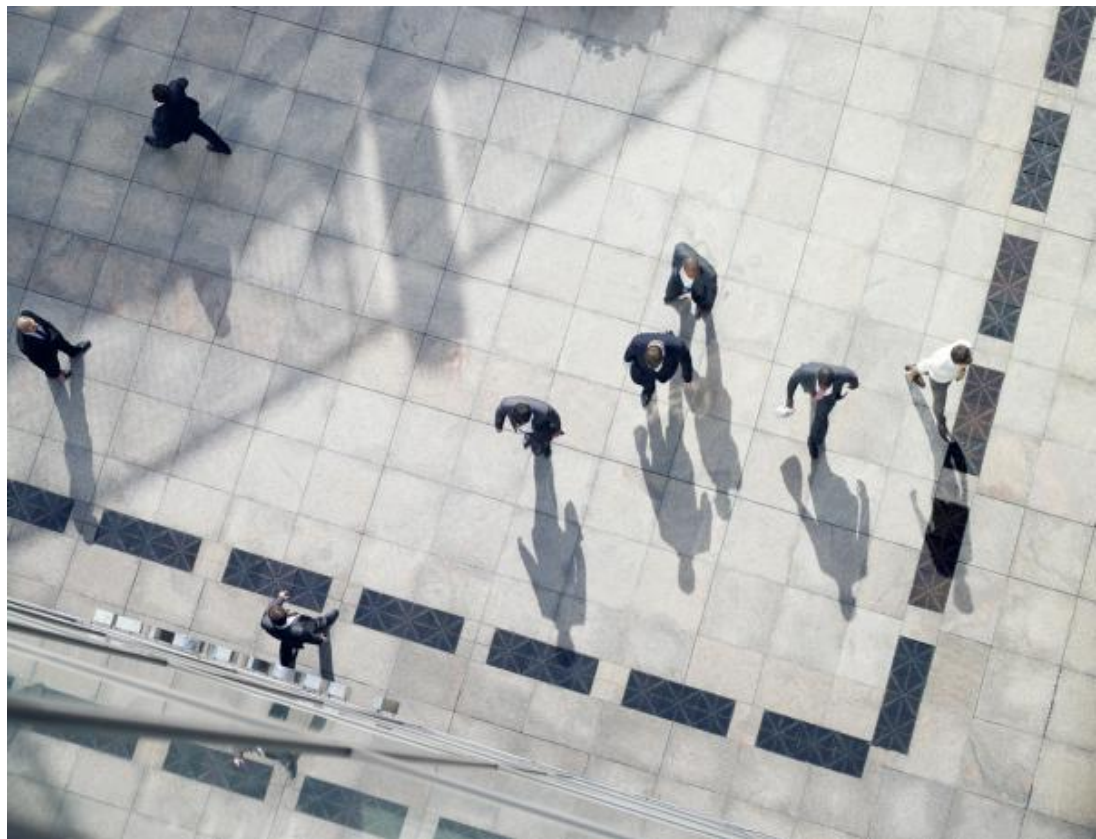


Automobiles: The economic outlook and employment situation

August 2013

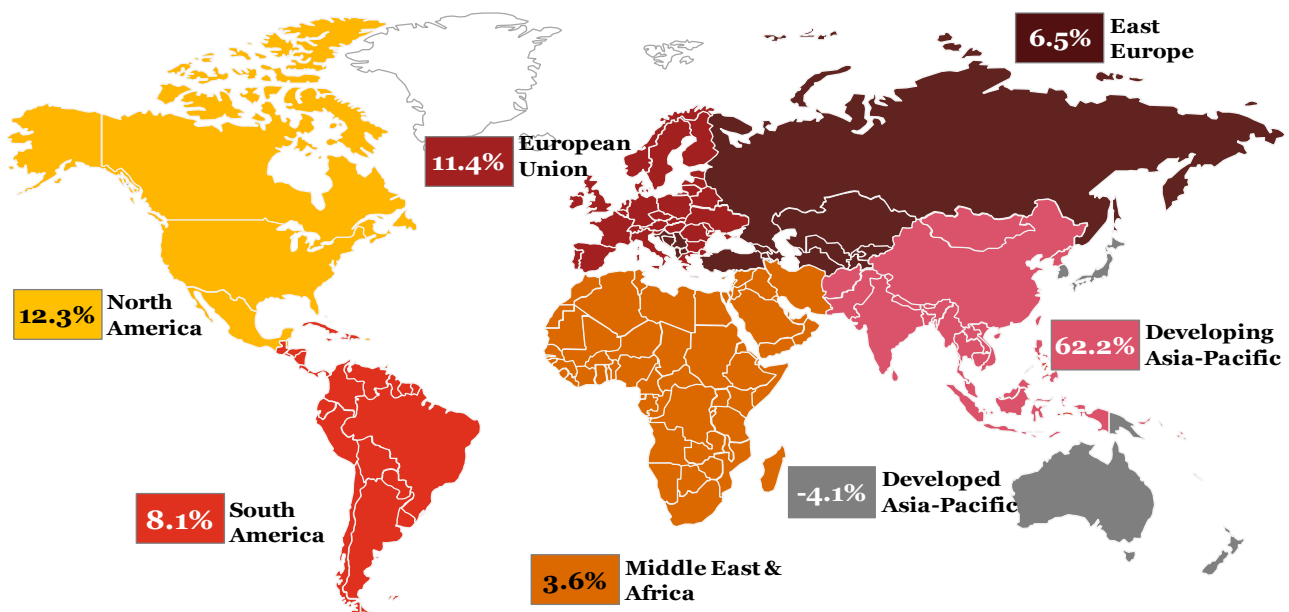


Global Situation

Through the first half of 2013, globally, the automotive industry has provided mixed signals, with significant investments announced in some markets being countered by ongoing cuts in others.

While regions such as the developing Asia-Pacific (2.24million and more) and North America (770 thousand and more) have contributed heavily, the developed Asia-Pacific (less than 859 thousand) is expected to witness continued decline as assembly is localised abroad. Meanwhile, the world has been forced to wait for the European Union (less than 500 thousand) to make its long-awaited rebound, not expected until early 2014, at best. Long-term projections expect these markets to stabilise and with continued investment in developing regions, they are forecast to drive annual global light vehicle assembly past the 100 million plateau for the first time ever, reaching 101 million units in 2017 with an impressive compound annual growth rate (CAGR) of 5.02%.

Regional Contribution to Growth 2012-2019 (percentage share)



Source: Autofacts

Ever since the global economic crisis of 2008-2009, the auto industry, globally has witnessed economic restructuring whose macro and micro-economic implications on nations and regions has been profound. There are several short- and long-term factors that contributed to the crisis. While the sudden collapse of sales in several markets was a short-term (one- to two-year timeframe) challenge for almost all automakers, loss of market share to increasing competition in their domestic markets was another key challenge for automakers over the long term (five to seven years).

Challenges faced by global automakers currently include the following:

- Labour costs for workforce both current and retirees including wages, health insurance and pensions (retirees) Drop in industrial productivity due

to lack of capital investment, ambiguous and dated labour laws

- Product quality issues due to faulty component parts, etc.
- Share-diminishing competition on new cars, mismatch in existing product strategy for a market i.e presence only in a few segments of the market or region
- Lack of R&D improvisations in existing and the future product
- Ageing of population and its impact on demand for new cars
- Environmental concerns such as global warming, climate change and sustainability, both positive or negative depending on how these are addressed
- Slowdown in demand due to development of mass transit or alternative form of travel models in several

new urban areas. These urban transport systems are likely to change the way people commute in the future.

We provide a brief review of the changes now underway in both developed (US, Germany and Japan) and developing automotive markets (Brazil, Thailand) along with a brief review of the contributions by the auto industry to the national economies in these select countries. We then outline the changes taking place in the Indian industry and the remedial actions needed to meet employment needs of the Indian auto industry in future.

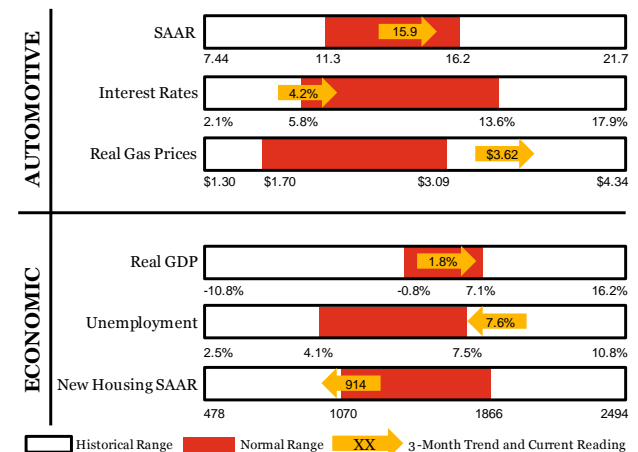
The current state of the US automotive industry

The US sales and North American assembly markets continue to enjoy a renaissance of sorts, with numbers approaching pre-recession levels. The demand for new vehicles in the US is leading the way; with a combination of an aged fleet, new models, and attractive financing. The US economy continues to be a headwind, but has yet to slow down demand.

The US sales market continues to recover from its recessionary lows and is forecast to reach 15.5 million units in 2013, the first time the market will have eclipsed the 15-million mark since 2007. While sales have rebound faster than anticipated, *Autofacts* still believes sales will settle in the range of 16 million to 17 million for the remainder of the decade.

US consumers are also continuing to downsize their vehicles as high gas prices and rising MSRPs make smaller cars fiscally attractive on both fronts. Engines are also downsizing as consumers are finding the same performance and higher MPGs in smaller displacement engines. Transmissions are growing however as eight-, nine-, and 10-speed gearboxes are equipped and are further set to improve the fuel economy. Even luxury carmakers who have long pushed larger vehicles are beginning to go small in the US.

US: Automotive dashboard Historical ranges vs current trending



Source: Automotive News, EIA, Oxford Economics, Autofacts analysis

Economic contribution

Not since the early 1970s has the auto industry seen the levels of growth it has recently experienced—three straight years of at least 10% increases in y-o-y sales.¹ That is especially good news for a country where one in every 17 private-sector job is dependent on the auto industry.² While the automotive industry represents three to 3.5% of the nation's GDP, their outsized impact reverberates across the country. Last year, a report by a leading global financial services company found that nearly one-third of the country's entire economic growth was connected to auto sales.³ Preliminary Bureau of Labour Statistics (BLS) numbers show motor vehicle and parts manufacturing employment to be at its highest point in over four years, reaching 789,800 in March 2013.⁴

Additional research found that the motor vehicle industry has the highest number of production worker hours and production worker wages, paying out nearly 22 billion USD annually.⁵

Employment at motor vehicle and parts dealers recently reached a four-year high. The BLS preliminary report estimated almost 1.8 million dealer jobs in March 2013.⁶ Overall, from January 2011 to January 2013, motor vehicle and parts manufacturing added more than 95,000 jobs,

¹ David Phillips, "Automakers Close Out 2012 Strong As Dec. Volume Rises 9%," Automotive News, 8/8/13

² Kicking Tires, "U.S. Auto Sales Propelled The Economy In 2012," blogs.cars.com, Accessed, 8/8/2013

³ "Auto Sales Powered 2012 Recovery," www.upi.com, Accessed, 8/8/2013

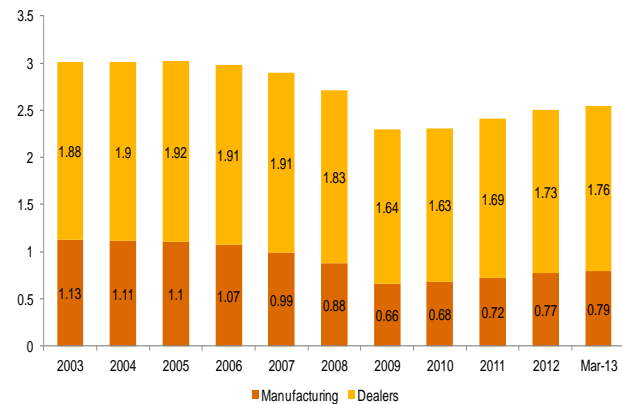
⁴ Bureau Of Labour Statistics, "Employment, Hours, and Earnings from the Current Employment Statistics survey (National)," Accessed, 8/8/13

⁵ 2011 Annual Survey of Manufactures, Accessed 8/8/2013

⁶ Bureau Of Labour Statistics, "Employment, Hours, and Earnings from the Current Employment Statistics survey (National)," Accessed 8/8/2013

while motor vehicle and parts dealers added over 90,000 jobs during the same period.⁷

US: Employees in automotive industry March 2003- 2013 (millions)

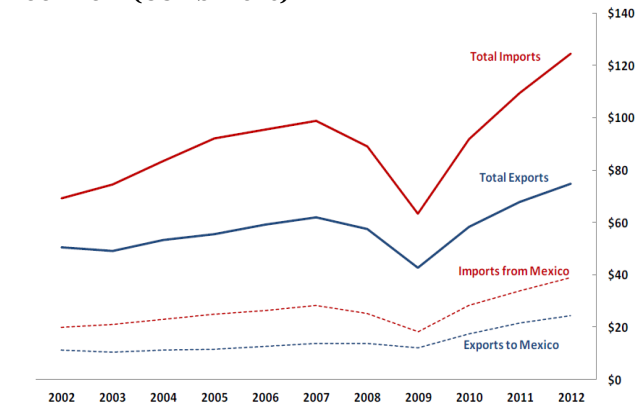


Source: Alliance of Automotive manufacturers

Trade balance

Apart from production and sales, exports have also propelled the industry in the US. Exports of motor vehicles and parts grew at more than 10% from 2011 to an all-time high of 132.7 billion USD in 2012 (on NAICS basis)⁸. According to the US Department of Commerce's 2012 report on international trade, the auto industry is one of the leading exporters.⁹

US: Trade in automotive parts 2002-2012 (USD billions)



Source: US Census Bureau

Market outlook

Despite nebulous macroeconomic conditions as a whole, the auto industry continues to outperform and is helping drive an outsized portion of overall economic growth.

⁷ Bureau Of Labour Statistics, "Automotive Industry: Employment, Earnings, and Hours," Accessed 8/8/2013

⁸ Department Of Commerce, International Trade Administration, "U.S. Export Fact Sheet

⁹ Department Of Commerce, International Trade Administration, "U.S. Export Fact Sheet," 8/8/13; Mark Doms, Department of Commerce Chief Economist, Economics & Statistics Administration, The Commerce Blog, "U.S. Manufacturing Continues To Create Jobs In The US,"

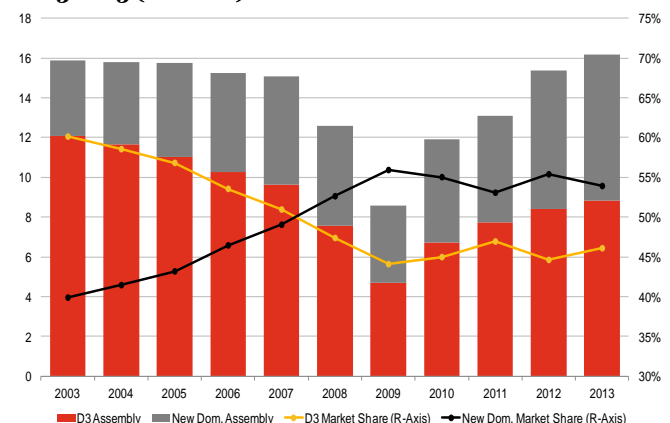
Economic performance is anticipated to remain constrained through the remainder of 2013 before gaining momentum in 2014 to support continued growth in new vehicle demand.

Sales growth is expected to remain strong throughout the second half of 2013 despite slow economic indicators. Strong product launches, historically low financing rates and an average fleet age now pushing 11 years should all help sustain this increase. The full-year US sales figures are expected to be around 15.5 million, a 7.6% increase from 2012.

A key regional manufacturing trend that has piqued industry interest is the 'three-crew' or the '3-2-120' shift pattern implemented at select D3 plants to help meet excess demand. This work routine has three crews working two shifts at 10 hours for six days a week. These shifts allow plants to produce more vehicles without reducing downtime for higher utilisation and efficiency.

Another key trend that continues to be monitored is the increased localisation of vehicle assembly within North America. This is primarily being driven by Asian OEMs looking to reduce the risk of currency volatility. European manufacturers are seen to be seeking a more stable (and growing) environment. Most of the forecast growth in North America will be due to these new plants coming online. Given sustained sales growth and positive results in the region, the assembly now is anticipated to reach 16.1 million units for 2013.

US: Assembly and sales market share by OEM type 2003-2013 (millions)



Source: Autofacts Q3 data release, Automotive News

Current state of the market in Germany

Germany quickly recovered from the economic slump of 2009. With a GDP increase of 3.6%, the economy experienced a strong growth dynamic in 2010. In the second quarter of 2010 alone, Germany's GDP expanded

by 2.2%, the strongest quarter-on-quarter growth since reunification in 1990.

After the distortions created by the scrappage scheme in 2009 and 2010, the German market has been more resilient than much of the rest of Europe due to a better economic performance. However, declining consumer and business confidence through 2012 and weakening economic growth have resulted in deteriorating new car demand over the past year. Germany is the largest new car market in the EU and EFTA, typically accounting for over 20% of all new car demand.

The market was very strong in the first quarter of 2012, with the SAAR running at over 3.3 million units. However, as concerns about the Eurozone grew and exports slowed, confidence levels and the German economy weakened.

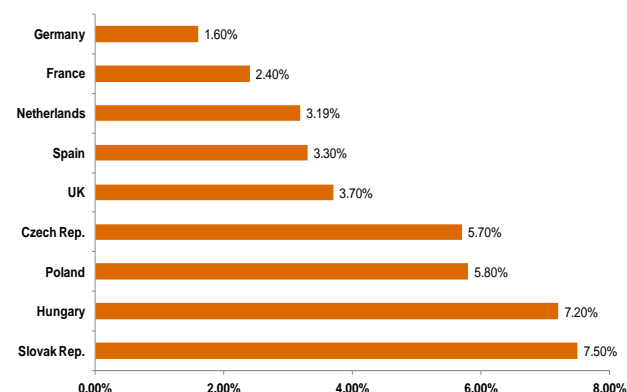
Demand fell by a further 12.9% in the first quarter of 2013 with fewer selling days and a strong first quarter of 2012 exaggerating the fall. As expected, Q2 was better with a decline of just 3.7%. However, given that the GfK consumer index recorded its highest reading in June since September 2007, the market remains stubbornly weak. Part of the explanation could lie with consumers deferring purchases until after the elections in September, which could result in a relatively strong fourth quarter.

Economic contribution

Germany witnessed a major increase in productivity for the last decade. While the unit labour costs in the rest of Europe increased, Germany's labour costs decreased by an yearly average of 0.4% for the period 2004 to 2011 making both the country's economy as well as its manufacturing more competitive. With a workforce of over 40 million people, it is one of the largest ready labour markets in the EU. Nearly 80% of this workforce has received formal vocational training or has an academic degree. One of the key reasons for having a highly skilled workforce is its unique dual education system, where students get benefits of classroom based learning coupled with on-the-job training over a period of two to three years. Over 350 occupations are recognised by the system whose strict training standards are set by the German Chambers of Industry and Commercies (IHKs) across the country.

EU: Annual average labour cost growth in the economy as a whole

2002-2011 (percentage)



Source: Eurostat 2012

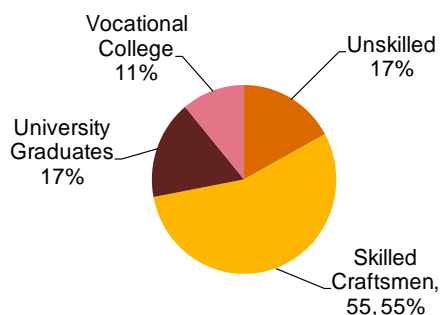
In April 2013, the German automotive industry had a regular workforce of 750,500 (higher than 2%). Of these, 430,100 were employed in the manufacturer group I (motor vehicles and engines), 31,400 in the manufacturer group II (trailers, bodies and buses) and 289,000 in the manufacturer group III (parts and accessories). This means that the increase in employment observed since January 2011 is continuing. Each month since the beginning of 2011 has brought y-o-y growth.¹⁰

According to the OECD report¹¹ in 2011, some 517,000 students at more than 420 universities embarked on a course of academic study. Technical fields of study experienced an undergraduate enrollment level increase of more than 8%. Germany's share of university students in the sciences, mathematics, computer sciences, and engineering is the third highest in the EU, with 31% of all students. German universities have introduced postgraduate and undergraduate degrees for improved international acceptance and comparison.

¹⁰ VDA Press release-German automotive industry maintains its course despite economic difficulties-accessed on 10/8/2013

¹¹ German Trade and Invest-Economic report

**Germany: Workforce in Germany based on professional education
2011 (Percentage)**



Source: Federal Statistics Office, 2011

Trade balance

Germany: Foreign trade

2009, 2010 and 2011 (EUR billions)

Foreign trade (EUR bn)	2011	%	2010	%	2009	%
Exports	1,061.2	+11.5	952.0	+18.5	803.3	-18.4
Imports	902.5	+13.2	797.1	+19.9	664.6	-17.5
Balance	+158.7		+154.9		+138.7	
Germany's trade relations with EU (EUR bn)						
Exports to EU	627.7	+10.0	570.9	+14.0	500.7	-19.6
Imports from EU	505.4	+13.7	444.4	+16.9	380.3	-17.5
Balance	+122.3		+126.5		+120.4	
Export goods						
[% of total exports – SITC]						
2011: machinery 18.8; motor vehicles and parts 16.8; chemical goods 14.1; electronic goods 9.3; foodstuffs 4.3; others 36.7						
Import goods						
[% of total imports – SITC]						
2011: foodstuffs 5.8; motor vehicles and parts 7.9; electronic goods 10.3; chemical goods 11.8; machinery 12.3; crude oil and gas 12.5; others 39.4						

Source: German Trade and Invest, 2012

Market outlook

Despite near-record lows in unemployment and a six-year high in consumer confidence, results have been lukewarm at best in 2013. New vehicle demand fell by 4.7% in June, and 8.1% YTD. The upcoming elections in September may be cause for deferring any large purchases, so an improvement in sales is quite possible in Q4 of this year. Given the listless state of affairs in the region, a marginal decrease in sales demand is anticipated for new vehicles in Q3 with a slight growth expected by Q4 at the regional level. Select countries and OEMs are found to be struggling to keep up with demand while others battled overcapacity. The slightly improved demand outlook is cause for confidence that the worst has passed with select German

OEMs planning additional production days through the summer holiday, while other OEMs are increasing their output of top-selling models. Moderate growth is expected for 2014, though continued austerity measures will likely confine the strength of market recovery.

Current state of the industry in Japan

Demand in Japan remains lower in 2013 after the eco-car cash incentive ended in September 2012. Consumers may be enticed to make big-ticket purchases before sales tax increases from 5 to 8% in April 2014. Sales could thus see an upswing towards the end of the year and into Q1 2014. Hybrid vehicles and mini vehicles are increasingly becoming popular in Japan, fuelled by the recent cash and on-going tax incentives. Competitions in these two segments are expected to be more intense in 2013 as new key models will be introduced from various automakers towards the end of the year. The yen has weakened against the US dollar over the last several months, translating into a positive financial effect for Japanese automakers. Yet, it is still stronger than the optimal level. Some automakers have adjusted their manufacturing strategy in order to keep high volume programmes in Japan until demands become much higher for those models in key overseas markets.

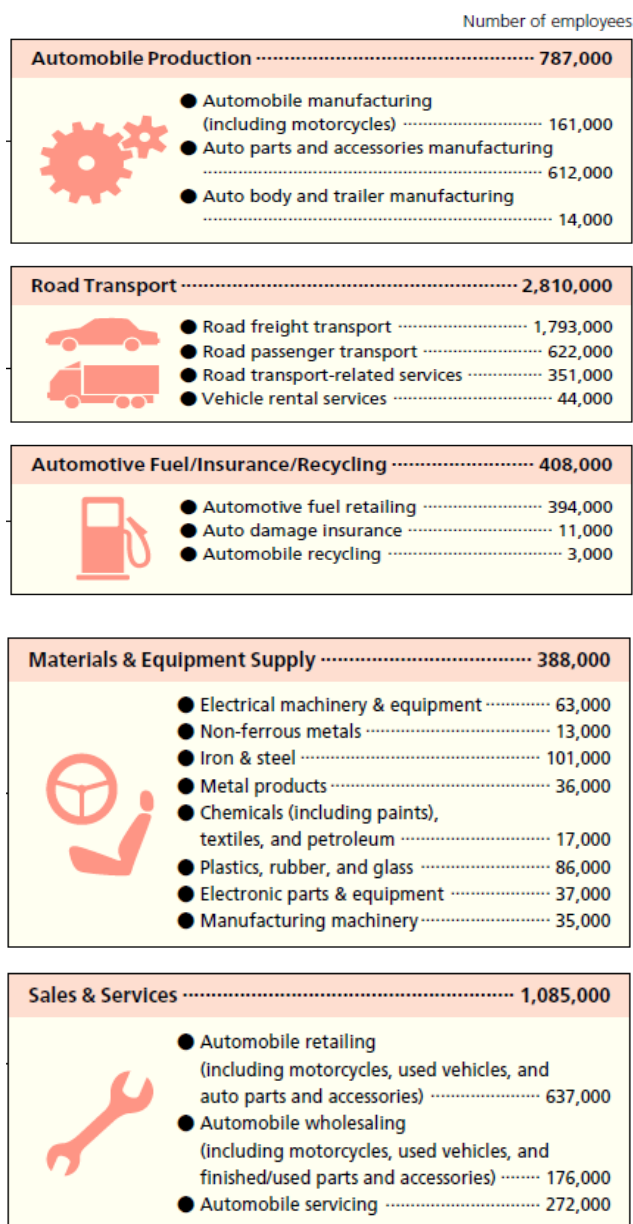
Economic contribution

Automobiles are the focus of an extremely wide range of industrial and related activity, from materials supply and vehicle production to sales, servicing, freight shipping and other auto-centered operations. Auto-related employment in Japan at present amounts to 5.48 million people.¹²

¹² Motor Industry of Japan, by Japanese Automotive Manufacturers Association

Japan: Functional distribution of human resources at auto and auto component suppliers

2012

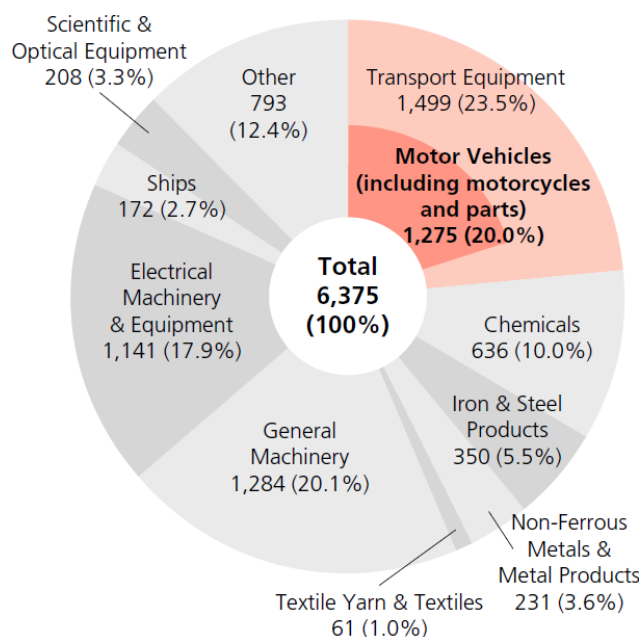


Note: Figures are rounded off to the nearest thousand.

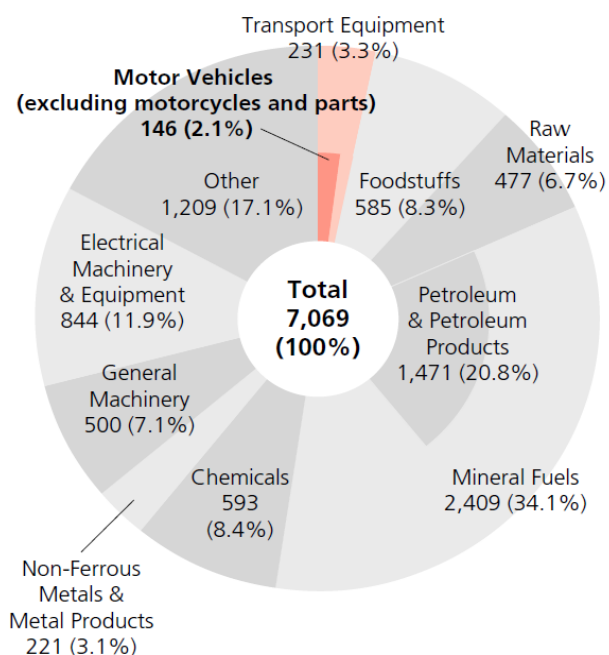
Trade balance

Japan's gross exports in 2012 decreased by 2.7% from the previous year, while gross imports rose by 3.8%. In value terms, automotive exports grew 10.5% from 2011 to 12.8 trillion yen, with motor vehicle and parts exports rising but motorcycle exports falling. Automotive imports also increased, by 21.2% y-o-y to 1.5 trillion yen, with both motor vehicle and parts imports showing growth.

Japan: Exports by principal commodity 2012, (FOB value x10 billion yen)



Japan: Imports by principal commodity 2012, (CIF value x10 billion yen)



Source: Japan Automotive Manufacturers Association

Market outlook

Japanese domestic light vehicle sales continued to struggle in the first five months of 2013, even as monetary and fiscal policies seem to be reviving the country's economy. April showed signs of hope with slight growth of 2%, the first positive result since September of 2012 when

government-funded cash incentives ended. However, May sales numbers returned to a downward trend and the overall contraction is expected to carry through the remainder of the year. Consumers may be enticed to make big-ticket purchases before the sales tax increases from 5 to 8% in April 2014, so sales could see an upswing towards the end of the year and into Q1 2014.

Although the yen has relatively weakened Japanese automakers are expected to localise more assembly volumes overseas in order to avoid risks of currency fluctuations. Therefore, excess capacity should be a major issue in Japan. In the mid to long term, this region is expected to see assembly volume decline due to a combination of continuing assembly transfers to overseas and stagnant domestic markets. Japanese automakers have started announcing their capacity reduction plans, yet the regional utilisation is expected to remain below 90% which can lead to further capacity reduction.

Current state of industry in Brazil

The Brazilian auto sector has experienced incredible growth in the last few years now representing the fourth largest sales market globally. However this growth has drawn attention to the weakness of its local assembly as evidenced by increasing reliance on imports to meet demand. From 2005 to 2011, the market averaged 12% annual growth while imports witnessed a staggering growth of 46% annual growth rate. By 2011, imports represented nearly 26% domestic sales.

First effects of the financial crisis were felt during the contraction of the economy in the beginning of 2012. To revive the economy and stimulate consumption, the Brazilian government adopted a package of measures for few sectors including the automotive sector known for its dynamic effects on the other sectors of the economy. Some of those measures include the following:

Reduction in excise tax (IPI) on the purchase of cars and light commercial vehicles in addition to a reduction in the tax on financial transactions (IOF) in loans to individuals from 2.5 to 1.5% a year. While 1.0 litre vehicles have their excise tax reduced from 7% to zero, vehicles with engines between 1 and 2 litres had their excise tax reduction from 11 to 5.5% (for vehicles with flex fuel technology) and from 13.5 to 6.5% (gasoline). Thus in both cases, excise duty was reduced by half. Also, the excise duty on light commercial vehicles was reduced from 4 to 1%. This resulted in a surge in vehicle sales between June and December which helped the industry close recover from a slump of 4.4% before the

measures being implemented, to close the year with a growth of 6.1%.

After the introduction of several different versions of the Innovar Auto legislation and negotiations with industry participants, the Brazilian government passed a decree in October 2012, paving the way for Inovar policy to take effect from 2013 onwards.

Brazil: Inovar auto policy **Qualifications and incentives for importers**

- Importers will be able to benefit from the IPI tax credits up to a maximum of 4.8 thousand units per year.
- The calculation will be based on the average of imports conducted from 2009 – 2011.
- Importers must also meet the ratio of investments in R&D and engineering in order to qualify for the program. Those investments could also be done by contributing to the FNDCT.
- Products imported from Mercosur and Mexico continue to be exempt from paying the import tax and extra 30 pp on the IPI. The quota system with Mexico remains unchanged.

Brazil: Inovar Auto Policy **Qualifications and incentives for investments**

- The contribution schedule will be implemented from the date the company is accepted into the regime.
- During the construction phase: IPI collected on imported cars will generate tax credits.
- IPI Tax Credits: limited to 50% of the plant capacity, and is valid for a period of two years.
- Benefit use: 25% in direct monthly IPI credit and another 25% in credit to be used after SOP (start of production).
- This condition is restricted to the same or similar model the company plans to produce locally.

Source: Federal government, Autofacts analysis

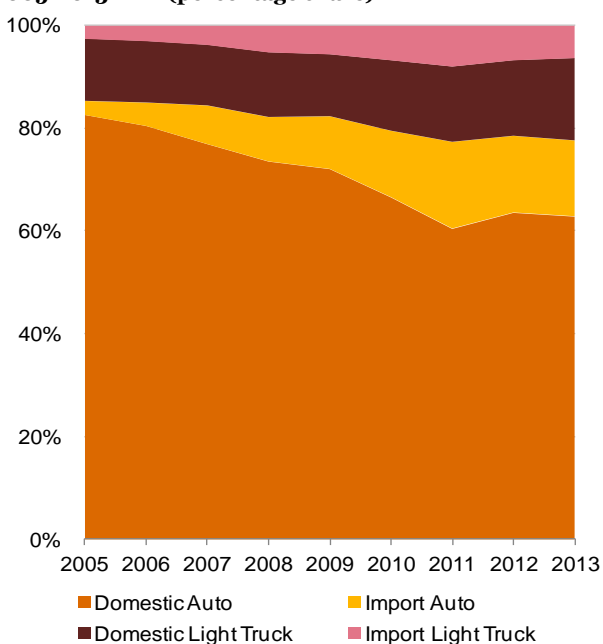
Market outlook

Brazil's light vehicle production is on pace for record levels, with the first half of 2013 far outpacing the sluggish pace of 2012. Full-year assembly is expected to reach 3.4 million units for 2013, with growth continuing at a more modest pace of 3.5% in 2014. In the mid term, South America as a whole is expected to hit the 5 million mark in 2015, but short-term production stability in the region remains

heavily dependent on when civil unrest in Brazil subsides, especially with the World Cup and Olympics on the horizon.

New light vehicle registrations in Brazil reached 1.35 million units between January and June. While lower vehicle taxes have helped ease concerns over credit availability, political and social unrest will serve to constrain growth, particularly at the rate seen in the first five months of the year. While any quantifiable impact of recent demonstrations and riots remains to be seen, sales will likely pull back, suggesting a full-year growth rate of just under 4%.

Brazil: Light vehicle sales by source and segment 2005-2013 YTD (percentage share)



Source: ANFAVEA

Current state of the industry in Thailand

To cushion the Thai automotive industry from the impact of floods that hit Bangkok in late 2011, the government launched a stimulus programme in 2012. Under this programme, first-time passenger car buyers were entitled to up to 100,000 baht (3,300 USD) in tax rebates. The tax rebates boosted Thailand's car sales to a record high of 1.43 million units in 2012, an 80% jump from 2011.

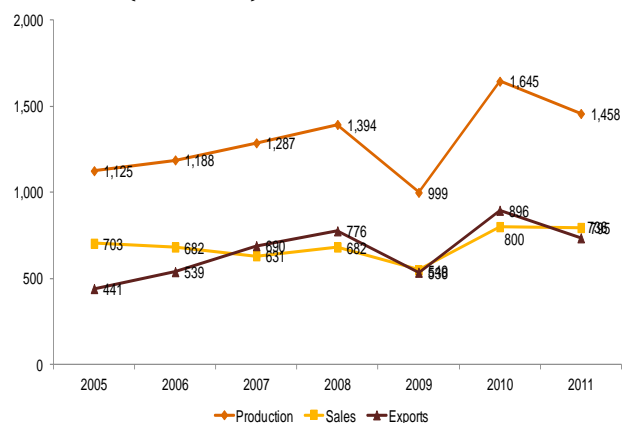
Production in the first half of this increased by over 26.35% y-o-y to reach 1.34 million units.¹³ Of the overall car production, a total of 540,303 units, 40.29% were manufactured for export, an increase of 14.87% y-o-y, while 800,000 units, 59% were built for domestic sales.

¹³ Federation of Thai Industries- Press release

Sales of vehicles in the first half jumped 22.1% y-o-y to 740,795 units.

Thailand: Automotive industry growth, production, sales and export

2002-2011 (thousands)



Source: Thai Board of Investment

Economic contribution

The automotive industry is Thailand's second-largest export industry, after computer parts and components. Thanks to continuous government support, it has evolved into an industry with vibrant foreign OEM competition and an extensive network of supporting industries including several small and medium-sized industrial firms. Thailand's long experience with automotive manufacturing has equipped the country with a comparatively low-cost yet experienced labour force for the sector. Apart from launching industry-friendly policies focussed on investment privileges and excise-tax benefits, the government also supports environmental friendliness, and development of the workforce. This makes it an ideal manufacturing location for eco-cars and one-tonne pickup trucks.

Thailand: Forecast of the manpower required in the auto parts industry

2008 -2015 (thousands)

Year	Automobile Production (Million Units)	Productivity (unit/worker/year): Constant scenario	Manpower required	Productivity (unit/worker/year) 3% improvement every year scenario	Manpower Required
2008	1.39	3.5	397,000	3.5	397,000
2010	1.6	3.5	457,000	3.5	457,000
2011	1.8	3.5	514,000	3.6	500,000
2012	2.0	3.5	571,000	3.71	539,000
2013	2.2	3.5	629,000	3.81	577,000
2014	2.4	3.5	686,000	3.93	611,000
2015	2.5	3.5	714,000	4.05	617,000
2015-2020			257,000	5 years increase = 15.7%	160,000
2020	3.2	3.5	914,000	4.56	702,000

Source: Federation of Thai Industries

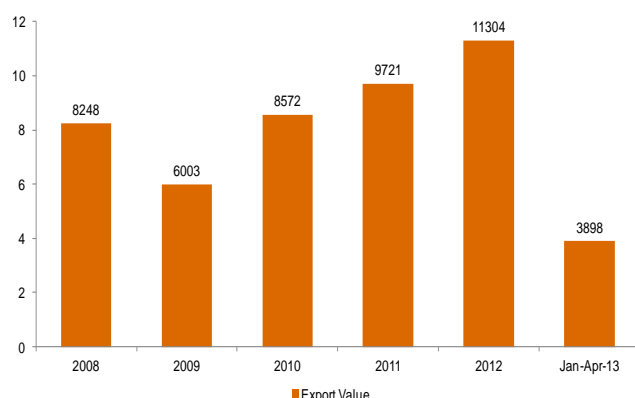
According to forecasts by the Auto Parts Industry Club and TAPMA, the automobile industry is likely to continue growing and Thailand is expected to be assembling 2.5 million automobiles a year by 2015. Provided the trend continues, the country should produce about 3.2 million vehicles annually in 2020 (as a result of many government support programmes, including the eco car project).¹⁴

According to a survey of members of the Auto Parts Club and TAPMA, the industry employed 457,000 workers in 2010 when automobile production stood at 1.6 million units. This put the productivity figure at 3.5 vehicles per worker.¹⁵

Trade balance

Thailand: Automotive parts exports

2008- Apr 2013 (thousands)



Source: TAPMA

¹⁴ Federation of Thai Industries-Preparation of Thai Automotive Workforce in Journey towards AEC

¹⁵ Federation of Thai Industries- Preparation of Thai Automotive workforce in journey towards AEC

Market outlook

According to the forecast of the Thai Automotive Federation, automakers are likely to produce 2.55 million vehicles this year, a slight improvement from 2.45 million in 2012. Overall output in the first half of this year rose 26.35% from a year earlier to 1.34 million units. On the sales front, domestic demand still looks weaker resulting from the withdrawal of subsidies by the government. However with the introduction of newer eco-car models, there could be intense competition in the sub-compact car segment during the second half of this year that could see the year ending with sales of nearly 1.3 million units.

Current state of the industry in India

The market performance in India during 2009 and 2010 was underpinned by natural demand driven by the country's economic performance, growing middle class and low levels of vehicle ownership. Lower levels of economic growth, combined with rising petrol prices and high interest rates have created strong headwinds for the Indian vehicle market, and volatility in petrol and diesel prices has added to uncertainty in the buying decision.

The increase in excise duty on utility vehicles put a further body blow on the growing SUV segment. As a result, the Indian passenger vehicle market has fallen consecutively month over month (April to July) for the past four months. Block closures have become a regular feature as carmakers contend with the rapid slowdown in the demand for cars. Several automakers are now periodically reducing production schedules to better align production with demand.

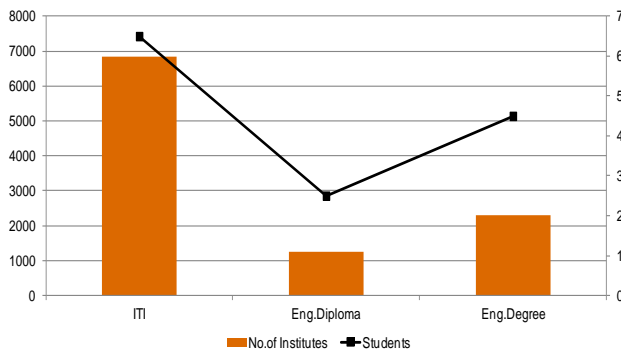
The long-term outlook for the Indian market has also been revised as it is clear that India still faces significant hurdles on the road to greater levels of motorisation, likely to be resolved over a longer 10- to 20-year planning horizon.

Economic contribution

With 6.7% contribution to India's GDP, the automobile industry is one of the key manufacturing sectors in India. India is currently the sixth largest passenger car producer in the world with an annual turnover of around 55 billion USD in FY 2013 and employs around 18.5 million people (directly and indirectly). Direct employment includes personnel working with automobile OEMs and auto component manufacturers (about 30% to 40%). Indirect employment includes personnel working in enabling industries, such as vehicle finance and insurance, vehicle repair, vehicle service stations, vehicle maintenance,

vehicle and component dealers, drivers, cleaners, etc (about 60 to 70%).

India: Number of institutes and number of engineers 2011 (thousands)

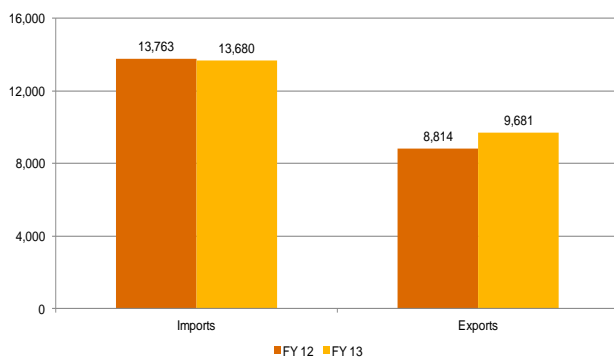


Source: NSDC report on auto and auto component industry

Trade balance

India: Automotive parts imports and exports

FY 12 vs FY 13 (USD, millions)



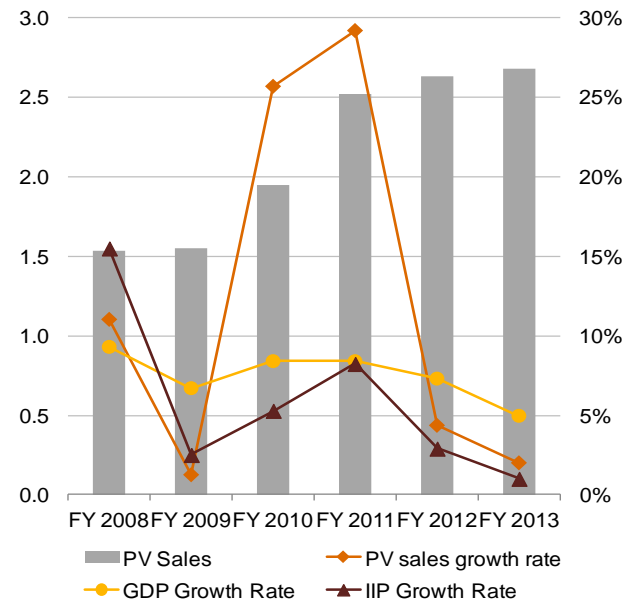
Source: ACMA, DGCIS HS Codes data

Market outlook

In the last few years, the passenger vehicle industry was largely driven by strong economic growth. However, a host of domestic factors in the form of increasing fuel prices, the weakening rupee and prolonged high interest rates led to rising vehicle financing costs, thus leading to a slowdown in the demand for cars. While the demand for micro or small SUVs provided a boost to India's passenger vehicle market, passenger car sales fell during FY 2013 for the first time in a decade by 6.7% to 1.9 million units. Despite OEMs launching 22 special editions in the previous months, giving interest-free repayment and discounts up to 20% to catch customers at dealerships, the car industry faces the decade's worst slowdown.

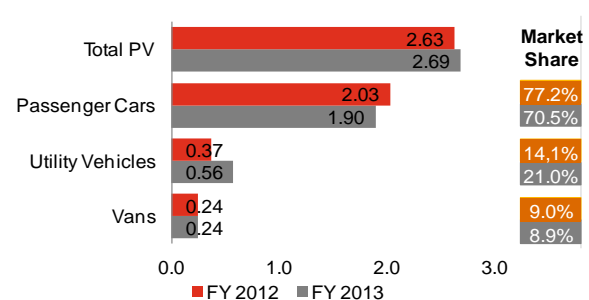
India: Growth of PV sales relative to the economic indicator

FY 2008- FY 2013



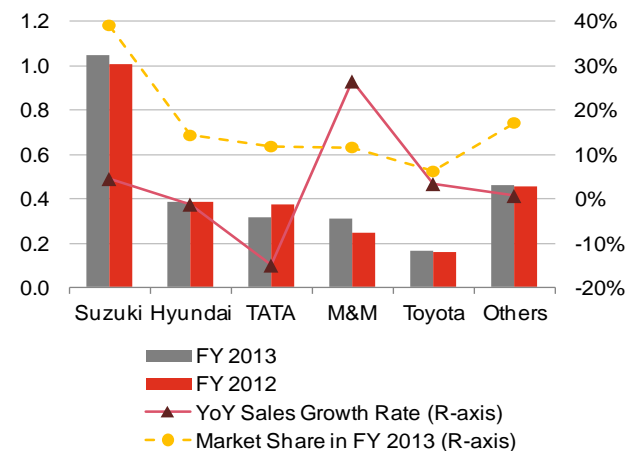
India: Passenger vehicle sales segment analysis

FY 2013 vs FY 2012 (millions)



India: Passenger vehicle sales OEM analysis

FY 2013 vs FY 2012 (millions)

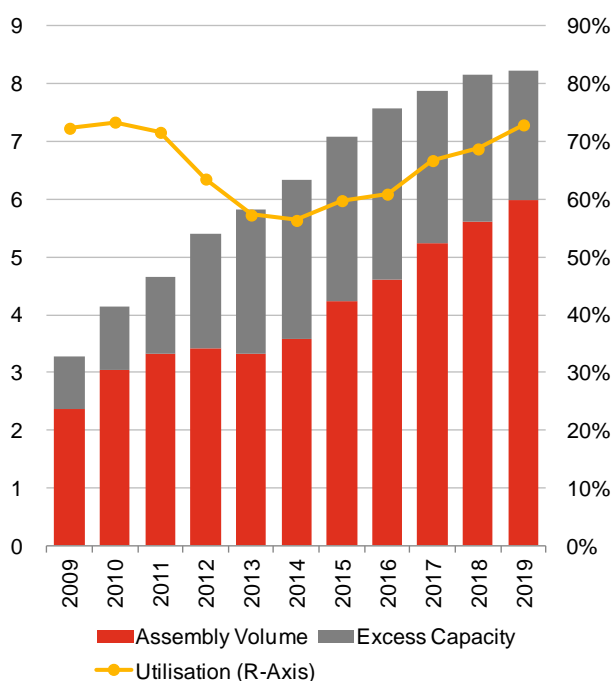


Source: Autofacts, SIAM

After more than 10 years of steady output growth, India's production is forecast to fall by around 3% to 3.33 million units for the current year. Accordingly, excess capacity is expected to reach a record high of 2.5 million in the current year making capacity utilisation fall to 57%, representing the lowest level for more than a decade.

Just two years ago, India was seen as the world's hottest growth market after China and major OEMs invested in capacity expansion. Within these two years, assembly capacity in India rose by around 25% to over 5.8 million units in 2013. To keep pace with slowing demand and bridge the gap between sales and output, leading OEMs scaled back their production recently and block closures have become a regular theme in India. At least 50 to 60 days of production days have been lost as companies are now shutting down production at their plants to cope with an inventory pile-up at stockyards and dealerships in the past six to eight months.

India: Light vehicle assembly outlook 2004-2019 (millions)

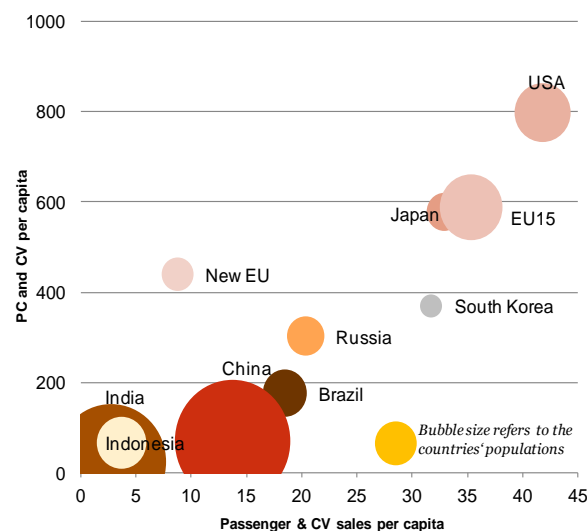


Source: Autofacts Q3 2013 data release

Although demand for vehicles in India increased over the past years, motorisation in India in terms of vehicle penetration and sales per capita is still among the lowest compared to other markets. However, low car penetration coupled with a huge population and a growing middle class with increasing purchasing power makes India still a high

potential growth market for major OEMs to keep investing in.

India: Vehicles (PC+CV) per capita and vehicle density 2011



Source: Autofacts analysis, VDA

With a vehicle density per 1000 population at around 22.5 and vehicle sales per 1000 at 2.73, India falls far behind other emerging markets. Vehicle sales remains low largely due to relatively low per capita income levels combined with high acquisition costs and increasing fuel prices. One of the key growth drivers was the strategy by automakers to build a range of cheap, smaller and more fuel-efficient and affordable cars to cater not only to local customers, but also to use India as an export hub for small car manufacturing. To assemble these low-margin vehicles profitably, car manufacturers are investing in local production to cut costs and ramp up volumes with exports seen as an opportunity to expand the volume base and create scale.

Reflection: Are we facing a crisis or is it an opportunity in disguise?

One of the key concerns whenever the auto industry is hit by slowdown is whether it is capable of a rebound and how long the slowdown will last. During the financial crisis of 2009, governments in the US, the EU and Japan responded by announcing policy interventions that have helped revive both the industry as well as the economy. These in turn led to benefits such as an economic stimulus, reduction in vehicle emissions and improvements in vehicle safety.

The preceding reviews of the global automotive markets highlight the fact that a crisis situation needs dynamic policy intervention.

The Indian government had introduced a range of measures such as cuts in customs and excise duty (including auto components to be used in hybrid vehicles), stimulus package encouraging soft loans to compensate tight lending and softening of oil prices in order to boost consumer demand for automobiles. To stimulate demand for new vehicles, the Indian government needs to announce a scrappage scheme for vehicle owners to replace older automobiles by extending 50% rebate on excise and sales tax on the lines of European nations. The government needs to also explore a scrappage incentive to replace all vehicles that are 10 to 15 years old. Besides stimulating demand, it will also help control air pollution and reduce fuel consumption.

The workforce needs to be trained to meet the demands of the industry in the long term. Availability of skilled manpower has always been a key competitive advantage for both automakers and suppliers. According to SIAM estimates, the direct employment in the industry is close to 13 million. However, for this number to be sustainable over the long term (7 to 10 years), another 35 million are needed for employment in the industry.¹⁶ Industry associations SIAM, ACMA and FADA have taken the first and crucial step to set up an Automotive Skill Development Council (ASDC), which is yet to be fully operational. To meet long-term objectives, remedial actions are needed.

India: Functional distribution of workforce at auto and auto component suppliers

2011

Function	Distribution at Auto OEM's	Distribution at Large Tier I suppliers	Distribution at Small Tier I suppliers, Tier II, Tier III and lower suppliers
Manufacturing/Operations	55-60%	70-75%	80-85%
Design and Development, Production Engineering	7-8%	5-6%	1-2%
Vendor Development/ Purchase	4-5%	2-3%	Minimal
Projects	1-2%	Minimal	-----
Tool room	2-3%	2-3%	1-2%
Industrial Engineering/ Technical Services	4-5%	2-3%	Minimal
Sales and Marketing	5-6%	3-4%	3-4%
Service/ Spares	7-8%	1-2%	1-2%
Support functions (HR, Admin, Finance, Accounts)	7-8%	4-5%	2-3%

Source: NSDC skill gap analysis report

Skill gaps exist in various sections of the value chain among component suppliers, vehicle manufacturers, sales,

service and support functions. To address these gaps, a common roadmap and a national level assessment of skills, training development programmes and technical certification need to be identified. A national level certification or a vocational qualification will enable companies to source from a common talent pool having similar skillsets.

Graduates of ITIs, engineering colleges and other institutions are not readily employable and need retraining at substantial costs in order to become employable. Few companies have already taken a leadership role in ITIs, partnering colleges, establishing their own training centres, and working with NGOs and other training partners to retrain persons who could be recruited.

The ASDC can take the lead in establishing the much-needed academia-industry connect by encouraging internship opportunities at all major auto production hubs in the country. It needs to also adopt a collaborative approach to training that is inclusive of manufacturers and dealerships, develop online training resources and focus on increasing practical components in the courses in order to enhance the hands-on skills of students.

Key work areas and skill sets that will be in demand in the long term need to be identified such as drivers, service mechanics, salespersons and manufacturing workers. For each area, a hierarchy needs to be established, different levels of competencies need to be determined and a national curriculum framework devised.

Conclusion

The differences in the structure of the automotive industry in India and other developed countries (US, EU and Japan) are indeed immense. However, we can learn from the policy approaches adopted by the industry there and develop a mechanism or framework that insulates the Indian industry against future economic shocks. All industry stakeholders must learn to integrate different approaches in order to build efficient capacity at their plants and improve employee skills. The know-how which exists among a few must be diffused and shared among all so that the entire industry works in the same direction in order to build a business based model that has scale and sustainability.

¹⁶ NSDC Skill gap analysis report on Auto and auto component Industry in India



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