Understanding China: Current and Future Automotive Industry
At this point in time . . .

- Open and aggressive criticism of China by some of the world’s most influential CEOs, a barrage of critical reports by chambers of commerce, and withdrawal from China by some high profile MNCs has sharpened discussion of the risk-reward balance for MNCs doing business in China

- More than ever the potential business significance of China and the growing revenue enjoyed by many MNCs from China requires better understanding, better strategic planning, and more optimal operations

- China has many advantages in its race to become the world’s largest producer of new energy vehicles, but it also has unique challenges evident in the history of the sector and rooted in the socialist-market model
5 year view of key indicators reflects the continuing importance of exports and FAI for GDP growth.
Market and policy imbalances and balance points are delicate and intertwined

**Benefits**
- Curtail asset bubbles
- Affordable housing
- Moderate inflation
- Avoid trade strife
- Support target growth
- Meet social obligations
- Harmonious society

**Steps**
- Raise interest rates
  - Not raise interest rates
- Appreciate RMB
  - Not Appreciate RMB
- Continue stimulus
  - Discontinue stimulus
- Add property tax
  - Not add property tax
- Encourage wage increase
  - Discourage wage increase

**Risks**
- Overslow growth
- Impede export growth
- Drive asset bubbles
- Drive inflation
- Increase trade disputes
- Crash property markets
- Foment social unrest

**Discourage wage increase**
Enter the era of “Inclusive Growth”

CPC vows to restructure economy
This month China approved a new five-year blueprint for economic and social development, in which the ruling Communist Party of China promises to further improve people's livelihood and "vigorous yet steady" efforts.

Chinese leaders Hu Jintao, Wu Bangguo, Wen Jiabao, Jia Qinglin, Li Changchun, Xi Jinping, Li Keqiang, He Guoqiang and Zhou Yongkang attend the Fifth Plenary Session of the 17th Central Committee of the Communist Party of China (CPC) in Beijing, capital of China. The conference was held in Beijing on Oct. 15-18. Photo: Xinhua
Background of the 12\textsuperscript{th} Five Year Plan

Rapid Growth, through—
- Investment in core industries
- Investment in infrastructure
- Exports

Liberalization of the financial sector
- More exports
- Investment in: "Harmonious Society"

More reference to need for social infrastructure and household consumption
- Increase wealth distribution and fairness of distribution
- Adjust tax law to encourage a consumer driven economy
- Ultimately balance the needs of growth with the needs of sustainability
How the planners plan to make the plan work

To preserve the interests of the State while maintaining impressive growth rates at an increasingly large scale in an increasingly challenging environment

• Grow demand for steel, energy, cement, and aluminum by mandating/funding low-income housing units, transport, and energy-efficient industrial upgrades
• Diversify sources/types of commercial financing, via moderate liberalization of interest rates and liberalization of financial activities for non-bank investors
• Project the Renminbi into a broader international role
• Secure supply and price control of key commodities for the central government

• Sustain a continuing net contribution of exports to national growth by reducing the value added in imports and raising China’s value-added portion of export products.

• Diversify destination markets, particularly to Africa and the Mideast, where national strategic goals blend with markets that are comparatively easy to access

• Stimulate domestic consumption via direct consumer subsidies, moderately accelerated wage growth, low prices, and logistic efficiencies
What keeps the planners awake at night

- Domestic risks such as inflation, asset bubbles, and mis-allocation of resources may be difficult to manage
- External risks, such as trade disputes, WTO actions, currency wars, and other protectionist actions could take a toll
  - Additional stimulus will be used in 2010/11, making withdrawal of stimulus more difficult and return to market-reforms challenging
- Large Chinese enterprises will gain strength domestically but remain challenged to create any footprint outside China
  - Enterprise control weaknesses, systemic corruption, and compromised reporting standards contribute to inefficiency, investor doubts, and market volatility
  - Worsening mal-distribution of wealth/resources
  - Demographic dividend is gone, and increasing dependency ratios with weak social infrastructure investment will strain household resources
Following the money—looking at three sensitive contradictions

1. The shift to domestic consumption—the actual measures of the FYP are very weak, with no proposed increase in distribution of national wealth to households. While subsidies currently drive about 25% or many major consumer purchases, they support products with lowest margins, and they have failed in the past (cellphones in 1998-99). Shift to household consumption will take longer and depend on demographics—dependency ratios and older work force with higher wages.

2. The economy is continuing to privatize—industries such as steel and mining are examples of a strong recentralization effort that lurks behind much of the FYP policy directions. May be true of automotive. The coal resources of Shanxi were dramatically returned to the control of large government enterprises like Poly Holdings, CITIC and Shenhua, after several years of privatization that created many wealthy families.

3. The Central Government is putting massive resources into Going Green—The FYP envisions 5T RMB of investment in alternative energy, but a close read indicates that much of this is expected to be provided by private investors. The FYP actually will increase the use of fossil fuels, by re-powering the big SOEs in fossil fuels, restructuring energy pricing, and opening up huge reserves in Xinjiang and Inner Mongolia. Energy conservation is likely to be more important than renewables.
The 12th Five Year Plan for automotive will be finalized by year’s end

- Market expectation: Sales of “new energy” automobiles to exceed 1 million by 2015
- National economy: New energy automotive will be among the most important sectors in the economy for the next ten years. China will be the world’s largest producer of new energy vehicles
- Technologies: Integrate BEV and hybrid electric vehicle technologies
- R&D investment: China plans invest more than 100 billion yuan over the next 10 years to support new-energy automobile production

Source: People’s Daily, 10/29/2010
Why China is the key market for BEVs in the coming five years

1. A critical and sustained imperative of the Chinese government is to curtail the growth of oil imports (and food imports) by electrifying as much transport capacity as possible

2. Where possible, and as quickly as possible, airplanes and diesel/gasoline vehicles will be replaced by electric trains, subways, and other forms of electrified mass transit

3. National government and major municipalities are motivated by a number of factors to invest in infrastructure, and that supports the fast development of an integrated transport system in major populations centers

4. Most buyers are first time buyers, growing into consumption age amidst a wave of “green growth” ideology and campaigns

5. Personal mobility devices will be primarily for light use and short range, eliminating technology challenges such as charging stations / battery swaps
Government’s policies have significant impact, positive and negative, on the industry

<table>
<thead>
<tr>
<th>Policy</th>
<th>Implication</th>
</tr>
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<tbody>
<tr>
<td>Exhaust standard</td>
<td>- Developed the schedule to achieve the implementation of vehicle exhaust emissions State 3, State 4 standard&lt;br&gt;- Cut emissions dramatically, encourage manufacturers to increase investment in R&amp;D</td>
</tr>
<tr>
<td>Purchasing tax cut</td>
<td>- Encourage the development of small vehicles. Stimulated by government tax incentives, small vehicle segment realized significant growth since early 2009</td>
</tr>
<tr>
<td>Auto to countryside</td>
<td>- Central arrangements : RMB 5 billion to subside for the purchase of small vehicles in rural areas&lt;br&gt;- Enlarge the market and encourage the development of small vehicles</td>
</tr>
<tr>
<td>Further concentration</td>
<td>- Support auto groups to concentrate nation wide or region wide&lt;br&gt;- Enhance the competitiveness of China auto groups</td>
</tr>
<tr>
<td>Auto replacement</td>
<td>- Encourage the sales of medium truck, light truck, medium bus and light bus</td>
</tr>
</tbody>
</table>
But, sharply declining margins in 2009 have forced companies to defocus and expand along the value chain.

- **Parts**
  - Own over 80 tier 2&3 major auto parts enterprises
  - Carved out and listed Huayu parts business

- **Manufacturing**
  - Launched bus production line
  - Invested Chengdu production base

- **New Car**
  - Plan to launch Roewe N1, MG6 and Ap11

- **Leasing**
  - Avis’s business covers a number of significant industries

- **Financing**
  - Own finance company

- **Insurance**
  - Established auto finance company ever since 1987
  - Yi’an Insurance’s services cover 9 provinces

- **Current Events**
  - Invested a 200,000 vehicle production project
  - Plan to launch Acura, a hi-end SUV
  - Will jointly develop small turbocharged engine with Honeywell
  - Regroup with AviChina
  - Signed a 40 million engine production agreement
  - Expand in leasing market

Source: DC Analysis
OEMs have sought to launch new energy products in the overcrowded legacy marketplace for many years now . . .

<table>
<thead>
<tr>
<th>Big OEM's New Energy Vehicle (Only List PV) Launching Plan (1986-2011)</th>
</tr>
</thead>
</table>

- **Government policy (plan 863)**
- **Beijing Olympics 2008, Shanghai World Expo 2010**

**FAW Group**
- FAW Besturn B70

**SAIC Group**
- Shanghai Roewe

**Chongqing Chang'an**
- Chang'an Jiexun HEV

**Brilliance Jingbei**
- Brilliance BS6 ISG

**Dongfeng EV**
- Self-owned Brand BSG

**Great Wall**
- A5 BSG
- A5 ISG

**Chery Auto**
- Fengxing MPV (launching time not clear)

**Zhejiang Geely**
- Pure EV sedan launching time not clear

**Shanghai GM**
- EV mini bus launching time not clear

**BYD**
- Mild/Middle HV launching schedule
- Full hybrid launching schedule
- Plug-in hybrid launching schedule
- Pure-electric launching schedule
- Model announcement schedule

**Wanxiang EV**
- Pure EV light Bus (based on JMC Transit)
- Pure EV Pickup (based on Zhengzhou Nissan)
- Pure EV Mini SUV (based on Zhongtai)

**Tianjing Qingyuan**
- EV mini bus launching time not clear

Source: DC Analysis
Domestic EVs– widely planned, not yet launched

China HEV/BEV Industry Status in China

<table>
<thead>
<tr>
<th>HEV</th>
<th>BEV</th>
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<tbody>
<tr>
<td>Micro/Mild HEV</td>
<td>Full HEV</td>
</tr>
<tr>
<td>[R &amp; D]</td>
<td>[Brilliance Auto]</td>
</tr>
<tr>
<td>[Prototype]</td>
<td>[Shanghai]</td>
</tr>
<tr>
<td>[SOP]</td>
<td>[Brilliance Auto]</td>
</tr>
</tbody>
</table>

Note: (Wanxiang) is not an automaker. It’s marked in the EV - SOP stage mainly because it provided power-train systems for EV manufacturers - Jiangling Transit (electric light bus), Zotye (electric SUV), and Zhengzhou Nissan (electric Pick-up).

Source: DC Analysis
Why China may fall short of its goals with new energy autos

1. National policies using direct R&D investment, technology guidance, and subsidies to manufacturers easily go astray, and in the past they have not produced competitive sectors (e.g., domestic mobile phones in 1998/99).

2. Companies like BYD, Chery, Geely, and SAIC, some of which promised to be in mass production of EVs by mid 2010, all missed that goal. Some are facing serious market challenges and financial results.

3. Basic technologies, like power storage, are being heavily researched, but the most advanced technologies are not in production in China, nor are they being developed by Chinese companies.

4. China’s historic auto policy, focused on accelerated technology transfer through JVs and building strong domestic, State-owned giants, has not worked, according to most insiders.

5. Regional and global sensitivities to China’s export campaigns are likely to result in substantial barriers in key markets like S.E. Asia, India, and Latin America.
Success drivers for foreign investors --

1. Foreign brands continue to dominate market share.
2. Right behind foreign brands in market share are Chinese “private” brands, where growing quality issues are impacting sales. R&D investment will not concentrate in privates
3. The indigenous innovation campaign is gradually and quietly being abandoned, as conflicting goals require more aggressive acquisition of best global technologies
4. SOEs have not been notably successful in building their own brands, even when they “bought in” models
5. China’s vehicle exports are growing year-on-year (+59% as of Sept 2010), but vehicles are low-end and sent to very immature auto markets

<table>
<thead>
<tr>
<th>#</th>
<th>Brand</th>
<th>Aug</th>
<th>Growth</th>
<th>YTD</th>
<th>Growth</th>
<th>YTD Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Volkswagen</td>
<td>137,189</td>
<td>32%</td>
<td>953,399</td>
<td>34%</td>
<td>12.8%</td>
</tr>
<tr>
<td>2</td>
<td>Toyota</td>
<td>61,550</td>
<td>1%</td>
<td>510,952</td>
<td>34%</td>
<td>6.9%</td>
</tr>
<tr>
<td>3</td>
<td>Hyundai</td>
<td>63,781</td>
<td>22%</td>
<td>460,874</td>
<td>26%</td>
<td>6.2%</td>
</tr>
<tr>
<td>4</td>
<td>Nissan</td>
<td>50,210</td>
<td>17%</td>
<td>445,262</td>
<td>37%</td>
<td>6.0%</td>
</tr>
<tr>
<td>5</td>
<td>Honda</td>
<td>48,413</td>
<td>6%</td>
<td>414,763</td>
<td>18%</td>
<td>5.6%</td>
</tr>
<tr>
<td>6</td>
<td>BYD</td>
<td>31,069</td>
<td>-19%</td>
<td>353,129</td>
<td>45%</td>
<td>4.7%</td>
</tr>
<tr>
<td>7</td>
<td>Buick</td>
<td>45,873</td>
<td>18%</td>
<td>343,465</td>
<td>27%</td>
<td>4.6%</td>
</tr>
<tr>
<td>8</td>
<td>Chevrolet</td>
<td>37,834</td>
<td>31%</td>
<td>336,850</td>
<td>91%</td>
<td>4.5%</td>
</tr>
<tr>
<td>9</td>
<td>Chery</td>
<td>45,157</td>
<td>32%</td>
<td>313,551</td>
<td>91%</td>
<td>4.2%</td>
</tr>
<tr>
<td>10</td>
<td>Kia</td>
<td>26,615</td>
<td>24%</td>
<td>220,542</td>
<td>57%</td>
<td>3.0%</td>
</tr>
<tr>
<td>11</td>
<td>Ford</td>
<td>21,921</td>
<td>4%</td>
<td>192,089</td>
<td>33%</td>
<td>2.6%</td>
</tr>
<tr>
<td>12</td>
<td>Suzuki</td>
<td>21,341</td>
<td>23%</td>
<td>185,770</td>
<td>22%</td>
<td>2.5%</td>
</tr>
<tr>
<td>13</td>
<td>FAW</td>
<td>20,983</td>
<td>49%</td>
<td>193,343</td>
<td>94%</td>
<td>2.5%</td>
</tr>
<tr>
<td>14</td>
<td>Great Wall</td>
<td>23,758</td>
<td>111%</td>
<td>161,768</td>
<td>100%</td>
<td>2.2%</td>
</tr>
<tr>
<td>15</td>
<td>Geely</td>
<td>13,942</td>
<td>-20%</td>
<td>152,782</td>
<td>1%</td>
<td>2.0%</td>
</tr>
<tr>
<td>16</td>
<td>Audi</td>
<td>22,092</td>
<td>56%</td>
<td>150,478</td>
<td>57%</td>
<td>2.0%</td>
</tr>
<tr>
<td>17</td>
<td>Mazda</td>
<td>18,985</td>
<td>29%</td>
<td>147,691</td>
<td>33%</td>
<td>2.0%</td>
</tr>
<tr>
<td>18</td>
<td>Citroen</td>
<td>15,167</td>
<td>15%</td>
<td>136,997</td>
<td>49%</td>
<td>1.8%</td>
</tr>
<tr>
<td>19</td>
<td>JAC</td>
<td>13,084</td>
<td>28%</td>
<td>129,520</td>
<td>72%</td>
<td>1.7%</td>
</tr>
<tr>
<td>20</td>
<td>Skoda</td>
<td>17,294</td>
<td>23%</td>
<td>120,337</td>
<td>62%</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

Chart source: J D Power
Are labor unrest and wage increases an issue?

China’s labor wage increases have not significantly impaired China’s export competitiveness.

Minimum-wage trends in selected cities (Rmb)

- Chongqing
- Guangzhou
- Shenzhen
- Shanghai

Export growth rates:
- 29%
- 28%
- 28%
- 23%
- -19%
- 33%

Source: Economist Intelligence Unit
Ultimately, the most successful MNCs look behind the curtain and understand what drives policy and regulation

The 1-2-3 of coping

1. Chinese regulations by nature leave substantial grey zones, where regulators can exercise license and where investors can create their own regulatory space and enable their own growth strategies.

2. In the socialist-market economy, where regulations leave off, opportunity management can support central Party and government goals.

3. China risk management needs to be nimble and creative while also being diligent to protect the brand and reputation of the “mother-ship”.

- State’s ownership interests
- State’s regulatory power
- State’s planning interests
- SOE interests
- Local gov’t interests
- Private business interest

Shifting trends and priorities

Basic legal structure and approvals

Contradictions and inconsistencies

Predatory targeting or public policy reactions