

Consolidation in the Global Automotive Supply Industry 2012

*This study looks at
the ability and the
willingness of global
automotive suppliers to
acquire other suppliers.*

*We found that the
consolidation in
automotive powertrain
systems is accelerating.*

Table of contents

Executive summary	1
Industry Backdrop: Automotive is a growth market	2
Auto suppliers' M&A's: Still a hot deals market	6
Who's buying? North American Global 100 back on top	8
Vehicle system insights: Powertrain systems are fast consolidating	10
The road ahead: Globalization, China growth and strategic capex investments	12
Study methodology: Collected and analyzed 30 metrics	13

Executive summary

2011 was a banner year, with more than 300 automotive supplier transactions. 2012 looks positioned to continue with strong deal activity.

40%

Automotive production growth by 2017

North American and European supplier capex has still not recovered from pre-crisis levels.

Technology will be an important differentiator.

Powertrain consolidation is accelerating.

2011 was a good year for many North American automotive suppliers. Driven by strong sales in the US and emerging markets, assembly volumes were up. Automotive supplier deal levels also rose in 2011, topping the 300 mark. North American companies led the way, while European suppliers were among the most tempting targets. Suppliers in emerging markets continued to increase in strength and appetite for bargains abroad.

By 2017, global automotive production is expected to rise another 40%, creating tremendous business opportunities for the best suppliers. But demand isn't consistent around the world. While North America is recovering and emerging markets are doing well, the debt crisis is weighing on Europe. Vehicle sales in Italy and Spain, two major automotive markets in Europe, are expected to be crippled.

Importantly, suppliers must get capacity right by continuing to restore selective capacity in North America where vehicle assembly plant utilization is at record levels after three years of automotive recovery. In 2011, capital expenditures (capex) as a percentage of revenues were still lower than before the crises for automotive suppliers in Europe, North America, Japan and even Korea. And most of these capex investments took place in China and other emerging markets. North American suppliers are now lean after several went through Chapter 11 restructuring or restructured on their own in 2008/2009, and are enjoying high utilization and high profitability. However, a few suppliers, e.g. those that are smaller or privately held, are

taking advantage of profitable growth opportunities in the home market.

However, the situation differs in Europe. European OEMs and suppliers for the most part didn't restructure during the crisis, and are still burdened with significant excess capacity. Poor profitability and potential distress is likely to lead to increased consolidation, with European suppliers as most likely targets.

But competition will be fierce, and technology will be an important differentiator. With the rise of global platforms and many OEM preferred supplier programs, suppliers need to achieve global scale and competitiveness. This can be achieved through delivering advanced technologies, especially around fuel efficiency, and managing complexity in areas like exterior and interior plastic components. Strong, innovative suppliers are likely to swallow up competitors who can't support global programs across all important regions or can't deliver technology or cost leadership to global OEMs.

Powertrain and chassis systems appear to be the hottest areas for deals. The powertrain sector, in particular, was a hot spot of deal activity during the last 12 months, with its line-up of some 60 strong potential buyers and likely 40 or so potential divestors as well as the largest pool of suppliers. Rapid technology advancements are also driving activity. Five of the top ten automotive supplier deals in the last 12 month were targeting powertrain suppliers.

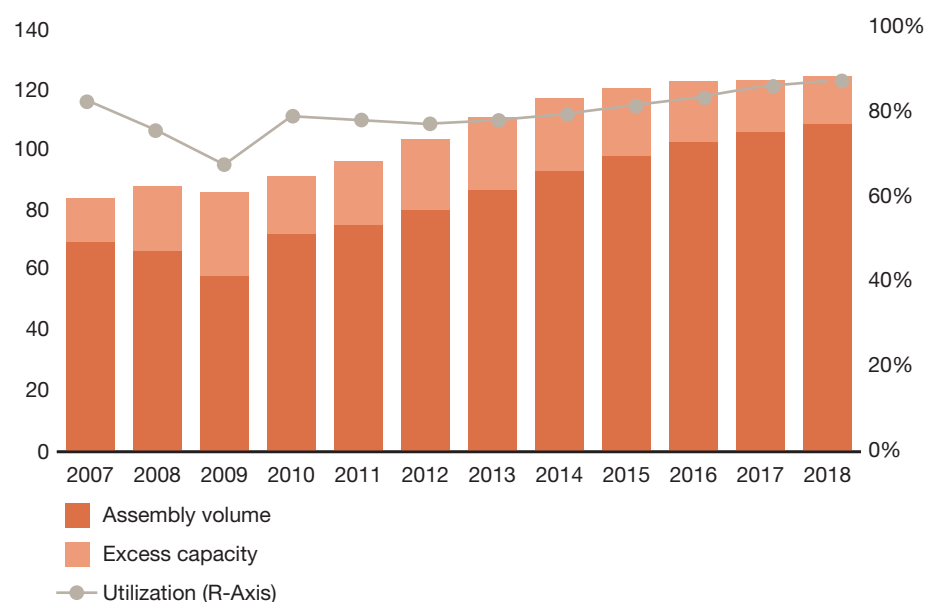
Industry backdrop: Automotive is a growth market

All major automotive markets have recovered from 2009 lows, except for Europe

The 2012 global automotive industry is poised for growth while marked by cautious optimism. Despite the situation in Europe, global automotive production is forecast to hit records each year through 2017. Global vehicle assembly should increase this year by up to five million units, driven by NA and BRIC production increases. Indeed, for the first time in history,

emerging market vehicle assembly exceeded established market assembly and is expected to do so in the future. Looking further out, vehicle assembly is expected to grow by 40% and reach 100 million units around 2017 (see Figure 1). Global capacity utilization is also expected to slightly increase to about 85% in the same time frame.

Figure 1: Global Light Vehicle Assembly Outlook (2007-2018, millions)



Source: Autofacts 2012 Q3 Data Release

Autofacts® expects North American vehicle production to increase steadily for the next five years. The world's largest assembly market, China, will likely expand with the largest share of volume growth during that timeframe. Vehicle production in China is expected to double during the next five to 7 years, despite a slowdown in early 2012. The underlying reality in China is that wealthier households are expected to grow the fastest at over 20% compound average growth rate (CAGR), tripling the number of potential automotive buyers every 4 to 5 years¹.

Conversely, volume in Europe will probably remain under pressure during the next two years. It's likely to decline by about 5% in 2012². We don't expect automobile production to reach pre-recession levels until 2016. Indeed, Europe faces serious challenges in right-sizing its automotive industry. The euro zone debt crisis is impacting European automotive sales, particularly in Southern European markets.³ This in turn is impacting many European suppliers who rely heavily on OEMs that serve the Southern European region.

Additionally, Japan, a traditional automotive powerhouse, faces challenges with a decreasing population, flat economic growth, and a continually unfavourable exchange rate. Key Japanese auto makers are aggressively planning to localize assembly in foreign markets to counter exchange rates. Japan experienced a near-term boost in 2012, enabling the region to recover assembly lost during the earthquake/tsunami disaster of 2011, but the longer-term outlook is not as bright.⁴

Platform strategies dominate, but nameplates and market entries are on the rise

OEMs continue to consolidate and globalize platforms, increasing volume per platform steadily to over 1,000,000 units per year. Supplier competition is therefore expected to increase due to fewer, larger new business opportunities. OEMs will

also likely expect higher volumes to translate into improved pricing that could pressure supplier margins.

Even with fewer platforms, we may see more and newer vehicles. Vehicle nameplate life cycles are shortening. Passenger car lifecycles are now between five and six years, with refreshes every two to three years. Nameplates and market entries per platform are growing, especially in Europe, where luxury market entries will likely increase by 35% during the next five years. Therefore, suppliers focused on interior and exterior trim as well as their mold makers will need to cope with greater complexity, but more business opportunities.

¹ Source: National Bureau of Statistics of China, Chinese municipal government's wage reports, and PwC research and analysis

² Autofacts Quarterly Forecast Update (July 2012)

³ Ibid.

⁴ Ibid.

Global 100: the 100 largest automotive suppliers by automotive revenue include Tier 1, Tier 2, and raw materials suppliers.

Fine-tuning capacity levels a key agenda item

With the uncertain global economy, many automotive suppliers are taking a cautious approach to spending. Overall, supplier capacity investment has not recovered to pre-recession levels.

Capital expenditures (capex) as a % of sales were 5.3% for the Global 100 in 2007; that dropped to a low of 4.3% in 2010. In 2011, it crept back to 4.9% — still well below pre-recession levels. Larger companies are playing it safer; capex investments in the Global 100 remain tight while smaller companies

increased their spending beyond 2007 levels. Private companies also seem to be investing less conservatively than public companies.

In North America, where sales have been solid, suppliers aren't yet celebrating. North American supplier's capex/sales are only back up to 3.9% (see Figure 2).

Figure 2: Capital Expenditure (capex) / Revenues by Region, 2007-2011

In Europe, suppliers are justifiably

hesitant to invest in capacity. Capex as a percentage of revenues in Europe is typically higher than in North America, yet still well below pre-recession levels.

Region	Count in measure	2007 Capex/rev	2008 Capex/rev	2009 Capex/rev	2010 Capex/rev	2011 Capex/rev	2011 vs 2007
Asia China	22	6.0%	9.1%	8.9%	7.2%	10.5%	174.2%
Asia Japan	98	6.4%	7.0%	4.9%	4.8%	5.7%	89.9%
Asia Korea	45	7.4%	7.4%	5.3%	5.0%	6.1%	82.0%
Europe	52	5.0%	5.4%	4.8%	4.4%	4.9%	97.6%
North America	55	4.0%	4.2%	3.6%	3.4%	3.9%	96.5%
South America	4	4.7%	8.0%	13.6%	6.0%	8.6%	182.2%
Grand total	276	5.3%	5.6%	4.6%	4.3%	5.0%	94.6%

Source: PwC Analysis using publicly reported financial data

Supplier capacity investments remain tight in Japan and Korea as well. In China, OEMs and suppliers both continue to expand. Chinese suppliers spent a whopping 10.5% of revenues on capex in 2011. That's a record, well above 2007's

rate and more than double the overall average.

We've seen supply shortages as a result of slow capacity restoration around the rest of the world, although inadequate supply chain transparency is also an issue.

10.5%

Chinese suppliers' capex as a percent of revenue in 2011

Segments where capacity cannot be added quickly—e.g. microchips and integrated circuits to door locks and specialty steels—experienced capacity shortages. Additionally, PA12 resin for nylon applications, including fuel and brake components, was critically tight due to a chemical plant explosion in Germany. A component shortage arose due to a fire at an interior supplier plant in Michigan, and carpet shortages occurred due to flooding at a plant in Pennsylvania. OEMs and Tier 1 suppliers appreciate supply chain transparency now more than ever. Too often in the last year they found themselves relying on the same Tier 2, Tier 3 or raw material supplier plant.

Making cars more efficient, safe and fun

Looking ahead, OEMs will need to introduce more technologies into their

vehicle programs. Fuel efficiency, weight reduction and advanced infotainment are a few examples where OEMs expect suppliers to lead the innovation, design, development, and scale-up of advanced technologies for global platforms.

After the electric vehicle hype, we've already seen an emphasis on improving conventional powertrain technology. Advanced small displacement internal combustion engines, often with direct injection and turbo-charging, 7-9 speed and CV transmissions, and stop/start technology are gaining market share. OEMs will continue to integrate these kinds of solutions quickly. For example, direct injection penetration will likely increase from 31% to 47% between 2011 and 2018. Similarly, 7+ speed & CVT transmissions will probably increase from 12% to 21% in the same time frame.⁵

⁵ Autofacts

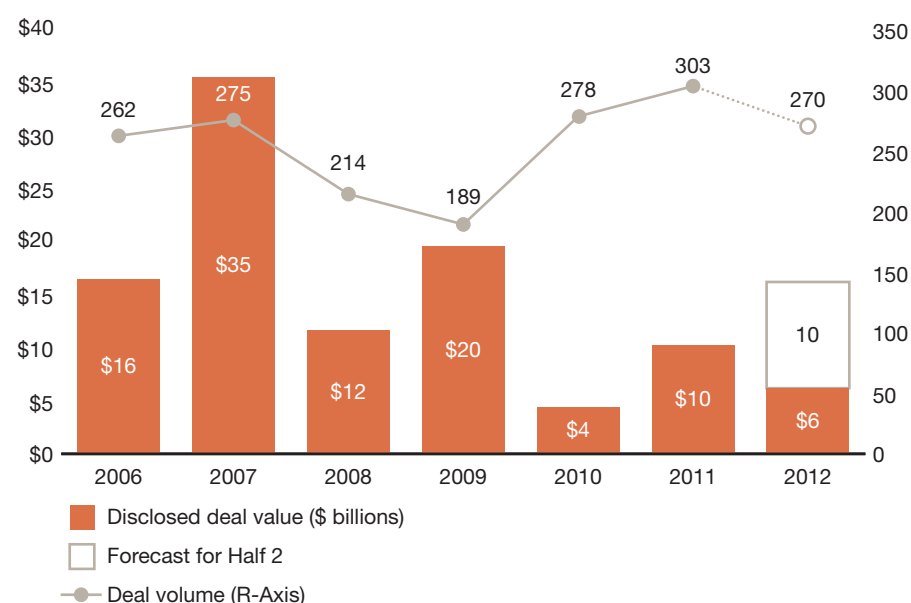
Automotive supplier M&A: Still a hot deals market

Strong deal levels in 2011 are likely to be sustained in 2012

In 2011 the number of automotive supplier M&A deals broke the 300 mark, up from 278 in 2010. That's a faster growth rate than the industry as a whole in 2011, as we reported in PwC's M&A Driving Value: Automotive Insights 2011 Report, which looks at deal activity more broadly across the sector.

Strong transaction levels continued in the first half of 2012, and we expect deals to reach about 270 globally for the full year (see Figure 3). While down from 2011, this still reflects strong consolidation activity in 2012. Deal values will likely top last year's level, in part driven by the very prominent, recently announced divestiture of DuPont Automotive Coatings, a global leader in automotive OE and aftermarket paint.

Figure 3: Component Suppliers M&A Activity (Closed Deals Only) 2007-2012YTD



Source: Thomson Reuters and other publicly available information

Overall, deal activity in 2011 was significantly driven by North American suppliers. US bankruptcies were not a factor during the last two years, in contrast to 2008 and 2009.⁶ Instead, US deal activity was driven by companies with healthy balance sheets. That contrasts with Europe, where supplier distress is playing a role. Overall, major transactions are taking place on both sides of the Atlantic, with five of the top automotive supplier transactions in the last 12 months (July 2011-June 2012) focusing on European assets, a repeat from last year's strong run for European suppliers (see Table 1).

Both Asian and North American acquirers are targeting European suppliers, and European suppliers' role as a buyer has dropped significantly. Asian suppliers are increasingly becoming both buyers and targets. More firms are seeking entry into emerging markets, and several Chinese suppliers also achieved the scale to take on local and global consolidation, the later with the objective to gain technology and market access.

⁶ PwC Analysis ,Thomson Reuters and other publicly available sources

Table 1: Ten Largest Deals by Transaction Value, July 2011-June 2012 (Only closed deals)

Date Effective	Target Name	Target Country	Acquiror Name	Acquiror Country	Automotive System	Transaction Value (\$mil)
02/01/12	Hayes Lemmerz	United States	Ioche-Maxion	Brazil	Chassis	\$1,316.7
11/30/11	TMD Friction	Germany	Nisshinbo Holdings	Japan	Chassis	\$595.5
04/27/12	Schrader International	United States	Madison Dearborn Partners	United States	Chassis	\$505.0
09/30/11	Getrag - Axle Business	Germany	GKN PLC	United Kingdom	Powertrain	\$482.9
07/31/11	Inalfa Roof Systems	Netherlands	Beijing Automotive Group	China	Interior	\$373.0
08/01/11	Sensor-Nite	Belgium	Sensata Tech	Netherlands	Electrical	\$318.7
01/31/12	VTI Technologies	Finland	Murata Electronics	Netherlands	Electrical	\$266.1
05/31/12	Guilford Mills	United States	Lear Corp	United States	Interior	\$257.0
07/29/11	Mark IV Systems	France	Sogefi	Italy	Powertrain	\$216.0
06/28/12	JL French Automotive Castings	United States	Nemak	Mexico	Powertrain	\$215.0

Source: Thomson Reuters and other publicly available information

Private Equity (PE) firms are still only mildly active in automotive supplier M&A, with involvement in only about 10% of all deals. PE firms seem to take greater interest in less visible, more profitable technologies or they engage further downstream (e.g. dealerships, financing, etc.), as in PwC's Driving Value Report.

Who's buying?

Global 100 North American Suppliers back on top

North American suppliers have the highest buyer scores; European, Japanese and Korean suppliers are not as strong

North American automotive suppliers, particularly those in the Global 100, are the strongest potential buyers in 2012, as they have regained the financial and operational muscle to make acquisitions after three years of double digit growth in the home market. That's unchanged from 2011. PwC saw record EBITDA improvement of North American suppliers from 2010 to 2011, continuing last year's trend of improvement in earnings.

It's not just a matter of cash. Many suppliers also maintain high buyer attitude scores – meaning the mindset is right for acquisitions. Fourteen of the most likely global consolidators are located in North America. In contrast, only five are located in Europe.

That points to the challenging situation in Europe. European-based Global 100 suppliers are on average higher on our potential distress scale, and in some cases, restructuring or financial assistance may be needed. These distressed suppliers are more likely to be acquisition targets or are more apt to divest assets to bargain hunters seeking attractive assets or

Potential buyers: Those suppliers with the financial and operational ability to make acquisitions, as measured by their buyer score.

Consolidators: Those potential buyers most inclined to make acquisitions, based on their buyer attitude score.

The buyer attitude score takes into account various factors, including a supplier's track record with acquisitions.

Divestors: Suppliers that are considering to sell a business unit or the entire business due to liquidity problems or because of an opportunity for portfolio optimization.

Potentially distressed: Suppliers that may need financial assistance or restructuring.

technology. In fact, six of the top 12 Global 100 potential divestors are from Europe. Some are portfolio players, who in-turn are investing into new, cutting edge technologies, while others are divesting to raise cash.

A number of Japanese companies also have high potential distress and divest scores due to the challenges of 2011 related to Japanese OEM recalls, the tsunami in Japan and the flood in Thailand.

Chinese suppliers on average have lower buyer scores, because of their relative small size and lack of experience in overseas transactions

(see Figure 4). Their multi-year booming market increased their strength. Some Chinese suppliers may continue to grow organically, while some leading large Chinese suppliers are considered strong consolidators and have in fact undertaken several domestic and international transactions. That's now accelerating, with two of this year's most likely 25 global consolidators located in China. Several more Chinese suppliers fill our global top 50 consolidator list.

Figure 4: Average Scores by Region

	Number of Companies	Buyer score	Divest score	Potential Distress Score
China	105	5.5	4.7	4.8
India	67	4.7	5.1	5.6
Japan	133	5.5	5.6	5.4
S. Korea	62	5.3	5.4	5.6
Europe	196	5.7	5.7	5.6
N. America	102	6.2	5.6	5.2
S. America	24	5.7	5	5
Global 100	100	6.2	6.4	5.7
Global 100 Japan	27	6.4	6.6	5.9
Global 100 Europe	41	6.4	6.5	5.9
Global 100 North America	23	7.1	6.3	5.4
Total(Average of All)	707	5.5	5.4	5.4

	Strongest in category
	Least strength in category

Many companies that did well last year continue to maintain their strength. Several Global 100 suppliers made significant improvements to their buyer scores. Of the 25 Global 100 suppliers scoring high as consolidators, 14 were also included in last year's potential buyer line up. Companies whose scores deteriorated tended to be located in Japan or Europe.

One of several good predictors of a supplier's buyer score is the company's customer base. Suppliers

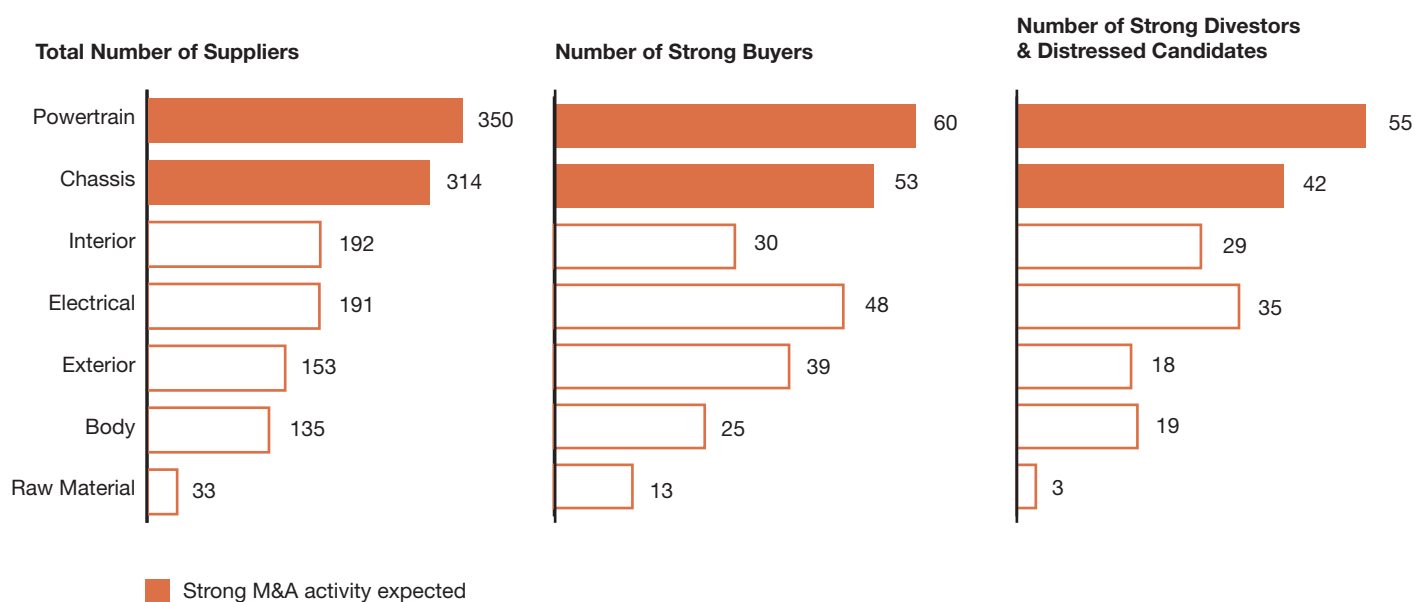
who diversify outside of automotive have better scores than those with a strong or exclusive automotive focus. Suppliers heavily dependent on European sales have lower scores this year than those with global or non-European sales. And suppliers associated with particular troubled European OEMs are the least likely to have the financial muscle to make acquisitions.

Vehicle system insights: Powertrain systems are fast consolidating

Consolidation pressures are strongest in Powertrain and Chassis systems

In a trend that we believe will continue, half of the top 10 deals in both North America and Europe were powertrain related in 2011. This sector has many strong potential buyers and the largest number of participants (see Figure 5)—as well as a rich array of potential targets. Among 350 powertrain system suppliers, nearly one in seven scored as a strong divestor or is potentially distressed. Five of the top 12 Global 100 potential divestors are principally powertrain suppliers.

Figure 5: Supplier Consolidation Pressures by System

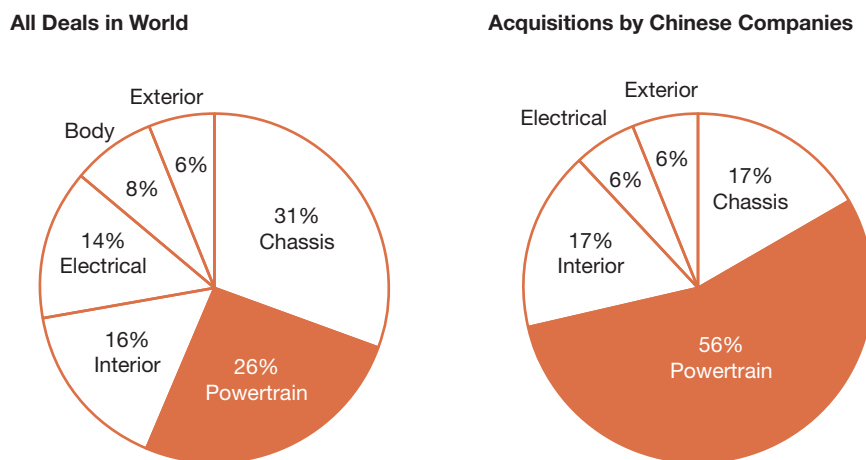


We also broke down scores for powertrain suppliers by subsystem. Most activity in 2012 will likely come from the engine cooling, air management, engine electronics, and injectors and throttle systems.

Financials alone aren't driving powertrain transactions. As we've noted, conventional powertrain technology advancements are key to OEMs' strategies for fuel efficiency. Deals based on key technologies or the potential for innovation are dominating.

China, in particular, was extremely active in the powertrain space. More than half of the acquisitions by Chinese buyers in the last 18 months targeted powertrain systems (see Figure 6).

Figure 6: Number of M&A Deals by Vehicle System 2011 and YTD 2012



Source: PwC Analysis, Thomson and other publicly available information

Following a strong 2011, the chassis system segment also looks promising for deals. Chassis suppliers improved their EBITDA margins the most from 2010 to 2011, with earnings up 10%. The three largest deals from July 2011 – June 2012 all involved chassis systems. As with powertrain, there are many potential strong buyers and several potential divestors or potentially distressed suppliers as targets. The sub-segments with the most potential for deal activity include suspensions, brakes, steering and exhaust systems.

The road ahead: Globalization, China growth and strategic capex investment

As we've noted, 2011's strong deal activity is expected to continue in 2012 and into 2013, with particular focus in powertrain and chassis systems. North American suppliers are expected to continue to lead the way with strategic acquisitions, followed by Chinese suppliers' hunt for advanced technologies. With further consolidation in the automotive supply industry nearly certain, what should be top of mind for supplier executives?

We think there are four key actions to take:

1. Develop and leverage global capability and scale.

This isn't only true for the largest Tier 1 players—mid-size and larger suppliers, Tier 1 and 2 need to make this a focus too. Operating across regions can help companies stay profitable. More importantly, OEMs are increasingly relying on global suppliers to support global platforms. That can mean architectures or platforms with over 70% global common parts—and suppliers will need to be able to engineer subsystems into these platforms for vehicles around the world with changing requirements. Several subsystems need to be produced in low-cost locations in every major geography around the world.

2. Establish and grow a strong presence in China.

We've said this before, but the importance of participating in the Chinese automotive market bears repeating. Most of the global growth is happening in the world's largest automotive market and the race for a share is going full throttle. There are really two automotive markets in China: The global joint-venture vehicle market and the China domestic vehicle market. Smart suppliers participate in both with differentiated and market appropriate offerings.

3. Invest in future technology.

OEMs are looking to suppliers to help develop the next generation of automotive technology and to help make cars safer, more fun and more fuel efficient. Companies that don't develop their ability to innovate and partner with automakers can expect to lose out on preferred supplier status. That means getting left behind when the next generation of global platforms starts gearing up.

4. Be savvy about strategic capacity growth.

In some parts of the world, like North America, capacity is tight. While many suppliers are staying conservative and enjoying high utilization and profitability, some are missing out on profitable growth opportunities. With supply shortages an issue, many markets growing, and technology requirements increasing, careful investments in increasing capacity could pay off.

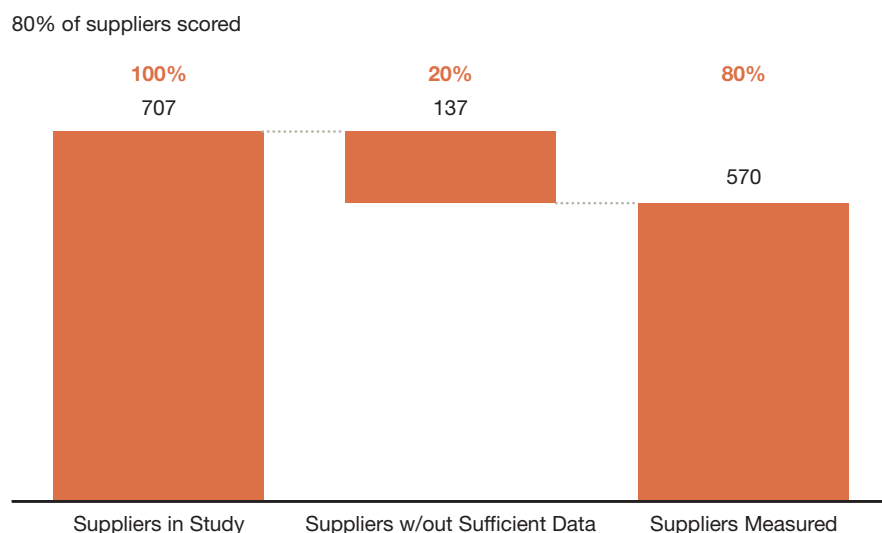
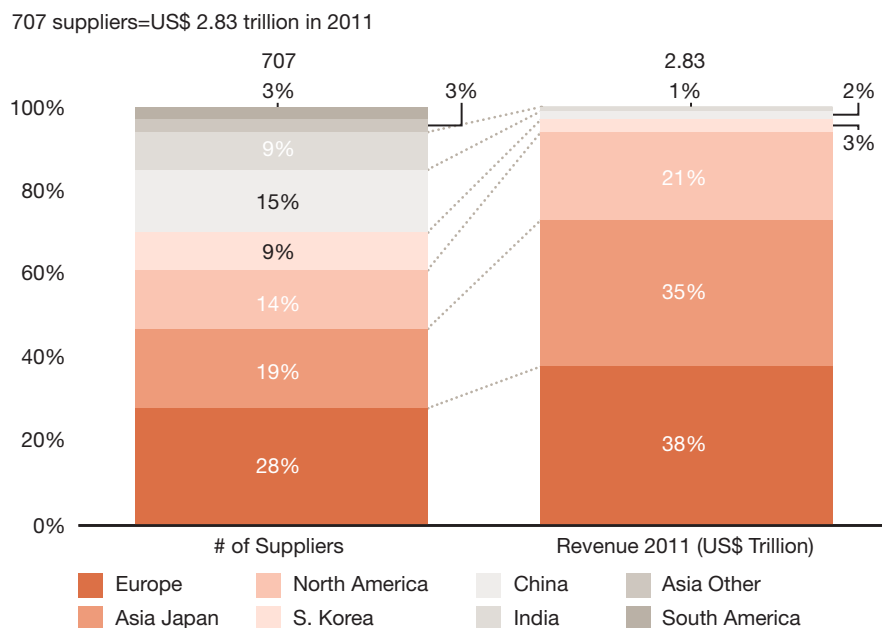
Study methodology: Collected and analyzed 30 metrics

Consolidation in the Global Automotive Supply Industry 2012 is based on data collected for the fifth consecutive year. We looked at the top 100 global automotive suppliers, along with 607 suppliers from key regions (Brazil, China, Europe, India, Japan, North America, and South Korea). Total revenues were US\$2.83 trillion in 2011.⁷ Suppliers were drawn from all tiers, including tier 2 and tier 3 suppliers as well as raw material suppliers.

Relying on data from public information sources and proprietary research (including interviews with industry observers, select suppliers and OEMs), we modeled 30 variables, weighted appropriately for each category. The variables assess suppliers' financial, operational, and strategic performance across eight categories:

- Size and criticality
- Capital structure and health
- Segment commodity structure
- Business health
- Business flexibility
- Customer base
- Ownership structure and management
- Acquisition history

Scores were then developed that reflect each supplier's vulnerability to acquisition or break-up, and its likelihood of acquiring part or all of other companies. Although many of the companies covered in the study are privately held, we gathered sufficient data to score 80% of all suppliers in the study.



Source: PwC Analysis using publicly reported financial data

⁷ Revenues are based on total company revenues and include revenues from non-automotive segments for some suppliers.

About us

PwC's automotive practice

PwC's global automotive practice leverages its extensive experience in the industry to help companies solve complex business challenges with efficiency and quality.

One of PwC's global automotive practice's key competitive advantages is PwC's Automotive Management Consulting team. This global team of industry experts has

unique expertise in automotive product development, manufacturing, supply chain and sourcing. The Automotive Management Consulting team, which conducted the underlying research for this study, provides our team of more than 4,600 automotive professionals and our clients with insights and analyses to assess implications make recommendations, and support decisions to compete in the global marketplace.

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