THE SOCIOECONOMIC SITUATION SURROUNDING THE AUTOMOBILE INDUSTRY

1 Introduction

In 2016 there were two major surprises as the British people voted to withdraw from the EU and Donald Trump was elected as the new President of the United States. First, the referendum on UK withdrawal from the EU (Brexit) was held in June and, contrary to the predictions, the side favoring withdrawal proved victorious, casting major doubts on any further deepening and widening of EU integration. The outcome was influenced by the number of immigrants coming from Eastern Europe and the sudden influx of refugees fleeing the war in Syria. Furthermore, the U.S. presidential election in November was won by Donald Trump, who had not been seen as a serious candidate, and under his motto of "America First" it is likely that the U.S. will turn to protectionism.

The attention being drawn to some of the harmful effects of globalization was also a factor underlying these unexpected outcomes. The benefits of global trade expansion due to globalization have brought economic growth to emerging countries. At the same time, the more intense competition from cheap imports from countries such as China faced by developed countries has led their manufacturing industries to adopt more advanced technologies and consolidate into fewer firms. As a result, stable blue collar jobs are being lost, leading to a hollowing of the middle class. In the Midwest of the United States (the "Rust Belt", where industries such as coal and steel have declined), this situation contributed to the popularity of Donald Trump.

The automotive industry is one of the industries that has benefited the most from globalization, thanks, for instance, to the expansion of the global supply chain. However, there is now concern about the possible effects of a backlash against globalization.

2 Political and Economic Situation

2. 1. The Global Economy (Table 1)

Despite the previously mentioned unexpected events of the British withdrawal from the EU and the result of Presidential election in the U.S., the world economy continued to grow steadily in 2016, supported by solid growth in the U.S. and China, and a recovery in natural resource prices. In particular, the anticipation that the new incoming administration in the U.S. would enact tax breaks and deregulation measures led to higher stock prices around the world toward the year end.

2. 1. 1. U.S.

The moderate economic recovery continued, particularly in the household sector. Housing investment was underpinned by low interest rates, and employment increased led by the service industry. All of this supported an increase in personal consumption.

After the middle of the year, there also were brighter signs in the corporate sector, which had been weakened. Exports picked up again, as the dollar peaked out and the shale oil industries stopped declining after oil prices

Table 1 Real GDP Growth Rates in Major Countries (%)

	2013	2014	2015	2016
World	3.3	3.4	3.2	3.1
Major developed countries	1.2	1.9	2.1	1.6
U.S.	1.7	2.4	2.6	1.6
Eurozone	▲ 0.3	1.1	2.0	1.7
Germany	0.6	1.6	1.5	1.7
France	0.6	0.6	1.3	1.3
Italy	▲ 1.7	▲ 0.3	0.8	0.8
UK	1.9	3.1	2.2	1.8
Japan	1.4	0.0	0.5	0.5
Developing countries	5.0	4.6	4.0	4.2
China	7.8	7.3	6.9	6.6
Thailand	2.7	0.8	2.8	3.2
Indonesia	5.6	5.0	4.8	4.9
India	6.6	7.2	7.6	7.6
Brazil	3.0	0.1	▲ 3.8	▲ 3.3
Saudi Arabia	2.7	3.6	3.5	1.2

Source: IMF

stabilised. Following the presidential election in November there were rising expectations for economic recovery and the U.S. stock market set record highs for several days in a row after President Trump expressed his intentions to pursue tax cuts, infrastructure investments, and deregulation policies.

Although these positive expectations are leading the way, the risk of U.S. protectionism adversely affecting the economy has not been fully incorporated in the financial markets yet. It will be necessary to remain cognizant of risks such as fiscal policy not being enacted as expected under the new President with unknown political skills and the possibility that the U.S. will pursue protectionism.

Meanwhile, with respect to monetary policy, the U.S. Federal Reserve Bank (FRB) responded to inflation expectation deriving from the improvement in employment and income in December 2016, by raising interest rates for the first time in one year. There appeared to be no subsequent wavering in the commitment to normalize interest rates, and financial markets are already incorporating the likelihood of several additional rate hikes. For the time being, other countries around the world are showing signs of shifting toward higher interest rates in light of these anticipated U.S. hikes.

2. 1. 2. Europe

The modest economic recovery continued in the UK and eurozone countries. First, despite anxiety and uncertainty surrounding the withdrawal of the UK from the EU, consumption is still robust thanks to an interest rate cut by the Bank of England and exports shored up by the sharp drop in the British pound. Consequently, the economy remained sound during 2016. However, by the end of the year rising import prices due to the weak pound gradually became apparent and there is concern that this could depress consumption.

In contrast, the economy of the eurozone countries has continued to grow for three consecutive years since the second half of 2013. In Germany, which is relatively strong amongst the eurozone countries, the economy is supported by construction investment that has risen against a backdrop of low interest rates.

The eurozone, partly due to the effects of low crude oil prices, is not exhibiting signs of accelerating inflation. This situation has led the European Central Bank (ECB) to continue monetary easing. In March 2016, they announced measures to further lower the negative interest rate and to expand quantitative easing. They also announced an extension of the deadline for quantitative easing from March until December 2017.

Shifting the focus to politics, the political establishment in Europe is facing growing headwinds similar to those seen in the U.S. First, there was the victory by the EU withdrawal faction in the UK referendum in June. Then, in Italy, Prime Minister Renzi of the center left resigned in response to voter rejection of proposed constitutional reforms in December. Also in December, a candidate from a far-right party emerged as a serious presidential candidate in Austria, but was eventually defeated in the presidential election. There will be continued focus on the rise of nationalism and right-leaning governments in Europe in 2017 as France holds elections (in April to May) and Germany will also hold a general election in the fall.

2. 1. 3. China

At the start of 2016 there were growing concerns about the Chinese economy and the Chinese yuan and stock prices both plummeted. Although there was a phase during which this triggered a simultaneous drop in other stock prices around the world, the slide toward an economic slowdown seemed to cease by the latter half of the year. This was due to the fact that the Chinese government temporarily postponed painful structural reforms and instead shifted its focus to economic stimulus measures, such as reducing the tax on light-duty passenger vehicles (vehicle purchase tax), and investment in infrastructure. The real Chinese GDP growth rate in 2016 was 6.7%, keeping the deceleration from the 7.0% growth rate in 2015 to a minimum.

However, the real estate market is seemingly overheated with soaring housing prices in major coastal cities, supported by six-times rate cuts since November 2014. Local governments have launched a series of measures to curb real estate purchases since the fall of 2016 to stave off a real estate bubble. In China, bad loan problems at banks have been getting worse as a result of past excessive investment. Furthermore, the reorganization and weeding out of so-called zombie corporations with excess production capacity, such as steel and coal companies, has become a major issue. For the time being, it will be a challenge for China to navigate the balance between structural reforms that aim to address the excess production capacity and proving support for the overall economy.

2. 1. 4. Emerging Markets

The economies of developing countries generally remained strong against the backdrop of solid growth in the U.S. and China and an end to falling natural resource prices. Of particular note are Indonesia and India, where stable political administrations and relatively stable currencies allowed for domestic demand-led recoveries to continue. However, the slump in crude oil prices continued to negatively affect the economies of oil-producing countries such as Saudi Arabia.

In Indonesia, President Joko Widodo is promoting economic reforms, such as infrastructure development, and public confidence in these reform policies has allowed the Indonesian currency, the rupiah, to remain relatively stable. With inflation suppressed, the central bank of Indonesia implemented interest rate cuts six times during 2016, and the economy continued to enjoy a moderate recovery centered on domestic demand.

In India as well, economic structural reforms are advancing under the administration of Prime Minister Modi. In August, the upper house of Parliament passed a bill to revise the constitution, allowing the introduction of the Goods and Services Tax (GST) to unify the complex tax system and facilitate the flow of goods. It is expected to help boost the economy by, for example, increasing investment from overseas. In November 2016, the government abruptly announced that it was abolishing all existing high-denomination currency notes in the country. The aim of this measure was to eliminate the illegal accumulation of wealth and tax evasion, as well as bring the black money from the underground economy, which is said to be more than 20% of the GDP, out into the open. However, the temporary shortage of cash circulating in the market also put the brakes on consumption, especially for expensive items such as automobiles. Despite this economic turmoil, the citizen's confidence in the Modi government's structural reform policies remains high.

In Thailand, there was concern about the management of the economy under the interim administration. However, full-fledged investment in infrastructure has been restarted and the economy is moving toward a moderate recovery. There were also concerns about the impact that the death of King Bhumibol Adulyadej in October would have on the economy, but serious disruption was avoided due to support provided through government consumption and public investment. However, accumulated household debt due to the past expansion of low interest loans for flood reconstruction is suppressing household consumption.

Looking at the oil-producing countries, in contrast, reveals that the Saudi Arabian economy has slowed sharply as a result of the current slump in crude oil prices and the accompanying fiscal austerity measures. Various measures, including successive reductions in subsidies and salary cuts for civil servants, have impacted the lives of citizens. The government recognized the seriousness of the situation and announced economic structural reforms in April 2016 (Vision 2030) that aim to free the country from its dependence on oil. The future trends of these economic reforms, such as the initial public offering (IPO) of stock by Saudi Aramco, the national oil company, are drawing attention.

Among emerging nations, the one most impacted by the election of Donald Trump as U.S. president was Mexico. The Mexican peso temporarily plummeted to its lowest level ever as President Trump continued to criticize U.S. companies that move their production bases to Mexico and rail against illegal immigrants entering the U.S. from Mexico. There are now concerns that consumption will fall due to import inflation, and that protectionist policies by the U.S. will have other adverse effects on intraregional investment.

2. 2. The Japanese Economy

Gradual positive economic growth has been ensured for now, but the recovery in capital investment and consumption does not appear to have much strength. The employment environment continues to improve due to the shortage of workers. There has been an increase in the basic wage level for four consecutive years, mainly at large companies, but due to the rise in social insurance premiums and anxiety about the future of the pension system, the consumer saving trend has remained deep-rooted, and personal consumption is restrained. As the yen appreciated in early autumn, corporate sentiment has been sluggish, and full-scale capital investment has also been delayed.

Despite the introduction of the Abenomics policies since 2013, Japan has still not been able to escape from deflation, prompting the Bank of Japan to respond by introducing a negative interest rate in January 2016. Both quantitative and qualitative easing continued as quantitative easing was expanded in July and long-term interest rate targets were introduced in September. However, in-

Table 2 Sales Trends in the Japanese Automobile Market

Unit: 1,000 vehicles

	2011		2012		2013		2014		2015		2016	
	Volume	Compared to previous year	Volume	Compared to previous year	Volume	Compared to previous year	Volume	Compared to previous year	Volume	Compared to previous year	Volume	Compared to previous year
Grand total	4 210	85%	5 370	128%	5 376	100%	5 563	103 %	5 047	91%	4 970	98%
Total (excl, mini)	2 689	83%	3 390	126%	3 263	96%	3 290	101 %	3 150	96%	3 245	103%
Passenger Cars	2 386	82%	3 015	126%	2 872	95%	2 860	100 %	2 704	95%	2 801	104%
Standard	1 140	80%	1 412	124%	1 399	99%	1 438	103 %	1 355	94%	1 490	110%
Small	1 246	83%	1 603	129%	1 473	92%	1 423	97 %	1 350	95%	1 311	97%
Trucks	292	101%	364	124%	379	104%	418	110 %	432	104%	428	99%
Standard	107	105%	136	127%	143	105%	165	115 %	173	105%	173	100%
Small	185	99%	227	123%	236	104%	253	107 %	260	103%	255	98%
Buses	11	83%	12	112%	11	94%	12	106 %	13	112%	15	116%
Mini	1 521	88%	1 979	130%	2 113	107%	2 273	108 %	1 896	83%	1 725	91%
Passenger Cars	1 139	89%	1 558	137%	1 690	109%	1 839	109 %	1 511	82%	1 345	89%
Trucks	382	87%	422	110%	423	100%	434	103 %	385	89%	380	99%

Source: Japan Automobile Manufacturers Association (JAMA)

Table 3 Sales Trends in the Overseas Automobile Market

Unit: 1,000 vehicles

	2011		2012		2013		2014		2015		2016	
	Volume	Compared to previous year	Volume	Compared to previous year	Volume	Compared to previous year	Volume	Compared to previous year	Volume	Compared to previous year	Volume	Compared to previous year
China	17 629	104%	18 639	106%	21 424	115%	23 158	108%	24 500	106%	27 619	113%
North America	15 275	109%	17 128	112%	18 399	107%	19 485	106%	20 725	106%	21 082	102%
Europe	19 330	105%	18 241	94%	17 977	99%	18 295	102%	18 893	103%	19 847	105%
Asia & Oceania	6 764	106%	9 630	111%	9 667	100%	9 463	98%	9 830	104%	10 151	103%
Middle East & Africa	5 047	101%	4 820	96%	4 713	98%	5 205	110%	4 905	94%	4 778	97%
Central and South America	5 602	109%	5 878	105%	5 941	101%	5 363	90%	4 357	81%	3 872	89%

Source:IHS Global Insight

flation continue to bounce up and down due to the influence of a strengthening yen and depressed prices for natural resources. This creates the current situation where Japan is unable to fully escape from the deflation that symbolizes the Lost 20 Years.

3 Current State of the Automotive Industry

3. 1. Domestic Market (Table 2)

The sales number of new automobiles in Japan in 2016 was 4.97 million units, a decrease of 1.5% compared to the previous year. This is the first time in five years, since supply became insufficient due to the supply chain being cut after the 2011 earthquake and tsunami, that this number has fallen below five million units. Although there were expectations for a last-minute surge in demand during the latter half of 2016 due to the announced rise in the consumption tax to take place in March 2017, this tax hike was postponed and the sluggishness of Mini passenger car sales persisted due to the impact of the Mini vehicle tax increase enacted in 2015. Sales of Mini passenger cars slumped by 11% in 2016 due to the continuing influence of the last-minute surge in demand before the tax increase, but sales of standerd passenger cars were up 10% during the same period, shoring up overall vehicle sales in Japan.

3. 2. Overseas Market (Table 3)

3. 2. 1. U.S.

The sales in the U.S. in 2016 reached 17.55 million units (100.4% compared to the previous year), marking the second consecutive year that a record high was set. This positive growth was due to fleet sales and increases in incentives compared to the previous year. Passenger vehicles accounted for 6.91 million units (91% compared to the previous year) and light-duty trucks accounted for 10.64 million units (107% compared to the previous year). The market shift toward light-duty trucks, especially SUVs, due to inexpensive gasoline prices was remarkable. Looking at the 2016 vehicle sales in the U.S. according to manufacturer nationality reveals that sales by Japanese manufacturers amounted to 6.66 million units (an increase of 1% compared to the previous year), which exceeded the market average. The market share held by Japanese automobile manufacturers increased slightly (by 0.4%) to 38.0%. In contrast, sales by U.S. manufacturers were 7.89 million units (a decrease of 0.3% compared to the previous year) and their share of the U.S. automobile market also decreased (by 0.3%) down to 45.0%.

3. 2. 2. Europe

In 2016, vehicle sales in Western Europe (27 countries of the EU and 3 countries in the EFTA) increased by 7.2% compared to the previous year to 17.54 million units. This was the first time in 8 years that sales had recovered to the 17-million-units mark. Vehicle sales in 28 of those countries, with the Netherlands and Switzerland as the exceptions, grew in comparison to the previous year. This represents four consecutive years of recovery. Automobile sales in the German market remained at a high level and have increased for three years in a row as a result of its strong economy and low interest rates. In the UK automobile market, the growth in sales slowed after the decisive vote to withdraw from the EU in June 2016, but the first half of the year exhibited sufficiently strong growth that sales actually increased by 2.3% from the previous year, setting a record high for the second year in a row.

In comparison to the strong automobile market in Western Europe, sales in Russia, the main market in Eastern Europe, declined by 11% compared to the previous year down to 1.462 million units. This was the fourth consecutive year of decline. This decrease was smaller than that of the previous year, but total sales fell below the 1.466 million units mark set in 2009, bringing it to its lowest level in the last 10 years.

3. 2. 3. China

The Chinese automobile market in 2016 recorded double-digit growth and reached 27.58 million units (a 13% increase over the previous year). This was driven in part by the success of government policies enacted in October 2015 that cut the vehicle purchase tax in half (tax rate of 10% reduced to 5% via incentives) for passenger cars with displacements of 1.6 liters or less. Sales of medium and heavy-duty trucks had decreased by double digits in 2015, but this rapidly recovered via double-digit positive growth in 2016 as expanding demand for replacement vehicles from the distribution and logistics sector drove strong sales. The medium and heavy-duty bus market also turned to recovery as the demand for EV buses expanded. In fact, the commercial vehicle market exhibited positive growth for the first time in two years. In terms of vehicle models, sales of SUVs led market growth and exceeded C-segment vehicle sales for the first time, becoming the largest market.

3. 2. 4. Asia

The number of new vehicles sold in the 11 major nations in Asia (Thailand, Indonesia, Malaysia, the Philippines, Vietnam, Singapore, Brunei, South Korea, Taiwan, India, and Pakistan) in 2016 was about 9.40 million units, an increase of 3.8% compared to the previous year and a record high. Despite the impact of the abolition of high-denomination currency notes, the automobile market in India continued its steady expansion, and sales increased by 7.0% compared to the previous year to reach 3.70 million units. This led the whole automobile market in Asia. Automobile sales in the ASEAN nations (the seven main nations) increased by 3.4% to 3.206 million units, recovering to about 90% of the previous peak achieved in 2013. Sales in the Philippines and Vietnam were remarkably strong, increasing by 24.9% and 30.3% respectively. The automobile market in Indonesia began to recover, while both the Thai and Malaysian markets declined. The automobile market in South Korea decreased by 0.4% down to 1.825 million units, but sales exceeded the 1.8 million-units mark for the second consecutive year.

3. 2. 5. Other Major Markets

In Brazil, automobile sales fell by 20.2% compared to the previous year down to 2.05 million units, marking a fourth consecutive year of decrease. A new administration was inaugurated in 2016, but the Brazilian economy has continued to stagnate. In contrast, automobile sales increased in Argentina for the first time in three years. Despite the mutual dependence between Argentina and Brazil with respect to automobile trade, aggressive sales strategies by automobile manufacturers helped to compensate for the slump in demand in Brazil.

As a result of its strong economy and low interest rates, sales of automobiles in Australia reached a record-breaking 1.178 million units, an increase of 2.0% compared to the previous year. Sales in South Africa decreased by 11.4% compared to the previous year, down to 547,000 units. In addition to the slowdown in the economy, the weak South African Rand has caused automo-

Table 4 Trends in the Number of Automobiles Produced in Japan

Unit: 1,000 vehicles

	2011		2012		2013		2014		2015		2016	
	Volume	Compared to previous year	Volume	Compared to previous year	Volume	Compared to previous year	Volume	Compared to previous year	Volume	Compared to previous year	Volume	Compared to previous year
Grand total	8 399	87%	9 943	118%	9 630	97%	9 775	102%	9 278	95%	9 205	99%
Total (excl, mini)	6 893	88%	7 920	115%	7 520	95%	7 481	99%	7 355	98%	7 563	103%
Passenger Cars	6 042	86%	6 939	115%	6 507	94%	6 409	98%	6 300	98%	6 610	105%
Standard	4 180	86%	4 686	112%	4 618	99%	4 658	101%	4 744	102%	5 000	105%
Small	1 861	86%	2 253	121%	1 889	84%	1 751	93%	1 556	89%	1 610	103%
Trucks	747	98%	859	115%	881	103%	933	106%	917	98%	823	90%
Standard	512	98%	583	114%	580	99%	605	104%	587	97%	506	86%
Small	235	98%	276	117%	301	109%	328	109%	331	101%	317	96%
Buses	104	95%	122	117%	133	109%	140	105%	138	99%	130	94%
Mini	1 506	86%	2 023	134%	2 110	104%	2 293	109%	1 923	84%	1 642	85%
Passenger Cars	1 117	86%	1 615	145%	1 683	104%	1 868	111%	1 531	82%	1 264	83%
Trucks	389	87%	407	105%	428	105%	425	99%	392	92%	378	96%

Source: Japan Automobile Manufacturers Association (JAMA)

Table 5 Trends in Domestic and Overseas Production by Japanese Automobile Manufacturers

Unit: 1,000 vehicles

	2006		2011		2016	
	Volume	Proportion	Volume	Proportion	Volume	Proportion
Domestic production	11 484	51%	8 399	39%	9 205	33%
Overseas production	10 972	49%	13 382	61%	18 979	67%
Total	22 456	100%	21 781	100%	28 184	100%

Source: Japan Automobile Manufacturers Association (JAMA)

bile prices to rise, and the market there has shrunk for three consecutive years.

In Saudi Arabia the slump in crude oil prices has led to cuts in government spending and a stalled economy. This in turn caused automobile sales to decline by 22% compared to the previous year down to 693,000 units. This has halted the growth of a market that had been growing steadily for the past few years.

3. 3. Vehicle Production (Tables 4 and 5)

Vehicle production in Japan in 2016 was down about 1% compared to the previous year to 9.20 million units. This was the second year in a row that production fell below that of the previous year. The number of Total production (excl, mini) increased by 3% up to 7.56 million units as a result of the major manufacturers introducing new products into the market. However, production of mini fell to 1.64 million units (85% of the previous year) under the dual impacts of the changes to the vehicle tax system in FY 2015 and the fuel economy scandal. Supported by the strong performance of overseas markets, mainly the U.S. and China, the number of vehicles produced overseas by Japanese manufacturers was 18.98 million units (5% more than the previous year).

Automobile production in Japan has remained flat at around 9 million units, including those for export, and all Japanese manufacturers are continuing to shift toward more localized overseas production. Consequently, over the past 10 years, the amount of overseas production by Japanese manufacturers as a percentage of their total global production has increased from 49% (in 2006) to 67% (in 2016).

4 Issues of the Automotive Industry in Japan

Currently, the automotive industry is being overtaken by a wave of change that can be described as a once in a century event. The signs of great change that are prompting a conversion of the industrial structure are almost too numerous to mention. Instability in financial markets and the economies of many countries now spreads due to global-scale, real time connections. There is a constant tug of war between the liberalization of trade rules and protectionist policies. Regulations on exhaust emissions, fuel economy, and even zero-emission vehicles (ZEV) continue to be strengthened as safety regulations and assessments also become stricter. Customers are shifting away from vehicle ownership toward vehicle utilization systems where ownership is unnecessary. And new companies are entering the automotive industry to seize the business opportunities being presented by new forms of mobility combining electrification, cognitication (autonomous driving), and connected technologies. There is a need to tackle new challenges, such as the evolution of cars as a form of hardware, reconstruction of the business model throughout the value chain, and forming alliances beyond the existing barriers and industrial silos, at an unprecedented pace.

In terms of short to middle-term prospects, the restructuring of the planning, development, procurement, production and sale systems to increase the flexibility of existing operations is expected to prove an urgent task for Japanese manufacturers as they respond to the backlash against globalization represented by protectionism. In addition, it is becoming more difficult for any single company to, on its own, develop technologies that will both satisfy customer needs and address social issues given the scale of the necessary resources and the speed of change. Consequently, there are growing demands for corporate strategy to shift their focus from competition to more collaborative creation.

In the medium to long-term, the automotive industry will simultaneously work to maximize the value it provides to society and eliminate environmental impacts and fatal traffic accidents by leading the way in developing new forms of mobility that combine electrification, cognitication (autonomous driving), and connected technologies. Delivering the freedom of movement to all consumers is seen as a necessary condition for the players engaged in the automotive industry to be accepted by society and to enable their sustained growth. In the business model centered on selling every single completed vehicle that has been used until now, increasing the number of vehicles produced was regarded as an opportunity for the company to increase profits. However, in the future it will also be necessary to consider the creation of the total demand of mobility of the world and the creation of attendant service value.

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