Global Truck Industry Consolidation: Challenges and Opportunities for Asian Manufacturers

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Senior Truck Analyst & Advisor
Presentation Outline

• Introduction
• Financials of Major Truck Manufacturers
• Modularity, the Rationale Behind Consolidation
• The Pros and Cons of Consolidation Types
• Driving Factors Behind Global Consolidation
• Asian Manufacturers
• Some Scenarios
• Conclusion
The Global Truck Industry

The Challenges ...

- Rising costs — stringent safety & emission norms, customer expectation
- Cyclicality of regional demand — factory utilization rates & earnings cyclicality
- Customers expect transportation solutions — combination of truck & services
- Emerging markets: rapid fleet formation process and boom in HDTs

... and some Remedies to cope with them ...

- Share higher costs over larger volumes — stabilize margins over the cycles
- Modular system payoff per unit rises with output volume
- Global presence to suspend regional cyclicality — earnings smoothing
- Reduction of domestic market dependence
Revenue of Truck Manufacturers (Y-o-Y % Change)

- Revenue development largely dependent on market cycles
- Better pricing discipline contributes to revenue growth

<table>
<thead>
<tr>
<th>Company</th>
<th>2007</th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAN</td>
<td>-22.2%</td>
<td>18.5%</td>
<td>12.3%</td>
</tr>
<tr>
<td>Scania</td>
<td>19.4%</td>
<td>12.9%</td>
<td>12.9%</td>
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<tr>
<td>Volvo</td>
<td>10.3%</td>
<td>12.0%</td>
<td>14.7%</td>
</tr>
<tr>
<td>Daimler</td>
<td>-10.0%</td>
<td>2.0%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Fiat</td>
<td>-10.0%</td>
<td>12.9%</td>
<td>11.4%</td>
</tr>
<tr>
<td>Navistar</td>
<td>-21.1%</td>
<td>17.1%</td>
<td>25.3%</td>
</tr>
<tr>
<td>PACCAR</td>
<td>-7.5%</td>
<td>17.0%</td>
<td>23.4%</td>
</tr>
<tr>
<td>MAN</td>
<td>-22.2%</td>
<td>18.5%</td>
<td>12.3%</td>
</tr>
<tr>
<td>Dongfeng</td>
<td>22.9%</td>
<td>15.6%</td>
<td>27.5%</td>
</tr>
<tr>
<td>CNHTC</td>
<td>-15.3%</td>
<td>45.5%</td>
<td>80.9%</td>
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<tr>
<td>Tata Motors</td>
<td>-17.7%</td>
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<tr>
<td>Hino</td>
<td>6.3%</td>
<td>7.6%</td>
<td>5.9%</td>
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<tr>
<td>Isuzu</td>
<td>5.8%</td>
<td>5.1%</td>
<td>5.9%</td>
</tr>
<tr>
<td>PACCAR</td>
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<td>17.0%</td>
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<td>12.3%</td>
</tr>
</tbody>
</table>

Source: UBS Investment Research, Goldman Sachs Investment Research (28.04.2008) Numbers are for indication purposes only
EBIT Margin of Truck Manufacturers

• EBIT margins not related to geographic origin of the manufacturer
• Factoring in vehicle complexity, labour costs, market cycles, Scania and Paccar are still “Margin Champions” — with others on their heels

![EBIT Margin Graph]

Source: UBS Investment Research, Goldman Sachs Investment Research (28.04.2008) Numbers are for indication purposes only
Modularity — Powering Consolidation Activity

- Modular set-up of truck allows flexible combination of components
- Modularity expanded across brands & companies
- Limited potential for sharing across weight segments — MDT & HDT
- Key strategy to cut costs and increase variety of model range
- M&A/Alliances facilitate quantum leaps — higher payoff from modularization
## Cost Decomposition of Major Components

<table>
<thead>
<tr>
<th>Component</th>
<th>App. Costs (%)</th>
<th>Savings Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine/Electronics</td>
<td>30%</td>
<td>• Substantial saving: legislative &amp; market requirements higher</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Develop “modular engine”</td>
</tr>
<tr>
<td>Transmission/Retarder</td>
<td>16%</td>
<td>• Standardization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Cross brand sharing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Non-captive/make-or-buy?</td>
</tr>
<tr>
<td>Axles/Brake System</td>
<td>13%</td>
<td>• Standardization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Cross brand/function sharing</td>
</tr>
<tr>
<td>Total Powertrain</td>
<td>59%</td>
<td>• Huge savings potential by modularisation and sharing of components</td>
</tr>
<tr>
<td>Other Components (i.e. Cabins)</td>
<td>41%</td>
<td>• Cabin &amp; Exterior: Product differentiation factor, cost savings limited</td>
</tr>
</tbody>
</table>
Modular Components — An Example

- Especially Daimler and Volvo benefit from their scale — declining costs per unit
  - Better adaptability to local differences
  - Powertrain components are cost drivers — high savings potential
  - Modular components fitted to locally adapted truck

Daimler’s Global Engine Platform

Segment Range
Consolidation: Similar Strategy — Various Alternatives

• M&A only one type of industry consolidation

• M&A alternatives: Co-operation agreements with limited duration and/or scope

• Increasingly, alliances and JVs are favoured:
  – Lack of ideal M&A candidate
  – High M&A integration costs, uncertain payoff, potentially “divorce” costs

• Mostly on global level, there are still some deals to come…
## Pros and Cons of Possible Consolidation Types

<table>
<thead>
<tr>
<th>Alliance Types</th>
<th>Criteria</th>
<th>Kick-off Costs</th>
<th>Integration Costs</th>
<th>Payoff Time</th>
<th>Ability to Trust Partner</th>
<th>Fin. Strength</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint Venture</td>
<td></td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>--</td>
<td>--</td>
<td>Iveco &amp; UralAZ Navistar &amp; Mahindra</td>
</tr>
<tr>
<td>J.V. Founding New Company</td>
<td></td>
<td>o</td>
<td>+</td>
<td>+</td>
<td>--</td>
<td>-</td>
<td>Blue Diamond Isuzu &amp; Bogdan</td>
</tr>
<tr>
<td>Strategic Alliance</td>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>o</td>
<td>0</td>
<td>MAN &amp; Navistar</td>
</tr>
<tr>
<td>Equity Control</td>
<td></td>
<td>o</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>VW, MAN, Scania Daimler &amp; Tata</td>
</tr>
<tr>
<td>Merger / Acquisition</td>
<td></td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>++</td>
<td>+</td>
<td>Volvo &amp; Renault Tata &amp; Daewoo Navistar &amp; GMC</td>
</tr>
</tbody>
</table>

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**Criteria:**
- **Kick-off Costs:**
  - ++: High
  - +: Moderate
  - o: Low
- **Integration Costs:**
  - ++: High
  - +: Moderate
  - o: Low
- **Payoff Time:**
  - ++: High
  - +: Moderate
  - -: Low
- **Ability to Trust Partner:**
  - ++: High
  - +: Moderate
  - o: Low
- **Fin. Strength:**
  - ++: High
  - +: Moderate
  - -: Low

---

**Examples:**
- Iveco & UralAZ Navistar & Mahindra
- Blue Diamond Isuzu & Bogdan
- MAN & Navistar
- VW, MAN, Scania Daimler & Tata
- Volvo & Renault Tata & Daewoo Navistar & GMC
Declining Regional Differences — Gradual Convergence

NAFTA
- Modular set-up inherent
- Low captive share
- EPA emission norms
- Captive parts increase (DTG, VOLVO, NAVISTAR, PACCAR)

Europe
- In-house modular design
- High captive share
- Powertrain internally sourced
- Euro emission norms

Asia
- Captive truck design
- Diverse technical level
- Powertrain internally sourced
- Japanese emission norms
- Other countries follow Euro norms

R.o.W.
- EU, U.S., Asian Trucks,
  ➔ Local adaptation low
- Legislative forces mostly follow Euro standards

• Harmonization of global standards
• Broaden global potential of modular components
OEM’s Based in Saturated Markets — TRIAD

North America

- PACCAR
- Ford
- IVECO

Western Europe

- DAIMLER
- KAN
- SCANIA
- VOLVO

Japan

- ISUZU
- HINO

OEM Features:

- R&D capability
- Financially potent
- Scale seeking OEM’s
- Component utilization
Evolution of Consolidation in the TRIAD

<table>
<thead>
<tr>
<th>Phase 1 (local)</th>
<th>Phase 2 (regional)</th>
<th>Phase 3 (continental)</th>
<th>Phase 4 (global)</th>
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</thead>
<tbody>
<tr>
<td>M&amp;A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Many players</td>
<td>• Reg. champions</td>
<td>• M&amp;A deal value</td>
<td>• Fewer candidates</td>
</tr>
<tr>
<td>• Small deals</td>
<td>• Broader reach to</td>
<td>strongly increases</td>
<td>• Potential between</td>
</tr>
<tr>
<td>• Good strategic fit</td>
<td>reduce volatility</td>
<td></td>
<td>Triad and EM OEMs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alliances</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Emergence of concept...little initial benefits</td>
<td>• Advantages increase as M&amp;A complexity becomes obvious</td>
<td>• Modularity concept accepted as way-to-go</td>
<td>• Industrial dynamics drive the alliance formation strongly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Graph:
- M&A deal value: strong increase from 1973-77 to 1998-02, then decrease.
- Alliances & JVs: increase from 1973-77 to 1998-02, then decrease.

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Developments in China, India and Other Asian Countries

- Due to economic development, Chinese, Indian and Korean manufacturers are now faced with challenges that TRIAD manufactures have experience with.

**Economy**
- Developing economies
- Blossoming industries & sectors
- Increasing living standards
- Growing import and exports

**Infrastructure**
- Investment in road quality and quantity
- Construction of highways
- Coping with intensified freight loads

**Transport Sector**
- More haulage capacity required
- Heavy duty truck boom
- Declining need for owner operators
- Creation of professional trucking companies

**Truck OEMs**
- Emphasis: heavy truck development
- Lack experience in heavy truck business
- Provide sales & support for more sophisticated trucks

Due to economic development, Chinese, Indian and Korean manufacturers are now faced with challenges that TRIAD manufactures have experience with.
OEM’s Based in Emerging Markets

South America

Eastern Europe

Asia (excl. JPN)

OEM Features:

- Knowledge about growth markets & sales network
- Higher demand for efficient heavy trucks (more profit)
- Less consolidation barriers
Consolidation — Implication for Asian OEMs

• Impact of industry consolidation outside of Asia limited, due to niche presence of foreign manufacturers in Asian market — no material gain in market share

• Industry consolidation in Asia — possibly greater impact on the global business
  – Pro: Could combine high tech with low cost production
  – Contra: Still lacking global reach, challenging to enter new markets

• Expansion of Asian manufacturers possible on a stand alone basis

• Combining Western and Asian players — promising combinations
Japan: Isuzu & Hino, Any Consolidators?

- Fuso & Nissan Diesel controlled by European manufacturers
- Hino & Isuzu: Aim to grow “organically”, consolidation viewed sceptically
- Sales are predominantly regional — Asia & Oceania, MEA
- Product mix geared to light and medium trucks
- Scale too low in HDT
Japan: Gateway to Major Asian Markets

Strategic advantages of Hino and Isuzu:
- Strong presence in Asia & Oceania
- Technically sophisticated companies
- Hino: “backed” by Toyota organization
- Isuzu: Already has experience cooperating with GM

- Value of Japanese manufacturers largely is their strategic potential
- Access to South-East Asian markets
  - Strong presence in regional growth markets
  - Potentially better access to China (U-D & DongFeng JV)
Chinese OEMs: Internal & External Consolidation

- Boom in truck demand triggered many domestic new entrants
- Gradually arising cost pressures and need for scale will drive internal consolidation
- Chinese M&A examples: North-Benz & Chongqing; SAIC & Hongyan
- Low vertical integration of trucks — defer imminent need for scale driven consolidation
- Formation of bigger local players — hard times for smaller manufacturers

China: Market Development (>6t)
Indian OEMs: Few Large Players

- Only two large manufacturers in India — Tata & Ashok-Leyland
- Both have been active on M&A front — active acquirers
- Smaller players: Eicher, Mahindra-M, Swaraj-Mazda — potential targets?
- Tata’s global footprint expanding
- “Un-organic” growth part of corporate strategy — especially Tata
- Cooperation partners mainly from TRIAD

India: Market Development (>6t)
Korean OEMs: Hyundai Is in Pole Position

- Hyundai is a dominant player — with increasing exports
- Hyundai’s truck business too small, domestic market not big enough
- “Grow or Go”: Hyundai Trucks are too small for long term survival
- Advantage: Low vertical integration reduces need for large scale

Korea: Market Development (>6t)
Selected Asian OEMs — Many Are Sub-scale

- Scale factor between MDT and HDT of approximately 1.5x
- Few Asian OEMs have sufficient scale to keep operating independently in the long term
- Consolidation between Asian OEMs could be a first step — i.e., Tata & Daewoo
- Most promising combination: High-tech and market scale, low cost >>> Potential to expand into other markets/regions
## Asian OEMs — Bringing It All Together...?

Score Range 0 to 3
0 = minimum
3 = maximum

<table>
<thead>
<tr>
<th>Score Range 0 to 3</th>
<th>Isuzu</th>
<th>Hino</th>
<th>Tata</th>
<th>Ashok-L</th>
<th>Eicher</th>
<th>Hyundai</th>
<th>SAIC</th>
<th>Dong-Feng</th>
<th>Torch</th>
<th>FAW</th>
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<td>Ownership</td>
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<td>1</td>
<td>2</td>
<td>1</td>
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<td>2</td>
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<tr>
<td>“Policy” towards</td>
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<td>2.5</td>
<td>2</td>
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<td>0.5</td>
<td>0.5</td>
<td>1.5</td>
<td>2.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Strength</td>
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<td>2.5</td>
<td>2</td>
<td>0.5</td>
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<td>2</td>
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<td>1.5</td>
</tr>
<tr>
<td>Total (∑) (Passive Consolidator)</td>
<td>72%</td>
<td>67%</td>
<td>33%</td>
<td>50%</td>
<td>67%</td>
<td>56%</td>
<td>44%</td>
<td>33%</td>
<td>44%</td>
<td>33%</td>
<td>33%</td>
<td>44%</td>
</tr>
<tr>
<td>Total (∑) (Active Consolidator)</td>
<td>56%</td>
<td>67%</td>
<td>67%</td>
<td>67%</td>
<td>44%</td>
<td>61%</td>
<td>50%</td>
<td>50%</td>
<td>67%</td>
<td>50%</td>
<td>50%</td>
<td>56%</td>
</tr>
</tbody>
</table>
Truck Production Volume — Impact of Potential “New Combinations”

- Geographic diversity essential to achieve Earnings Smoothing
- Hunt for scale not finished yet

![Diagram showing truck production volume and potential combinations with major manufacturers like Daimler, Volvo, MAN, Scania, Navistar, Iveco, Hino, Isuzu, etc.](image-url)
Global Consolidation Matrix — Some Combinations

DIAMLER

IVECO

MAN

PACCAR

SCANIA

VOLVO

Ashok Leyland

CNHTC

Dong Feng

Shaaxi/Torch

Ural AZ

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The Global Way Forward...

- The OEM’s in the respective regions complement themselves

- Need for scale important driving force

- Western Europe, NAFTA & Japan are saturated but OEM’s can grow in EM-Asia, Eastern Europe and South America using their R&D and financial resources

- OEM’s in emerging Asian markets: Expertise of growing market, but lack resources to satisfy demand quickly

- Major consolidation activity between those regions…

- M&A likely between respective regions!
Thank You!

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