is too far from saturation which is evidenced by the cases of developed economies such as Eastern Europe who still had 4.2% CAGR for the past 8 years. Due to vehicle restriction policy in tier-1 cities, the growth will be mainly sourced from tier-2 to 4 cities in future.***

<sup>1</sup> Delay index = Traveling time at rushing hours / Traveling time at ordinary hours

<sup>2</sup> Number of vehicles owned per 1000 residents

10 years ago. From 2011 to 2014, China's motorization growth seemed to closely follow the path of GDP per capital growth.

**Figure 4 Relation of Motorization rate and GDP per capital comparison**



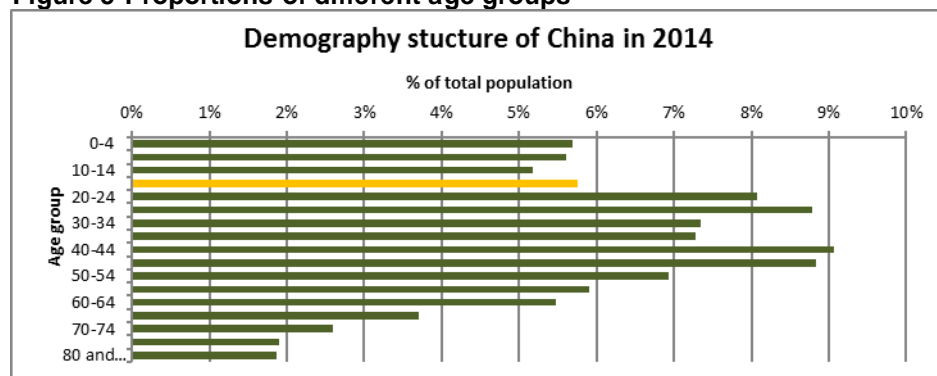
Source: OICA and World Bank by 2014

- Population cliff at young age group hurts Chinese-brands

**The population of under-20 age group dramatically contracts. This group is more likely to buy low-price vehicle given their low purchase power.**

The population of China has been stagnant for a long time thanks to the one-child policy. Although the latest policy allows some qualified people to have second child, the effect on demographic structure will only show up decade later. As such, new demand for vehicle would resort to the current change of demographic structure.

**Figure 5 Proportions of different age groups**



Source: Bureau of Statistics of China

When looking at the demographic structure (Figure 5) we would find a surprising contraction at the age of 20 by 25% compared to the older age groups. In the next 5 years the current 20-year-olds will make their primary purchase, which are mainly

**The population of under-20-year-old groups are 20% less than the older age groups because strict execution of one-child policy since early 1990s.**

lower-price ones given their low purchase power. So Chinese-brand producers should be alert to this population cliff as they mainly sell low-price products to the youngsters.

Hence I expect a reducing demand for lower-price vehicle in next five years in terms of this population cliff merely.

### Short term factors with uncertain effects

Besides the macro factors mentioned above, I also observe something shaping China’s auto market yet the impacts are not clear.

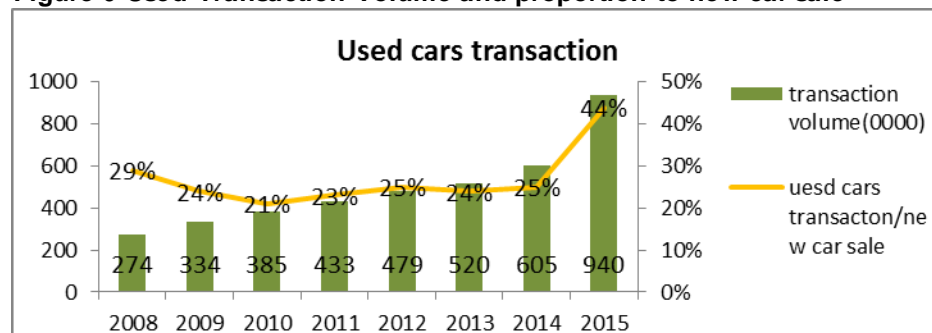
- Easing constraints on used cars market

***Some bigger cities, like Beijing, is imposing phase-VI standard ahead of other cities because of serious air pollution.***

Used cars market was suppressed as 95% of local governments prohibited used cars immigrating into their cities because the used cars cannot meet the emission requirements of local cities. However, the stricter phase-V emission standard is only carried out in some big cities in 2016 but they kept out the used cars by this reason a few years ago. The Central Government in Feb 2016 mandated that local governments should lift the prohibition on eligible used cars. This act will cause the cumulative stock of used cars to be released soon, making shock to new car sale. The transaction volume of used cars in 2015 was 9.4 million, that is 44% of new vehicle sale (Figure 6), much lower than 300% in the U.S. market. So I think the used cars transaction will continue the rapid growth in future.

Big cities like Beijing and Shanghai are largest sources of used cars while tier 3-4 cities are largest inflow destination. On one hand, the liquid used cars market would back the scrapped value of used cars, which ultimately encourages more frequent cars replacement in big cities. On the other hand, the main battle fields (tier 3-4 cities) of Chinese-brands will be eroded by the low-price used cars. According to CADA, the transaction volume of used cars ranging from 0 to 80k yuan, which is exactly the most concentrated price range of Chinese brands, accounts for 68% of total transactions in March 2016<sup>1</sup>.

**Figure 6 Used Transaction Volume and proportion to new car sale**



Source: CADA

<sup>1</sup> [http://www.cada.cn/Data/info\\_86\\_5354.html](http://www.cada.cn/Data/info_86_5354.html)

- The wave of vehicle replacement is coming

Used cars market closely relates to the wave of vehicle replacement. According to WAYS report, replacement cycle of vehicles in China is 6-7 year on average. Back to 2009 and 2010 (Figure 2) when the unprecedented sale records of 103.3 and 137.6 million PC were created along with the fever for SUV, a large wave of replacement is going to occur in 2016 and 2017. Since the YoY growths for these two years were 53% and 33% respectively, the replacement demand for the upcoming two years would also increase greatly. Thus more SUVs will appear in the used cars market, especially in the tier-2 to 4 cities market given the effect of easing of used cars circulation mentioned in last paragraph. Since the tier-2 to 4 cities are main battle field of Chinese-brands<sup>1</sup>, Chinese-brands' SUV might be hit by this wave.

***Compared to Chinese-brands product in same class, Joint-Ventures brands are more expensive because the brand value of Chinese-brands is not built up yet.***

By the way, several consumer surveys unanimously concluded that over 50% of vehicle owners would choose SUV as replacement choice. Chinese consumers tend to upgrade their budget for replacement choice so Joint-Venture SUV might hold high speed growth in next two years.

- Car sharing service brings uncertainty to vehicle market

Represented by Uber and Lyft in the U.S., and DIDI in China, car sharing service is explosively growing. On one hand, it will weaken people's desire for owning private vehicles. BCG estimated a loss of 550,000 new cars sale in the globe incurred by car sharing service by 2021. In China, the daily orders for car sharing service reached 630,000 in Dec 2015. Another survey by Magid Advisors said 22% of interviewees in the U.S. delayed new car purchase due to Uber's service. On the other hand, low-price vehicle sale might benefit as some people are intending to buy economic cars to become full-time Uber drivers. In view of vehicle purchase restriction policy together with the increasing usage cost of vehicles, car sharing service will certainly become a compromising solution for residents in big cities so the desire for owning vehicle will be partly marginalized. Paradoxically, this trend will currently impact neither the tier-1 cities nor the tier 2-3 cities as the immature car sharing service are not able to completely replace the desire of owing a car. So currently this trend will not significantly impact China's vehicle sale, in my views.

***Actually the tier-1 cities are immune to any factors because the demand far exceeds the quota of new registered vehicle.***

- Credit purchase is prevailing among the youngsters

The younger generation growing up in the age of Internet shows distinct perception of consumption from their parents who are inclined to cash purchase.

<sup>1</sup> The reason could be seen in the discussion on the previous section Vehicle Purchase Restriction Policy.

Affordability is the main setback for the 25-years-olds to purchase vehicle. Credit purchase would solve affordability problem for youngsters, probably making the average age of primary purchaser younger. As shown in Figure 5 in the previous section, the 20-24 year-old group accounts for 8% of the 1.4 billion populations, say 112 million. If the population of the 20-24 age group is evenly distributed, then each age level represents 22.4 million populations. If the credit purchase trend is able to drag down the average age of purchasers by 1 year, then the extra 22.4 million young people will be added to the list of potential buyers of the vehicle dealers. But credit purchase trend could not penetrate into young consumer group immediately. If it needs to take 4 years to drag down the average age of purchasers by 1 year, then the incremental sale contributed by credit purchase penetration is around 5.6 million (= 22.4million / 4years) annually.

***Japan is a highly-developed society with more commons in culture with China than other western countries. Credit purchase behaviour is highly dependent on cultural aspect. So Japan's penetration rate could give hint on China's.***

The penetration rate of vehicle credit purchase in developed countries are 50% for Japan, 65% for Germany and 84% for the U.S. respectively, while only 27% for China in 2015(Deloitte's report). The CAGR of total asset of auto finance companies in China over 2007-2014 was 42%. With such rapid growth momentum, I expect the penetration rate would approach to the Asian neighbour, Japan, say 50%.

### Summary of China's general PC market

To sum up the factors impacting China's total PC market, I list the effect of each factor in Table 6.

**Table 6 Long and Short term factors affecting China's PC market in general**

Factors	Short-term impact	Long-term impact
Purchase tax reduction policy	+++	
Vehicle restriction policy	-	-
Motorization rate		+
Demography- young age cliff	-	-
Used cars segment booming		<b>Uncertain</b>
Wave of vehicle replacement	+	
Car sharing service	<b>Neutral</b>	
Credit purchase trend	+	+
China's downward GDP trend		-

In general, I give higher expectation on the recent future than in long-run.

In the short-run, the downside risk comes from vehicle restriction policy which might bring 150k units loss annually. The upside risks are primarily the stimulating effect of purchase tax reduction and then the wave of vehicle replacement incurred by the crazy boom in 2009 and 2010. I anticipate that the effect of vehicle replacement would appear in slack season, say Q2 and Q3 because the replacement purchasers

are more rational and not restricted to the vehicle quota<sup>1</sup>. Thus they could wait till the slack season for lower prices<sup>2</sup>. So I expect higher growth rate than last year.

In the long-run, the motorization growth rate would follow the slowing GDP growth rate somehow as was shown for recent four years. Also, South America’s motorization rate growth path (CAGR of 5.8%) gives hints on China’s but I would adjust China’s figure higher to offset the impact of global financial crisis on South America. The prosperity of auto finance industry will also give incentive to the young purchasers, more or less offsetting the negative impact of population cliff. Regarding the downside risk, vehicle restriction policy might not significant as it accounts for less than 1% of sale upon my assumptions.

## Segments and brands overview

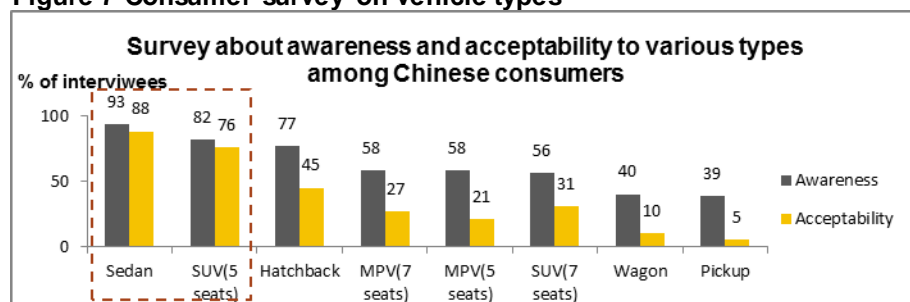
In this section, I only analyse two types of PCs , the SUV and sedan, as they are the main products of GWM. In terms of price range and consumers’ perception, vehicles could be classified in another way – Chinese-brand and Joint-Ventures brand. Foreign manufacturers are not allowed to produce in China unless they establish joint ventures with Chinese local auto group with share no more than 50%.

### A trendy fashion of SUV in China

**SUV segment has kept above 45% growth for past three years while sedan segment just saw negative growth in 2015 and for the Q1 2016.**

Different countries have different preference for vehicle types, e.g. wagon and hatchback for European, pickup for the American and Thailand, and minivan for Japan. Complex reasons underlie the variation of preference. In light of Nielsen’s consumer report in 2015(Figure 7), sedan remains the most aware and acceptable type of vehicle among Chinese consumers, then followed by SUV.

**Figure 7 Consumer survey on vehicle types**



Source: Nielsen report 2015

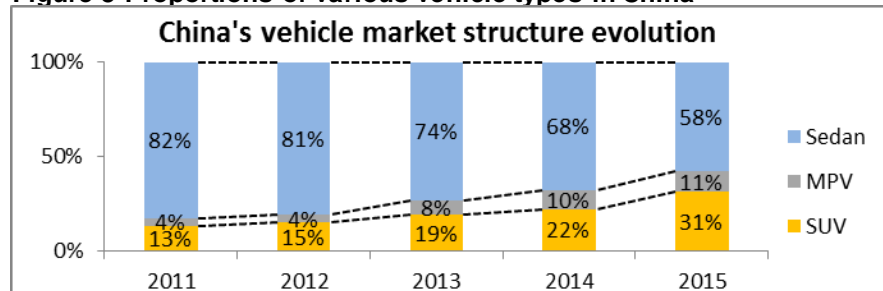
Notwithstanding, the golden period of sedan has gone. Sedan segment growth was below the market average since 2011 and was then negative in 2015 (Figure 9). By contrast, the market share of SUV soared from 13% to 31% for the past five years

<sup>1</sup> Usually the primary purchasers buy the car after they get the quota from the lottery and auction process. But replacement purchasers could buy the cars whenever they want.

<sup>2</sup> The peak seasons are Q1 and Q4, more accurately, from October to January, just before the Spring Festival in February.

(Figure 8) with YoY growth of 52% in 2015. Particularly, Chinese brands benefit most from SUV segment where they had 79% (Industry is 52%) of sale growth last year and occupied 54% of SUV market against the Joint-Ventures. Due to loss in sedan segment, Chinese-brands almost bet on SUV segment. In 2016, 128 new models are to be released by Chinese brands, of which 51% are SUV<sup>1</sup>. When looking at the light truck taking 57% market share in the U.S. and 59% of minicar in Japan, it makes sense to predict that SUV would take over 50% of total passenger vehicles sale in China ultimately (31% in 2015). This could be partly explained by cultural preference.

**Figure 8 Proportions of various vehicle types in China**



### Sedan segment is being conquered by Joint-Venture

**While losing the sedan market, Chinese-brands are gaining market shares in SUV and NEV segments.**

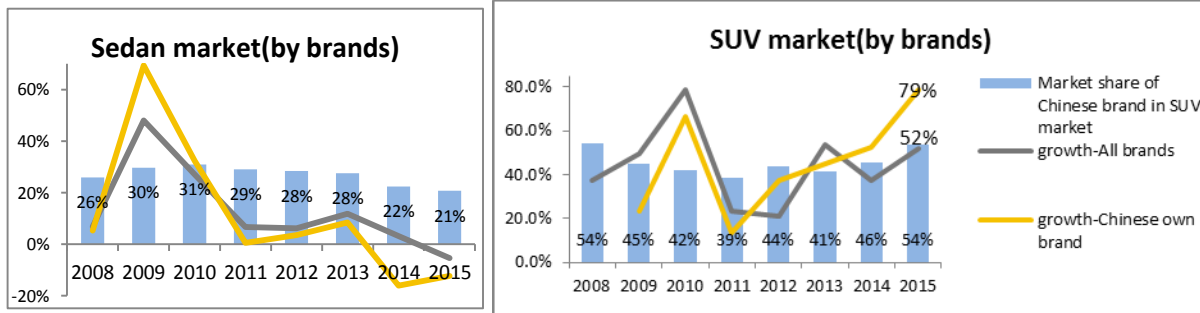
Joint-Ventures overinvested in production capacity in the past. The unexpected decay of sedan segment caused overstock pressure. Thereby Joint-Ventures brands reduced sedan prices, giving rise to domino effect on Chinese-brands. Take Honda as an example, the MSRP<sup>2</sup> of Accord has reduced by 20% since 2007. Along with disposable income increase, consumers upgraded their requirement for vehicles so they discarded the Chinese-brands that are considered low quality as well as low price. As a result, the market share of Chinese-brands in sedan segment dramatically slumped to 21% in 2015 (Figure 9).

**In the past, Chery, Geely established separate brands to position at high-end segment but those brands don't exist now. GWM also made such attempt with the high-end SUV H8 and H9 and invested immense resources in them, but also ended up with 3-digit sale per month. The leader of GWM admitted GWM still lacking brand value now.**

Price war is sprawling over traditional sedan segment. Upon a wide range of observations, RMB 150k is a critical price ceiling to Chinese-brands vehicles because several bloody cases of Chinese-brands have shown that any attempt to break this boundary to compete with joint venture would end up with fail. That's the reason why all of Chinese-brands are concentrating in the price range of RMB 60k to 150k. When analysing the sale list of top 40 models in 2015, we could find 13 Chinese brands, among which 12 have MSRP (lowest limit) lower than RMB 100k. The best-selling models of joint ventures spanned evenly across price ranges.

<sup>1</sup> Source: [http://auto.new.s18a.com/news/stories\\_85514.html](http://auto.new.s18a.com/news/stories_85514.html)  
<sup>2</sup> MSRP is short for Manufacturer Suggested Retail Price

Figure 9 Joint-Ventures v.s. Chinese-brands in sedan and SUV segments



Source: CPCA, MIT and Gasgoo

### Where will the Chinese-brand lead to?

The issues affecting the SUV segment and the Chinese-brands discussed in the previous chapters are recapped in Table 7.

Table 7 Factors affecting vehicle types and brands in China

Factors	SUV		Sedan	
	Chinese	JV	Chinese	JV
Cultural and aesthetic preference	++	++	-	-
Price pressure from JV			---	
New energy vehicle policy	+	-	+++	-
Vehicle restriction policy	--	++	---	-
Lifting prohibition of used cars circulation			--	-
Wave of vehicle replacement	+	++	--	-

**The government only subsidise Chinese-brands' NEV, and the subsidies take almost half of the NEV price, making it available for consumers. In 2015, 331k NEVs were sold in China. Chinese-brands are expected to hold 70% of NEV market by 2020.**

Despite of frustration with traditional sedan segment, Chinese-brands' general market share rose from 38% in 2014 to 41% in 2015, attributable to the several points. The first is consumers' fever for SUV which made Chinese-brands hold 8 seats of top -10-selling SUV in Feb 2016. Then is followed by the trendy NEV supported greatly by government. The Chinese-brand regained market in tier-1 cities owing to NEVs (Figure 3). NEV sale is targeted at 2 million by 2020 by government, of which NEV sedan accounts for over half. The third good news comes from the supply side revolution mentioned in the 13th five year plan of government in order to reduce waste of production capacity of the industry. The government planned to phase out small auto producers in order to make the big ones bigger. Last but not the least, Chinese-brands are hopefully reinforcing their position in tier 4-5 cities where 51% of vehicles are sold in 2015, increased by 3% from 2014, reported by Rolandberger. The vehicle sale within price range of RMB 80k to 120k accounted 49% of total vehicle sale in 2015 in contrast to 32% in 2014. The lower-tier cities are the fastest growing points in future.

**For Q1 2016, Chinese-brands accounted for 58% of SUV segment, but only 19% of sedan segment. The general sedan segment contracted by 9.5% while the SUV segment increased by 52%.**

But more downside risks are counteracting the bullish news to Chinese-brands. The first is policy of vehicle restriction, which could rule out 50% of market share of Chinese brands in the cases of Beijing and Tianjin. The second is the upcoming wave of vehicle replacement in tier 2-4 cities in which most consumers are inclined to upgrade their choices for Joint-Venture brands. Thirdly, the cumulative stock of used cars to be released in lower-tier cities in near future might do harm to Chinese-

brand SUVs. In addition, given that Joint-Ventures have conquered the sedan segment with downward pricing strategy, I am concerned that the same approach will be applied to SUV segment in next few years.

To sum up, SUV will keep hot in next 3 years and might be able to grow to 50% of general PC market share. But Chinese-brands' share in SUV segment will grow at first few years and then eroded by Joint-Ventures. Undoubtedly, Chinese-brands will carry on losing sedan market but the contracting momentum will be slower owing to the bullish NEV segment.

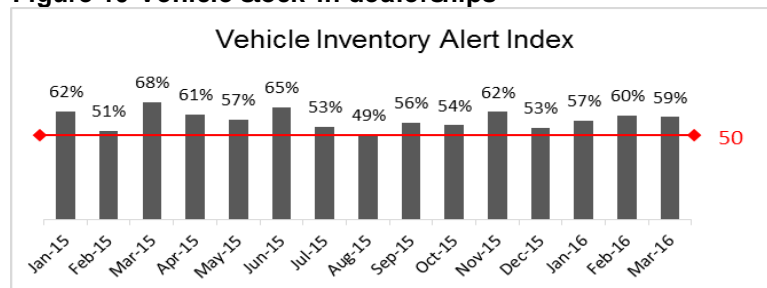
## Competitors and products analysis

The 180 auto manufacturers in China could be divided in to two groups, Chinese-brands and Joint-Ventures, in line with consumer perception. No Chinese-brand is able to directly compete with Joint-Ventures yet. So GWM's rivals are mainly Chinese-brands. Actually we could subdivide the Chinese-brands group into two – the ones with independent R&D capability and the ones only relying on imitation. Those who are able to price their cars above RMB 100k are main rivals to GWM such as Geely, Changan and GAC. All of them are going to launch complete product lines to compete with GWM in each SUV segments.

### Rapid expansion of production capacity

Due to the downside of China's economy growth, vehicle dealers in China are facing great pressure of stock. Suppose that the stock of PC, computed by production minus sale, started to accumulate since 2007, the cumulative stock increased to 600,000 units in 2015. Seeing the pressure of overstock, producers slowed down production in 2015, making a sale/production ratio of 100.3%. But the inventory level (Figure 10) still exceeded the alert level of 50% for a long time.

**Figure 10 Vehicle stock in dealerships**



Source: CADA (China Automobile Dealers Association)

Overstock pressure will lead to inadequate utilisation of production capacity.

According to the State Information Centre, the total production capacity in 2015 is at least 32.5 million units while the actual production volume was 21.08 million which means utilisation rate of production capacity is less than 65%. Usually the sale

*The relationship between manufacturers and dealers is very stressful partly because of overstock pressure. Lots of dealers barely made positive profit in 2015. But GWM dealt well with its dealers who made considerable profits.*

target has to ensure breakeven profit. So the inability to complete sale target might incur concern on profitability. Table 8 arranged by Gasgoo displays the completion rate of sale target of the main manufacturers. Only 9 of them complete their sale target, indicating that the rest of them might have overestimated market growth and thereby might have overinvested in production facilities.

**Table 8 Sale target completion of main automobile manufacturers**

Rank	Manufacturer	Target sale('0000units) 2015	Actual sale('0000units) 2015	Target completion rate(%)
1	Changan	75	93.8	125.1%
2	Geely	45	54.3	120.7%
3	GAC Motor	16	19	118.8%
4	JAC	30	34.6	115.3%
5	Honda-GAC	52	58	111.5%
6	Kia-Dongfeng	60	61.6	102.7%
7	Wuling-GM&SAIC	200	204	102.0%
8	Greatw all Motor	85	85.3	100.4%
9	Nissan-Dongfeng	100	100	100.0%
10	Toyota-FAW	61	60.7	99.5%
11	VW-SAIC	190	180.6	95.1%
12	Hyundai-BAIC	116	106.3	91.6%
13	GM-SAIC	190	172.5	90.8%
14	VW-FAW	185	165	89.2%
15	Citroen	80	70.5	88.1%
16	Ford-Changan	100	86.9	86.9%
17	Honda-Dongfeng	50	40.6	81.2%
18	Suzuki-Changan	21	12	57.1%

Source: Gasgoo

In this table, GWM's main rivals<sup>1</sup> have overused the capacity because demand over supply. So they all have ambitious expansion plan in future. The current sale and production capacity of GWM are 850k and 950k, respectively, so the utilisation rate is 90%. The factory of GWM in Tianjin producing the star products -H6 and H2- has been utilised by 117% while the new factory in Xushui producing premium cars is utilised by 65.8% only. The second and third Xushui factory will be put into use in 2016 and 2017 consecutively, adding to production capacity by 200k units. Table 6 below shows the current and planned sale of some important Chinese-brand groups. In 2015, GAC, Geely and Changan were obviously limited by production capacity. But all of them have been expanding production capacity aggressively by constructing new factories. With more production capacity of the main rivals unleashing gradually in future, GWM's market share will be eroded.

**Table 9 Planned sale by 2020 v.s. sale by 2015**

(0000 units)	Planned Sale (2020)	Market share(2020)	Current Sale(2015)	Market share (2015)
GAC Motor	100	8%	21	3%
Geely	100	8%	51	8%
BAIC	150	12%	66	10%
BYD	100	8%	32	5%
Dongfeng	100	8%	78	12%
Changan	150	12%	101	16%
Greatw all	115	9%	85	14%
SAIC	100	8%	17	3%
FAW	200	16%	38	6%
Chery	150	12%	48	8%

*The data is collected from the manufacturers' 13<sup>th</sup> five-year-plan announcement. Based on this planned sale, GWM's market share will contract to 9% by 2020.*

<sup>1</sup> Hereafter the main rivals mean Changan, Geely and GAC.

JAC	N/A	N/A	35	6%
Brilliance	N/A	N/A	57	9%
Total	1265	100%	629	100%

Source: company announcement (not included new energy sale in 2020)

### Unbalanced product structure of GWM

GWM commenced its business by producing pickup truck and then expanded to SUV segment in early 2000s. Although the involvement in sedan segment in 2008 brought couples of years' growth to GWM, this segment is shrinking recently. GWM is deemed as a leader in SUV segment among Chinese peers. So the management of GWM adopted a "Focus on SUV" strategy by concentrating the group's resources to SUV segment to elevate competitiveness. Now GWM has the most complete product lines for each SUV segment compared to its rivals<sup>1</sup>. In 2015, SUV contributed 82% to total sale volume of GWM (Figure 11). This strategy proves to be able to elevate resources utilisation rate and hence profit margin.

However, the company is excessively relying on two models. The pie charts (Figure 12) show that two SUV models, H6 and H2, were gaining importance to the group for recent two years and they took 85% of total sale in Feb 2016.

Figure 11 Proportional sale of various vehicle types of GWM

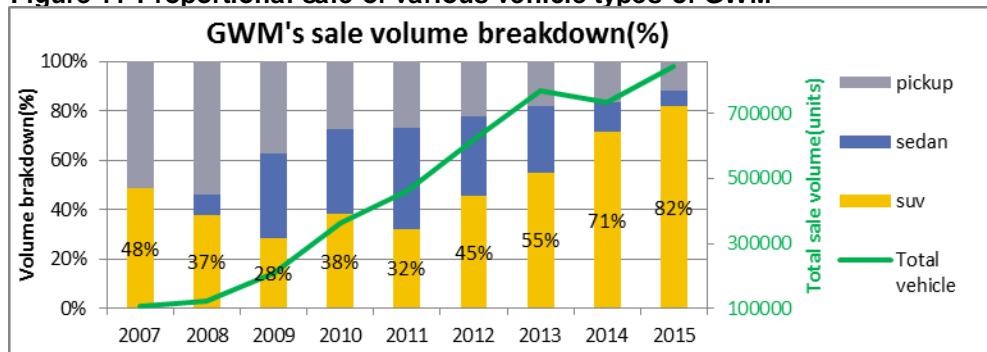
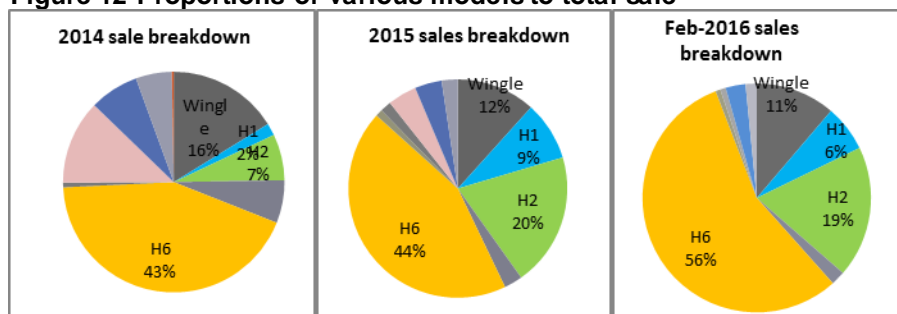


Figure 12 Proportions of various models to total sale



Source: Company annual reports and announcements

- Haval H6<sup>2</sup> keeps competitiveness by cutting price

Since its launch in 2011, H6 has secured the sale championship in SUV segment for consecutive 36 months with peak monthly sale of 46,057 units in Mar 2016.

<sup>1</sup> See in appendix "7.GWM Product Lines Display"

<sup>2</sup> Haval is a subsidiary brand specialised for SUV, split off by GWM in 2011

***GWM excessively relies on a single product-Haval H6, which is also one of the two products with positive growth in Q1 2016.***

Majority of potential Chinese-brands customers are primary vehicle purchasers so they attach much value to the opinions of acquaintance. The long-lasting championship title enables Haval H6 to capture this group of customers while no advertisement is needed. This was the success factor of H6 in the past.

***Annual production capacity of CS75 will reach 200k units in near future, announced by Changan.***

But recently, the SUV segment had a lot of participants. The H6, CS75 and GS4 together accounted for 22.5% sale of all Chinese-brand SUVs in Feb 2016. As seen in Figure13, their movements are highly parallel, which means they are affected by common market shocks. Alternatively, they are comparable products for consumers.

The earliest rival against H6 was Changan CS75, a product with spacious room and comparable power. Its outstanding design<sup>1</sup> soon caught consumers' eyes. But CS75's production capacity was always short of demand.

***Total production capacity of GAC could climb up to 350k units in the end of 2016. For Q1 2016, GS4 accounted for over 90% of GAC's group sale. So the production capacity of GS4 is around 250k units in 2016.***

The stronger rival, GAC GS4, came later but soon climbed up to top 2 SUV ranking list among all competitors in Apr 2016. GS4 is slightly smaller than H6 but has the best powertrain system among Chinese-brands balancing sufficient power and fuel efficiency. But the weakness GAC lies in its sale network, which is not paralleled to that of GWM and Changan in lower-tier cities. Also, like Changan CS75, the production capacity of GAC limits GS4's growth.

***Total production capacity of Boyue could reach 240k units but it could be only delivered to customers two months later. So the sale should be no more than 200k units.***

Geely Boyue might be a nightmare to all Chinese-brands because it is spoken highly by all media as it represents the highest level of Chinese-brand SUV. As reported by Gasgoo, the orders for Boyue have exceeded 28k units before the price was announced. Geely spent 4 years and lots of resources on this product and thus made success in every aspect such as marketing, brand value, product quality. More importantly, it has a very competitive price. But again, production capacity and distribution network are the limitations to Geely. Geely is busy with integrating its distribution network and its brands, which might impede the sale in short-run.

**Table 10 Haval H6 V.S. its rivals**

	Haval H6	Changan CS75	GAC GS4	Geely Boyue
MSRP(0000 yuan)	8.88 -16.28	9.28 – 15.78	9.98 – 15.38	9.88-15.78
Dimension(mm)	4649*1852*1710	4650*1850*1695	4510*1852*1677	4519*1831*1694
Displacement(L)	1.3T/1.5T/2.0TDI	2.0L/1.8T	1.3T/1.5T	1.8T/2.0L
Power(kw)	110	116/130	101/112	135/104
Transmission	6AT/6MT	6MT/Tiptronic	5MT/7DCT	6AT/6MT
Launch time	2011/2013(midterm version)	Mar2014	May 2015	Apr 2016

Source: yiche.com

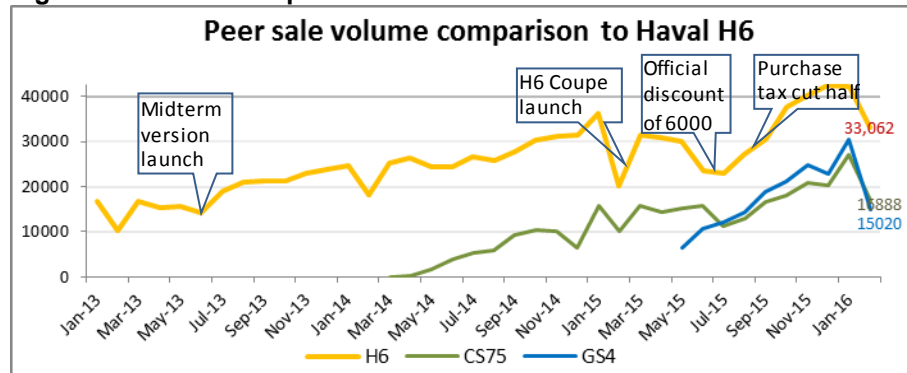
***GWM established its business with pickup truck initially, which laid out an outstanding distribution network in lower-tier cities.***

Feeling pressure from the strong rivals, GWM keeps competitiveness of H6 by two ways. The first is keeping novelty. GWM released a modified version of H6 in 2013 and then a whole new version H6 Coupe in 2015. The second is price reduction. Haval H6 did not reduce price in the past but did so frequently in recent year. The recent one in Apr 2016 is the strongest, with ca 12% discount on price. These

<sup>1</sup> CS75 was designed by the team in Changan's R&D centre in Europe.

measures bear fruitful results as H6 contributed 56% to total sale of GWM and kept 50% YoY growth In Feb 2016. But price reduction will do great harm to company's gross margin rate. In general, I believe Haval H6 will continue to lead the market with its strengths: mature distribution network and high performance-to-price ratio.

Figure 13 H6 and competitors sale evolutions



Source: leftlane.com

- Haval H2 was unable to replicate the legend of H6

*The No.2 product of GWM family underperformed the group's expectation. Perhaps the upcoming blue-logo version will make a difference.*

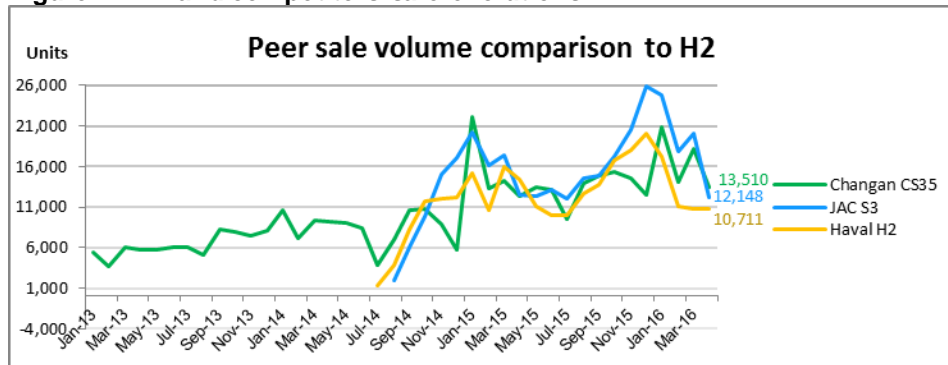
Unlike its brother H6, H2 is classified as small SUV in terms of dimensions. Due to the big success of H6, GWM transplanted the front face of H6 to H2 in order to ensure acceptability of H2's exterior. GWM defines H2 as "Boutique SUV" with a higher price range than its Chinese-brand rivals of same class.

Table 11 Haval H2 V.S. its rivals

	Haval H2	Changan CS35	JAC S3	Geely Emgrand GS
MSRP(0000 yuan)	8.88-12.88	7.89-9.69	6.58-8.88	7.78-10.88
Dimension(mm)	4335*1814*1695	4160*1810*1670	4325*1765*1625	4440*1833*1560
Displacement(L)	1.5T	1.6L/1.5T	1.5L	1.8L/1.3T
Power(kw)	110	92/115	83	98 / 95
Transmission	6AT/6MT	5MT/Tiptronic	6MT/CVT	6MT/ 6DCT
Launch time	2014 Jul	2012 Oct	2014 Aug	2016 May

Source: yiche.com

Figure 14 H2 and competitors sale evolutions



Source: leftlane.com

*The No.2 product of GWM family underperformed the group's expectation. Perhaps the upcoming blue-logo version will make a difference.*

Those three products in Figure 14 are top sale models of in the class of small SUV. The price and dimensions of H2 made its sale record embarrassed because the potential customers could have chosen the compact-class SUV such as Haval H6 and GAC GS4, or smaller-class SUV such as Changan CS35 and JAC S3. With

richer configuration, better quality and larger dimensions, H2 actually targets at a niche segment differentiating itself from both other cheaper Chinese-brands and the expensive Joint-Ventures. So H2's sale movement was not paralleled with its rivals shown in Figure 14.

But the upcoming Geely Emgrand GS might mainly aim at Haval H2 as it has larger dimensions, nicer design and lower price. Emgrand GS also identified itself as "Boutique SUV", aiming at the young consumers group exactly the same as H2. But annual production capacity of Emgrand GS is limited at 100k units while H2 has sufficient production capacity as GWM assigned part of production of H2 to the Xushui factory.

***The Baoding factory is overloaded with production of H6 and H2. But the new Xushui factory still has 35% capacity left.***

Again, GWM used the same measures to maintain H2's competitiveness. The MSRP of H2 is reduced by 10k yuan in May 2016, ca 10% reduction. Moreover, a "Blue-logo" version of H2 is going to release to the market in 2016 to increase the novelty of product. Given the -6.4% YoY growth of H2 for Q1 2016, I conservatively anticipate that H2 could hold the same sale as last year.

- **Haval H1 will not bring us surprise**

As the smallest-sized SUV, H1 ranks the 3rd in GWM family with 9% contribution to total sale of GWM. The price range of H1 (see in Table 12) puts it in the fiercest field where lots of inferior Chinese-brands concentrate in price range of RMB 50k to 100k. For the consumers in this price range, price is superior. Baojun is a typical example of price killer. This manufacturer used to produce low-priced minivans and then derived a compact SUV priced from RMB 70k to 90k with large dimensions paralleled to Haval H6. The sale of soon climbed up to the 3rd of all SUV in China, over 22k units per month. The gross margin rate of this manufacturer in 2015 was 11% in contrast to 22% of GWM (Table 1).

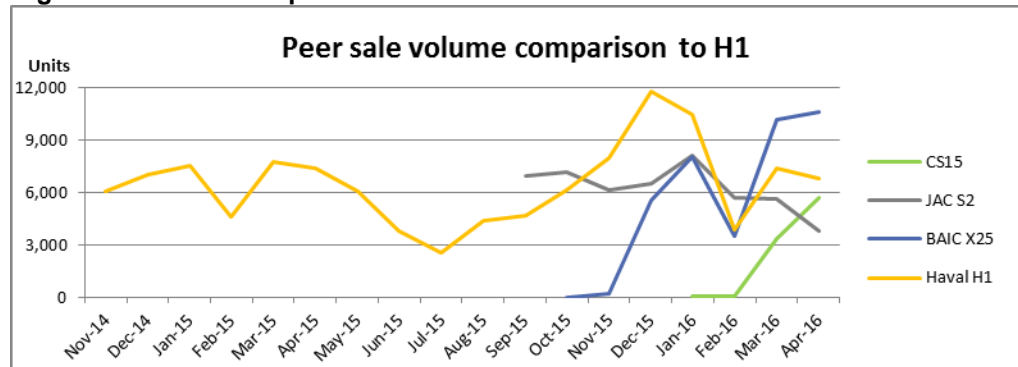
Compared to the rivals, Haval H1 doesn't have advantage in price and powertrain and has a very small dimension. So H1 differentiates at the design targeting at young people who adore fashionable things. But a new rival, CS15 of Changan, seems to do better in this respect as it allows people to customise the colour of exterior and interior, addressing the very characteristics of young consumers. Since the competitors are so much in this range that none can affect this segment, I think H1 is not exposed to significant upside or downside risks. So I maintain the forecast sale volume to current level.

**Table 12 Haval H1 V.S. its rivals**

	Haval H1	Changan CS15	JAC S2	BAIC X25
MSRP(0000 yuan)	5.49-8.29	5.79-7.39	5.88-7.68	5.58-7.58
Dimension(mm)	3995*1728*1617	4100*1740*1635	4135*1750*1550	4110*1750*1545
Displacement(L)	1.5L	1.5L	1.5L	1.5L/1.3T
Power(kw)	78	78	83	85
Transmission	5MT/6AMT	5MT	5MT/CVT	5MT/ 4AT

Launch time	2014 Nov	2016 Feb	2015 Sep	2015 Oct
Source:	yiche.com			

Figure 15 H1 and competitors sale evolutions



Source: leftlane.com

- Can Haval H7 become the hope of GWM?

**The 7-seat SUV segment at price range of RMB 100k to 200k is a blue ocean. Highlander is the benchmark of 7-seat SUV in this class.**

The most eye-catching product of GWM is the high-end SUV H7 in April 2016. It is the first 7-seat mid-sized SUV of GWM with cool exterior and fine quality. The 5-seat version starts at RMB 150k so the 7-seat version to be launched in 2017 would start at 165k, around 80k RMB lower than Highlander of Toyota. The leader of GWM announced the expected sale of H7 to be 5000 units per month.

Currently there are no mid-sized SUV in this price range whereas GAC and Changan have displayed their rivalry products in the recent Beijing Auto Exhibition. So GWM's H7 is launched only a few months ahead of the rivals. H7 has nice exterior appearance, adequate power, rich configurations, and the quality makes it eligible to compete with Joint-Venture brands. However, its brothers, H8 and H9, also possess such characteristics but didn't get the expected sale. Brand value is still a weakness of GWM. It will still take time for consumers to accept an expensive Chinese-brand product. Referring to Highlander's sale of ca 8k unit per month, I find the 5k sale target plausible.

- Pickup trucks segment would recover

Pickup trucks occupy top 3 vehicle sale in the U.S. for years whereas this segment only accounts for less than 2% total PC sale in China. But both countries share one common fact that Ford 150 has been No.1 in American pickup segment for consecutive 35 years, meanwhile GWM's pickup Wingle has also been No.1 in China for 18 years.

**Two obstacles to pickup industry: stereotype perception of consumers and policy.**

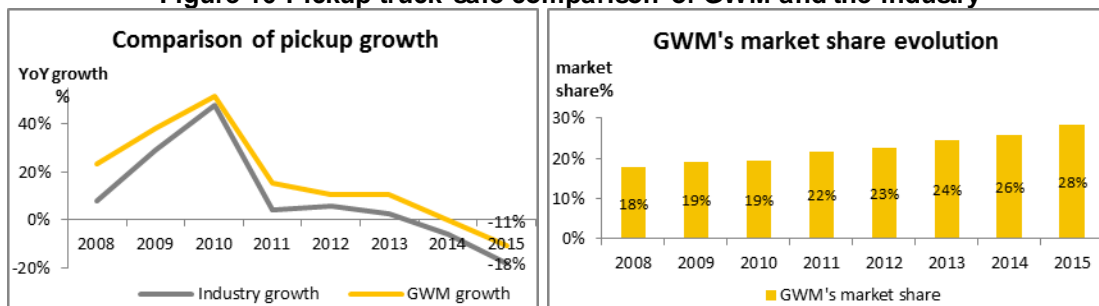
When compared to the 13% of pickup sale against total PC sale in the U.S., China's 2% figure implies that the natural demand for pickup was suppressed by some factors. The primary factor is stereotype perception, which is not easily changed in short run. Most Chinese firmly associate pickup with farmers and even name it as farmer vehicle with some sense of disdain. Besides, governmental policy which

classifies pickup into light truck has prohibited pickups' entry into cities. Also, government adds higher tax and use cost on pickups with this classification. Consequently, it paves way for minivans which could be used for commercial and private purpose but classified as private cars. The Wuling Hongguang minivan has been the champion among all vehicles in China for consecutive two years with annual sale of 760,000 units in 2014, nearly double of the second players.

But positive news about this industry appeared more often recently. Several provinces are allowing pickup truck to enter into cities. But it would take long time to see the effect. In addition, government abolished 9 companies' licenses for pickup production in March 2016. The market share will be more concentrated in several big players. As a result, GWM's market share for the Q1 2016 increased to 33%.

The growth rate of pickups sale reached peak in 2010 and then even became negative in recent two years. But the YoY growth for the 1st season of 2016 narrowed down to -9.3% which shows sign of recovering. As GWM's market share keeps steadily rising year by year, I expect GWM to keep this momentum with market share fluctuating between 30%-33%.

**Figure 16 Pickup truck sale comparison of GWM and the industry**



Source: company files (not included new energy sale in 2020)

- **NEV is the only hope to save GWM's sedan segment**

The whole sedan segment is slowing down due to the fascination for SUV. Chinese-brands' market share plummets more owing to price pressure from Joint-Ventures. GWM's "Focus on SUV" strategy implies less investment and thus less renovation in sedan. Sedan sale accounted for 6% of GWM's total sale in 2015, slumped from 40.5% in 2011. So I think it possible that the sedan product line of GWM might discontinue unless the NEV sedan is available for full-scale production.

However, GWM's NEV project didn't progress well. In July 2015, GWM announced to raise 16.8 billion yuan, of which 4 billion for NEV production facilities, 1 billion for battery and 10.1 billion for R&D. Subsequently, GWM adjusted the amount down to 12 billion as stock price fell below the intended issuing price. The price in 2016 frustrated GWM again so it announced to abandon equity funding. In my views, the production facilities for transmission system and battery will resume construction as

schedule because these projects could generate foreseeable profits and they take long time to complete. Actually, these projects are already in progress. By contrast, the investment in R&D will be cut down, subject to the availability of fund. The amount needed to invest in physical production facilities is 6.7 billion yuan expected to amortise for three years. Since the external funding source is limited, the budget for R&D will be tighter. So I expect the following consequences of this event.

- Entering NEV segment later as other opponents already launched mature NEV products currently but GWM didn't build up necessary facilities yet
- Might break the debt-free record as it fails to get fund from equity market
- Competitiveness of traditional products is impaired as R&D being cut down

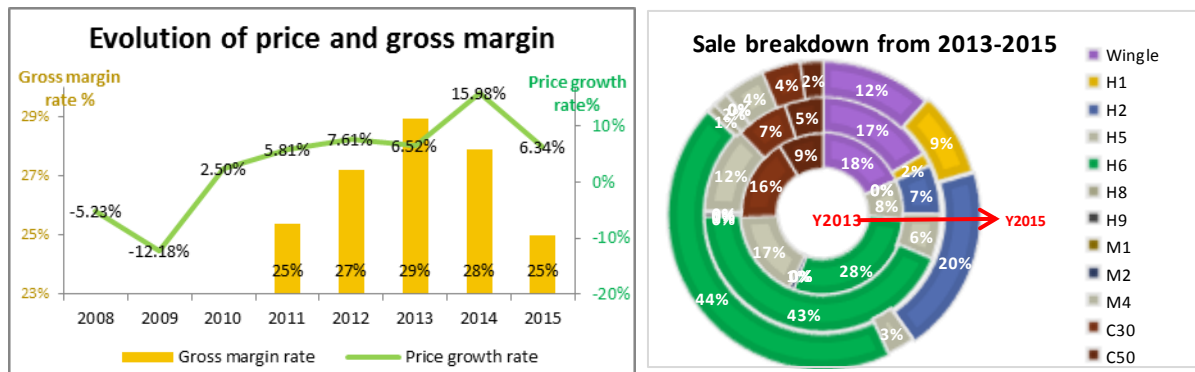
## Profitability analysis

### Deterioration of price and gross margin

**Frequent price discounts on H6 would be disastrous to the group's gross margin**

Two things directly affect GWM's average vehicle price - MSRP and composition of vehicle sale. From Jul 2015 to Apr 2016, GWM made three consecutive discounts on H6 to maintain high growth at the end of H6's life cycle. The largest one was a cash discount of around 12% for some H6 versions. Given that H6 accounts for over 50% of sale volume of GWM, I expect the discount would drag down the price growth by 3% to 4%.

Figure 17 Reasons behind the dropping gross margin



Source: company files and announcements

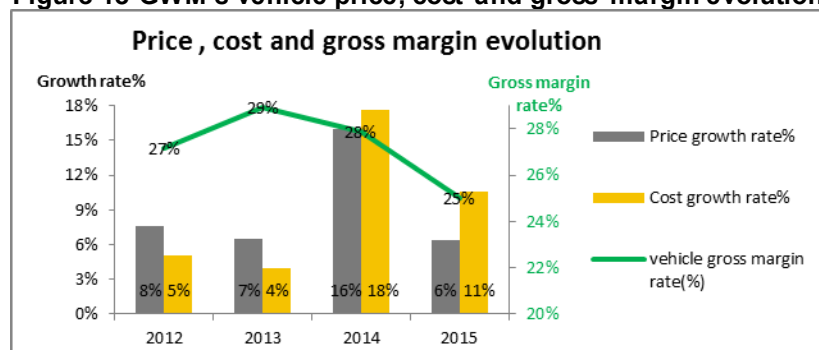
Looking at the sale breakdown chart (Figure 17 on the right) we would find the reason why year 2014 had clear price increase. From inner to outer of the circles, namely from 2013 to 2015, the green (H6), blue (H2) and yellow (H1) increased significantly while the sedan decreased a lot. As a result, the average price grew by 16% in 2014 compared to 6.5% in 2013. SUV could largely elevate average vehicle price. In 2016 I expect the proportion of H6 mode will increase from 44% to 54% of total sale according to the Q1 2016 sale results.

***New models elevated average price per car whereas impaired gross margin.***

Regarding the cost of sale, material, labour and machine are main costs of auto production but none of them seems to significantly increase in future. Thanks to massive sale volume, the cost of H6 is very low. However, when H1, H2 and the expensive H9 were introduced in 2014, the average cost per car increased by 17.7% contrasted to 3% in 2013.

Since the cost grew faster than price, the gross margin per car decreased by 1% to 28% in 2014 (Figure 18). In H2 2015 H6 took an official discount on MSRP so the mid-year report showed negative price growth. The cash discount in 2016 was larger than the previous ones, so I estimate remarkable drop of price and thus gross margin per car.

**Figure 18 GWM's vehicle price, cost and gross margin evolution**



Source: company files and announcements

## Disclosures and Disclaimer

### Research Recommendations

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<b>Buy</b>	Expected total return (including dividends) of more than 15% over a 12-month period.
<b>Hold</b>	Expected total return (including dividends) between 0% and 15% over a 12-month period.
<b>Sell</b>	Expected negative total return (including dividends) over a 12-month period.

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