China’s PV Market
Seen from End-User Sales
Weekly, Bi-Weekly & Monthly E-newsletters

**CBU-Auto**, since 1995

**CBU-AutoStats**, since 1997

**CBU-HeavyDuty**, since 2010
Monthly Magazine Since 2006

China Automotive Review

China's automobile sales volume to exceed 11 million units in 2009

Yang Bong's new auto empire, or sandcastle?

Fisker's new JV in China offers new opportunities and challenges

Zou Yonghui lobbies for investment on the eve of a Greater Asiat Motors

From quality to brand

BAIC investment in Koengiyeu eyes on future local assembly

Decision makers and automotive executives discuss China's auto market

Secret of the F3's success in the market

JV, new energy vehicle, M&A, sales tax and future of China's auto industry

Chinese OEMs set up overseas research and development centers

Pursuit of r

Just in Time

CCL's dream comes true in China

Chinese OEMs set up overseas research and development centers

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Annual International Conferences

Detroit 1996, 1997
Beijing 1998
Shanghai 1999
Beijing 2000
Shanghai 2001
Frankfurt 2002
China’s Auto Industry after the Golden Decade

in Quest for Global Competitiveness

April 18-19, 2014, Westin Beijing Chaoyang

2014年4月18日-19日 金茂北京威斯汀大饭店
Section 1

CHINA’S PV END-USER SALES 2005-2011
CAGR growth 21% in 2005-2011
(Domestics only, not including microvans)

PV output in 2012: 13.26 million
PV sales in 2012 (wholesale, including exports): 13.24 million
PV end-user sales in 2012: 11,990,094
The Golden Decade

China’s Automobile Output 1992-2011
Policy Market
Protected Market

RMB 4trilliion Stimulus Package
Sales tax for small cars halved from 10% to 5%
Protected market: tariffs, entry, investment
Seasonal Factors

Chinese New Year
National Holiday
Labor Day
BRAND COUNTRY ORIGINS
PV End-User Sales by Brand Origin
2005-2011 (Domestics only)

By Total Volume
- Chinese leading (stimulus)
- German/Korean rising
- Japanese stalling

By % of market
- German share up
- French share down
Section 3

END-USER SALES BY PROVINCE
Costal Provinces Dominated by Volume

PV end-user sales (domestic + import) in 2011 (units)
Heat map by province, GDP and volume
Inland Provinces Dominated by Growth

PV end-user sales (Domestics + Import) in 2011 (% growth over 2010)

Heat map by province
Section 4

END-USER SALES BY CITY
Tier 1/2: Volume; Tier 3/4: Growth

PV end-user sales (domestics + import) in 2011 (units & % growth)
Size of circle = Size of market / Color: Growth rate
Section 5

VEHICLE USE & OWNERSHIP
Vehicle Use 2005-2011
Mostly “Private”

- High percentage of “private” use are unreliable
- Common practice for state-owned institutions, companies, agencies, associations and other organizations to heavily subsidize their mid-level and senior executives in both purchasing and the use of vehicles registered in individual names.

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Vehicle Ownership 2005-2011
Mostly “Individual”

- High percentage of “individual” use are unreliable
- Corporate vehicles
- Black taxis
BRAND PREFERENCES IN REGIONAL MARKETS
German Brands: Top 10 Cities

Top 10 Cities for German Brands

Year-to-Year % Change

Top 10 Cities for German Brands

By Total Volume
Japanese Brands: Top 10 Cities

Top 10 Cities for Japanese Brands

By Total Volume

Year-to-Year % change
U.S. Brands: Top 10 Cities

Top 10 Cities for US Brands

Year-to-Year % change

Top 10 Cities for US Brands
Korean Brands: Top 10 Cities

Top 10 Cities for Korean Brands

- Beijing
- Hangzhou
- Chengdu
- Chongqing
- Tianjin
- Suzhou
- Nanjing
- Qingdao
- Guangzhou
- Shenzhen

By Total Volume

Year-to-Year Percentage Change

Top 10 Cities for Korean Brands

- Beijing
- Chengdu
- Tianjin
- Qingdao
- Guangzhou
- Shenzhen
- Nanjing
- Suzhou
- Hangzhou
- Chongqing

2005 2006 2007 2008 2009 2010 2011

Total Volume

Percentage Change

25
Chinese Brands: Top 10 Cities

Top 10 Cities for Chinese Brands

By Total Volume

Year-to-Year Percentage Change
CHINA’S TOP 10 MAKES
China’s Top 10 Makes

Ranking of 2011 Top 10 Make Over Time

- SGM
- SVW
- FAW-VW
- DFL
- BHMC
- TFTM
- Chery
- DYK
- BYD
- CFA

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CONSUMER CHOICE WHEN REGISTRATION IS RESTRICTED
Consumer Choice When Registration Is Restricted: Foreign Instead of Chinese Brands

Foreign vs Local brands, Beijing

Foreign vs Local brands, Shanghai

Foreign vs Local brands, Guiyang
Section 9

CBU FORECAST with Risk Simulator
Forecast: Boom Years Are History, Moderate Growth Expected

- Proprietary econometric modeling (using 2005-2011 data) to forecast 2012
- Back-tested with actual end-user sales data to 89.3% accuracy
- Shows seasonal effect and moderate growth in 2012 (4.9%)
Forecast: Boom Years Are History, Moderate Growth Expected

- Proprietary econometric modeling (2005-2011 data) to forecast 24 months
- Back-tested with actual end-user sales data to 87.2% accuracy
- Seasonal effect and moderate growth (2013: 5.4%)
End-User Sales Compared to Other Leading Economic Indicators

China Auto Sales leads other major economic indicators such as Consumer Confidence Index and Keqiang Economic Index (weighted average of China’s railway cargo, power consumption and bank loans).

End-user sales are highly responsive to government economic policies. Consumers are also highly sensitive to such policies. End-user sales are a leading economic barometer.
Section 10

COMPARING “ABB”
The Case of “ABB” (Audi, BMW and Mercedes-Benz)

Audi end-user sales (domestic + import)
Growth heat map by province in 2011 (%)
The Case of “ABB” (Audi, BMW and Mercedes-Benz)

BMW end-user sales (domestic + import)

Growth heat map by province in 2011 (%)
The Case of “ABB” (Audi, BMW and Mercedes-Benz)

Mercedes-Benz end-user sales (domestic + import) Growth heat map by province in 2011 (%)
The Case of VW End-User Sales

VW end-user sales (domestic + import)
Growth heat map by province in 2011 (%)
Section 11

VOLKSWAGEN JETTA IN GUANGDONG PROVINCE
VW Jetta in Guangdong Province
Top 10 Guangdong Cities for VW Jetta, 2005-2011

Top 10 Guangdong Cities for VW Jetta
(Private Use Only)

![Volume Graph]

![Growth Graph]
Volkswagen Brand Market Share Increased in Guangdong Province

VW Market Share in Guangdong Province

- Registration
- Market Share

<table>
<thead>
<tr>
<th>Year</th>
<th>Registrations (Units)</th>
<th>Market Share (%)</th>
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<td>22000</td>
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<td>2011</td>
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IN SUMMARY
Golden Decade 2001-2010 A History
Moderate Growth Expected

- Policy & Protected Market
- Opening Up? Entry restriction, investment control, consolidation, 3rd Plenum
- Tough Constraints: energy, pollution, congestion, corruption

Total China Auto Sales: Actual vs. Forecast

Forecast 2012: ↑4.9%
Forecast 2013: ↑5.4%
THANK YOU!