Agenda

1. Demand outlook 2013 – 2015 and underlying drivers

2. Key challenges for the Brazilian commercial vehicle industry

3. Strategic levers to strengthen the competitive position
A strong sales and production volume decline made 2012 a difficult year for the Brazilian commercial vehicles industry.

Market development Brazil commercial vehicles in Brazil, 2008-2012 ['000 units]

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales</th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>117</td>
<td>160</td>
</tr>
<tr>
<td>2009</td>
<td>107</td>
<td>119</td>
</tr>
<tr>
<td>2010</td>
<td>162</td>
<td>184</td>
</tr>
<tr>
<td>2011</td>
<td>165</td>
<td>215</td>
</tr>
<tr>
<td>2012</td>
<td>130</td>
<td>133</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales</th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>28</td>
<td>44</td>
</tr>
<tr>
<td>2009</td>
<td>24</td>
<td>35</td>
</tr>
<tr>
<td>2010</td>
<td>31</td>
<td>46</td>
</tr>
<tr>
<td>2011</td>
<td>35</td>
<td>49</td>
</tr>
<tr>
<td>2012</td>
<td>29</td>
<td></td>
</tr>
</tbody>
</table>

Source: ANFAVEA; Roland Berger
The sales and production volumes displayed in this study do not include trucks below 6 tons gross vehicle weight.

Detailed sales and production volume development in Brazil. 2008-2012 ['000 units]

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Semi light duty</td>
<td>3.5-6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light duty</td>
<td>6-10</td>
<td>25.9</td>
<td>28.4</td>
<td>37.2</td>
<td>38.9</td>
<td>33.3</td>
</tr>
<tr>
<td>Medium duty</td>
<td>10-15</td>
<td>12.6</td>
<td>11.7</td>
<td>15.0</td>
<td>14.6</td>
<td>11.9</td>
</tr>
<tr>
<td>Heavy duty</td>
<td>&gt; 15</td>
<td>78.6</td>
<td>67.0</td>
<td>109.9</td>
<td>111.5</td>
<td>87.4</td>
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<tr>
<td>Total truck &gt; 6</td>
<td></td>
<td>117.1</td>
<td>107.1</td>
<td>162.1</td>
<td>165.0</td>
<td>132.6</td>
</tr>
<tr>
<td>tons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bus</td>
<td>-</td>
<td>27.9</td>
<td>23.9</td>
<td>31.1</td>
<td>34.6</td>
<td>28.8</td>
</tr>
<tr>
<td>TOTAL &gt; 6 tons</td>
<td></td>
<td>145.1</td>
<td>131.1</td>
<td>193.2</td>
<td>199.6</td>
<td>161.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi light duty</td>
<td>3.5-6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light duty</td>
<td>6-10</td>
<td>30.8</td>
<td>33.3</td>
<td>42.5</td>
<td>50.7</td>
<td>24.5</td>
</tr>
<tr>
<td>Medium duty</td>
<td>10-15</td>
<td>15.8</td>
<td>13.1</td>
<td>17.7</td>
<td>18.4</td>
<td>8.5</td>
</tr>
<tr>
<td>Heavy duty</td>
<td>&gt; 15</td>
<td>113.6</td>
<td>72.1</td>
<td>124.1</td>
<td>145.9</td>
<td>97.5</td>
</tr>
<tr>
<td>Total truck &gt; 6</td>
<td></td>
<td>160.2</td>
<td>118.5</td>
<td>184.3</td>
<td>214.9</td>
<td>130.4</td>
</tr>
<tr>
<td>tons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bus</td>
<td>-</td>
<td>44.1</td>
<td>34.5</td>
<td>45.9</td>
<td>49.4</td>
<td>36.8</td>
</tr>
<tr>
<td>TOTAL &gt; 6 tons</td>
<td></td>
<td>204.3</td>
<td>153.0</td>
<td>230.2</td>
<td>264.3</td>
<td>167.2</td>
</tr>
</tbody>
</table>

Source: ANFAVEA; Roland Berger
Despite governmental actions, the market declined due to the EURO 5 post-buy effects and a slow economy in Brazil and export markets.

**Major reasons for market drop in 2012**

**NEGATIVE INFLUENCE**

- Euro 5 post-buy effect
- Economic slowdown
- Export decline

**POSITIVE INFLUENCE**

- Attractive financing conditions
- Governmental support for busses
- Continued infrastructure investments

Source: Roland Berger
The demand of the Brazilian commercial vehicle industry will be impacted by 4 major trends in the next years

Impacting factors for commercial vehicle market demand in Brazil, 2013-2015

1. MACROECONOMIC STABILITY
   - Stable inflation and exchange rates
   - FINAME rates will support economic activity

2. FLEET RENEWAL
   - High avg. age of truck fleet of ~17 years
   - Fleet renewal will drive truck demand

3. DRIVER REGULATION
   - New driver regulation reduces truck and bus driver working hours
   - Increasing number of trucks or shift towards bigger trucks expected

4. INFRASTRUCTURE INVESTMENTS
   - Mega-events already included in base truck demand
   - Investment into BRT systems will push bus demand

Source: Roland Berger
Stable growth projected for the next years – Current FINAME rates for acquisition of commercial vehicles remain at all-time low

Macroeconomic outlook for Brazil 2013-2015

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP Growth Rates [%]</th>
<th>Inflation [%]</th>
<th>Exchange Rates [BRL/USD]</th>
<th>Interest Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>5.2</td>
<td>5.9</td>
<td>2.3</td>
<td>7.7</td>
</tr>
<tr>
<td>2009</td>
<td>-0.3</td>
<td>4.3</td>
<td>1.7</td>
<td>6.4</td>
</tr>
<tr>
<td>2010</td>
<td>7.5</td>
<td>5.9</td>
<td>1.7</td>
<td>5.3</td>
</tr>
<tr>
<td>2011</td>
<td>2.7</td>
<td>6.5</td>
<td>1.9</td>
<td>6.3</td>
</tr>
<tr>
<td>2012</td>
<td>0.9</td>
<td>5.8</td>
<td>2.0</td>
<td>4.5</td>
</tr>
<tr>
<td>2013</td>
<td>3.1</td>
<td>6.0</td>
<td>2.1</td>
<td>7.3</td>
</tr>
<tr>
<td>2014</td>
<td>3.0</td>
<td>6.5</td>
<td>2.2</td>
<td>7.3</td>
</tr>
<tr>
<td>2015</td>
<td>3.5</td>
<td>7.0</td>
<td>2.3</td>
<td>3.5</td>
</tr>
</tbody>
</table>

1) IPCA – IBGE; 2) Only bus and trucks funding line
Financing has played and will maintain a critical role for the development of CV sales – Increasing role as sales tool

Outlook on financing for commercial vehicles

**CORPORATE AUTOMOTIVE FINANCING**
*2008-2012 [BRL bn]*

- Corporate default rate > 30 days [%]
- Corporate automotive financing

**EXPECTED DEVELOPMENT OF CV FINANCING**

> **Attractive financing environment for customers** – low interest rates, low down payments, long financing timeframes

> **Continuation of FINAME** with attractive conditions as a must to maintain CV growth dynamic

> **Closer management of default rates** with less credit availability for unstable customers

> **Increasing role of captive banks** as universal banks are consolidating their portfolio and limit exposure

> **Decreasing spreads** – financing becoming a sales tool and less a profit generator

Source: ANEF; Roland Berger
The high age of trucks should drive an increasing renewal, but primarily for smaller operators with less financial flexibility.

Fleet age distribution in Brazil

Cumulative age distribution curve

Age distribution by operator type

<table>
<thead>
<tr>
<th>Operator Type</th>
<th>Until 10 years</th>
<th>10-20 years</th>
<th>20-30 years</th>
<th>30-40 years</th>
<th>&gt;40 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies</td>
<td>61%</td>
<td>22%</td>
<td>11%</td>
<td>6%</td>
<td>1%</td>
</tr>
<tr>
<td>Cooperatives</td>
<td>39%</td>
<td>27%</td>
<td>21%</td>
<td>12%</td>
<td>1%</td>
</tr>
<tr>
<td>Autonomous</td>
<td>17%</td>
<td>23%</td>
<td>32%</td>
<td>25%</td>
<td>3%</td>
</tr>
</tbody>
</table>

KEY CHALLENGES of a fleet renewal program:

> How to stimulate real additional demand rather than incentivize already planned renewals?
> How to habilitate truck owners to afford and finance new vehicles?
> How to avoid continued disruption of market prices impacting planability?
> How to ensure that old trucks are disabled/recycled?
> ...
Rio de Janeiro and São Paulo already started their own initiatives to encourage carriers to renew their fleet

Current fleet renewal programs in Brazil

**CURRENT INITIATIVES IN PLACE**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RenovAR</strong></td>
<td>National Renewal Fleet Trucks, launched in 2009</td>
</tr>
<tr>
<td></td>
<td>Aims to renew all trucks &gt; 20 years in the next 10 years</td>
</tr>
<tr>
<td></td>
<td>Bonus when trucks are delivered to recycling centers</td>
</tr>
<tr>
<td><strong>Rio de Janeiro</strong></td>
<td>Launched on February 2013, expects to renew 30% of fleet and to reduce the average fleet age of 17.1 to 12 years until 2017</td>
</tr>
<tr>
<td></td>
<td>Old truck is exchanged for a certificate that allows the purchase of a new vehicle free of ICMS (12%)</td>
</tr>
<tr>
<td><strong>São Paulo</strong></td>
<td>Buyers finance the purchase of new vehicles without incurring interest, within eight years</td>
</tr>
<tr>
<td></td>
<td>Initially offered to operators in the Port of Santos region – Highest average truck age in Brazil</td>
</tr>
<tr>
<td></td>
<td>Intends to renew over 1,000 30 years old trucks serving Port of Santos</td>
</tr>
</tbody>
</table>

1) Development Agency of the State Government

Source: Press clipping; Roland Berger
The new driver regulations may impact the demand – Exact consequences not yet clear

New driver regulations in Brazil

NEW DRIVING REGULATION (12.619/12)

Regulates working hours of truck drivers
- Maximum driving time 4 hours
- 11 hours of rest in a 24 hour period

CRITICAL POINTS
Transportation companies and associations have been trying to modify certain aspects of regulation:
- Freight cost increase estimated at ~14%
- Lack of infrastructure and rest stops throughout the country

LIKELY IMPACT ON CV SALES

MORE DRIVERS
Possible impact p.a.
0 units

MORE TRUCKS
Possible impact p.a.
3-5 k units

1) Enacted in 2012, scheduled to go into effect in March 2013
2) Applies to vehicles with more than 10 seats and cargo with a gross weight over 4,536 Kg

Source: Roland Berger Strategy Consultants
The Mega-events will have no big impact on the truck demand, as they are already considered in the baseline

Mega-events and their influence on truck demand

MEGA-EVENTS OVER THE YEARS

Petrochemical Abreu e Lima
13 bn BRL
2007

Petrochemical Complex RJ
22 bn BRL
2008

World cup in 2014
26 bn BRL
2008-2014

Nuclear power plant Angra 3
10 bn BRL
2010

2007
4 bn BRL
Açu Super Port

2008
16 bn BRL
Hydroelectric Santo Antonio

2009
26 bn BRL
Olympic games in 2016

2011
26 bn BRL
Hydroelectric Belo Monte

CONSUMER VS. INDUSTRIAL GPD

Indexed: 2005 = 100%
R² Industrial GDP = 0.10
R² Consumer GDP = 0.89

Source: Santander; PDE 2020; EPL; Press research; Roland Berger
Bus demand will profit from BRT investments across Brazil

Announced and expected extensions of major BRT systems in Brazil

### BRAZILIAN BRT SYSTEMS

<table>
<thead>
<tr>
<th>City</th>
<th>Current Extension [Km]</th>
<th>Planned Expansion [Km]</th>
<th>Completion date</th>
<th>Passengers/day ['000]</th>
</tr>
</thead>
<tbody>
<tr>
<td>São Paulo</td>
<td>122</td>
<td>150</td>
<td>2016</td>
<td>2,109</td>
</tr>
<tr>
<td>Curitiba</td>
<td>81</td>
<td>18</td>
<td>2016</td>
<td>505</td>
</tr>
<tr>
<td>Rio de Janeiro</td>
<td>67</td>
<td>95</td>
<td>2016</td>
<td>1,631</td>
</tr>
<tr>
<td>Porto Alegre</td>
<td>56</td>
<td>23</td>
<td>2014</td>
<td>491</td>
</tr>
<tr>
<td>Brasilia</td>
<td>54</td>
<td>100</td>
<td>2014</td>
<td>31</td>
</tr>
<tr>
<td>Mauá – Diadema</td>
<td>33</td>
<td>-</td>
<td>-</td>
<td>350</td>
</tr>
<tr>
<td>Sumaré</td>
<td>32</td>
<td>-</td>
<td>-</td>
<td>75</td>
</tr>
<tr>
<td>Belo Horizonte</td>
<td>24</td>
<td>36</td>
<td>2013</td>
<td>1,308</td>
</tr>
<tr>
<td>Goiânia</td>
<td>24</td>
<td>-</td>
<td>-</td>
<td>328</td>
</tr>
<tr>
<td>Salvador</td>
<td>18</td>
<td>-</td>
<td>-</td>
<td>150</td>
</tr>
<tr>
<td>Others</td>
<td>154</td>
<td>178</td>
<td>N/A</td>
<td>5,194</td>
</tr>
<tr>
<td><strong>∑</strong></td>
<td><strong>511</strong></td>
<td><strong>600</strong></td>
<td></td>
<td><strong>10,065</strong></td>
</tr>
</tbody>
</table>

Source: BRTdata; press research; Roland Berger
Considering all impacts, we expect an average market growth of 3-5% in the next years.

Summary of our market assessment

<table>
<thead>
<tr>
<th>IMPACT OF DRIVER</th>
<th>2013</th>
<th>2014/2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Return of market to normality</td>
<td>5-10%</td>
<td>–</td>
</tr>
<tr>
<td>1 Macroeconomic stability</td>
<td>~3%</td>
<td>~3% p.a.</td>
</tr>
<tr>
<td>2 Fleet renewal program</td>
<td>0-1%</td>
<td>0-1% p.a.</td>
</tr>
<tr>
<td>3 Driver regulation</td>
<td>0-2%</td>
<td>0-1% p.a.</td>
</tr>
<tr>
<td>4 Infrastructure investments</td>
<td>0-2%</td>
<td>0-2%</td>
</tr>
<tr>
<td></td>
<td>(only bus)</td>
<td>(only bus)</td>
</tr>
</tbody>
</table>

MARKET GROWTH

~10-15%  

~3-5%

Source: Roland Berger
Mid-term demand outlook remains very difficult to forecast – 2013 should grow by ~15-25 k units over 2012

Commercial vehicle outlook Brazil, 2013-2015 ['000 units]

**TRUCK (> 6 tons)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Optimistic</th>
<th>Pessimistic</th>
<th>CAGR 2012-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>165</td>
<td>133</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>153</td>
<td>146</td>
<td></td>
</tr>
<tr>
<td>2013e</td>
<td>161</td>
<td>151</td>
<td>8.3%</td>
</tr>
<tr>
<td>2014e</td>
<td>169</td>
<td>155</td>
<td>5.2%</td>
</tr>
<tr>
<td>2015e</td>
<td></td>
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</table>

**BUS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Optimistic</th>
<th>Pessimistic</th>
<th>CAGR 2012-15</th>
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<tbody>
<tr>
<td>2011</td>
<td>35</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>34</td>
<td>32</td>
<td>10.4%</td>
</tr>
<tr>
<td>2013e</td>
<td>36</td>
<td>34</td>
<td>6.4%</td>
</tr>
<tr>
<td>2014e</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015e</td>
<td>39</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>

Source: HIS; ANFAVEA; Roland Berger
On top of the slower market growth, several challenges will increase competitive pressure for the Brazilian CV industry

Challenges for the commercial vehicle industry

**KEY CHALLENGES**

A. NEW MARKET ENTRANTS

B. VEHICLE PROLIFERATION

C. INCREASING TCO FOCUS

D. COST INFLATION

E. SUPPLY CHAIN PRESSURE

**INCREASING COMPETITIVE PRESSURE**

- Market price
- Market share
- Product offering
- Margin
- …
Brazil will attract new entrants that will heavily invest into local capacity and try to quickly capture market share

New commercial vehicle manufacturer in Brazil 2013-2015

New plants under construction / planned

Currently installed capacity: ~280 k units

Brazilian states with commercial vehicle production

Greenfield, Ponta Grossa, Paraná
SHIYAN YUNLIHONG
Greenfield, Rio Grande do Sul
FAW: Factory investment study

Joint Venture, Bahia
SHACMAN
Joint Venture, Pernambuco

New Plants under construction / planned:

- Greenfield, São Paulo
- Joint Venture, Rio Grande do Sul
- Joint Venture, Santa Catarina
- Joint Venture, Bahia
- Greenfield, Ponta Grossa, Paraná
- Joint Venture, Rio de Janeiro

OEM
Capacity increase

<table>
<thead>
<tr>
<th>OEM</th>
<th>Capacity increase [000 units]</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAVISTAR</td>
<td>70</td>
</tr>
<tr>
<td>MAN</td>
<td>60</td>
</tr>
<tr>
<td>FAW</td>
<td>50</td>
</tr>
<tr>
<td>SHACMAN</td>
<td>40</td>
</tr>
<tr>
<td>NAVISTAR NC2</td>
<td>30</td>
</tr>
<tr>
<td>DAF</td>
<td>10</td>
</tr>
<tr>
<td>PACCAR</td>
<td>9</td>
</tr>
<tr>
<td>JAC</td>
<td>8</td>
</tr>
<tr>
<td>FOTON</td>
<td>5</td>
</tr>
<tr>
<td>DAF</td>
<td>5</td>
</tr>
</tbody>
</table>

Total capacity increase: 230 [000 units]

Source: Press clipping, Roland Berger
Truck demand will change and more sub-segments will be introduced

Proliferation of the vehicle portfolio

**MAIN SEGMENTS**

**LONG-HAUL**
- Suitable for long-distance transportation on highways
- Great demand through growing transportation

**DISTRIBUTION**
- Suitable for medium distances
- Lower demand, as considered inefficient for long distances and not suitable for inner-city transportation

**CITY DELIVERY**
- Suitable for short distances
- Frequent loadings/unloadings
- Great demand through growing urbanization and inner-city transportation

**PROLIFERATION OF THE PORTFOLIO**

Source: Roland Berger
Driving restrictions are limiting the usage of medium and heavy duty trucks and encouraging the sale of light trucks

**Driving restrictions**

**EXAMPLE**

SÃO PAULO

The downtown of Sao Paulo can not be entered with trucks >6.3 m length and >2.2 m width (additional emissions limits apply) during the day

---

**RESULTS OF A GLOBAL ROLAND BERGER SURVEY: INCREASED NUMBER OF LIGHT TRUCKS IN MEGACITIES**

"Especially between cities. For domestic distribution, you need lighter trucks"

"In the emerging markets, light trucks are definitely going to be a big trend [...]"

"One of the most important effects has been the changes in delivery schedules in city centers – nowadays, there are a lot of urban night delivery services."

"Changes in lifestyle are a major driver for increased commodity flows, which also require new transportation concepts as well as new vehicle concepts."
In the bus segment, a national strategy to improve standardization of powertrain concepts is necessary to reduce high variations.

Bus powertrain concepts

<table>
<thead>
<tr>
<th>FUEL TYPE</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel</td>
<td>São Paulo, Curitiba</td>
</tr>
<tr>
<td>Biodiesel</td>
<td>Curitiba, Rio de Janeiro</td>
</tr>
<tr>
<td>Ethanol</td>
<td>São Paulo, Rio de Janeiro</td>
</tr>
<tr>
<td>Gas</td>
<td>Belo Horizonte, Ceará, São Paulo</td>
</tr>
<tr>
<td>Electro</td>
<td>Brasília, Rio de Janeiro, São Paulo</td>
</tr>
<tr>
<td>Battery/Hybrid</td>
<td>Curitiba, Porto Alegre, Rio de</td>
</tr>
</tbody>
</table>

COMMENTS

- Highly fragmented power train fuel mix defined by municipalities
- High number of power train variations leads to high R&D spending and lack of scale
- To reduce variations, a national strategy to be developed with Brazilian government

Source: Press research; Roland Berger
Driven by regulation, operating costs will continue to increase – Fleets start to pay more attention to TCO calculation

Development of operating cost per vehicle

<table>
<thead>
<tr>
<th>TCO STRUCTURE</th>
<th>COST TRENDS 2013-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle price</td>
<td>～20%</td>
</tr>
<tr>
<td>Driver</td>
<td>～20%</td>
</tr>
<tr>
<td>Fuel</td>
<td>～40%</td>
</tr>
<tr>
<td>Maintenance</td>
<td>～10%</td>
</tr>
<tr>
<td>Tolls and insurances</td>
<td>10%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating costs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle price</td>
<td>&gt; Significant increase of the vehicle price</td>
</tr>
<tr>
<td></td>
<td>&gt; Increasing technology and equipment per vehicle</td>
</tr>
<tr>
<td>Driver</td>
<td>&gt; High labor cost increases in Brazil</td>
</tr>
<tr>
<td></td>
<td>&gt; New driver regulations</td>
</tr>
<tr>
<td>Fuel</td>
<td>&gt; Rising fuel cost</td>
</tr>
<tr>
<td></td>
<td>&gt; Additional cost for AdBlue (Urea)</td>
</tr>
<tr>
<td></td>
<td>&gt; Increasing engines efficiency</td>
</tr>
<tr>
<td>Maintenance</td>
<td>&gt; Stricter safety regulations</td>
</tr>
<tr>
<td>Tolls and insurances</td>
<td>&gt; Increasing tolls for long-distance and distribution</td>
</tr>
</tbody>
</table>

Source: Roland Berger

Shifting buying criteria
Impact on OEM product and service offering

~10% ~40% ~20%
The cost inflation in Brazil, headed by yearly increases of ~10% for direct labor, can't be compensated by productivity improvements.

Cost inflation in Brazil

Auto parts industry operating costs

<table>
<thead>
<tr>
<th>Year</th>
<th>Raw material</th>
<th>Labor</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>63%</td>
<td>17%</td>
<td>20%</td>
</tr>
<tr>
<td>2007</td>
<td>60%</td>
<td>18%</td>
<td>22%</td>
</tr>
<tr>
<td>2008</td>
<td>58%</td>
<td>21%</td>
<td>21%</td>
</tr>
<tr>
<td>2009</td>
<td>55%</td>
<td>24%</td>
<td>21%</td>
</tr>
<tr>
<td>2010</td>
<td>56%</td>
<td>23%</td>
<td>18%</td>
</tr>
<tr>
<td>2011</td>
<td>56%</td>
<td>26%</td>
<td>18%</td>
</tr>
<tr>
<td>2012</td>
<td>55%</td>
<td>27%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Source: Sindipeças; MDIC; Roland Berger

Labor cost and productivity development

Indexed: 2002=100

- **COST PER HOUR**
  - 2002: 100
  - 2004: 130
  - 2006: 175
  - 2008: 208
  - 2010: 255
  - 2012: 320

- **PRODUCTIVITY**
  - 2002: 100
  - 2004: 107
  - 2006: 112
  - 2008: 118
  - 2010: 122
  - 2012: 129

Estimation
In line with the market downturn and cost increase, Brazilian suppliers are facing a profitability challenge.

EBIT margin development of Brazilian suppliers compared to global suppliers [%]

Source: SINDIPEÇAS; Global Roland Berger Automotive supplier study
Several strategic levers exist that promise opportunities to escape the increasing competitive pressure.

Challenges for the commercial vehicle industry and possible strategic levers:

**KEY CHALLENGES**

- **A** NEW MARKET ENTRANTS
- **B** VEHICLE PROLIFERATION
- **C** INCREASING TCO FOCUS
- **D** COST INFLATION
- **E** SUPPLY CHAIN PRESSURE

**STRATEGIC LEVERS**

1. COST EFFICIENCY
2. SUPPLIER DEVELOPMENT
3. PRODUCT & SERVICE PORTFOLIO
4. SALES EXCELLENCE
5. EXPORT MARKETS

Source: Roland Berger
Cost efficiency is a continued basic requirement for OEMs and suppliers in order to cope with the increasing margin pressure.

Cost efficiency

**GOALS**

- Increase labor efficiency
- Increase equipment availability
- Reduce inventory
- Increase flexibility
- Improve quality costs
- Improve utilization
- ...
The tough market situation and increasing requirements might require help from "outside" for the Brazilian supplier base.

Brazilian supply base starting to fall apart.

**WHAT TO DO?**

- Enhanced supplier development (OEMs, Tier-1s)
- Consolidation (esp. Tier-2 base through Tier-1s)
- Financing programs (OEMs, Tier -1s, BNDES)
- Price increases (Sustainability?)
- …
The product portfolio needs to be adapted to the new customer demands – Stronger proliferation offers growth opportunities

Truck product portfolio challenges

PORTFOLIO IMPROVEMENT

- Prepare for higher technological content
- Plan with shorter product pipeline cycles
- Adopt technology of global platforms
- Extend portfolio and search for market niches

WHAT TO DO?

Coverage

Upgrading

LCM  MD  HD
As portfolios become more similar across brands, additional services are needed to differentiate from competition.

Increasing importance of services

**SELECTED SERVICES WITH INCREASING IMPORTANCE**

- Finance products (leasing, rental, buy back, etc.)
- Telematics / fleet management
- Customer & driver training
- Extended warranty and maintenance
- Parts & service availability
- Accessories & driver comfort

**WHAT TO DO?**

- Evaluate current and future customer requirements
- Prioritize gaps to be closed
- Bring/adapt global products and services to Brazil
- Develop OEM/dealer business plan

Source: Roland Berger
Dealers need increasing support from OEMs to better deal with the increasing competitive challenge

Sales excellence

COMPARISON OF CV DEALER PERFORMANCE

What to do?

> Develop sales network
> Improve dealer performance
> Develop business model for after sales and used truck
> Implement F&I business model
> …
Several other South American market show attractive size and growth for the coming years to be captured by "Brazilian" OEMs.

Development of major South America truck and bus markets 2012 vs 2015 ['000 units]

**ARGENTINA**
- 2012: 27
- 2015: 24
- 2015 vs 2012: -4%

**CHILE**
- 2012: 17
- 2015: 22
- 2015 vs 2012: +8%

**PERU**
- 2012: 17
- 2015: 19
- 2015 vs 2012: +5%

**ECUADOR**
- 2012: 8
- 2015: 9
- 2015 vs 2012: +7%

**COLOMBIA**
- 2012: 26
- 2015: 21
- 2015 vs 2012: -6%

**VENEZUELA**
- 2012: 13
- 2015: 13
- 2015 vs 2012: 0%

Source: IHS; JD Power; ADEFA; Roland Berger

1) Record year 2012 and post-buy effect 2015 expected.
Export markets could provide the additional growth potential apart from the Brazilian market – Cost competitiveness is key

Destination of Brazilian commercial vehicle exports, 2010 ['000 units]

Source: Anuário ANFAVEA 2012; Roland Berger

WHAT TO DO?

> Adapt product portfolio for export markets
> Ensure cost competitiveness
> Professionalize importer/dealer
> Improve/extend sales and service network

Source: Anuário ANFAVEA 2012; Roland Berger
In the context of attractive growth, the market will gradually change over, presenting ample challenges to the Brazilian CV industry

1. Stable growth, albeit much slower than in recent years

2. Increasing competition with continuing price/margin pressure

3. Necessary step-change for CV OEMs to defend/develop market position

KEY TAKEAWAYS
It's character that creates impact