MANAGEMENT SUMMARY

Oliver Wyman Analysis Of The Global Construction Equipment Market
Chinese Companies Set the Pace

- The global construction equipment market is mainly growing along the equator
- European, American, and Chinese markets hold relatively little additional potential
- Chinese manufacturers have a significant head start in the new markets
- Western manufacturers must be quick on their feet if they want to be competitive and independent

Chinese companies are increasingly dominating the global construction equipment industry. They are ideally positioned for the world market and, in particular, the emerging markets of the future, and are resolutely continuing down their growth path. They possess something that is of paramount importance in the new markets—a robust, technically simple and affordable product that allows do-it-yourself repair. Although, to some extent, Western companies are also active in emerging geographies, they are still strongly focused on their own niche. Moreover, they are neither aggressive nor fast enough in implementing their growth targets. If they want to keep pace, Western manufacturers must adapt their global location networks and product portfolios. In addition, a massive wave of consolidation will hit the construction equipment industry in the future. Up to 50 percent of all construction equipment manufacturers will lose their independence over the next two decades. Western companies urgently need to take action. These are the findings of Oliver Wyman’s analysis of “Chinese Companies Set the Pace.”

In the coming years, the global construction equipment market will continue to grow, albeit not as strongly as before or after the economic crisis. Total market volume will increase by 2.6 percent per year on average, thus gaining just under 25 percent in the period from 2012 to 2020. The established markets in Western Europe, North America, Japan, and South Korea, however, will only grow by 1.6 percent per year on average until 2020. And the Chinese construction equipment market, the major growth engine in recent years, will also lose some of its dynamism. The steep market decline in some sectors in 2012 has already led to a first correction of the forecast boom. We must expect considerably lower growth rates here in the coming years as well—mainly as a result of the potentially weak growth of the overall economy in the near term. This downward trend is exacerbated by substantial productivity reserves, both in existing machinery pools, and throughout the entire Chinese construction industry. In China, the number of construction machines per capita is more or less the same as in Western countries. If these machines were as productive as Western machines, China would be able to substantially increase its construction work volume without the need to increase today’s sales figures.
Since the traditional triad and China will decline in importance as drivers in the future, growth of the global construction equipment industry will mainly take place along the equator. Average annual growth rates of between four and five percent until 2020 are feasible in these geographies – or even more in individual cases such as Indonesia. Several countries stand out, such as the Brazilian and Indian markets, with their unbroken dynamic growth, and also countries such as Vietnam, Cambodia, Malaysia and parts of the African continent. The latter have only realized around 20 percent of their long-term market potential so far. By contrast, the triad markets have already reached the 85 percent, and China the 75 percent mark. Together, the newly emerging countries along the equator will increase their market volume by around one third to almost 30 percent of the global market by 2020. An entirely new market volume will be available for distribution in these geographies. It will not be necessary to squeeze others out of the market. It is more a matter of serving new customers and working to win their long-term loyalty.

**Chinese manufacturers are clearly at an advantage**

According to Oliver Wyman's current analysis, Chinese construction equipment manufacturers in particular are perfectly positioned to serve the traditional emerging countries and meet the demand of the new markets. They offer a very wide range of products which meets the entire demand for construction and civil engineering equipment – both for heavy and light work. What's more, their products are less geared to specific tasks than the machines of Western manufacturers. And they also have two other advantages: they are based on simple technology, making own repairs possible, and the purchase costs are relatively low.

Furthermore, Chinese companies are extremely active and creative in their endeavors to unlock new sales regions. They are creating their own markets by means of state funding for infrastructure projects, accompanied by investments in raw material exploration or production locations, and traditional sales financing. In the meantime, they have also begun to step up their investments in product quality and local infrastructures. All this calls for a quick response by Western companies. Once users in the local markets have become familiar with Chinese products, and structures such as service networks and spare parts supply have become established, it will be very difficult to convince them to switch to Western products.

**Impending wave of consolidation**

On a global level, the industry has now reached the crossroads. In the years to come, its structure will undergo drastic transformation. As yet, the industry’s five top-earning companies, namely Caterpillar, Komatsu, Hitachi, Volvo, and Liebherr come from triad countries. However, because of the large home market, and because Chinese manufacturers are systematically and rapidly exploiting newly emerging markets, this number will dwindle to at most three by 2020. Even today, two players from the People’s Republic, Sany and Zoomlion, ranked six and seven, are lying in wait. Furthermore, the consolidation forced by Chinese suppliers is beginning to be felt. In the future, leading companies will have a significantly higher share of the total market.

Their global market success will increasingly motivate Chinese construction equipment manufacturers to not only expand their offering through the acquisition of products and/or regional companies, but also their position. As a result, the number of suppliers from the People’s Republic will plummet from approximately 200 today to some 50 in 2020. They will not only aim to supply more machines for construction projects from one source and provide both the machinery and the operators, but also to improve their own technical capabilities for manufacturing the most important construction equipment components. The Chinese administration is all for a certain concentration among construction equipment
manufacturers, as this creates powerful groups and thus makes it easier for the administration to implement its industrial policy targets. However, the last 15 months have shown that the industry will by no means only undergo consolidation in China. Although most recent takeovers of established players such as Schwing took place in specific niche segments, Chinese players will soon put the acquisition or purchase of a significant interest in larger Western suppliers on their agenda. And mergers and acquisitions among Western manufacturers will follow.

**Western manufacturers under enormous pressure to act**

Western suppliers are optimally equipped for the established markets thanks to their machines which are not only based on cutting-edge technology, but are also very efficient and strongly tailored to the specific needs of their customers. Nonetheless, the markets of the future will hold very little potential for selling premium products. Besides, in general Western manufacturers have not yet come up with appropriate products for these geographies. Consequently, the well-being of construction equipment manufacturers from Western Europe, North America, Japan, and South Korea is essentially linked to the development of the triad and the premium segment in China.

The freeze on public construction investments, and the persistently weak economy in Southern Europe will seriously test companies’ viability, especially of medium-sized European manufacturers who still generate the lion’s share of their business in the traditional markets. Caterpillar, for its part, has managed to capture a prominent position in China thanks to enormous investments and smart M&A transactions. Other established players are also making sure they have access to the emerging countries’ product platforms by acquiring stakes in Chinese suppliers.

Western manufacturers must act urgently if they want to secure their competitiveness and, thus, their independence in the long term. Essentially, they must not only expand their product portfolio top down, but also adapt it to the requirements of customers in growing markets to safeguard their share in global growth in the future as well. Their goal must be to adjust their prices to those of Chinese suppliers in such a way that their machines, which distinguish themselves through product quality, brand, or “Western” service products and service quality, are a genuine alternative for customers in the markets of the future.

**Review strategies**

If new products no longer fit in with a manufacturer’s premium brand, it would be good to consider introducing secondary brands. In addition, in the medium to long term, manufacturers will not be able to avoid setting up their own sales, service, and production locations in growth geographies, and expanding and professionalizing existing structures – hereby ensuring that they are close enough to the customer and, at the same time, able to benefit from advantages of location. “Budget products” for premium products have a number of positive side effects. On the one hand, they boost volume, thus improving the efficiency of sales. Higher volumes also lead to greater utilization and, consequently, more professional service networks, as well as improved spare parts logistics. On the other hand, they protect the profitable premium segment. The industry is much faster paced than in recent decades. Construction equipment manufacturers in the West should examine their company’s current competitive environment closely, and review and, if necessary, redefine their strategies. In addition, they are called on to formulate and rigorously implement focused action plans.
The five drivers in the new markets

The economic dynamics in Indonesia, Vietnam, Cambodia, Malaysia, as well as parts of the African continent are driven by the following five factors:

- The exploitation of substantial raw material sources, or the adoption of a specific manufacturing focus in the light of globalization
- The high demand for infrastructure projects, such as the construction of road and rail networks, or airports to serve local growth industries
- Growing standards of living, resulting in more construction activities, especially in the construction industry, such as the building of production halls, warehouses, administrative and residential buildings
- The low degree of mechanization of the local construction industry, and an unsuitable or technically outdated construction machine population
- A non-existent, or underperforming domestic construction equipment industry
The global construction equipment market will grow by around 25% until 2020. China’s growth will be more dynamic than in the past. New markets will become more and more important.

**Volume of regional construction equipment markets**

<table>
<thead>
<tr>
<th>Region</th>
<th>Index (value), 2012=100</th>
<th>Volume growth 2012 vs. 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>RoW</td>
<td>39</td>
<td>+3.6% 133</td>
</tr>
<tr>
<td>China</td>
<td>37</td>
<td>+2.9% 125</td>
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<tr>
<td>Japan / South Korea</td>
<td>4</td>
<td>+0.9% 107</td>
</tr>
<tr>
<td>Western Europe</td>
<td>18</td>
<td>+1.6% 114</td>
</tr>
<tr>
<td>North America</td>
<td>25</td>
<td>+1.8% 115</td>
</tr>
</tbody>
</table>

**CAGR**

- RoW: +3.6%
- China: +2.9%
- Japan / South Korea: +0.9%
- Western Europe: +1.6%
- North America: +1.8%

**Index (value), 2012-20**

- RoW: 39
- China: 37
- Japan / South Korea: 4
- Western Europe: 18
- North America: 25

**Volume growth 2012 vs. 2020**

- RoW: 133
- China: 125
- Japan / South Korea: 107
- Western Europe: 114
- North America: 115

Source: Oliver Wyman
In the new, strongly growing markets the demand is for machines based on a simple and robust technology. In the foreseeable future, state-of-the-art technology will only be sold in the rather slowly growing triad markets.

Quantitative and qualitative development of regional construction equipment markets
Index (value), 2012-20, 2012=100

- **Average annual market growth in %, 2012-20**
- **Regional technical standard in 2020**
- **Circle size represents the regional market volume in 2020**

1 Includes, among others, Brazil, India, South-East Asian countries (Vietnam, Indonesia, etc.), other South-American countries, Africa

Source: Oliver Wyman
By 2020, the structure of the industry will change fundamentally, because Chinese players dominate their large home market, very skillfully develop new markets, and drive external growth through acquisitions.

### Ranking of the top 10 construction equipment manufacturers

2012 = “The Yellow Table”; 2020 = Oliver Wyman forecast

<table>
<thead>
<tr>
<th>2012</th>
<th>2020</th>
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<tbody>
<tr>
<td>1.</td>
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<tr>
<td>Caterpillar</td>
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<td>2.</td>
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<td>Komatsu</td>
<td>Komatsu</td>
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<td>3.</td>
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<td>Volvo CE</td>
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<td>Hitachi CE</td>
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<td>Liebherr</td>
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<td>Sany</td>
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<td>7.</td>
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<td>Zoomlion</td>
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<td>8.</td>
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<td>Terex</td>
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<td>9.</td>
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<td>Doosan</td>
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<td>10.</td>
<td>10.</td>
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<tr>
<td>John Deere</td>
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</table>

Source: KHL Group “The Yellow Table 2012”, Oliver Wyman
The new markets will be attractive for much longer than 2020. Early market entry and market development with a long-term focus will pay off.

Construction equipment world 2020+
Volume potentials indicative (value)

Growth heat map
Above Ø of new markets
Below Ø of new markets

Long-term market potential (2020+) = 100
Today’s market
Latitude 0 = “equator”

Note: Calculated based on per-capita construction work, individual countries such as North Korea are not taken into account. Source: Oliver Wyman