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Report Name: Vietnam Ethanol Background Report

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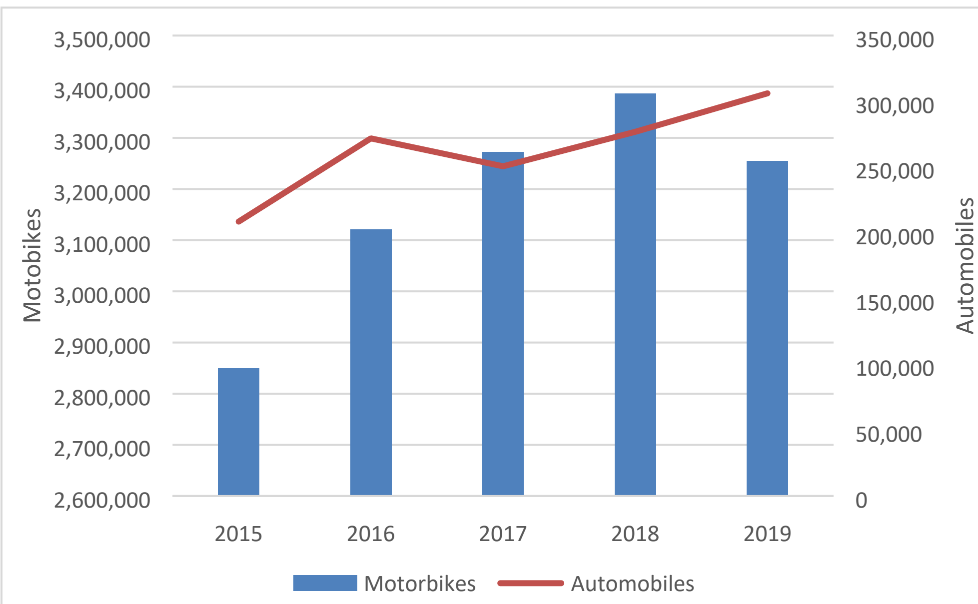
Report Highlights:

Vietnam's gasoline consumption has grown steadily at approximately 4-5 percent per annum. In addition to local exploitation and production, Vietnam spent approximately $2.5 billion on imports of crude oil and petroleum products, including ethanol, in the first three months of 2020. Although ethanol supporting regulations have gradually increased since 2007 in recognition of ethanol's environmental benefits, the commercialization of five percent ethanol blended gasoline (E5) was pushed back to 2018. A lack of understanding by consumers of the environmental benefits of ethanol blended gasoline, as well as persistent rumors that it harms vehicle engines, continue to negatively affect sales of E5 gasoline. The Government of Vietnam (GVN) recently reduced the most favored nation (MFN) import tariff on ethanol to 15 percent, effective July 10.

The Gasoline Market at a Glance

With a population of over 98 million people, Vietnam consumed approximately 7.5 million metric tons (MMT) of gasoline out of 18.6 MMT among all fuel products in 2018. Industry also noted that the growth rate of fuel consumption in recent years of 4 to 5 percent annually has been growing in step with the increase in Vietnam's gross domestic product. Population, income, production, trade, and transportation growth have all contributed to the increase in fuel consumption. As public transportation has been slow to establish in Vietnam's main cities, individual transportation continues to dominate with sales of locally manufactured vehicles trending upward (Figure 1). There are currently over 3.5 million cars and nearly 60 million motorbikes in operation in Vietnam, making it the fourth largest motorbike market in the world. According to the Vietnam Registry Office, the number of cars in operation in 2019 increased by 44 percent compared with 2016, and local media cited 23 percent growth for motorbikes in the same period.

Figure 1: Sale of Locally Manufactured Vehicles *(Units)*

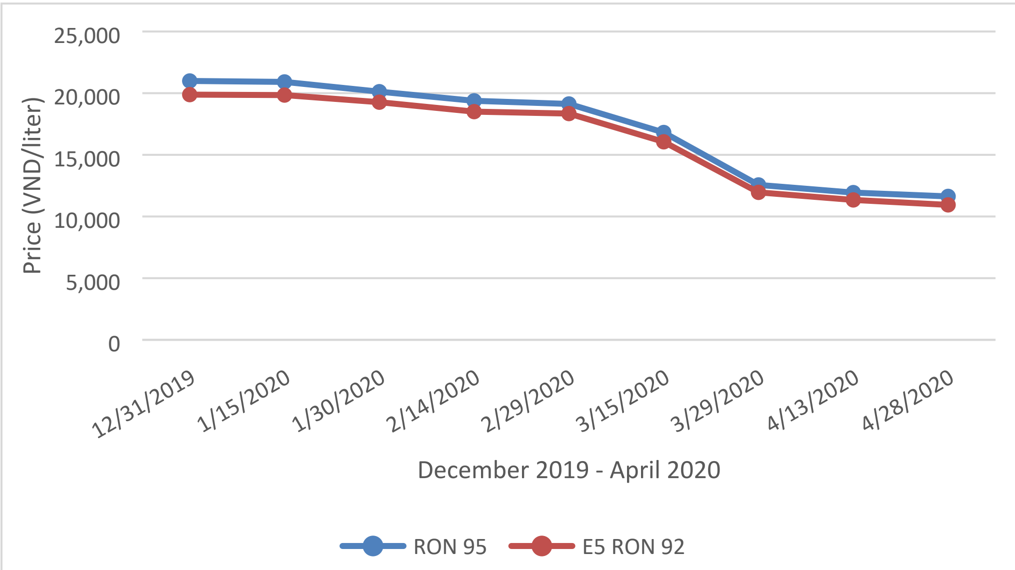


Source: Vietnam Association of Motorcycle Manufacturers and Vietnam Automobile Manufacturers' Association

While there is continued long-term growth in fuel demand, experts anticipate lower demand in 2020 due to the ongoing impacts of the COVID-19 pandemic. Vietnam's mandated nationwide social distancing program that was in effect from April 1 to April 23 resulted in a contraction in the transportation of goods and passengers. As a result of this decline in activity, fuel demand dropped significantly, though the widespread consensus is that demand will rebound as the economy revives. Local media cited Vietnam National Oil and Gas Group (PetroVietnam), the largest state-owned oil and gas company in Vietnam, stating that total demand for fuel in Vietnam declined by 30 percent in the first quarter of 2020. Local media also reported that gasoline and oil stockpiles of local oil refineries were reportedly hitting "tank-top" in March, urging PetroVietnam to request the Ministry of Industry and Trade (MOIT) and the Ministry of Finance (MOF) to temporarily suspend fuel imports.

According to sources, due to the drop in world oil prices, MOIT and MOF reduced fuel prices eight times in the first four months of 2020. As compared with the previous year, gasoline prices were down by 44-45 percent, while other fuel products including diesel, were down by 38-51 percent (Figure 2).

Figure 2: Gasoline Prices, December 2019 - April 2020 *(VND/liter)*



Source: MOIT

Fuel Imports

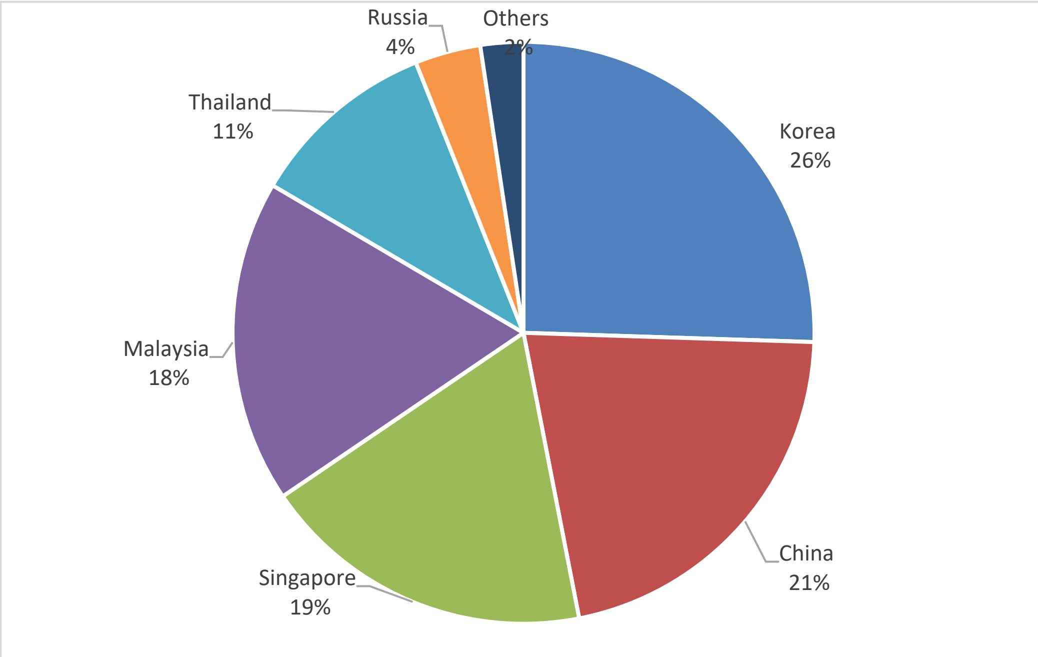
In the first three months of 2020, Vietnam imported 3.5 MMT of crude oil, valued at $1.6 billion, up 75.9 percent by volume and 80.8 percent by value over the previous year. Imports of gasoline and fuel products reached 1.8 MMT tons, or $980 million, down 11.5 percent by volume and 20.7 percent by value from the previous year. Korea was Vietnam's largest supplier of gasoline and oil products by value, followed by China and Singapore (Table 1, Figure 3).

Table 1: Imports of Gasoline and Oil Products from Major Exporters

Exporter	Jan-Mar 2020		Compared with Jan-Mar 2019	
	Volume (MT)	Value (thousand USD)	Volume (%)	Value (%)
Korea	431,463	250,000	9.0	2.3
China	371,026	210,000	3.5	-6.0
Singapore	358,385	182,000	-26.6	-34.4
Malaysia	395,999	176,000	-36.6	-50.0
Thailand	198,240	103,000	3.9	-11.9
Russia	40,887	35,788	0	0

Source: Vietnam Customs

Figure 3: Imports of Gasoline and Oil Products from Major Exporters (Jan-Mar 2020)



Source: Vietnam Customs

Ethanol Supporting Regulations Framework

In 2007, the GVN issued Decision No. 177/2007/QD-TTg which targeted biofuels as a new renewable energy source and an alternative to conventional fossil fuels to promote energy security and environmental protection. This legislation envisioned ethanol and biodiesel output reaching 1.8 MMT and supplying five percent of the country's fuel demand by 2025. MOIT is responsible for the development and implementation of the GVN's policy for biofuels, while MOF is responsible for ethanol tax policy.

In 2012, the GVN issued Decision No. 53/2012/QD-TTg which laid out a roadmap to commercialize E5 in seven provinces (Hanoi, Ho Chi Minh City, Hai Phong, Danang, Can Tho, Quang Ngai, and Ba Ria Vung Tau) beginning in December 2014 and nationwide from December 2015. Decision 53 also set a target for E10 commercialization in the above seven provinces beginning in December 2016, with nationwide adoption from December 2017.

In 2015, the Ministry of Science and Technology (MOST) issued Circular No. 22/2015/TT-BKHCN on the circulation and implementation of National Technical Regulation "QCVN 1:2016/BKHCN" on gasoline, diesel, and biofuels. Prime Minister Directive No. 23/CT-TTg issued in 2015 also urged GVN line ministries to implement Decision 53. Key provisions include:

- MOIT to coordinate with MOF to regulate fuel prices;
- Ministry of Information and Communication and MOST to conduct a national communication program to promote biofuels and review and address issues facing ethanol production plants;
- MOF to propose a preferential tax scheme for biofuels;
- Ministry of Agriculture and Rural Development (MARD) to stabilize cassava production area and research new high-yield cassava varieties to supply material to ethanol plants.

In 2017, the Office of Government (OOG) issued Notification No. 255/TB-VPCP that banned fossil RON 92 and allowed only E5 RON92 and fossil RON 95 beginning January 2018. The GVN also requested relevant ministries to review and address outstanding challenges facing ethanol plants, construct a suitable pricing and tariff mechanism, and assure a supply of raw materials for ethanol production.

In 2019, the Prime Minister signed Decision No. 16/2019/QD-TTg that set January 1, 2020 as the deadline for cars manufactured domestically after 2008 to meet level 2 gas emission standards (equivalent to Euro 2). The limit of carbon monoxide emissions under level 2 is 3.5 percent, down from 4.5 percent under level 1. Industry studies confirm that engine exhaust emissions, particulate matter, carbon monoxide, toxics, ozone and greenhouse gases are reduced when ethanol is added in substantial quantities.

Ethanol Blended Gasoline Roll-out Pushed Back

Despite the abovementioned roadmap and legal framework, the roll-out of ethanol fuel was delayed. After several false starts, which were attributed to the unreadiness of gas traders and consumers, the GVN finally launched an E5 mandate across Vietnam in 2018, with an aim to move to E10, per Notification 255. The mandate ensures that E5 is available to consumers at the pump, labeled as "E5 RON 92," at a slight discount compared to RON 95. According to sources, the volume of E5 RON 92 sold in 2018 was over 3.15 million m^3, accounting for approximately 42 percent of total gasoline sales, much higher than the 8 percent prior to Notification 255, but sales fell to 30-35 percent in 2019.

Sources' explanations for the decline in sales of E5 RON 92 include:

- The volatility of the world oil market in the recent years and declining prices have reduced the gap between conventional and ethanol gasoline prices, making ethanol less attractive to price-sensitive consumers. Currently, the E5 RON 92 and RON 95 price gap is only VND690 ($0.03) per liter which is not sufficient to shift consumers' buying patterns. Local media quoted experts who stated that the price gap should be at least VND2,000 ($0.085) to make E5 RON 92 attractive to Vietnamese consumers, citing the environment benefits of ethanol blended gasoline. However, this price gap has yet to occur in the Vietnam market.
- Consumers still have concerns about the quality of ethanol gasoline. Regardless of the GVN's efforts to educate consumers on the environmental benefits and non-harmfulness to vehicle engines of ethanol gasoline, changing consumer consumption habits remains a challenge.

Gasoline prices are built on various taxes, including:

Table 2: Taxes on Gasoline

Tax	E5 RON 92		RON 95
	Ethanol	RON 92	
Import duties	MFN: - Exceeding 99% volume (HS Code 22072011): 15% * - Others (HS Code 22072019): 15% * - Others (HS Code 22072090): 40%	MFN 20%	MFN 20%
	VKFTA: zero	VKFTA 10%	VKFTA 10%
	ATIGA: zero	ATIGA 20%	ATIGA 20%
Value Added Tax (VAT)	10%		10%
Special Consumption Tax (SCT)	8%		10%
Environmental Protection Tax (EPT)	VND3,800/liter		VND4,000/liter

Notes:
**Effective July 10, 2020 per Decree 57*
MFN: Most Favored Nation
VKFTA: Vietnam-Korea Free Trade Agreement
ATIGA: ASEAN Trade in Goods Agreement

As noted in Table 2, the EPT applied on E5 RON 92 is only 5 percent lower than the EPT on RON 95, which is equivalent to the 5 percent ethanol blended in E5 RON 92. Industry sources note that this gap is insufficient to make ethanol blended fuel prices competitive with non-ethanol blended fuel prices and is the main reason for the 2019 drop in E5 RON 92 sales. In April 2020, MOIT recommended to reduce the E5 RON 92 EPT to as low as 75-80 percent of RON 95 EPT in recognition of its lower greenhouse emissions. However, local media reported that MOF, which reviews and advises on tax reduction proposals by other ministries, rejected MOIT's recommendation and only endorsed a 50 percent reduction of the aviation fuel EPT in the short term to assist the sector as it is suffering steep losses due to COVID-19.

Local Ethanol Production

At present, Tung Lam is the only local company producing ethanol. It has two factories, one in Dong Nai province (120,000 cubic meters/year designed capacity) and one in Quang Nam province (80,000 cubic meters/year). At least five factories, some of which are state-owned, have halted production due to inefficiencies and financial losses. Traditionally, Vietnam's domestic ethanol production had relied on locally grown cassava as its primary feedstock. However, Vietnam's expanding food and feed industry and increasing demand for exports have increased cassava consumption, raising prices and making cassava uncompetitive compared to imported corn, a common feedstock for ethanol production.

Ethanol Demand and Imports

Vietnam has been importing ethanol, mainly from the United States and South Korea, to supplement local production and demand. According to the U.S. Grains Council, Vietnam imported 3.5 million gallons of U.S. ethanol (1.24 million bushels in corn equivalent) in marketing year 2018/2019 (September 2018- August 2019). Should Vietnam's consumption of ethanol blended gasoline increase by implementing its targeted E10 blend rate, there will be more opportunities for both local and U.S. ethanol.

On May 25, 2020, the GVN issued Decree 57/2020/ND-CP, revising MFN tariff rates on a number of agricultural products, including ethanol (VM2020-0051). MFN import tariffs for ethanol (HS Code 22072011 and 22072019) were reduced to 15 percent, effective July 10.

Attachments:

No Attachments.