

F R O S T & S U L L I V A N



Market
Engineering

Strategic Analysis of Auto Components Industry in the Gulf Cooperation Council

GCC is the Fastest Growing Automotive Market in the MENA Region

Research Team

Lead Analyst

Satendra Kumar

Research Analyst
Automotive & Transportation–MENASA


 (+91) 11 61606666

 subhashj@frost.com

Program Manager

Subhash Joshi

Program Manager
Automotive & Transportation–MENASA

 (+91) 11 61606666

 subhashj@frost.com

Research Director and Strategic Review Committee Member

Vijay Kakade

Director
Automotive & Transportation–MENASA

 (+91) 22 61606666

 Vijay.kakade@frost.com

Strategic Review Committee Leader

V.G. Ramakrishnan

Managing Director–South Asia

 (+91) 44 66814999

 vramakrishnan@frost.com

Contents

Section	Slide Numbers
Executive Summary	5
Research Scope, Objectives, Background, and Methodology	15
Definitions and Segmentation	21
Auto Components Industry	—
Market Overview	24
• Mega Trends and Industry Convergence Implications	35
• External Challenges—Drivers and Restraints	41
• Forecast and Trends	49
• Competitive Analysis	62
Auto Components Industry Breakdown	—
• Parts and Accessories Segment Breakdown	65
• Tires and Inner Tubes Segment Breakdown	73
• Batteries Segment Breakdown	81
• Lubricants Segment Breakdown	89

Contents (continued)

Section	Slide Numbers
The GCC Breakdown	—
• United Arab Emirates (UAE)—Country Breakdown	97
• Kingdom of Saudi Arabia—Country Breakdown	106
• Sultanate of Oman—Country Breakdown	115
• State of Kuwait—Country Breakdown	124
• State of Qatar—Country Breakdown	133
• Kingdom of Bahrain—Country Breakdown	142
Conclusions and Future Outlook	151
Appendix	155

Executive Summary

Executive Summary

Growing passenger vehicle parc enabling higher demand for auto components in the GCC

Vehicle Sales

- The GCC passenger vehicle sales expected to grow at CAGR 5.5 percent between 2011 and 2016 to reach 1.6 million units in 2016 from 1.2 million units in 2011.
- The passenger vehicle parc likely to reach at 15.4 million units by 2016 from 11.2 million in 2011.

Auto Components in the GCC

- Auto components industry across vehicle categories¹ estimated at \$7.82 billion in 2011, likely to reach \$14.46 billion by 2016 (CAGR 13.1 percent)
- Passenger vehicles contributed nearly 85.0 percent (\$6.65 billion in 2011), expected to reach \$12.30 billion.

Auto Components: Regional Level

- KSA and UAE are the largest markets (~78.0 percent put together), followed by Kuwait.
- Nearly 55.0 to 60.0 percent of the components imported in the UAE were re-exported to other Middle Eastern countries.

*1Passenger and Commercial Vehicles

Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Executive Summary—Market Engineering Measurements

The GCC auto components industry is largely based on imports, and most of the key global auto component suppliers present through local offices or distributors.

Auto Components Industry: GCC, 2011

Market Overview



Decreasing  Stable  Increasing 

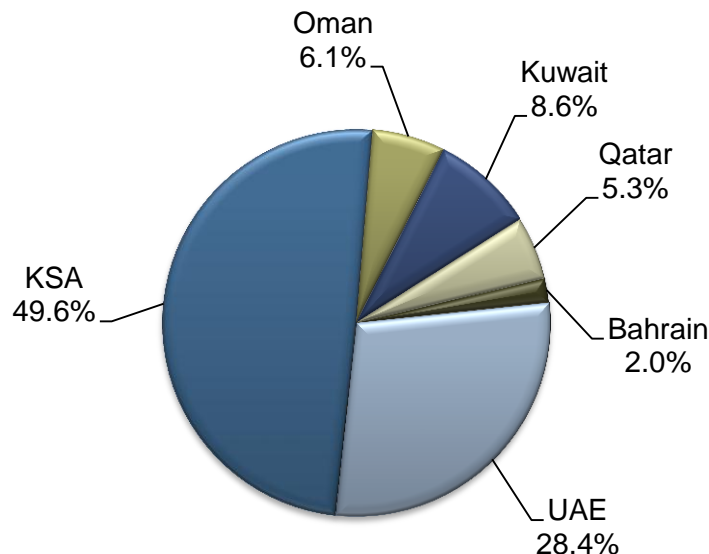
For a tabular version [click here](#).

Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Executive Summary—Top-Level Strategic Factsheet/Market Snapshot

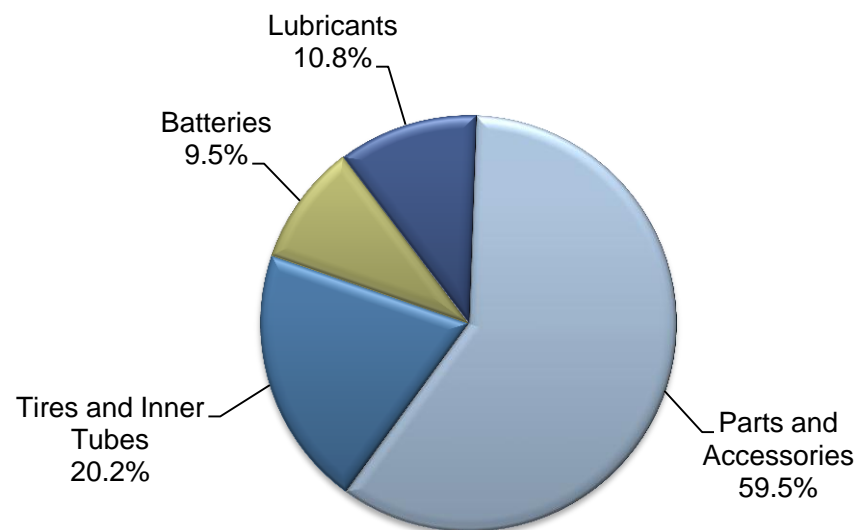
KSA is the largest market followed by UAE; parts and accessories were the key contributor in auto components followed by tires

Auto Components Industry: Percent of Revenue by Countries, GCC, 2011



Total Market Value: \$6.65 Billion

Auto Components Industry: Percent of Revenue by Type of Auto Components, GCC, 2011



Total Market Value: \$6.65 Billion

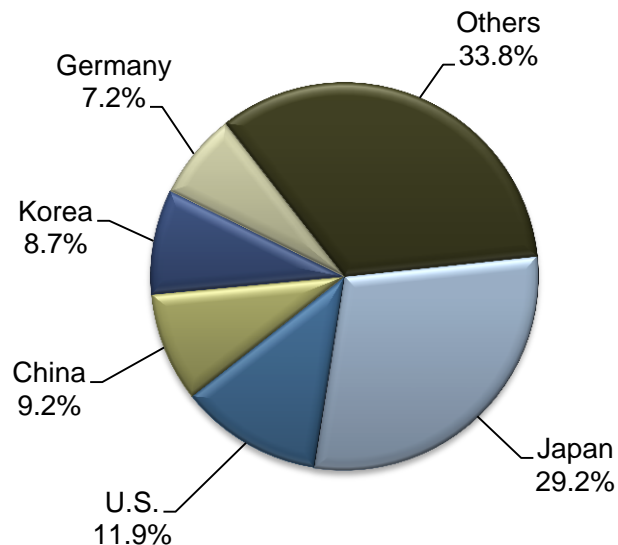
- KSA is the largest market in entire GCC followed by UAE
- Parts & Accessories lead the components market

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Executive Summary—Top-Level Strategic Factsheet/Market Snapshot (continued)

The GCC imported 29.2 percent of the components from Japan followed by the U.S.

Auto Components Industry: Percent of Revenue by Exporting Countries, GCC, 2011

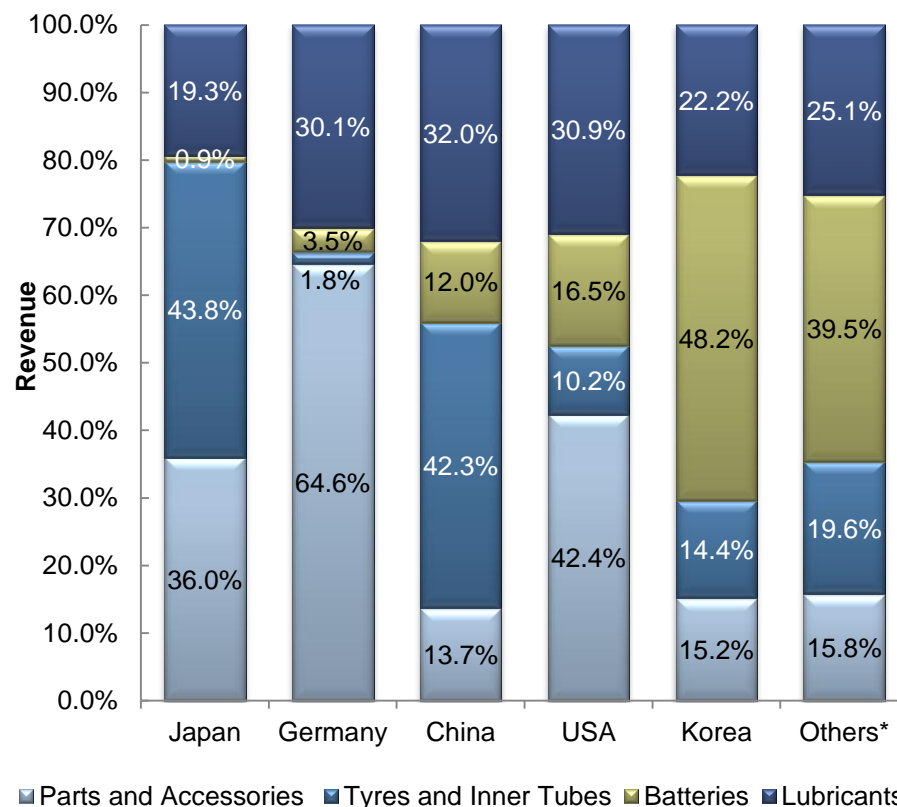


Total Market Value: \$6.65 Billion

Note: Other include Eastern and Western European countries, Thailand, India

- Imports from Japan were the largest followed by U.S. and China

Auto Components Industry: Country-wise Percent of Revenue by Type of Auto Components, GCC, 2011



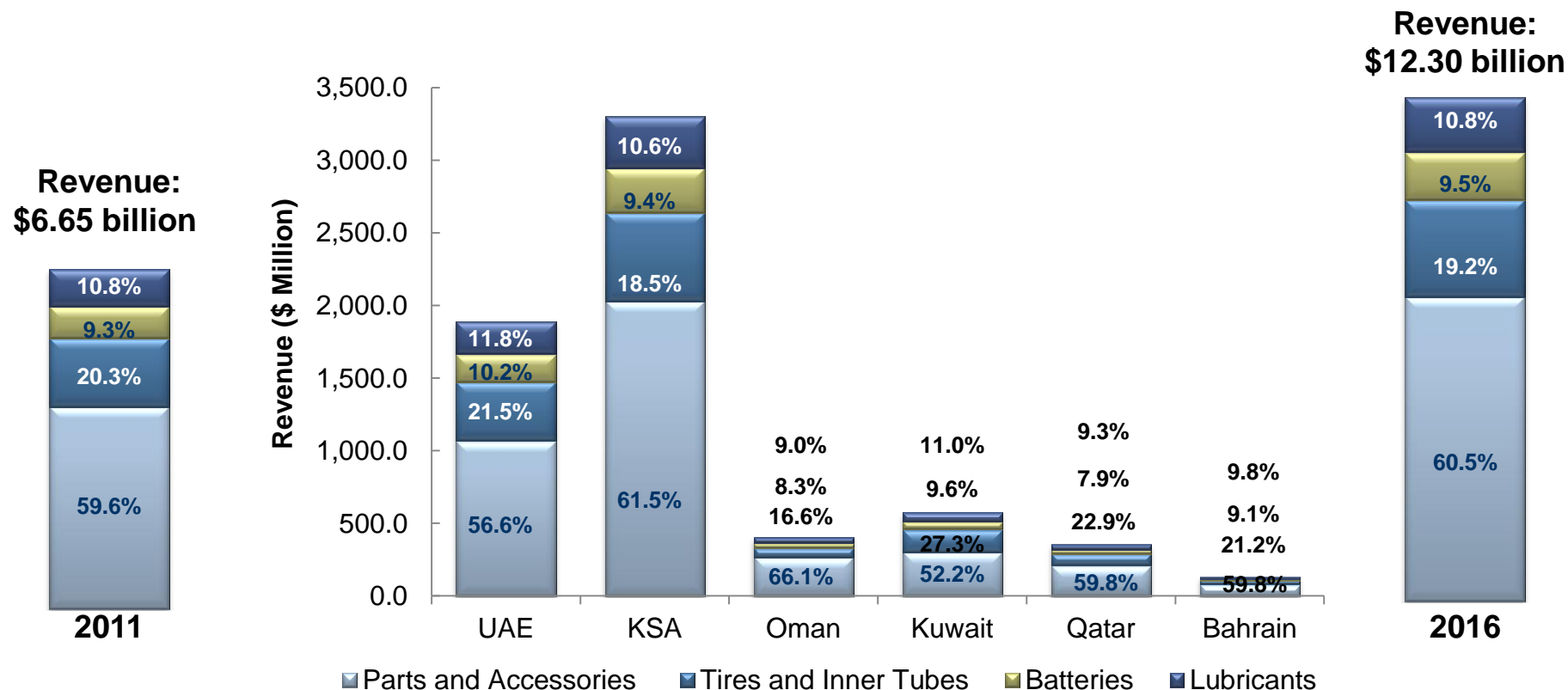
*Other include Eastern and Western European countries, Thailand, India

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Executive Summary—Total Market Revenue Snapshot

The GCC auto components industry likely to grow at CAGR of 13.1 percent till 2016 to reach \$12.30 billion from \$6.65 billion in 2011.

Auto Components Industry: Revenue Forecast, GCC, 2011 and 2016



Note: Graph in center represents data for 2016

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Executive Summary—Competitive Positioning of Key Industry Participants

Global participants dominates the GCC market through imports, manufacturing limited to batteries

Auto Components Industry: Competitive Landscape, GCC, 2011

Key Market Participants			
Auto Parts	Tires	Batteries	Lubricants
Robert Bosch	Hankook	Exide	JX Nippon, Total Lubs
Schaeffler (LUK, FAG, INA)	Bridgestone	AC Delco	Mobil (ExxonMobil)
Mobis, 3M	Yokohama	Antara and Gulfstar, Oman	Gulf Lubricants
Mitsui	Goodyear	Solite, Platin Batteries	Woqod
Blaupunkt	Toyo	BBG Group FZCO	Atlantic; Showa Shell

Hankook and Bridgestone are the market leaders across categories and regions

Exide, AC Delco, Gulfstar have local production facilities in the GCC

Market leader in Qatar, entered UAE market in 2010

Key participant in UAE and KSA

Source: Frost & Sullivan analysis.

Executive Summary—Comparison of Demand by Region and Segment

Saudi Arabia (KSA) is the largest market, followed by UAE, Oman, Kuwait, Qatar and Bahrain.

Auto Components Industry: Demand Growth by Country and Product Type, GCC, 2011–2016

Countries/ Markets	PVs Demand by 2016 (Yearly Sales)	Parts and Accessories	Tires and Inner Tubes	Batteries	Lubricants
United Arab Emirates (UAE)	<ul style="list-style-type: none"> • Demand growth: 0.28 M units (2011) to 0.36 M units by 2016 • CAGR: 4.6 percent 	<ul style="list-style-type: none"> • Demand growth: \$1,068.5 M (2011) to \$1,604.8 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$403.5 M (2011) to \$606.1 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$193.2 M (2011) to \$290.2 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$223.2 M (2011) to \$335.3 M (2016)
Kingdom of Saudi Arabia (KSA)	<ul style="list-style-type: none"> • Demand growth: 0.63 M units (2011) to 0.83 M units by 2016 • CAGR: 5.6 percent 	<ul style="list-style-type: none"> • Demand growth: \$2,029.4 M (2011) to \$4,026.1 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$610.3 M (2011) to \$1,049.3 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$308.7 M (2011) to \$607.4 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$351.1 M (2011) to \$689.4 M (2016)
Sultanate of Oman	<ul style="list-style-type: none"> • Demand growth: 0.08 M units (2011) to 0.10 M units by 2016 • CAGR: 5.6 percent 	<ul style="list-style-type: none"> • Demand growth: \$267.3 M (2011) to \$512.9 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$64.4 M (2011) to \$123.6 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$32.7 M (2011) to \$62.7 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$36.3 M (2011) to \$69.7 M (2016)

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Executive Summary—Comparison of Demand by Region and Segment (continued)

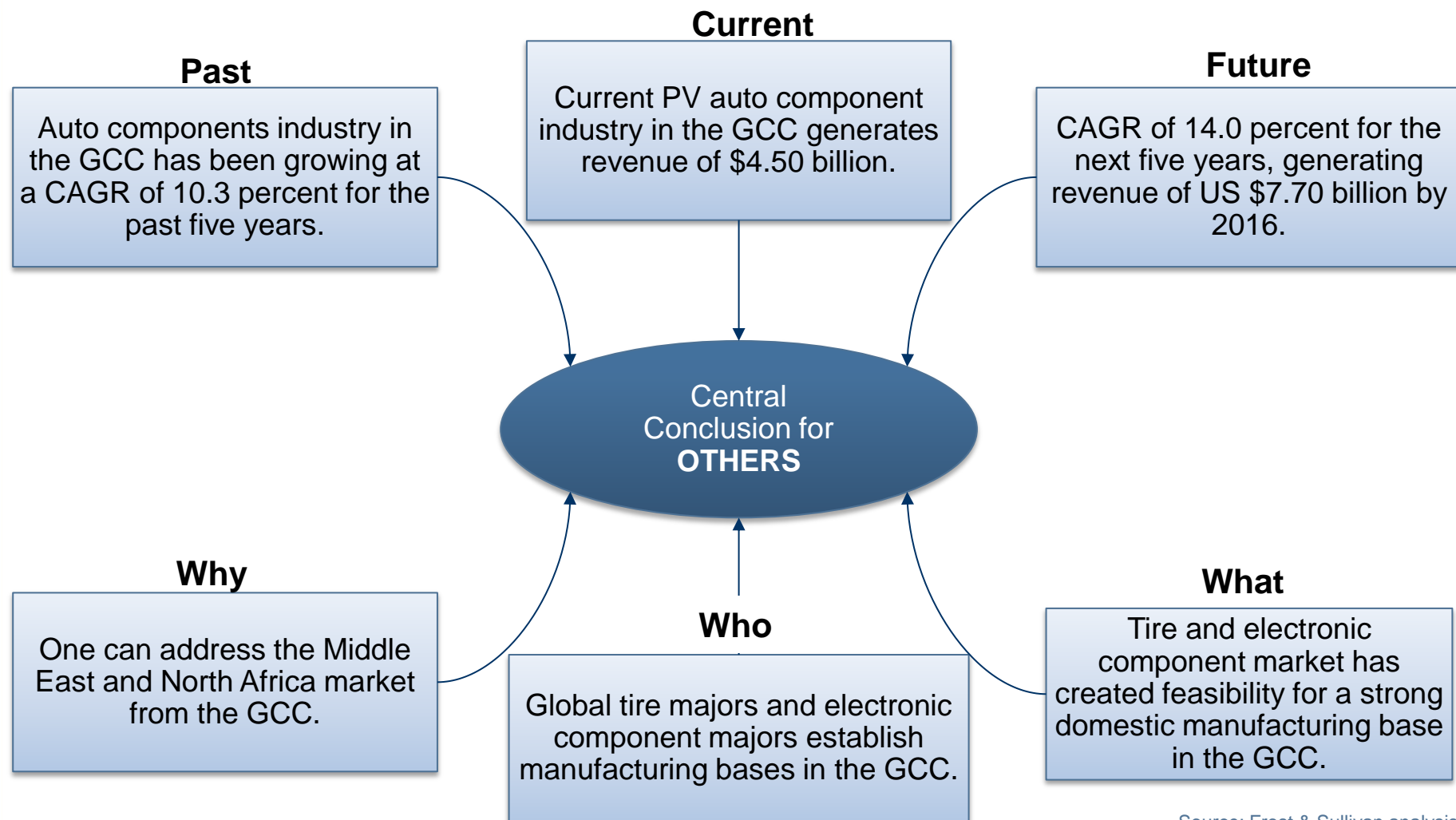
Auto Components Industry: Demand Growth by Country and Product Type, GCC, 2011–2016

Countries/ Markets	PVs Demand by 2016 (Yearly Sales)	Parts and Accessories	Tires and Inner Tubes	Batteries	Lubricants
State of Kuwait	<ul style="list-style-type: none"> • Demand growth: 0.12 M units (2011) to 0.16 M units by 2016 • CAGR: 6.7 percent 	<ul style="list-style-type: none"> • Demand growth: \$300.3 M (2011) to \$660.8 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$157.0 M (2011) to \$345.5 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$54.8 M (2011) to \$120.7 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$62.8 M (2011) to \$138.3 M (2016)
State of Qatar	<ul style="list-style-type: none"> • Demand growth: 0.05 M units (2011) to 0.07 M units by 2016 • CAGR: 6.0 percent 	<ul style="list-style-type: none"> • Demand growth: \$210.8 M (2011) to \$430.3 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$81.5 M (2011) to \$166.3 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$28.5 M (2011) to \$58.0 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$32.9 M (2011) to \$67.2 M (2016)
Kingdom of Bahrain	<ul style="list-style-type: none"> • Demand growth: 0.03 M units (2011) to 0.04 M units by 2016 • CAGR: 5.3 percent 	<ul style="list-style-type: none"> • Demand growth: \$79.4 M (2011) to \$199.1 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$28.1 M (2011) to \$70.6 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$11.5 M (2011) to \$29.0 M (2016) 	<ul style="list-style-type: none"> • Demand growth: \$12.6 M (2011) to \$31.7 M (2016)

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Executive Summary—Key Conclusions and Future Outlook

Auto Components Industry: Key Conclusions, GCC, 2011–2016



Source: Frost & Sullivan analysis.

Research Scope, Objectives, Background, and Methodology

Research Scope

Base Year	2011
Study Period	2011–2016
Forecast Period	2012–2016
Vehicle Type	Passenger Vehicles
Auto Components	Parts and Accessories (Mechanical, Collision, Maintenance) Tires and Inner Tubes Batteries Lubricants
Geographical Scope	United Arab Emirates (UAE) Kingdom of Saudi Arabia (KSA) Sultanate of Oman State of Kuwait State of Qatar Kingdom of Bahrain
Aftermarket Definition	Aftermarket refers to those non-warranty parts and services (maintenance and repair) that are installed/performed on a vehicle once it has left the dealer for the first time.

Source: Frost & Sullivan analysis.

Research Scope (continued)

Auto Components Industry: Passenger Vehicles Sales Forecast, GCC, 2011–2016f

Countries	2011	2012f	2013f	2014f	2015f	2016f
UAE	284,972	296,670	315,873	328,611	338,030	357,006
KSA	630,932	652,303	694,183	740,658	781,376	829,988
Oman	79,440	84,974	89,301	94,608	99,301	104,266
Kuwait	117,939	127,427	133,088	141,134	151,156	162,932
Qatar	51,827	54,748	58,187	62,216	65,739	69,195
Bahrain	33,719	34,969	36,744	38,294	40,887	43,606
Total	1,198,829	1,251,091	1,327,376	1,405,521	1,476,489	1,566,993

Auto Components Industry: Passenger Vehicle Parc Forecast, GCC, 2011–2016f

Countries	2011	2012f	2013f	2014f	2015f	2016f
UAE	2,327,721	2,541,569	2,759,005	2,993,257	3,231,941	3,447,650
KSA	6,291,413	6,753,932	7,086,453	7,485,336	7,939,685	8,357,584
Oman	662,938	709,840	753,560	804,721	859,248	911,412
Kuwait	1,147,471	1,219,243	1,290,560	1,368,072	1,454,236	1,547,762
Qatar	452,047	484,424	518,768	559,930	604,447	647,753
Bahrain	334,884	359,939	384,995	410,259	439,432	467,981
Total	11,216,474	12,068,947	12,793,341	13,621,575	14,528,989	15,380,142

f = forecast

Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Research Aims and Objectives

Aim

The aim of this study is to research, analyse, and forecast auto components industry and distribution practices followed in the GCC.

Objectives

- Provide an overview of key macroeconomic factors of the GCC.
- Provide a strategic overview of the GCC passenger vehicle industry, market drivers and restraints, industry growth, key vehicle segment details, vehicle parc.
- Provide market size and forecasts of the passenger vehicle sales, vehicle parc, and automotive components market by type of key components; breakdown of components by share of exporting countries; breakdown by key region/countries, 2011–2016.
- **Competitor Analysis:** Analyse competitive factors. Who are the key competitors?

Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Key Questions this Study Will Answer

Auto Components Industry: Key Questions This Study Will Answer, GCC, 2011

What is the business environment of the automotive industry in the GCC, the dynamics, and their impact on the overall auto components industry?

How large is the passenger vehicle market in the GCC, what is the current vehicle parc, how it is growing over next five years?

What is the total demand of auto components and how this market likely to grow over five years?

What are the key auto components and their details by countries in the GCC?

What are the key exporting countries for each of the component within the GCC countries?

Source: Frost & Sullivan analysis.

Research Methodology

Includes primary research based on Frost & Sullivan's bottom-up methodology as well as secondary data sources.

- Includes primary research based on Frost & Sullivan's bottom-up methodology as well as secondary data sources.
- The information provided by market participants is qualified through:
 - Verification interviews with up/downstream market participants
 - Secondary research
- Primary and secondary research data are combined with analyses of the market to provide a basis for the unit, revenue forecasts for vehicles, and each product category.
- Market valuation data are then compared to known industry information as a means of verifying and validating market size. Known data include:
 - Vehicles in operation (VIO)
 - Replacement rates of products with similar exposure, life expectancies, and warranties
 - Growth trends, product and technology trends, pricing, and application coverage

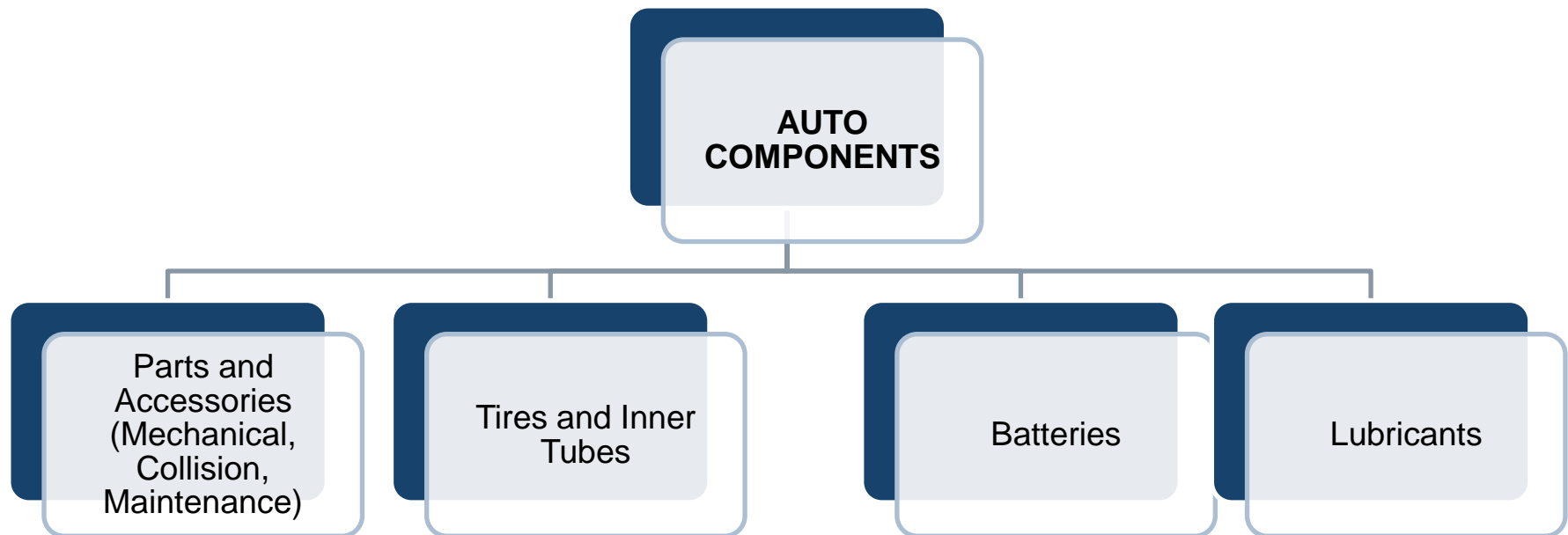
Source: Frost & Sullivan analysis.

Definitions and Segmentation

Auto Components Segmentation

Four key segments covered

Auto Components Industry: Category of the Components Studied, GCC, 2011



Note: This does not include service cost, used parts sales. Source: Frost & Sullivan analysis.

Vehicle Segmentation

Classification based on Global models

Auto Components Industry: Vehicle Segmentation and Respective Models, GCC, 2011

Segment	Model
Car A	Spark, PICANTO, Alto, ATOS/ i10
Car B	Aveo, Jazz, Accent, Rio, Yaris
Car C	Optra, Cruze, Corolla, Civic, Tiida, Sunny, Mazda3, Elantra, Cerato, Focus, Lancer
Car D	Epica, Malibu, Camry, Accord, Altima, Fusion, Mazda6, Galant, Sonata, Optima, Mondeo
Car E	Caprice, Taurus, Crown Victoria, Aurion, Avalon, Maxima, 300C, Azera, Opirus
Sports	Camaro, Mustang, GT-R, 350Z, Challenger, Audi R8, Audi TT
Pick-up	Silverado, Sierra, F-Series, Hilux, Navara, Nissan Pick-Up, Mitsubishi P/UP
Adventure 4X4	Nativa, Land Cruiser, Veracruz, RAV4, Armada
SUV C	Captiva, Terrain, Tucson, Santafe, Sportage, Escape, CR-V, X-Trail, Qashqai
SUV D	Acadia, Prado, Fortuner, Edge, Murano, Durango, Envoy, Explorer, Pathfinder, Pajaro
SUV E	Tahoe, Suburban, Yukon, Sequoia, Expedition
Luxury Car 3	Audi 3, Cadillac BLS, Volvo C70, Jaguar S-Type, Benz CL-Class, C Class, B Class, BMW 1-Series
Luxury Car 4	Audi A5, Lexus CT, Volvo S80, Benz SL-Class, CLS Class, BMW 5-Series, 6-Series, Peugeot 607
Luxury Car 5	Rapide, BMW 7-Series, Audi 8, Maybach 62, RR Ghost, RR Phantom, Jaguar XJ, Panamera
Luxury Car 4	Range Rover, Escalade, BMW X-3, Land Rover LR4, Cadillac SRX
Luxury Car 5	BMW X6, BMW X5, Audi Q7, Benz M-Class, Benz GL-Class

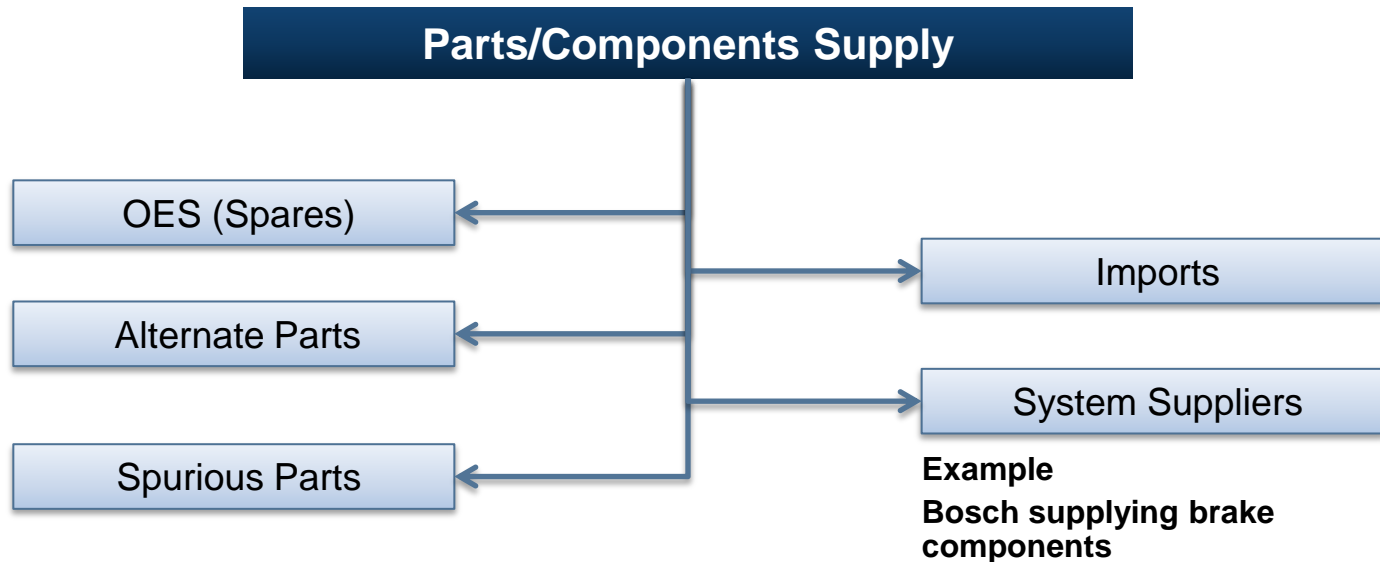
Source: Frost & Sullivan analysis.

Market Overview

Market Overview—Distribution Channels

Various routes followed to supply auto components in the GCC, this market is highly dependent on imported components

Auto Components Industry: Distribution Channel Analysis for Auto Components, GCC, 2011



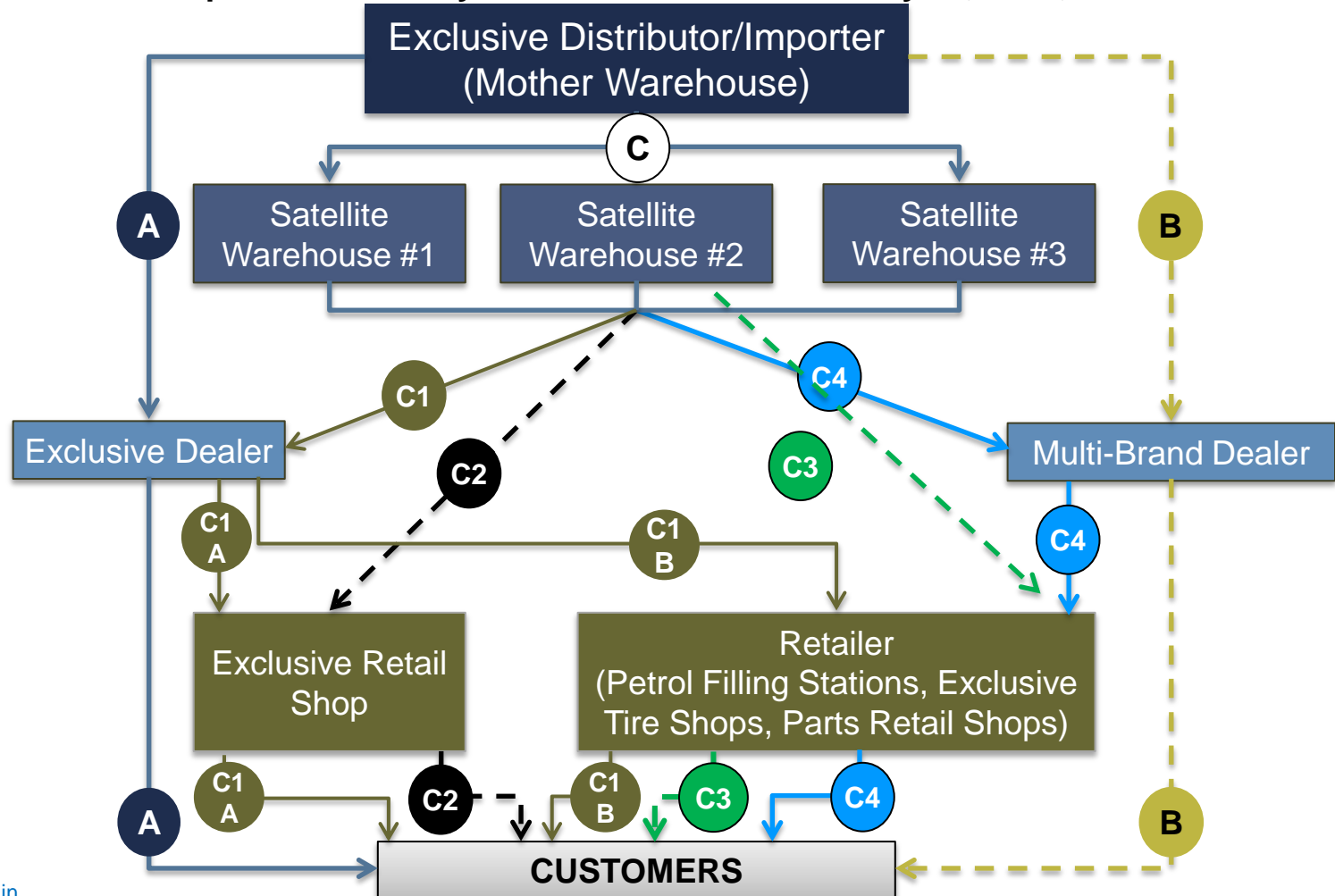
Note: OES—Original equipment spares
OE Parts—OE fitted brands supplied in independent after market
Alternate parts—Brand other than OE brand supplied in the independent after market
Spurious—Products which are not original and branded as original popular brands in the market
Imports—Legal imports
System suppliers—They supply the brand under their name, e.g., Bosch braking products

Source: Frost & Sullivan analysis.

Market Overview—Distribution Channels (continued)

In most of the cases, three routes followed to serve end customers in the GCC:
direct supply through exclusive dealers; direct supply through multi-brand dealer, or supply through retailers

Auto Components Industry: Distribution Channel Analysis, GCC, 2011

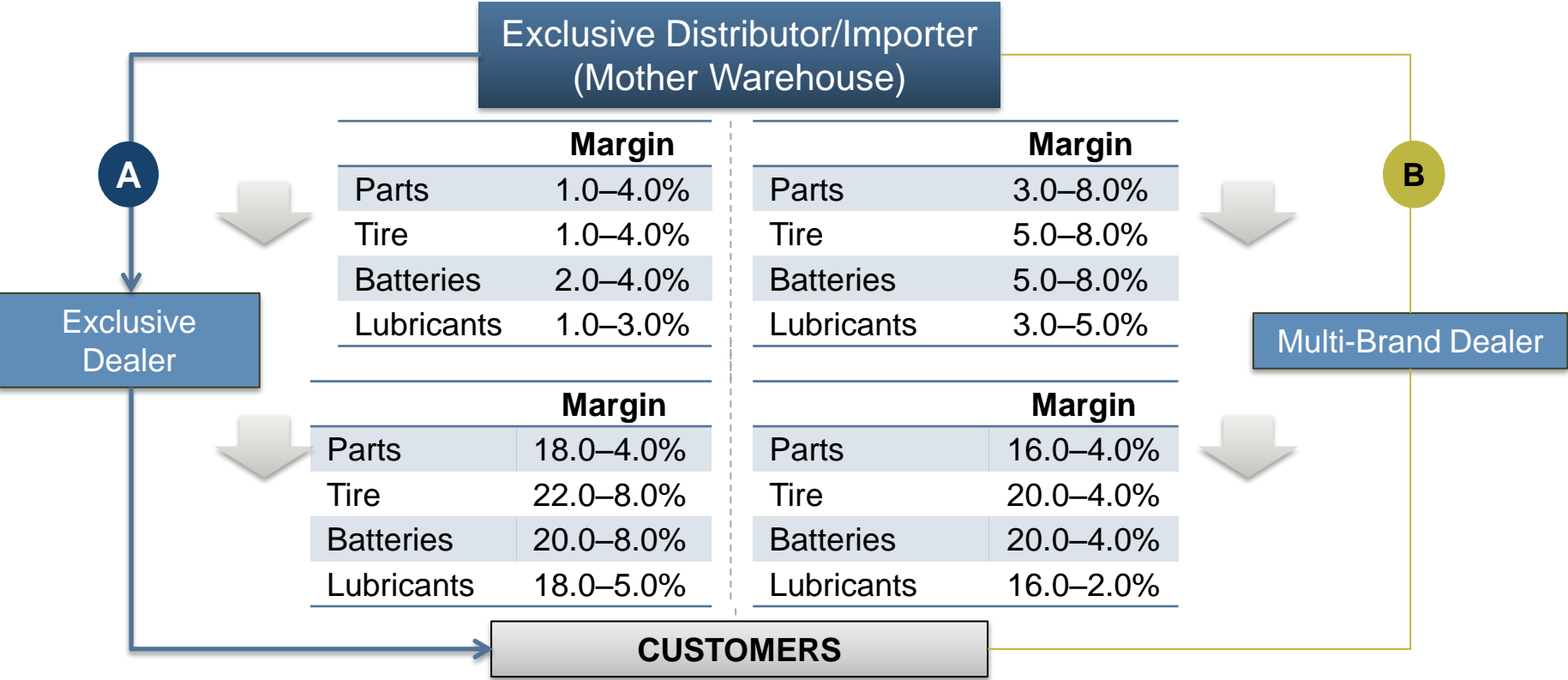


[Link: Details on the stakeholders involved in distribution structure](#)

Source: Frost & Sullivan analysis.

Market Overview—Distribution Channels (continued)

Routes to markets A and B: Direct supply to customers through exclusive and multi-brand dealers



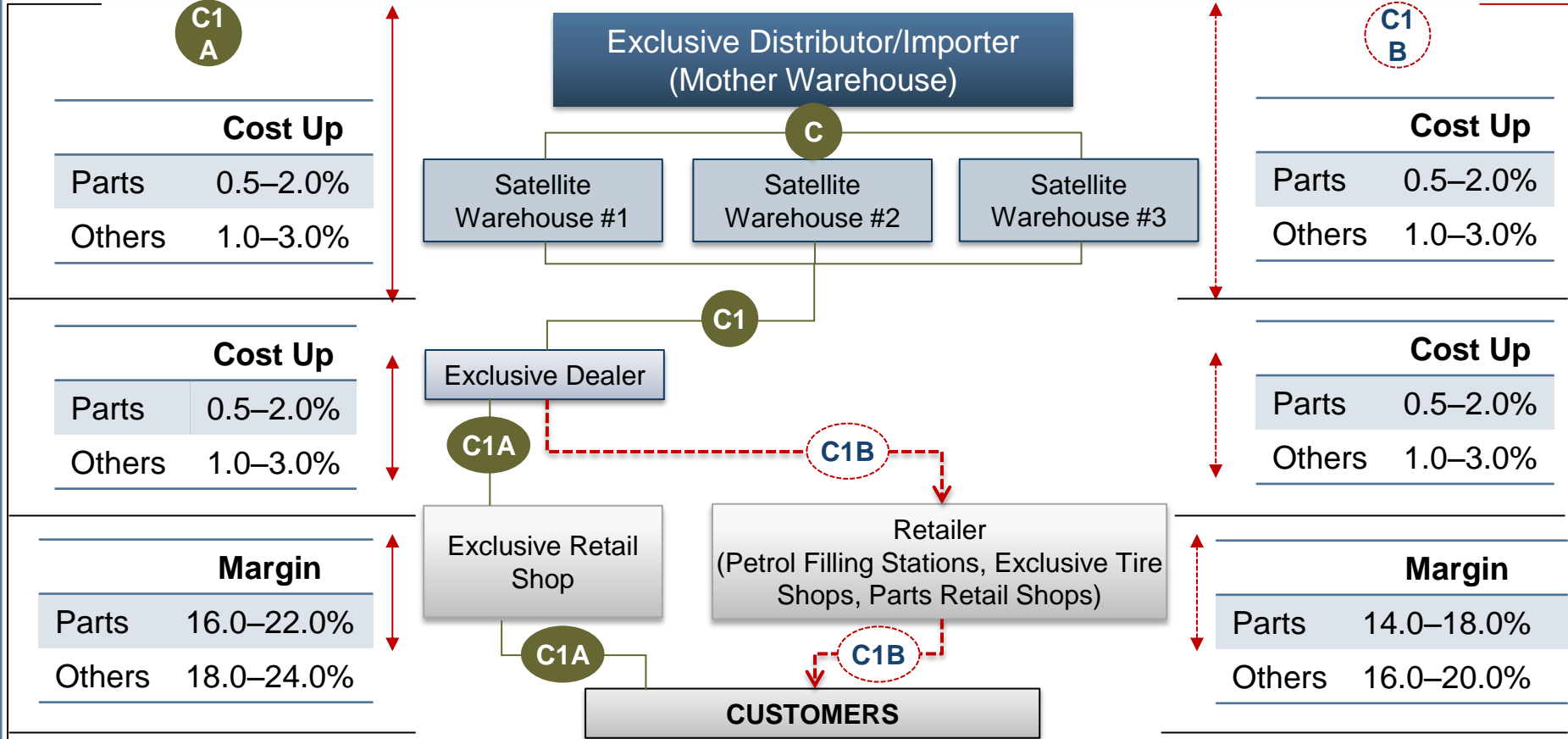
Such a module came to be used when a dealership and a multi-brand outlet are located in the same city and are fed by the mother warehouse.

A multi-brand dealer is an outlet that has arrangements with exclusive distributors of various brands and is selling them in the open market.

Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Market Overview—Distribution Channels (continued)

Route to market c: Supply through satellite warehouses to exclusive dealers and retailers



Margins of the operating business are kept higher by an exclusive retail/authorized shop compared with non-authorized ones.

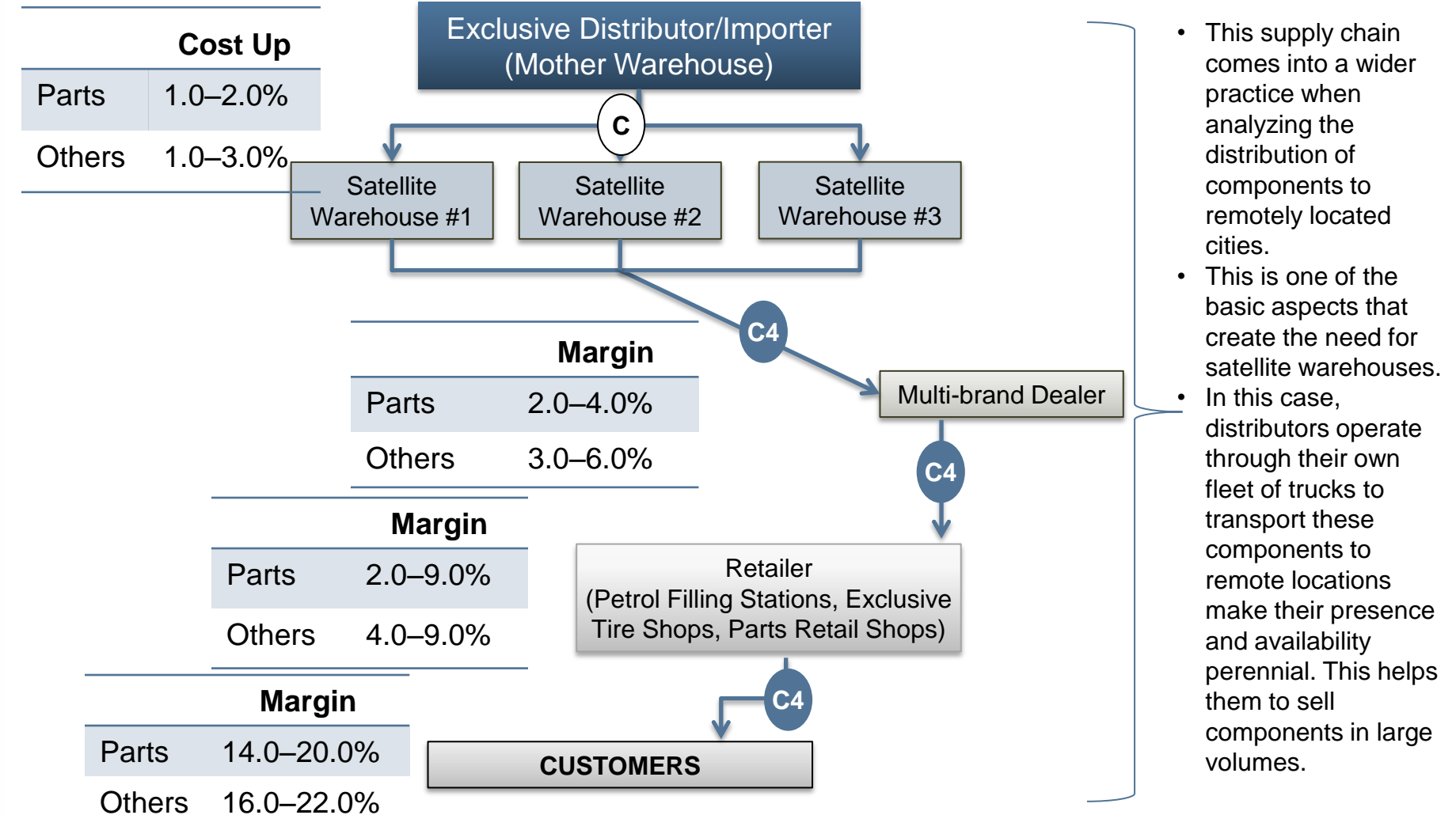
*Others include Tires, Batteries and Lubricants

Retailers' best strategy in such an arrangement is to keep margins low. Retailers are the only basic medium for carrying out sales in remote locations.

Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Market Overview—Distribution Channels (continued)

Route to market C: Supply through satellite warehouse to multi-brand dealers and retailers



- This supply chain comes into a wider practice when analyzing the distribution of components to remotely located cities.
- This is one of the basic aspects that create the need for satellite warehouses.
- In this case, distributors operate through their own fleet of trucks to transport these components to remote locations make their presence and availability perennial. This helps them to sell components in large volumes.

*Others include Tires, Batteries and Lubricants

Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Market Overview—Distribution Channels (continued)

Route to market #2: Multi-brand distributors or importers cater to customers through multi-brand dealers and retailers

Cost Up

Parts	0.5-2.0%
Others	1.0-3.0%

Multi-Brand Distributor/Importer
(Warehouse)

Margin

Parts	2.0–3.0%
Others	3.0–5.0%

Margin

Parts	2.0–6.0%
Others	4.0–8.0%

Margin

Parts	12.0–18.0%
Others	15.0–20.0%

Retailer
(Petrol Filling Stations, Exclusive
Tire Shops, Parts Retail Shops)

Customers

Multi-brand Dealer

- This supply chain comes into a wider practice for Chinese and Indonesian brands where a single large distributor imports multiple brands of components and distribute them through a network of multi-brand dealers.
- These distributors normally do not deal through satellite warehouses as they have distribution arrangements with multi-brand dealers.

*Others include Tires, Batteries and Lubricants

Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Market Overview—Distribution Channels (continued)

Stakeholders Involved in After Market—Their Roles and Responsibilities

Channel Partners/Stakeholders	Roles and Responsibilities
Exclusive Distributor/Importer (Mother Warehouse)	<ul style="list-style-type: none">• An exclusive distributor is appointed by a Part/Component manufacturer for the distribution of its Part/Component brands in the independent aftermarket. The independent aftermarket caters largely to the needs of independently owned garages, workshops and retail shops.• Exclusive distributors import Part/Component from manufacturer and sell to Exclusive Dealers, Multi Brand Dealers, Retail Shops.• Exclusive Distributor operates from a Mother Warehouse located in key cities like Riyadh and Jeddah in KSA. The requirement of these key cities fed by these mother warehouses.• One critical point to note here is in the GCC market Exclusive Distributor can also be a Multi Brand Distributor depending upon arrangements/term and conditions between manufacturer and distributor.• Few of the exclusive distributors operate through their own retail shops to cater customer requirements directly.
Satellite Warehouse	<ul style="list-style-type: none">• Satellite Warehouse is owned by exclusive distributor/importer to service those areas or territory that are not adequately serviceable by the mother warehouse.• The Part/Component are supplied by mother warehouse to satellite warehouse for serving smaller territories. These part/component then supplied to exclusive or multi brand dealer and retailers of those areas.

Source: Frost & Sullivan analysis.

Market Overview—Distribution Channels (continued)

Stakeholders Involved in After Market—Their Roles and Responsibilities

Channel Partners/Stakeholders	Roles and Responsibilities
Multiple Brand Distributors/Importers	<ul style="list-style-type: none">• Multiple Brand Distributor is the Exclusive/Non Exclusive Distributor who deals in various brands to cater large volume of the market.• This Type of Distributor/Importers comes into a wider practice for dealing in Chinese and Indonesian brands where a single large Distributor imports multiple brands of Part/Component and distribute it through a network of Multi brand dealers.• These Distributors normally does not deal through Satellite Warehouses as they have Distribution arrangements with Multi Brand Dealers.
Exclusive Dealer	<ul style="list-style-type: none">• Exclusive Dealers deals in Single brand of Parts/Components.• These Dealers purchase Parts/Components from Exclusive Distributor/Importer and sell directly to Retailers and Customers.• Few of these Dealer shops/outlets are owned by Exclusive Distributors.• This practice is predominantly followed in large cities.

Source: Frost & Sullivan analysis.

Market Overview—Distribution Channels (continued)

Stakeholders Involved in After Market—Their Roles and Responsibilities

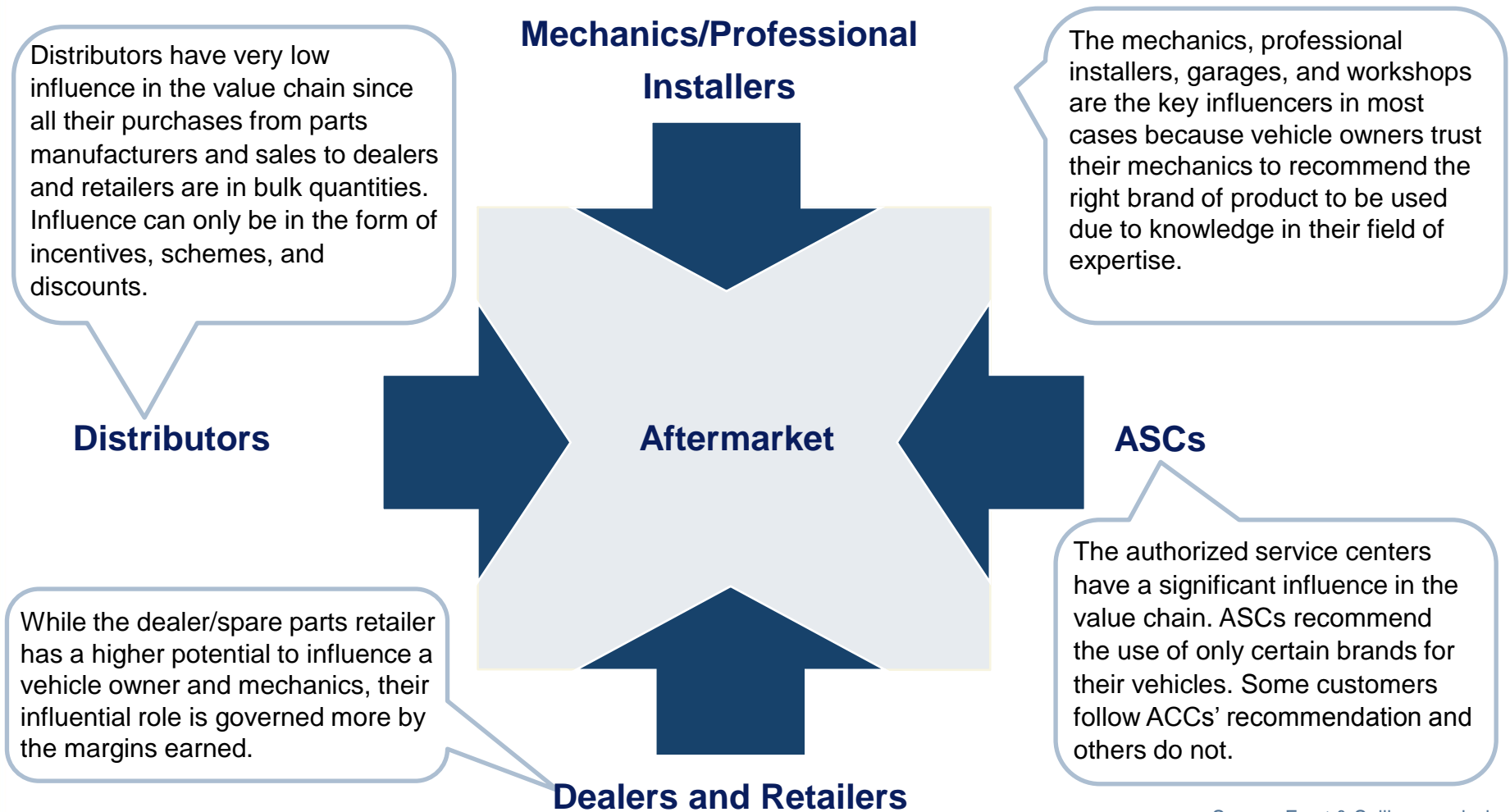
Channel Partners/Stakeholders	Roles and Responsibilities
Multi Brand Dealer	<ul style="list-style-type: none">• A Multiple Brand Dealer sells different makes/brand of the Parts/Components.• A Multiple Brand Dealer specializes in Parts/Components sales by vehicle type (Passenger Cars, SUVs, Multi-utility Vehicles, Commercial Vehicles).• They perform the function of aggregation and break the consignment into smaller sizes.• They also provide the service of supplying different makes of the same Parts/Components to their buyers/end customers.• They buy Parts/Components from Multiple Brand Distributors, Exclusive Distributors and Importers. They sell tires to Retailers and end-users/customers.
Exclusive Retail Shop	<ul style="list-style-type: none">• Exclusive Retail Shops are normally owned by Exclusive Dealers or Exclusive Distributors.• These exclusive shops dealers in limited number of brands.
Retailer (Petrol Filling Stations, Exclusive Tire Shops, Parts Retail Shops)	<ul style="list-style-type: none">• A retailer is a mass merchandizer who sells exclusively to end-users; he does not further sell to any other channel member.• A retailer can exclusively deal in one part (e.g. tires) or can be a auto part seller or Petrol Filling Station.• The retailer normally buy Parts/Components from Exclusive/Multiple Brand Dealer but in some of the cases they directly buy from Multiple Brand Distributors or Exclusive Distributors.

Source: Frost & Sullivan analysis.

Market Overview—Key Influencers in the Aftermarket

Mechanics/Professional Installers, Distributors, Dealers/Retailers and Authorized Service Centers are the key influencers.

Auto Components Industry: Key Influencers in the Aftermarket, GCC, 2011

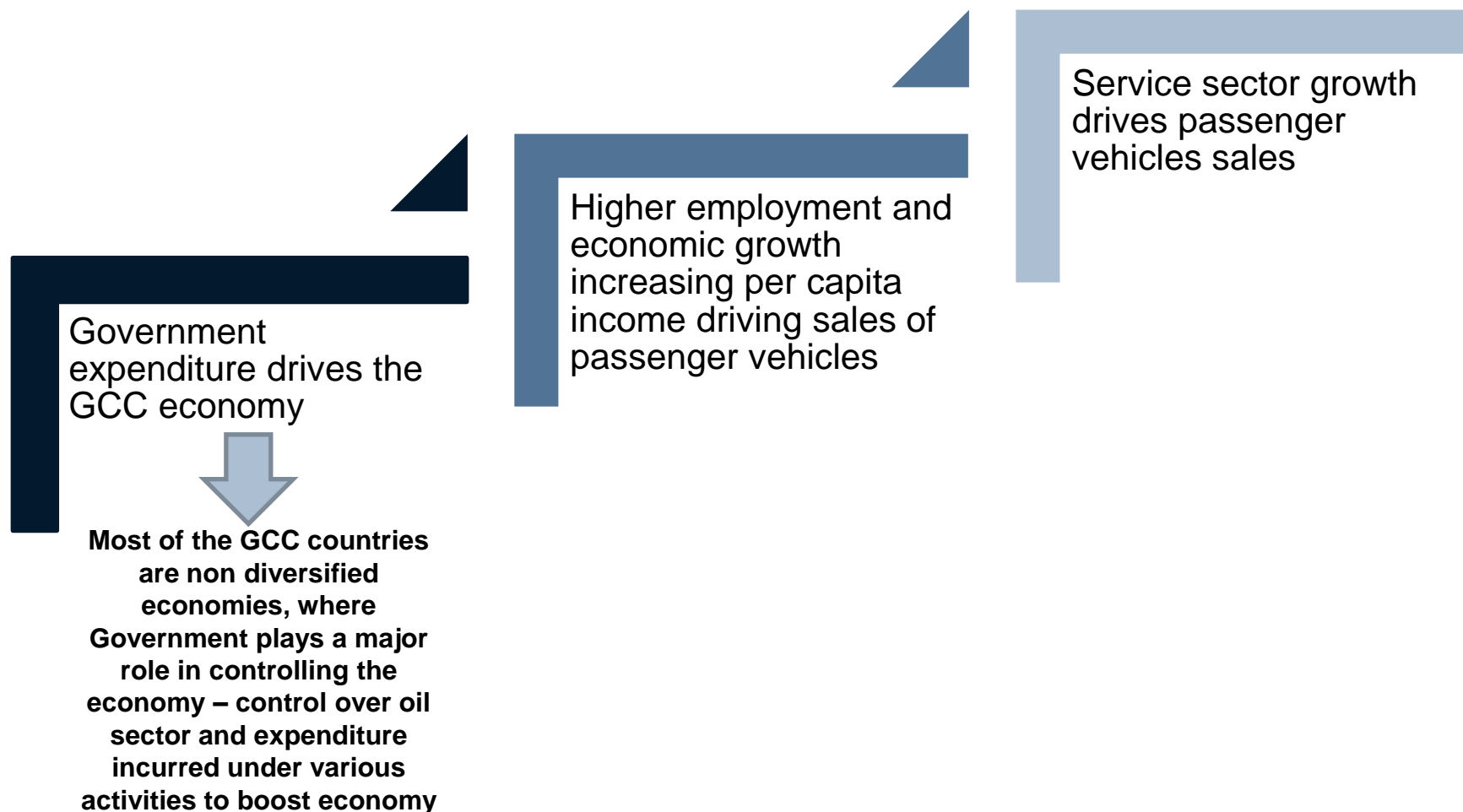


Source: Frost & Sullivan analysis.

Mega Trends and Industry Convergence Implications

Mega Trend

Service Sector Growth, Increasing working population and dependency of government expenditure are the key factors driving the growth of the GCC.



Source: Frost & Sullivan analysis.

Mega Trend (continued)

Additionally, Crude Oil Price is most important factor controlling growth of the GCC economy; good economic growth enabled good vehicle sales.

- Non Diversified Economy - Government role in economic output vital - Controls the Oil economy, Government plays a major role in the GCC economy through its control over oil sector and expenditure incurred under various activities to boost economy.
- Crude Oil Price is most important factor controlling growth of the GCC economy; good economic growth enabled good vehicle sales; Moderation in economic growth expected due to moderation in Crude oil prices, Crude Oil Prices likely to moderate close to USD 91 per barrel by 2016.
- Higher Government expenditure is direct driver for growth in cars – Government expenditure has a direct correlation to increase in income level in the economy. This increase finds its way to the car market as there are relatively less avenues for expenditure in other areas like entertainment.
- Service sector creates employment and income generation - Employment to grow at a 3.0 percent thus generating high per capita income. Employment shows high correlation with sales of Passenger Vehicles.
- Per Capita Income growth drives sales - Growth in service sector will drive the per capita income thus leading to growth in passenger vehicle sales. Service sector will create higher employment opportunities and rise in per capita income in years to come.
- Per Capita income which shows high correlation with sales of passenger vehicles is likely to grow at a CAGR of 2.6 percent over the period 2011–2016.

Source: Frost & Sullivan analysis.

Mega Trend Impact on Auto Components Industry

High reliance (compared to other countries) on Government expenditure to drive the GCC economy – A key driver for Vehicle & Auto Components sales

Mega Trend Impact on Vehicle and Auto Components Industry, GCC, 2011–2016

Mega Trend	Degree of Impact	Impact Timing
Higher Government expenditure	8	Present
Service sector growth	5	1+ years
Per Capita Income growth	5	1+ years
Investments in Public Transportation System	4	4+ years

Impact Ratings: 7-10 = High; 4-6 = Medium; 1-3 = Low

Source: Frost & Sullivan analysis.

Mega Trend Impact on Auto Components Industry (continued)

Higher Government expenditure is direct driver for growth in cars and components

Service sector creates employment and income generation – High correlation to car and component sales

Higher Government Expenditure

- Government expenditure has a direct correlation to increase in income level in the economy.
- This increase finds its way to the car market which enables higher car demand generating demand for spare parts.

Service Sector Growth

- Employment to grow at a 3.0 percent thus generating high per capita income.
- Employment shows high correlation with sales of Passenger Vehicles and auto components.

Source: Frost & Sullivan analysis.

Mega Trend Impact on Auto Components Industry (continued)

Per Capita Income growth drives sales of cars- Directly linked to Government expenditure and service economy' Public Transportation (Linear & Futuristic impact)

Per Capita Income growth

- Growth in service sector will drive the per capita income thus leading to growth in passenger vehicle sales. Service sector will create higher employment opportunities and rise in per capita income in years to come.
- Per Capita income which show high correlation with sales of passenger vehicles is likely to grow at a CAGR of 2.6 percent over the period 2011–2016.

Investment in Public Transportation System

- Investment in rail sector, low cost airlines and public transportation like buses and metro for both intra city and intercity travel can impact car sales and usage of cars.
- However this factor will impact on the demand for cars in the next 4-5 year plan.

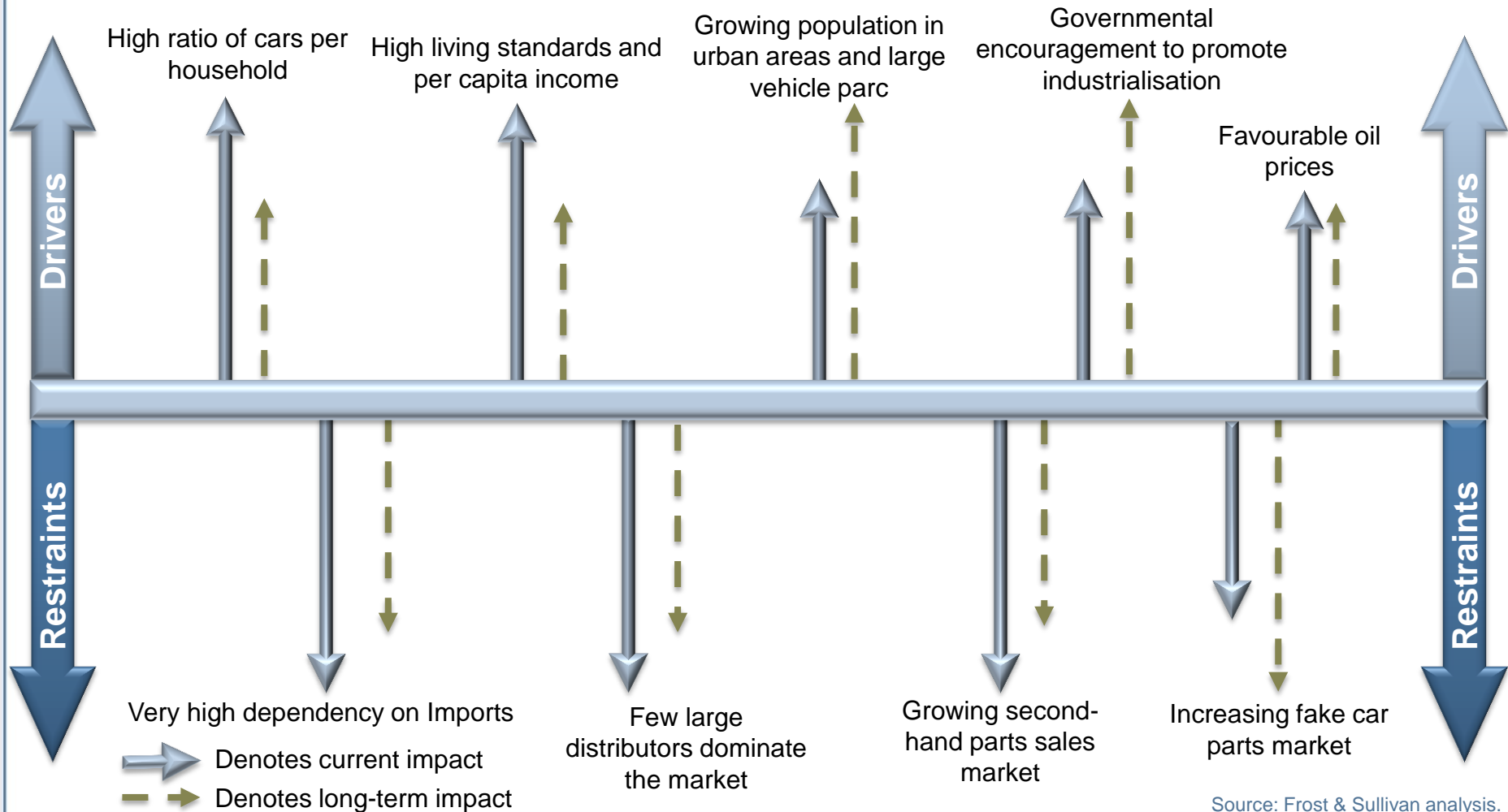
Source: Frost & Sullivan analysis.

External Challenges: Drivers and Restraints—Auto Components Industry

GCC Auto Components Industry—Drivers and Restraints

One of the highest per capita incomes in the world, a stable economy, a high population growth rate, and non-existent local production are the key factors for significant development of the automotive sector.

Auto Components Industry: Key Market Drivers and Restraints, GCC, 2012–2016



Source: Frost & Sullivan analysis.

GCC Auto Components Industry—Market Drivers—Impact and Duration

Governmental encouragement to promote industrialization and Growing Population in Urban Areas likely to have long term impact on passenger vehicle and auto components industry.

Auto Components Industry: Key Market Drivers, GCC, 2012–2016

Drivers	1–2 Year	3–4 Years	5 th Year
High ratio of cars per household	H	M	M
High living standards and per capita income	H	M	M
Growing population in urban areas and large vehicle parc	M	H	H
Governmental encouragement to promote industrialisation	M	M	H
Favourable oil prices	M	M	M

Impact Ratings: H = High, M = Medium, L = Low

Source: Frost & Sullivan analysis.

GCC Auto Components Industry—Drivers Explained

Key Drivers—High ratio of cars per household and High living standards and per capita income.

High Ratio of Cars Per Household

- The standard of living in the GCC is comparable to the best in the world and passenger cars are affordable for majority of the population.
- Many households have more than two cars at their disposal. This has led to congestion on the cities' roads and highways.

High Living Standards and Per Capita Income

The GCC is in the midst of an asset boom; there are no restrictions on foreign exchange and with factors such as a sharp rise in oil prices and increased oil production, strong investor confidence, and a significant increase in foreign direct investment (FDI), the economy is strengthened.

Source: Frost & Sullivan analysis.

GCC Auto Components Industry—Drivers Explained (continued)

Key Drivers—Favourable oil prices, Governmental encouragement to promote industrialization, Growing population in urban areas & large vehicle parc.

Growing Population in Urban Areas and Large Vehicle Parc

- The population in the GCC is growing almost 3.3 percent.
- In past few years, key cities have attracted a working population from neighboring cities.

Governmental Encouragement to Promote Industrialisation

Governmental encouragement to promote industrialization away from oil- and gas-based industries in order to ensure a stable broad-based economy for a balanced growth in the medium to long term is also fuelling the growth of automotive industry.

Favourable Oil Prices

- As most of the GCC countries produce oil, the increasing price of oil in the world markets is a boon.
- The resulting wealth is used for spending on consumer items and luxuries such as passenger cars.

Source: Frost & Sullivan analysis.

GCC Auto Components Industry—Market Restraints—Impact and Duration

Growing second hand car parts market and Increasing fake car parts market in key countries like UAE and KSA is/will largely impacting the auto components sales.

Auto Components Industry: Key Market Restraints, GCC, 2012–2016

Restraints	1–2 Year	3–4 Years	5 th Year
Very high dependency on Imports	H	H	M
Few large distributors dominates the market	H	H	M
Growing second hand parts sales market	H	H	M
Increasing fake car parts market	M	H	H

Impact Ratings: H = High, M = Medium, L = Low

Source: Frost & Sullivan analysis.

GCC Auto Components Industry—Restrains Explained

Key Restraints—Very high dependency on Imports, Few large distributors dominates the market.

Very High Dependency on Imports

The GCC is highly dependent on imported component any crises in global market directly impacts the auto components supply.

Few Large Distributors Dominates the Market

- The GCC market is largely donated by few large distributors.
- In large markets like KSA and UAE key 4-5 distributors have setup their own channel as well as logistics network and dictates the terms and conditions to new entrants in the market.

Source: Frost & Sullivan analysis.

GCC Auto Components Industry—Restrains Explained (continued)

Key Restraints—Growing second hand parts sales market, Increasing fake car parts market.

Growing Second Hand Parts Sales Market

- In last few years, the key markets like UAE have witnessed sale of second hand parts.
- We expect the rise in sizable second-hand spare parts market is likely to pose a threat to UAE-based spare parts dealers.
- These second hand parts are also getting supplied to other the GCC countries from UAE.

Increasing Fake Car Parts Market

- The market for fake car parts in the Middle East is rising at an alarming pace.
- China is the principal source of counterfeit activity in the automotive sector, involving both trademark and design infringements.

Source: Frost & Sullivan analysis.

Forecast and Trends—Auto Components Industry

Auto Components Industry—Market Engineering Measurements

KSA, Oman, Kuwait, Qatar, and Bahrain are the growing markets in the GCC, whereas UAE is perceived as a mature market.

Auto Components Industry: GCC, 2011

Market Overview

MEASUREMENT NAME	MEASUREMENT	TREND
Market Stage (Nascent, Growth, Mature)	Growth	—
Market Revenue (2011)	\$6.65 B	▲
Market Size at End of Forecast Period (2016)	\$12.30 B	▲
Base Year Market Growth Rate	11.5%	▲
Compound Annual Growth Rate (CAGR, 2011–2016)	13.1%	—
Number of Competitors (active market competitors in base year)	More than 200	▲

TREND

Decreasing



Stable



Increasing



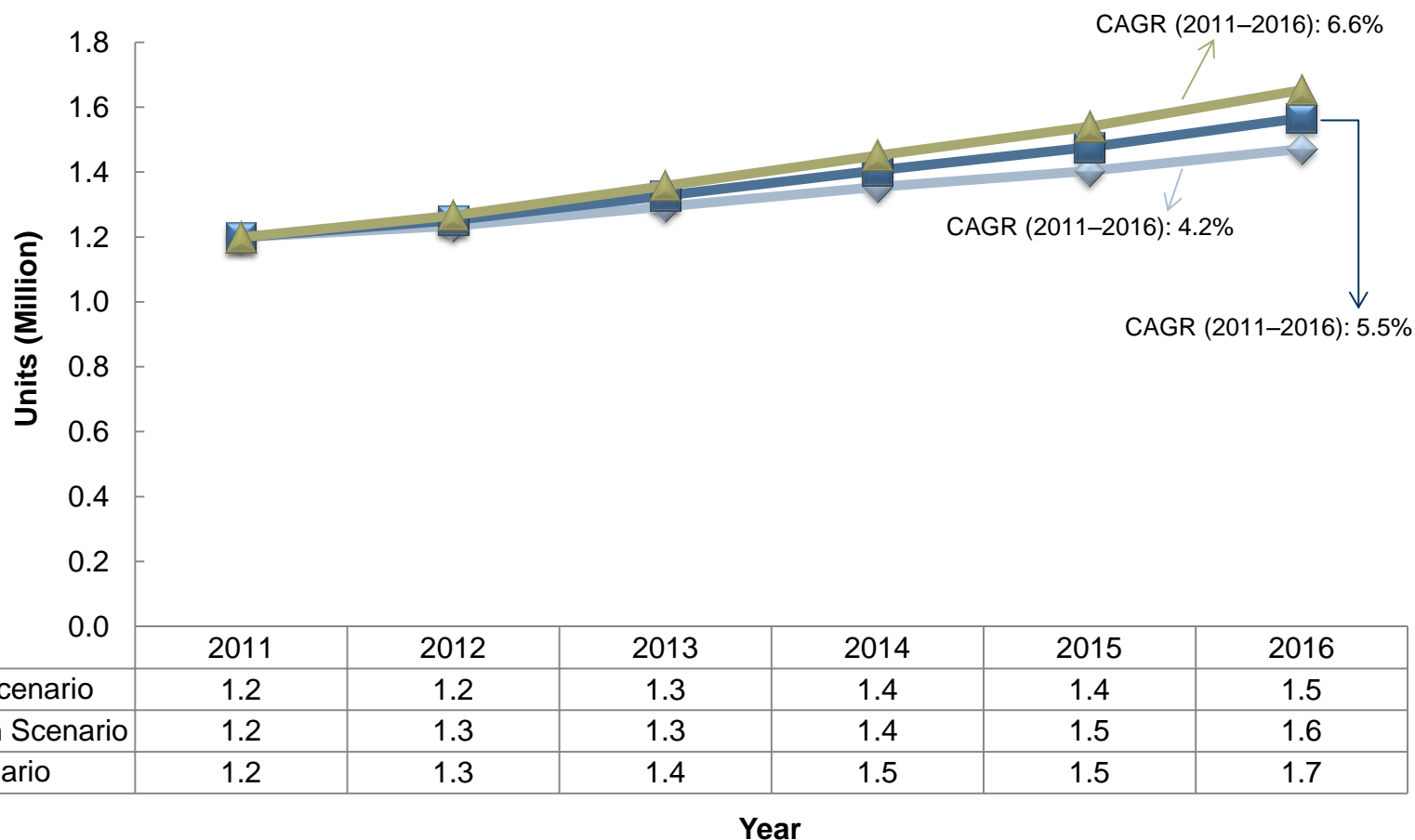
Note: Market size estimations only includes imported components

Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Auto Components Industry—Passenger Vehicle Sales Forecast Scenario Analysis

Passenger vehicles likely to witness 5.5 percent growth over the next five years.

Auto Components Industry: Passenger Vehicle Sales Forecast by Scenario, GCC, 2011–2016



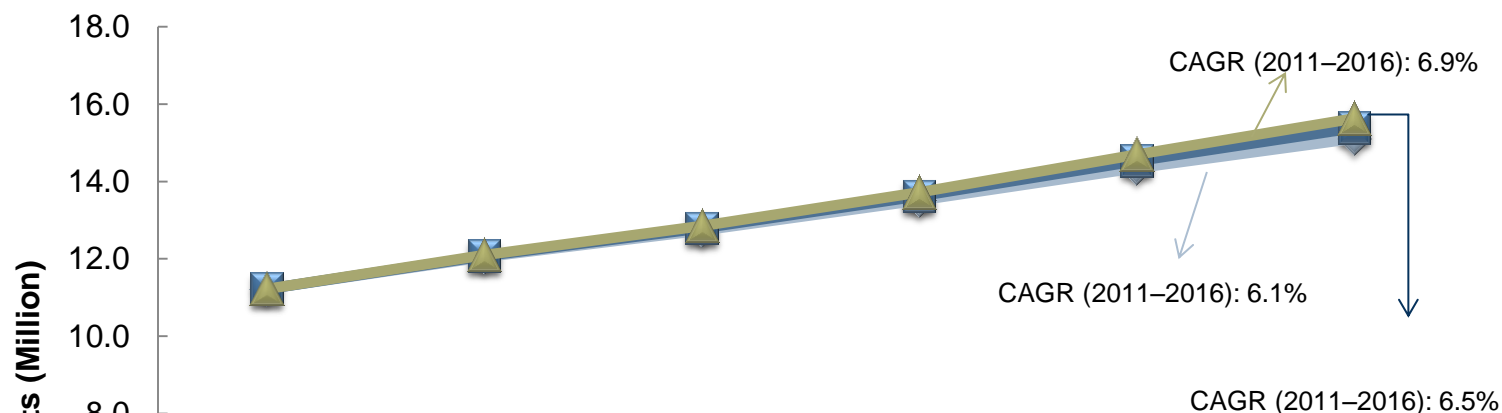
Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Auto Components Industry—Passenger Vehicle Parc Forecast

Scenario Analysis

Vehicle parc in the GCC likely to witness CAGR growth of 6.5 percent to reach at 15.4 million units by 2016.

Auto Components Industry: Passenger Vehicle Parc Forecast by Scenario, the GCC, 2011–2016



	2011	2012	2013	2014	2015	2016
Conservative Scenario	11.2	12.0	12.7	13.5	14.3	15.1
Frost & Sullivan Scenario	11.2	12.1	12.8	13.6	14.5	15.4
Optimistic Scenario	11.2	12.1	12.8	13.7	14.7	15.6

Year

Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Auto Components Industry—Forecast Scenario Assumptions to 2016

Increasing urbanization, dependency on public transportation system, population, and per capita income growth would be the key deciding factors for vehicles as well as part market growth in near future for the GCC.

Auto Components Industry: Forecast Assumptions, GCC, 2011

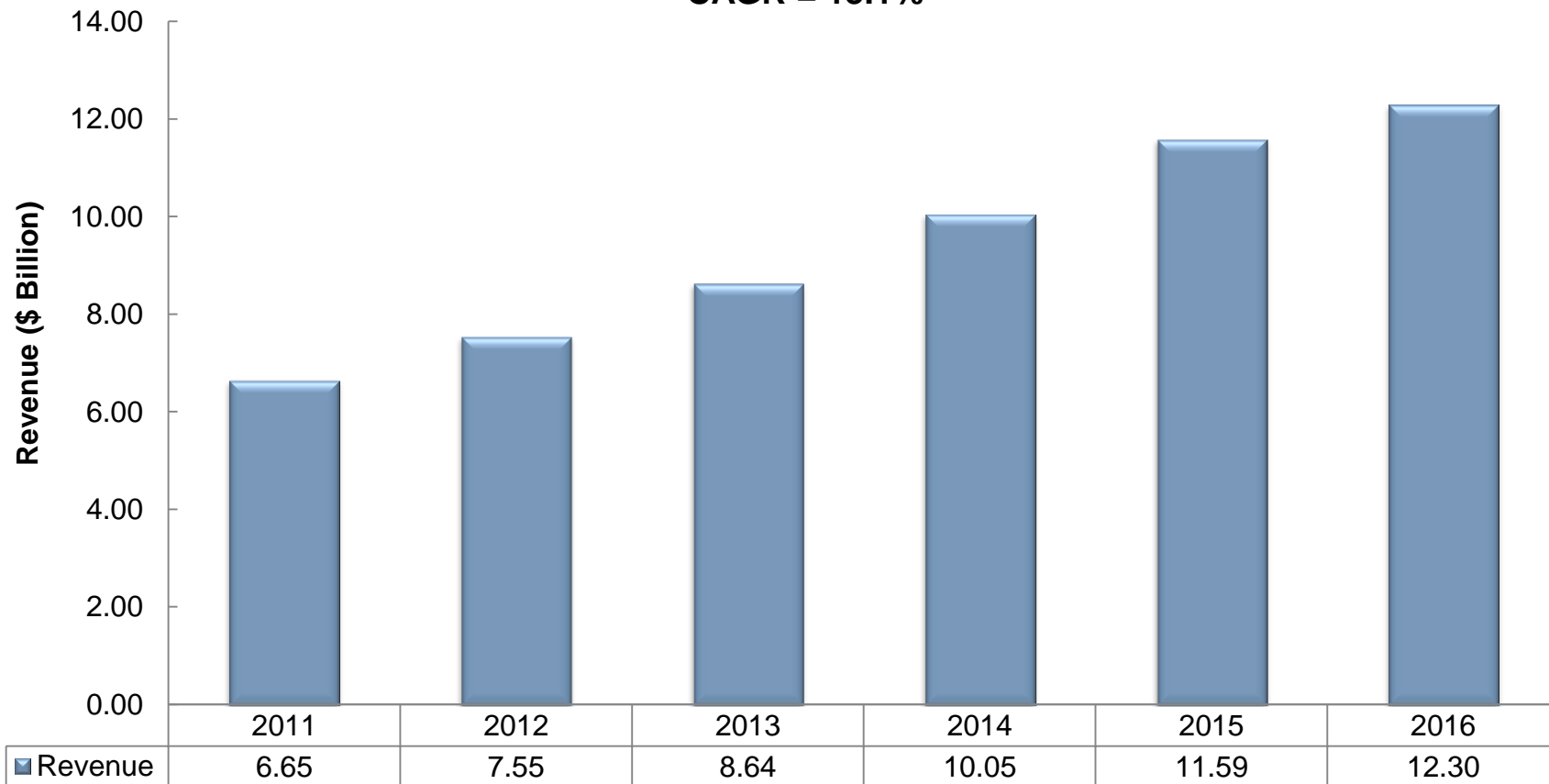
	Increasing urbanisation	Dependency on public transportation system	Population growth and high per capita income	Increasing focus on setting up local manufacturing facilities to generate employment	Easy availability of low cost fuel
Optimistic Scenario	Relatively high growth in Urbanisation rate across key cities in the GCC which accounts for large car populations like Riyadh, Dubai.	Limited improvement in public transportation system across the GCC countries, the transportation infrastructure will almost remain same.	Strong growth in population and sharp reduction in unemployment rates and increased per capita income.	Significant attention provided by government in developing employment with norms of hiring majority of local manpower.	Relatively low fuel prices.
Frost & Sullivan Scenario	Relatively moderate growth in urbanisation rate across key cities in the GCC, which accounts for large car populations like Riyadh, Dubai.	Moderate improvement in public transportation system and limited to few regions like Dubai (UAE) and Riyadh (KSA), the transportation infrastructure will see moderate improvement.	Moderate growth in population and moderate reduction in unemployment rates and increased per capita income.	Moderate planning and delayed execution in the setting up manufacturing based economy.	Relatively moderate fuel prices.
Conservative Scenario	Low growth in urbanisation rate across key cities in the GCC which accounts for large car populations like Riyadh, Dubai.	Good improvement in public transportation system across the GCC countries, the transportation infrastructure will be developed across the regions and dependency on the system, irrespective of weather conditions, will increase.	Limited growth in population across regions and no reduction in unemployment rates and increased per capita income.	Focus only limited to few countries with limited interest of global participants to setup manufacturing bases in the GCC	Low fuel prices.

Source: Frost & Sullivan analysis.

Auto Components Industry—Revenue Forecast

In 2011, the auto components industry witnessed 11.5 percent growth over 2010 and likely to witness healthy growth of 13.1 percent CAGR between 2011 and 2016.

Auto Components Industry: Revenue Forecast, GCC, 2011–2016
CAGR = 13.1%



Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Auto Components Industry—Revenue Forecast Discussion

- Per capita income being among the highest in the world, the automobile industry has traditionally fared well in this market.
- Most of the major brands are present in these markets offering intense competition and wide choice.
- Given the safety angle in a region that is often in turmoil, companies quite often set up their regional headquarters (the GCC) in the UAE.
- The market for this region is no exception to the global auto trends as replacement parts from many countries are available.

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Auto Components Industry—Revenue Forecast by Segment

Parts and accessories likely to grow at CAGR of 13.4 percent, followed by tires and inner tubes and batteries.

Auto Components Industry: Revenue Forecast by Segment, GCC, 2011–2016

Year	Parts and Accessories (\$ Million)	Tires and Inner Tubes (\$ Million)	Batteries \$ Million)	Lubricants (\$ Million)
2011	3,955.7	1,344.9	629.4	719.1
2012	4,515.0	1,498.6	715.1	816.3
2013	5,192.4	1,691.4	819.4	934.8
2014	6,064.9	1,945.7	954.9	1,089.0
2015	7,006.8	2,224.2	1,100.6	1,254.6
2016	7,434.0	2,361.4	1,168.0	1,331.4
CAGR	13.4%	11.9%	13.2%	13.1%

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Auto Components Industry—Segment Revenue Forecast Discussion

Most of the auto components are getting imported in the GCC.

- The total auto components industry has witnessed healthy growth of 11.5 percent in 2011 over 2010.
- The parts and accessories were the largest contributor in overall auto components' market across the GCC countries; however, in KSA the dominance of tires was high when compared to other GCC countries.
- Aggressive driving, sudden braking, and harsh weather conditions in key cities like Riyadh increase tire demand.
- Most of the auto components are getting imported in the GCC.
 - UAE serves as the key feeder market for the GCC.
 - Few brands are manufacturing batteries and lubricants in the GCC.
- Better servicing facilities today have car owners keeping their vehicles longer. In particular, brake parts and batteries are experiencing double-digit growth.

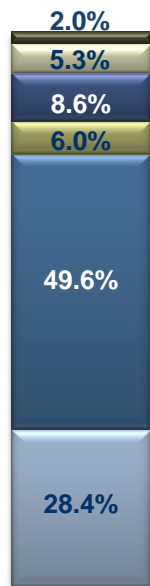
Source: Frost & Sullivan analysis.

Auto Components Industry—Revenue Forecast by Country

KSA will have the dominant position by 2016 and is likely to consume 51.8 percent of the auto components supplied in the GCC.

Auto Components Industry: Revenue Forecast by Segment and Region, GCC, 2011 and 2016

Revenue:
\$6.65 billion



2011

Revenue (\$ Million)

2.0%

5.3%

7.6%

6.8%

51.3%

27.0%

Parts and Accessories

2.1%
6.1%
11.7%
4.8%

45.4%

30.0%

Tires and Inner Tubes

1.8%
4.5%
8.7%
5.2%

Batteries

1.8%
4.6%
8.7%
5.0%

Lubricants

UAE

KSA

Oman

Kuwait

Qatar

Bahrain

Revenue:
\$12.30 billion

2.7%

5.9%

10.3%

6.3%

51.8%

23.1%

2016

Note: Graph in center represents data for 2016

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Auto Components Industry— Revenue Forecast by Country (continued)

Highest growth expected in Bahrain followed by Kuwait and Qatar

Auto Components Industry: Revenue Forecast by Country, GCC, 2011–2016

Year	UAE (\$ Million)	KSA (\$ Million)	Oman (\$ Million)	Kuwait (\$ Million)	Qatar (\$ Million)	Bahrain (\$ Million)
2011	1,888.4	3,299.5	400.7	575.1	353.7	131.6
2012	2,018.8	3,762.6	473.3	701.4	419.9	169.0
2013	2,209.4	4,370.0	540.4	812.0	496.9	209.2
2014	2,451.0	5,152.8	631.4	979.4	588.4	251.6
2015	2,685.6	5,999.0	732.3	1,173.8	685.8	309.7
2016	2,836.4	6,372.3	768.9	1,265.3	721.8	330.3
CAGR	8.5%	14.1%	13.9%	17.1%	15.3%	20.2%

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Auto Components Industry—Country Revenue Forecast Discussion

UAE has witnessed various efforts to develop dedicated automotive clusters like Ras Al Khaimah, and we expect some amount of local manufacturing of components in near future.

United Arab Emirates (UAE)

- Despite the lack of a significant vehicle production industry in the UAE, the after-sales business is healthy at average annual growth of 18.0–20.0 percent, according to the Autos Parts Merchant Group (APMG), which represents automotive and spare parts dealers in the UAE.
- This large number of vehicles in UAE offers opportunity for the after-sales industry.
- UAE operates as a key hub for re-exporting imported components, approximately 45.0 to 50.0 percent of imported spare parts and accessories are re-exported to other countries in the Middle East, Africa (where new destinations such as Libya and Sudan are increasing their share of the UAE re-export trade), and the countries of the former Soviet Union.
- In recent years, the UAE has witnesses various efforts to develop dedicated automotive clusters like Ras Al Khaimah, and we expect some amount of local manufacturing of components in near future.
- At present, UAE has a sizable presence of automotive component manufacturers. There are approximately 17 to 18 manufacturers of auto components such as radiators, filters, exhaust, glass, and springs.

Source: Frost & Sullivan analysis.

Auto Components Industry—Country Revenue Forecast Discussion

Large numbers of used cars and extreme weather conditions have boosted the requirement for spares for repair and maintenance in KSA; other markets are witnessing high growth.

Kingdom of Saudi Arabia (KSA)

- The Saudi Arabia component market is a dominant one in the GCC and the Middle East.
- The Saudi automotive component market remains an import-driven market despite the presence a number of local manufacturers.
- Large numbers of used cars and extreme weather conditions have boosted the requirement of spares for repair and maintenance.
- KSA has also started cluster development program to set up a manufacturing base for polymer related components. In the near future, we foresee few participants to set up tire manufacturing units due to expected availability of synthetic rubber and carbon black by 2016.

Other GCC countries*

- Leading developers of automotive technology and spare parts like Bosch which was earlier focusing on large markets like KSA and UAE, now appointing dealers and distributors in other market of the GCC and also opening up service training centres.
- The high per capita income, robust economy growth and large penetration of vehicles creating a good demand for auto parts in Oman, Qatar, Kuwait, and Bahrain. These markets are witnessing faster growth than the already developed markets of UAE and KSA.

*Other GCC countries include Oman, Kuwait, Qatar and Bahrain

Source: Frost & Sullivan analysis.

Competitive Analysis—Auto Components Industry

Auto Components Industry—Competitive Environment

With minimal local manufacturing for auto spare parts and accessories, the country depends on imports to meet local demand.

Auto Components Industry: Competitive Structure, GCC, 2011

Number of Companies in the Market	200+ with revenue greater than \$1 M USD
Competitive Factors	Local distribution network, regional presence through own outlets, globally proven parts quality and performance, technology, reliability, customer relationships
Key End-User Groups	Vehicle Owners and Taxi segment
Major Market Participants	Auto Parts—Robert Bosch; Schaeffler; 3M, Mobis, Mitsui Tires—Hankook; Bridgestone; Yokohama; Good Year; Toyo Batteries—Excide; AC Delco; Antara and Gulfstar; Solite Lubricants—Total Lubs; Mobil (ExxonMobil); Gulf Lubricants
Market Share of Top 10 Competitors in Each Product Category	60.0%
Other Notable Market Participants	Woqod; Altantic; JK Tires; Apollo
Distribution Structure	Retail sales; OES sales through service centers

Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Auto Components Industry—Competitive Environment Discussion

With minimal local manufacturing for auto spare parts and accessories, the country depends on imports to meet local demand.

- The future composition of the car market in the GCC will, to a large extent, dictate the mix of the auto spare parts industry. Additional factors contributing to this market are climate and long travel distances. The heat and sand can be very hard on automobile components, making replacements more urgent than in other places.
- The influx of used cars to this region factored in to increase the market's size as a high proportion requires parts and reconditioning before being sold to the GCC retail market.
- The thrust in local production in the U.A.E. has focused on battery assembly, tire retreading, and automobile radiators. It is estimated that over 50.0 percent of the production for batteries/radiators are exported.
- Saudi Arabia is focusing on setting up tire manufacturing units and targeting the GCC due to tax advantage (no tax if goods are manufactured and supplied within the GCC).
- Presence of 60+ tire companies in GCC makes this market difficult to penetrate.
- Japanese parts are considered to be of good quality, German products are associated with highest quality and high prices, while parts from the U.K. are of medium to good quality, available, and very expensive. Parts from South East Asian manufacturers, such as Taiwan or Korea, are of a much inferior quality and are readily available at low prices.

Source: Frost & Sullivan analysis.

Parts and Accessories Segment Breakdown

Parts and Accessories Segment Breakdown

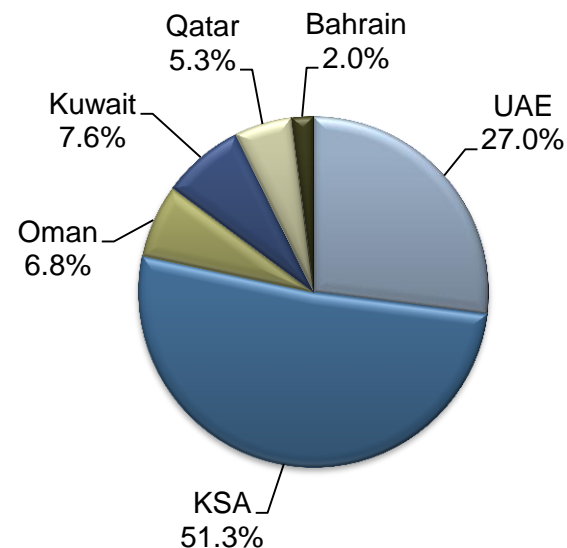
A growing market, expected to witness 13.4 percent growth over next 5 years, has a high dependency on imports.

Important Segment Characteristics

Factors	Assessment	Trend
Market Age	Growth	—
Current Opportunity Size (\$B)—2011	3.96	▲
Future Opportunity Size (\$B)—2016	7.43	▲
Compound Annual Growth Rate	13.4%	—
Dependency on Imports	High	●
Number of Competitors	More than 100	▲
Degree of competition ¹	6	▲

TREND	Decreasing ▼	Stable ●	Increasing ▲
-------	--------------	----------	--------------

Parts and Accessories Segment, Percent Sales Breakdown by Country GCC, 2011



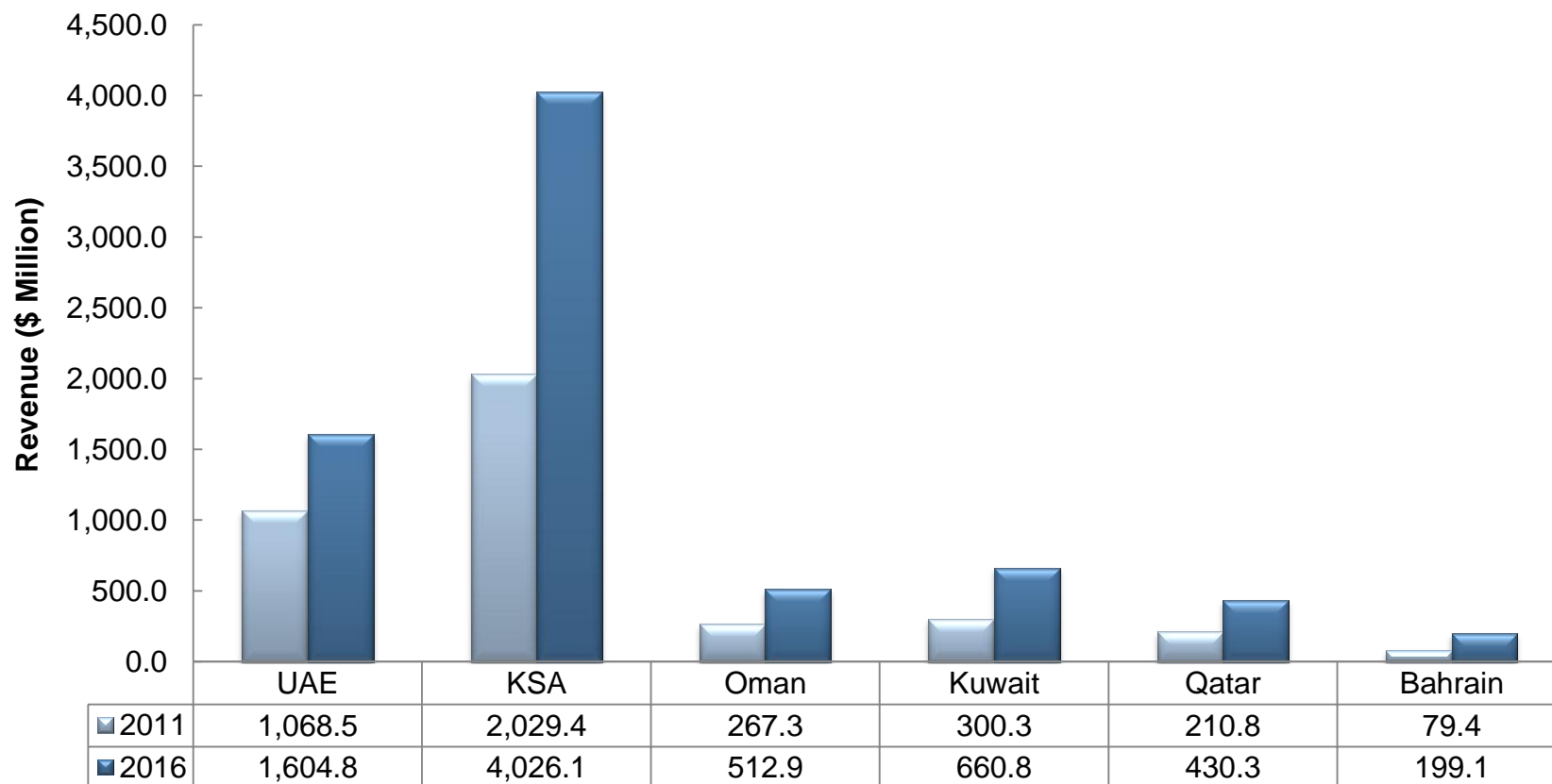
1 on scale of 1 to 10 where 1 indicates low level of competition among existing participants and 10 indicates highest

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Parts and Accessories Segment—Revenue Forecast by Country

KSA would lead the overall demand followed by UAE, Oman, Kuwait, Qatar and Bahrain by 2016.

Parts and Accessories Industry: Revenue Forecast by Country, GCC, 2011 and 2016



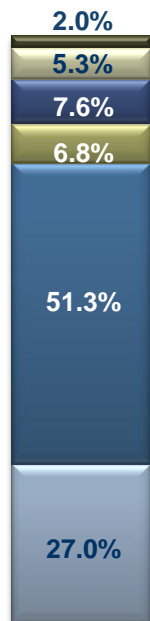
Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Parts and Accessories Segment—Revenue Forecast by Exporting

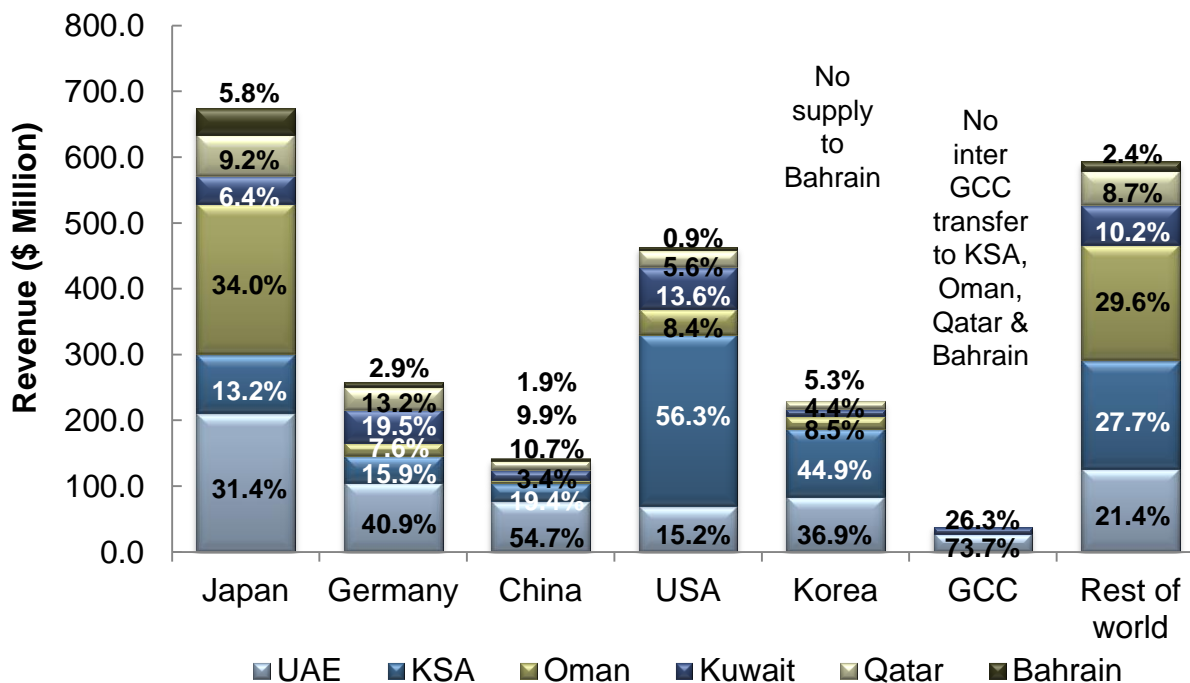
Country Japan dominates the overall imports with 32.7 percent share followed by U.S. at 16.7 percent and Germany at 12.2 percent.

Parts and Accessories Industry: Revenue Forecast by Exporting Country, GCC, 2011 and 2016

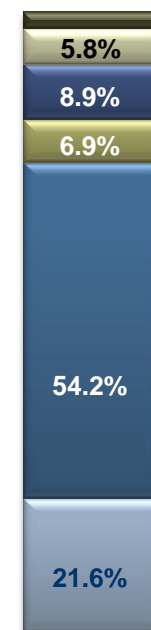
Revenue:
\$3.96 billion



2011



Revenue:
\$7.43 billion



2016

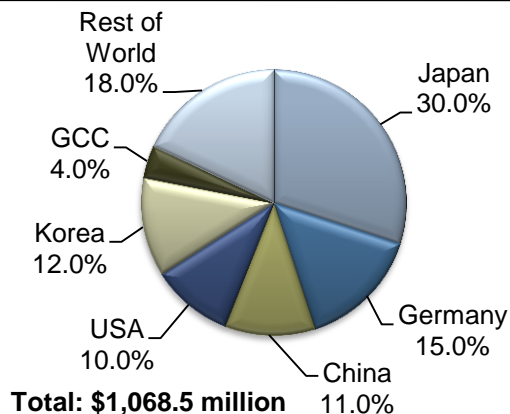
Note: Graph in center represents data for 2011
Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Parts and Accessories Segment—Percent of Revenue by Exporting Country

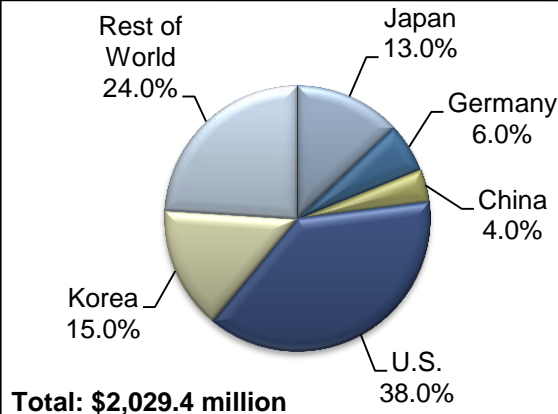
Share of Exporting country within UAE, KSA, Oman, Kuwait, Qatar, and Bahrain.

Parts and Accessories Industry: Country-wise Percent of Revenue by Exporting Country, GCC, 2011

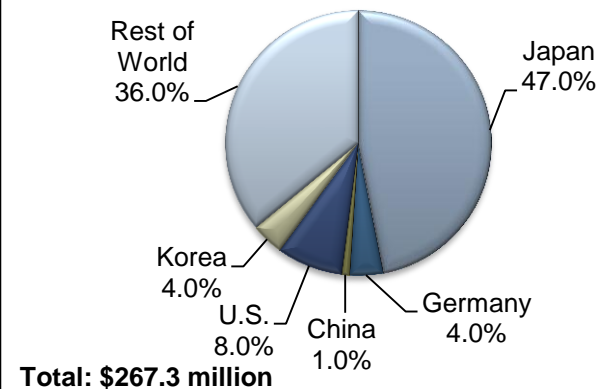
UAE



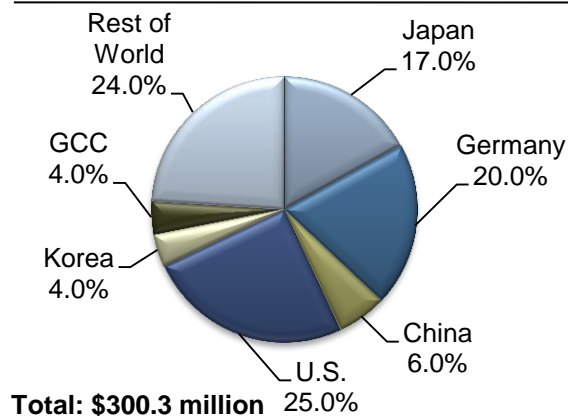
KSA



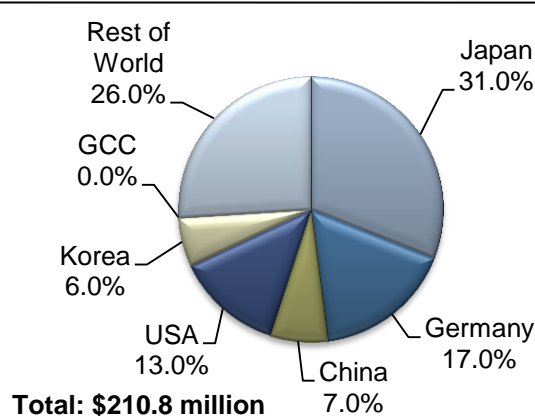
Oman



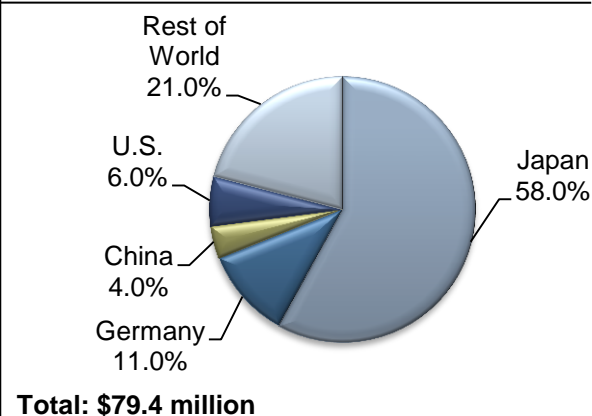
Kuwait



Qatar



Bahrain



Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Parts and Accessories Segment—Revenue Forecast by Country

Highest growth expected in Bahrain followed by Kuwait, Qatar, and Oman.

Parts and Accessories Industry: Revenue Forecast by Country, GCC, 2011–2016

Year	UAE (\$ Million)	KSA (\$ Million)	Oman (\$ Million)	Kuwait (\$ Million)	Qatar (\$ Million)	Bahrain (\$ Million)
2011	1,068.5	2,029.4	267.3	300.3	210.8	79.4
2012	1,142.2	2,338.6	315.7	366.3	250.3	101.9
2013	1,250.1	2,735.5	360.5	424.1	296.2	126.1
2014	1,386.8	3,243.1	421.2	511.5	350.7	151.6
2015	1,519.5	3,790.3	488.5	613.1	408.8	186.7
2016	1,604.8	4,026.1	512.9	660.8	430.3	199.1

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Parts and Accessories Segment—Revenue Forecast Discussion

Japan is the key partner for the GCC followed by the U.S. and Germany.

- The parts and accessories market is likely to witness healthy growth of CAGR 13.4 percent over next five years; the increasing vehicle parc, coupled with harsh weather conditions, is boosting the sales for parts in the GCC.
- Japan is the key partner for the GCC followed by the U.S. and Germany.
 - Japan is the leader in UAE, Oman, Qatar, and Bahrain
 - In KSA, the U.S. dominates the parts and accessories supply with a huge gap (38.0 percent market share where number two country, Korea 15.0 percent market share)
 - In Kuwait Germany leads the Parts and Accessories imports with 20.0 percent share and Japan is a number two position with 17.0 percent share

Source: Frost & Sullivan analysis.

Parts and Accessories Segment—Conclusions

- The overall parts & accessories market estimated at \$3.96 billion in 2011 which is likely to reach at \$7.43 billion by 2016, a growth of 13.4 percent CAGR.
- The KSA and UAE likely to remain largest markets in the GCC, expected to dominate more than 75.0 percent share by 2016 (the KSA likely to reach at \$4.00 billion and UAE at \$1.60 billion by 2016).
- KSA is the largest market, followed by UAE and the increasing vehicle parc in KSA is winding the gap.
- Imports from Japan will continue to dominate the GCC parts and accessories market, in 2011 imports from Japan contributed 32.7 percent share followed by U.S. at 16.7 percent and Germany at 12.2 percent.
- Key participants likely to invest in research and development and R&D will remain a key focus area.

Source: Frost & Sullivan analysis.

Tire and Inner Tubes Segment Breakdown

Tire and Inner Tubes Segment Breakdown

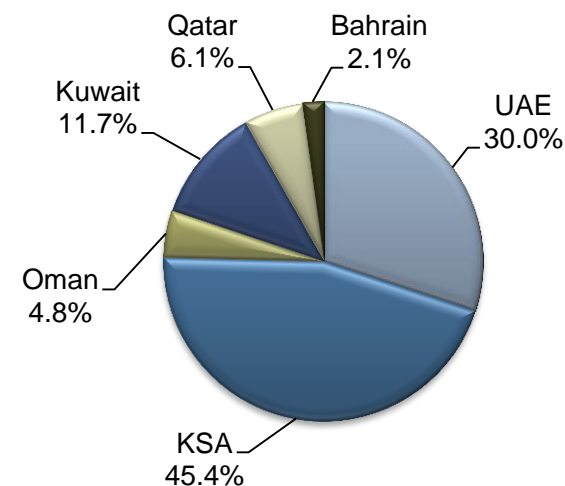
A growing market (expected to witness 11.9 percent growth over 2011–2016), and highly dependent on imports.

Important Segment Characteristics

Factors	Assessment	Trend
Market Age	Growth	—
Current Opportunity Size (\$ B)—2011	1.34	▲
Future Opportunity Size (\$ B)—2016	2.36	▲
Compound Annual Growth Rate	11.9%	—
Dependency on Imports	Very High	●
Number of Competitors	More than 60	▲
Degree of competition ¹	8	▲

TREND Decreasing Stable Increasing
 ▼ ● ▲

**Tire and Inner Tubes Segment:
Percent Sales Breakdown by
Country GCC, 2011**



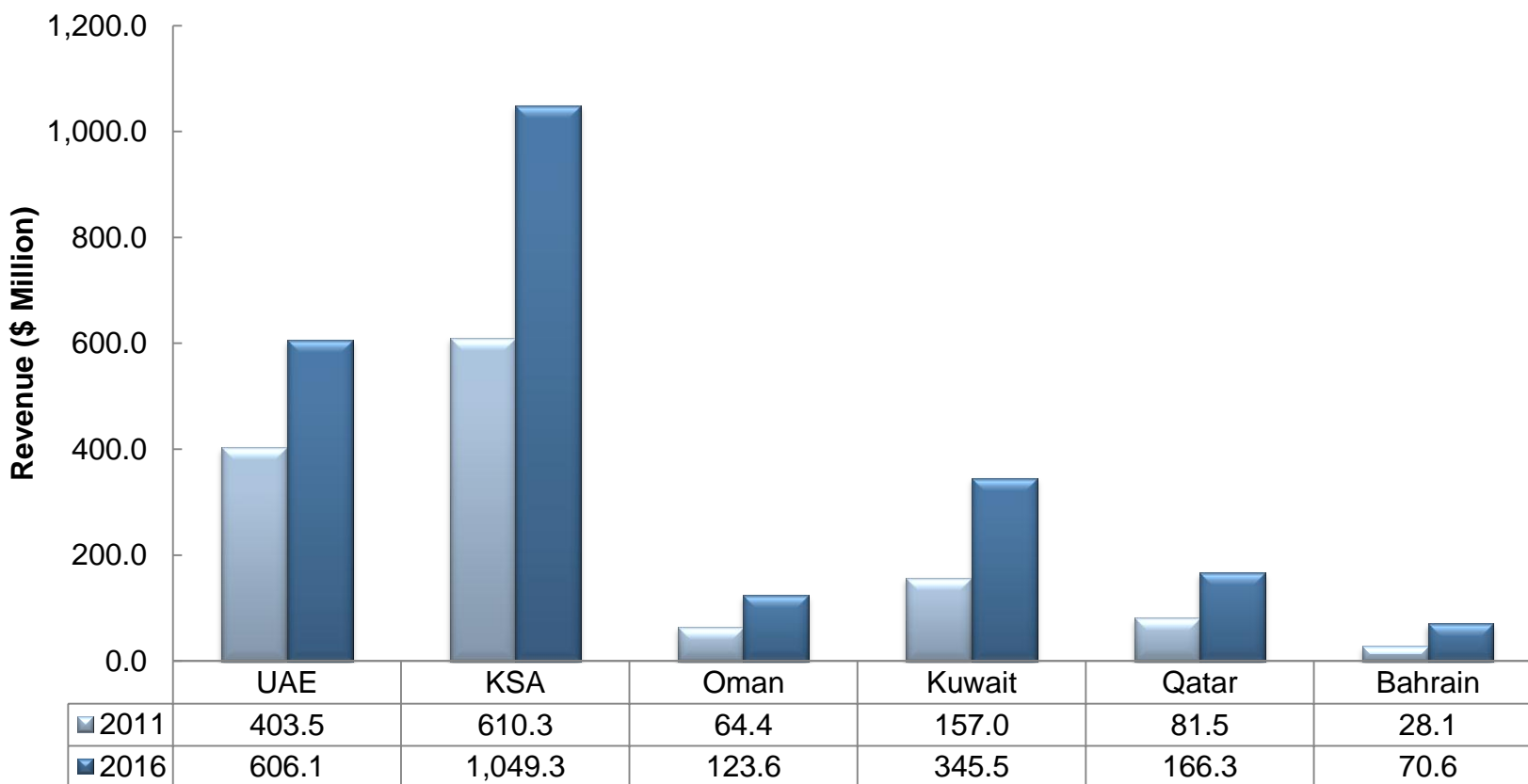
1: on scale of 1 to 10 where 1 indicates low level of competition among existing participants and 10 indicates highest

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Tire and Inner Tubes Segment—Revenue Forecast by Country

KSA would lead the overall demand followed by UAE, Oman, Kuwait, Qatar, and Bahrain by 2016.

Tire and Inner Tubes Segment: Revenue Forecast by Country, GCC, 2011 and 2016

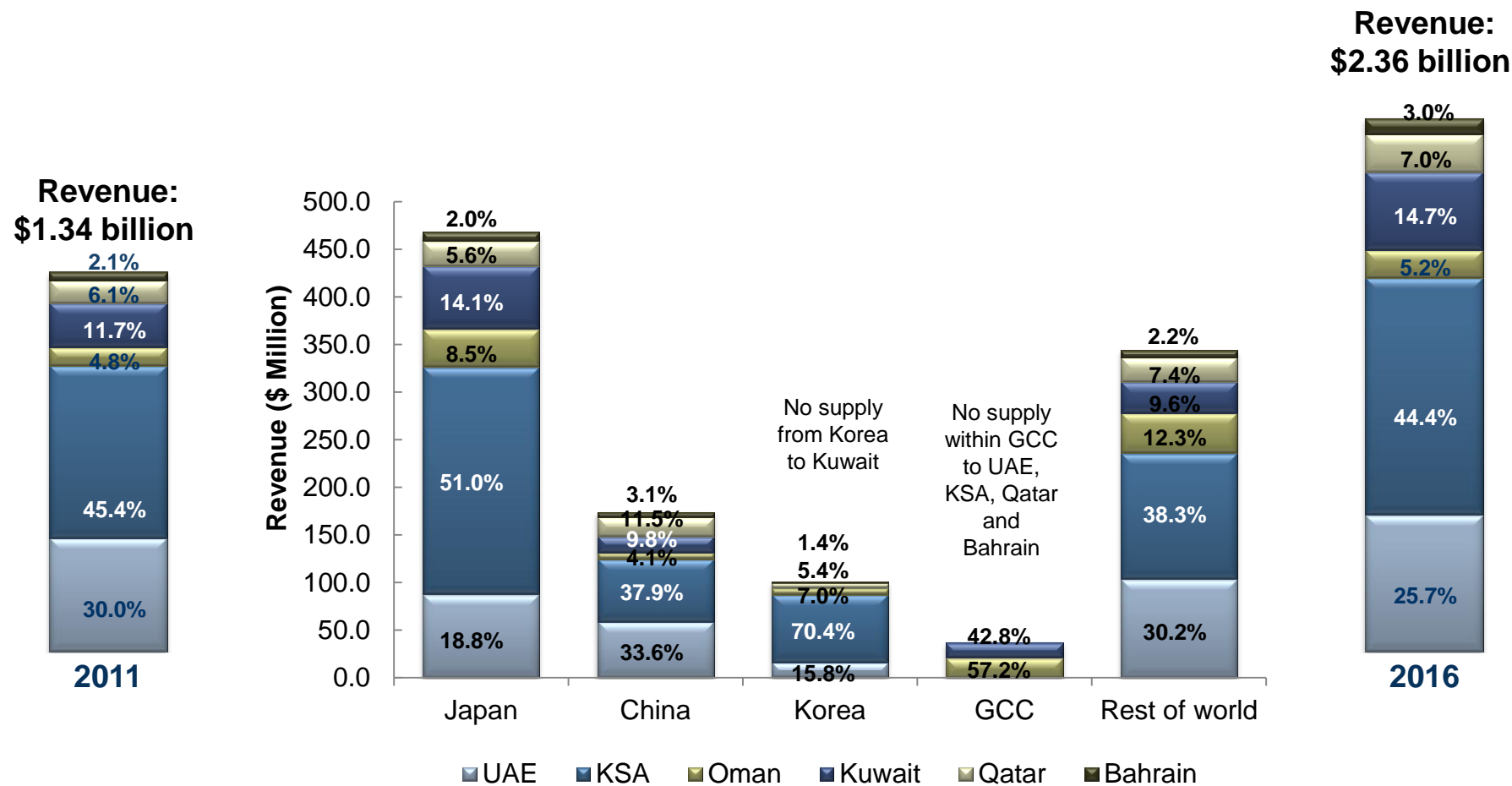


Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Tire and Inner Tubes Segment—Revenue Forecast by Exporting Country

Japan leads the overall imports with a 39.7 percent share followed by China at 17.0 percent and a Korea with 6.5 percent.

Tire and Inner Tubes Segment: Revenue Forecast by Exporting Country, GCC, 2011 and 2016



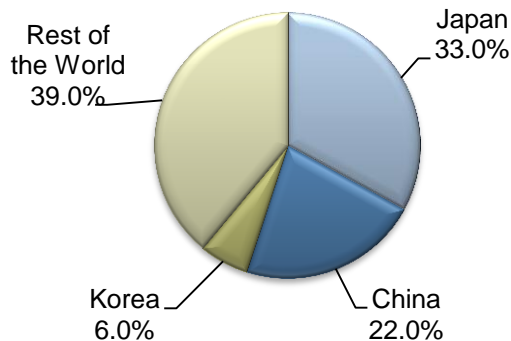
Note: Graph in center represents data for 2011
Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Tire and Inner Tubes Segment—Percent of Revenue by Exporting Country

Share of exporting country within UAE, KSA, Oman, Kuwait, Qatar, and Bahrain.

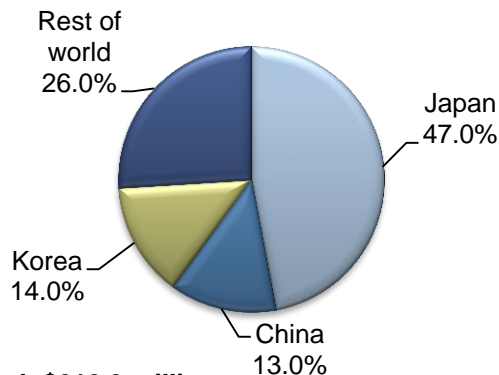
Tire and Inner Tubes Segment: Country-wise Percent of Revenue by Exporting Country, GCC, 2011

UAE



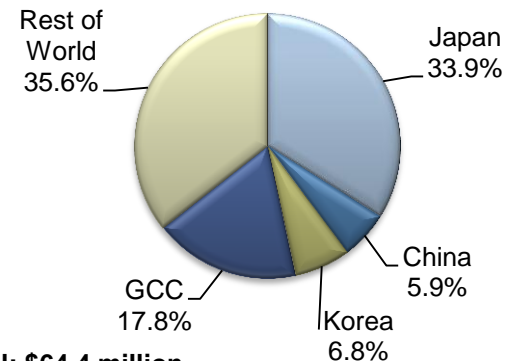
Total: \$403.5 million

KSA



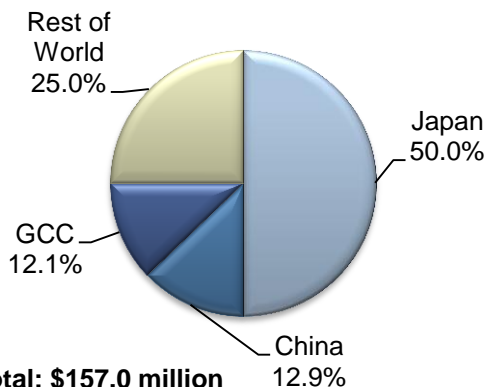
Total: \$610.3 million

Oman



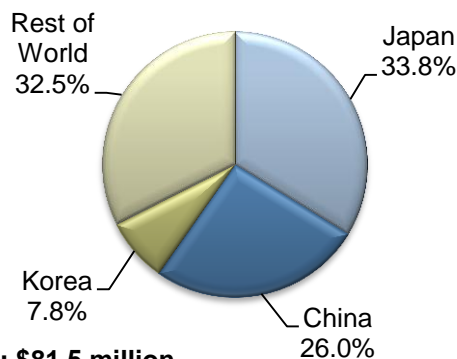
Total: \$64.4 million

Kuwait



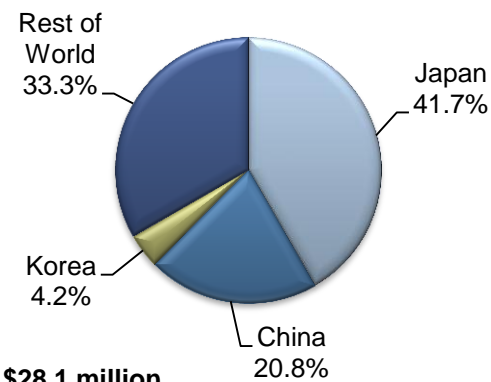
Total: \$157.0 million

Qatar



Total: \$81.5 million

Bahrain



Total: \$28.1 million

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Tire and Inner Tubes Segment—Revenue Forecast by Country

Highest growth expected in Bahrain, followed by Kuwait, Qatar, and Oman.

Tire and Inner Tubes Segment: Revenue Forecast by Country, GCC, 2011–2016

Year	UAE (\$ Million)	KSA (\$ Million)	Oman (\$ Million)	Kuwait (\$ Million)	Qatar (\$ Million)	Bahrain (\$ Million)
2011	403.5	610.3	64.4	157.0	81.5	28.1
2012	431.4	666.7	76.1	191.5	96.7	36.1
2013	472.1	751.5	86.9	221.7	114.5	44.7
2014	523.8	863.7	101.5	267.4	135.5	53.8
2015	573.9	987.9	117.7	320.5	158.0	66.2
2016	606.1	1,049.3	123.6	345.5	166.3	70.6

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Tire and Inner Tubes Segment—Revenue Forecast Discussion

Japan is the key partner for the GCC, followed by China and Korea.

- The Tire and tube market likely to witness healthy growth of CAGR 11.9 percent over next five years to reach \$2,361.4 million.
- The harsh driving conditions, particularly for the increasing youth population (aggressive driving in KSA), coupled with increasing vehicle parc, is boosting the sales for parts in the GCC.
- Japan is the key partner for the GCC, followed by China and Korea.
 - Japan will continue to dominate the all the GCC countries
 - The KSA and Kuwait tire and inner tube market will see increased share of China in the near future
 - Few Chinese companies looking forward to setting up type manufacturing plant in KSA

Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Tire & Inner Tubes Segment—Conclusions

- The overall tire and inner tubes market estimated at \$1.34 billion in 2011 which is likely to reach at \$2.36 billion by 2016, a growth of 11.9 percent CAGR.
- The KSA and UAE likely to remain largest markets in the GCC, expected to dominate more than 73.0 percent share by 2016 (the KSA likely to reach at \$1.00 billion and UAE at \$0.60 billion by 2016).
- KSA is the largest market, followed by UAE and the increasing vehicle parc in KSA is winding the gap.
- Imports from Japan likely to reduce with increasing share of China brand tires and inner tubes. More than 25 Chinese brands are already present in the GCC market.
- Few global tire participants (including China brands) are evaluating opportunity to manufacturers tires in the region to avail non tariff and other benefits.
- China brand tires have witnessed double fold increase in their market share over last 4-5 years.

Source: Frost & Sullivan analysis.

Batteries Segment Breakdown

Batteries Segment Breakdown

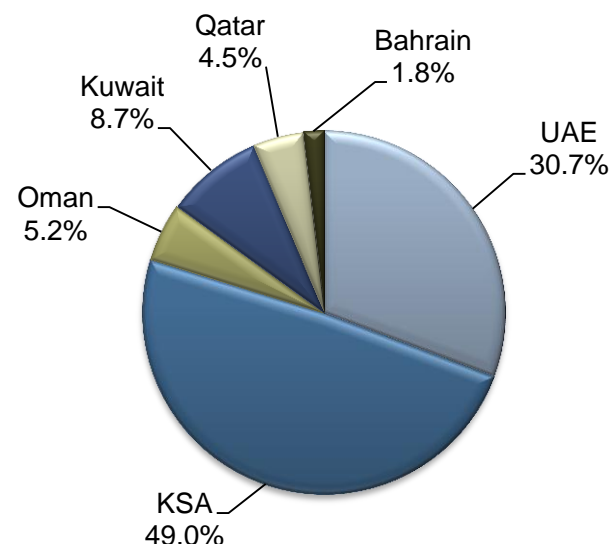
Battery market is not completely dependent on imports from non-GCC countries.

Important Segment Characteristics

Factors	Assessment	Trend
Market Age	Growth	—
Current Opportunity Size (\$ M)—2011	629.4	▲
Future Opportunity Size (\$ M)—2016	1,168.0	▲
Compound Annual Growth Rate	13.2%	—
Dependency on Imports	Medium to High	●
Number of Competitors	30+	▲
Degree of competition*	5	▲

TREND	Decreasing ▼	Stable ●	Increasing ▲
-------	-----------------	-------------	-----------------

Batteries Segment: Percent Sales Breakdown by Country, GCC, 2011



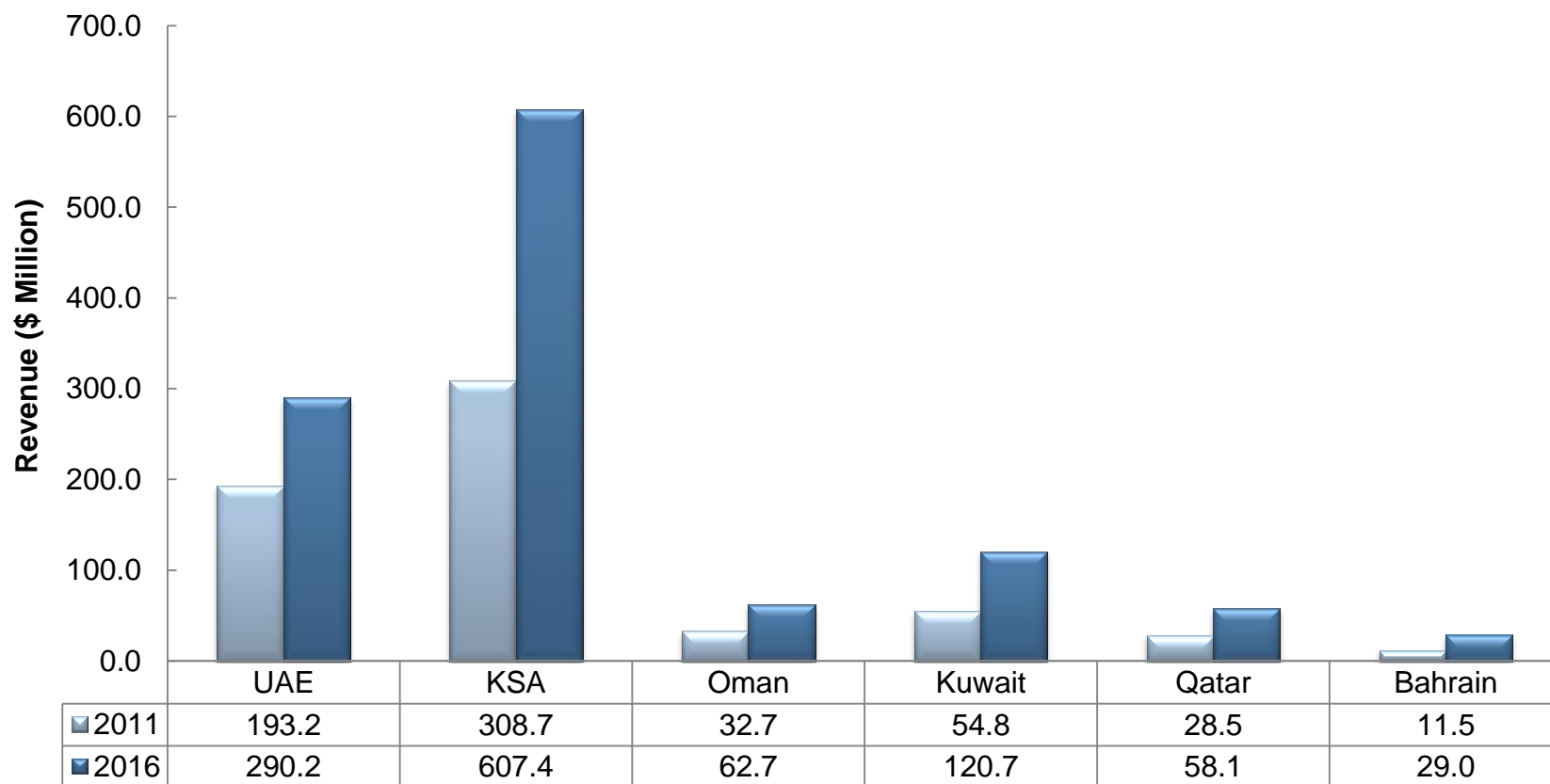
*on a scale of 1 to 10 where 1 indicates low level of competition among existing participants and 10 indicates highest

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Batteries Segment—Revenue Forecast by Country

The GCC battery market is expected to reach at \$1,168.0 million by 2016 from a current level of \$629.4 million (2011).

Batteries Segment: Revenue Forecast by Country, GCC, 2011 and 2016



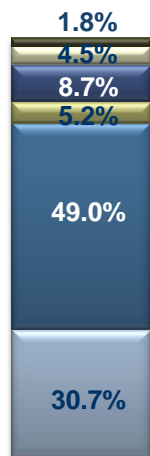
Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Batteries Segment—Revenue Forecast by Exporting Country

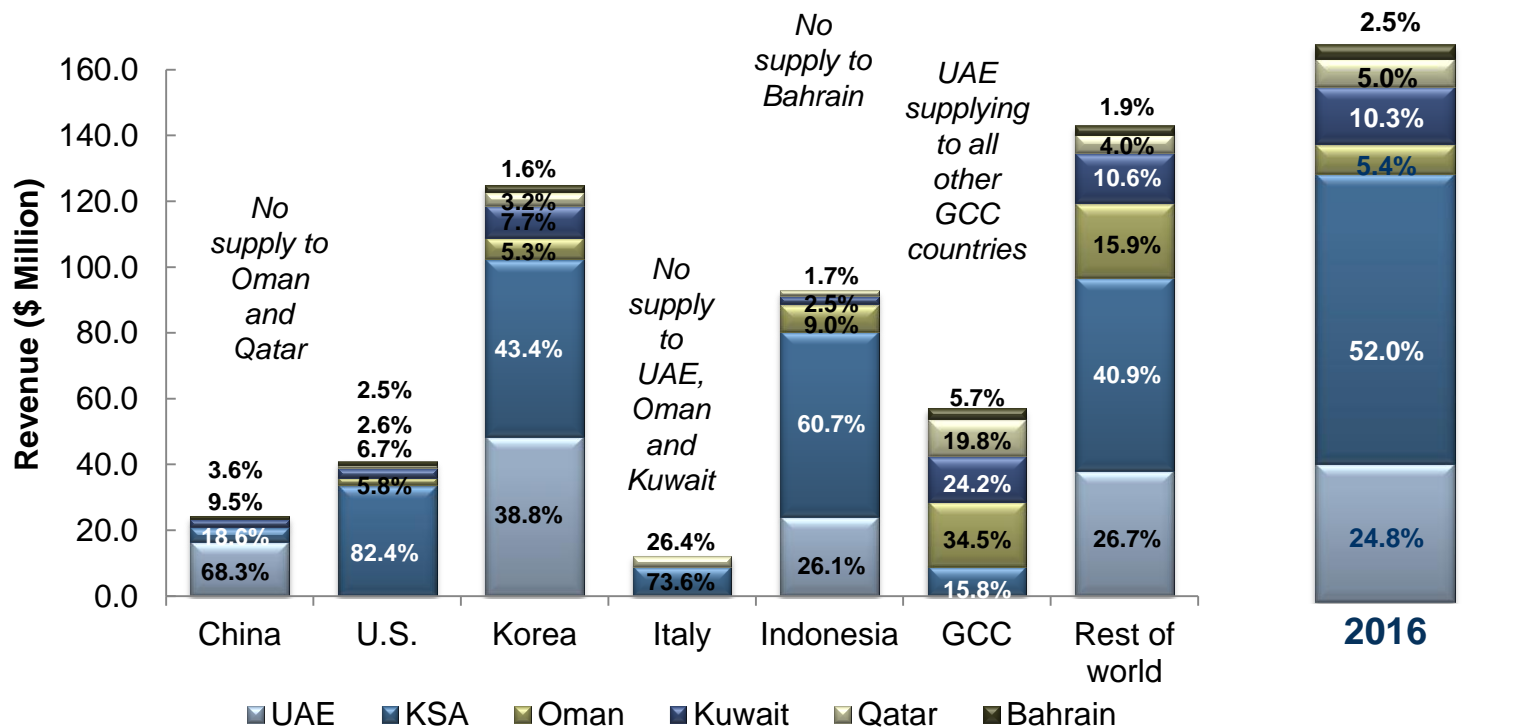
Korea is the largest exporter in the GCC with almost a 21.7 percent share, followed by Indonesia at 11.5 percent.

Batteries Segment: Revenue Forecast by Exporting Country, GCC, 2011 and 2016

Revenue:
\$629.4 million



2011



2016

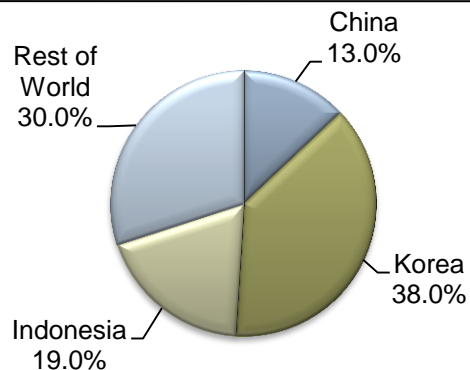
Note: Graph in center represents data for 2011
Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Batteries Segment—Percent of Revenue by Exporting Country

Share of exporting country within UAE, KSA, Oman, Kuwait, Qatar, and Bahrain.

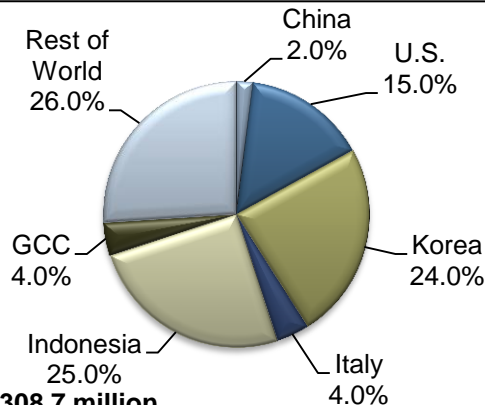
Batteries Segment: Country-wise Percent of Revenue by Exporting Country, GCC, 2011

UAE



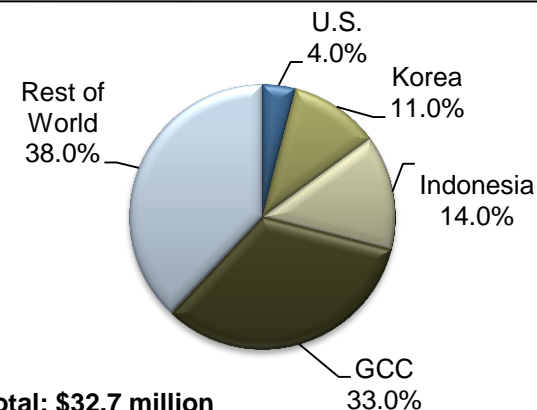
Total: \$193.2 million

KSA



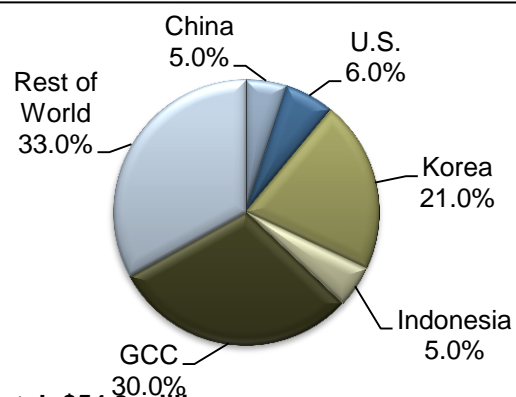
Total: \$308.7 million

Oman



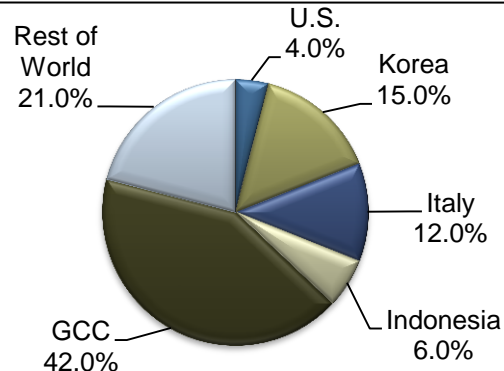
Total: \$32.7 million

Kuwait



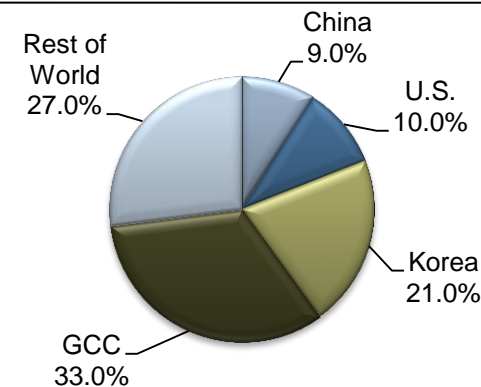
Total: \$54.8 million

Qatar



Total: \$28.5 million

Bahrain



Total: \$11.5 million

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Batteries Segment—Revenue Forecast by Country

KSA is the largest market, followed by UAE and Oman.

Batteries Segment: Revenue Forecast by Country, GCC, 2011–2016

Year	UAE (\$ Million)	KSA (\$ Million)	Oman (\$ Million)	Kuwait (\$ Million)	Qatar (\$ Million)	Bahrain (\$ Million)
2011	193.2	308.7	32.7	54.8	28.5	11.5
2012	206.5	354.4	38.6	66.9	33.8	14.8
2013	226.0	413.4	44.1	77.4	40.0	18.3
2014	250.7	489.9	51.5	93.4	47.4	22.1
2015	274.7	571.8	59.7	112.0	55.2	27.2
2016	290.2	607.4	62.7	120.7	58.1	29.0

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Batteries Segment—Revenue Forecast Discussion

UAE acts as a large re-export market for batteries in the GCC, mainly exporting to Oman, Kuwait, Qatar, and Bahrain.

- The batteries market is likely to witness healthy growth of CAGR 13.2 percent over next five years to reach \$1,168.0 million (2016).
- KSA is likely to dominate the overall consumption pie, whereas UAE would maintain in second position among the GCC countries followed by Oman and Kuwait.
- Korea dominates the overall supply of batteries in the GCC, followed by Indonesia.
 - Korea dominates the batteries supply in UAE followed by Indonesia. We expect China to take the number two position in the next five to seven years to overtake Indonesia. Presently, China holds key share
 - Korea will maintain its leadership position in KSA as well
 - Other GCC countries largely imports batteries from UAE

Source: Frost & Sullivan analysis.

Batteries Segment—Conclusions

- The overall batteries market estimated at \$0.60 billion in 2011 which is likely to double to reach at \$1.20 billion by 2016.
- The KSA and UAE would remain largest markets in the GCC, expected to dominate more than 75.0 percent share by 2016 (the KSA likely to reach at \$0.60 billion and UAE at \$0.30 billion by 2016).
- UAE acts as a large re-export market for batteries in the GCC, mainly exporting to Oman, Kuwait, Qatar, and Bahrain.
- Imports from Korea and Indonesia to dominate the GCC batteries market, however China Brands are also increasing their dominance in the region.
- Today, Korea is the largest exporter in the GCC with almost a 21.7 percent share, followed by Indonesia at 11.5 percent.

Source: Frost & Sullivan analysis.

Lubricants Segment Breakdown

Lubricants Segment Breakdown

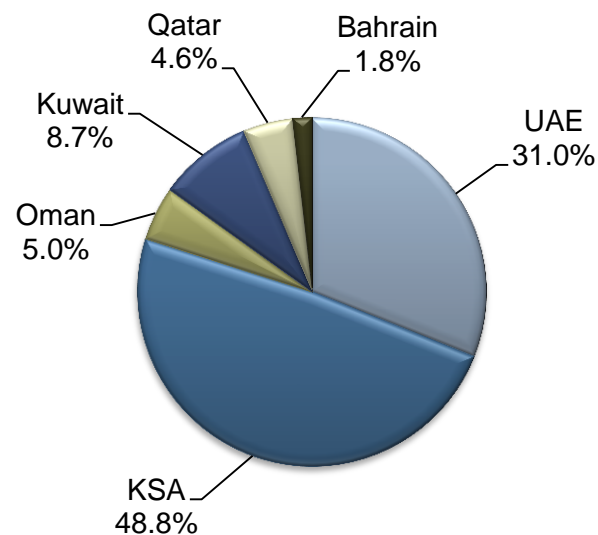
Growing market having high dependency on imports and presence of 15+ participants.

Important Segment Characteristics

Factors	Assessment	Trend
Market Age	Growth	—
Current Opportunity Size (\$ M)—2011	718.9	▲
Future Opportunity Size (\$ M)—2016	1,331.6	▲
Compound Annual Growth Rate	13.1%	—
Dependency on Imports	High	●
Number of Competitors	More than 15	▲
Degree of competition*	5	▲

TREND	Decreasing ▼	Stable ●	Increasing ▲
-------	-----------------	-------------	-----------------

Lubricants Segment, Percent Sales Breakdown by Countries, GCC, 2011



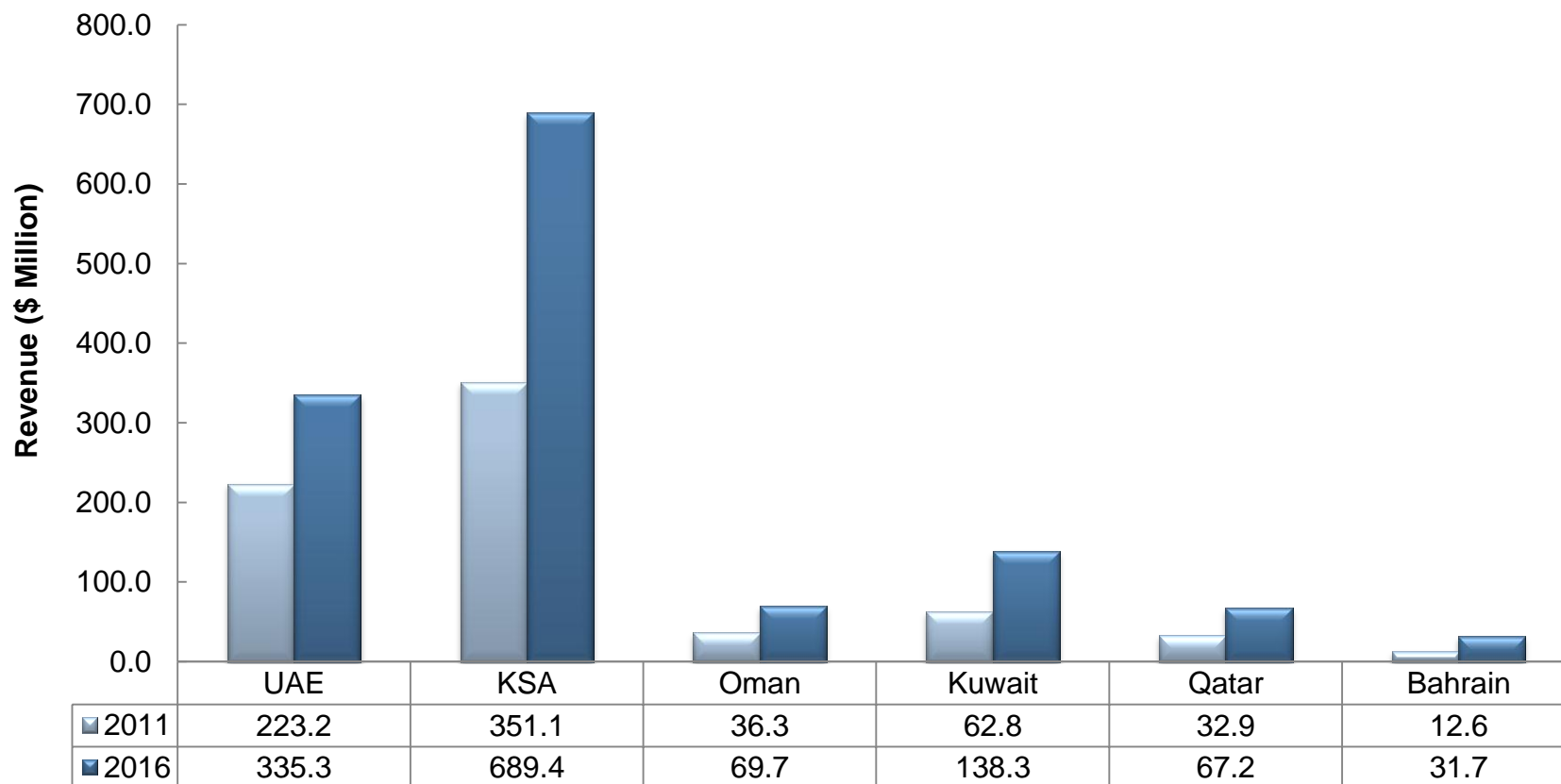
*on scale of 1 to 10 where 1 indicates low level of competition among existing participants and 10 indicates highest

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Lubricants Segment—Revenue Forecast by Country

The market likely to reach at \$1,331.6 million by 2016 from a current level of \$718.9 million (2011).

Lubricants Segment: Revenue Forecast by Country, GCC, 2011 and 2016

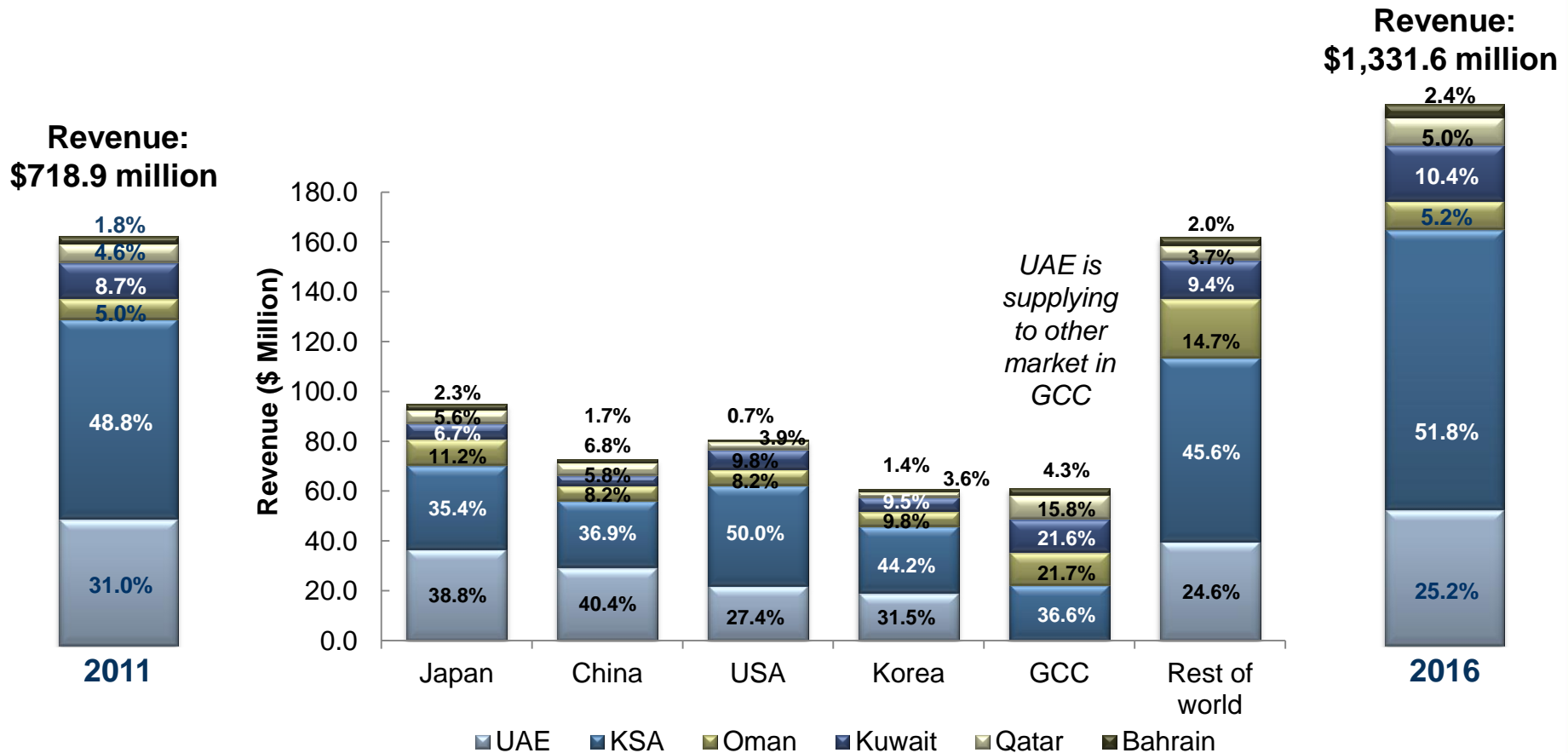


Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Lubricants Segment—Revenue Forecast by Exporting Country

Japan is the largest exporter with 17.5% share followed by U.S. at 12.8% and China at 12.2%.

Lubricants Segment: Revenue Forecast by Exporting Country, GCC, 2011 and 2016



Note: Graph in center represents data for 2011

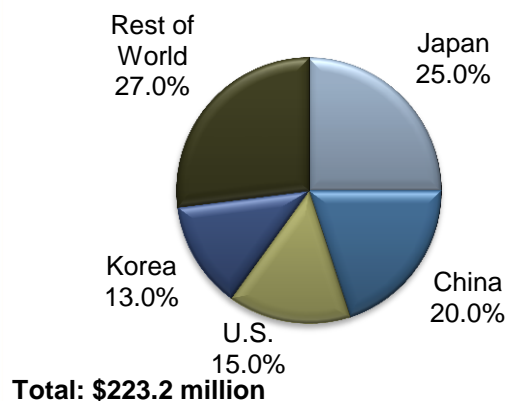
Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Lubricants Segment—Percent of Revenue by Exporting Country

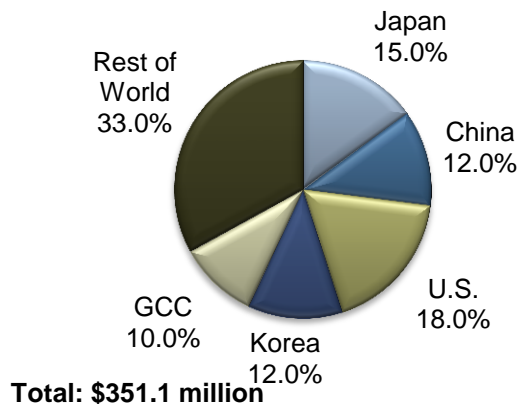
Share of exporting country within UAE, KSA, Oman, Kuwait, Qatar, and Bahrain.

Lubricants Segment: Country-wise Percent of Revenue by Exporting Country, GCC, 2011

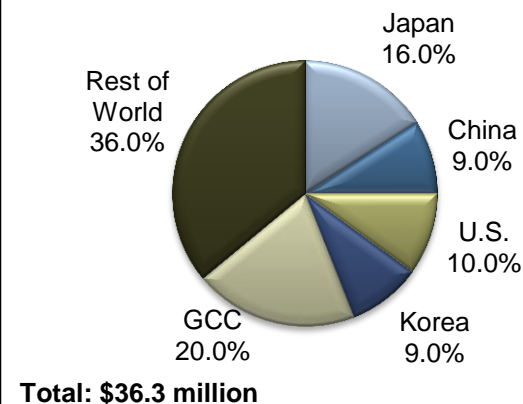
UAE



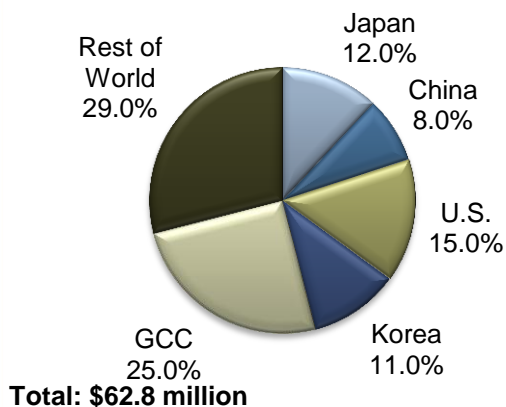
KSA



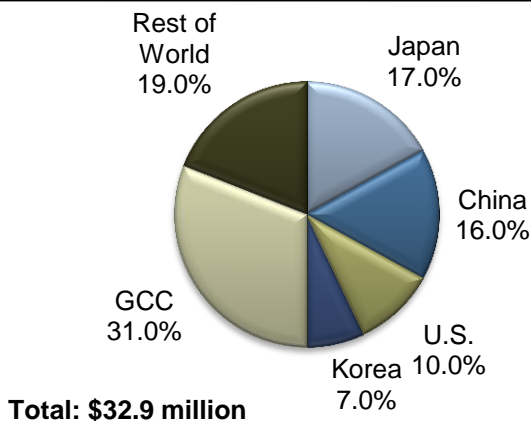
Oman



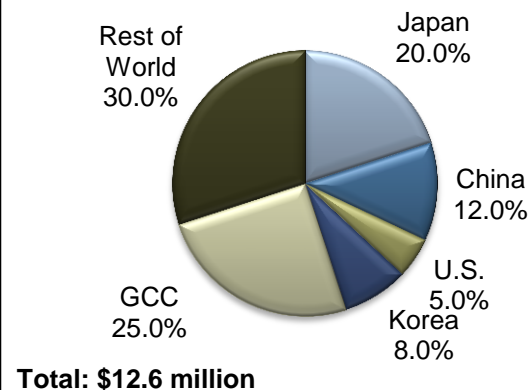
Kuwait



Qatar



Bahrain



Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Lubricants Segment—Revenue Forecast by Country

UAE & KSA to witness fastest growth over next five years.

Lubricants Segment: Revenue Forecast by Country, GCC, 2011–2016

Year	UAE (\$ Million)	KSA (\$ Million)	Oman (\$ Million)	Kuwait (\$ Million)	Qatar (\$ Million)	Bahrain (\$ Million)
2011	223.2	351.1	36.3	62.8	32.9	12.6
2012	238.6	402.8	42.9	76.7	39.1	16.2
2013	261.2	469.6	49.0	88.7	46.2	20.1
2014	289.7	556.2	57.2	107.0	54.7	24.1
2015	317.5	649.0	66.4	128.3	63.8	29.7
2016	335.3	689.4	69.7	138.3	67.2	31.7

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Lubricants Segment—Revenue Forecast Discussion

Japan dominates the lubricants supply in the UAE, followed by China.

- The lubricants market is likely to witness healthy CAGR growth of 13.1 percent over next five years to reach \$1,331.6 million (2016).
- KSA is likely to dominate overall consumption, whereas UAE would maintain in second position among the GCC countries followed by Oman and Kuwait.
- Japan dominates the overall supply of lubricants in the GCC followed by the U.S. and China.
- Japan dominates the lubricants supply in the UAE (25.0 percent), followed by China (20.0 percent).

Source: Frost & Sullivan analysis.

Lubricants Segment—Conclusions

- The overall lubricants market estimated at \$0.70 billion in 2011 which is likely to double to reach at \$1.30 billion by 2016.
- The KSA and UAE would remain largest markets in the GCC, expected to dominate more than 78.0 percent share by 2016 (the KSA likely to reach at \$0.70 billion and UAE at \$0.30 billion by 2016).
- UAE acts as a large re-export market for batteries in the GCC, mainly exporting to Oman, Kuwait, Qatar, and Bahrain.
- The GCC is the largest supplier of base oil globally, the region likely to attract more investment in the sector in near future with companies like British Petroleum and Shell are aggressively looking forward to expand their market share.

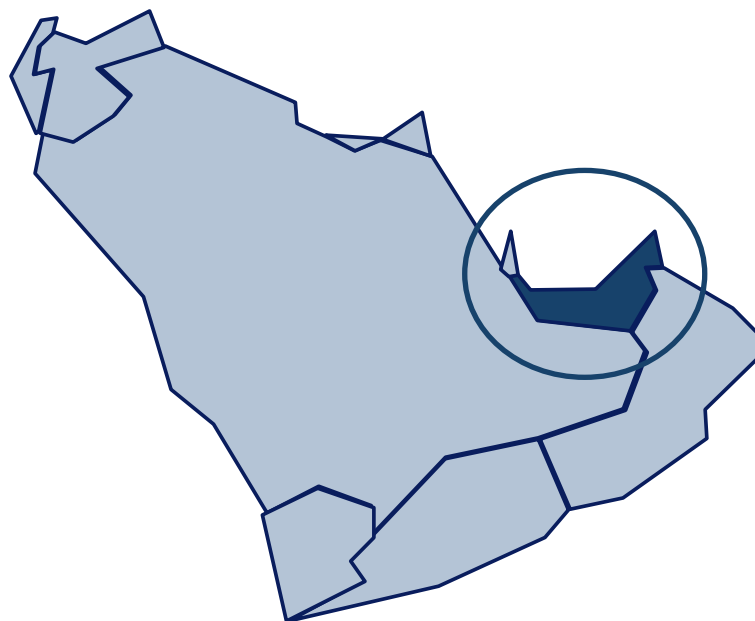
Source: Frost & Sullivan analysis.

United Arab Emirates (UAE)—Country Breakdown

UAE—Country Snapshot

As the UAE is a federal country, most of the key global brands opened regional head offices in UAE to manage the GCC.

Country Name	UAE
Government Type	Federation
Capital	Abu Dhabi
Population (2011)	5.1 million
Growth Rate	3.3%
Labor Force	3.9 million
Unemployment Rate	2.4%
GDP (purchasing power parity)	\$246.80 billion
GDP Real Growth Rate)	3.2%
GDP per capita (PPP)	\$49,600
GDP Composition by Sector	Agriculture: 0.9% Industry: 53.0% Services: 46.1%
Inflation Rate	0.9%
Exports	\$198.00 billion f.o.b.
Imports	\$159.00 billion c.i.f.



Source: Frost & Sullivan analysis.

UAE Breakdown

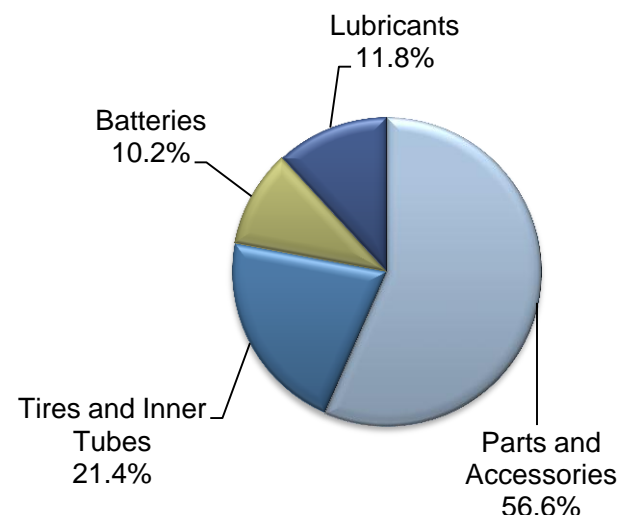
Most of the large suppliers have set up their GCC headquarters in UAE (Dubai).

Important Segment Characteristics

Factors	Assessment	Trend
Market Age	Growth	—
Current Opportunity Size (\$ B)—2011	1.89	▲
Future Opportunity Size (\$ B)—2016	2.84	▲
Compound Annual Growth Rate	8.5%	—
Dependency on Imports	High	●
Number of Competitors	80+	▲
Degree of competition*	7	▲

	Decreasing	Stable	Increasing
TREND	▼	●	▲

Auto Components Industry: Percent Sales Breakdown by Type, UAE, 2011

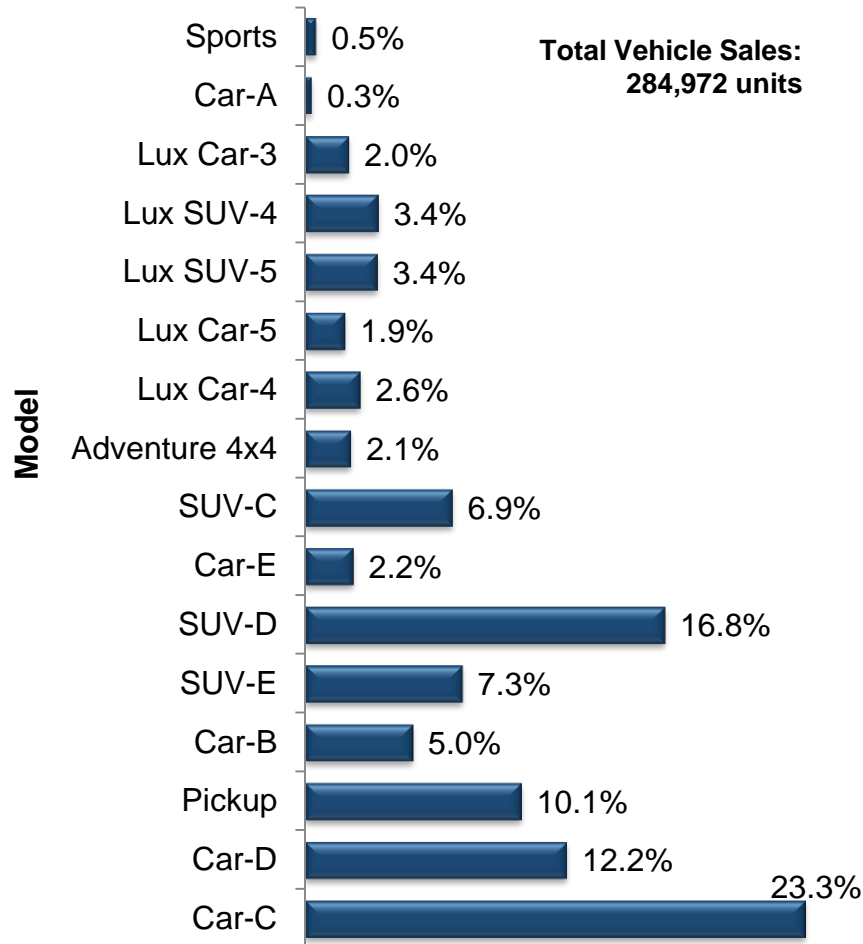


*On scale of 1 to 10 where 1 indicates low level of competition among existing participants and 10 indicates the highest.
Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

UAE—Passenger Vehicle Sales by Model

UAE passenger vehicle sales were estimated at 284,972 units in 2011; cars were the largest contributor followed by SUVs.

Auto Components Industry: Percent of Vehicle Sales by Model, UAE, 2011



- There is no manufacturing of Passenger Vehicles in UAE.
- The UAE automotive market has posted a growth of 12.0 percent to reach at \$12.40 billion in 2011 from \$11.10 billion in 2010.
- The UAE trade in small passenger and luxury cars grew by 18.1 percent in 2011.
- The value of imports of small passenger and luxury cars also grew by 32.4 percent in 2011. Almost 96.0 percent of these imports came from 10 countries led by Japan which accounted for 46.0 percent of the total value.
- The market is predicted to grow by around 6.0 to 8.0 percent annually till 2016. where as total re-exports are expected to increase at a CAGR of around 5.0 percent in the same period.

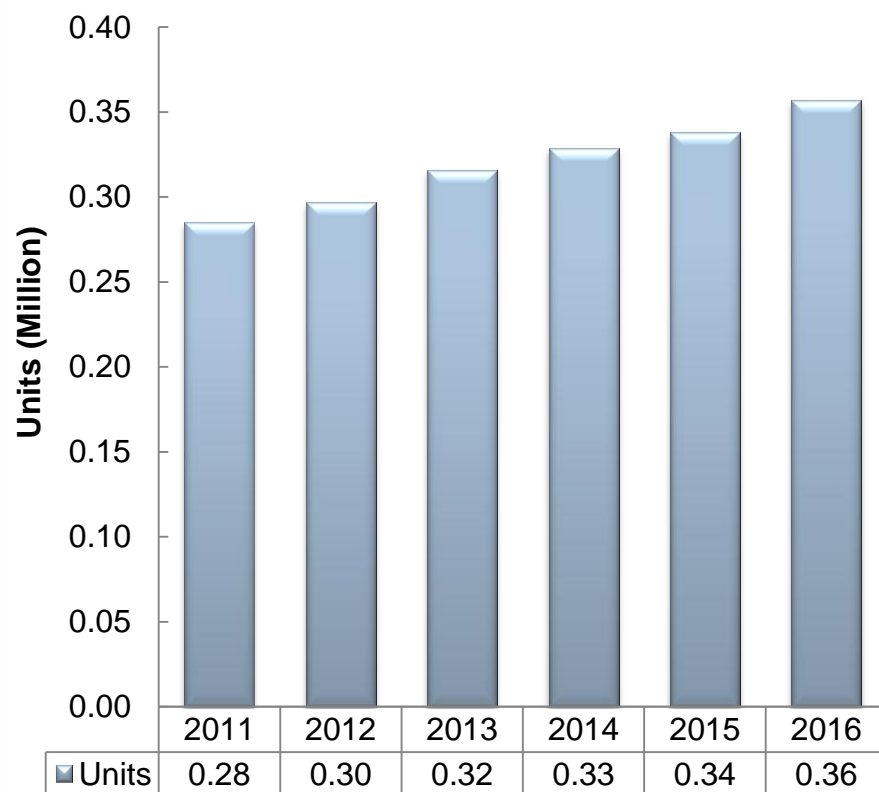
Note: All numbers are for domestic market, excluding re-exports. Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

UAE—Vehicle Sales and Parc Forecast

Vehicle sales are likely to reach at 357,006 units by 2016, whereas the parc is expected to reach 3.45 million units.

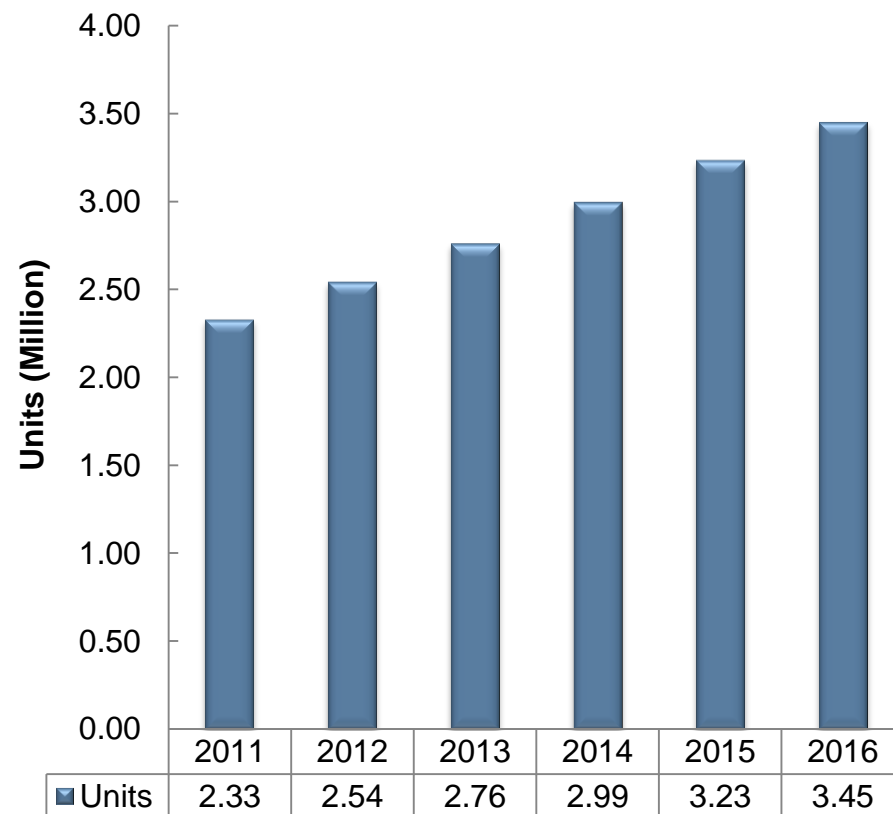
**Auto Components Industry: Vehicle
Sales Forecast, UAE, 2011–2016**

CAGR: 4.6%



**Auto Components Industry: Vehicle
Parc Forecast, UAE, 2011–2016**

CAGR: 8.2%

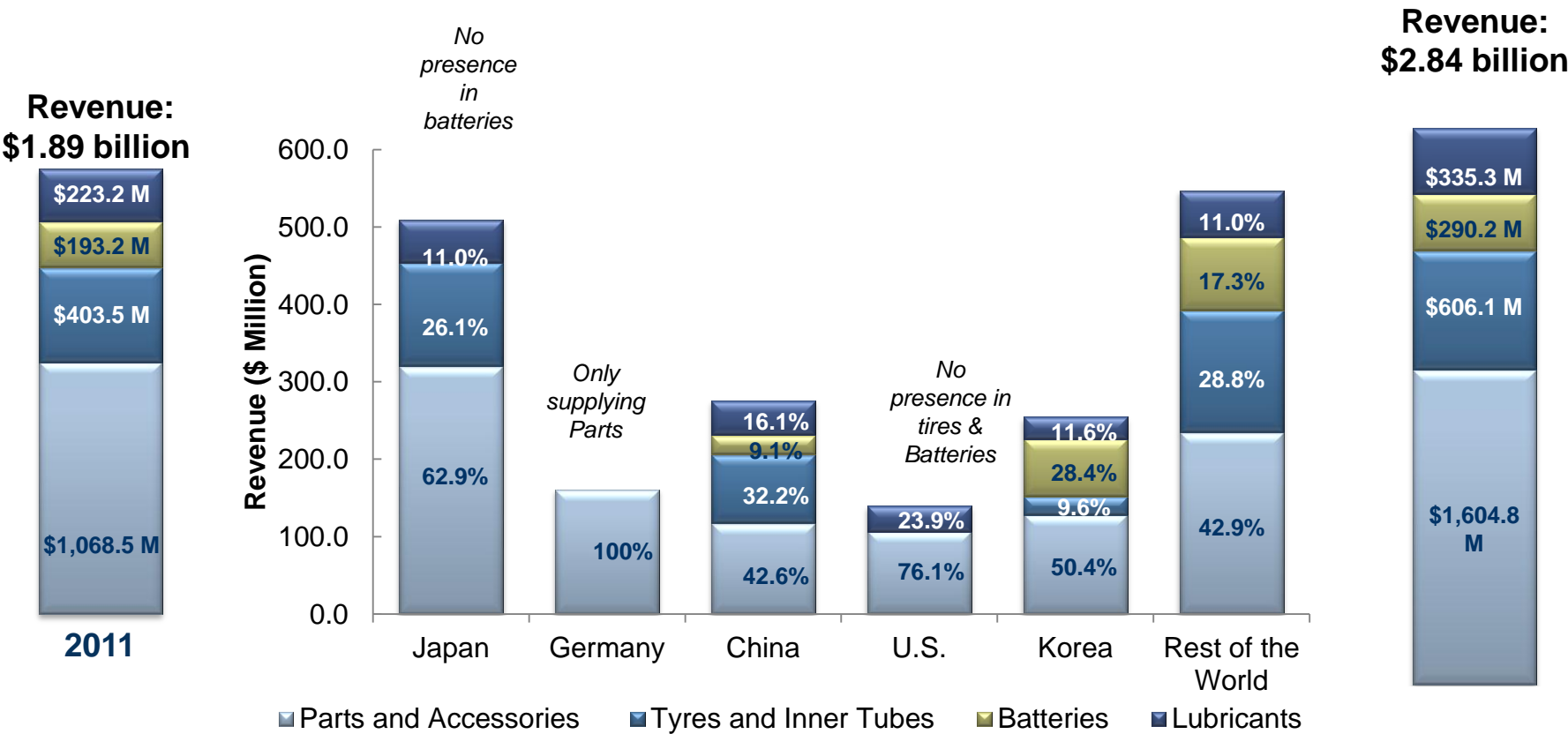


Note: All numbers are for domestic market, excluding re-exports. Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

UAE—Revenue Forecast

UAE auto components industry likely to reach \$2.84 billion by 2016.

Auto Components Industry: Revenue Forecast by Exporting Country, UAE, 2011 and 2016



Note: Graph in center represents data for 2011

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

UAE—Revenue Forecast (continued)

Highest growth expected in Parts and Accessories segment followed by tires.

Auto Components Industry: Revenue Forecast by Type, UAE, 2011–2016

Year	Parts and Accessories (\$ Million)	Tires and Inner Tubes (\$ Million)	Batteries (\$ Million)	Lubricants (\$ Million)
2011	1,068.5	403.5	193.2	223.2
2012	1,142.2	431.4	206.5	238.6
2013	1,250.1	472.1	226.0	261.2
2014	1,386.8	523.8	250.7	289.7
2015	1,519.5	573.9	274.7	317.5
2016	1,604.8	606.1	290.2	335.3

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

UAE—Revenue Forecast (continued)

Highest growth expected in Parts and Accessories segment followed by tires.

- Market revenue estimated at \$1.89 billion in 2011, which is likely to reach at \$2.84 billion by 2016, expected growth of 8.5 percent CAGR.
- Parts & Accessories led the overall auto components industry followed by Tires & Inner Tubes – these two segment likely to witness highest growth.
 - Presently, these segments dominates nearly 78.0 percent market
- Imports from Japan and China likely to dominate the UAE's auto components industry over next 5 years.

Source: Frost & Sullivan analysis.

UAE—Conclusion

- Due to large vehicle parc and high growth rates, UAE is slowly but steadily developing as key business hub of auto companies.
- The UAE is the second largest auto components industry in the GCC with more than 50.0 percent share.
- Across all product segments the KSA led the demand and consumption.
 - Parts & Accessories – 27.0 percent market share
 - Tires & Inner Tubes – 30.0 percent market share
 - Batteries – 30.7 percent market share
 - Lubricants – 31.0 percent market share
- The increase in vehicle sale and parc would support the growth of auto components over next 5 years – vehicle parc likely to witness growth of 8.2 percent CAGR.

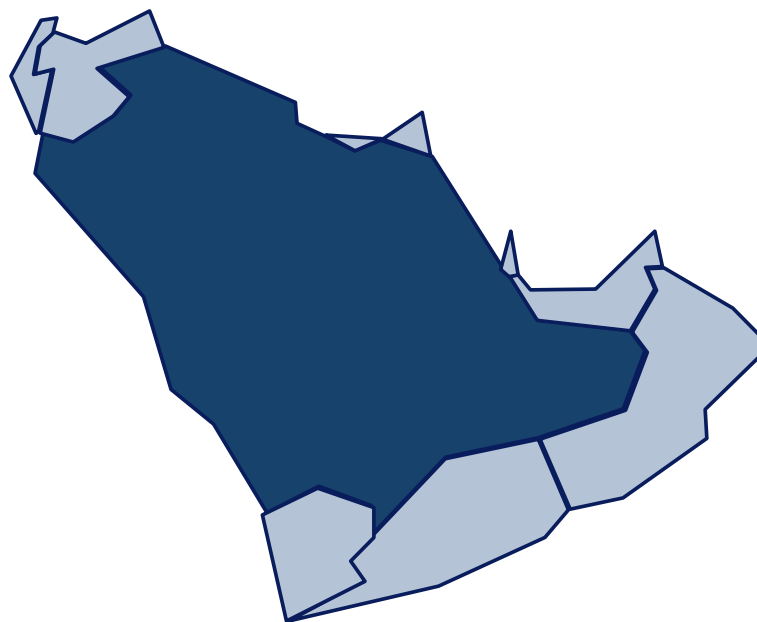
Source: Frost & Sullivan analysis.

Kingdom of Saudi Arabia—Country Breakdown

KSA—Country Snapshot

A country governed by a monarchy system, with the capital, Riyadh, and Dammam developing as modern cities and slowly becoming two of the best places for doing business in KSA.

Country Name	KSA
Government Type	Monarchy
Capital	Riyadh
Population (2011)	26.0 million
Growth Rate	1.5%
Labor Force	7.3 million
Unemployment Rate	10.8%
GDP (purchasing power parity)	\$622.00 billion
GDP Real Growth Rate)	3.7%
GDP per capita (PPP)	\$24,200
GDP Composition by Sector	Agriculture: 2.6% Industry: 61.8% Services: 35.6%
Inflation Rate	5.4%
Exports	\$238.00 billion f.o.b.
Imports	\$88.00 billion c.i.f.



Source: Frost & Sullivan analysis.

KSA Breakdown

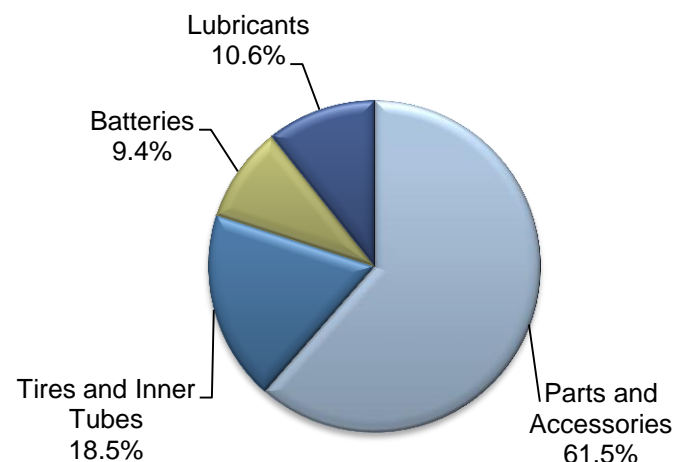
Due to large vehicle parc and high growth rates, KSA is slowly but steadily developing as key business hub of auto companies.

Important Segment Characteristics

Factors	Assessment	Trend
Market Age	Growth	—
Current Opportunity Size (\$ B)—2011	3.30	▲
Future Opportunity Size (\$ B)—2016	6.37	▲
Compound Annual Growth Rate	14.1%	—
Dependency on Imports	High	●
Number of Competitors	More than 60	▲
Degree of competition*	5	▲

TREND	Decreasing ▼	Stable ●	Increasing ▲
-------	-----------------	-------------	-----------------

Auto Components Industry : Percent Sales Breakdown by Type, KSA, 2011

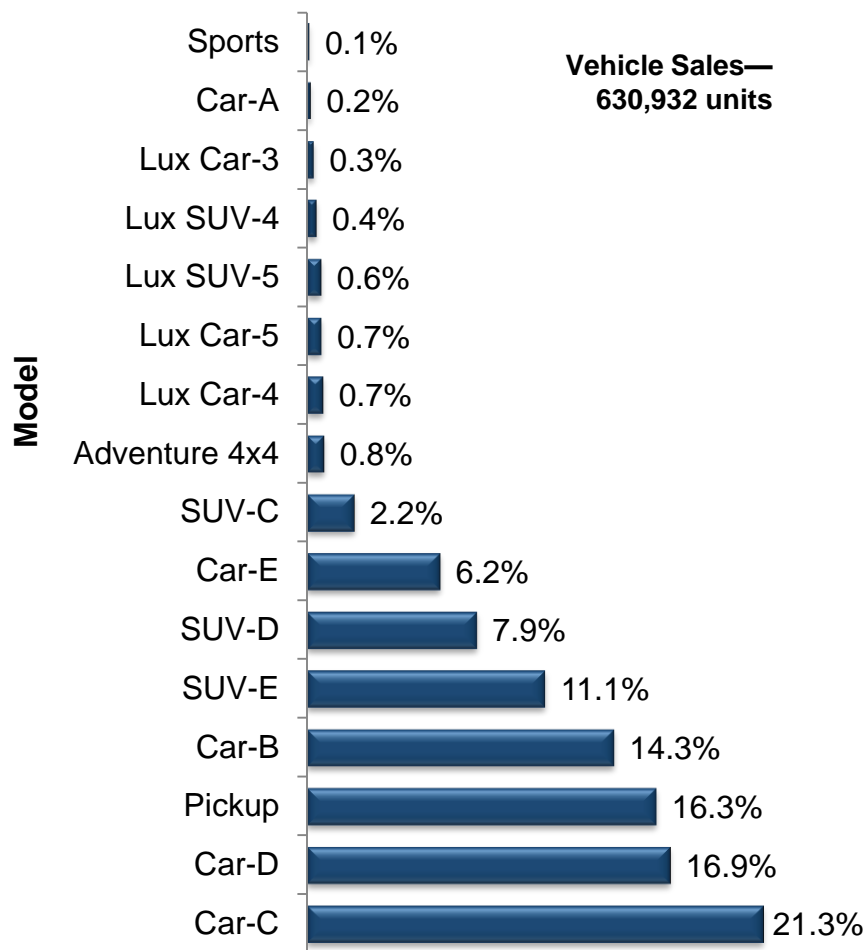


*on scale of 1 to 10 where 1 indicates low level of competition among existing participants and 10 indicates highest
 Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

KSA—Percent of Passenger Vehicle Sales by Model

KSA passenger vehicle sales estimated at 630,932 units in 2011; cars were the largest contributor, followed by pick-ups.

Auto Components Industry: Percent of Passenger Vehicle Sales by Model, KSA, 2011



- There is no manufacturing of passenger vehicles in KSA.
- The passenger vehicles market in KSA is majorly addressed by brands having origin from Japan, South Korea, and U.S.; these countries together account for ~89.0 percent of PV imports to KSA.
- Toyota being the market leader, followed by Hyundai.
- Camry, Corolla, Accent, Optra, Yaris, and Elantra are they key selling models.
- Passenger vehicles market is expected to grow at a CAGR of ~6.0–7.0 percent for five years.
- The high concentration of brands from Japan and the U.S. are expected to witness stiffer competition in the near future as all other Global brands brace to fiercely compete in the market.

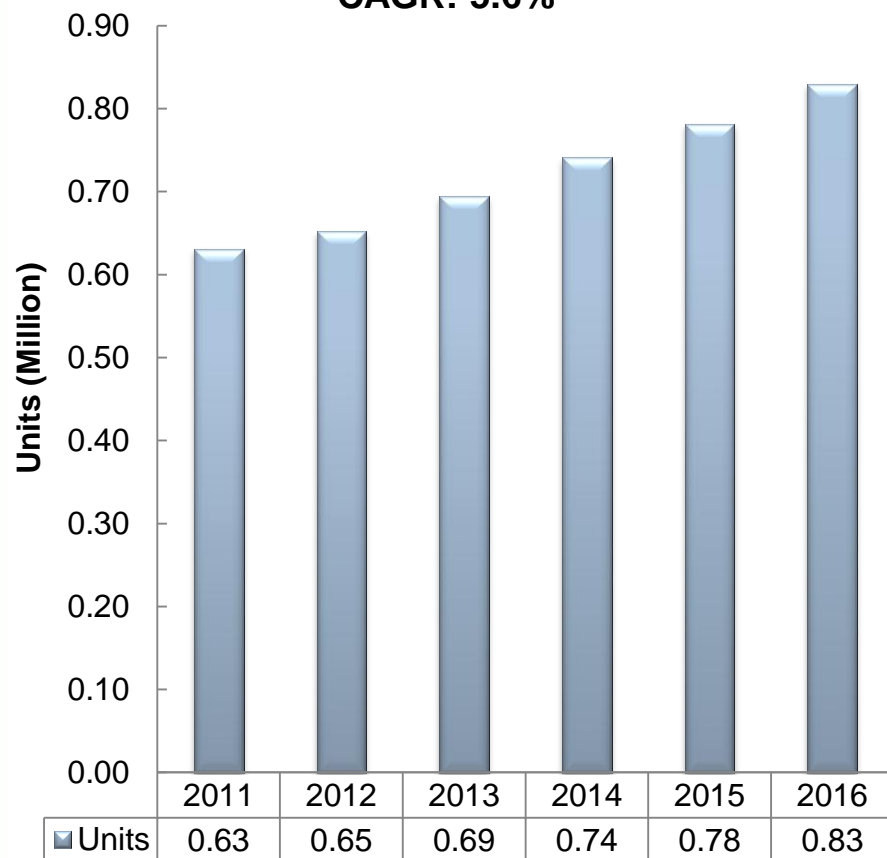
Note: All numbers are for domestic market, excluding re-exports. Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

KSA—Vehicle Sales and Parc Forecast

Vehicle sales are likely to reach 829,988 units by 2016, whereas the parc is expected to reach 8.36 million units.

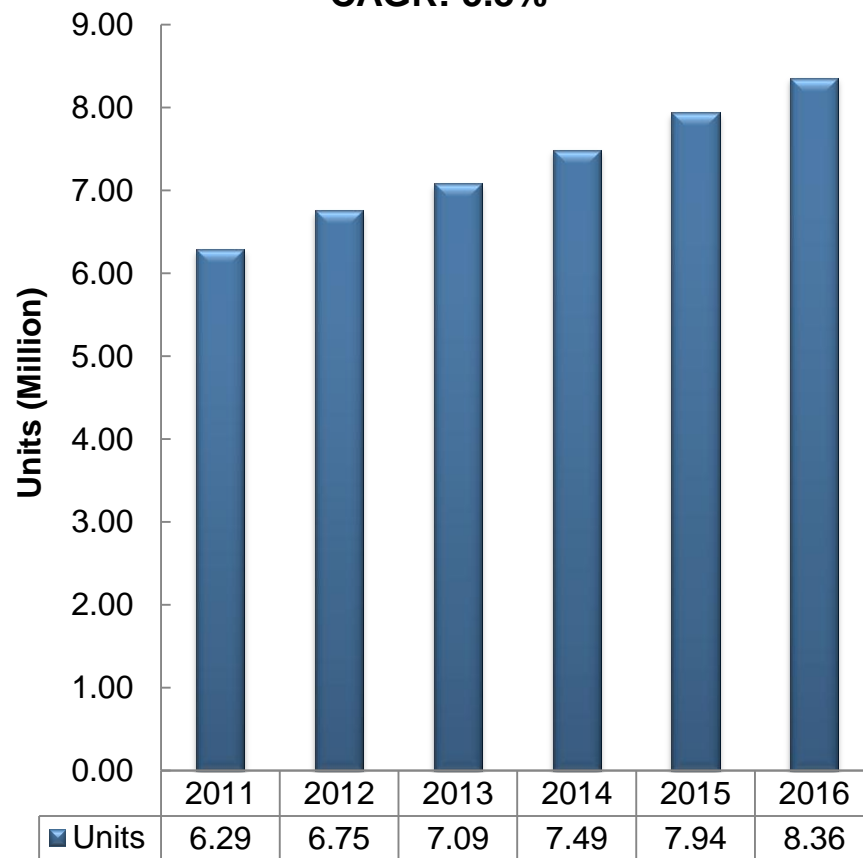
Auto Components Industry: Vehicle Sales Forecast, KSA, 2011–2016

CAGR: 5.6%



Auto Components Industry: Vehicle Parc Forecast, KSA, 2011–2016

CAGR: 5.8%

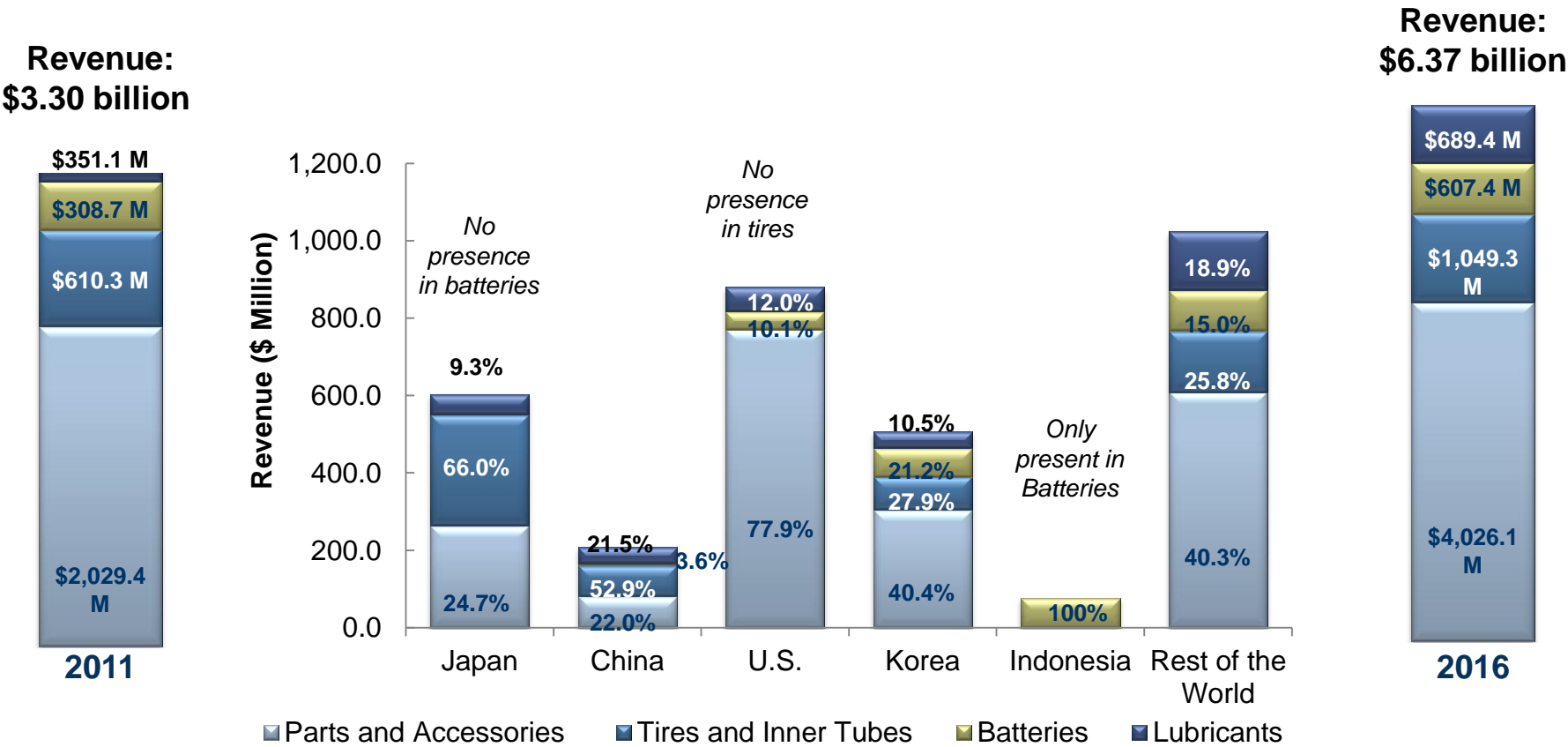


Note: All numbers are for domestic market, excluding re-exports. Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

KSA—Revenue Forecast

KSA auto components industry likely to reach \$6.37 billion by 2016.

Auto Components Industry: Revenue Forecast by Exporting Country, KSA, 2011 and 2016



Note: Graph in center represents data for 2011

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

KSA—Revenue Forecast (continued)

Tires and Inner Tubes likely to witness highest growth.

Auto Components Industry: Revenue Forecast by Type, KSA, 2011–2016

Year	Parts and Accessories (\$ Million)	Tires and Inner Tubes (\$ Million)	Batteries (\$ Million)	Lubricants (\$ Million)
2011	2,029.4	610.3	308.7	351.1
2012	2,338.6	666.7	354.4	402.8
2013	2,735.5	751.5	413.4	469.6
2014	3,243.1	863.7	489.9	556.2
2015	3,790.3	987.9	571.8	649.0
2016	4,026.1	1,049.3	607.4	689.4

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

KSA—Revenue Forecast Discussion

- Market revenue estimated at \$3.30 billion in 2011, which is likely to reach at \$6.37 billion by 2016, expected growth of 14.1 percent CAGR.
- Parts & Accessories led the overall auto components industry followed by Tires & Inner Tubes – these two segment likely to witness highest growth.
 - Presently, these segments dominates nearly 80.0 percent market.
- Imports from U.S. and Japan likely to dominate the KSA's auto components industry over next 5 years.

Source: Frost & Sullivan analysis.

KSA—Conclusion

- Due to large vehicle parc and high growth rates, KSA is slowly but steadily developing as key business hub of auto companies.
- The KSA is the largest auto components industry in the GCC with more than 50.0 percent share.
- Across all product segments the KSA led the demand and consumption.
 - Parts & Accessories – 51.3 percent market share
 - Tires & Inner Tubes – 45.4 percent market share
 - Batteries – 49.0 percent market share
 - Lubricants – 48.8 percent market share
- The increase in vehicle sale and parc would support the growth of auto components over next 5 years – vehicle parc likely to witness growth of 5.8 percent CAGR.

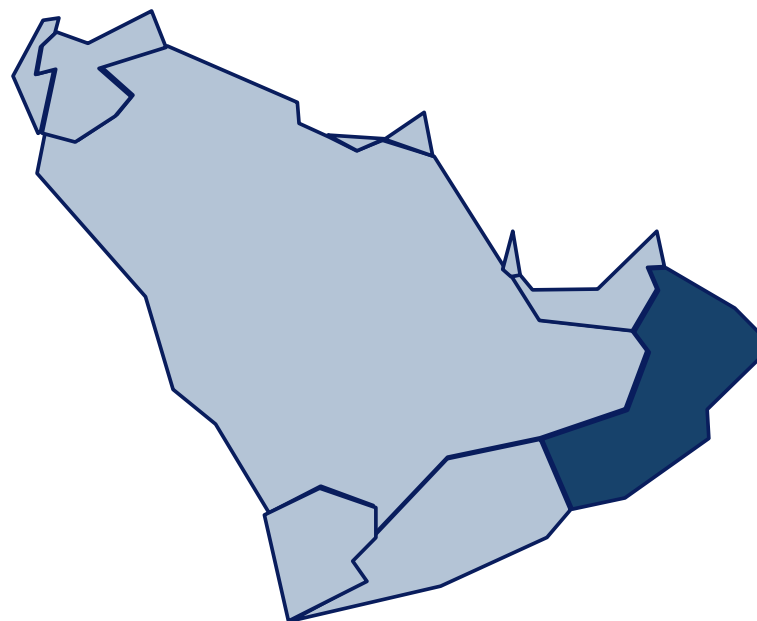
Source: Frost & Sullivan analysis.

Sultanate of Oman—Country Breakdown

Oman—Country Snapshot

High per capita income with maximum GDP contribution coming from industrial activities.

Country Name	Oman
Government Type	Monarchy
Capital	Muscat
Population (2011)	3.02 million
Growth Rate	2.02%
Labor Force	0.97 million
Unemployment Rate	15%
GDP (purchasing power parity)	\$75.80 billion
GDP Real Growth Rate)	4.2%
GDP per capita (PPP)	\$25,600
GDP Composition by Sector	Agriculture: 1.5% Industry: 51.0% Services: 47.5%
Inflation Rate	3.2%
Exports	\$35.00 billion f.o.b.
Imports	\$19.00 billion c.i.f.



Source: Frost & Sullivan analysis.

Oman Breakdown

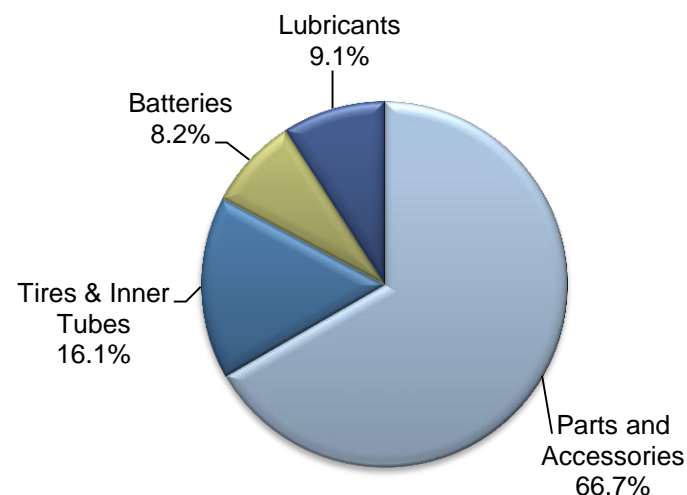
Oman is the fourth largest market in the GCC, contributing nearly 6.0 percent in overall auto components demand in the GCC.

Important Segment Characteristics

Factors	Assessment	Trend
Market Age	Growth	—
Current Opportunity Size (\$ M)—2011	400.7	▲
Future Opportunity Size (\$ M)—2016	768.9	▲
Compound Annual Growth Rate	13.9%	—
Dependency on Imports	High	●
Number of Competitors	20+	▲
Degree of competition*	5	▲

TREND	Decreasing ▼	Stable ●	Increasing ▲
-------	--------------	----------	--------------

Auto Components Industry: Percent Sales Breakdown by Type, Oman, 2011



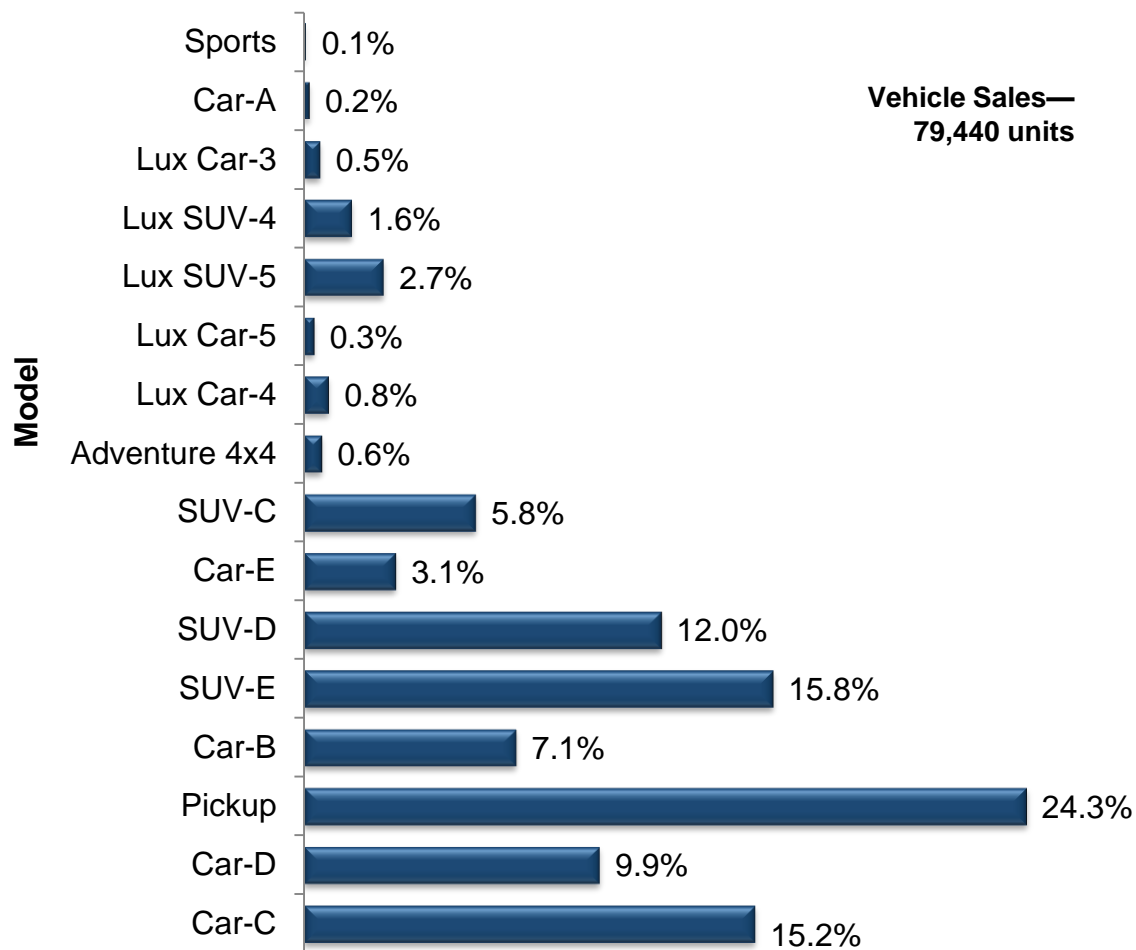
*on scale of 1 to 10 where 1 indicates low level of competition among existing participants and 10 indicates highest

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Oman—Percent of Passenger Vehicle Sales by Model

Oman passenger vehicle sales estimated at 79,440 units in 2011; pickups were the major contributor followed by E-Class SUVs and C-type cars.

Auto Components Industry: Percent of Passenger Vehicle Sales by Model, Oman, 2011



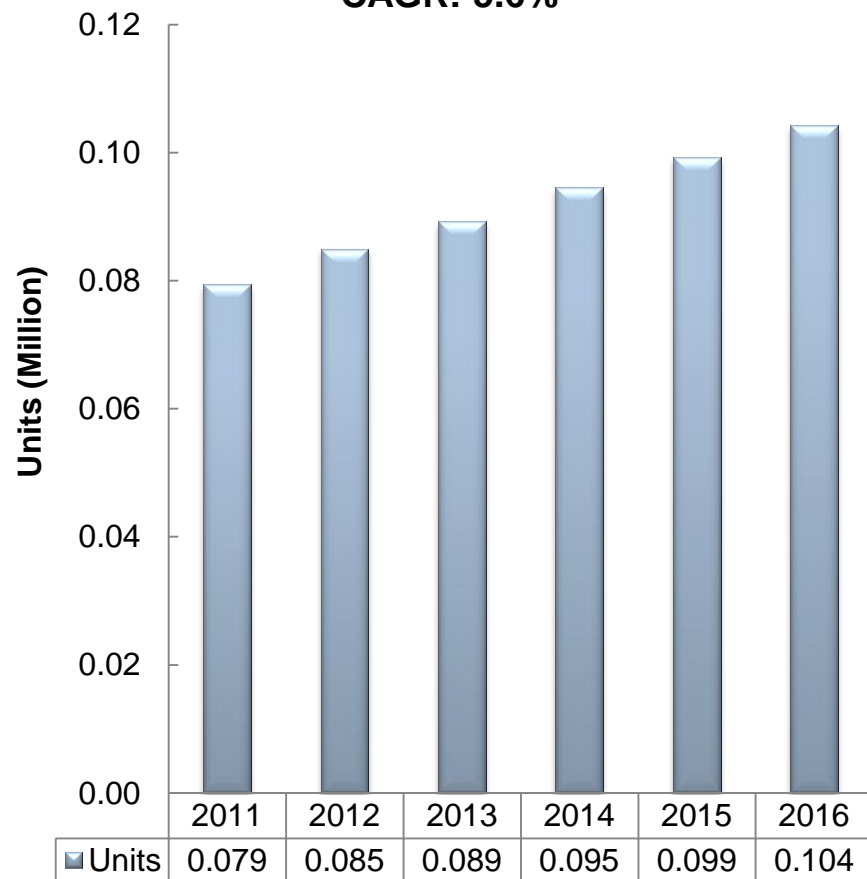
Note: All numbers are for domestic market, excluding re-exports. Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Oman—Vehicle Sales and Parc Forecast

Vehicle sales are likely to reach 104,266 units by 2016, whereas the parc is expected to reach 0.91 million units.

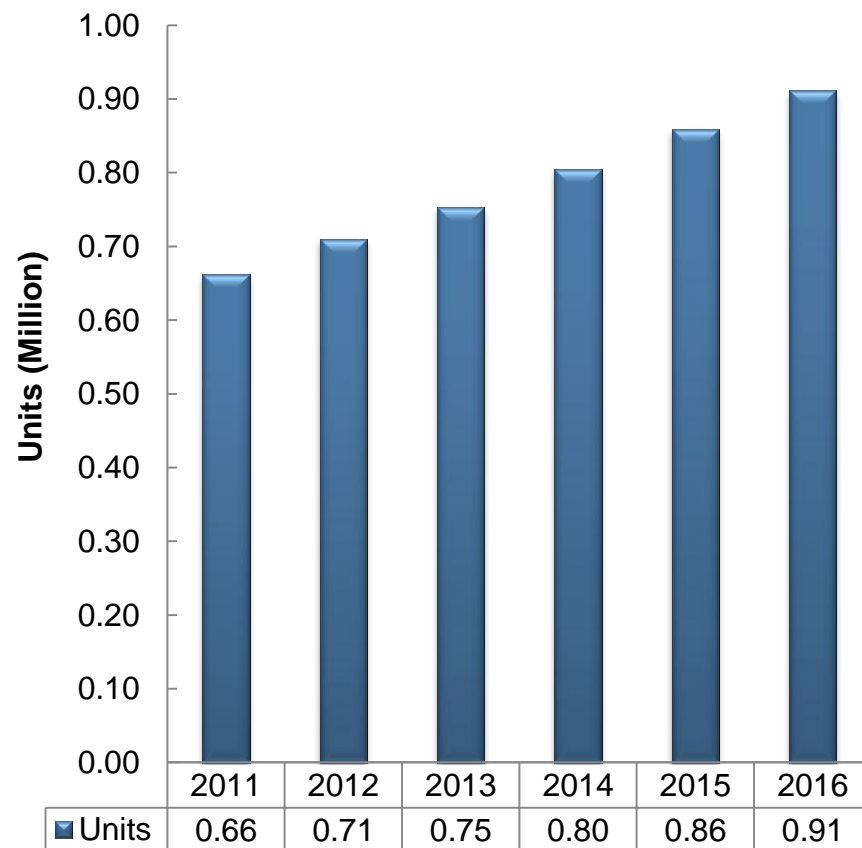
**Auto Components Industry: Vehicle
Sales Forecast, Oman, 2011–2016**

CAGR: 5.6%



**Auto Components Industry: Vehicle
Parc Forecast, Oman, 2011–2016**

CAGR: 6.6%

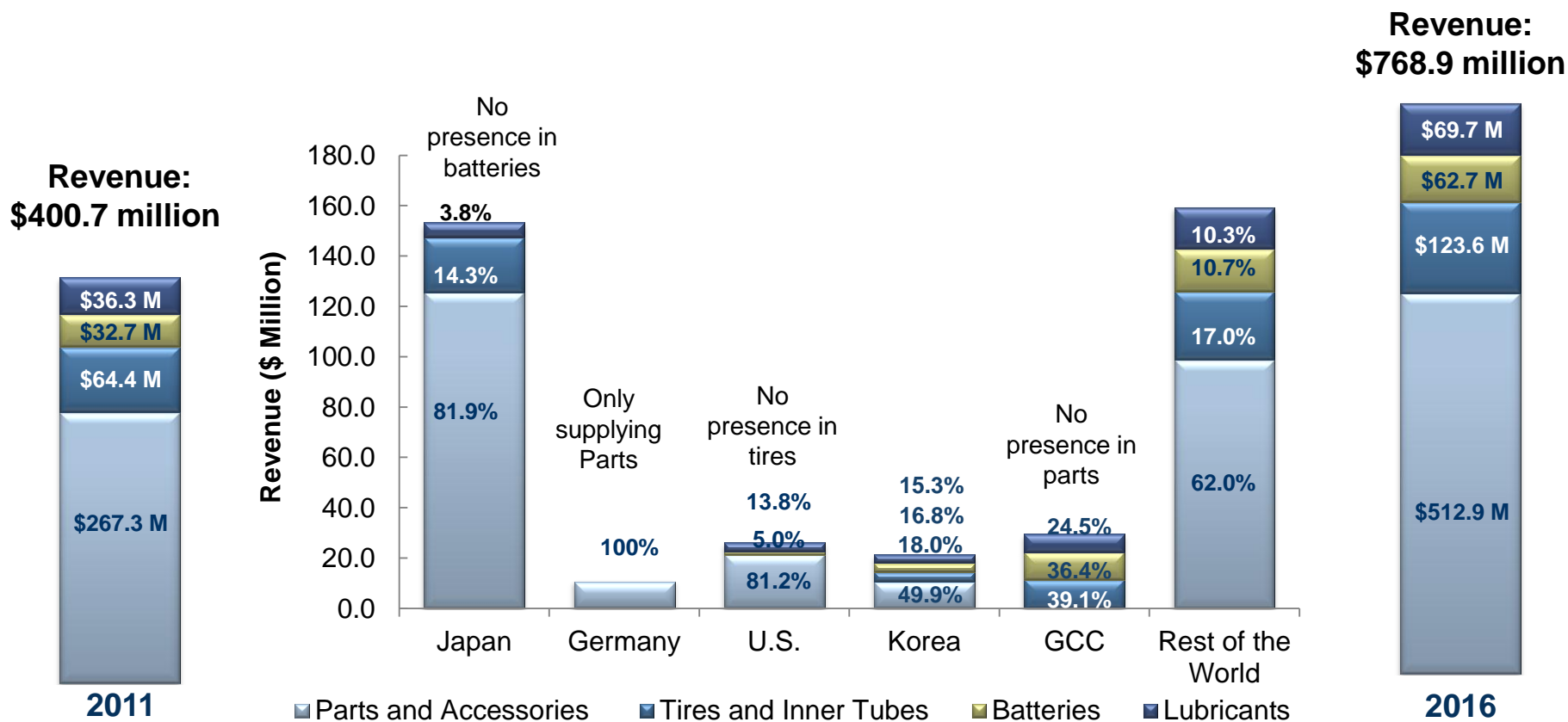


Note: All numbers are for domestic market, excluding re-exports. Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Oman—Revenue Forecast

Auto components industry to reach \$768.9 million by 2016; currently estimated at \$400.7 million (2011).

Auto Components Industry: Revenue Forecast by Exporting Country, Oman, 2011 and 2016



Note: Graph in center represents data for 2011
Number are round off

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Oman—Revenue Forecast (continued)

Overall market to growth at CAGR of 13.9 percent over 2011-2016.

Auto Components Industry: Revenue Forecast by Type, Oman, 2011–2016

Year	Parts and Accessories (\$ Million)	Tires and Inner Tubes (\$ Million)	Batteries (\$ Million)	Lubricants (\$ Million)
2011	267.3	64.4	32.7	36.3
2012	315.7	76.1	38.6	42.9
2013	360.5	86.9	44.1	49.0
2014	421.2	101.5	51.5	57.2
2015	488.5	117.7	59.7	66.4
2016	512.9	123.6	62.7	69.7

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Oman—Revenue Forecast Discussion

- Market revenue estimated at \$400.7 million in 2011, which is likely to reach at \$768.9 million by 2016, expected growth of 13.9 percent CAGR.
- Parts & Accessories led the overall auto components industry followed by Tires & Inner Tubes – these two segment likely to witness highest growth.
 - Presently, these segments dominates nearly 87 percent market.
- Imports from Japan likely to dominate the Oman's auto components industry over next 5 years.

Source: Frost & Sullivan analysis.

Oman—Conclusion

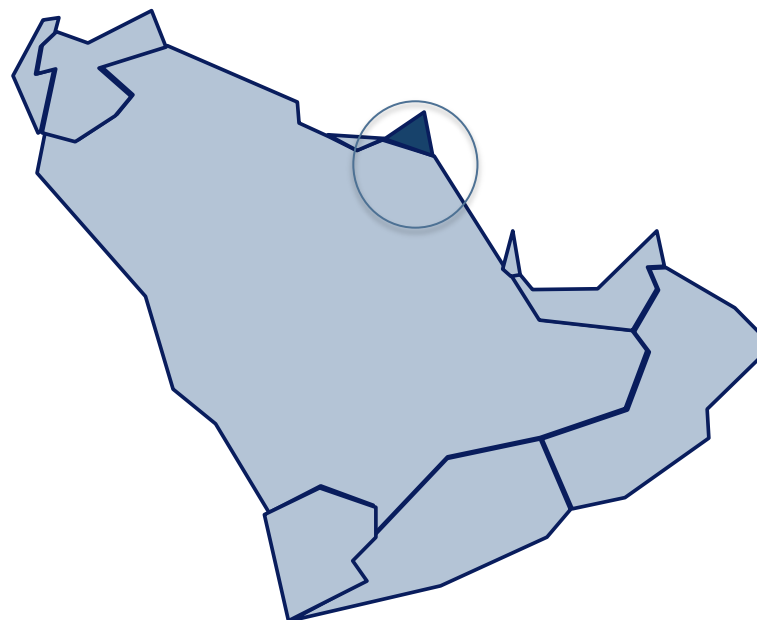
- Oman is the 63rd largest economy in the world (2011), likely to grow at 3.6 percent CAGR over next 5 years.
- Oman is the fourth largest auto components industry in the GCC - contributing nearly 6.0 percent in overall auto components demand.
- The increase in vehicle sale and parc would support the growth of auto components over next 5 years – vehicle parc likely to witness growth of 6.6 percent CAGR, enabling 13.9 percent growth in auto component demand.

Source: Frost & Sullivan analysis.

State of Kuwait—Country Details

Kuwait—Country Snapshot

Country Name	Kuwait
Government Type	Constitutional Emirate
Capital	Kuwait City
Population (2011)	2.6 million
Growth Rate	1.99%
Labor Force	2.1 million
Unemployment Rate	2.2%
GDP (purchasing power parity)	\$136.50 billion
GDP Real Growth Rate)	2.0%
GDP per capita (PPP)	\$48,900
GDP Composition by Sector	Agriculture: 0.3% Industry: 48.0% Services: 51.7%
Inflation Rate	4.0%
Exports	\$66.00 billion f.o.b
Imports	\$19.00 billion c.i.f.



Source: Frost & Sullivan analysis.

Kuwait Breakdown

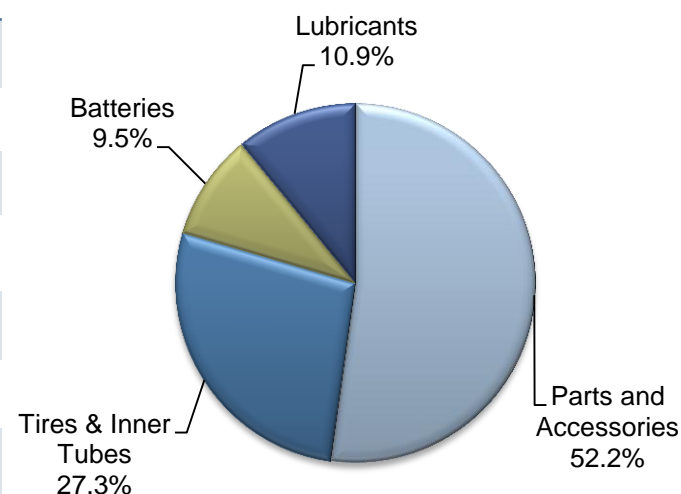
Kuwait is likely to witness high growth rate in auto components sales over next five years.

Important Segment Characteristics

Factors	Assessment	Trend
Market Age	Growth	—
Current Opportunity Size (\$ M)—2011	575.1	▲
Future Opportunity Size (\$ M)—2016	1,265.3	▲
Compound Annual Growth Rate	17.1%	—
Dependency on Imports	High	●
Number of Competitors	20+	▲
Degree of competition*	5	▲

TREND	Decreasing ▼	Stable ●	Increasing ▲
-------	-----------------	-------------	-----------------

Auto Components Industry: Percent Sales Breakdown by Type, Kuwait, 2011



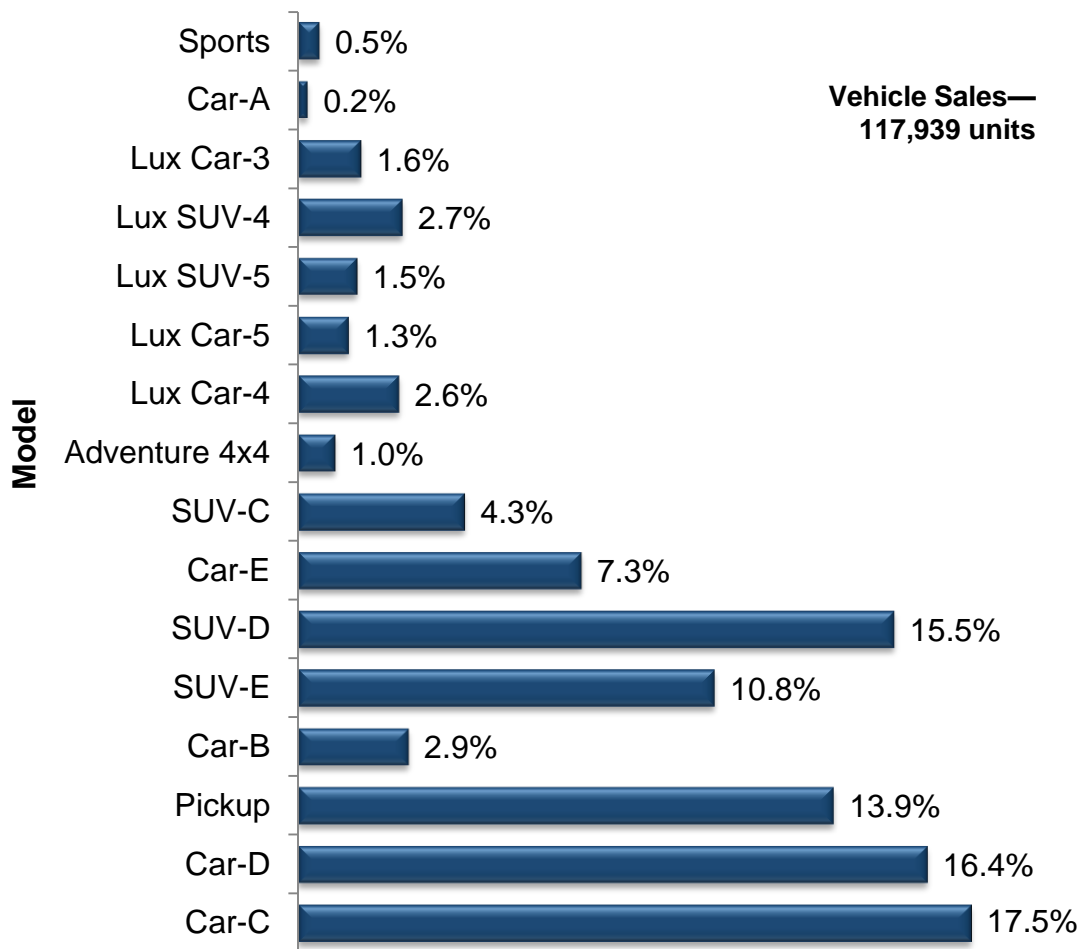
*on scale of 1 to 10 where 1 indicates low level of competition among existing participants and 10 indicates highest

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Kuwait—Percent of Passenger Vehicle Sales by Model

Kuwait passenger vehicle sales were estimated at 117,939 units in 2011; C&D type cars dominated the market, followed by pickups.

Auto Components Industry: Percent of Passenger Vehicle Sales by Model, Kuwait, 2011



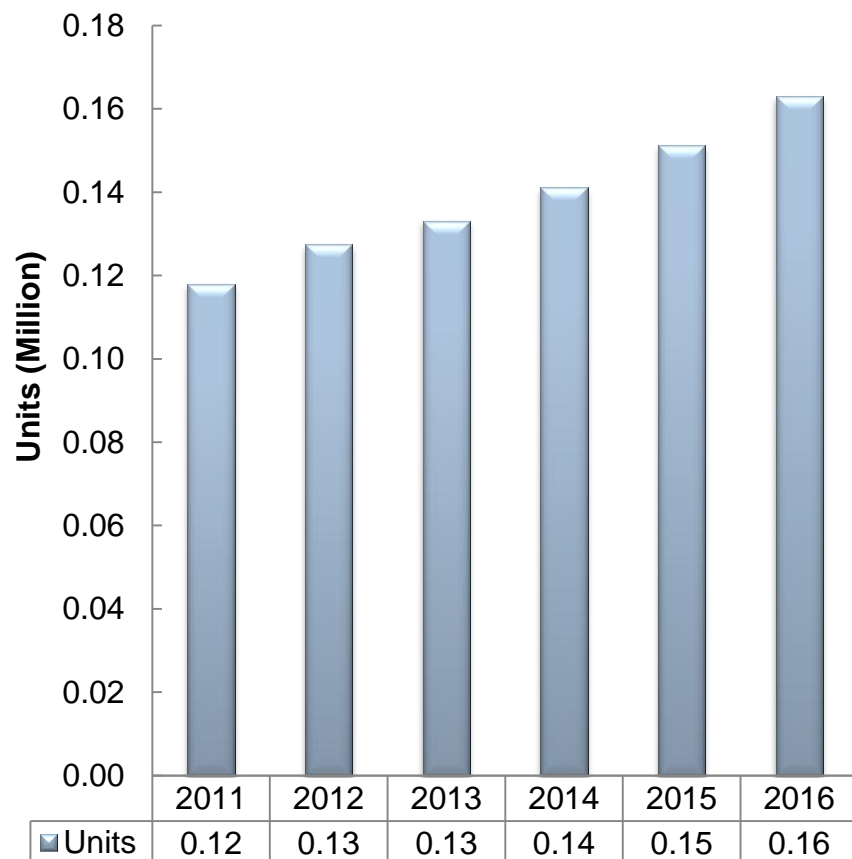
Note: All numbers are for domestic market, excluding re-exports. Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Kuwait—Vehicle Sales and Parc Forecast

Vehicle sales are likely to reach 162,932 units by 2016, whereas the parc is expected to reach 1.55 million units.

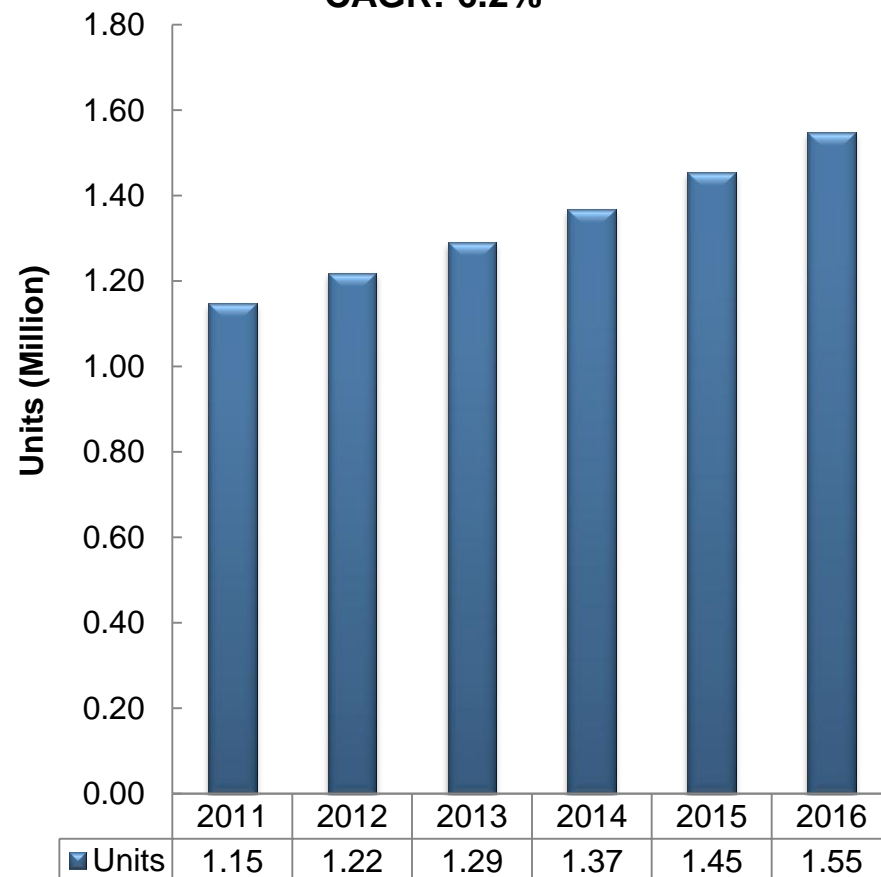
Auto Components Industry: Vehicle Sales Forecast, Kuwait, 2011–2016

CAGR: 6.7%



Auto Components Industry: Vehicle Parc Forecast, Unit Shipment, Kuwait, 2011–2016

CAGR: 6.2%

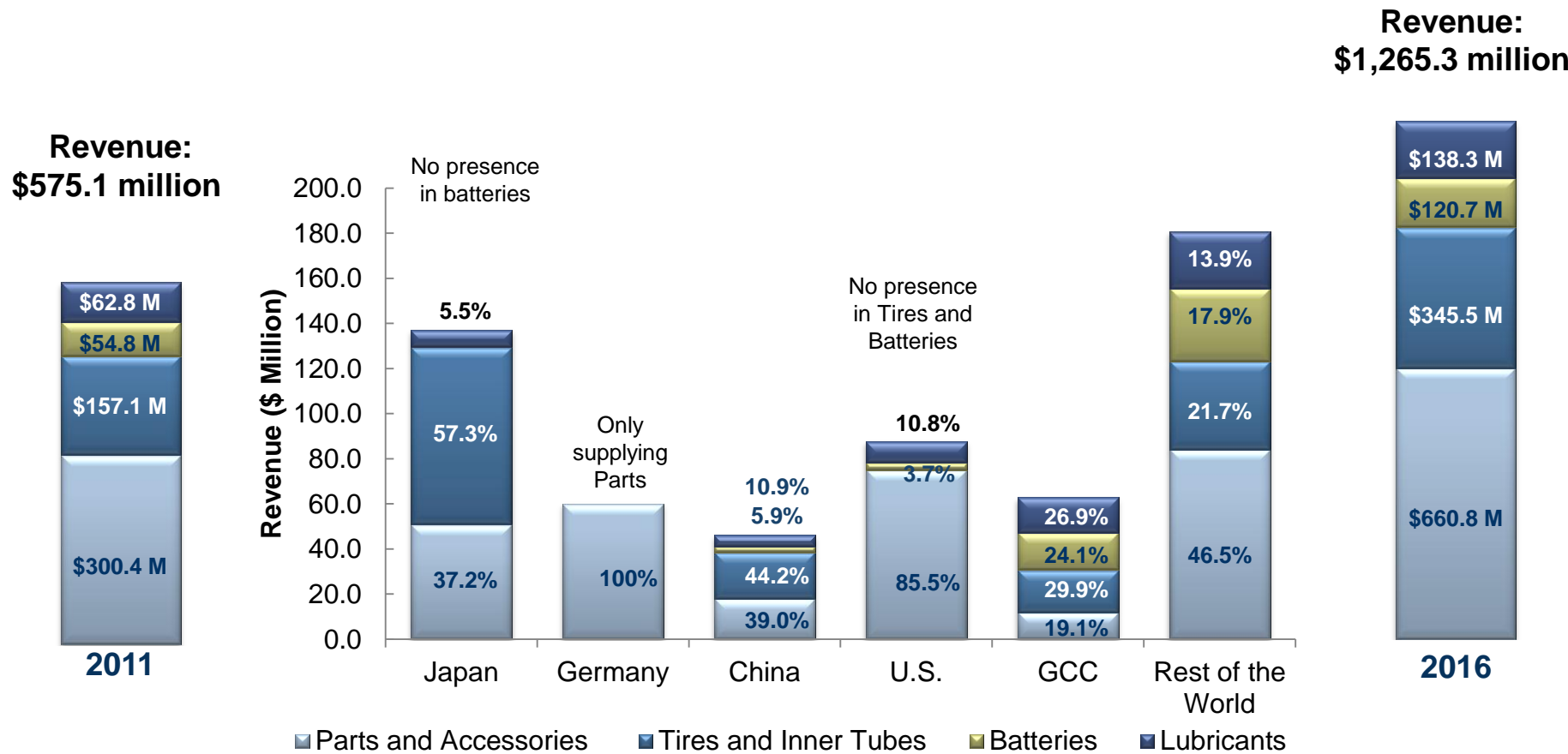


Note: All numbers are for domestic market, excluding re-exports. Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Kuwait—Revenue Forecast

Likely to reach \$1,265.3 million by 2016.

Auto Components Industry: Revenue Forecast by Exporting Country, Kuwait, 2011 and 2016



Note: Graph in center represents data for 2011

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Kuwait—Revenue Forecast (continued)

Overall market to growth at CAGR of 17.1 percent over 2011-2016.

Auto Components Industry: Revenue Forecast by Type, Kuwait, 2011–2016

Year	Parts and Accessories (\$ Million)	Tires and Inner Tubes (\$ Million)	Batteries (\$ Million)	Lubricants (\$ Million)
2011	300.3	157.0	54.8	62.8
2012	366.3	191.5	66.9	76.7
2013	424.1	221.7	77.4	88.7
2014	511.5	267.4	93.4	107.0
2015	613.1	320.5	112.0	128.3
2016	660.8	345.5	120.7	138.3

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Kuwait—Revenue Forecast Discussion

- Market revenue estimated at \$575.1 million in 2011, which is likely to reach at \$1,265.3 million by 2016, expected growth of 17.1 percent CAGR.
- Parts & Accessories led the overall auto components industry followed by Tires & Inner Tubes – these two segment likely to witness highest growth.
 - Presently, these segments dominates nearly 79 percent market
- Imports from Japan and U.S. likely to dominate the Kuwait's auto components industry over next 5 years, however tire imports from China likely to witness double digit growth over same period.

Source: Frost & Sullivan analysis.

Kuwait—Conclusion

- Kuwait ranks 51st in the world by GDP (2011), Economy is likely to record a CAGR of 3.4 percent over the next 5 years.
- Crude Oil Prices, Per Capita Income and overall Investments are the key three most important factors controlling growth of Kuwaiti economy, any changes will impact the economy positively or adversely.
- Kuwait is likely to witness high growth in auto components sales over next five years – 17.1 percent, today Kuwait is the 3rd largest consumer of auto components in the GCC.
- The increase in vehicle sale and parc would support the growth of auto components over next 5 years – vehicle parc likely to witness growth of 6.2 percent CAGR.

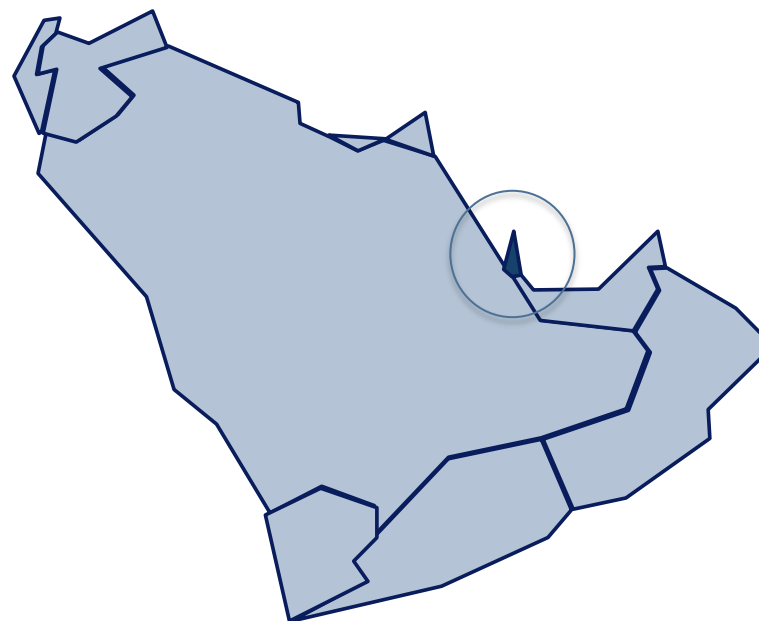
Source: Frost & Sullivan analysis.

State of Qatar—Country Breakdown

Qatar—Country Snapshot

Country with the highest per capita income and minimum unemployment.

Country Name	Qatar
Government Type	Emirate
Capital	Doha
Population (2011)	0.85 million
Growth Rate	3.3%
Labor Force	1.24 million
Unemployment Rate	0.5%
GDP (purchasing power parity)	\$150.60 billion
GDP Real Growth Rate)	16.3%
GDP per capita (PPP)	\$179,000
GDP Composition by Sector	Agriculture: 0.1% Industry: 69.8% Services: 30.1%
Inflation Rate	(2.4%)
Exports	\$55.00 billion f.o.b.
Imports	\$44.00 billion c.i.f.



Source: Frost & Sullivan analysis.

Qatar Breakdown

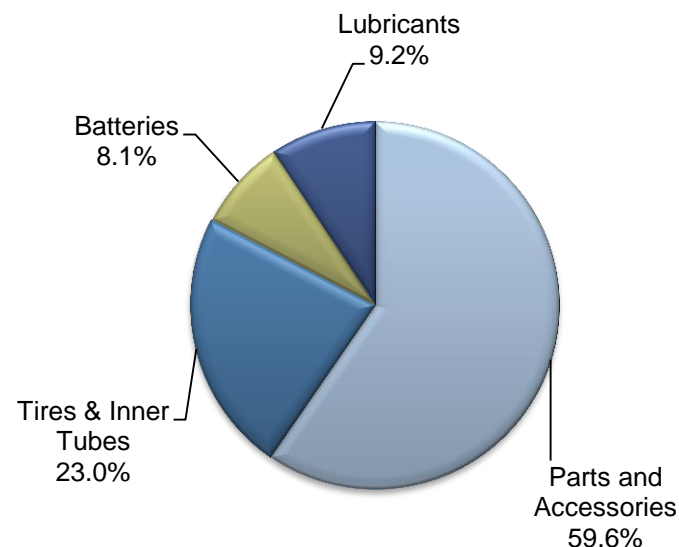
Parts and accessories dominate the total auto components industry, followed by Tires.

Important Segment Characteristics

Factors	Assessment	Trend
Market Age	Growth	—
Current Opportunity Size (\$ M)—2011	353.7	▲
Future Opportunity Size (\$ M)—2016	721.8	▲
Compound Annual Growth Rate	15.3%	—
Dependency on Imports	High	●
Number of Competitors	15+	▲
Degree of competition*	4	▲

TREND	Decreasing ▼	Stable ●	Increasing ▲
-------	--------------	----------	--------------

Auto Components Industry: Percent Sales Breakdown by Type, Qatar, 2011



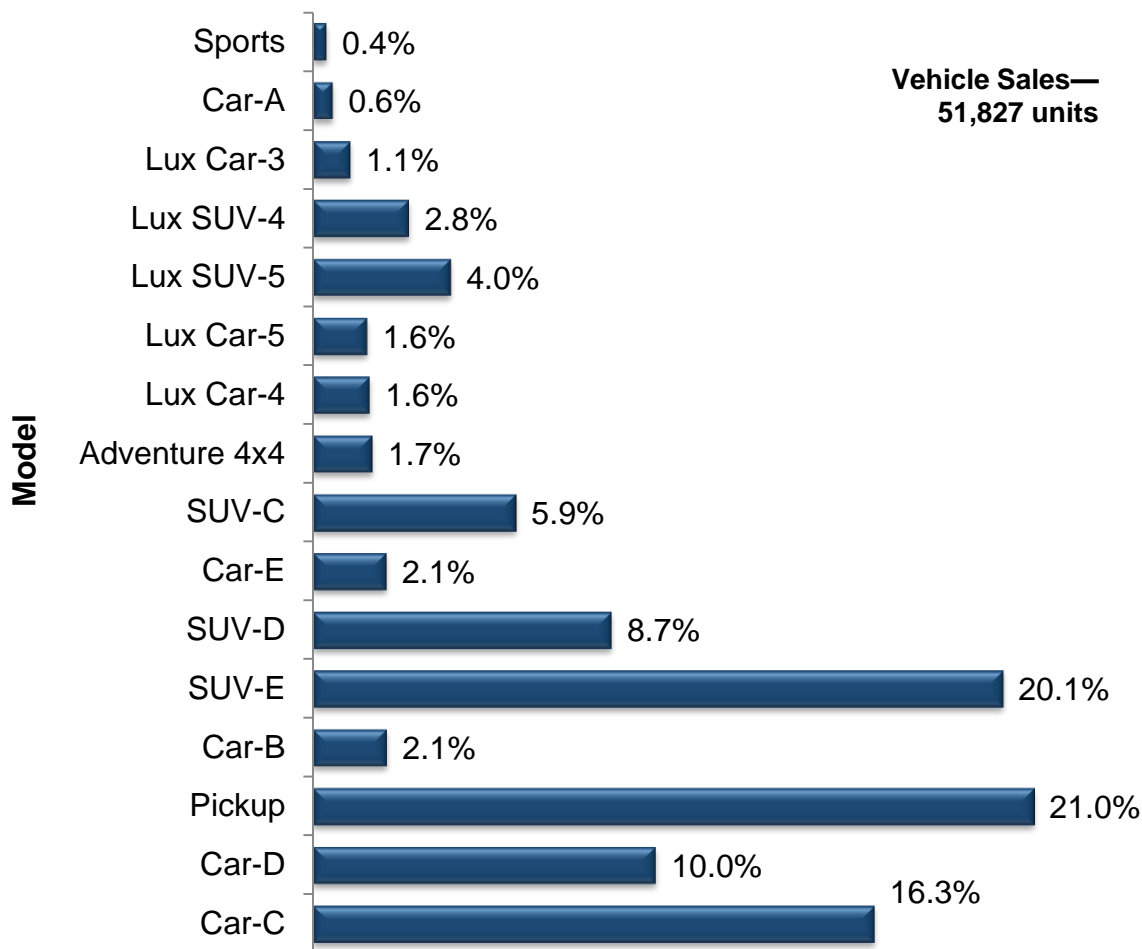
*on scale of 1 to 10 where 1 indicates low level of competition among existing participants and 10 indicates highest

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Qatar—Percent of Passenger Vehicle Sales by Model

Qatar passenger vehicle sales estimated at 51,827 units in 2011; pickups were the major contributor, followed by E Class SUVs and C-type cars.

Auto Components Industry: Percent of Passenger Vehicle Sales by Model, Qatar, 2011



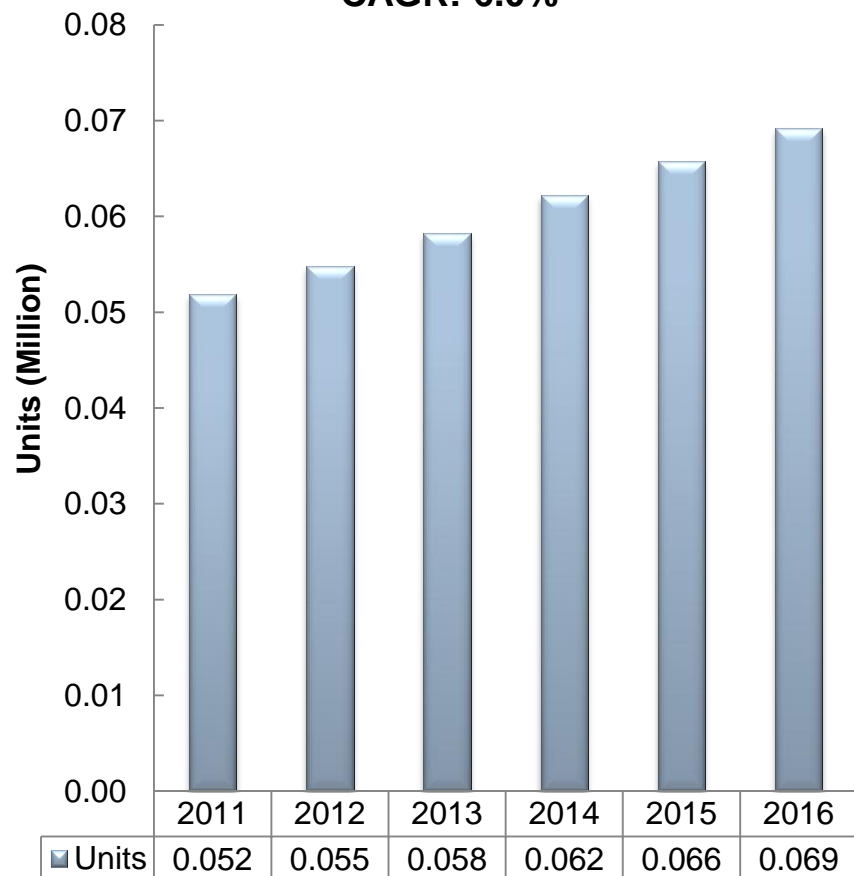
Note: All numbers are for domestic market, excluding re-exports. Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Qatar—Vehicle Sales and Parc Forecast

Vehicle sales likely to reach at 69,195 units by 2016, whereas the parc expected to reach 0.65 million units.

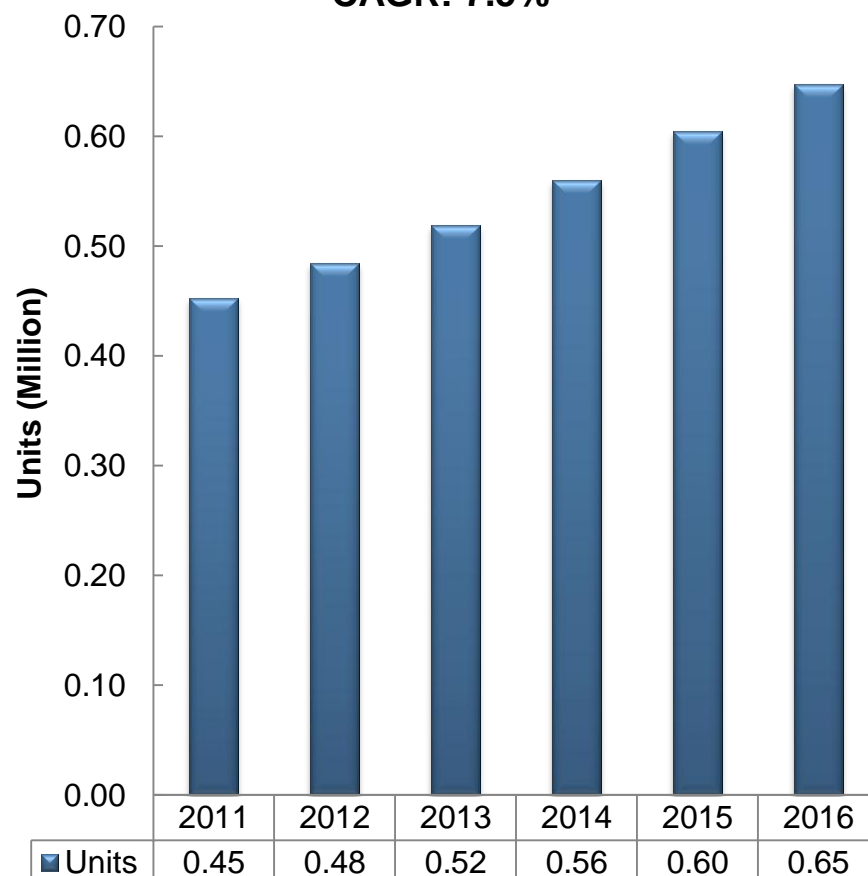
Auto Components Industry: Vehicle Sales Forecast, Qatar, 2011–2016

CAGR: 6.0%



Auto Components Industry: Vehicle Parc Forecast, Qatar, 2011–2016

CAGR: 7.5%

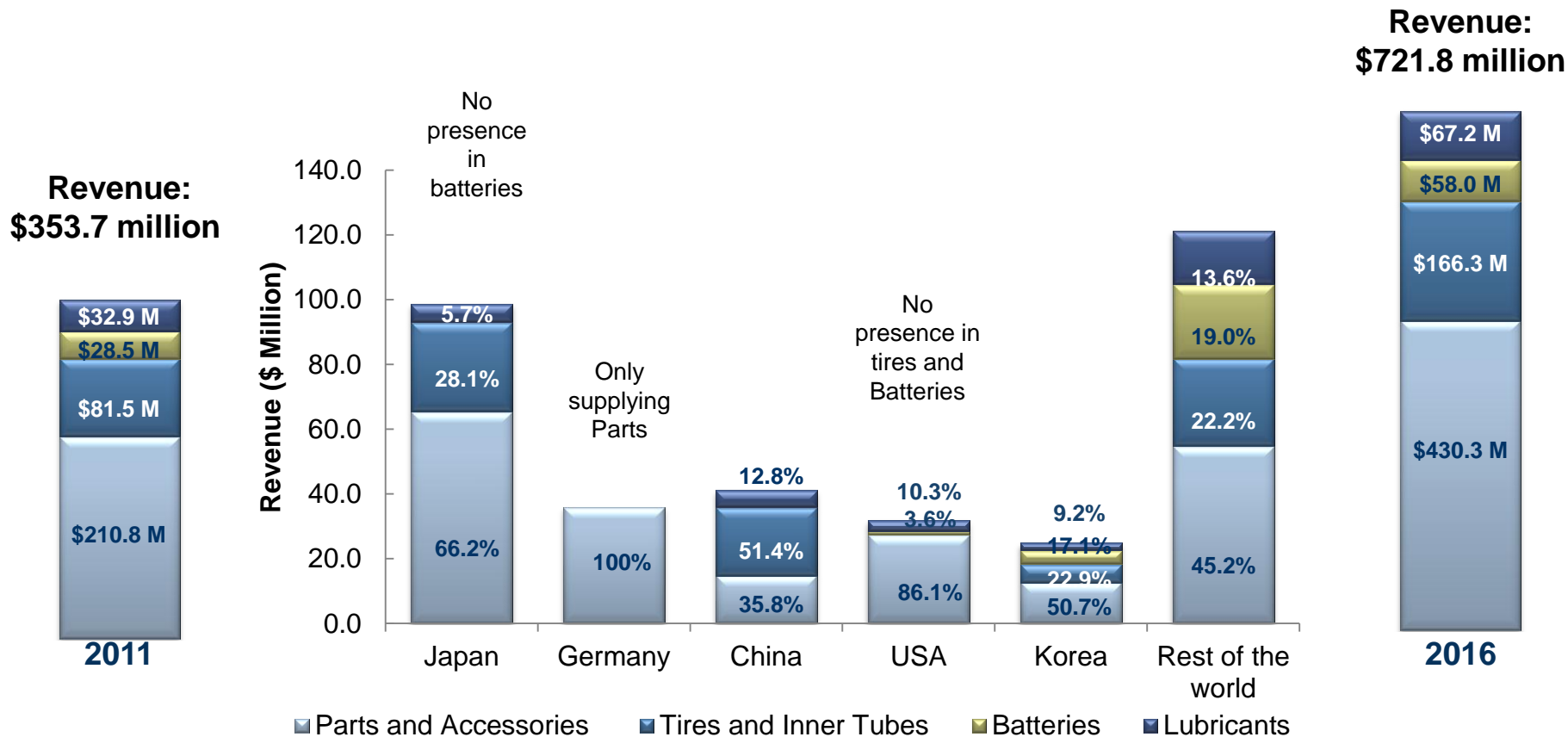


Note: All numbers are for domestic market, excluding re-exports. Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Qatar—Revenue Forecast

Auto Components Industry expected to reach at \$721.8 million by 2016 from current level of \$353.7 million

Auto Components Industry: Revenue Forecast by Exporting Country, Qatar, 2011–2016



Note: Graph in center represents data for 2011

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Qatar—Revenue Forecast (continued)

Overall market to growth at CAGR of 15.3 percent over 2011-2016.

Auto Components Industry: Revenue Forecast by Type, Qatar, 2011–2016

Year	Parts and Accessories (\$ Million)	Tires and Inner Tubes (\$ Million)	Batteries (\$ Million)	Lubricants (\$ Million)
2011	210.8	81.5	28.5	32.9
2012	250.3	96.7	33.8	39.1
2013	296.2	114.5	40.0	46.2
2014	350.7	135.5	47.4	54.7
2015	408.8	158.0	55.2	63.8
2016	430.3	166.3	58.0	67.2

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Qatar—Revenue Forecast Discussion

- Market revenue estimated at \$353.7 million in 2011, which is likely to reach at \$721.8 million by 2016, expected growth of 15.3 percent CAGR.
- Parts & Accessories led the overall auto components industry followed by Tires & Inner Tubes – these two segment likely to witness highest growth.
 - Presently, these segments dominates nearly 82 percent market.
- Imports from Japan and China likely to dominate the Qatari auto components industry over next 5 years, however tire imports from China likely to witness double digit growth over same period.

Source: Frost & Sullivan analysis.

Qatar—Conclusion

- Qatar has the highest per capita income in the world and 4th Largest Economy in the GCC and 52nd largest in the world.
- Qatar hosting 2022 FIFA football World Cup has triggered a huge investment to develop infrastructure and associated projects, such as the Doha Metro – likely to impact vehicle sales and auto component in the near future.
- Qatar likely to witness high growth in auto components sales over next five years – 15.3 percent, today Qatar is the 5th largest consumer of auto components in the GCC.
- The increase in vehicle sale and parc would support the growth of auto components over next 5 years – vehicle parc likely to witness growth of 7.5 percent CAGR.

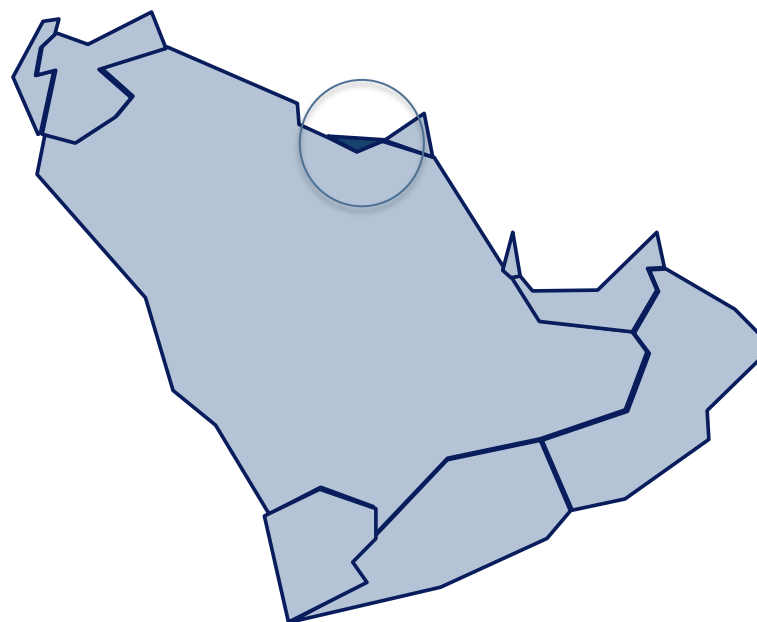
Source: Frost & Sullivan analysis.

Kingdom of Bahrain—Country Breakdown

Kingdom of Bahrain—Country Snapshot

Relatively free market and when compared to other GCC countries, slowly developing as a key business hub.

Country Name	Bahrain
Government Type	Constitutional Monarchy
Capital	Manama
Population (2011)	1.2 million
Growth Rate	2.8%
Labor Force	0.66 million
Unemployment Rate	15%
GDP (purchasing power parity)	\$29.70 billion
GDP Real Growth Rate)	4.1%
GDP per capita (PPP)	\$40,300
GDP Composition by Sector	Agriculture: 0.5% Industry: 57.3% Services: 42.2%
Inflation Rate	2.0%
Exports	\$14.60 billion f.o.b.
Imports	\$12.10 billion c.i.f.



Source: Frost & Sullivan analysis.

Kingdom of Bahrain Breakdown

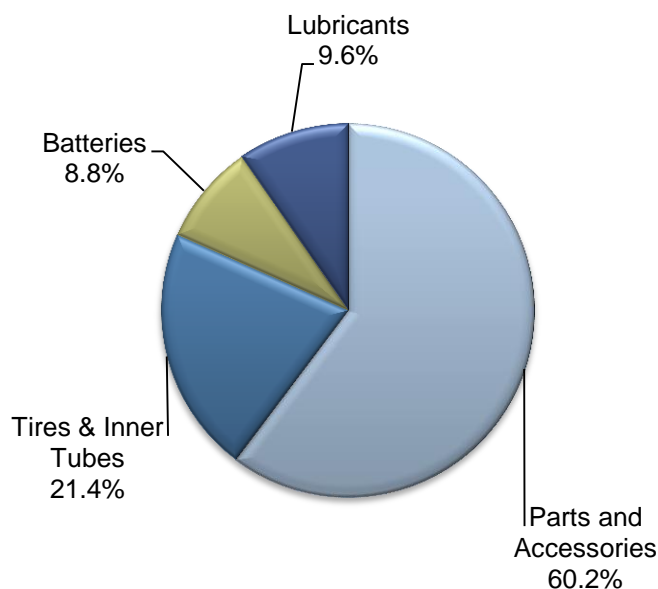
Auto components industry likely to double by 2016.

Important Segment Characteristics

Factors	Assessment	Trend
Market Age	Growth	—
Current Opportunity Size (\$ M)—2011	131.6	▲
Future Opportunity Size (\$ M)—2016	330.3	▲
Compound Annual Growth Rate	20.2%	—
Market Growth Rate		
Dependency on Imports	High	●
Number of Competitors	10+	▲
Degree of competition*	4	▲

TREND	Decreasing ▼	Stable ●	Increasing ▲
-------	-----------------	-------------	-----------------

**Auto Components Industry:
Percent Sales Breakdown by
Type, Kingdom of Bahrain, 2011**



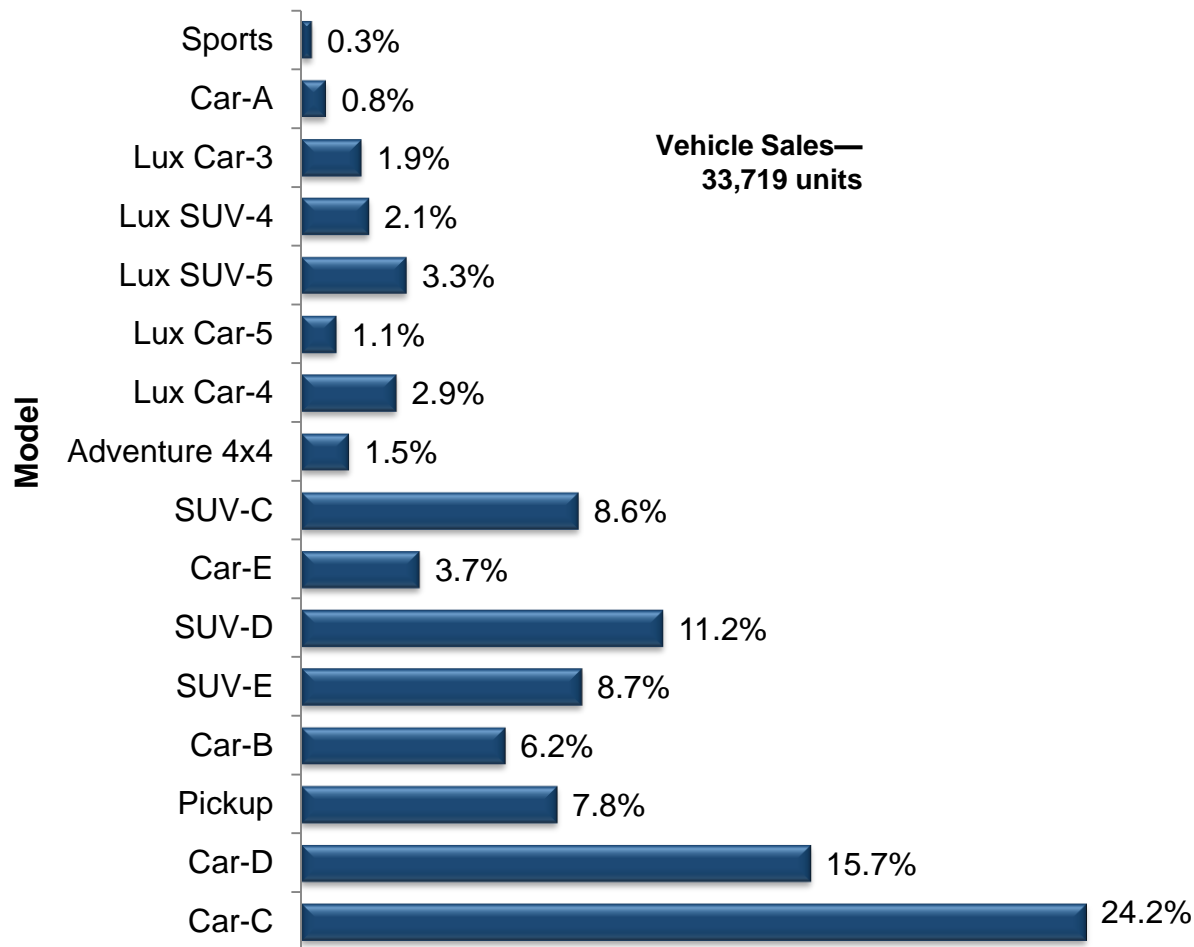
*1 on scale of 1 to 10 where 1 indicates low level of competition among existing participants and 10 indicates highest

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Kingdom of Bahrain—Percent of Passenger Vehicle Sales by Model

Bahrain's passenger vehicle sales was estimated at 33,719 units in 2011; C-type cars dominated the overall market.

Auto Components Industry: Percent of Passenger Vehicle Sales by Model, Kingdom of Bahrain, 2011

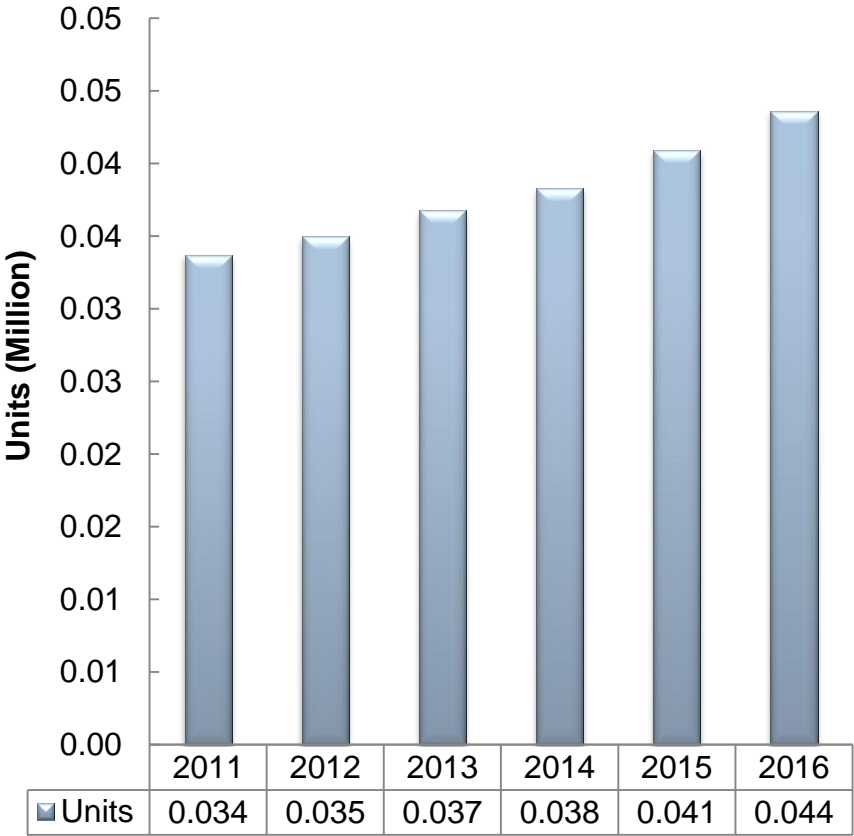


Note: All numbers are for domestic market, excluding re-exports. Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

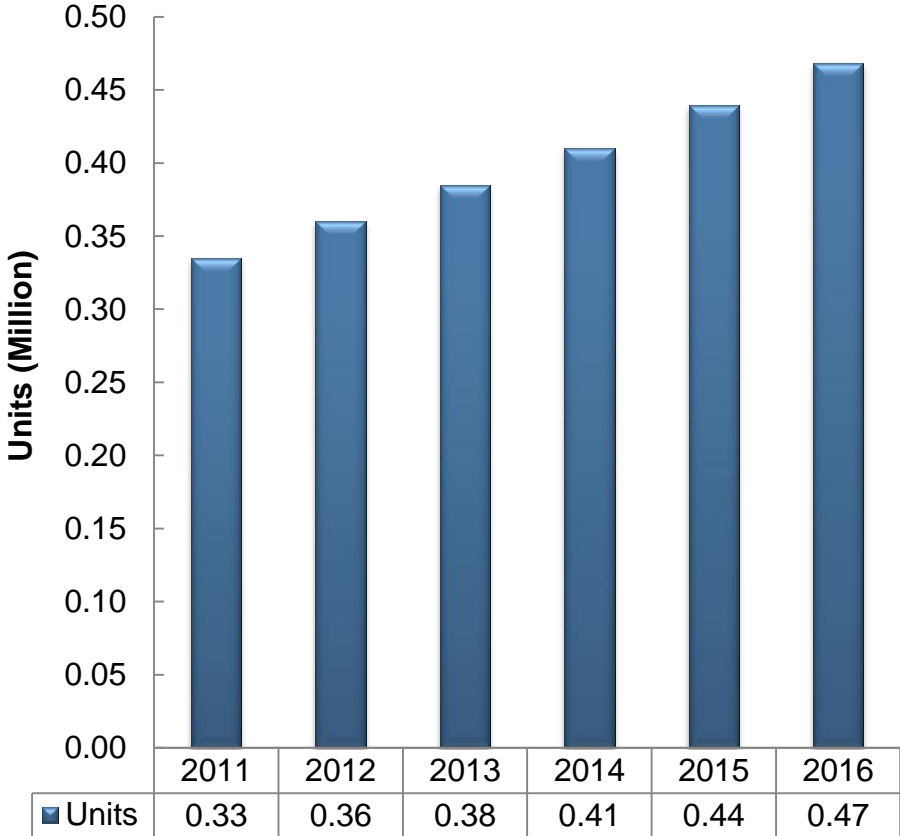
Kingdom of Bahrain—Vehicle Sales and Parc Forecast

Vehicle sales are likely to reach at 43,606 units by 2016, whereas the parc is expected to reach 0.47 million units.

Auto Components Industry: Vehicle Sales Forecast, Kingdom of Bahrain, 2011–2016
CAGR: 5.3%



Auto Components Industry: Vehicle Parc Forecast, Kingdom of Bahrain, 2011–2016
CAGR: 6.9%

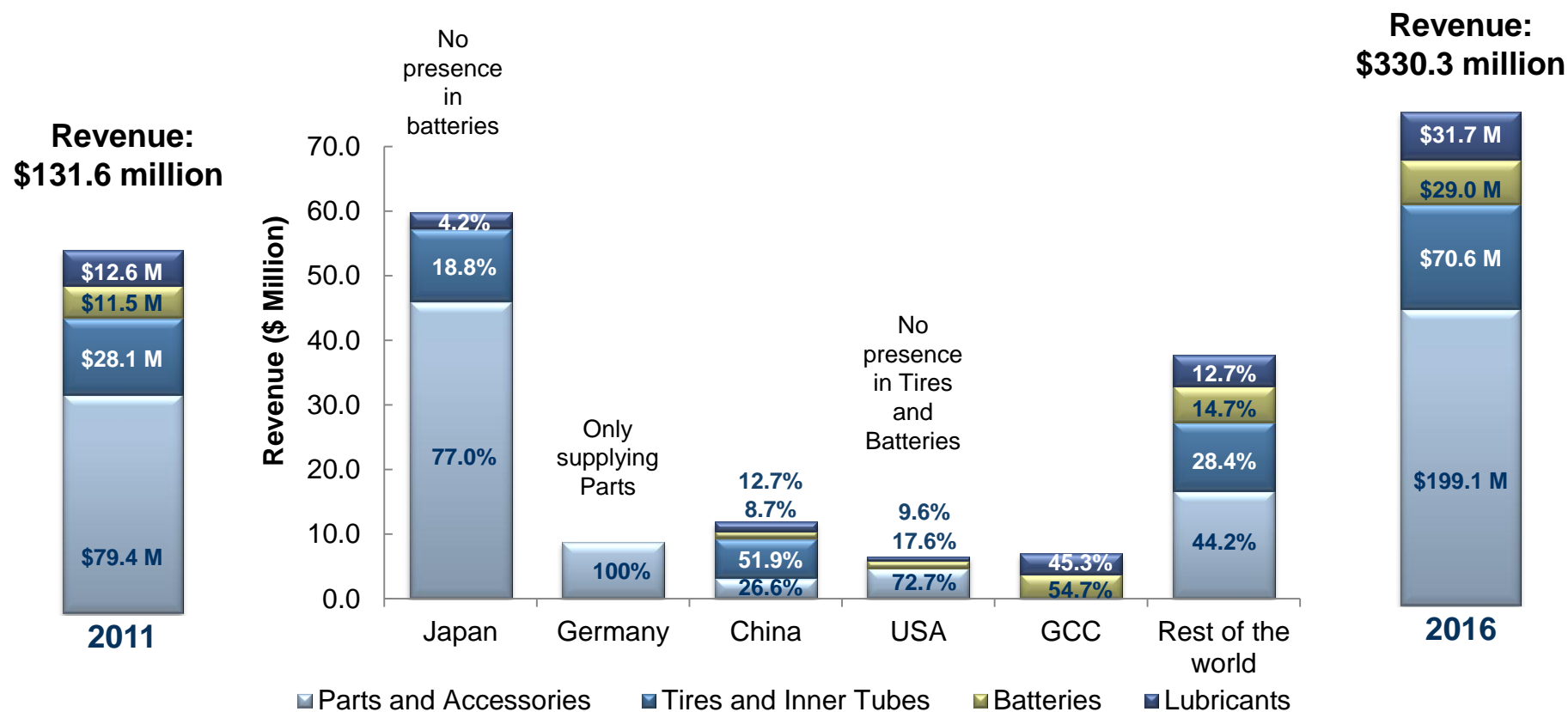


Note: All numbers are for domestic market, excluding re-exports.
Note: All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Kingdom of Bahrain—Revenue Forecast

Market likely to reach \$330.3 million by 2016.

Auto Components Industry: Revenue Forecast by Exporting Country, Kingdom of Bahrain, 2011 and 2016



Note: Graph in center represents data for 2011
Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Kingdom of Bahrain—Revenue Forecast (continued)

Overall market to growth at CAGR of 20.2 percent over 2011-2016.

Auto Components Industry: Revenue Forecast by Type, Kingdom of Bahrain, 2011–2016

Year	Parts and Accessories (\$ Million)	Tires and Inner Tubes (\$ Million)	Batteries (\$ Million)	Lubricants (\$ Million)
2011	79.4	28.1	11.5	12.6
2012	101.9	36.1	14.8	16.2
2013	126.1	44.7	18.3	20.1
2014	151.6	53.8	22.1	24.1
2015	186.7	66.2	27.2	29.7
2016	199.1	70.6	29.0	31.7

Note: Market size estimations only includes imported components. All figures are rounded. The base year is 2011. Source: Frost & Sullivan analysis.

Kingdom of Bahrain—Revenue Forecast Discussion

- Auto components industry likely to double by 2016.
- Market revenue estimated at \$0.13 billion in 2011, which is likely to reach at \$0.33 billion by 2016, expected growth of 20.2 percent CAGR.
- Parts & Accessories led the overall auto components industry followed by Tires & Inner Tubes – these two segment likely to witness highest growth.
 - Presently, these segments dominates nearly 81.0 percent market
- Imports from Japan and China likely to dominate the Bahrain's auto components industry over next 5 years, however tire imports from China likely to witness double digit growth over same period.

Source: Frost & Sullivan analysis.

Kingdom of Bahrain—Conclusion

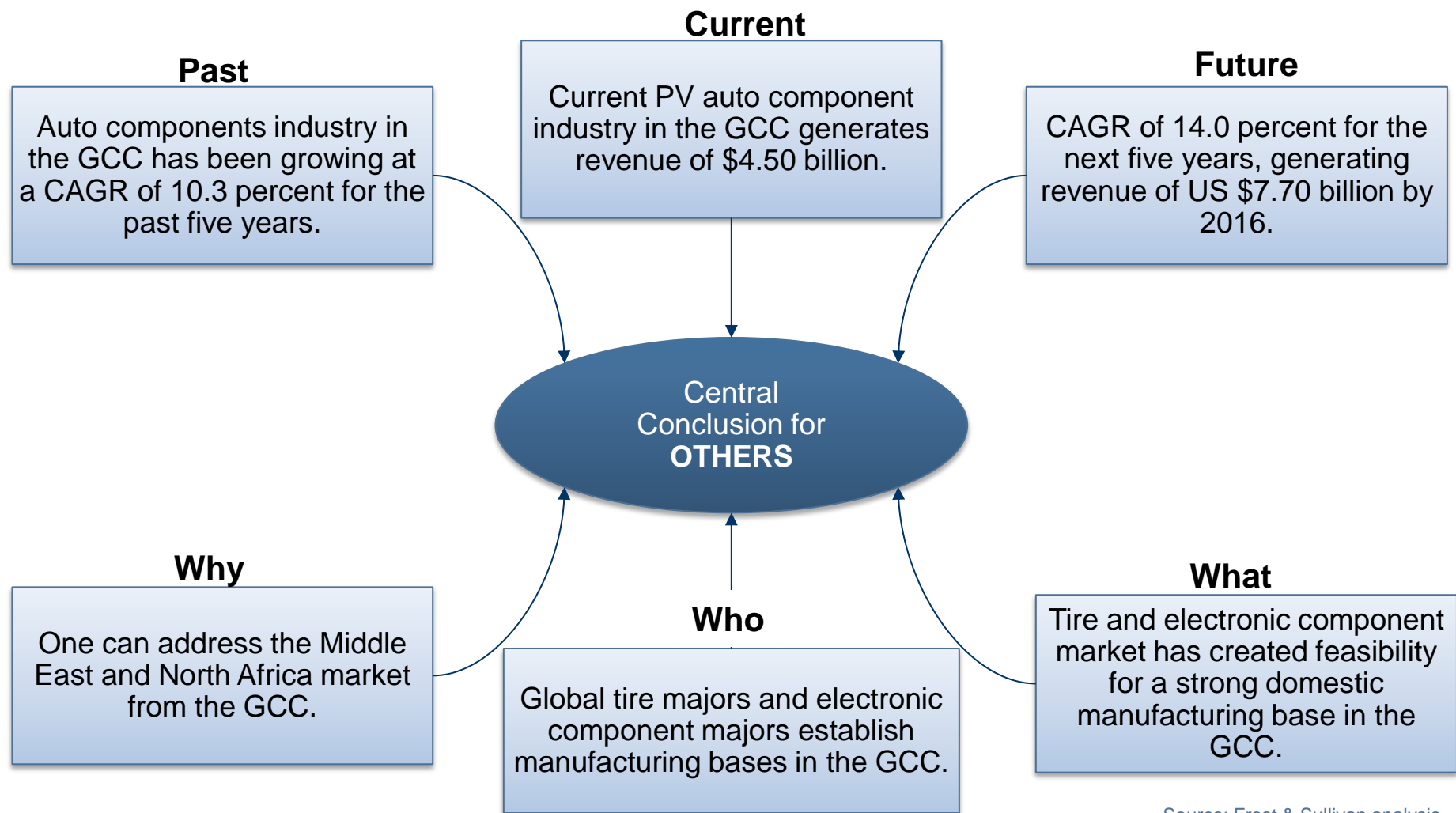
- Bahrain ranks 99th in the world by GDP, Economy is likely to record a CAGR of 2.8 percent over the next 5 years.
- Qatar likely to witness high growth in auto components sales over next five years – 15.3 percent, today Qatar is the 5th largest consumer of auto components in the GCC.
- The increase in vehicle sale and parc would support the growth of auto components over next 5 years – vehicle parc likely to witness growth of 6.9 percent CAGR.
- Vehicle sales are likely to reach at 43,606 units by 2016, whereas the parc is expected to reach 0.47 million units.

Source: Frost & Sullivan analysis.

Conclusions and Future Outlook

Key Conclusions and Future Outlook

Auto Components Industry: Key Conclusions, GCC, 2011–2016



Source: Frost & Sullivan analysis.

The Last Word—Three Big Predictions

1

The tire market in the GCC is feasible for any global tire major to establish a local manufacturing base.

2

Plastic auto components industry will drive more investments into the GCC for establishment of manufacturing bases.

3

Majority of auto components demand will continue to be addressed by Japanese majors.

Source: Frost & Sullivan analysis.

Legal Disclaimer

Frost & Sullivan takes no responsibility for any incorrect information supplied to us by manufacturers or users. Quantitative market information is based primarily on interviews and therefore is subject to fluctuation. Frost & Sullivan research services are limited publications containing valuable market information provided to a select group of customers. Our customers acknowledge, when ordering or downloading, that Frost & Sullivan Research Services are for customers' internal use and not for general publication or disclosure to third parties. No part of this Research Service may be given, lent, resold or disclosed to noncustomers without written permission. Furthermore, no part may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the permission of the publisher.

For information regarding permission, write to:

Frost & Sullivan
331 E. Evelyn Ave. Suite 100
Mountain View, CA 94041

Appendix

Table of Acronyms Used

GCC	Gulf Cooperation Council	R&D	Research & Development
UAE	United Arab Emirates	GDP	Gross Domestic Production
KSA	Kingdom of Saudi Arabia	PPP	Purchase Power Parity
PVs	Passenger Vehicles	FOB	Free On Board
CAGR	Compound Annual Growth Rate	CIF	Cost, Insurance, and Freight
USD/US\$	United States Dollar	SUVs	Sports Utility Vehicles
M	Million	MPVs	Multi Purpose Vehicles
VIO	Vehicles in Operation		
OES	Original Equipment Spares		
APMG	Autos Parts Merchant Group		

Source: Frost & Sullivan research.

Market Engineering Methodology

One of Frost & Sullivan's core deliverables is its Market Engineering studies. They are based on our proprietary Market Engineering Methodology. This approach, developed across the 50 years of experience assessing global markets, applies engineering rigor to the often nebulous art of market forecasting and interpretation.

A detailed description of the methodology can be found [here](#).



Source: Frost & Sullivan research.

Automotive Practice—Program Areas and Domain Expertise

A team of 25 automotive analysts, consultants, and research experts managed three functional areas in the MENA region complemented by global teams functioning seamlessly to provide global automotive expertise.

Middle East and North Africa (MENA Automotive Practice)



Source: Frost & Sullivan research.