Brazil
Automotive Industry update

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New Spotlight of Emerging Country-The Auto Industry of Brazil

Stimulus Policy to Promote Industrial Boom

Being the largest country of the Latin America and the fifth in the world by area, Brazil has a total land area of 8.5 million square kilometers. With a superior geographical condition, Brazil spans its territory across two time zones. The entire nation is divided into 26 states (Federative Units) and 1 Federal District where the capital is located. The Brazilian government is very open to foreign enterprises and foreign investment, where various incentive programs are being granted. Firstly, within Brazil, both foreign-owned or JV enterprises are treated the same as citizens, and are regarded as domestic enterprises. Secondly, the Brazilian government has implemented many incentive programs for industries, for example, on certain products under development, the industrial product tax is exempted. Thirdly, different regions also have their corresponding regional incentive programs, of which currently are seen in various free zones, such as free ports, free trade areas, bonded warehouses and transfer zones and etc., at major ports of Brazil.

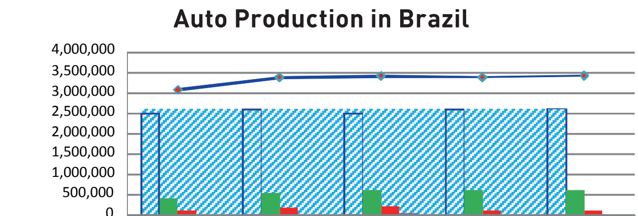
Brazil is politically stable. Both the economy and the auto market growth have a prospective outlook. The investment environment is safe, and the probability of the occurrence of significant inflation is low in the foreseeable future. Brazil has already implemented free floating exchange rate policy. In 2008, Brazil has adopted financial stabilization measures, where the financial system has started to become balanced and stable, since the exchange rate is stable and financial risk is low. In addition, Brazil is a member of MERCOSUR and LAIA, therefore the investment and production of Brazilian auto industry will be beneficial to its market expansion to Latin America or even North America.

Brazil's auto market growth potential is constructed on the basis of a sound economic outlook. The Brazilian economy mainly concentrates in the southeastern states, where there are many policies encouraging the development of remote areas. Brazil's current airport facilities are lagging behind international standards. Urban transportation, highway and railroad traffic are the obstacles of economic development. In order to host the 2014 World Cup and the 2016 Summer Olympics, Brazil initiates a USD 700 billion investment plan, which includes an investment in highway for more than USD 40 billion. This is considered a large-scale investment in Brazil, which will effectively promote economic growth, and provide a good opportunity for the development of the auto industry.

Brazil’s Auto Industry Has Great Market Growth Potential

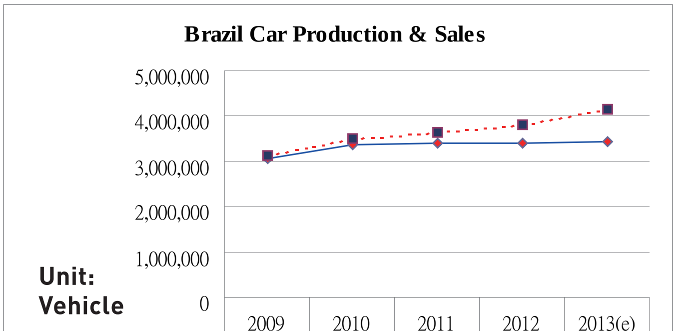
World's 3rd Largest Auto Market by 2015

Brazil has a population of nearly 200 million. According to the 2011 statistics from Economist, Brazil’s export totaled about USD 256 billion, while import amounted to approximately USD 226.2 billion, making the country the largest market in Latin America. Another source from OICA 2012 statistics showed that Brazil was the world’s fourth largest auto market, and the seventh largest production base. Brazil’s local auto demand exceeded its production supply. It is forecasted that in the next few years, the growth of Brazilian auto market will be about 8%, which is far greater than that of the developed markets. The auto industry accounts for 23% of Brazil’s total industrial production value. In large commercial vehicles, Brazil is the world’s second largest production base, of which heavy vehicles (such as buses and trucks) possess the greatest development potential. By 2015, Brazil is expected to outperform Japan and become the world’s third largest auto market.



	2009	2010	2011	2012	2013(e)
Passenger Vehicle	2,487,881	2,584,690	2,505,241	2,589,232	2,614,876
Commercial Vehicle	437,104	566,982	638,466	628,575	631,880
Truck	120,944	189,941	223,388	132,953	142,001
Bus	30,021	40,530	49,375	36,630	29,873
Total Production	3,076,000	3,382,143	3,416,468	3,387,390	3,428,630

Figure 1. Analysis of Vehicle Types and Annual Production in Brazil



	2009	2010	2011	2012	2013(e)
Auto Production	3,076,000	3,382,143	3,416,468	3,387,390	3,428,630
Auto Sales	3,141,240	3,515,064	3,633,248	3,802,071	4,132,780

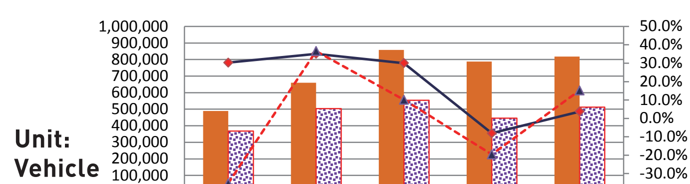
Figure 2. Analysis of Auto Production and Sales in Brazil

The 2012 sales of passenger vehicles totaled 3.634 million (units) in Brazil. The number would climb up to 3.802 million if commercial vehicles were included. The Brazilian Association of Auto Manufacturers forecasts that by 2013, auto sales will grow about 3.5% to 4.5%, with total sales of 3.93 to 3.97 million (units). Since there is no local auto brand, the market is entirely monopolized by global auto makers. The government considers a locally-made car with a level of localization lower than 65% to be equal to an imported finished vehicle, and will impose high tariffs. For those multinational companies wishing to develop (auto businesses) in Brazil, they will have to follow the government's policy on localization and technical cooperation.

The data from Brazilian Auto Manufacturers Association (ANFAVEA) showed that in 2012, Brazil produced a total of 3.387 million vehicles, of which 2.589 million were passenger vehicles, 0.629 million for light commercial vehicles, 0.133 million trucks and 37,000 buses. The number showed a decrease of 0.9% compared to that of 2011. **Figure 1** and **2** show annual forecasts of production by major vehicle types, and annual total sales and production in Brazil, respectively.

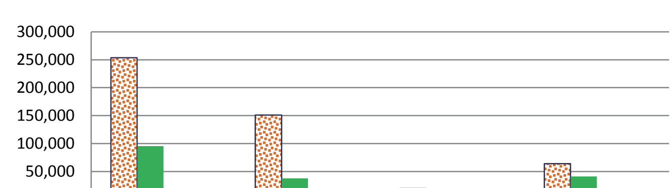
In 2012, the total sales of passenger vehicles, light commercial vehicles, trucks and buses were 3.802 million units in Brazil, showing a growth of 4.6% from 2011. The sales of passenger vehicles were 2.851 million units, accounting for 75% of the market. The sales of 1,000 CC engine passenger vehicles were 1.188 million units, accounting for 41.7% of the total market. Brazil was also the world's largest dual fuel (petrol + bio-fuels) auto market. In 2012 the Brazilian petrol and bio-fuel (methanol, dual fuel) for passenger and commercial vehicles accounted for 87.1% of the total sales units, whereas sales of vehicles using gasoline and diesel-fueled accounted for only 7.5% and 5.4%, respectively. Fiat had the top sales in 2012 for passenger and commercial vehicles in Brazil, with total sales of 0.838 units. VW ranked the second place with 0.733 units, followed by GM (0.624 million units), Ford (0.345 units) and Renault (0.241 units).

The total sales of imported vehicles in Brazil were 0.788 million units in 2012, which was a decrease of 8.1% compared to that of 2011. This probably has to do with the increase of industrial products tax (IPI) on imported cars by the Brazilian government, starting from December 16, 2011. The major countries for imported cars were Argentina (350,000 units), Mexico (190,000 units), South Korea (105,000 units), Germany (34,000 units), etc. **Figure 3** shows a comparison between the export and import of Brazilian auto. Due to the increase of domestic demand in 2012, the production growth rate was slightly lower in Brazil. The total number of export for passenger vehicle, bus and truck totaled 445,000 units, representing a significant decrease of 19.6% from 2011. **Figure 4** shows the major auto import countries for Brazil.



	2009	2010	2011	2012	2013(e)
Import Volume	488,874	660,256	857,883	788,063	817,402
Emport Volume	368,023	502,754	553,334	445,036	512,636
Import Growth Rate	30.3%	35.1%	30.0%	-8.1%	3.7%
Export Growth Rate	-35.3%	36.6%	10.1%	-19.6%	15.2%

Figure 3. Comparison of Import and Export Number of Brazilian Auto



	Argentina	Mexico	Germany	South Korea
Passenger Vehicle	253,463	150,673	19,620	63,759
Commercial Vehicle	95,346	37,865	13,112	41,271
Truck	859	1,324	764	
Bus	83			

Figure 4. Auto Import Countries for Brazil

Government Policies Promote the Development for Auto Industry

Protective Measures to Boost Domestic Auto Competitiveness

To protect the domestic auto industry, lower the unemployment rate of the industry and encourage local investment, on September 15, 2011, the Brazilian government announced that, for those auto assembly plants not following the regulations on the proportion of domestic auto parts used, product R&D investment amount, and auto assembly procedures, when importing cars and trucks from foreign countries, an additional 30% of IPI shall be imposed. The regulation stated that, when using auto parts for car assembly plants, at least 65% was required to be produced by MERCOSUR countries (currently including Brazil, Paraguay, Uruguay and Argentina). Auto (assembly) plants were required to spend 0.5% of their revenue on R&D. At least 6 procedures in vehicle production must be carried out in Brazil, including molding, painting, engine production, etc. In April 2012, the Brazilian government announced measures to enhance its industrial competitiveness and economy. The measure focused on the increase of tax reduction and the scope of loans. The amount of tax reduction and loans was about 60.4 billion in Brazilian Reals (BRL) (about USD 32.9 billion). The main point included that, for auto parts and other capital goods in 15 industries, they would not need to pay social welfare insurance (INSS) calculated based on employee salaries; rather, it would be the tax calculated based on company's sales value.

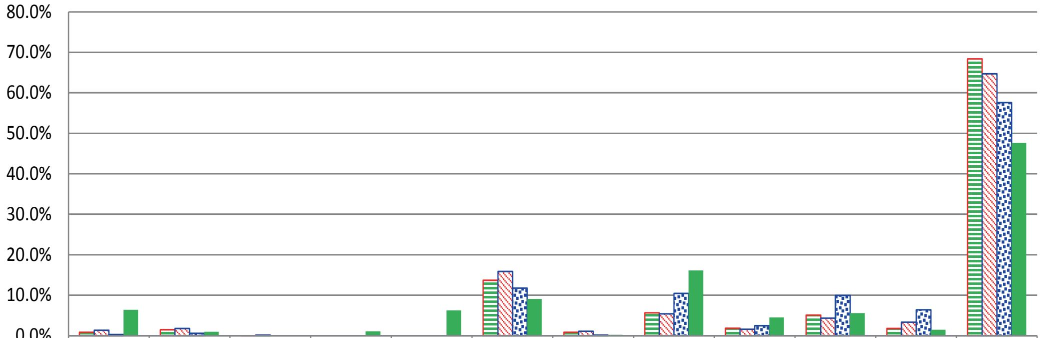
Taking into account the appreciation of Brazilian Real causing the lowering of the competitiveness of domestic auto industry, starting from September 2011, the Brazilian government implemented efforts and policies to protect its domestic auto industry. As the said policy would expire at the end of 2012, the Brazilian government announced INOVAR-AUTO in April 2012, which would be the auto industry policy starting from 2013. The new policy stated that for makers either already existed or new to the country, for domestically-produced parts and raw materials, they would be able to enjoy a maximum tax relief of 30%, as per the production machinery purchased. Under the new incentive policies and the context of increasing domestic demand in Brazil, several makers announced plans to increase production and new entry. Many major Japanese makers announced new factory plans to be initiated before 2015. The attitudes of Japanese auto parts makers to enter into Brazil drew much attention.

Observing from their latest plans to construct new plants and expansions, the number of makers that supply Toyota's assembly was the majority. Starting from September 2012, Toyota already initiated the operation of passenger vehicle Etios production in Sorocaba plant in the State of São Paulo. Tokai Rika, a Toyota auto parts maker, installed a large resin plating equipment in São Paulo to respond to the need from front bumper plating processing of Etios. Denso also produced the electronic control units (ECU) for the said model, which was produced by its Manaus plant (Amazonas State). Although this was far from the State of São Paulo, the plant could enjoy a tax relief. For other non-Toyota electronically-installed ECU which were imported from the United States or Japan currently, they would gradually be switched to be supplied by Brazil domestically. Japanese maker JTEKT planned to produce locally the power-assisted steering system (EPS) from 2014, to respond to more stringent demand of environmental regulations for auto making. At the same time, with the production of the first Nissan's plant in Brazil (Resende, Rio de Janeiro State) in the first half of 2014, auto parts suppliers will also come to Brazil. Suspension parts makers Yorozu plans to build a plant in the Nissan supplier park and supply parts for Nissan.

Furthermore, since Hyundai had built finished vehicle factories with production started in September 2012, Mando and other South Korean parts makers had also gradually come to Brazil. Chery, Jianghuai Automobile (JAC) and other Chinese makers also planned to produce locally in Brazil. Since the Brazilian government encourages Chinese system makers to come to Brazil, it is expected that the move for Chinese system parts makers to come to Brazil will become more and more active.

The Clustering of Auto Industry in the State of São Paulo

According to the annual statistics of Brazilian auto parts industry association (Sindipecas), there are 12 major clusters for Brazilian auto parts making industry. In addition to the largest one of São Paulo, there are also Minas Gerais, Parana, Rio Grande do Sul, etc. In the current 26 states and 1 federal district, São Paulo is the primary cluster for its auto parts industry. The total sales for makers in the said cluster account for 68.4% of the national sales; while in terms of export and import, the percentages are 57.6% (USD 6.4 billion) and 47.6% (USD 7.52 billion) respectively. The percentage of auto parts staff employed in the São Paulo cluster is 64.7%, showing a significant concentration of the clustering effect. **Figure 5** shows the major Brazilian auto parts industry clusters in terms of sales value, total number of employees, and percentage of export value to import value.



	Amazonas	Bahia	Ceara	Espirito Santo	Goias	Minas Gerais	Pernambuco	Parana	Rio de Janeiro	Rio Grande do Sul	Santa Catarina	Sao Paulo
percentage to total sales value	0.9%	1.5%	0.1%	0.0%	0.0%	13.7%	0.9%	5.7%	1.9%	5.1%	1.8%	68.4%
percentage to total employees	1.4%	1.8%	0.2%	0.0%	0.0%	15.9%	1.1%	5.4%	1.6%	4.4%	3.4%	64.7%
percentage to total export value	0.3%	0.6%	0.0%	0.0%	0.0%	11.8%	0.2%	10.5%	2.5%	10.0%	6.4%	57.6%
percentage to total import value	6.4%	1.0%	0.1%	1.1%	6.3%	9.1%	0.2%	16.1%	4.5%	5.6%	1.5%	47.6%

Figure 5. Comparison of Industrial Clusters of Major Brazilian Auto Parts

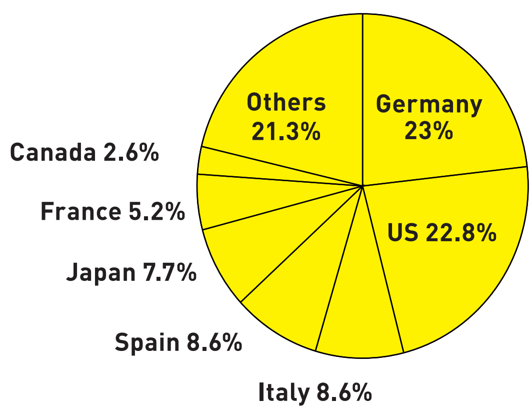


Figure 6. Breakdown of Foreign Auto Parts Makers in Brazil (by Country)

Major European and American OEMs Dominate the Development of Auto Parts Supply Chain

In 2012, there were a total of 504 Brazilian auto parts makers. 404 companies were located in the state of São Paulo; in addition to local makers, major foreign makers included 64 from European countries and 34 from the US and Canada. German makers accounted for the highest percentage of 23.2%, followed by US makers (22.8%), Italy (8.6%), Spain (8.6%), and Japan (7.7%). European and American makers accounted for the majority of OEM parts makers (65.1%), dominating the Brazilian auto parts industry's supply and demand. **Figure 6** shows the breakdown of Brazilian foreign auto parts makers by country.

Auto Parts Import Over Export Results From Growing Domestic Market Demand

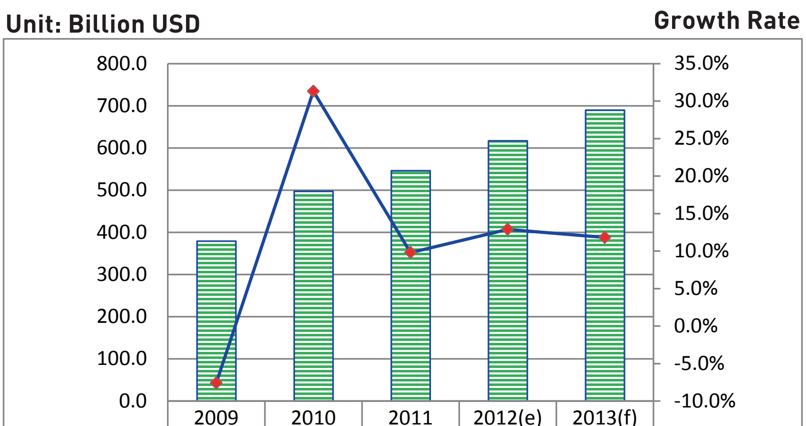
According to the annual report of Sindipecas, the sales of auto parts in Brazil was about USD 61.72 billion in 2012, which was a growth of 12.9% from 2011. Due to the growth of domestic market demand, the sales of 2013 is expected to be USD 69.01 billion, which is a 11.8% growth from that of 2012. **Figure 7** shows the annual sales value of Brazilian auto parts. The export value of auto parts in 2011 was USD 11.13 billion, while the import value was USD 15.78 billion. Responding to the growth of domestic market demand, Brazil became a country of which export value was greater than import value. The top five export countries for Brazil were Argentina (export value of USD 4.34 billion, accounting for 39.0% of the total exports), the US (USD 1.56 billion with 13.7% of total exports), Mexico, Germany and Venezuela. These five countries represented 73.1% of the total export value. **Figure 8** shows the major auto parts export countries for Brazil.

The top five import countries for Brazil were the US (import value USD 2.03 billion, accounting for 12.9% of the total imports), Germany (USD 1.96 billion, 12.4% of total imports), Japan, Argentina and China. These five countries totaled 53.0% of the import value. **Figure 9** shows the major auto parts import countries for Brazil. In 2011, of all the top 15 auto parts imported to Brazil in terms of value, the number one was "miscellaneous gearbox" (Brazilian import/export goods number NCM84084090), of which the value totaled USD 1.32 billion. Ranking the second was "the motor vehicle and other body parts and accessories for section 8701 to 8705" (number 87082999), valuing USD 9.2 billion. "Parts and accessories for other motor vehicle" (number 87089990) ranked the third with value of USD 11.3 billion.

Issues for Development of Brazilian Auto Industry and Opportunities for Taiwanese Companies

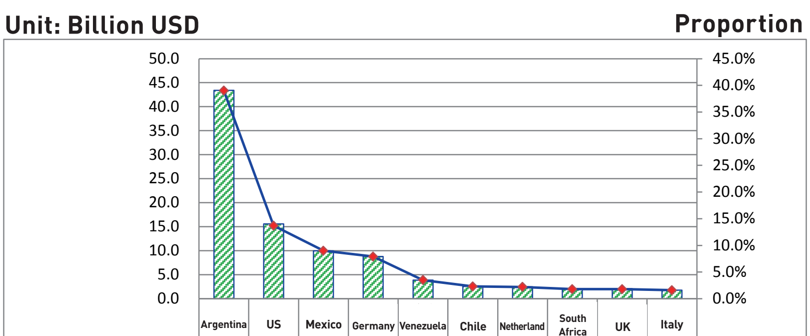
Eyeing on the Auto Parts Sector

The characteristic of Brazilian auto industry is that, with the increasing domestic market demand, local auto parts supply chain becomes insufficient, and a large number of imported auto parts will be in great need. Brazil imposes a complicated tax system with a total of 58 different taxes. Take imported auto parts for example, the cost after tax for imported parts is usually 1.8 to 2 times the CIF price. Price is affected by the cost of raw material, where the steel price in Brazil is relatively higher. Engineers, managerial staff and labors are costly. The Brazilian labor regulations are strict on labor contracts, work hours, wages, etc, where labor unions are powerful and have the right to decide whether to allow employees to leave work early or take a dayoff. Foreign enterprises must respect and protect the legal rights and interests of local workers. The above characteristics with differences in social aspects, cultural conflicts and high crime rates are all potential issues for entering the Brazilian auto parts market.



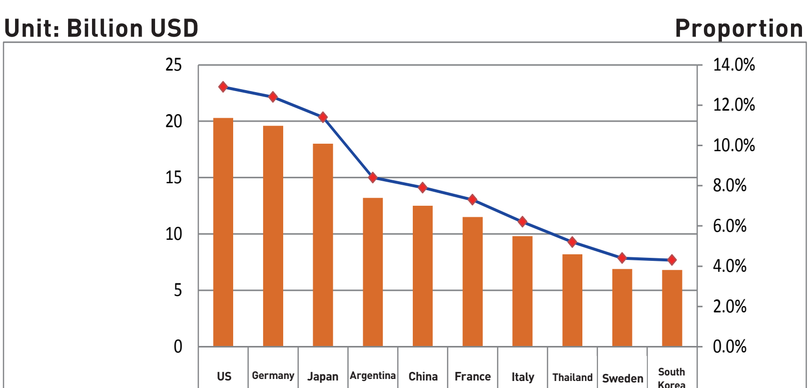
	2009	2010	2011	2012(e)	2013(f)
Sales Value	379.0	497.7	546.6	617.2	690.1
Growth Rate	-7.6%	31.3%	9.8%	12.9%	11.8%

Figure 7. Sales Value of Brazilian Auto Parts



	Argentina	US	Mexico	Germany	Venezuela	Chile	Netherland	South Africa	UK	Italy
Export Value	43.4	15.6	10	8.8	3.9	2.6	2.5	2.1	2.1	1.8
Percentage to Total Export Value	39.0%	13.7%	9.0%	7.9%	3.5%	2.3%	2.2%	1.8%	1.8%	1.6%

Figure 8. Major Auto Parts Export Countries for Brazil



	US	Germany	Japan	Argentina	China	France	Italy	Thailand	Sweden	South Korea
Import Value	20.3	19.6	18	13.2	12.5	11.5	9.8	8.2	6.9	6.8
Percentage to Total Import Value	12.9%	12.4%	11.4%	8.4%	7.9%	7.3%	6.2%	5.2%	4.4%	4.3%

Figure 9. Major Auto Parts Import Countries for Brazil

The Brazilian domestic auto parts industry is mediocre in its technological foundation; although they are capable of assembling parts, however, their manufacturing ability is inferior. The European and American foreign enterprises dominate the development of the auto parts industry. Since local auto parts makers do not possess efficient and professional production capability, the domestic market is primarily supplied by major European and American auto parts makers, who also export to neighboring countries. Brazil is an emerging market where the import of auto parts is greater than the export. Most of the imported auto parts are technology or manufacturing precision required components, such as automatic transmission systems, gears and transmission components, torque converters, engine systems and auto electronics, etc. Mainland Chinese are actively setting up auto production plants in Brazil producing vehicles of their own brands, while Korea and Japan are both planning to set up production for finished cars and its parts. Their sales trend shows an increase in recent years. As an emerging market, the auto ownership in Brazil is still at a low level, and the growth of auto parts industry is expected. For Taiwanese auto parts makers to enter into the Brazilian market, it is recommended that they evaluate their competitive edge and the current development of the industry in Brazil, and strategize their entering mode for the business opportunity.