2017

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Preface

- The Market Potential Index (MPI) for specific industries intends to compare countries identified as having the highest Gross Domestic Product (GDP) globally based on several dimensions.
- In 2016, the number of countries used for these rankings was 89, but has increased to 97 for 2017. Countries removed from the MPI rankings include Iraq, Luxembourg, Malta, Myanmar, and Papua New Guinea, while those added are Angola, Bolivia, Cameroon, the Democratic Republic of the Congo, Côte d'Ivoire, Ethiopia, Ghana, Jordan, Kenya, Lebanon, Panama, Tanzania, and Uganda.
- The Index compares these 97 countries on six market dimensions: size, growth rate, capacity, openness, current logistics infrastructure, and country risk. In order to measure each of these dimensions, a different set of indicators has been identified for each industry. Secondary data that has been gathered from reputable sources is used for these indicators, as noted. The rankings of the countries are calculated by adding up the dimensions and weighing them based on relative importance.
- While the MPI is a very useful tool for companies in the process of researching new markets for export, it should not be used as the single source of information in the decision. MPIs are designed to support further market research and is intended to be used for verification purposes. The information in this report can be utilized as a foundation to help identify potential countries for which more detailed research should be conducted.
- The Market Potential Index is calculated with the most recent data that is available, so it is important to note that the results represent the current state of the identified 97 countries, not a forecast.
- Industry specific MPIs are updated annually, and can be accessed at: https://globaledge.msu.edu/mpi

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Market Overview

Asia

Asia remains a top market for the automotive industry in sales and production, with countries in the region accounting for five places out of the top ten for the Automotive Parts MPI in 2017. Remaining at #3 from 2016 to 2017, Japan is negotiating an important trade deal with the European Union (EU) that will impact the automotive industry. Following increasingly protectionist measures taken by the United States with their withdrawal from the Trans-Pacific Partnership (TPP), this trade agreement will link two trade partners that collectively account for more than a quarter of the global economy. In 2016, roughly \$140 billion of goods were traded between Japan and the EU, a number that is expected to increase. In these negotiations, Japan is hoping to remove the high tariffs on products in the automotive sector, as well as lowering regulatory hurdles for Japanese companies that conduct business in Europe.¹

South Korea moved down one place in the 2017 Automotive Parts MPI to #10. Hyundai Motors, one of the country's leading manufacturers, faced a contraction in vehicle production due to the first full nationwide strike conducted in 12 years over stalled wage negotiations that lasted from September 2016 until mid-October. According to the company, this strike caused losses of nearly 130,000 vehicles.²

In addition to the loss of supply caused by the strikes, South Korea was also experiencing a loss in demand from China, one of their largest export partners, following the planned implementation of the Terminal High Altitude Area Defense system (THAAD) in partnership with the United States. The THAAD was intentioned to serve as an antimissile defense system to add another layer of protection following the recent military aggression displayed by North Korea. China greatly opposed this agreement, expressing concern that it would be used by South Korea and the United States to spy on Chinese defense and nuclear deterrent systems. The threat of the THAAD system deteriorated the relationship between South Korea and China, leading to serious economic implications including boycotts of South Korean goods. The boycotts coupled with the Hyundai strike heavily impacted the automotive industry in the country.

In 2018, South Korea will be hosting the Winter Olympics in Pyeongchang, which is expected to counter the lull in demand and production experienced by Korean automakers from

¹ CNN Money: Japan and Europe are Racing to Agree a Big Free Trade Deal

² BMI Research: <u>South Korea Autos Report 2017</u>

³ BBC News: China Presses South Korea on THAAD Missile System

⁴ Financial Times: <u>South Korea Manufacturing Activity Contracts for Ninth Straight Month</u>

2016. An increase in vehicle, bus, and coach sales in order to accommodate the influx of tourists during the games will effectively aid South Korea in their growth.⁵

While India has decreased four rankings to #20 in 2017, they have increasingly become a desirable environment for the automotive sector. Recent investments that have been announced by Suzuki, Kia, and the French PSA Group total nearly USD 2.2 billion. By producing vehicles and automotive parts in India, these companies will be able to avoid high vehicle and component import duties. This allows Suzuki, Kia, and PSA to price their products more competitively in India and makes for greater cost efficiency. 6

Europe

France rose one place in the Automotive Parts MPI from 2016 and 2017 to #8. After national elections in May of 2017, the new administration has made combatting climate change and the effects of global warming a priority. In order to do so, the French government has announced that they intend to end the sales of gas and diesel-powered vehicles by 2040, after which automakers will only be allowed to sell cars that are hybrids, run on electricity, or are fueled by other cleaner power. Even though 2040 is still 23 years away, this announcement will have short term effects on the automotive industry not only in France but also globally.⁷

Finland had the largest change in their rankings from 2016-2017 out of the 97 countries; moving up twenty one places to #11. Production is expected to remain strong, largely due to the presence of their major manufacturer, Valmet Automotive. This company produces roof component systems for Daimler, Lamborghini, and Porsche, and as of February 2017, the GLC SUV for Mercedes-Benz. The CEO of Valmet has stated that production of the GLC SUV is the most ambitious project carried out by the company to date. In order to accommodate the start of the production, Valmet expanded its body shop to include 316 robots; making it the largest facility of its kind in Finland. Another deal was announced between Valmet and Mercedes-Benz in March of 2017 regarding the production of the next generation of compact cars.⁸

North America

Canada remained the #5 ranked country from 2016-2017 for the Automotive Parts MPI. A labor deal reached between the Canadian Auto Workers Union and Ford Motor Company, General Motors and Fiat Chrysler Automobiles in 2016 promised a collective investment of USD 1.26 billion in the next coming years, which will go towards upgrades and retooling of existing facilities and infrastructure. The renegotiations of NAFTA also

⁵ BMI Research: <u>South Korea A</u>utos Report 2017

⁶ BMI Research: <u>India Autos Report 2017</u>

⁷ CNN Tech: France Wants to Ditch Gas, Diesel-Powered Cars by 2040

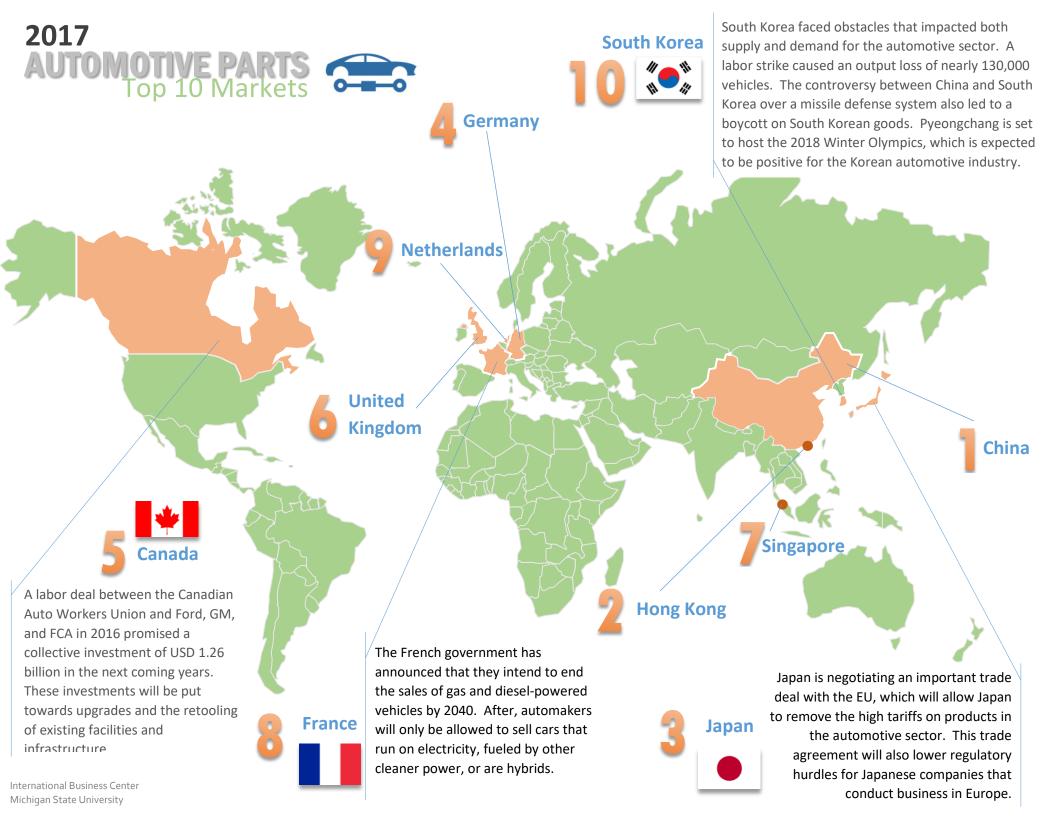
⁸ BMI Research: <u>Finland Autos Report 2017</u>

have the potential to impact Canada, although the development of a trade deal with the European Union will act as an important safety net for the automotive industry.⁹

In Mexico, the tariffs on imports have been lowered, which has led to positive change for the electric vehicles segment. This lowers the costs associated with supplying imported electric vehicles and puts pressure on the automakers to lower prices accordingly, making their products more desirable to consumers. These lower tariffs will also allow automakers from non-traditional markets, like China, to enter and compete in Mexico, which will boost competition in the market. The renegotiations of NAFTA will also greatly impact Mexico, much like Canada, and might make it less profitable and less cost efficient for many companies to grow production in the country. Mexico dropped four places to #14 in 2017. 10

⁹ BMI Research: Canada Autos Report 2017

¹⁰ BMI Research: <u>Mexico Autos Report 2017</u>



Results of the 2017 Automotive Parts MPI

	OVERALL	Market Size (30/100)	Market Growth Rate (15/100)	Market Capacity (10/100)	Market Openness (15/100)	Logistics Infrastructure (15/100)	Country Risk (15/100)
	RANK	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX
China	1	100	100	100	67	78	60
Hong Kong	2	28	62	68	87	77	84
Japan	3	30	41	84	85	67	92
Germany	4	25	43	46	83	89	94
Canada	5	11	45	49	100	84	88
United Kingdom	6	13	44	44	87	89	87
Singapore	7	13	35	46	89	81	88
France	8	14	36	54	83	79	88
Netherlands	9	4	37	51	87	100	92
Korea, Rep.	10	14	48	39	78	71	79
Finland	11	2	87	28	88	66	90
Switzerland	12	3	37	74	84	68	100
Spain	13	12	37	26	81	80	77
Mexico	14	18	58	15	85	57	51
Sweden	15	3	35	35	84	78	96
Italy	16	12	39	27	79	61	77
Ireland	17	2	33	75	86	58	86
Belgium	18	3	32	21	84	92	89
Norway	19	2	39	40	87	56	97
India	20	15	80	18	70	36	57
Denmark	21	2	38	31	83	73	91
Austria	22	3	36	27	84	62	94
Australia	23	5	40	38	82	34	91
Israel	24	2	67	28	83	42	78
Malaysia	25	8	50	10	84	56	69
Poland	26	8	49	14	80	49	76
Czech Republic	27	5	47	12	81	49	85
United Arab E.	28	2	48	27	78	72	69
Chile	29	2	62	16	79	47	76
Slovakia	30	3	56	11	80	36	78
Panama	31	1	53	12	81	77	58
Portugal	32	2	29	13	82	62	77
Morocco	33	2	89	5	68	49	57
Lithuania	34	1	52	10	80	47	73

	OVERALL	Market Size (30/100)	Market Growth Rate (15/100)	Market Capacity (10/100)	Market Openness (15/100)	Logistics Infrastructure (15/100)	Country Risk (15/100)
	RANK	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX
Hungary	35	3	53	9	81	40	67
Thailand	36	9	66	8	71	30	54
Qatar	37	1	58	33	69	42	67
Slovenia	38	1	33	14	83	48	76
Saudi Arabia	39	3	62	15	71	44	60
Bahrain	40	1	74	14	78	42	48
Latvia	41	1	39	10	82	44	75
Dominican Rep.	42	1	57	6	93	45	42
New Zealand	43	2	6	22	86	34	93
Kuwait	44	1	83	18	67	24	61
Peru	45	1	66	8	78	37	57
Colombia	46	2	70	8	74	41	51
Brazil	47	13	46	38	58	30	39
Russia	48	13	42	24	66	30	39
Turkey	49	6	55	11	70	48	44
Vietnam	50	3	92	7	68	27	43
Romania	51	3	52	9	78	28	60
El Salvador	52	1	61	4	86	36	43
Indonesia	53	7	67	10	67	9	54
Philippines	54	3	74	7	73	6	58
Bulgaria	55	2	57	7	78	23	58
Serbia	56	1	98	5	72	17	38
South Africa	57	3	53	6	68	43	49
Ecuador	58	1	76	6	73	47	27
Jordan	59	1	75	4	76	29	39
Costa Rica	60	1	28	10	88	28	59
Guatemala	61	1	59	4	78	35	41
Greece	62	3	22	12	79	47	50
Uruguay	63	1	43	12	68	39	59
Oman	64	1	35	10	77	40	55
Cote d'Ivoire	65	1	97	2	63	35	28
Honduras	66	1	65	3	76	38	35
Croatia	67	1	32	9	81	43	46
Cyprus	68	1	25	13	77	31	65
Sri Lanka	69	1	80	4	67	24	38
Bolivia	70	1	95	3	70	4	34

	OVERALL	Market Size (30/100)	Market Growth Rate (15/100)	Market Capacity (10/100)	Market Openness (15/100)	Logistics Infrastructure (15/100)	Country Risk (15/100)
	RANK	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX
Azerbaijan	71	1	85	6	66	21	30
Kenya	72		70	4	57	25	38
Kazakhstan	73	1		8	81	12	31
Lebanon	74	1	70	7	63	26	20
Argentina	75	4	51	12	51	32	32
Egypt, Arab Rep.	76	2	52	6	56	45	25
Uganda	77	1	81	1	59	6	28
Algeria	78	2	62	5	52	18	39
Nicaragua	79	1	49	2	71	23	24
Paraguay	80	1	41	3	69	18	32
Tunisia	81	1	43	5	58	17	40
Belarus	82	1	41	6	80	22	7
Pakistan	83	2	81	2	40	26	21
Ethiopia	84	1	92	2	49	1	20
Bangladesh	85	1	69	4	47	7	28
Uzbekistan	86	1	47	4	70	6	16
Ghana	87		48	3	54	20	36
Tanzania	88	1	53	2	48	11	30
Ukraine	89	3	3	5	72	23	12
Cameroon	90	1	58	2	37	6	27
Angola	91	1	44	7	53	3	16
Cambodia	92			2	59	4	29
Nigeria	93	1	12	5	50	15	15
Cuba	94			6		34	1
Congo, Dem. Rep.	95	1	97	1	1	4	9
Venezuela	96	1	1	5	37	18	1
Estonia	97						

^{*} Overall Rank is calculated by weighting the six dimension values. For Index values, values of the countries are converted into a 1-100 scale based on their relative magnitudes in each of the six dimensions. An index value of 100 indicates a country with the largest (or most favorable) value in a dimension whereas an index value of 1 indicates the smallest (or least favorable). While both the overall rank and index values show the rank order of the countries, the index values also indicate the magnitude of each country in relation to others in that order.

Assumptions

Since the automotive parts industry has a big aftermarket segment, the Automotive Parts MPI has been calculated with a focus on both segments of the industry:

- 1) Auto parts used for manufacturing
- 2) Auto parts used for aftermarket (maintenance and wholesale)

Thus for the market size, both the number of cars and commercial vehicles manufactured and the number of cars and commercial vehicles already in use are used as variables. Also the values of Automotive Electronics & Composites / Lightweight Materials manufactured and imported are integrated in the market size calculations. Market growth rate is measured by calculating the Compounded Annual Growth Rate (CAGR) of each market size indicator for the last 5 years (where data is available).

Trade and tariff data for the following Harmonized System (HS) codes is used for the measurement of the market openness dimension as well as other generic export-related indicators.

HS7 Code DEFINITION

390950	Polyurethanes
392099	Of other plastics
392630	Fittings for furniture, coachwork or the like
392690	Other (articles of plastics and articles of other materials of headings 39.01 to 39.14)
732690	Other (articles of iron or steel)
852610	Radar apparatus
853120	Indicator panels incorporating liquid crystal devices (LCD) or light emitting diodes (LED)
853650	Other switches (Electrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits (for example, switches, relays, fuses, surge suppressors, plugs, sockets, lamp-holders and other connectors, junction boxes), for a voltage not exceeding 1,000 volts; connectors for optical fibers, optical fiber bundles or cables)
853710	For a voltage not exceeding 1,000 V (Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of heading 85.35 or 85.36, for electric control or the distribution of electricity, including those incorporating instruments or apparatus of Chapter 90,
	and numerical control apparatus, other than switching apparatus of heading 85.17)

HS7 Code	DEFINITION
854370	Other machines and apparatus
8542	Electronic integrated circuits.
854449	Other (Insulated (including enameled or anodized) wire, cable (including co-axial cable) and other insulated electric conductors, whether or not fitted with connectors; optical fiber cables, made up of individually sheathed fibers, whether or not assembled with electric conductors or fitted with connectors.
870810	Bumpers and parts thereof
870829	Other (Parts and accessories of the motor vehicles of headings 87.01 to 87.05)
870899	Other (Parts and accessories of the motor vehicles of headings 87.01 to 87.05)
9033	Parts and accessories (not specified or included elsewhere in this Chapter) for machines, appliances, instruments or apparatus of Chapter 90.
940540	Other electric lamps and lighting fittings

Indicators & Resources

Dimension	Weight	Measures Used
Market Size	30	 Imports of Parts and Accessories (2016)¹ Number of Cars and Vehicles in Operation (2015)² Number of Cars and Vehicles Produced (2016)^{3, 4}
Market Growth Rate	15	 CAGR of Imports of Parts and Accessories (2011-2016)¹ CAGR of Cars and Vehicles in Operation (2010-2015)² CAGR of Number of Cars and Vehicles Produced (2011-2016)^{3. 4}
Market Capacity	10	 Foreign Direct Investment, Net Inflows (2015)⁵ GNI Per Capita (2016)⁶ R&D Expenditure (2016)⁶
Market Openness	15	 Applied Tariff Rate on Auto Parts (2016)⁷ Burden of Customs Procedure (2016)⁵ Cost to Import, Border Compliance (2016)⁵

		 Cost to Import, Documentary Compliance (2016)⁵ Imports of Auto Parts and Accessories as a Share of Global Imports (2016)¹
Logistics Infrastructure	15	 Distance of Country from US⁸ Liner Shipping Connectivity Index (2016)⁵ Logistics Performance Index (2016)⁵ Quality of Port Infrastructure Index (2016)⁵
Country Risk	15	 Business Risk Rating (2016)⁹ Economic Risk Rating (2016)¹⁰ Intellectual Property Rights Protection (2017)¹¹ Political Risk Rating (2016)¹²

Data used are those available for most recent year. All sources were accessed in May-June 2017.

¹ UN Comtrade, <u>Commodity Trade Statistics Database</u>

² WARDSAUTO, World Vehicles in Operation by Country

³ International Organization of Motor Vehicle Manufacturers, 2016 Production Statistics

⁴ Knoema, Car Production Statistics

⁵ World Bank, World Development Indicators

⁶ Passport GMID, Global Market Information Database

⁷ World Trade Organization (WTO), <u>Tariff Database</u>

⁸ Happyzebra, <u>Distances</u>

⁹ Swiss Export Risk Insurance, <u>Cover Practice</u> for Countries and Banks

¹⁰ Coface, Economic Studies

¹¹ International Property Rights Index, 2016 IPRI Report

¹² Credendo, Country Risk Ratings

Year To Year Comparison

	RANK			
Country	2017	2016	2014	
China	1	1	1	
Hong Kong	2	2	3	
Japan	3	3	2	
Germany	4	4	4	
Canada	5	5	6	
United Kingdom	6	7	9	
Singapore	7	6	5	
France	8	9	8	
Netherlands	9	11	22	
Korea, Rep.	10	8	7	
Finland	11	32	21	
Switzerland	12	13	12	
Spain	13	18	20	
Mexico	14	10	10	
Sweden	15	20	13	
Italy	16	30	25	
Ireland	17	27	32	
Belgium	18	15	11	
Norway	19	14	28	
India	20	16	24	
Denmark	21	24	17	
Austria	22	17	19	
Australia	23	22	15	
Israel	24	28	23	
Malaysia	25	25	14	
Poland	26	29	34	
Czech Republic	27	37	27	
United Arab Emirates	28	12	38	
Chile	29	35	35	
Slovakia	30	45	31	
Panama	31			
Portugal	32	38	41	
Morocco	33	39	48	
Lithuania	34	41	60	
Hungary	35	52	53	
Thailand	36	49	37	
Qatar	37	21	75	
Slovenia	38	57	46	
Saudi Arabia	39	23	26	
Bahrain	40	40	42	
Latvia	41	53	69	
Dominican Republic	42	31	47	
New Zealand	43	26	29	
Kuwait	44	56	43	
Peru	45	34	33	
Colombia	46	61	62	
Brazil	47	33	16	
Russian Federation	48	42	30	

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Country	2017	2016	2014
Turkey	49	44	44
Vietnam	50	47	51
Romania	51	58	56
El Salvador	52	51	63
Indonesia	53	48	39
Philippines	54	62	64
Bulgaria	55	59	58
Serbia	56	71	74
South Africa	57	60	50
Ecuador	58	68	67
Jordan	59		
Costa Rica	60	50	40
Guatemala	61	54	52
Greece	62	73	71
Uruguay	63	46	59
Oman	64	43	45
Cote d'Ivoire	65		
Honduras	66	64	61
Croatia	67	65	73
Cyprus	68	70	54
Sri Lanka	69	63	70
Bolivia	70		
Azerbaijan	71	75	87
Kenya	72		
Kazakhstan	73	80	79
Lebanon	74		
Argentina	75	74	78
Egypt, Arab Rep.	76	69	57
Uganda	77		
Algeria	78	72	76
Nicaragua	79	66	65
Paraguay	80	67	68
Tunisia	81	82	55
Belarus	82	79	83
Pakistan	83	77	81
Ethiopia	84		
Bangladesh	85	86	77
Uzbekistan	86	88	89
Ghana	87		
Tanzania	88		
Ukraine	89	78	82
Cameroon	90		
Angola	91		
Cambodia	92	83	80
Nigeria	93	81	72
Cuba	94	85	86
Congo, Dem. Rep.	95		
Venezuela	96	87	85
Estonia		36	36
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RANK

For More Information

For the indexing methodology, please refer to:

"Measuring the Potential of Emerging Markets: An Indexing Approach" - S. Tamer Cavusgil, Business Horizons, January-February 1997, Vol. 40 Number 1, 87-91

"Complementary Approaches to Preliminary Foreign Market Opportunity Assessment: Country Clustering and Country Ranking" - S. Tamer Cavusgil, Tunga Kiyak and Sengun Yeniyurt, Industrial Marketing Management, October 2004, Volume 33, Issue 7, 607-617