THINK ACT

AUTOMOTIVE INSIGHTS

BEYOND MAINSTREAM

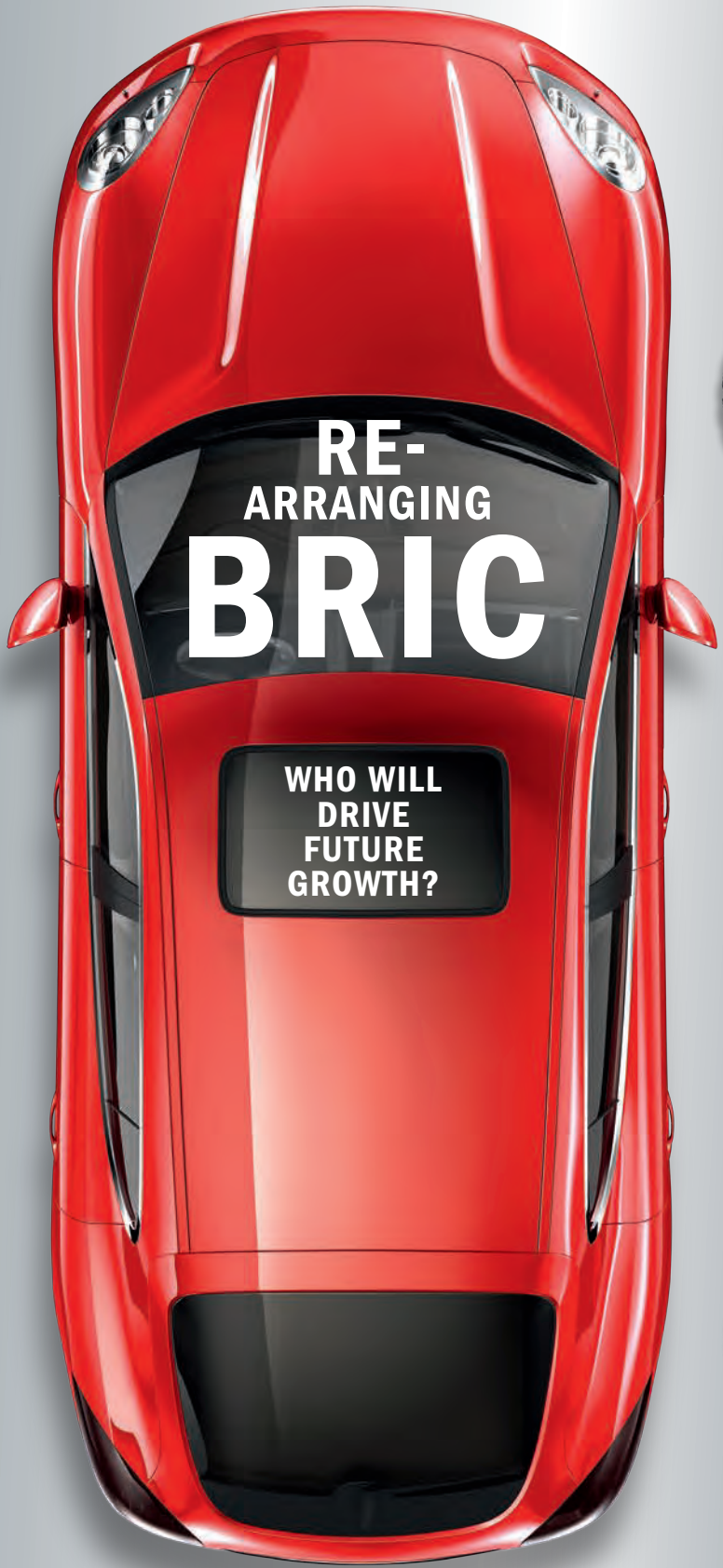
02.2014

BRAZIL

READY FOR RECOVERY

RUSSIA

IN CRISIS MODE



INDIA

WAITING IN THE WINGS

CHINA

THE WORLD'S POWER ENGINE

Roland Berger
Strategy Consultants

WILL BRIC GET BACK ON TRACK ?

B

IN BRAZIL IT'S AN ART TO MAKE SURE THAT THE MONEY YOU MADE IN THE GOOD TIMES IS NOT LOST IN THE BAD TIMES.

Antonio Roberto Cortes, CEO MAN Latin America

C

CHINA'S AUTO MARKET IS GROWING VERY FAST. I BELIEVE 30 MILLION ANNUAL SALES WILL ALSO BE REACHED QUITE SOON.

Matsui Xiuji, Deputy General Manager, GAC Toyota

R

THE MARKET TODAY IS 26% BELOW THE GOVERNMENTAL LONG-TERM PLAN, AND THIS GAP WILL EXPAND TO 36% (WHICH IS 1.3 MILLION CARS) IN 2018.

Presentation to the Russian government by Ford Sollers

I

I EXPECT THE AUTO INDUSTRY TO GET BACK ON ITS FEET AGAIN.

Pawan Goenka, Executive Director, Mahindra

Dear Reader,

MARCUS BERRET
Head of the Automotive
Competence Center
at Roland Berger
Strategy Consultants

Until a few months ago, it seemed as if growth in the BRIC automotive markets was unstoppable. But today the euphoria appears to be well and truly over. Automakers and suppliers in Brazil, Russia and India have seen demand weakening over time, and business has been disappointing. Indeed, China was the only market where the industry achieved a remarkable success: Its share of the global market almost tripled within one car generation, up from 9% to 26% between 2007 and 2014. China has therefore more or less single-handedly generated the additional car sales our industry so desperately needed to survive the crisis and quickly return to pre-crisis levels.

With the precursors to slower growth already emerging in the core markets of Europe, the United States and Japan, automakers and suppliers need to know for sure whether they can rely on the BRIC markets in the future. The current edition of Automotive Insights addresses this question. Our authors explain why we believe that Brazil and India are set to make a comeback. They identify risks the industry has to face in Russia. And they describe the challenges faced by automakers and suppliers in China's increasingly saturated market.

We hope you enjoy reading this issue.

COVER & PAGE 2: VLADIMIR KRAMIN/FOTOLIA; ISTOCKPHOTO; EDITORIAL: ENNO KAPITZA

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THINK ACT // *AUTOMOTIVE INSIGHTS* // 02/2014

SPECIAL BRIC* ISSUE

*WHO INVENTED BRIC?

Jim O'Neill used the acronym for the first time in 2001 in a Goldman Sachs paper entitled "Building Better Global Economic BRICs". O'Neill is a British economist and former chairman of Goldman Sachs Asset Management. He viewed this group of relatively diverse countries as a single entity, positioning it as a counterweight to the G7 economies. Doing so created a symbol of the approaching shift in global economic power away from the G7 states to emerging markets.

FOUR MARKETS – FOUR OPINIONS

How leaders in the industry see future prospects for their region.

Santiago Chamorro on adjustment in Brazil

Thomas Sedran on his wishes for the Russian market

Ravindra Pisharody on the next stage of development in India

Liu Tao on the difficult task of brand management in China

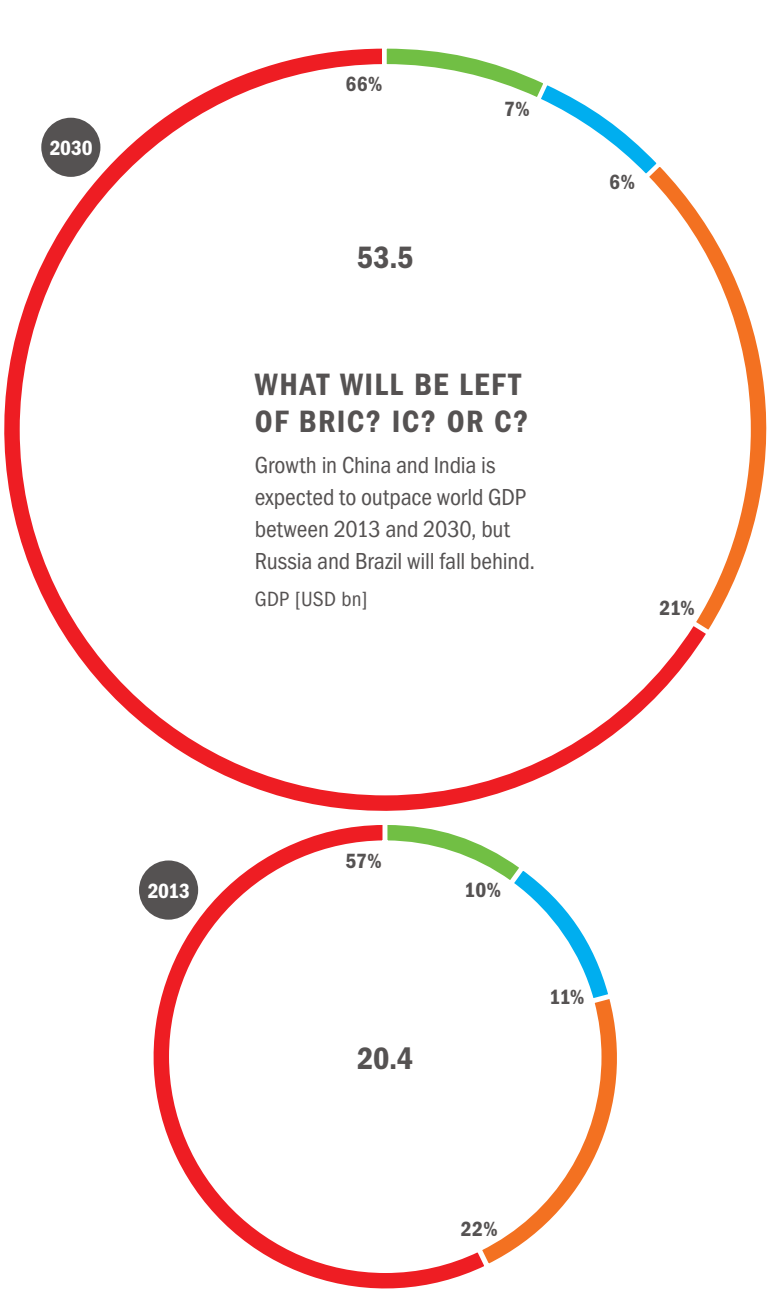
TOPICS IN DEPTH

ESSENTIALS

THE WORLD

BRIC OVERVIEW

The four BRIC countries account for over a quarter of the world's land area and more than 40% of its population. Although geographically separated, with distinct histories and culture, they share a long list of common characteristics: large available labor force, rich resource deposits, a significant amount of foreign direct investment and high expectations concerning GDP growth.



WHAT WILL BE LEFT OF BRIC? IC? OR C?

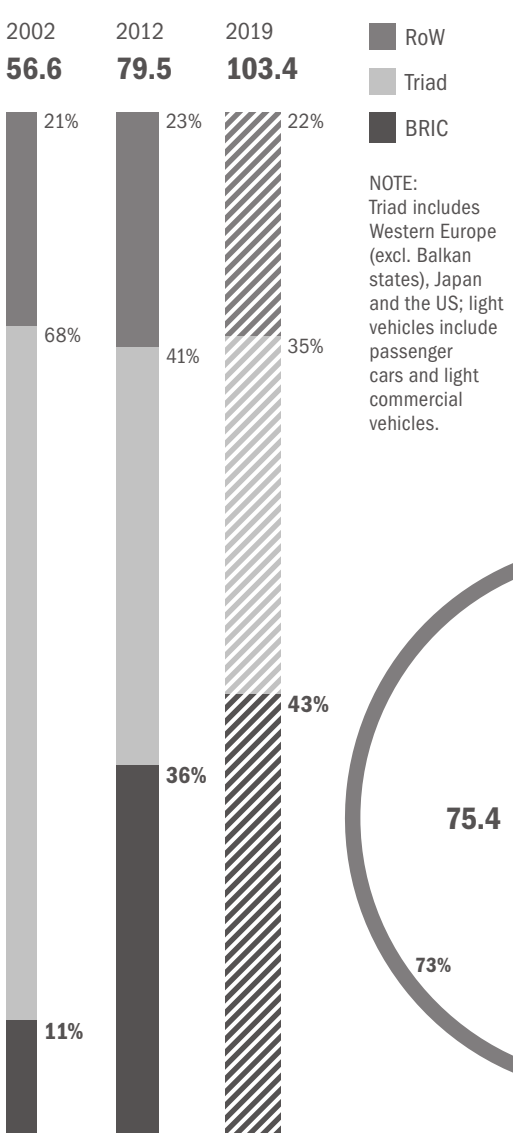
Growth in China and India is expected to outpace world GDP between 2013 and 2030, but Russia and Brazil will fall behind.

GDP [USD bn]

SPECTACULAR CATCH-UP RACE

BRIC has taken over the lead in worldwide automotive sales volume from triad markets.

Light vehicle sales [m units, %]



NOTE:
Triad includes Western Europe (excl. Balkan states), Japan and the US; light vehicles include passenger cars and light commercial vehicles.

B R I C S

* by nominal GDP

BRAZIL is the seventh largest economy* in the world. It is the largest economy in Latin America and the second largest in the Western hemisphere. Inflation and high production costs make it hard for companies to maintain profitability. The lack of competitiveness has forced the automotive industry to focus on Mercosur markets.

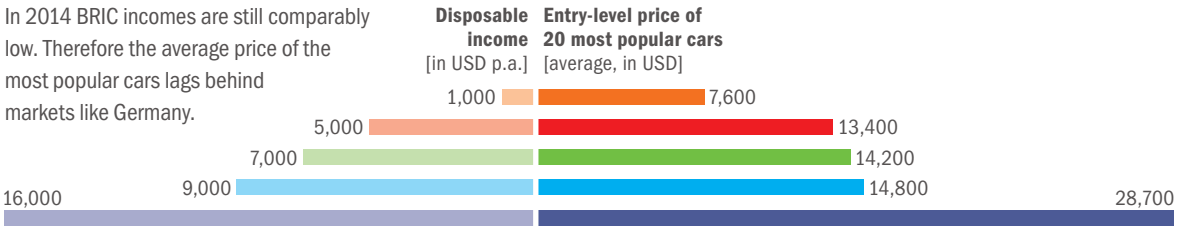
RUSSIA is the eighth largest economy* in the world. Oil and gas production and pipeline projects have been a fundamental cause of economic growth and a geostrategic lever in the country's relations with Europe and Asia. The consequences of the Crimean crisis will have a major effect on automotive production in Russia.

INDIA is the world's tenth largest economy*, is the 19th largest exporter and the 10th largest importer. With 1.2 billion people, its retail market is one of the fastest growing worldwide. India's growth has suffered from a slump in infrastructure and corporate investment which also had significant impact on automotive OEMs and suppliers.

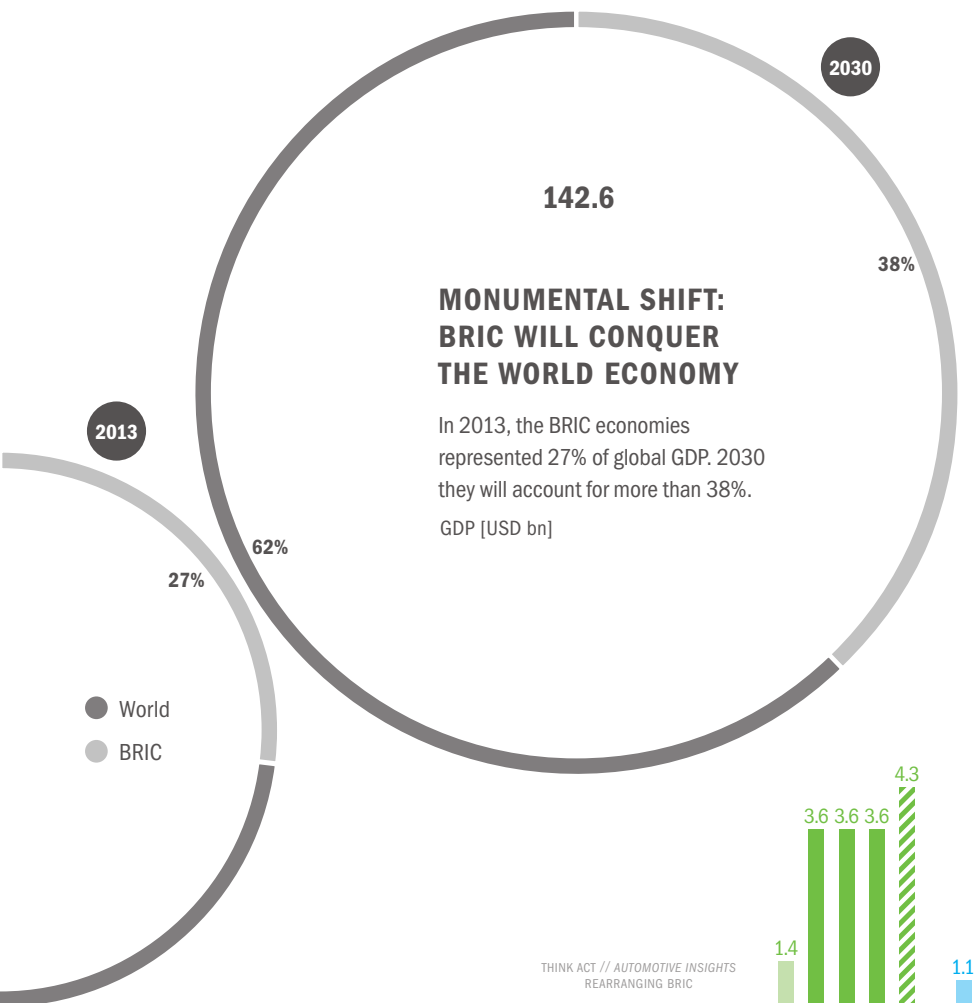
CHINA's economy* is the second largest in the world, and has been one of the fastest-developing over the past 30 years. It also has the biggest manufacturing and technology export markets worldwide. Projected growth of 7% in 2014 demands a new approach for market development in the automotive industry.

LOWER ENTRY PRICES

In 2014 BRIC incomes are still comparably low. Therefore the average price of the most popular cars lags behind markets like Germany.



Sources: Oxford Economics, Roland Berger



MONUMENTAL SHIFT: BRIC WILL CONQUER THE WORLD ECONOMY

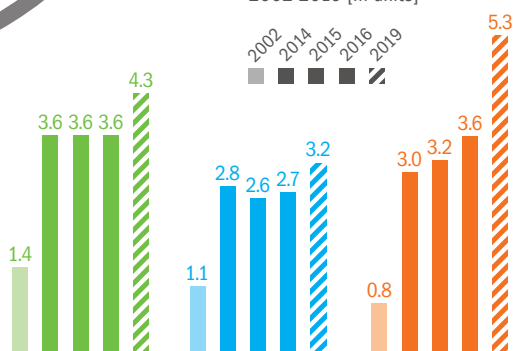
In 2013, the BRIC economies represented 27% of global GDP. 2030 they will account for more than 38%.

GDP [USD bn]

THE WINNER IS ... CHINA

Automotive markets in Brazil, Russia and India have seen dips or even significant declines, while the boom in China seems to be continuing. A closer look at the different countries reveals a new quality of growth in China, the hope for a more dynamic future develoment in India and Brazil and a rather conservative outlook for Russia.

Light vehicle sales 2002-2019 [m units]



Exhausting business: It's not just traveling salesmen at the Copacabana who need a survival strategy.

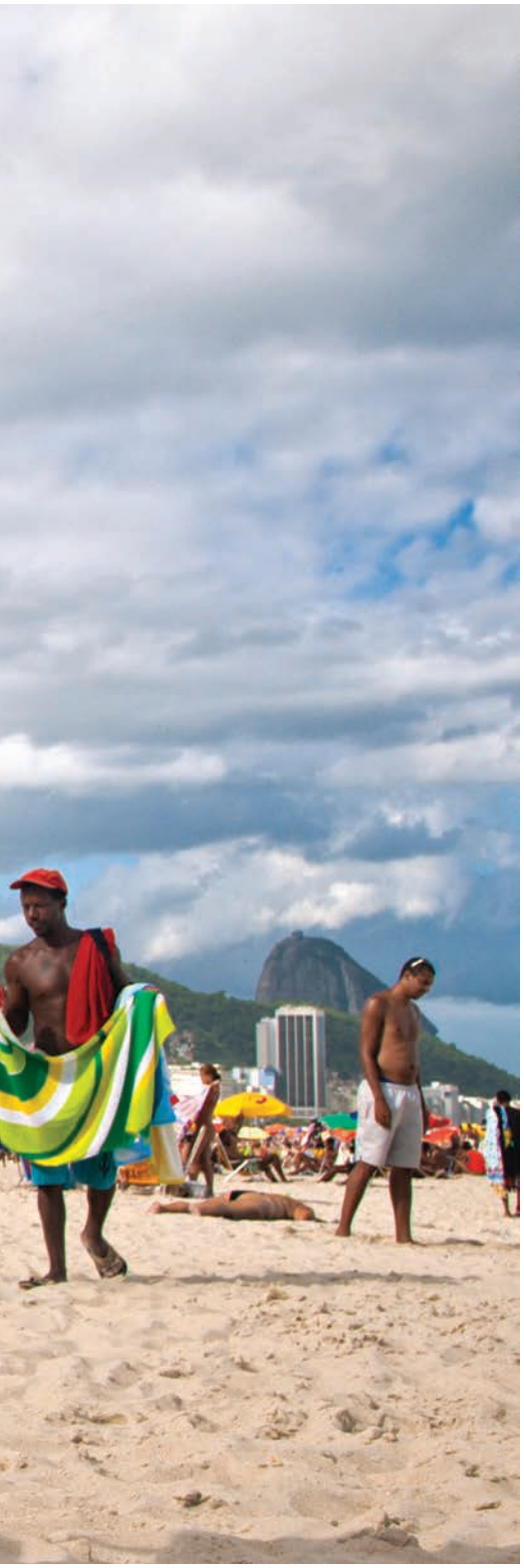


PHOTO: ANTONIO BARTUCCIO/SIME/SCHAPOWALOW; REUTERS/NACHO DOCE; GARY CALTON/PANOS PICTURES

BRAZIL

Looking for growth

The Brazilian automotive industry has the blues. But everybody agrees that this is a temporary phenomenon. Therefore, both car manufacturers and suppliers will need to find a way to master the lean years despite idle capacity.

BY STEPHAN KEESE → p. 54

Reduced hours, mandatory vacations, close-downs, forced leave and layoffs – the automotive industry in Brazil is currently getting bad press in contrast to the past, when Brazil was typically a poster boy for the global car industry. After all, the country has the seventh largest economy in the world. Carmakers had high hopes. They expected to sell five million cars here in 2014. With this in mind, over the past few years they have invested huge amounts in new facilities, product portfolios and dealer networks. But now growth is stagnating, and that's why the industry needs an effective survival strategy.

ROSY PAST – UNCERTAIN FUTURE

Production capacity in Brazil rose overall by 25% between 2011 and 2013. It's not just incumbents PSA, Renault, Nissan and Fiat that have extended their production lines. Luxury carmakers such as BMW, Audi, Mercedes and Land Rover are kicking off production in Brazil, and even Chinese manufacturers (JAC and Chery) are setting up facilities in South America's biggest country. However, in the meantime, companies have received the big wake-up call, as it's now become apparent that the market isn't growing as fast as anticipated. Assuming a more optimistic scenario, unit sales in 2016 will be about 3.7 million, and in a conservative environment this figure will equal some 3.5 million units. Actual production will not exceed 3.5 million units in the optimistic scenario and will likely equal 3.2 million units in a more conservative scenario.

The reasons for these setbacks are known. The Brazilian economy depends too heavily on its domestic market. How dynamically and profitably Brazil's car industry grows hinges directly on domestic consumption. Overall, consumer confidence has suffered heavily over the past two years – and this has dragged car sales down. High vehicle prices, high interest rates and restrictive lending are putting a damper on new car sales.

Truck manufacturers are suffering a significant drop in sales as well. Even in an optimistic scenario, the segment will not find its way back to 2011 levels by 2018. The overall sluggish economy and uncertain financing regulations have slowed down sales. Even governmental incentive programs like planned fleet renewal are unlikely to drive the market back up. Even so, in southern Brazil Chinese manufacturers such as Foton or Shiyan Yunlihong are in the process of expanding their manufacturing facilities. In the end a tight market, a lack of growth and new players are leading to even fiercer competition.

PRODUCTIVITY CHALLENGES

One strategy to achieve the target volumes for cars more quickly would be to push exports. Unfortunately, the models and parts currently manufactured in Brazil are not competitive on the world market. Key ma-

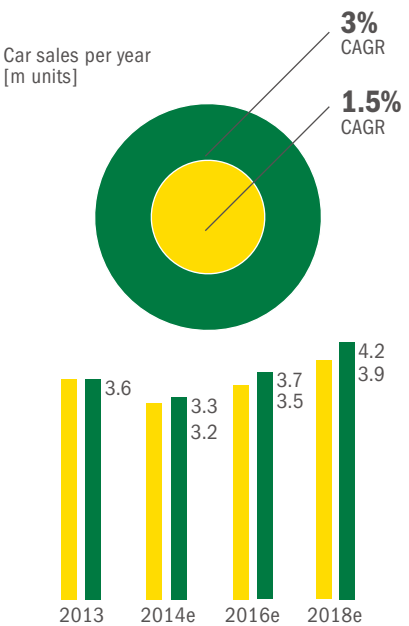
terials for the automotive industry such as aluminum and steel are up to 25% more expensive in Brazil than elsewhere. Furthermore, labor costs are too high, especially in relation to local productivity: Strong unions are getting their way. In recent years, during each individual round of wage negotiations, they were able to push through wage demands that were higher than inflation. The result is that labor costs at manufacturers have increased on average by 9% annually since 2008, while suppliers have had to pay their people 7% more each year. However, since labor costs have been rising faster than productivity,

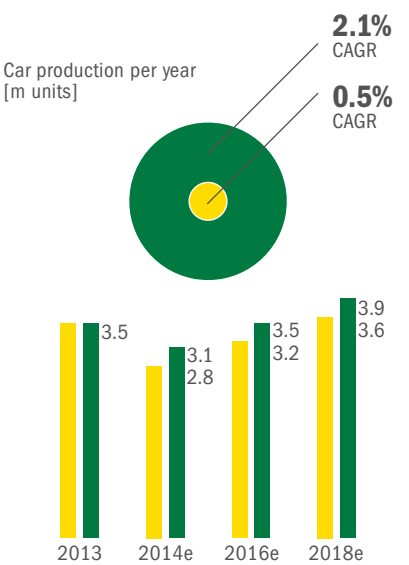
Street view of São Paolo: Former economic wunderkind Brazil has to deal with structural problems.

PHOTO: EDUARDO MARTINO/PANOS PICTURES

Economic recovery at risk

Even in an optimistic scenario, both sales and production of light vehicles* will fall behind high hopes of five million units per year. What's more, Brazilian wages are growing much faster than producivity is.

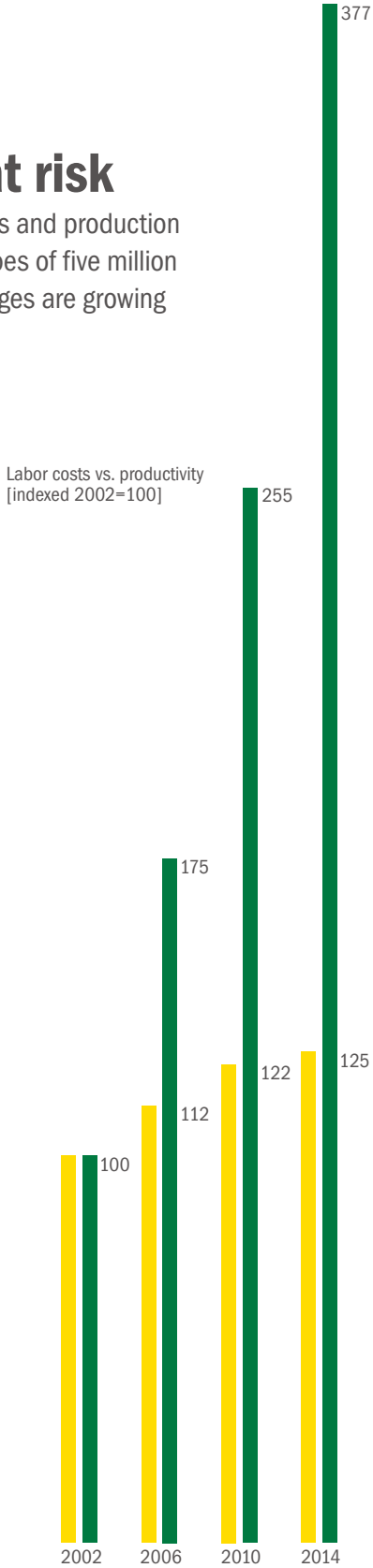




Conservative ■ Optimistic scenario

*Passenger cars and light commercial vehicles

Sources: ANFAVEA, IHS, Roland Berger



Productivity ■ Labor costs

Sources: Sindipeças, MDIC, Roland Berger

Sales talk: Many middle-class families can't get their cars financed anymore.

competitiveness has been steadily declining. And it's unlikely the bargaining power of Brazil's unions will decline in the foreseeable future: Unemployment is low and the car industry is having severe problems finding skilled workers as it is.

Devaluation of the real is also driving costs up, as all imported components are now considerably more expensive.

The Brazilian government is trying to correct the situation. After all, this sector accounts for 13.3% of the country's GDP and employs 450,000 people. Key industry leaders met with government officials in April 2014 to discuss actions. The result is that Brazil's government has now set up a guarantee fund designed to offset the effects of consumer loan defaults. The government has also made things easier for financiers by dropping the minimum amounts that need to be deposited at the central bank. Furthermore, the planned increase in IPI tax (federal tax levied on industrialized products and imports) has been suspended.

However, it now looks like the government has fully exhausted all its options. It cannot slow down the increase in labor costs, there is insufficient investment to expand the infrastructure and it's considered politically unwise to eliminate import tariffs on raw materials. And there's another problem on the horizon: Argentina has technically gone bankrupt. The neighbor to the south is one of the most important export markets for Brazil's auto industry.

HOPING FOR STEADY GROWTH

It's now time for car manufacturers and suppliers to take control of their own destinies. First, they must improve profitability. A market with increasingly slower growth and more and more competitors is making the threat of idle capacity very real. However, there are ways to offset these effects. For example, by fully exploiting the opportunities offered by automation and streamlining all activities – especially at new sites – and making them more efficient. Manufacturers and suppliers will have to take a critical look at their level of vertical integration in Brazil.

A lot of this is based on hope. Brazil has a healthy basis – with its population of almost 200 million people and abundant raw materials, it can be expected that the economy will recover at some point. But the question is: "When"? ◆

Production in Brazil: Skilled workers are hard to find.

INTERVIEW
SANTIAGO CHAMORRO

"WE DON'T TALK ABOUT A CRISIS, WE CALL IT AN **ADJUSTMENT.**"

***The President of GM do Brazil** talks about new consumer profiles, niche experiences and General Motor's biggest asset in the Brazilian market.*

Mr. Chamorro, why is it so difficult to sell cars in Brazil at the moment? Well, first of all we lack consumer confidence. It's at the lowest level in years. There are many reasons for this: Interest rates are going up and banks have no appetite for rolling out credit, especially in the private sector. Just 18 months ago, 65% of credit requests were approved. Nowadays the approval rate is only 40%. So a lot of people can't get financing for their cars. Besides, soaring inflation is forcing car companies to compete with necessities such as school, rent, home appliances, etc.. Car financing installments are just another cost that have been going up along with other family-related expenses. In addition, we have to deal with the discontinuation of tax subsidies (IPI), and there are new safety requirements such as airbags and ABS brakes. As a consequence, we even have to raise our prices. It's clear that a lot of families are opting not to have a car anymore.

How long will it take the Brazilian market to recover from the crisis? We don't talk about a crisis, we call it an adjustment. Normally, whenever the Brazilian market feels an adjustment, it takes two years to recover – if it was an actual crisis, the recovery window would be five to seven years. Therefore, we expect 2015 to be probably flat, with no relevant ups or downs.

Are the measures taken by the Brazilian government sufficient to support market recovery? The government wants to improve the competitiveness of the Brazilian automotive industry: e.g. they plan to make cars more fuel-efficient and safer. And they are strengthening the position of retailers. This is positive as it means important changes for consumers. Incentives within the Inovar-Auto subsidy program have already brought significant progress in terms of fuel efficiency. However, measures like these lead to higher costs. They bring Brazil into an area of conflict between the emerging consumer profile and the devel-

PHOTO: PAULO FRIDMAN/CORBIS; REUTERS/NACHO DOCE; ILLUSTRATION: BEN TALLON/DIE ILLUSTRATOREN

"NEW TECHNOLOGIES NEED A **REASONABLE** PRICE."

Santiago Chamorro

oped market portfolio. It's important to observe cost-related aspects, otherwise we can't take advantage of Brazil's demographic bonus: a young population, a growing and consuming middle class and good levels of employment. So I think there is a lot of work to do on three fronts: taxes, easier credit access and infrastructure.

You mentioned a conflict between the emerging consumer profile and the developed market portfolio. Is the Brazilian market ready for expensive technologies? Those technologies are good as long as it's possible to buy them at a reasonable price. Take the example of air conditioning. In the past, about 40% of all cars had AC, but later that margin increased to 60%, then 70% and now we have it in almost 100% of our platforms. Over time, the price of AC became affordable for Brazilian consumers. If this doesn't happen, they will remain niche experiences. Of course we have some examples of vehicles powered by alternative fuels. Some of the cost is reduced by government subsidies, but the cost difference is still too big compared to models with conventional drivetrains. It will be difficult to sell such technology to Brazilian consumers.

Taking the perspective of General Motors – what is currently putting the biggest pressure on margins? At the moment, sales are highly dependent on rebates and other incentives. Even so, we had a good market share of 16.8% in the first quarter of 2014. However, we need to address three important challenges. First, increasing labor costs. These typically increase faster than inflation. Rising labor costs are ok, if productivity grows at the same pace. But this is not the case in Brazil. In the long run, this means we will lose competitiveness and the ability to export globally. It's difficult to play in the global automotive arena if your exports are weak. We could learn from countries such as Mexico and Korea. They are very good at taking advantage of the global demand for vehicles.

Apart from labor costs, what are the other two challenges? The second challenge is to obtain a certain scale in local operations. Regulations require having solid local production and a good level of localization, which means the ability to add local features to the vehicle. To do this in a profitable way, scale is required. That means we need to support our suppliers in increasing their production volumes. Also, we will probably need to gain scale within our relationships: with fewer suppliers and optimized cost structures between manufacturers and suppliers. The third challenge is to reduce the cost of logistics. We have a monoculture of truck transportation in a country that has eight thousand kilometers of coastline! And we have a strategic map of our suppliers who deserve attention and our commitment to improve logistic costs.

GM do Brazil's portfolio is in the process of upgrading. What are the most important features? To put it in a nutshell: New products with modern technology are replacing older ones. They are more consumer-oriented. Furthermore, the quality that we can deliver to consumers has been improved. We also integrated the production of GM's models globally in order to cover all consumer needs. Onix, Prisma, Cobalt and Spin are products from a single platform. As a result, we are able to improve our industrial scale and our relationship with suppliers. In the future, this will happen more often.

With a strong series of launches behind you, where do you see GM Brazil in the next 15 to 20 years? Brazil is an interesting market and GM wants to stay a part of it. Today we are the world's third largest GM Chevrolet operation, right behind the US and China. Our sales network is one of our best assets. I think we have the best relationship in the whole market and over the long term we'll become even closer with our partners. The Chevrolet brand is a strong asset in the Brazilian market – maybe the strongest in the world. We believe that the Chevrolet brand is the favorite of Brazilians – and we want to reward them with good products. We were a pioneer in online sales, we were first to offer direct dialog with the mechanics, the first to customize vehicles (with the Celta in 2000) and we want to continue to be the number one in key areas. To do so, it's important to have the support of committed employees who are able to understand the very important role they play in our great company. ◆

Santiago Chamorro was born in Bogota, Colombia in 1969. He holds degrees in economics and finance, and participated in the CEO management program at ADEN Business School in Bogota. Chamorro has been working for GM for 20 years now, where he has held positions in sales, service and marketing in Colombia, Chile, Brazil and the US. Since August 2013, he has been President and Managing Director of GM's operations in Brazil.

Red lights: Brazilian consumers tend to postpone car purchases.

BRAZIL

TURNING THE CORNER

Due to low consumer confidence and high inflation rates, Brazil has become a tough market for automotive suppliers. Stuck in a cul-de-sac? Not if ...

BY MARTIN BODEWIG → p. 54

PHOTO: MARTIN ROEMERS/PANOS PICTURES

... suppliers focus on some effective restructuring levers to boost their performance and rightsize their domestic operations.

Caught in a jam: A symbol for the situation of the automotive industry in Brazil

The overall picture of the Brazilian automotive market is rather bleak. No wonder that high hopes have vanished in Brazil. Manufacturers and suppliers alike are suffering from low volumes and idle capacity, and the gap between labor costs and productivity development is becoming more and more of a challenge.

The "Custo Brasil", the costs associated with Brazil's inefficient tax system, red tape, corruption and poor infrastructure, became fully visible in the P&Ls. "Inovar-Auto", a government incentive program offering significant tax reductions for OEMs that use 60% local content (among other criteria), is meant to increase local production rates for suppliers, too. However, the big volume OEMs have long since reached a share of over 60% Overall, there is more and more strain on relations between suppliers and car manufacturers. The latter have become very restrictive with price compensations. Brazilian suppliers that are part

of a global supplier will have it easier than purely local companies. They have better access to financing, technology and management support.

HOW TO BOOST PROFITABILITY AND OPERATIONAL EXCELLENCE

Waiting for better days is definitely not an option for Brazilian automotive suppliers, since forecasts for 2014/2015 see low overall volumes and ongoing cost inflation. In many cases, fast reaction is necessary which means restructuring operations to lower the cost base and safeguard profitability. When savings are difficult to achieve, suppliers should focus on two strategic priorities: achieve operational excellence and lower the break-even point.

The basis for operational excellence is efficient sourcing. This is more than applying self-evident purchasing levers like supply base consolidation and volume bundling or renegotiating with suppliers. Instead, suppliers should think about specific levers. Localization compensates for the devalued currency and high importation costs. Insourcing fills up free capacity and helps to retain the qualified workforce to eliminate the suppliers' margin and logistics costs.

Lean production and automation comes next. Suppliers ought to reinforce lean production principles, reducing lot sizes and throughput times, thus ensuring productivity even with lower volumes. Low cost intelligent automation is a way to compensate for high labor cost increases. In the long run, digital ("smart") production will add to the effect.

Logistics optimization is yet another crucial task. Brazilian suppliers often have high inventories. An excellent organization reduces downtimes, optimizes delivery routes and reduces stocks. Focusing on production planning is key – as customer orders in Brazil are often unreliable. Production planning must be a top management priority, especially in times of downturn.

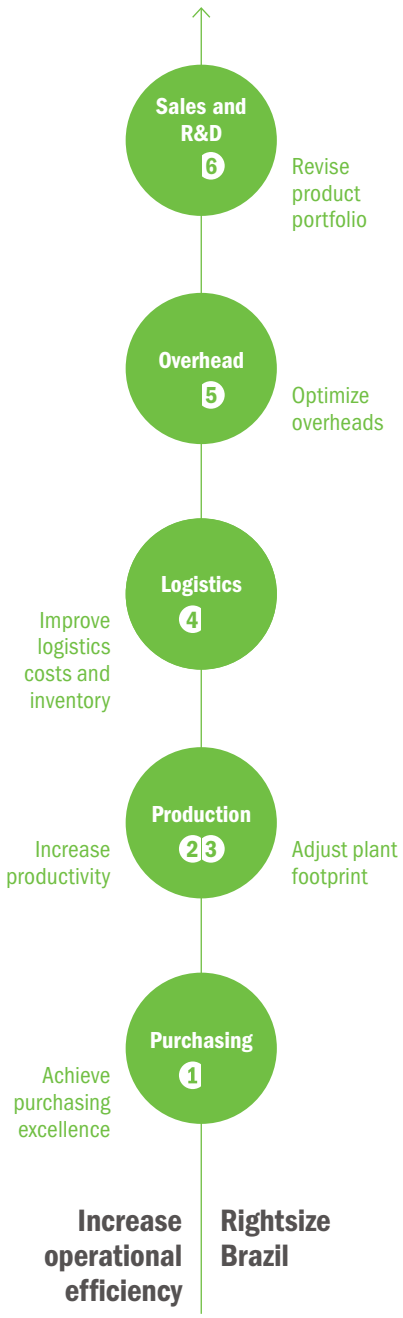
With costs lowered and processes smoother and more efficient, it becomes possible to adapt structural costs to the new reality. It is striking that much of the Brazilian supplier industry is still located within high labor cost regions close to the São Paulo metropolitan area, Campinas or São José dos Campos area. A move to low-cost areas within or outside the country is a clear option, especially for companies with low technology and high labor content. Now is the time to consolidate the number of plants, given the low degree of capacity utilization.

Cutting overhead costs may seem like old-school advice – but it is vital to the overall success of the restructuring endeavor. While many Brazilian suppliers have optimistically built up their overhead structures, because they expected years of growth and profitability, these structures need to be challenged now. Consulting experience shows that a reduction of costs of 10 to 20% is feasible, just by adopting industry best practices. This may compensate for many of peculiarities in the Brazilian tax system. It is unfortunate, but in Brazil, corporate functions that deal with taxes, imports or accounting tie up a lot of resources in comparison to their global peers.

Lastly, why not revise the product portfolio to improve productivity in the medium term? Suppliers need to make clear-cut decisions: If unprofitable projects cannot be turned around, they have to be eliminated. Instead, new product categories with solid growth potential have to be identified. Environmental requirements and the demand for more comfort and safety will foster new technologies – and market opportunities. As the challenges are complex, an unbiased analysis of the most promising levers and a central project management organization is needed to make restructuring a success. ◆

Six levers of performance improvement

How Brazilian suppliers can combat declining margins.



Source: Roland Berger

PHOTO: REUTERS/RODOLFO BUHRER

Stalled: The domestic car industry is hit hard by the political and economic turmoil.

Russia
STUCK IN THE CRISIS

Russia was expected to become the largest automotive market in Europe. This forecast proved to be too optimistic. And there doesn't seem to be much light at the end of the tunnel. We have composed three scenarios to illustrate the situation more clearly.

BY UWE KUMM, JÜRGEN REERS AND JURI WAGENLEITNER

→ p. 54

Russian citizens: Hoping that economic sanctions won't last for a long time.

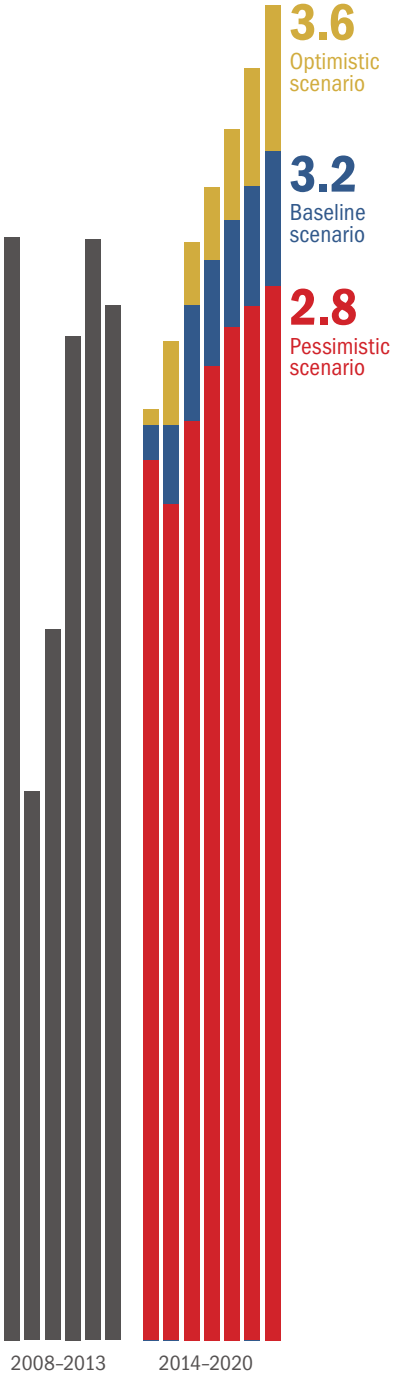
Things aren't what they used to be: In the past Russia was among the core growth regions for almost every car manufacturer. Its economy was booming with up to 8% growth in GDP per annum, fired by soaring commodity prices. Some 140 million people had growing personal incomes which they were willing to spend on cars. They loved modern vehicles, preferably foreign brands. They were also fond of larger models and sport utility vehicles, which provided high margins for the manufacturers. As a consequence, the yearly volume of the automotive market increased by two million vehicles between 2003 and 2013.

Shadows first appeared in 2009, when the global financial crisis heavily hit Russia's optimism. The market was cut by half to 1.5 million vehicles. Quick recovery followed until 2012, but in 2013 the market dropped again by 6% due to the overall economic slowdown. And in 2014, as a result of political and economic changes the market declined about 13% between January and September.

THE POWER OF PREDICTIONS

With a roller-coaster pattern of the automotive market in the past and the current ambiguity about political and economic developments, predictions have become

PHOTO: CHRISTOPHER MORRIS/VII/ CORBIS; GEODAKYAN ARTYOM/ITAR-TASS PHOTO/CORBIS



Light vehicle sales per year [m units]

Sources: IHS, Roland Berger

Setback

High hopes of 4 million cars sold by 2020 are no longer realistic – even in our optimistic scenario.

more difficult than ever. Therefore, we decided to use scenario techniques. We have built three market scenarios, reflecting key trends and risks.

BASELINE SCENARIO. Projections by the government and leading institutes share the estimate that the Russian economy will not grow faster than 2% per year on average until 2020, which is a moderate increase in real GDP for an emerging market. In this scenario we assume that political conflicts will persist in the short term. But we do not expect a further escalation or more severe economic sanctions by the EU or the US against Russia. As the low growth rates go hand in hand with a large budget deficit, the government will not be able to support the automotive market sufficiently. In light of this situation, we expect the market to decline by 12% in 2014. After that a quick recovery is likely and the market will return to pre-crisis levels of 2.9 million vehicles sold in 2017. For 2016-2020, we expect stable annual market growth of 3.5%, leading to a total market volume of 3.2 million vehicles.

OPTIMISTIC SCENARIO. We assume that the market in 2014 will decline by about 10%. But we expect faster recovery to pre-crisis levels. Also the number of vehicles sold by 2020 will be slightly higher than in the baseline scenario – at 3.6 million vehicles. To achieve this, several developments would have to take place: political conflicts have to be resolved, the economy has to grow faster, structural reforms must be carried out and Russia would need to invest more in infrastructure. In addition, support measures for the market are expected, including subsidized car loans and regulations that prohibit usage of old vehicles – just to name a few. In our optimistic market scenario, however, we still stay significantly below previous expectations of over four million vehicles sold per year by 2020.

PESSIMISTIC SCENARIO. In this scenario we expect that the political conflict will escalate further, although we do not assume that import bans on vehicles or components will be introduced. In any case, this would trigger even tougher political and economic sanctions against the Russian economy, leading to its isolation. Conditions like these would impact Russian export revenues and state budgets on federal and regional levels. Economic stagnation would be the consequence, at least in the medium term. And in this case it is likely that the market would not exceed three million vehicles sold per year by 2020, basically stagnating at the pre-crisis level.

None of these scenarios is as positive as the previous forecasts, which were developed five, three or even only one year ago. It becomes clear that the times of double-digit growth rates are over. Russia is still a long-term attractive market due to its size, but it will remain volatile, with high downside risks, and the upside will be much lower than previously expected. And all this is detrimental to local vehicle production in Russia, which in dire need strong and stable domestic sales volumes.

THE DIFFICULT TASK OF COMPETITIVENESS

In the mid-2000s, the Russian government realized that the automotive industry was a backbone of manufacturing and a basis for re-industrialization in the future. It started a policy of protective measures, including high import duties. At the same time it set up localization obligations rewarded by subsidies for local production. The idea was to create demand for localized content, in order to trigger the development of several adjacent industries. Foreign manufacturers received

PHOTO: PICTURE ALLIANCE/DPA

incentives for increasing the share of value created in Russia. This strategy proved to be successful in the beginning.

Unfortunately, Russia's entry into the World Trade Organization (WTO) in 2012 was not in line with the interests of the automotive industry. The import duties on cars will have to be reduced from 25% in 2012 to 13 to 15% in 2018. In addition, all preferential effects (reduced duties on components import, localization obligations, etc.) will have to cease by then. To take the edge off the worst effects for the automotive industry, Russia quickly introduced a scrappage fee on vehicle imports – a measure which turned out not to comply with WTO regulations. In order to compensate for the scrappage fee, annual subsidies worth two billion Euros were approved. This program is expected to last for three years, but there is still a need for annual approval from the parliament within the regular budget process, which puts the subsidy program at risk of being reduced or at least not extended. The market is already suffering from the changing environment. It has to be protected because Russia's structural problems have become even worse.

In 2013, the share of imported cars amounted to about 30% of the domestic sales volume. We expect this number to grow to over 50% in the longer term. Especially production of models in Russia with volumes below 25,000 units per year cannot compete with plants in other regions, even with subsidies in the amount as of today. Upcoming model replacements will not make their business case and justify the needed investments in production plants and supplier tooling upgrades, if capacitiy is available in the home regions. According to our estimates, a total of 600,000 cars or almost 25% of forecast production volume could be at significant risk of being imported by 2020 – instead of being produced locally.

As a consequence, Russian contract manufacturers (e.g. Avtotor, Sollers) will suffer greatly, because they have focused on low volume models and limited contract durations. Several production

At risk: Many local production sites may be downsized or even shut down.

1

LOW SCALE EFFECTS

Compared to other regional markets such as Europe, Brazil or India, the domestic sales volumes in Russia are lower and more volatile. They are not sufficient to produce significant economies of scale. At the same time, unlike Europe or India, the Russian automotive industry is not able to reach scale via large export volumes. Today fewer than 120,000 Russian vehicles are exported, mainly to CIS countries (Commonwealth of Independent States, former Soviet Republics). These volumes are going to decline in the future, as ongoing tensions with the second-largest export market Ukraine will most likely have negative effects.

2

HIGH PRODUCTION COST

Russia has never been a low-cost country, neither for car manufacturers nor for suppliers. Without trade barriers and incentives by the government, the overall cost base is not competitive due to low productivity, a high labor fluctuation rate, poor infrastructure and rising energy costs.

3

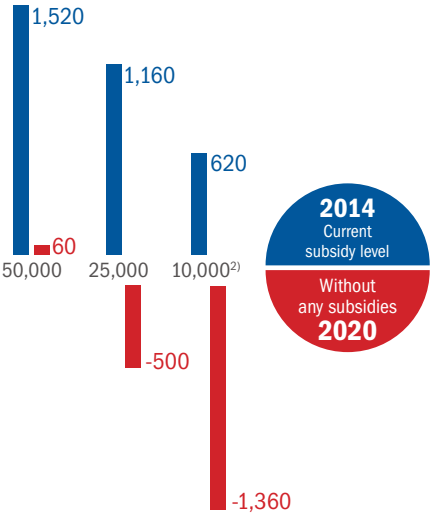
INFERIOR POSITION COMPARED TO INTERNATIONAL HUBS

Russian customers prefer the same models as their European, US or Asian peers. Almost every international car manufacturer produces the same model in its home country, usually in much larger quantities. Available capacity in the home country of manufacturers make Russian plants compete versus incremental cost base, especially if new investments in local production and localization are required in Russia.

Cost disadvantage

Local production in Russia is not competitive without significant subsidies.

Cost effects of local production vs. CBU imports [EUR/car][1)]



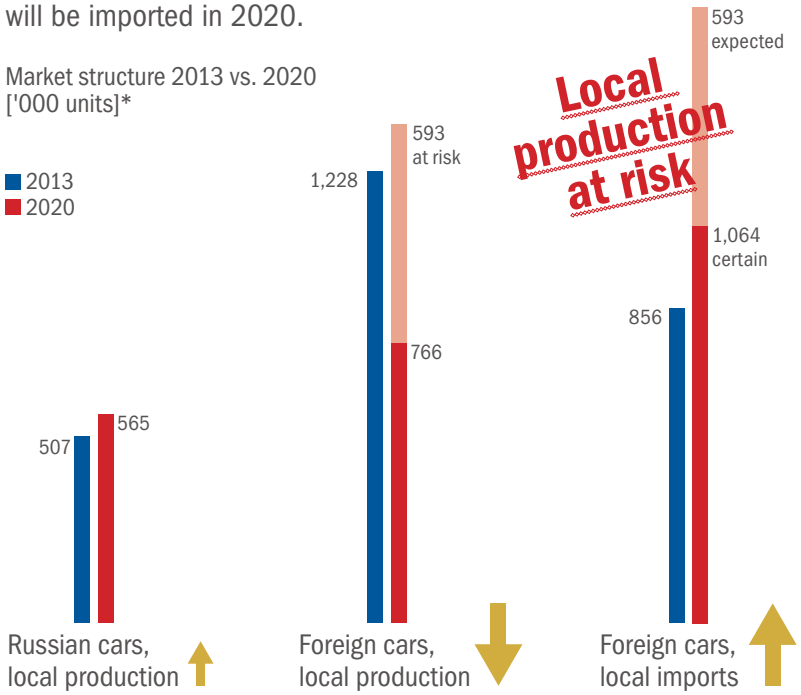
[1)]Calculated for international manufacturers with local production vs. European cost level; volumes relate to single models
[2)]Production of cars per year

Source: Roland Berger

Loss of value creation

More than 50% of the 3.2 million cars sold in Russia will be imported in 2020.

Market structure 2013 vs. 2020 ['000 units]*



* LCV sales not considered

Sources: IHS, Roland Berger

sites in Russia will be at risk of being downsized or even shut down. Unemployment will increase, reducing tax revenues and tightening the budget situation. Lower vehicle production volumes will make the business case for domestic and foreign suppliers even less attractive, leading to a reduction in Russian activities or a revision of current plans to invest in Russia. As a result, also Russian manufacturers like AvtoVAZ will have difficulties in obtaining high-quality components at competitive prices, thus facing the risk of a continued loss of market share versus low cost competition from China and thus increasing the pressure on the downward cycle.

THE TIME FOR ACTION IS NOW

We see a significant risk of the Russian automotive industry entering an irreversible process of deindustrialization. Without fundamental changes to cope with WTO obligations and strong efforts to modernize the economy, there is little room to break out of this trend. However, the consequences can be mitigated if appropriate measures are implemented immediately. What Russia needs is a long-term strategy and support for the industry beyond 2018, which is aligned with key stakeholders and again provides clear long-term economic benefits for local production in Russia – for manufacturers and suppliers. A majority of industry participants still strongly believe in the long-term potential of the Russian market, and are willing to actively shape the change. However, if the industry doesn't turn around soon, they would be well advised to thoroughly review their Russia strategy and reduce the risks of Russian operations. ◆

For further information on the impact of economic sanctions in the wake of the Ukraine crisis, please take a look at our "Economic scenario update 2014" → p. 53

"Russia continues to be an important but challenging market."

***The head of Chevrolet and Cadillac Europe** explains why Russia (still) has top priority for General Motors.*

Mr. Sedran, what makes the Russian automotive market so unique? Well, Russia is quite different from the rest of Europe. There are some 300 vehicles for every 1,000 people in Russia, which is well below the quota of most European countries. The country is huge, but public transportation is limited and underdeveloped. Hence, individual transportation is and continues to be essential for the Russian population. Also there are a lot of used cars on the roads – ten years and older – which will need to be replaced in the near future.

How do local conditions affect business? Take the extreme climate in Russia: Heavy snow and ice in winter and very hot summers. Many roads are of poor quality and some urban areas don't even have any. This combination of conditions, for example, has fueled the segment of SUVs in the past. It tripled from 2009 to 2013.

How will the automotive industry in Russia develop over the short term? We had two consecutive years of declining industry volumes. And the market dynamics in the first half of 2014 look quite similar to the same period last year. According to the Association of European Business Automobile Manufacturers Committee, the automotive market in Russia will further weaken in the second half of 2014. Russia continues to be an important but challenging market. However, we believe in the long-term growth of the Russian automotive market and consider this to be a top priority market for General Motors.

Does the government support your commitment? The government is in general willing to foster the automotive industry – especially local manufacturing activities. In 2012, we signed an agreement with the Russian government under the provisions of Regulation 166 (Contract of Industrial Assembly). We have committed ourselves to expanding our local manufacturing facilities. According to this, we plan to increase our annual local production capability to up to 350,000 vehicles. In exchange privileges on import duties for our components are granted. An integral part of our Russia strategy is a major program to develop our local suppliers as well as to attract our global supplier partners to Russia.

If you could have three wishes to solve current challenges for GM in Russia, what would they be? First, I would appreciate more favorable economic conditions. As an example for the Russian market you have a volatile national currency, the Russian ruble, which just this year increased our cost of business in Russia significantly. The only way to react is to increase localization and try to have most of the supply base in the ruble zone. My second wish is quick market recovery, ideally supported by the government. The automotive industry is still dealing with a low purchasing power of consumers in the Russian provinces, especially in small towns and villages. They need personal transportation urgently, but they don't have enough money to buy a new car.

And what about the third wish? Finally, I would appreciate more competitive Russian suppliers. Despite competitive wage structures, the prices for parts from Russian suppliers are still significantly above world market standards and represent a major roadblock for more localization and exports from Russia. ◆

Thomas Sedran is President and Managing Director of Chevrolet and Cadillac Europe. Previously he was a Member of the Board of Adam Opel AG and held leading positions at Roland Berger Strategy Consultants and Alix Partners. Sedran holds a master's degree and a Ph.D. in Business Administration. He was born in Augsburg, Germany in 1964.

ILLUSTRATION: BEN TALLON/DIE ILLUSTRATOREN

Gaining ground: The Indian automotive industry is expected to grow faster in the next few years.

INTERVIEW WITH TATA's RAVINDRA PISHARODY p. 28

INDIA
READY TO ROLL AGAIN

The growth of the Indian automotive market leveled off in recent years. Manufacturers and suppliers used the respite to work on costs and export readiness. New government initiatives will help India get back on track in 2015.

BY WILFRIED AULBUR → p. 54

Against all odds, the Indian automotive industry has made its presence felt globally. Starting from humble beginnings at the time of liberalization in 1991, India is today the sixth largest motor vehicle producer globally and the third largest market in Asia. Besides four-wheelers, the country boasts the world's largest tractor market and second largest two-wheeler market. India's suppliers are rapidly upgrading skills and scale to leverage this opportunity. Some have already transformed themselves into global powerhouses.

India's promise and long-term potential is undeniable. By 2025 the motorization rate will increase fivefold. At 72 vehicles per 1000 inhabitants, the country's motorization rate will be 60 to 70% higher than that of China in 2010. Driving this development are higher aspirations, better infrastructure, and increasing living standards and disposable income.

ALL LIGHTS ARE GREEN

Across all segments we see solid growth. Passenger vehicles will reach about five million sales by 2020. Commercial vehicles should see a solid growth of 10% per year on average to reach about one million units by 2020. Two-wheelers are likely to achieve sales volumes of 30 million units with scooters growing twice as fast as motorcycles. Conservative estimates for tractors, a segment that still depends heavily on the monsoon season, put growth rates at 7% and the volume at around one million units in 2020. India's construction equipment market will grow at 10% per year to reach about 90,000 units in 2020. Here, volumes will not be the problem, but profits may prove to be elusive due to the massive global overcapacity that has been put on the ground in China.

Some indicators show that the dynamics of the Indian market was stabilized in recent years. Low economic growth, investment blockage and red tape have stunted growth in passenger, commercial and off-road vehicles. In financial year 2014 capacity utilization for passenger vehicles has fallen significantly. When market leaders Maruti Suzuki (capacity utilization of 80%) and Hyundai (capacity utilization of 93%) are not taken into account it was lower than 60%. In commercial vehicles, capacity utilization has fallen to a painfully low level of 40%.

MOVE THE METAL

Low capacity utilization puts pressure on organizations to "move the metal". By pushing sales activities like special incentives for customers and sales people, special editions or promotions, automotive companies can protect market share and volumes. Reduced profitability is often the consequence. This is compounded by an extremely competitive Indian industry environment, which allows razor-thin margins especially for many subscale players in the passenger vehicle and commercial vehicle segment as well as their dealers.

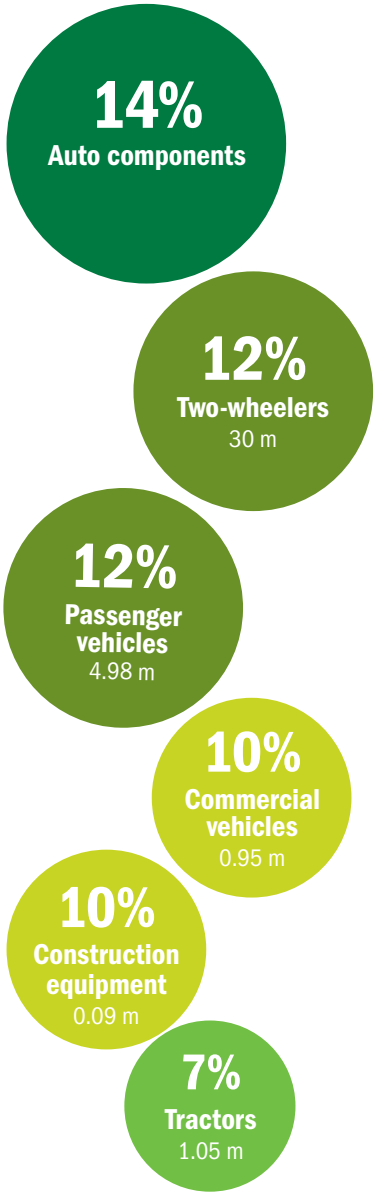
Despite the recent weakness, nearly all international players bet on India's future by setting up substantial operations in the country. The capacity expansion of car manufacturers has grown by 12% per year on average since 2009. Over the last 14 years, foreign direct investments (FDI) in the automotive sector have amounted to about 4.5% of total FDI inflows into India. Private equity companies have also managed to unlock investments in Hero MotoCorp, International Tractors, Agile Electric, Alliance Tires, Endurance, Avtec, and others.

PHOTO: SANJIT DAS/PANOS PICTURES

Robust growth

All segments of the Indian automotive market are expected to take off.

Sales forecast
[CAGR and units sold in 2020]

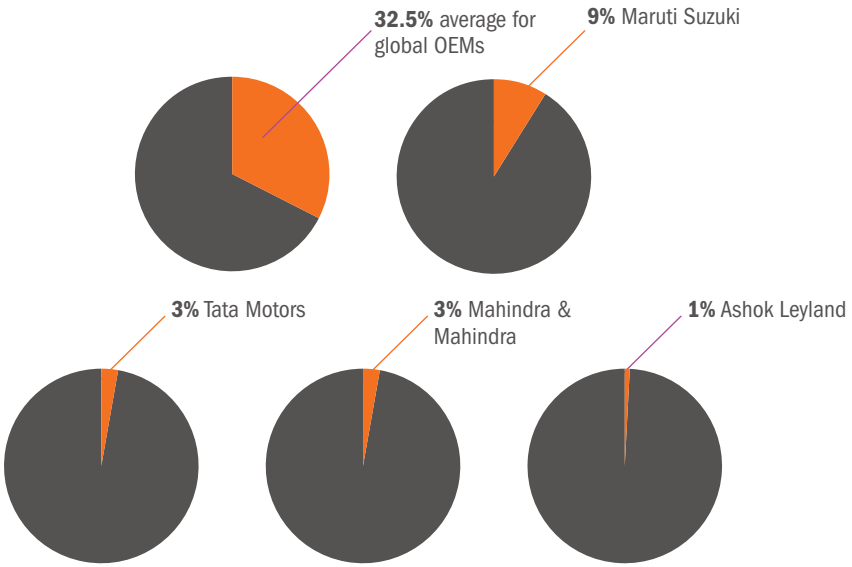


Sources: SIAM, LMC, IHS, ACMA, Roland Berger

Export gap

Export shares of domestic carmakers remain low.

[% of total sales]

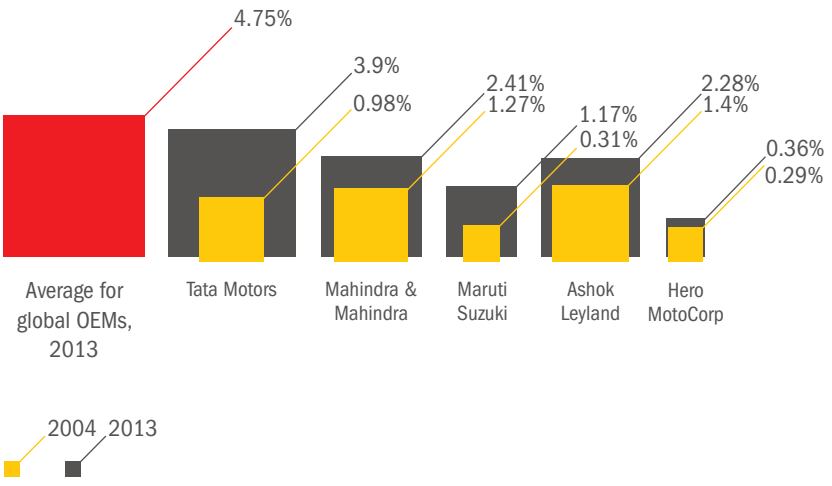


Sources: SIAM, Roland Berger

Innovation race

Indian OEMs have made significant R&D investments in the last decade.

[% of net revenue]



Sources: Bloomberg, Roland Berger

Close to gridlock: India's motorization rate will increase fivefold by 2025.

The challenges of the last five years have not been only negative for the country; they also triggered some important structural changes. Increased competition and low capacity utilization for domestic sales have forced multinational companies and local players to actively leverage India as a vehicle export hub. Besides better fixed-cost degression, exports provide higher margins and therefore support domestic business of car manufacturers as well as the balance of payments of the country. In the financial year 2014, global car manufacturers on average exported 32.5% of their total sales out of India. For domestic car manufacturers the corresponding number is 7%, which is poised to grow due to an increased export focus of Maruti Suzuki.

In addition, the country's fascination with the newest and latest models has resulted in a much stronger focus of domestic companies on research and development (R&D), driving constant product upgrades. R&D investments as a percentage of revenue have risen dramatically for Ashok Leyland, Maruti Suzuki, Mahindra & Mahindra and Tata Motors. Tata Motors has even reached levels in line with its global peers.

INDIAN INVENTION MACHINE

Many multinational companies have realized that local R&D expertise enables local teams to react faster to market developments. As a first step, factors not critical to safety – such as increasing ground clearance for Indian vehicles, localization of non-critical parts, etc. – must get development clearance locally to avoid endless iterations between the local team and overburdened headquarter engineers in the US, Europe, Japan or South Korea. Further drivers of strengthening local capacity are constant price pressure and exchange rate volatility. Subsequently, several car manufacturers are leading the

Under construction: India's infrastructure is making a great leap forward.

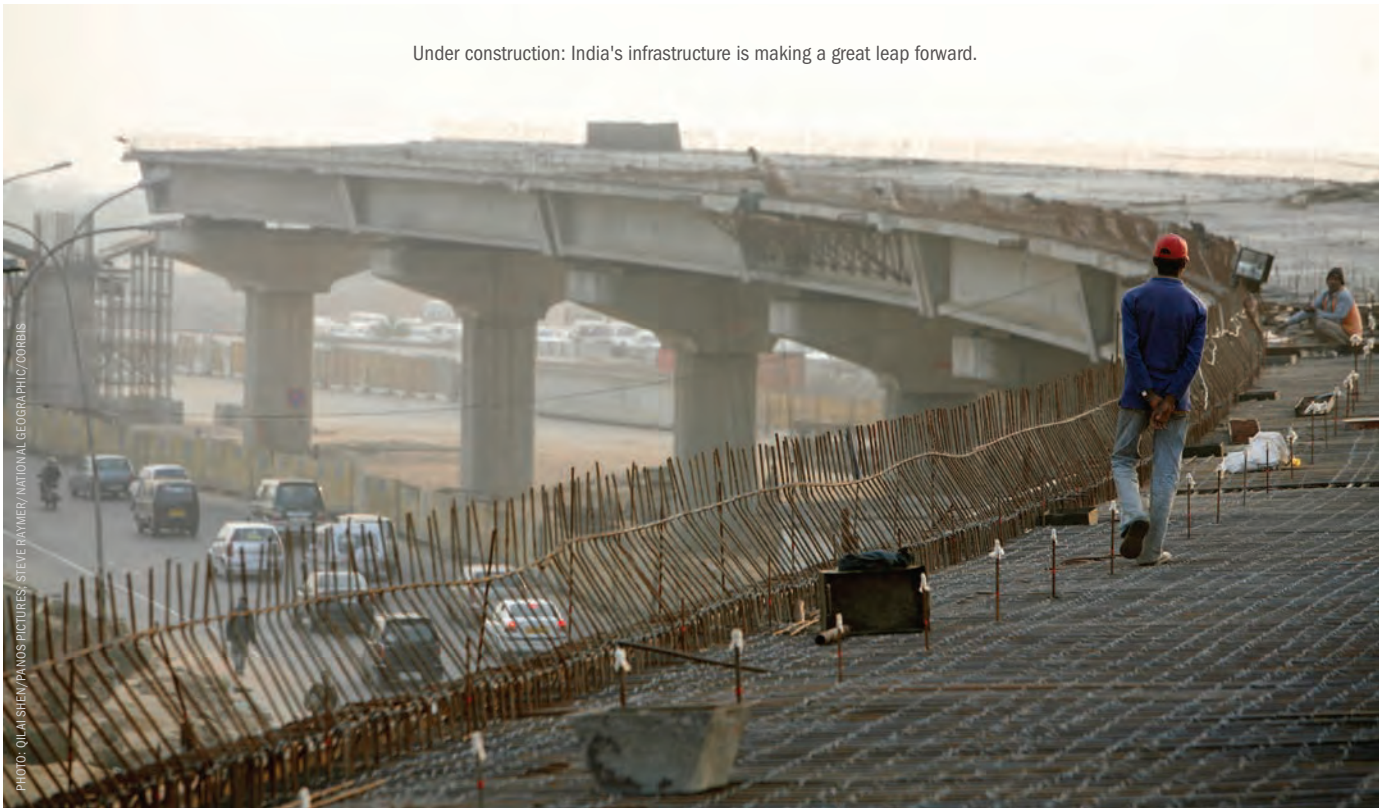


PHOTO: QILAI SHEN/PANOS PICTURES/STEVE RAYMER/NATIONAL GEOGRAPHIC/CORBIS

way by developing clear strategies to build vehicle variation capability in India and to leverage this capacity globally. Some, like BharatBenz, have even developed specific vehicles for the local market and in the process changed long-held paradigms of the parent company.

Going forward, not only the long-term but also the short to medium-term opportunities in India look positive. The previous government cleared several thousand crores' worth of projects in the last year of their tenure. If the new government can ensure swift execution of these projects, it will have a positive impact on the economy. The Supreme Court lifted the ban on mining iron ore in Goa and put an annual cap of 20 million tonnes on excavation, which again is a relevant step in reviving the economy. The solid majority of the new government and its announcements and actions so far clearly indicate decisive pro-growth action, which is sorely needed. The task of the hour is to build on this momentum via decisive reform. Growth and the virtuous cycle that it drives need to be nurtured and supported rather than taken for granted as the last government has clearly shown.

BRIGHT OUTLOOK

Sales of medium and heavy commercial vehicles are picking up, which typically is a 6 to 9 month lead indicator for the economy and private consumption. Footfalls in dealerships are increasing. The Index of Industrial Production (IIP) grew at 3.4% after languishing for a long time around zero, and inflation seems to be slowly coming down. With the right focus, driving India's growth to 5 to 6% GDP in the financial year 2015 (which ends in March 2016) seems feasible. A return to growth rates of around 7 to 8% in financial year 2016 is what we expect. India's automotive industry seems to be ready to roll again. Fasten your seatbelts and enjoy the ride. ◆

"Restarting the economic engine"

Tata's Executive Director, Commercial Vehicles, *explains how the automotive industry in India can reach the next development stage.*

Mr. Pisharody, after a challenging environment in 2013 and 2014, how will the Indian automotive industry develop over the next two years? The beginning of 2014 marked the lowest point in sales that we had seen in a very long time. Overall, we are cautiously optimistic about the current financial year ending March 2015. The Indian economy will recover in late 2014 and gain momentum in the beginning of 2015. This positive development will be reflected in the automotive sector. We have already seen signs of recovery in medium and heavy commercial vehicle volumes over the past two to three months. We expect this trend to continue. In the beginning of 2015, even stronger year-on-year growth is possible – of course some of this effect is due to the fact that we are starting from a low level.

Will this recovery be sustainable? We should see a greatly improved situation starting in the second quarter of 2015. India will return to growth across all categories in the automotive industry for reasons that have been widely discussed in the press. What is interesting to note is the fact that despite the current downturn, people have continued to move up the income ladder.

What is the government's role in pushing the Indian economy? It is important for the government to recognize that positive sentiment is not enough. There is a dire need to restart the investment cycle, and push manufacturing and mining. This will ultimately encourage new vehicle

purchases and improve replacement economics which, in turn, will lead to a much more positive mood among financers who play a crucial role in the automotive industry. There is a lot of latent demand that has built up during the past few years. Consumer demands are still high and consumer sentiment is optimistic. A large part of this is due to the awareness created by the media and the internet. Fast action by the new government can turn this latent demand into an opportunity to restart the economic engine.

Is the new government ready to unleash this potential? We believe the new government is well aware of the challenges that they are facing and we may see some new policies. Probably some decisions that were not beneficial for the country will be reversed.

Do lessons learned from the recent financial crisis offer guidance on how to reignite growth? Not really. The global financial crisis of 2008 and 2009 didn't have a major impact on India as the Indian banking system was largely isolated from global events. The downward movement we are talking about here started in 2012 and was driven by a lack of growth that was felt immediately in commercial vehicle sales.

Regarding the business environment for automotive companies in India – are there specific actions the government should take? I'll just name a few. We need to encourage investments in infrastructure, construction and manufacturing. We shouldn't try to compete with developed markets in these areas. But even compared to countries like Brazil, Thailand or South Africa, it's clear that we have severe deficiencies in our road infrastructure, ports, electricity, etc. which need to be addressed. We also need clarity on the overall business environment for the automotive industry in India. This means, for example, lifting mining bans as soon as possible. This is crucial not only from a commercial vehicles point of view, but also in terms of safeguarding energy sources and ensuring a positive balance of payments.

Are there also measures affecting the industry's balance sheets more immediately? Yes, think of financing, assets and taxes: A more level playing field between non-banking financial companies (NBFC) and banks is desirable. Banks currently have an edge over NBFCs. NBFCs, but the latter are crucial for vehicle financing, as is a concerted effort to push banks to increase their support of the automotive sector.

What else could help? We need a good incentive for scrapping older vehicles. The market would receive a significant boost if all commercial vehicles 15 years or older were replaced. This would also help the environment and improve traffic safety. The new government could look at some European initiatives from 2008 and 2009 for guidance. Other factors include extending the excise duty reduction, implementing accelerated depreciation for commercial vehicles, keeping diesel prices in check and enforcing bus body safety.

Looking across segments, where do you see exciting growth opportunities? As consumption picks up again, we will see significant activity in the small commercial vehicles sector. Small commercial vehicles are being bought by entrepreneurs who want to improve their lot in life. Many of these small operators have never owned a vehicle before, so you can imagine how important financing is here. Another very promising sector is the bus industry. About 80,000 buses are currently sold in India each year. However, the potential is at least ten times higher. Unfortunately, the government policy on mass transport is neither clear nor consistent. State transport undertakings can't increase prices due to political constraints and, as a consequence, they don't have the funds to upgrade their fleets. India urgently needs an integrated mobility concept for the cities that links metro railways, buses and last mile transportation via three- and four wheelers.

"Compared to Brazil or South Africa, we have deficiencies in our infrastructure."

How will the footprint of Tata Motor's commercial vehicle segment look like in the future? Well, the current exchange rate is favorable for our export business. So if we look at our current product lineup, we have a wide range of world-class products suitable for markets such as Asia Pacific, the Middle East, Africa, Latin America and parts of Europe. In many of these regions, we are a well-known brand name, and all of them are projected to grow fast. We can easily penetrate these markets – either through exports or, if necessary, industrial operations on the ground. Even with our currently limited footprint, we are already among the global top five commercial vehicles companies. Our old legacy products had success in these markets markets, but since we believe that much more is possible, we will invest in products and capacity. With our new products and a strong focus on international markets, we clearly have what it takes to improve this positioning in the future. ◆

Ravindra Pisharody joined Tata Motors in 2007 as Vice President Commercial Vehicles (Sales & Marketing). He is a member of the board of various Tata Group Companies. Before joining Tata Motors, he worked with Castrol Ltd., a subsidiary of BP, and with Philips India, a subsidiary of the Dutch company, in various roles. Pisharody is an alumnus of IIT, Kharagpur and IIM, Kolkata.

ILLUSTRATION: BEN TALLON/DIE ILLUSTRATOREN

Powerful stance: In Chinese mythology the dragon stands for power, divinity and the emperor.

Hotspot CHINA

China's automotive industry has the most positive outlook of all BRIC markets. It benefits from a stabilizing economic environment and still shows potential for further market growth and new business opportunities.

BY JUNYI ZHANG, RON ZHENG, AND FANNY CAO → p. 54

We believe clearly for anybody working in the automotive industry, if there's one place to be, it's China. This quote by Hubertus Troska, head of Daimler AG's Greater China operations, is not an isolated view. In fact, the automobile industry in China has become and will stay the hottest spot for the automotive industry worldwide. In the past, the passenger vehicle market experienced a period of outstanding growth. Over the last decade, car demand in China often surged 30 to 40% annually. Those days of hypergrowth are now over. However, the world's biggest car market will likely sustain the momentum it regained in 2013, supported by a range of governmental economic stimulus actions. And in the future we expect the Chinese car market to expand at a slower but more stable pace. Sales volumes can reach almost 30 million units in 2019, meaning the market will grow by 7 to 8% in the next two to three years, afterwards may drop to annual rates of 2 to 3%.

There are various factors that support our estimates: GDP growth will be robust, but it will have a new quality, e.g. it will come from China's interior provinces, as opposed to the previous 15 years when the bulk of growth was generated in the country's coastal areas. Not only GDP, but also disposable incomes will increase and contribute to higher sales in the passenger vehicle market. Simultaneously, market inefficiencies such as bottlenecks in the supply chain will be eliminated. This will lead to lower car prices and fuel the development of the mass market. However, there is still huge untapped potential. As an example, relative to total population, there are about ten times more car owners in Western Europe than in China.

The political environment in China is stabilizing. This is improving the quality of life, which means people can afford to think about buying a car rather than just about everyday basic needs. The Chinese government is supporting the automobile industry with subsidies, cheap loans and tax incentives. They are also funding research and development and building new facilities and car-friendly infrastructure such as highways or bridges. The government's efforts to relieve urban congestion by establishing traffic engineering systems is also making car ownership a more pleasant experience.

PHOTO: FOTOLIA

Furthermore, there are significant improvements in fuel efficiency and lightweight materials. For customers this means a reduction in running costs, which can also help drive demand.

If we take a closer look at the pattern of the segments and brands in the Chinese passenger car market, we can see significant discrepancies.

In general, there is a trend towards bigger cars with better quality and more sophisticated technology. The big winners are sports utility vehicles (SUV). We expect that their share of the passenger car market will rise from 13% in 2011 to 16% in 2015. Their target group is the upper middle class in China, especially young affluent buyers, seeking to demonstrate their individuality by owning a special car. Manufacturers of compact cars (C segment) will also experience a slight increase in demand.

This has to do with higher disposable incomes and the fact that the market is maturing. Fewer smaller and city cars will be sold by 2015. While many Chinese previously bought models such as the Suzuki Swift or Toyota Yaris as their first car (A/B segment), they now wish and are able to upgrade and buy, for example, a Chevrolet Cruze (C segment). Furthermore, most car buyers previously came from China's biggest cities. However, these compact cars also now meet the needs of families and customers outside of the metropolitan areas, for example in the provincial capitals such as Chengdu or Sichuan.

DOMESTIC BRAND DEVELOPMENT – A LONG ROAD TO SUCCESS

While in the past decade Western models were an absolute must-have, the landscape is about to change. Customers are starting to appreciate domestic cars more. We need to take a closer look to understand what domestic means in the case of China. There are three types of brands on the market. First: Purely domestic brands such as Geely, Great Wall or Chang'an, which are produced by Chinese companies. The second type are domestic brands produced by joint ventures with foreign manufacturers, e.g. Venucia (Nissan and Dongfeng), exclusively for the Chinese market. The third type are produced by joint ventures but designed for the global market by the foreign partner. The first two – Chinese and domestic joint venture brands – have always struggled to keep up with their bigger, richer global rivals.

Only one out of five cars manufactured used to be Chinese (purely domestic or "JV domestic"). In order to support further development, the Chinese government has enacted various measures to push domestic brands. The goal of the new edition of Automobile Industry Development Policy is to stipulate domestic brand establishment as a requirement to expand production facilities. And the Central Government Procurement Center has clearly stated that at least 50% of newly acquired government cars have to be domestic.

Meanwhile, a lot of Chinese players are actively pushing strategic transformation in order to catch up to their Western peers: They are tailoring their models to specific market segments, focusing on building their own USP and upgrading R&D and technology capabilities. These efforts are beginning to pay off. Industry analysts claim that the quality of Chinese brands is improving. They also expect better sales due to many new models in the pipeline of leading Chinese automakers: CS75, CX20 from Chang'an, H2, H7, H9 from Great Wall Haval, etc.. In 2020, we estimate that around 40% of all cars manufactured in China will be domestic, while one out of ten will be domestic brands made by joint ventures. Today the share of domestic and JV domestic is about 30%.

Intertwined: The knot stands for infinity, longevity and continuity.

PHOTO: FOTOLIA

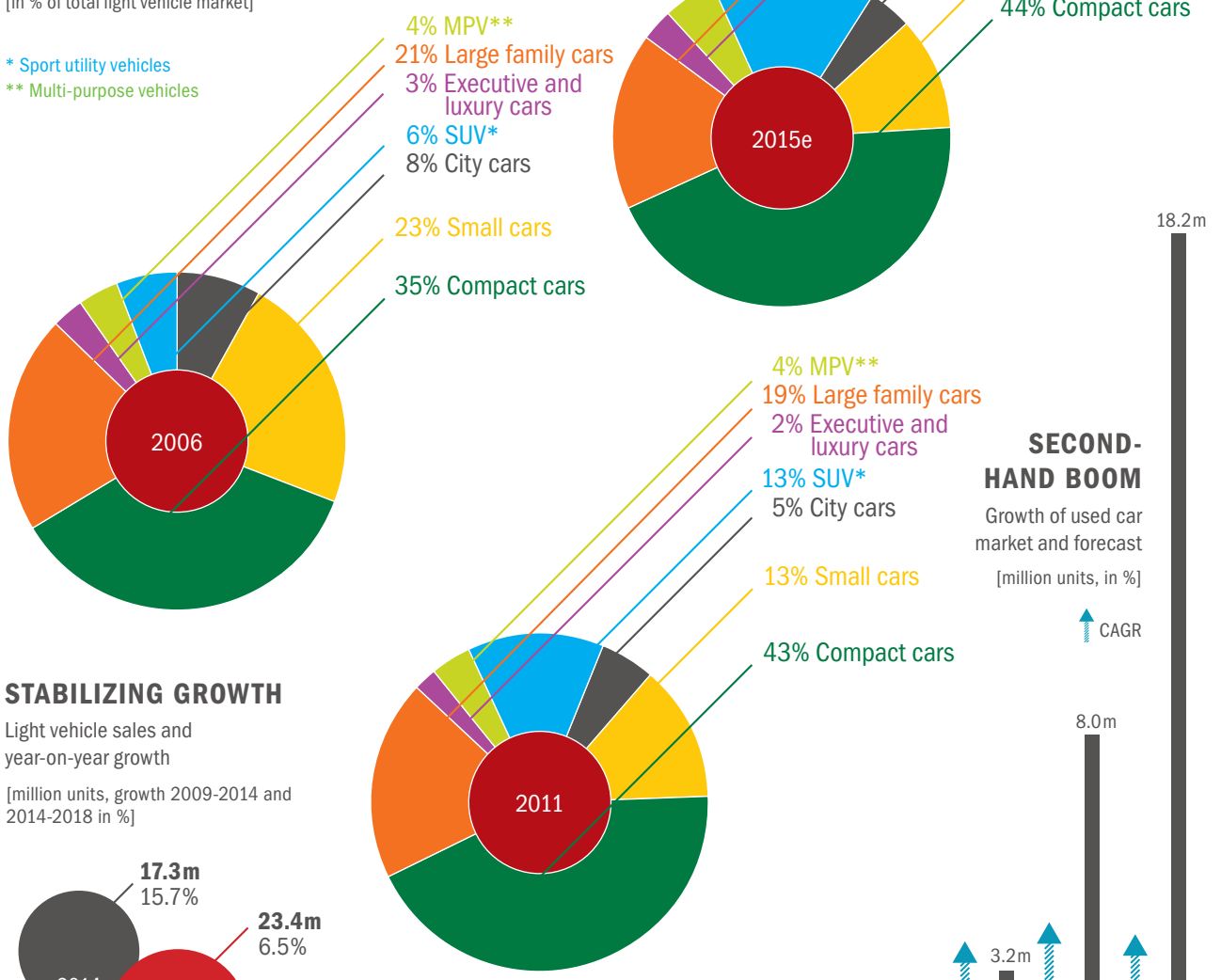
HOW THE CHINESE MARKET IS CHANGING

New models, new buyers

Market segment development for private vehicle market, 2006-2015

[in % of total light vehicle market]

* Sport utility vehicles
** Multi-purpose vehicles



STABILIZING GROWTH

Light vehicle sales and year-on-year growth

[million units, growth 2009-2014 and 2014-2018 in %]

SECOND-HAND BOOM

Growth of used car market and forecast

[million units, in %]

Sources: IHS, Roland Berger

Ready to jump: The tiger stands for bravery as well as the drive to achieve goals and make progress.

CHANG'AN CASE STUDY

Besides improving manufacturing quality, the number one Chinese manufacturer is focusing on branding to be able to go head-to-head with foreign players. The company recently announced its new brand slogan during the 2014 Beijing Auto Show: promoting sales through an "interactive experience". In 2013, Chang'an launched 14 new products in the RMB 80,000 to 90,000 (approx. EUR 10,000) price range compared to an average of RMB 40,000 to 50,000 (approx. EUR 5,000) in 2012. Average monthly sales also increased: from 17,000 units to 32,000 units. By 2016, Chang'an will manufacture 15 domestic brand models on four platforms. It is also promoting its own technology development. A global R&D footprint is unfolding with its interior design center in Yokohama (Japan), chassis research center in Detroit (US) and a powertrain manufacturing center in Nottingham (UK).

The signs of maturing business can also be found in related markets. Every third car buyer in China has purchased at least one car in the past. And also the time before a consumer buys his or her next car is getting shorter. This means the supply of quality low-mileage secondhand cars is improving. And now that a secondhand luxury car segment is emerging, this will provide an attractive option for more cost-conscious consumers looking to buy such cars.

NEW OPPORTUNITIES IN RELATED MARKETS

What this development means is that while new cars sales are slowing down, the market for used cars is about to take off. The used car market has tripled from 1.4 million units in 2008 to 3.9 million in 2014. And an expected average growth rate of almost 20% through 2023 indicates that 18 million used cars will be sold by 2023.

Independent dealers currently dominate the market. But most manufacturers are investing in a network of certified secondhand dealers. As the market matures, certified dealers will be the dominant players, offering not only used cars, but also services and spare parts. In a maturing market, secondhand car sales are an important source of profit for dealers as well, because gross profits are 25% higher than the profits from new car sales. OEMs are increasingly able to tap the potential of synergies between their various secondhand car businesses, such as through financial leasing or company car sales. In the future we also expect innovations in C2C car transactions; for example, e-commerce platforms where consumers can buy and sell their used cars. Ultimately, the growth of the secondhand car market will also help solve the challenges resulting from structural changes in the automotive business in China as a whole. Such growth can efficiently absorb excess production capacity and reduce inventory levels. ◆

"The technology gap between joint venture and self-owned brands has been **narrowing** in recent years."

The head of product planning at SAIC Motor Passenger Vehicles
talks about the catch-up race of Chinese brands.

Mr. Tao, the automotive brand landscape in China is very unique. Why? Well, it is divided into different groups: Brands like Roewe, Geely and Chery are domestic, owned by Chinese companies. Another consists of players like Hyundai, Nissan, Mazda, and Skoda, who are owned by joint ventures of foreign and Chinese companies.

What will be the biggest threat to the first group, the domestic self-owned vehicle brands? I think the joint venture brands pose a very severe threat. In the past two or three years, domestic self-owned brands have suffered greatly, especially due to joint venture brands' lower prices. Take compact models like the Roewe 550 and its competitor, the Chevrolet

INTERVIEW
LIU TAO

Cruze, as an example. The price of the Cruze was RMB 100,990 (EUR 12,000) when it launched a few years ago. Now, it costs RMB 80,400 (EUR 9,500), and there is no wiggle room for the Roewe 550 to lower its price to match. Another example is the Roewe 350 and its competitor, the Skoda Rapid. The price of the Rapid is now about RMB 66,000 (EUR 7,800), which is similar to or even lower than the price of the Roewe 350. Thus, price adjustments of joint venture brands have squeezed our market share significantly.

Who are Roewe's main competitors in China? Domestic brands like Geely or Chery differ too much from Roewe in their pricing strategies to be competitors. Rather, the main competitors to Roewe and all our self-owned brands are second-tier joint venture brands, such as Hyundai, Nissan, Mazda, Skoda, Chevrolet, and so on.

Why have prices of joint venture-owned brands decreased so quickly? The most effective strategy for a joint venture brand is to have several generations of models in the market at the same time. They can cover all relevant market segments simultaneously. This is the case for Ford and Hyundai. Their models have a lot in common, e.g. production platforms, which creates cost advantages.

Does the demand pattern for cars differ in different Chinese regions? The picture is quite mixed. Although demand in first- and second-tier cities, for example Chengdu in Sichuan province, is decreasing, demand in fifth- and sixth-tier cities, for example Handan in Shandong province, is growing at a rate of over 10%. The latter even saw a growth rate of over 14% in January, February, and March 2014, although experts had forecast only about 10%.

What does that mean for domestic brands? Overall, China has huge demand for cars, but most of the demand is dominated by joint venture brands, while demand for domestic brands is shrinking. With a declining market share, we are facing massive pressure on brand marketing costs. Joint venture brands can afford high marketing costs thanks to their revenue growth, but the pressure is severe on our side, especially in first-tier cities. It will push us into a vicious cycle, which may be very dangerous for us in the future.

What are the main reasons for the problems of self-owned brands you described? The technology gap between joint venture and self-owned brands still exists, but has been narrowing in recent years. For example, we have made significant progress since 2006, and now our automotive parts system is the same as the Shanghai Volkswagen's. However, foreign brands are still more popular than ours, because although our products have the same level of quality, customers have not realized it. Therefore we are still losing market share.

Can you think of a solution to this challenge? The breakthrough will come when products and technologies are improving. Roewe has to pick up speed in this innovation process. The Roewe 550 was launched in 2008 and the Skoda Octavia hit the market at the same time. At first, customers liked our cars better than the Skoda Octavia. In 2010, Skoda launched a new model, and just put out another one earlier this year, but we are still selling the same Roewe 550 model. The reason for this lack of speed lies in the organization of our R&D department. Joint venture brands always have global R&D centers, which enable them to make full use of their shared R&D pools, and they do not have to develop all the parts themselves. We, on the other hand, have to develop all our engines, platforms and electronic systems on our own. Thus, what we need is this type of shared global R&D center to achieve economies of scale and lower costs.

What goals do you have for Roewe in this difficult environment? We hope to elevate our brand image and, as a result, implement premium prices. To do this, we launched the Roewe 950, a flagship product that will strongly position the brand in the future.

What kind of resources does Roewe need to get to the same level as its foreign peers? First, we should learn advanced technology from joint venture brands in order to develop our products' competitiveness. Second, we should master the popular platform modules to lower costs and thereby enhance our price competitiveness. Third, we should focus on channel expansion, innovation and the after-sales market to enhance our competitiveness in channels and services. Last but not least, we should make full use of the brand advantage from foreign partners to develop our brand's competitiveness. ◆

Liu Tao graduated in Automotive Engineering at Jilin University, China. From 1997 to 2004 he worked at the Shanghai Automotive Engineering Institute, where he was involved in the acquisition negotiation project of Ssangyong and Rover. He joined SAIC in 2005, first on the passenger vehicle project, now responsible for product planning.

Roewe is a vehicle brand created by the Chinese automaker SAIC Motor in 2006. Shanghai Auto bought the rights to the designs of two Rover models shortly before the UK carmaker collapsed. The brand name "Rover" was not included in the deal, so SAIC had to develop a new name for the models based on the acquired technologies.

New financing models: Car buyers no longer have to rob their piggy banks.

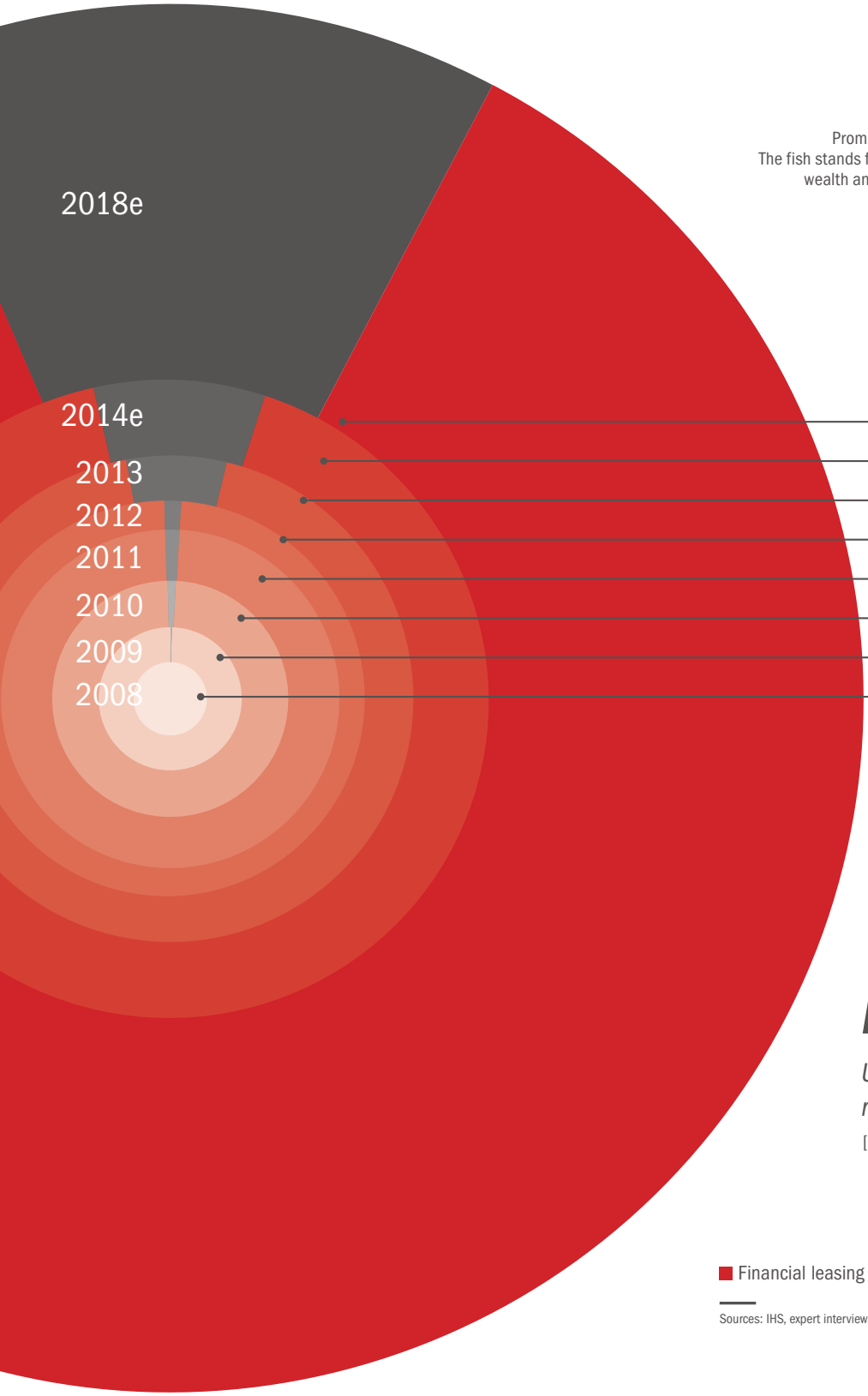
Credit is king

Many Chinese car manufacturers, banks and other players are starting to dabble in auto financing. Now the market is beginning to really pick up speed. Leasing is the up-and-coming business in both the passenger and corporate customer segments.

BY JUNYI ZHANG AND STEPHAN BUEB → p. 54

PHOTO: ISTOCKPHOTO

Promising futures:
The fish stands for affluence, wealth and prosperity.



2018e	6,443	1,047
2014e	3,164	291
2013	2,514	117
2012	1,954	92
2011	1,623	21
2010	1,267	12
2009	775	1
2008	401	0

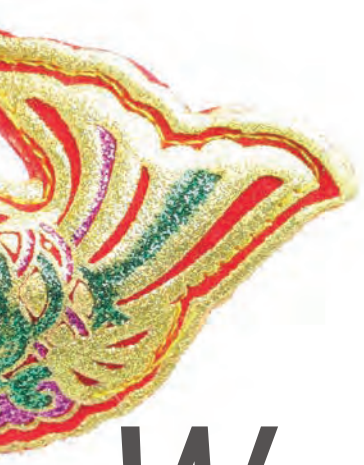
Rapid growth

Use of car financing will more than double by 2018.

['000 units]

■ Financial leasing ■ Loan

Sources: IHS, expert interviews, Roland Berger



When the Chinese buy cars today, the vast majority pays cash. While currently 70% of cars are financed in developed countries, only 17% are financed in China. The core business of auto financing has existed for less than twenty years. When the People's Bank of China issued its "Auto Finance Regulations" in October 1998, banks were allowed to offer auto financing services for the first time. Due to its nascency, the auto financing market structure in China is very different from other markets. One characteristic is that leasing does not yet play a significant role. Most Chinese leasing companies do not offer operating leasing at all (in which the lessee returns the vehicle back to the lessor after a short period of time). The reason for this is that most players have no experience with fleet management or used car sales.

However, the future of the business is very promising, with expected growth of over 30% from 2013 to 2017. Several new auto finance companies have been recently founded, e.g. Fortune Auto Finance (a joint venture of Banco Santander and JAC) or Geely-BNPP Auto Finance. Since 2009, the share of cars financed by loans has doubled. The leasing segment in particular is expected to experience dynamic growth. In 2018, of all financed cars, more than 15% will be leased, compared to only 5% in 2013.

PASSENGER CARS: NEW BUYERS – NEW SUPPLIERS

In the passenger car market the number of financing contracts will increase annually by 25%, which highlights the fact that car financing is growing faster than actual passenger car sales (11% annually). But what is driving this dynamic development? The auto financing segment is being pushed by a shift in customer preferences. Today's car buyers are younger; they have more purchasing power and are more open-minded towards more modern ways of spending money than buyers ten years ago. The Chinese middle class increasingly considers a car an integral part of their standard of living.

Car manufacturers and dealers have realized that auto finance services are a good way to promote sales. Therefore, more and more car manufacturers and large dealer groups (e.g. Pang Da, Guanghui) are offering financing services. But also regional and national banks (e.g. Minsheng, ICBC and Bank of China) are starting to enter the auto finance business.

In the leasing segment, long-term contracts are still more popular than short-term contracts. But as business becomes more professional, this is starting to change. Independent leasing companies like market leader Tongyue Leasing are role models for new players. Those operators have the reputation of being more flexible than banks, but at the same time bear a higher entrepreneurial risk.

Another interesting phenomenon of the Chinese market is grey leasing. In Shanghai, Beijing and other major leasing markets, complex government regulations (concerning licensing requirements) are holding back the development of the car leasing market. As a consequence, due to the huge demand for car leasing, many companies are operating without official licenses.

COMMERCIAL VEHICLES: A HIGHER STARTING POINT

Commercial vehicle financing is already relatively well established. Some 75% of all heavy duty trucks and 15% of all vans are financed. In the corporate segment the development of interest rates is a key factor in determining the progress of financing services. There is substantial demand among small and medium-sized enterprises as well as individual owners for leasing products, because their credit rating is usually low, making loans expensive, whereas dealer guarantees mean financing is an attractive option.

We expect demand to go up in the various product segments. Sale and leaseback offers might become an interesting option for corporate customers in the future, as the tax burden for leasing companies was reduced in December 2013. Operating leasing is also becoming more attractive because of lower annual payments, more flexibility and better value adding services. Here the business still needs the backing of the regulatory authorities.

Banks still own the highest share of the commercial vehicle loan market. However, leasing companies with OEM backing are active in the leasing market, while independent leasing companies mostly provide truck leasing. Domestic companies with manufacturer backing (e.g. Dongfeng and Sinotruk) are pushing financial leasing services in the market. In contrast, it is difficult for international car manufacturers to get a foot in the door: Only Daimler and VW Financial Services have obtained the required licenses. ◆

PHOTO: ISTOCKPHOTO

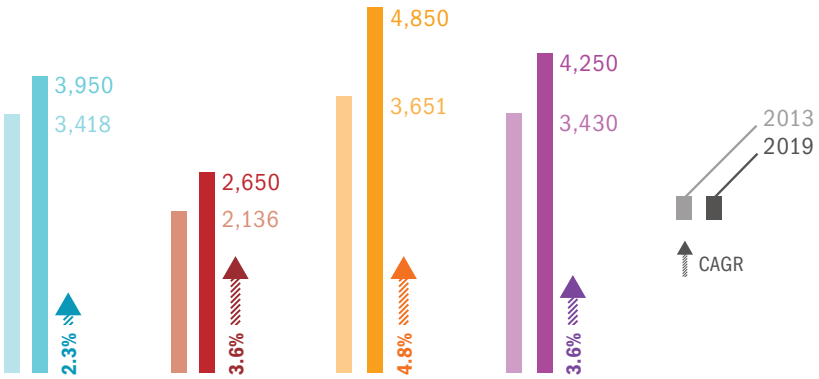
IS LAMS* THE NEW BRIC?

* **L** = Latin America, **A** = Africa, **M** = Middle East, **S** = South East Asia

Growth regions & champions

Due to the mixed outlook for the BRIC regions, automotive manufacturers and suppliers need to find next generation growth markets. We have taken a look beyond BRIC – and our snapshot shows hotspots.

Car sales, 2013 and 2019 ['000 units; CAGR in %]



LATIN AMERICA

TOP 5
Mexico
Argentina
Chile
Colombia
Peru

AFRICA

TOP 5
South Africa
Algeria
Egypt
Morocco
Nigeria

MIDDLE EAST

TOP 5
Turkey
Iran
Saudi Arabia
UAE
Israel

SOUTH EAST ASIA

TOP 5
Thailand
Indonesia
Malaysia
Philippines
Vietnam

TOP GROWING COUNTRIES

Middle Eastern and Asian countries lead LAMS.

Development, 2013-2019 ['000 units]

PRODUCTION		SALES	
Mexico	+ 1,484	Iran	+ 570
Thailand	+ 665	Indonesia	+ 540
Indonesia	+ 597	Turkey	+ 272
Iran	+ 558	Mexico	+ 211
Turkey	+ 268	Colombia	+ 161

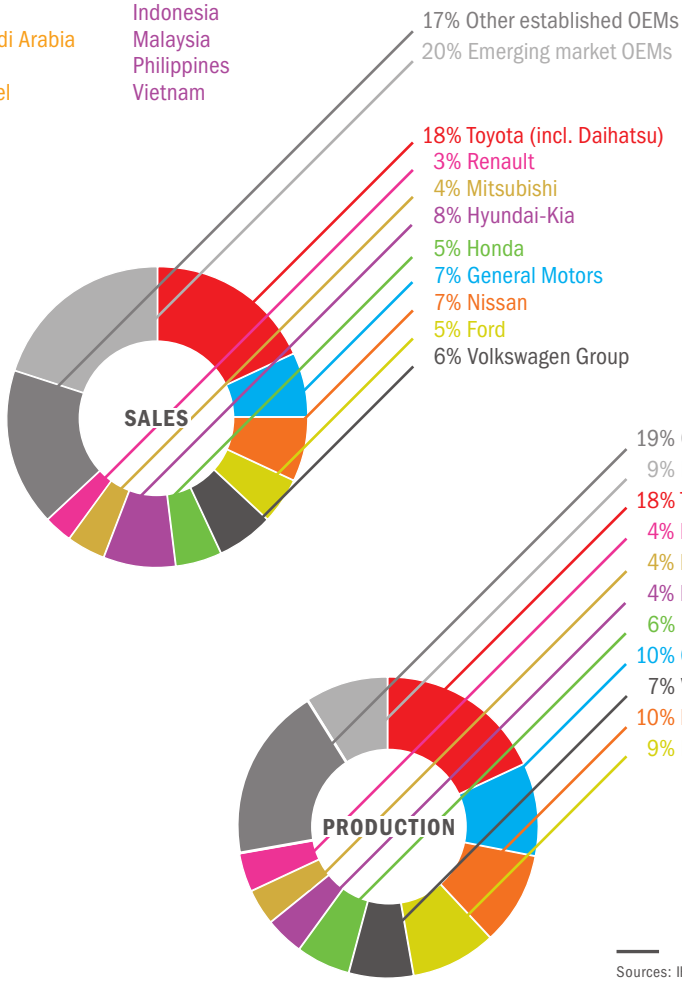
OPPORTUNITIES

For manufacturers

> Identify future strategic growth regions
> Understand customer requirements, technology level and regulation, pricing and import barriers
> Define implications for product portfolio and production footprint
> Develop sales network in growth countries, stand out with new sales models

For suppliers

> Identify future production locations of key (target) customers
> Understand locally produced platforms, technology and product requirements
> Understand import restrictions and policies, export opportunities
> Define implications for footprint



MARKET SHARE

Toyota will dominate the LAMS markets in 2019.

Car sales and production [market share]

Sources: IHS, Roland Berger research

HOW **GLOBAL** SUPPLIERS GO **BRIC**

Reshaping emerging markets

Suppliers from industrial countries have to rethink their emerging markets footprints. Asking the right questions can help to find the right combination of BRIC and next-generation markets.

BY STEPHAN KEESE → p. 54

Milling machine: New patterns for automotive suppliers

Slower growth in China, uneasiness in Russia and economic, currency and industry uncertainties in Brazil and India. Toss markets like Mexico, Thailand or Indonesia into the discussion and you have the perfect recipe for total confusion on how to prepare a supplier footprint for the next decade. Defining the future footprint is not easy for suppliers from industrial countries. While China was the ideal location to supply the world for many years, recent labor cost developments and high logistics costs and complexity have reduced the country's attractiveness as an export hub for the automotive supply industry. India with its deficits in logistics infrastructure and difficulties in successfully leveraging its factor cost advantages, still has not managed to successfully position itself as an export hub. Brazil's high production costs and unstable currency development have negated any competitiveness advantages the country had 7 to 10 years ago. And Russia has never been very suitable as an export hub, with many other countries being more attractive.

As such, global suppliers searching for an ideal setup for their future global production strategy need to look beyond the traditional Triad and BRIC markets. Having a strong BRIC footprint cannot be the answer in and of itself. Most BRIC footprints have turned from the original export-driven locations to the local markets. To bring down production costs, new locations and smarter approaches need to be defined.

Today, in light of the advantages offered by best-cost countries and in order to wean themselves off their dependence on individual markets, suppliers are starting to consider "smart regional footprint structures". These network structures combine the advantages of several countries within a region or sometimes even across regions to offer the best possible mix of factor costs.

This is leading to the emergence of new locations. In Asia, production of labor-intensive components is increasingly being shifted to Vietnam or Cambodia, while raw material-intensive components continue to be produced in China, leveraging the country's lower aluminum and steel prices. Final assembly occurs in Thailand, due to the country's strong production growth forecast over the coming years.

In South America, suppliers are starting to look at Paraguay for relocating labor-intensive components, including fabrics and wire harnesses. Central America is gaining importance as a new supply region for NAFTA, and North Africa could become the next low-labor-cost region to supply Europe. Even the Middle East is emerging as a new hub for energy-intensive components such as aluminum castings.

At the same time, former attractive best-cost countries have become difficult to maintain. Argentina is suffering from an unofficial 40% inflation rate and severe import restrictions. Formerly attractive low-labor-cost country Ukraine is rapidly losing attractiveness as a result of recent political disputes with Russia. Turkey was once considered the next emerging supply hub for the EU, but recent economic and political developments have put many investments on hold.

But how can suppliers shape this new global/regional footprint structure? Before they start, suppliers need to align their strategic priorities. Capacity target utilization needs to be defined for the entire plant network in order to know if capacity needs to be built up (growth case) or scaled back (restructuring case). Structural costs must be understood, including the underlying drivers.

Few companies have consolidated plants just to save a few dollars on plant security or cafeteria costs. But combining tool shops, maintenance and paint shops can produce real benefits. Finally, the average labor costs of the current network should be compared with that of the competition in order to set targets and understand competitive advantages and disadvantages. ◆

Carving out a new footprint

In order to actually build a competitive and sustainable footprint, suppliers need to answer these questions:

1. What does my product mix look like? What products are suitable in each region over the long run?
It's important to consider that customer requirements and OEM product platforms are changing and today's cash cows may become obsolete as vehicle platforms upgrade. Other global products within one's own portfolio may need to be launched and can lead to a significant head start on the competition.

2. What target customers do I want to supply and where will my customers produce which vehicles in the future?
Manufacturer footprints tend to change over time, relevant products and platforms evolve, plant allocations that become outmoded. Being close to manufacturer locations is usually beneficial in terms of logistics costs and lead times, but labor, material and energy costs may not allow a co-location for logistically non-critical parts.

3. How can I best utilize the factor cost advantages that each market offers?
Modularization and standardization are becoming increasingly important for suppliers as well. A central module production facility may generate huge scale benefits despite being located in a high-cost country. Logistics streams between plants are often seen as waste, but a smart "hub and spoke" footprint structure can combine the various cost advantages along the value chain.

At the end of the day, each company's footprint is unique since each company's product/customer mix is unique. Looking at competitors makes sense to define cost targets for one's own footprint. But copy and paste is rarely a good idea. With a consistent approach to define the future footprint strategy, suppliers can gain the upper hand in the endless battle for best costs and best products by leveraging the best locations.

PHOTO: ZORAN KOLUNDZIJA/GETTY IMAGES

HOW BRIC SUPPLIERS GO GLOBAL

A SPOTLIGHT ON BRIC SUPPLIERS' M&A ACTIVITIES

More and more often, automotive suppliers from BRIC countries are entering global markets via mergers and acquisitions. There are good reasons for doing this: They are able to attain technological know-how and can enter new markets more quickly. China is leading the movement, but investors from Brazil and India are testing the waters in industrialized automotive markets such as Europe or the US.

Top investors and targets

The largest deal of the last 4 years was conducted by Brazil; most-wanted targets are in US, the Netherlands and Germany.

Selected deals [value m USD]

1	**Iochpe-Maxion** Brazil	1,317	**Hayes Lemmerz** US
2	**AVIC Electromechanical Systems** China	644	**Hilite International** Germany
3	**Bejing E-Town International Investment & Delvelopm., Tempo International** China	465	**Nexteer Automotive** US
4	**Motherson Sumi Systems** India	455	**Peguform** Germany
5	**Beijing Automotive** China	373	**Inalfa Roof Systems** Netherlands
6	**Wanxiang** China	257	**A123** US
7	**Joyson Electronics** China	232	**Preh** Germany

In a nutshell

What automotive players should know:

> Emerging market suppliers are stepping up their efforts to globalize, which means they are looking for attractive targets in triad markets.
> Their aim is to drive their regional expansion while strengthening their technological expertise.
> Compared to the past, emerging market suppliers have significantly professionalized their deal processes and post-merger management.

GO WITH THE FLOW

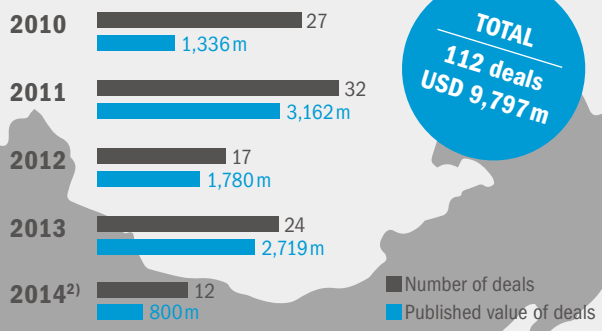
China takes the lion's share of global investment activities.

Number of deals
Sum of deal values[1] [USD]

Huge appetite

Today the global deal landscape of automotive suppliers cannot be imagined without BRIC players.

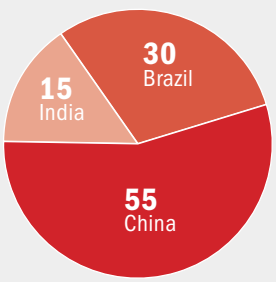
Number and sum of deal values[1] [USD]



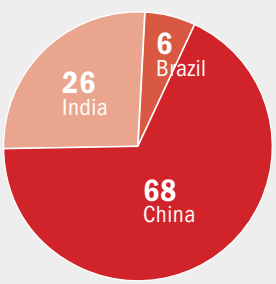
The main shopper is ...

China is outperforming other BRIC countries in M&A activities (cross-border deals).

Sum of deal values[1]
2010-07/2014 [share %]



Number of deals [share %]



RUSSIA
2
(95 m)

15
(1,513 m)

CHINA

56
(4,223 m)

1
(7 m)

JAPAN

1
(5 m)

INDIA

13
(55 m)

THAILAND

1
(18 m)

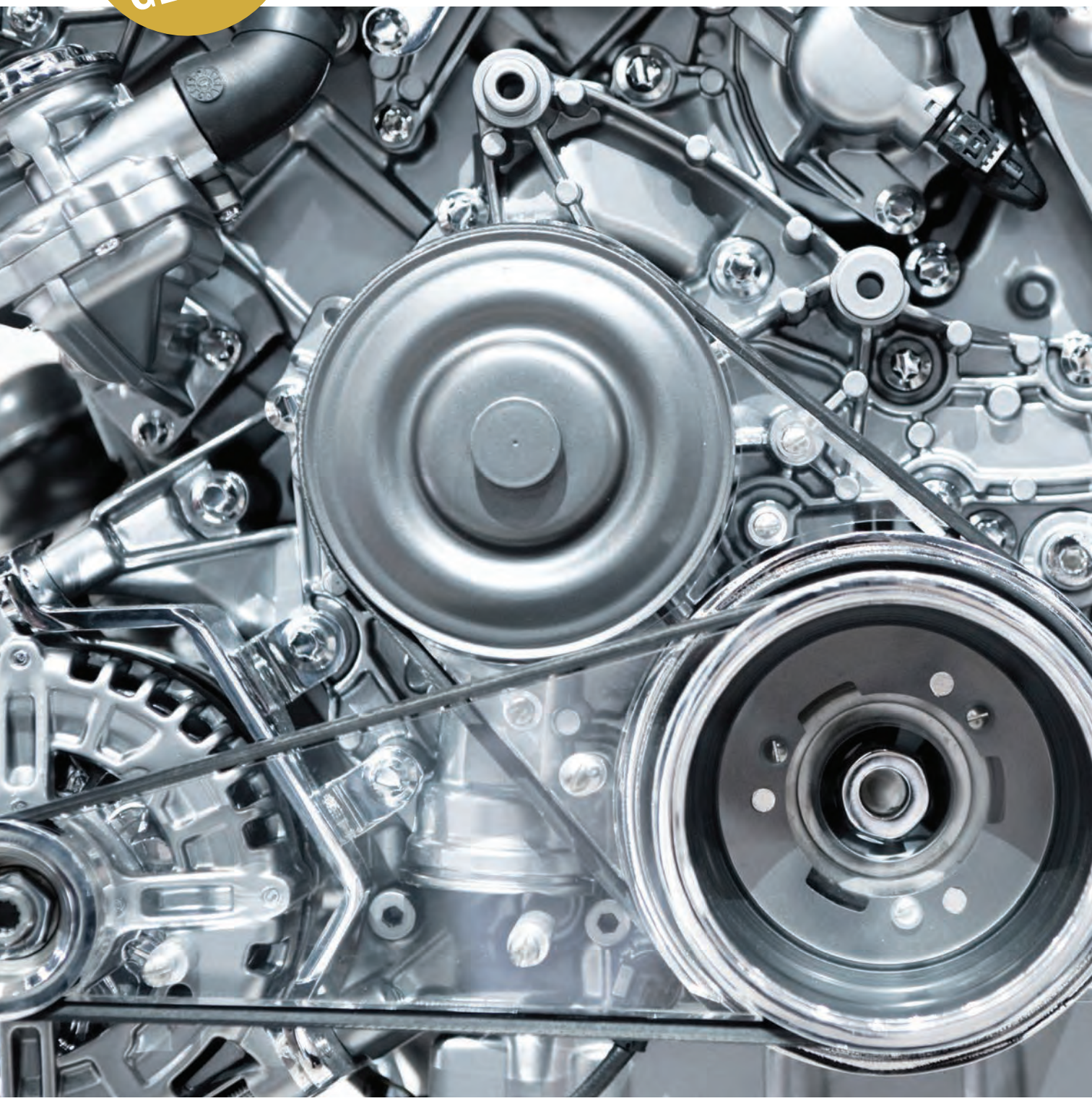
SINGAPORE

[1] Only published values
[2] Data for January-July 2014

Sources: Thomson Reuters, Roland Berger

HOW **BRIC** SUPPLIERS GO **GLOBAL**

Chinese-western power engines



Car engine: A new arrangement sometimes fosters efficiency.

Chinese companies are continuing to buy top European automotive suppliers in order to close the technology gap. Experience shows that the acquired firms also stand to benefit.

Rapid development of the Chinese automotive market has split the corporate landscape into two distinct sides. On the one hand, Western auto groups are successfully exploiting the new and constantly growing sales opportunities in the Middle Kingdom. On the other hand, the sheer pace of market development is making it difficult for Chinese OEMs and suppliers to build the product and process technology they urgently need on their own.

The consequences of this imbalance are clear: While the Chinese car market now accounts for nearly a quarter of the global market volume, the country's native auto industry still falls far short of the 25-percent mark in both vehicle production and the high-end technology supply business.

CHINA PLAYS CATCH-UP

As far back as 2011, Roland Berger predicted that the Chinese supply industry would target selective strategic mergers and cooperative ventures in an attempt to overcome its competitive disadvantage. (The title of the study was "Chinese appetite – Emerging market players are buying into the European auto supplier industry.") Even at that time, it was obvious that the industry would take too long to accumulate all the knowledge it needed on its own. Buying up the missing skills and competencies was therefore the next logical step. China's central government gave powerful backing to indigenous companies by incorporating the strategy in its five-year plans.

Given this scale of support, the wave of Chinese purchases quickly gathered momentum and traditional Western European suppliers found themselves in the hands of new owners. New investors from China thus turned a new page in the history of companies such as Germany's SaarGummi (Chongqing Light Industry & Textile), Preh (Joyson) and KSM Castings (CITIC Dicastal), as well as Dutch manufacturer Inalfa (Beijing Hainachuan Automotive Parts). The list of cooperative ventures and mergers is still growing constantly – a dynamic development that shows no sign of coming to an end.

BENEFITS TO BOTH PARTNERS

Chinese investors' success in the M&A business is no coincidence. Indian, Japanese and other players are also interested in technology-driven European automotive suppliers. To date, however, three factors have evidently worked in favor of Chinese companies: First, their analysis and purchase processes are very professional and efficient – meaning, in practice, that they are usually faster and more competent than other potential buyers. Second, the Chinese are willing to pay good money and generally submit the best financial offers. Third, they can attract European management teams with the promise of broad and fast access to the Chinese market.

They have indeed kept their word, implementing market-oriented growth strategies for the whole of the newly merged entities. And the European companies acquired in this process have done well in the new arrangement. Access to both markets and capital benefits them by facilitating further growth. Occasional European fears that such mergers could see factories and even entire research and development centers transferred to Asia have proven unfounded so far. The brain drain is staying within limits. Chinese buyers are targeting the strategic objective of bridging a technology gap, therefore they are doing everything in their power to retain and build on the knowledge base provided by their new European subsidiaries. ◆

Technology upgrade: India is a huge market opportunity for advanced agricultural equipment.

BOUNTIFUL HARVEST

The BRIC markets for agricultural equipment remain attractive to manufacturers from industrial countries – but flexible modular strategies are needed.

BY SEBASTIAN GUNDERMANN, NORBERT DRESSLER, WALTER RENTZSCH AND JOACHIM WAGNER → p. 54

The BRIC markets, which drive global growth, have their own set of rules and success factors. Product characteristics differ from those of advanced markets, and technology penetration rates vary among the BRIC markets themselves. Customer loyalty is typically lower than in advanced markets, and reaching economies of scale by combining global volumes is critical.

In 2013, half of the world's agricultural equipment was sold in Brazil, Russia, India and China. We expect the market in these regions to grow by about 5% annually until 2020. The size and growth potential of these markets have long attracted the attention of manufacturers from industrialized countries. However, leading players in mature markets – companies such as John Deere, CNH, AGCO, CLAAS Group, SAME Deutz-Fahr and Kubota Corporation – have so far made only slow inroads into China and India compared to their success in Brazil and Russia.

DRIVERS OF FUTURE GROWTH

The Chinese and Indian markets are still dominated by domestic players such as Foton Lovol and First Tractors in China and Mahindra & Mahindra and TAFE in India. The slow progress in BRIC countries of OEMs from mature markets is likely because meeting buyers' needs and lower cost positions in the volume segments is a challenge, as the requirements differ greatly from the standards in mature markets.

To get a clear picture of the market potential, it is not enough to look just at trends in population growth and per capita food consumption. Many economic factors such as farm revenues, crop prices, arable land size, government support and exchange rates have to be taken into consideration. These factors vary among the BRIC markets. As a consequence growth rates are expected to differ significantly. While the Chinese market is expected to grow by 5% annually, Brazil will see a declining market in 2014 in the wake of strong growth and pre-buy effects in recent years, and will not return to 2013 levels before 2020.

A DIVERSIFIED TERRAIN FOR AGRICULTURAL PLAYERS

The Brazilian agricultural equipment market still is only mid-sized compared to the other countries. Nevertheless, agricultural vehicle manufacturers from industrialized countries addressed this market very early on due to its high level of technology, which allowed the use of vehicles adapted from mature markets. The ongoing conversion of the "cerrados" into cropland also promotes the further development of mega-farms that require high-powered tractors and combines.

Russia is the smallest BRIC market. After over a decade of negative growth following the collapse of the Soviet Union, the agricultural equipment market is finally set to recover. The level of technical development is already high. Today, Western-style equipment is already used on about 25% of farmland. About 70% of equipment is worn out, so demand for replacements is strong. However, the growing political tension between Russia and its Western partners, plus local capital shortages, put the market growth potential at risk.

India is the world's largest producer of low-cost and budget tractors. However, the domestic market is almost exclusively low cost, low power and low technology. In India 85% of all farms are smaller than two hectares, and they are expected to shrink even further. Therefore most farmers do not have an incentive to buy trac-

PHOTO: ERIC MARTIN/FIGAROPHOTO/LAIF

tors or combines equipped with advanced technology. However, a new trend of custom hiring centers has emerged. Farmers can use more advanced equipment shared by communities. This may be a growth opportunity for players from industrialized countries.

In China, shrinking arable land, water shortages and recurring natural disasters challenge the food supply given a population that is still growing. The loss of agricultural land creates a need for higher yield per unit. China has a large number of farms, but they are on average the smallest within the BRIC countries in terms of area. The government has begun to modernize agricultural equipment in order to keep food prices at acceptable levels, and these initiatives are driving the growth potential for agricultural vehicle manufacturers in China. Domestic manufacturers have launched technological projects to respond to this trend. The start of large-scale farming projects will also speed up technological improvements.

HOW TO MAKE THE MOST OF IT

All four BRIC markets are at least partially protected by import tariffs and local content requirements for local production. To meet the local content requirement in Brazil (60% of weight and value), global OEMs have localized at least the production of powertrain and drivetrain components as well as body parts. In India, the low price points of local equipment and strong competition from domestic manufacturers mean that local production is also necessary in order to compete in the market. Most of the major OEMs have started local production in China as well. However, Chinese state subsidies for farmers to upgrade their equipment favor mainly Chinese products. The Russian market, on the other hand has traditionally been served by OEMs through imports.

To reduce costs, improve quality and shorten the time-to-market, almost all OEMs from mature markets have started to develop modular toolkit strategies that involve sharing product architectures and technologies across multiple segments and machines. However, these toolkits are typically designed to address the more mature markets first and only a few selected segments in emerging markets. Success in BRIC markets depends on meeting regional market requirements, including price level, and having a local production footprint. OEMs now face the challenge of how to extend their modular concepts without losing the benefits of a global concept.

Finding answers to these questions will enable success in BRIC markets – as indeed in mature markets. The guiding principle when developing a global modular strategy should be as follows: How can the cost-saving potential of the global platform design best be utilized?

Experience from areas such as the commercial vehicle segment shows that OEMs must take a holistic view of the value chain. Cost savings realized in the design phase are often eaten up in downstream processes. Typical cost drivers that need to be avoided when developing global platforms include unclear design ownership between regions, resulting in long lead times for engineering changes, and overdesign of products where local market requirements are unknown.

Fully understanding the specific market requirements, clearly defining interfaces, ensuring that designs are scalable and properly allocating functional responsibilities are key success factors. If designed and implemented properly, global modular concepts can help OEMs master some of the challenges posed by the BRIC markets and benefit from their growth potential. ◆

Toolkit for BRIC markets

How to tackle a diverse set of agricultural equipment markets using a flexible approach.

PRODUCT STRATEGY
> Can one modular concept be applied to multiple regions?
> How can local and regional requirements be incorporated without losing the economies of scale offered by global standardization?

PRODUCT ENGINEERING
> Can a single global modular concept be extended far enough to cover both mature and emerging markets, or are individual designs required?
> Who is responsible inside the organization for the design of new vehicles (engineering lead for components of the modular toolkit and responsibility for regional adaptations)?

SUPPLY CHAIN MANAGEMENT
> What does an optimized global supply chain that considers local content requirements look like?
> Which components should be sourced locally?

MANUFACTURING FOOTPRINT
> How does the footprint have to change to leverage modular synergies?
> Is local production needed or is an import strategy sufficient?

QUALITY MANAGEMENT
> Can quality expectations be achieved by relying on local specifications?
> Do global quality standards need to be set and monitored?

ORGANIZING PRINCIPLES
> What does a global organization look like?
> What are the key processes and which adaptations are needed to ensure global modularity?

FOUR COUNTRIES DIFFERENT SETTINGS

Agricultural businesses

Average farm size [hectares] and number of farms [million]

BRAZIL
64 ha
5 m

RUSSIA
995 ha
0.5 m

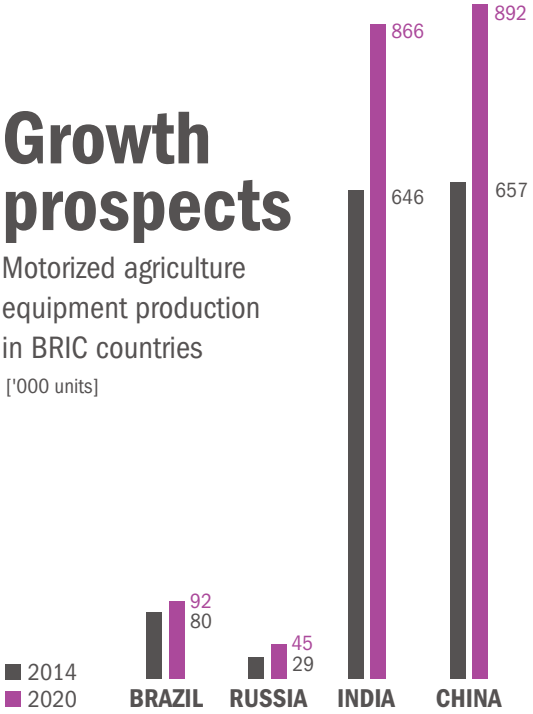
INDIA
1.2 ha
129 m

CHINA
0.5 ha
252 m

Growth prospects

Motorized agriculture equipment production in BRIC countries

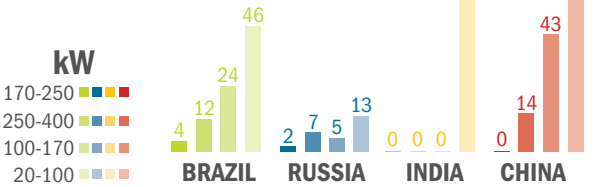
['000 units]



Technology level

Engine power of agricultural equipment

['000 units]



Sources: Agricultural businesses: Brazilian Institute of Geography and Statistics (IBGE), CIS farm statistics, China National Bureau of Statistics, Indian Ministry of Agriculture, Roland Berger; Growth prospects: Roland Berger; Technology level: Roland Berger

FAMOUS CARS

AMBASSADOR

THE KING OF INDIAN ROADS

For nearly 60 years, India's roads bustled with the ubiquitous Hindustan Ambassador. In May 2014 the country's first carmaker ceased production because of financial problems. The Ambassador was manufactured by Hindustan Motors of India from 1957 to 2014. It experienced very few changes during its lengthy production run. However, people liked to make jokes about its questionable quality: "The only thing that doesn't make a sound in an Ambassador is the horn!" This didn't affect the Ambassador's popularity much. It's now a classic, affectionately known by many as "The king of Indian roads" or simply "Amby". After all, the Ambassador holds a certain amount of sentimental value as its endearing bulbous shape and sturdiness embody much of old India. It was a favorite among both taxi drivers and politicians, and tourists are still eager to experience the car's anachronistic flair. The Amby has also developed a cult following among many prosperous Indians, who are busy collecting and faithfully restoring old Ambassadors. Even the popular British television series Top Gear hailed the Amby as the "World's Best Taxi". Still an eye-catcher in every city and a true ambassador of India!

75%

was the market share in India held by the Ambassador until the early 90s.

30,000

Ambassador taxis are still on duty in Kolkata.

The Amby: beloved like a member of the family

Food for thought

Take a deep dive and find out more in related articles, studies and magazines by Roland Berger authors.

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Economic scenario: Impact of economic sanctions against Russia

The European Union's sanctions against Russia affect a broad range of industries – one of them is the automotive sector. As our survey found, more than half of the respondents believe the crisis will last for a considerable time and think that it will also have a substantial negative effect on economic growth especially in Germany. We explore the different forms of sanctions and their possible impact; for example, on investments and exports. We also formulate a number of recommendations, providing guidance for companies as they decide on their own strategy for dealing with the sanctions.

Automotive Japan: New sales channel concepts

We are looking at two global macrotrends: Firstly, the move from a platform strategy to a more flexible modular architecture system of manufacturing. As a result, models can be updated faster and more easily. Secondly, the revolution in drivetrain technology: The industry is shifting from gasoline and diesel combustion engines to ones powered by electricity, natural gas or hydrogen. Our experts analyze the impact on saturated markets with Japan serving as a reference case.

Online automotive parts sales: The rise of a new channel

Our study analyzes the potential of online business for car parts sales. While today the share of online is 16%, we estimate that it will grow with a 7 to 8% CAGR in the next few years. By 2025, about one fifth of business will be done online – a sales volume of EUR 3.6 billion. To evaluate opportunities within the automotive aftermarket universe, the study analyzes the three dimensions – customers, products and channels – for strategic fit and defines success factors for each.

Automotive Insights 01/2014: Focus on trends

The first issue of Automotive Insights in 2014 emphasizes upcoming trends for the industry. We also look at the important role of marketing and how to make the most of insights regarding customers. In an interview with board member Luca de Meo, we learn about Audi's best practices in marketing, sales and distribution. Our experts also analyze topics such as the fleet management market in BRIC countries, the importance of the automotive industry for economic development in India and forceful competition in China.

Engineering services outsourcing: Spotlight on Europe and China

Automotive manufacturers have to deal with technology complexity, which is driving engineering spend. Our focus is the competition between Europe and China. From this perspective, we shed light on relevant megatrends and political requirements that are reshaping the market for engineering services outsourcing (ESO). Taking into account the different trends and impact drivers of the ESO market helps both manufacturers and engineering service partners define the right strategies in this dynamic environment.

Truck aftersales: Roadmap to excellence

Excellence in the commercial vehicle aftersales business is becoming more important as margins in new truck sales are eroding. In this study, we have identified three important areas for action: customer needs management, price/strategy differentiation and customer relationship management. We also propose the "aftersales excellence cube" as a comprehensive tool for analyzing activities in this business.

PHOTO: ATAL LOKE/PANOS PICTURES

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Reshaping emerging markets

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A spotlight on BRIC suppliers' M&A activities

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Chinese-Western power engines

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Bountiful harvest

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Printing

Pinsker Druck und Medien, München

Circulation

2,500

Disclaimer

This magazine has been printed on FSC®-certified paper. This certificate supports responsible forest practices, meeting the standards of the Forest Stewardship Council (FSC®).