

THAILAND: GLOBAL GREEN AUTOMOTIVE PRODUCTION BASE

July 2013

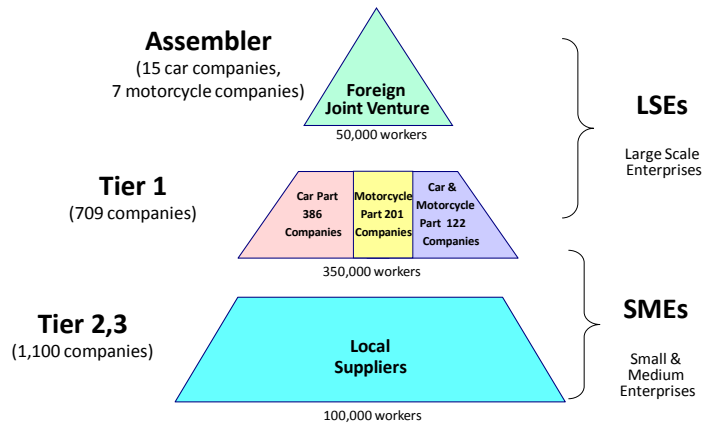
Thailand’s automotive industry has been continually developing for over 50 years with strong support from both the public and private sectors. Thailand has been the automotive hub of ASEAN, with the largest automotive production among Southeast Asian countries, ranking ninth globally in 2012.

The automotive industry is a vital sector in Thailand, with a significant contribution to the country’s economy, accounting for 10% of Thailand’s gross domestic product (GDP). In 2012, Thai automotive production capacity was 2.75 million vehicles and the industry employed over 500,000 people; the production capacity is expected to reach 3 million units by 2015. The government coordinated with the private sector to formulate the Master Plan for Automotive Industry (2012-2016) to develop Thailand as a global green automotive production base and to increase research and development for automotive technology.

“ASEAN countries are trying to promote green and environmental friendly technology. Thai government announced its vision to become Hub of Global Green Automotive Production. Thailand has high potential to become the Hub of Global Green Automotive Production towards global trend.”

- Mrs. Piengjai Keawsuwan, President of ASEAN Automotive Federation and President of the Thai Automotive Industry Association-

Structure of the Thai Automotive Industry



Source: Thai Autoparts Manufacturers Association

Thailand has approximately 709 Tier 1 auto parts suppliers and 1,100 Tier 2 and 3 suppliers. More than half of the Tier 1 suppliers are car part companies. Of the top 100 auto parts manufacturers in the world, 50% have factories in Thailand; the country’s manufacturing base is strong enough to supply all of the necessary parts, from engine parts to interior and body parts.

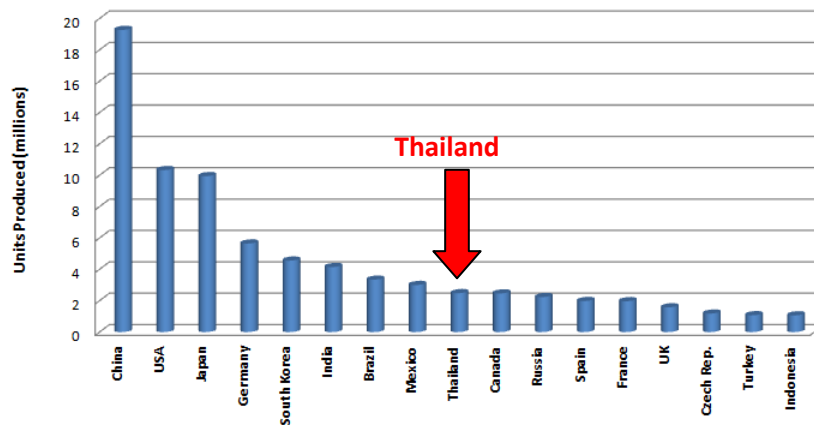
Major multinational automotive industry leaders with presence in Thailand include: Toyota Motors, Isuzu Motors, Honda Automobile, Nissan Motors, Suzuki Motor, Mitsubishi Motors, Auto Alliance

Thailand, General Motors, BMW Manufacturing, Volvo Car Thailand, Mercedes-Benz Thailand and Tata Motors.

AUTOMOTIVE INDUSTRY OVERVIEW

The Thailand automotive industry has grown steeply and in 2012 production hit a new record of 2.46 million units, 68% higher than 2011. Thanks to the government’s First Car Buyer scheme, which allowed people buying a first car to receive up to THB100,000 (US\$3,333) tax refund, vehicle sales and production were boosted. Moreover, according to the Thailand Ministry of Commerce, Thailand’s automotive industry was the largest export sector, with an export value US\$24 billion in 2012. In the same period, auto parts imports totaled nearly US\$13 billion.

Global Automotive Production, 2012



Source: International Organization of Motor Vehicle

With 2.46 million vehicles manufactured in Thailand in 2012, the country was ranked #9 among automotive manufacturing countries in the world. According to the Thai Automotive Institute, production is predicted to reach 2.5-2.6 million units in 2013, and will reach 3 million units by 2015.

“Thailand is a global green automotive production base, which in year 2012, was ranked 9th highest in terms of automotive production in the world. Automotive manufacturers from around the world have increased their investments in Thailand because they realize that we have existing strong supply chains, acceptable skilled human resources, as well as significant investment support from BOI.”

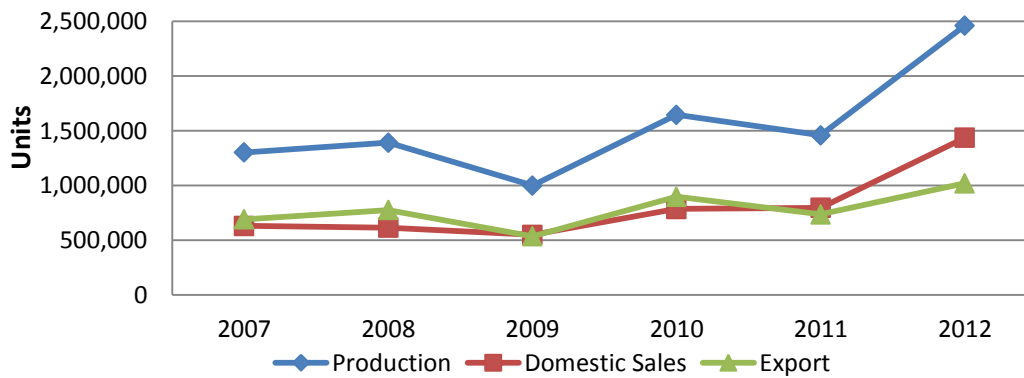
-Dr. Patima Jeerapaet, President of Thailand Automotive Institute-

Thailand's Motor Vehicle Production by Unit, 2007-2012

	2007	2008	2009	2010	2011	2012	Change 2007-2012
Passenger Car	329,223	399,435	313,442	554,267	537,987	964,344	193%
Commercial Car (exclude one-ton pickup)	23,556	17,791	15,202	24,278	20,611	43,816	86%
One ton pickup	948,370	974,502	670,734	1,066,759	899,200	1,452,254	53%
Total	1,301,149	1,391,728	999,378	1,645,304	1,457,798	2,460,414	89%
Y-O-Y Growth (%)		7%	-28%	65%	-11%	69%	

Source: Thai Automotive Institute

Thailand's Automotive Industry Growth, 2007-2012



Source: Thai Automotive Institute

The top ten destinations of Thai automotive exports accounted for 63% of all exports worldwide. Australia and Indonesia are the major destinations of Thai-manufactured automotive products.

Top 10 Vehicle Export Destinations in 2012

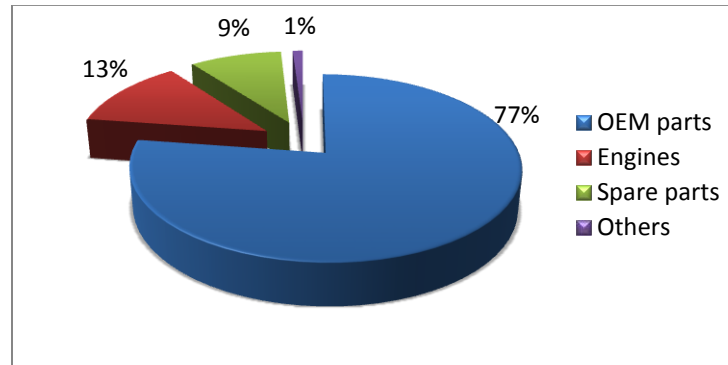
Country	Value (million US\$)	%
Australia	3,840	16.3%
Indonesia	3,090	13.1%
Japan	1,708	7.2%
Malaysia	1,627	6.9%
Saudi Arabia	1,288	5.5%
Philippines	1,025	4.3%
Arab Emirates	688	2.9%
South Africa	637	2.7%
Oman	537	2.3%
Brazil	482	2.0%
Total	14,922	63%

Source: The Ministry of Commerce

THAILAND'S AUTO PARTS INDUSTRY

While Thailand has emerged as a regional automotive production hub, the automotive parts and components sector has also played a significant role in the strong growth of the automotive industry. There are approximately 1,800 automotive suppliers in the country, about 709 of which are original equipment manufacturers (OEMs).

Thailand's Auto Parts Exports, 2012



Source: Thai Automotive Institute

In 2012, the majority of Thailand's automotive parts exports were OEM parts (US\$5.6 billion), comprising 77% of total automotive parts exports. This is followed by engines (US\$900 million), at 13%; and spare parts (US\$667 million), at 9%.

50 of the Top 100 Global OEM Parts Suppliers in Thailand, 2011

Robert Bosch	Denso	Continental	Magna International	Aisin Seiki
Faurecia	Johnson Controls	ZF Friedrichshafen	Delphi Automotive	Valeo
TRW Automotive	Lear	Yazaki	BASF	Sumitomo Electric
Toyota Boshoku	CalsonicKansei	Cummis	Autoliv	JTEKT
Visteon	JATCO	Dana	Benteler	Schaeffler
BorgWarner	NTN	Mahle	DuPont	Tenneco
Toyoda Gosei	NSK	Brose	NHK Spring	Mitsubishi Electric
Koito Manufacturing	Plastic Omnium	Takata	GKN Driveline	Federal-Mogul
IAC	Goodyear	Michelin	Tokai Rika	Bridgestone/Firestone
TS Tech	Grupo Antolin	Honeywell	TI Automotive	Bayer

Source: Automotive News - June 11, 2012

AUTOMOTIVE ELECTRONICS

The utilization of electronics has become more prevalent across a variety of automobile systems. Electronics systems have improved automobile performance, safety, comfort, and efficiency. Moreover, the trend of alternative fuel, fuel efficiency and emissions standards are important factors driving

demand of automotive electronics. The global demand for automotive electronics systems is expected to reach US\$191.3 billion in 2013 and is forecast to reach US\$314.4 billion in 2020.

As the major automotive production hub of ASEAN, Thailand is one of the largest automotive electronics markets in the world. Industry analysts have indicated that there is still significant opportunity to invest in automotive electronics in Thailand.

OPPORTUNITIES

Thailand is a vehicle production base in ASEAN, with the largest amount of vehicle assembly in the region. Although many leading vehicle manufacturers and auto parts and components producers have production facilities in the country, some auto parts are still imported from overseas. Opportunities exist for foreign suppliers to manufacture **Hi-Tech Vehicle Parts and Components, NGV Cars, Eco-Cars, Passenger Cars, E-85 Fuel, Big-Bikes, 4-Stroke Engine Motorcycles (Over 500 CC), and Vehicle Tires.**

According to the Excise Department, Ministry of Finance, the current automotive excise taxes scheme is detailed as follows:

Automotive Excise Taxes

Passenger Car	<2,000cc, <220HP 30%	2,000-2,500cc, <220HP 35%	2,500-3,000cc, <220HP 40%	>3,000cc, >220HP 50%
E20	<2,000cc <220HP 25%	2,000-2,500cc <220HP 30%	2,500-3,000cc <220HP 35%	>3,000cc or >220HP 50%
Electronic / Fuel Cell	10%			
Eco-Car, Gasoline	≤ 1,300cc for Gasoline Engines or ≤ 1,400cc for Diesel Engines 17%			
Natural Gas	20%			
Hybrid Vehicle	<3,000cc 10%		>3,000cc 50%	
Single Car Pickup	<3,250cc 3%		>3,250cc 50%	
Passenger Pickup	<3,250cc 20%		>3,250cc 50%	
Double Cap Pickup	<3,250cc 12%		>3,250cc 50%	

Source: Excise Department, Ministry of Finance

In order to promote green technology, the Thailand government has restructured automotive excise taxes to better-align with vehicle emissions that will be effective on 1 January 2016, as follows:

Automotive Excise Taxes 2016

Vehicle	Engine Size	Carbon dioxide (CO2) generate (g/km)			
		<100	100-150	150-200	>200
Passenger Car	<3,000 cc		30%	35%	40%
	E85/CNG (OEM)		25%	30%	35%
	>3,000 cc	50%			
Hybrid Vehicle	<3,000 cc	10%	20%	25%	30%
	>3,000 cc	50%			
Eco Car	1,300-1,400 cc	14%	17%		
	E85	12%			
Vehicle	Model/Engine size	<200		>200	
Pick-up	No Cab	3%		5%	
	Space Cab	5%		7%	
	Double Cab	12%		15%	
Pick-up Passenger	<3,250 cc	25%		30%	
	>3,250 cc	50%			

Source: Excise Department, Ministry of Finance

WHY THAILAND

According to the Automotive Industry Master Plan (2012-2016), Thailand will become a global green automotive production base. In fact, this roadmap was developed with a view of establishing the Kingdom as one of the world's key manufacturing centers by increasing vehicle output by an average of 10% annually; and aims at making the country one of the top ten auto-manufacturing countries, a goal that already has been achieved with Thailand's rank of ninth, globally, in 2012.

Nearly all of the world's major automakers, assemblers, and parts and components manufacturers have established manufacturing facilities in Thailand. All of leading Japanese vehicle producers have opened production sites in the country, as have major American and German automotive firms.

"Thailand has been 'in the auto businesses' for more than 50 years. Over time, a dense and capable supplier community has developed. The Laem Chabang deep-sea port allows for efficient export, and many well managed industrial estates have grown in automotive clusters that facilitate near-sourcing."

-Mr. Martin Apfel, President of Southeast Asia Operation, General Motors-

Situated in the center of Southeast Asia, Thailand provides easy access to regional markets. Furthermore, Thailand provides a well-qualified and affordable workforce. In addition, auto parts clusters were developed to tighten business connections between automotive firms and their suppliers in enhanced communication, lower logistics costs and improved flow of products. Moreover, Thailand is a transportation hub in the region; the country provides world-class infrastructure – highways, airports, seaports, railroads - that offers manufacturers cheap, easy, and efficient exporting. Equally important, Thailand has bilateral free trade agreements with many countries, including Japan, India, Australia, New Zealand, and members of ASEAN. Also, the establishment of the ASEAN Economic Community (AEC) in 2015 will serve as a massive single market that is fully integrated into the global economy.