

Part 1

Business Overview

1. Policy and Business Overview

SPRC, a reliable and efficient refinery, located in Map Ta Phut Rayong. Our complex refinery has a capacity of 165,000 barrels per day of crude oil which providing about 13% of the combined refining capacity in Thailand. SPRC products include transportation fuels, other petroleum products and Petrochemical feedstock. We produce liquefied petroleum gas ("LPG"), polymer grade propylene ("PGP"), chemical grade naphtha, premium and regular grades of gasoline, jet fuel, diesel, fuel oil, and asphalt. With our focus on the high value in domestic market, we place our petroleum products primarily in Thai domestic market, mostly through Chevron and PTT.

1.1 Vision, Mission, and Strategy

SPRC's Vision is:

"One Family...Fueling the Future of Thailand"

To achieve our Vision, the **Mission** is set as follows:

"We are a highly engaged Family, dedicated to providing sustained superior returns to our shareholders through industry leading safe and reliable operations, producing quality products that exceed customer expectations, in harmony with our communities and the environment"

Strategy

SPRC intends to accomplish the Mission through the focus in 3 key result areas which are People, Operational Excellence and Stakeholder. The strategic objectives of each key result areas are defined as follows:

People: Set the Standard in Thailand as the Employer of Choice

SPRC focus on developping world class leaders and continue strengthen our learning organization through Knowledge Management. We continue drive our success by creating a highly engaged and high performance family aiming to achieve the Best Employer Award among Thai companies.

Operational Excellence: Set the Global Standard for Operational Excellence

SPRC has a strong incident and injury free family culture. We have commitment on personal safety and process safety. We continue to improve our performances to sustain our industry leading safety and reliability performances as compared to peers through a refining business benchmarking service.

Stakeholders: Set the Standard in Asia Pacific for Shareholder Return

SPRC focus on margin improvement, driving optimization and cost efficiencies. We continue improve financial performance and capture increased margin through our Bottom Line Improvement Program (BLIP) which aid and allow us to generate high returns to shareholders. We sustain our domestic sale through being a Supplier of Choice. The Sustainable Development program has also been integrated to meet our environmental expectations, social development, financial performance expectations, shareholder and communities expectation.

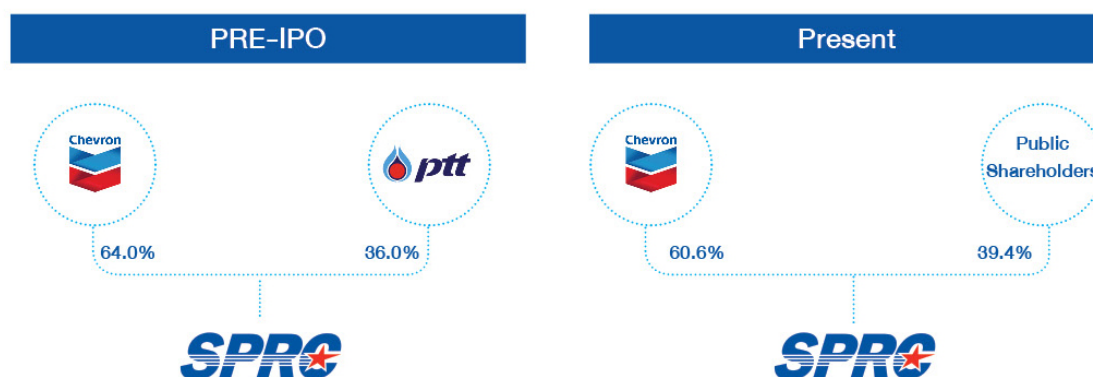
1.2 Development and Significant Changes in 2017

Our key accomplishment in 2017 are:

- Achieved 15.69 million man-hours without days away from work injury.
- Increased gasoline production capability by 5% to serve domestic demand.
- Continued crude optimization, 37 types of crude processed during the year including 3 new crudes.
- Stayed competitive through Bottom Line Improvement Program (BLIP), margin captured US\$2.59/bbl.
- Executed injury free product pier project within budget and schedule which improved jetty reliability and provided more flexibility for product loading.
- Achieved highest Dividend Payout among Thai refineries.
- Sustained top performer on Dividend Yield among Thai refineries.

1.3 Shareholding Structure

The shareholding structure had been changed following the completion of our IPO on December 8, 2015. The updated shareholding structure is as shown below.



Chevron, our major shareholder, remains 60.6% of shareholder in SPRC.

1.4 Relationship with Major Shareholder

Chevron, our major shareholder, continue to provide benefit to SPRC through access to Chevron's global procurement services for crude oil and feedstocks, a global refined petroleum products sales network, advanced technological, operational, engineering and other technical support services, and Chevron's master supply agreements for materials and services. We also benefit from the availability of Chevron and its affiliated management and technical personnel, including senior personnel such as our current chief executive officer and chief financial officer. Chevron intends to remain a significant shareholder in SPRC, and its continued objective for SPRC is that SPRC remains a top performer in terms of safety and reliability in the Thai refining community, driven by a dedicated and competent workforce.

1.5 Human Performance

Human Performance (HP) is one of the key focus areas that will help SPRC continually improve on our Incident and Injury Free journey. The HP program is primarily designed around the process of helping people become aware of the potential to make errors and then understanding what changes can be made to reduce the chance of those errors occurring.

The HP program was started in Operations areas and has now been extended to the Administration areas in year 2017. Key activities in year 2017 were focusing on moving from “I think” to “I know” to “We know” through an effort to move from “knowledge-based mode” in the job to either “skill mode” or “procedure mode”.

The HP program looked at the following:

- Increasing the overall staff awareness of what HP is about and how it can impact their personal performance
- The upgrading our critical work procedures through their review and conversion to the Smart Procedure format
- The review of job competency profiles and the associated training programs with a more rigorous Verify and Validate (V&V) on the training effectiveness
- The incorporation of the Shift Turnover with Excellence program (STWE)
- The improving of the incident investigation process to better understand the HP factors that may have contributed to each incident

The HP program is a journey along with Incident and Injury Free to continually improve our performance through both individual and companywide improvements to reduce the chance of incidents or injury in the workplace.

2. Nature of Business

SPRC is one of the leading petroleum product producers in Thailand and among the most efficient refineries in the Asia Pacific region. We own and operate a complex refinery with a capacity of 165,000 barrels per day of crude oil, which represents 13% of the refining capacity in Thailand.

2.1 Crude and Product

Our refinery is capable of processing a wide range of crude oil, which we typically source from the Middle East and the Far East. Our choice of feedstocks and product slate at any time depends on relative prices and yields. We decide on our product slate with input from our offtakers, based on our assessment of demand and projected prices for the various products that we can produce, typically around three months in advance of expected orders.

Our primary petroleum products from the distillation and conversion of crude oil are hydrocarbon fuels, which include LPG, premium and regular grades of gasoline, jet fuel, diesel, fuel oil and asphalt, as well as petrochemical feedstocks used in the petrochemical industry, which include PGP, LPG, chemical grade naphtha, mixed C4, reformat and sulfur.

2.2 Revenue structure

The following table sets forth the sales revenue and sales volumes of our various petroleum products for the periods indicated. Sales prices and revenue include excise taxes, oil fund, conservation fund and local taxes on fuels as required. These taxes are pass-through taxes that are sent on to the government.

Year Ended December 31,									
Sale Revenue (in millions of US\$)	2015			2016			2017		
	Sales Revenue	Volume (thousand barrels)	US\$/bbl ⁽²⁾	Sales Revenue	Volume (thousand barrels)	US\$/bbl ⁽²⁾	Sales Revenue	Volume (thousand barrels)	US\$/bbl ⁽²⁾
PGP	131.4	1,834	71.64	98.5	1,620	60.81	99.2	1,414	70.21
LPG	146.4	3,223	45.42	107.9	2,931	36.81	128.7	2,703	47.63
Light Naphtha	147.7	2,867	51.53	108.9	2,607	41.78	131.6	2,487	52.91
Gasoline	1,586.4	15,797	100.42	1,420.0	16,336	86.92	1,556.1	15,382	101.16
Jet Fuel	306.4	4,752	64.48	234.1	4,537	51.59	286.3	4,131	69.30
Diesel	2,073.8	23,663	87.64	1,817.8	23,386	77.73	2,053.0	22,148	92.69
Fuel Oil	273.2	6,404	42.66	253.5	7,761	32.67	349.4	7,221	48.38
Asphalt	85.5	1,455	58.73	33.7	1,244	27.05	55.5	1,232	45.07
Mix C4	131.5	2,607	50.44	91.6	2,146	42.68	115.6	2,533	45.64
Crude	4.0	65	61.13	25.1	652	38.48	0.9	16	54.45
Other ⁽¹⁾	334.5	5,671	59.00	182.4	3,767	48.43	232.6	4,226	55.06
Total Revenue	5,220.8	68,338	76.40	4,373.5	66,987	65.29	5,008.9	63,492	78.89

(1) Includes sulfur, reformat and products sold pursuant to our cracker feed exchange with PTT Global Chemical

(2) Includes excise tax, energy conservation promotion fund, oil fuel fund and local taxes

We sell a significant portion of our petroleum products primarily through the Offtake Agreement that we have entered into with Chevron and PTT and we sell our products both domestically and for export. From time to time, we also enter into a variety of short-term product sales agreements on a spot or term basis for the remaining petroleum products that are produced in our refinery.

Our top two customers are Chevron and PTT. The following table sets forth the percentage of total revenue accounted for by Chevron and PTT, respectively, for the periods indicated.

	Year Ended December 31,		
	2015	2016	2017
	% of Total Revenue		
Chevron	50.5	55.8	57.5
PTT	34.8	32.5	31.3
Others	14.7	11.7	11.2
Total	100.0	100.0	100.0

The following table sets forth our sales revenue for our petroleum products that are sold domestically as compared to export for the periods indicated. The domestic market is typically higher value than the export market. SPRC has worked successfully with its customers to increase placement of products in the domestic market since 2014.

In 2017 the export increased due to inventory management during CDU and RFCCU maintenance in June and October.

	Year Ended December 31,					
	2015		2016		2017	
	Sales Revenue	% of Total Revenue	Sales Revenue	% of Total Revenue	Sales Revenue	% of Total Revenue
(in millions of US\$, except for percentages)						
Petroleum Products						
Domestic	4,748.5	91.0%	4,036.4	92.3%	4,354.8	86.9%
Export	472.3	9.0%	337.1	7.7%	654.1	13.1%
Total revenue	5,220.8	100.0%	4,373.5	100.0%	5,008.9	100.0%

The following table sets forth our sales revenue for each of our petroleum products and such revenue as a percentage of our total revenue for the periods indicated.

Sale Revenue (in millions of US\$)	Year Ended December 31,					
	2015		2016		2017	
	Sales Revenue	% of Total Revenue	Sales Revenue	% of Total Revenue	Sales Revenue	% of Total Revenue
Polymer Grade Propylene	131.4	2.5%	98.5	2.3%	99.2	2.0%
Liquefied Petroleum Gas ⁽¹⁾	146.4	2.8%	107.9	2.5%	128.7	2.6%
Light Naphtha	147.7	2.8%	108.9	2.5%	131.6	2.6%
Gasoline	1,586.4	30.4%	1,420.0	32.5%	1,556.1	31.1%
Jet Fuel	306.4	5.9%	234.1	5.3%	286.3	5.7%
Diesel	2,073.8	39.7%	1,817.8	41.5%	2,053.0	41.0%
Fuel Oil	273.2	5.2%	253.5	5.8%	349.4	7.0%
Asphalt	85.5	1.6%	33.7	0.8%	55.5	1.1%
Mix C4	131.5	2.5%	91.6	2.1%	115.6	2.3%
Crude	4.0	0.1%	25.1	0.6%	0.9	0.0%
Others ⁽²⁾	334.5	6.4%	182.4	4.2%	232.6	4.6%
Total Revenue	5,220.8	100.0%	4,373.5	100.0%	5,008.9	100.0%

(1) Includes Government fuel subsidies

(2) Includes sulfur, reformat and products sold pursuant to our cracker feed exchange with PTT Global Chemical

2.3 Product Pricing

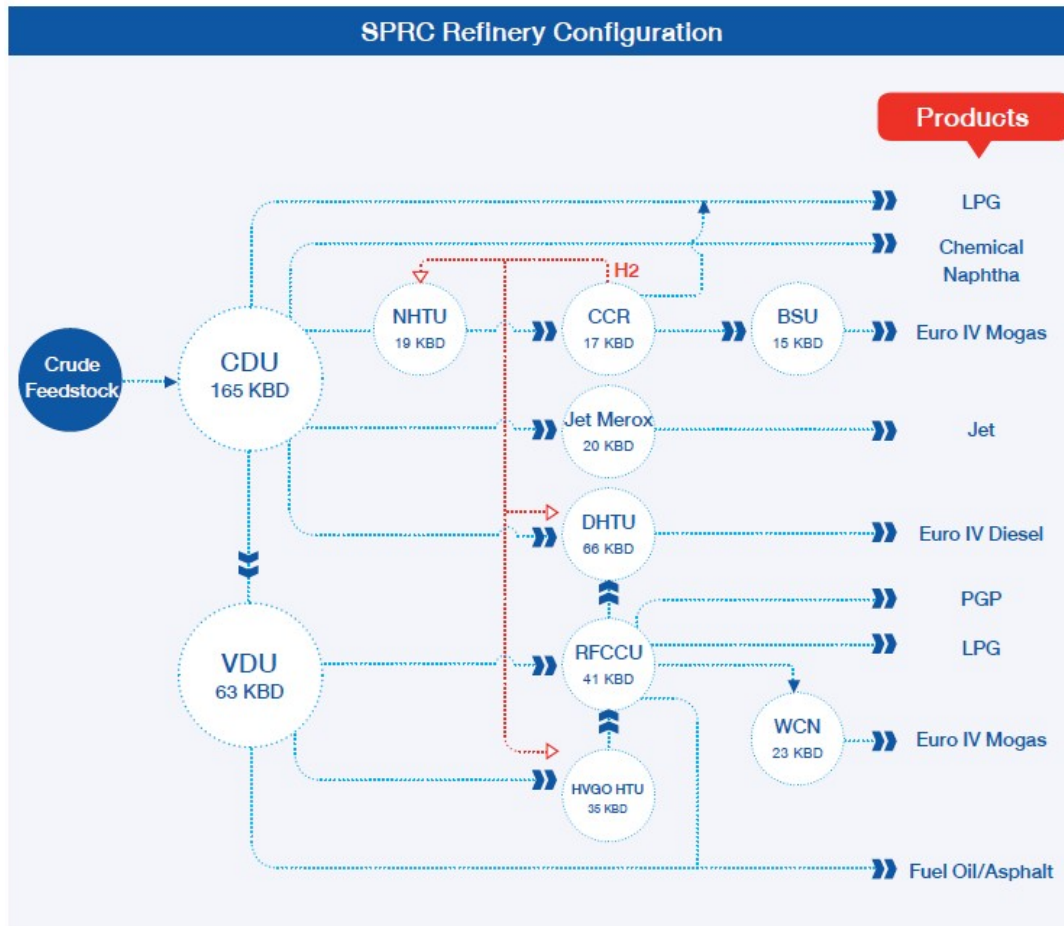
Most of the products sold through the offtake Agreement are benchmarked off the Mean of Platts Singapore, or MOPS. Thai domestic prices are adjusted from MOPS pricing with certain transportation, production, product quality, and market adjustments as appropriate.

Domestic sale prices of petroleum products sold outside of the Offtake Agreement are also market driven and are generally based on the monthly average of regional benchmark prices with certain adjustment for the applicable product in the month that they are sold. Our exports for petroleum products are also generally based on benchmark pricing, such as the price for the relevant product quoted on MOPS, plus or minus a premium or discount based on market conditions and negotiations with potential purchasers as well as differences in product quality and location.

2.4 Production Facilities and Processes

Our production facilities are located in Rayong province, approximately 200 kilometers to the southeast of Bangkok. Our refinery is a cracking refinery as compared to a hydroskimming refinery. Hydroskimming refineries are relatively low complexity refineries that have a significant amount of fuel oil yield. Cracking refineries are able to upgrade a significant portion of fuel oil into higher value transportation fuels such as gasoline, jet and diesel, providing a much higher margin than hydroskimming refineries.

The following diagram illustrates our refinery's configuration:



KBD = 1,000 Barrels per day

Our refinery's main units comprise of the following (all capacity figures are given as of 31 December 2017):

- one Crude Distillation Unit ("CDU") that heats crude and then distills it, with a capacity of 165,000 barrels per day that uses crude oil as a primary feedstock and primarily produces LPG, naphtha, jet fuel, diesel and long residue;
- one Vacuum Distillation Unit ("VDU") that uses a vacuum to improve distillation of long residue from the CDU, with a capacity of 63,400 barrels per day, and primarily produces diesel, heavy and very heavy vacuum gas oil, fuel oil and asphalt.
- one Naphtha Hydrotreater Unit ("NHTU"), with a capacity of 18,900 barrels per day, which removes sulfur from heavy naphtha prior to feeding it to the continuous catalytic regeneration reformer;
- one Continuous Catalytic Regeneration Reformer ("CCR"), with a capacity of 17,400 barrels per day, which converts low-octane naphtha into high-octane reformate for production of various grades of unleaded gasoline;
- one Benzene Saturation Unit ("BSU") that reduces the benzene in reformate, with a capacity of 15,100 barrels per day;
- one Jet Merox Unit that treats jet streams from the CDU in order to produce jet fuel, with a capacity of 20,000 barrels per day;

- one Diesel Hydrotreater Unit (“DHTU”) that treats streams from the CDU, VDU and RFCCU to produce diesel, with a capacity of 66,400 barrels per day;
- one Residue Fluidized Catalytic Cracker Unit (“RFCCU”) that cracks petroleum hydrocarbons in order to convert heavy low value fractions of petroleum crude oils to more valuable and higher margin products, with a capacity of 40,800 barrels per day. The RFCCU operates in conjunction with one propane/propylene splitter that allows for the separation and production of polymer grade propylene (PGP), with a capacity of 6,400 barrels per day, as well as Merox Treating Units designed to make LPG and gasoline products meet product specifications with a total capacity of 49,000 barrels per day;
- one Whole Cracked Naphtha Hydrotreater Unit (“WCN”) that treats gasoline from the RFCCU, with a capacity of 22,600 barrels per day; and
- one Heavy Vacuum Gas Oil Hydrotreater Unit (“HVGO HTU”) that removes sulfur and improves feed quality for the RFCCU, with a capacity of 34,700 barrels per day.

2.5 Overview of the Refinery Production Process

By heating crude oil to a certain temperature and sending it to the crude distillation unit, it is possible to separate crude oil into different fractions, each with its own boiling range. The crude distillation unit produces several streams that are utilized in the refinery to produce different petroleum products. The lighter boiling components rise up the crude distillation tower while the heavier boiling components fall to the bottom. As the lighter components pass through the crude distillation tower, the oil’s temperature gradually drops and vapor is condensed. The distillation of oil vapors at different temperatures produces various petroleum products such as LPG, naphtha, jet fuel, and diesel. The heavier components are sent to the vacuum distillation unit which reduces the boiling point of the heavier components to facilitate the separation of diesel and heavy vacuum gas oil from residue. The residue from the vacuum distillation unit is used to produce fuel oil and asphalt. The heavy vacuum gas oil and very heavy vacuum gas oil are sent to the RFCCU.

The heavy vacuum gas oil from the vacuum distillation unit is fed to the heavy vacuum gas oil hydrotreater, which removes sulfur and improves feed quality for the RFCCU. The RFCCU converts streams from the vacuum distillation unit and the heavy vacuum gas oil hydrotreater unit that would otherwise be used to make lower value fuel oil into lighter, more valuable products such as LPG, gasoline and diesel by cracking, or breaking, large molecules into smaller molecules. Our RFCCU also upgrades a portion of the vacuum distillation unit residue and this allows our refinery to process lower cost, heavier crude oils. A dedicated distillation process is used to separate components into refinery fuel gas, PGP, LPG, gasoline, diesel, and a small amount of fuel oil. The gasoline from the RFCCU is treated in the whole cracked naphtha hydrotreater unit to meet Euro IV gasoline specifications.

Some of the lighter components from the crude distillation tower are sent to a series of towers called the light end recovery. The separated components consist of a refinery fuel gas, LPG, light naphtha and heavy naphtha. Light naphtha is sent to the gasoline-blending unit, or sold as chemical naphtha to petrochemical companies as ethylene cracker feedstock. Low octane heavy naphtha is routed to the naphtha hydrotreater to remove sulfur and then to the continuous catalyst regeneration reformer to boost its octane by changing the shape of the oil molecules to higher octane molecules. The reformed naphtha, or reformate, is sent to the benzene saturation unit which reduces benzene content in order to comply with Euro IV specifications. The product from the benzene saturation unit is used to blend different grades of unleaded gasoline.

The oil from one of the streams of the crude distillation unit is directed to the Jet Merox Unit to remove contaminants to produce jet fuel. Other streams from the crude distillation unit, the vacuum unit and the RFCCU are treated in the diesel hydrotreater unit to produce Euro IV diesel.

2.6 Feedstocks

2.6.1 Crude Oil Supply

The main feedstock used in our refinery production process is crude oil. We are capable of processing a wide range of crude oil, including crude oil from the Middle East, Far East and other regions. As our refinery has upgrading and conversion units, we are able to use a higher proportion of heavy sour crude from the Middle East, which has a higher sulfur content and is less costly than light sweet crude, to produce a product slate that matches customer demand. We use Chevron's global crude and feedstock procurement network, crude characterizations and proprietary linear program to optimize the quantity and type of crude oil and other feedstocks that serve as inputs in our refinery. This allows us to more precisely source, select and blend crude oil that enhances our gross refining margins while meeting customer demand. Our crude oil slate is determined after we decide on our product slate with input from our offtakers, based on our assessment of customer demand and projected prices for the various products that we can produce, typically around three months in advance of product sales. We input pricing and product demand information into Chevron's proprietary linear software, which takes into account our production processes and constraints, to determine the optimal blend of crude oil to purchase.

We source and purchase crude oil primarily through Chevron and PTT and their affiliates on credit terms that are in line with market practice.

2.6.2 Other Refinery Feedstocks and Raw Materials

We also purchase long residues and other feedstocks for processing in our refinery. We purchase such principal feedstock for our refinery primarily from Chevron under feedstock supply agreements. We use hydrogen to remove sulfur from our petroleum products as part of the hydrotreating process. We have entered into agreements with outside suppliers to provide supplemental hydrogen to our refinery.

2.6.3 Intermediate Products Exchange

We have entered into a cracker feed exchange with PTTGC where we supply heavy vacuum gas oil as supplemental feed to PTTGC's hydrocracker, and PTTGC supplies us with hydrocracker bottoms as a supplemental feed to the RFCCU. The objective of the exchange is to increase yields of higher value products at both our RFCCU and PTTGC's hydrocracker. Our facilities are located near to those of PTTGC's refinery, and the intermediate products exchange is accomplished through use of direct pipelines.

2.6.4 Catalysts

We use various types of catalysts in many of the major units in our refinery to facilitate reactions to improve product yields and product quality. Catalysts typically last from two to five years, depending on the type of catalyst used and the unit in which it is used. We evaluate and select catalysts based on their performance and price and the needs of our refinery. We typically purchase catalysts on a spot basis, based on technical and commercial considerations at the time. However, our Residue Fluidized Catalytic Cracker Unit requires continuous catalyst make-up, and we typically enter into term contracts for this continuous supply.

2.7 Flows and Storage

2.7.1 Crude Oil

We primarily receive crude oil shipments through a single point mooring system, that we own jointly with PTTGC, that permits us to receive shipments from very large crude carriers, or VLCCs, of up to 265,000 dwt capacity. VLCCs significantly reduce crude transportation costs from the Middle East and we also take advantage of co-loading VLCCs with PTTGC in order to share these transportation costs. The co-loading also applies the Aframax size with other refineries to minimize freight cost when

receiving crude in smaller shipment. We are also able to receive crude oil in smaller shipments through a pier in our marine terminal. This crude is delivered to storage tanks at the refinery through pipelines that connect directly to our refinery.

2.7.2 Product Distribution

The strategic location of our refinery in the Map Ta Phut Industrial Estate in Rayong provides us access to a convenient product delivery network that allows us to distribute our products in a cost effective manner via transmission pipelines, coastal vessels via our marine terminal, and trucks via our truck loading terminal, to Thailand's main demand clusters for petroleum products. In addition, several petrochemical companies that purchase products from our refinery are also located in the vicinity of the Map Ta Phut Industrial Estate. Our refinery is connected to the Thapline pipeline and our offtakers transport gasoline, jet fuel and diesel through it to distribution networks in the Bangkok area. We operate a booster pump, which is jointly owned with PTTGC, to deliver products to the Thapline pipeline.

We also have a marine terminal with two piers to distribute products throughout Thailand. The main pier has five berths and is able to accommodate vessels of up to 80,000 dwt and is used for the distribution of petroleum products both domestically and to export markets as well as to receive domestic crude oil and other feedstocks. We also have a second pier that has two berths for the loading and distribution of LPG.

We also operate a truck loading terminal for our offtakers to facilitate the distribution of our petroleum products to the southeast and northeast of Thailand, within Rayong province and to the Indo-China export market, including Laos, Cambodia and Myanmar. Our truck loading terminal also contains an asphalt loading rack to distribute asphalt and we charge operating costs of the truck loading terminal to offtakers. We have installed a vapor recovery unit and bottom loading capabilities in our truck terminal to reduce VOC emissions at the terminal.

2.7.3 Storage

Our refinery has a total of 71 storage tanks and facilities to enable us to store feedstocks after delivery and before process, products before delivery and certain intermediate processing streams. We have an aggregate nominal crude oil storage capacity of approximately 4.9 million barrels, representing up to 29 days' supply of crude oil. Thai regulations require us to hold a legal reserve of crude oil equivalent to 6% of our annual sale of petroleum products domestically. Our product inventory increases and decreases from time to time reflecting timing of product deliveries and operational variations.

2.8 Competition

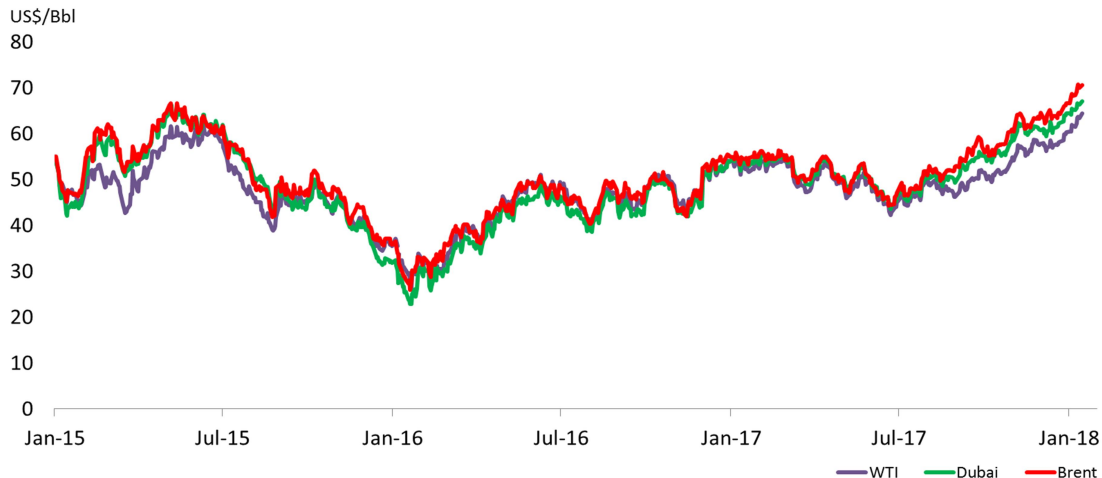
The refining industry in Thailand is highly competitive. As of 31 December 2017, there were 7 refineries in Thailand, with a combined refining capacity of 1,235 kbpd. We principally compete with five other domestic petroleum refineries in Thailand with a combined capacity of 1,097 kbpd, which are Thai Oil, Esso, Bangchak Petroleum, PTTGC, and IRPC. PTT, which is Thailand's largest oil and gas company, holds significant interests in three of our principal competitors: Thai Oil, PTTGC and IRPC.

2.9 The Oil Refining Industry

2.9.1 Current Oil Price Environment

In 2017, crude prices were volatile with Dubai crude price moving between US\$43.50/bbl and US\$64.36/bbl, with an average of US\$53.16/bbl, which was higher than 2016 average of US\$41.32/bbl. Average Dubai price for Q3/17 was US\$50.45/bbl, increased from US\$49.78/bbl in Q2/17 as a result from decline of U.S. crude inventories due to Hurricane Harvey and lower Libyan oil production cause the shutdown of El Sharara oilfield. In the fourth quarter 2017, Dubai price increase to US\$59.30/bbl because of a result of extends agreement of reduced supply from OPEC and non OPEC producers to the

end of 2018, lower export from northern Iraq due to conflict between Kurdish and Iraqi militaries and shutdown of the Keystone pipeline connecting Canada and the United States due to oil spill. The U.S. crude oil stocks have reached low record stock levels at 425 million barrels at the end of December. U.S. oil rig count rose continuously to 744 and increased U.S. production to 10 MBPD.



2.9.2 Oil Industry Outlook

The International Monetary Fund (IMF) has projected world economic growth to expand by 3.7% in 2018. The advanced economies forecast for 2018 is 2.0% which unchanged from 2017 as lower projected U.S. growth offsetting higher projected growth in the Euro area. World liquids demand growth is expected to remain strong at 1.9 MBPD higher than 1.8 MBPD in 2017 support by strong non-OECD (the Organization for Economic Co-operation and Development) Asia refined product. The World Bank projects Thai economic growth of 3.3% in 2018.

The OPEC expects weak world supply in 2018 of 39.5 MBPD, which is less than 40.1 MBPD in 2017. Oil prices are expected to increase as extends agreement of reduced production from OPEC and non OPEC producers to the end of 2018 and balance in global liquid oil. Most analysts estimate that Jet, Diesel and Naphtha demand growth will remain relatively strong as a result of preparation for the IMO bunker fuel specification change and petrochemical feedstock. In 2018, Gasoline is expected to remain strong demand growth in Asia and the Middle East constituting about 30% of regional demand growth amid growing vehicle ownership. Gasoline crack in West is expected at moderate amid ample supply availability and demand decline in U.S. and Europe. Fuel oil demand growth is expected to remain relatively flat due to declines in North America and Europe.

Moreover, U.S. liquids supply growth is expected to pick up in 2018 due to rebound of U.S. rig count and increasing of shale oil production to 10 MBPD which put downside pressure on price and supply market.

2.10 Environmental Matters

Our operations are subject to various environmental laws and regulations, including the Enhancement and Conservation of National Environmental Quality Act B.E. 2535 (1992), the Factory Act B.E. 2535 (1992) and Fuel Control Act B.E. 2542 (1999). In 1992, Thailand strengthened environmental laws and regulations in order to promote sustainable development and to better protect the natural environment. Environmental laws and regulations, among other matters, restrict the type, quantities and concentration of various substances that can be released into the environment. Our operations are

also subject to laws and regulations relating to the generation, handling, storage and transportation of petroleum products, as well as the treatment of pollutants. These environmental laws and regulations, particularly those relating to waste management, air emissions and water discharged from our operations, affect our oil refining business. The primary governmental bodies which supervise the environmental aspect of our operations are the Office of Natural Resources and Environmental Policy and Planning under the Ministry of Natural Resources and Environment, the Pollution Control Department of the Ministry of Natural Resources and Environment, the Industrial Estate Authority of Thailand, the Industrial Works Department of the Ministry of Industry and the Department of Energy Business of the Ministry of Energy.

We have implemented various pollution control system and other environmental impact mitigation measures and monitoring program as required by applicable law, including applying advanced technologies to reduce emissions and conserve resources. Our refinery has implemented a high efficiency wastewater treatment system consisting of an oil and water separator that permits the recycling of oil, an induced air flotation unit that also improves oil and water separation, an equalization unit that mixes and controls the volume and concentration of contaminant and bio treaters that remove contaminants prior to discharging water. Our refinery has implemented solid waste management system to ensure that all types of wastes generated from SPRC sites are properly classified, handled and safely disposed of in compliance with Thai legislation and International agreements. We also applied 3Rs (Reduce, Reuse and Recycle) in the solid waste management. SPRC waste management focus to reduce or minimize the amount of waste generated and disposal in landfill by incorporating 3Rs wastes where possible, disposing the remainder in a safe and environmentally responsible and acceptable manner.

In April, 2016 the Ministry of Industry has announced Ministerial Regulation Control of Contamination in Soil and Underground Water inside Factory Area B.E. 2559. This regulation requires “factories”, including refineries, conduct a soil and groundwater assessment of their facilities. We have already completed all actions and report submission in 2017.

In June, 2017 the Ministry of Industry has announced Effluent Standards from Factory B.E. 2560 which currently we have already complied with this regulation.

We conduct regular reviews aimed at achieving compliance with our environmental policies. We believe we are in compliance in all material respects with environmental laws and regulations applicable to us.

SPRC believes in maintaining a good balance between environmental stewardship, financial performance, and social development. We have incorporated this fundamental Sustainable Development belief into the way we do business. Several key Focus Areas for us to continuously improve our performance include Green House Gases Emissions, Air Emissions, Oil Spill Prevention and Response, Water Management and Waste Management.

3. Risk Management and Risk Factors

To achieve SPRC business objectives, SPRC has a robust Risk Management Policy in place to understand internal and external risk factors that could impact our goals. Our first step in risk management is to identify potential risks to our business and operations and assess that risk for likelihood and potential impact on SPRC using a Risk Matrix. This assessment is updated at least annually based on changes in our business, changes in local, regional and global conditions, or if our mitigation plans have reduced the risk.

SPRC conducts risk management throughout all areas of our business, including strategic risk, business risk, operational risk, financial risk, project risk, trading risk, and compliance risk. Understanding these risks, we also use risk-based decision making to ensure SPRC achieves successful operational results and financial returns.

Once the risks have been identified and analyzed, SPRC develops mitigation plans for each risk to minimize the chance of the risk happening, or the impact if it does occur. These mitigation plans are monitored to ensure they are completed on time and successfully reduce the risk. Risk management assessments and status of mitigation plans are reviewed and approved by the Risk Management Committee (RMC), which consists of the Chief Executive Officer, the Deputy Chief Executive Officer - Operations, the Supply and Planning Manager, and the Chief Financial Officer. These results are also reported to the Audit Committee on a quarterly basis.

3.1 Strategic Risk

3.1.1 Market and Commercial Risk

SPRC's overall refining margins are driven in large part by global crude and product pricing trends, which strongly influence global refining margins. Although global refining margins can be volatile in the short term, over the longer term they tend to be relatively steady to support sustainable refinery operations. SPRC's goal is to maximize our profitability by getting the most out of margins through a focus on safety and reliability which allows maximum utilization rates and maximum margin capture. Since 2009, SPRC uses its Bottom Line Margin Improvement Program (BLIP) in order to continuously find ways to increase our margins over benchmark margins. BLIP looks at product optimization, process optimization, crude optimization, oil loss reduction, energy efficiency and people efficiency and waste elimination as ways to improve margin. An important part of BLIP is maximizing product placement in the higher value Thailand domestic market. Over the years, SPRC has continuously identified and implemented initiatives that have provided increasing differentiation over benchmark margins, which enhances our margin capture during strong markets and minimizes impact on margin during weak markets.

SPRC is a member of the Federation of Thai Industrial (FTI), where we work together with companies in the refinery and petrochemical cluster group to advocate government policy and regulations which may create a business impact. The advocacy program supports knowledge sharing, provides relevant information, and provides suggestions during drafting and public hearings before the enactment of regulations. SPRC maintains good relations and cooperation with related Government Authorities, such as Ministry of Energy, Department of Energy Business.

3.1.2 Laws and regulations relating to the environment or product specification requirements

SPRC has a strong Sustainable Development and corporate social responsibility program. We meet or exceed all regulations related to environmental standards and product specifications. To ensure sustainable business operations for SPRC, we have developed roadmaps and implemented actions to improve the environment in the areas of emissions of sulfur dioxide, nitrogen oxides particulates, energy usage and water usage. We committed capital expenditures to meet and exceed requirements

of environmental laws and regulations. In 2012 we completed our Clean Fuels Project to produce Euro IV gasoline and diesel. In 2014 we finished the Air Preheater Project which reduced refinery greenhouse gas emissions by 2% and reduced NOx emissions. The 2014 FCC Reliability Improvement Project reduced particulate emissions from the FCC by 63%. In 2017, we implemented projects to minimize water consumption by recovering Low Grade Condensate at the Sulfur Plant.

For product specification requirements, SPRC always targets internal product specifications that exceed government specifications and to meet or exceed our customer requirements.

We have a Legal Compliance Process to ensure we understand any change in laws and regulations, and develop implementation plans to ensure compliance. SPRC also has an active advocacy program to work with industry, NGO's and the government as new laws and regulations are developed.

3.1.3 Refinery Competitive Position

The refinery business is a highly competitive market as more new technologies are implemented to minimize costs and to increase high value product yields. SPRC improves our competitive position both through implementation of our Bottom Line Margin Improvement Program (BLIP) and investor relations strategy.

BLIP focuses on improving refinery optimization through implementation of new initiatives, many of which are identified via AOS (Advance Optimization Studies) and IQ (Innovation Quests). SPRC is also developing ways to improve its competitive position by leveraging and investing in the future trends of digital technology.

As part of our investor relation strategy, SPRC reviews our competitiveness in the market through benchmarking of shareholder returns with other refineries in Thailand and Asia Pacific as well as monitoring our stock price performance against peers, and an internal assessment of its fair value.

SPRC's strategic objective in its Key Result Areas (KRA's) is to Set the Standard in Operation Excellence, Shareholder Returns and the Employer of Choice. SPRC's Family Culture supports these objectives, with responsibilities for activities cascaded throughout the organization, and with successes celebrated through employees' team reward and recognition schemes.

One aspect of Setting the Standard in Operational Excellence is SPRC's goal to run its refinery for over 5 years without unplanned shutdowns, which also supports margin maximization, financial returns and competitive position. During the next turnaround scheduled in late 2019, SPRC will implement several projects, which will increase capacity of crude distillation unit (CDU) and downstream units, improve safety and reliability, and improve energy efficiency. These projects will enhance competitive position by increasing product throughput and yields, minimize production costs and also enhance our crude processing flexibility which is one key factor to support refinery margin.

3.2 Financial Risk

A substantial portion of our revenues, costs and expenses are in U.S. dollar currency. As a result, SPRC uses the U.S. dollar as our functional currency, reducing our exposure to foreign exchange fluctuations. Interest rates are another potential financial risk during fluctuations of interest rates. This risk is not significant to SPRC due to our low debt to equity ratio.

3.3 Operational Risk

A significant interruption in the operations

To meet our strategic goal to "Set the Standard" globally in Operational Excellence, SPRC uses our strong "one family culture" to support and build an incident and injury free culture which delivers exceptional safety, reliability, utilization and environmental performance.

Our Board of Directors and top executives provide a strong top down commitment to our safety, reliability and Operational Excellence programs, communicating it throughout the workforce. SPRC has a robust Refinery Management System, incorporating Sustainability concepts throughout, including Asset Management System, Environmental, Health and Safety Management System and Hydrocarbon Management System, which provide a structured set of policies, procedures and work instructions to ensure that operational risks are identified, addressed and mitigated in a systematic way. These management systems include a robust risk-based inspection program and an incident investigation system to help drive our superior safety and reliability performance.

3.4 Compliance Risk

SPRC is committed to conducting its business ethically and in compliance with all applicable laws and regulations. SPRC conducts our business with fairness and transparency with zero tolerance of corruption. This year SPRC received the certification of membership from Thailand's Private Sector Collective Action Coalition against Corruption or CAC which is evidence of our commitment to a corruption free organization.

4. Operating Asset

The Company's Major Assets

As of 31 December 2017, the company's property, plant and equipment, which the company has the right of ownership, and its net book value after accumulated depreciation as presented in the company's financial statement are as follows:

Major assets	Book value		Obligation
	US\$ Million	Baht Million	
Land	73	2,412	No
Buildings	55	1,816	No
Refinery plant & machinery	1,990	65,378	No
Furniture, fixtures and equipment	75	2,447	No
Construction in progress	8	245	No
Total cost	2,201	72,298	
<u>Less</u> Accumulated depreciation	(1,264)	(41,507)	
Net book amount after accumulated depreciation	937	30,791	

Land

The company's refinery is located on its own land of approximately 1,200 rai in Map Ta Phut Industrial Estate. The company also leases certain parcels of land of approximately 115 rai for the operation relating to the refinery such as the company's product piers.

Refinery Plant and Machinery

The company has the right of ownership in the refinery plant and all machineries used in the company's refinery operation.

Detail of Insurance

The company's significant insurance policies include a "property all risks" policy, which includes coverage of material damage, machinery breakdown and business interruption for the refinery as well as the joint ownership interest in the single point mooring system. The company also carries third-party liability, marine cargo insurance and limited business interruption insurance. The company, insurance broker and shareholders review the company's insurance coverage periodically and the terms and conditions of the insurance policies are in accordance with industry norms and maintained at adequate levels.

All of the above insurance policies are subject to deductibles and are renewed annually. Some of the insurance coverage does not extend to war or acts of terrorism, among other exclusions.

Intangible Assets

As of 31 December 2017, the company's intangible assets and its net book value after accumulated amortization as presented in the company's financial statement are as follows:

Intangible assets	Book value	
	US\$ Million	Baht Million
Computer Programs	12	415
Total cost	12	415
<u>Less</u> Accumulated amortization	(7)	(242)
Net book amount after accumulated amortization	5	173

Right for Use of Land in Map Ta Phut Industrial Estate and Long Term Lease

Agreement for Use of Land for industrial purpose in Map Ta Phut Industrial Estate

On 20 November 1992 the company entered into an agreement with IEAT for the use of land of approximately 43 rai which is used for the company's marine terminal. The agreement is for a period of 30 years. The company has a plan to extend the agreement before it expires.

Later the company also entered into a memorandum annexed to the agreement for use of land for industrial purpose dated 23 July 2008 for the piperack used for product pipelines and transmission lines of approximately 12 rai for the period of 27 January 1994 to 30 June 2005 and approximately 5 rai for the period from 1 July 2005.

The company also entered into a land use agreement for other operations relating to IEAT undertaking dated 23 July 2008 for the piperack used for the petroleum product pipelines and transmission lines of approximately 15 rai. The agreement is for a period from 20 November 1992 to 19 November 2022.

Long Term Lease

The company entered into a land lease agreement with IEAT dated 19 June 2007 for the refinery operation and power generation with an area of approximately 52 rai in IEAT area for a period of 30 years from 6 July 1995 to 5 July 2025.

Investment Policy in Subsidiaries and Associated Companies

As of 31 December 2017 the company has no investment in subsidiaries or associated companies so the company does not have an investment policy in subsidiaries and associated companies.

5. Legal disputes

As of 31 December 2017, there is no material litigation against the Company which could have a negative effect on our assets exceeding 5% of shareholder's equity. In addition, there is no lawsuit, which could have a significant effect on our business.

6. General information and other important information

6.1 General information

Company Name	Star Petroleum Refining Public Company Limited
Initial	SPRC
Business	<p>Founded in 1992, SPRC is one of the leading petroleum product producers and oil refiner in Thailand and the Asia Pacific region.</p> <p>SPRC owns and operates a complex refinery with a capacity, as of 31 December 2017, of 165,000 barrels per day of crude oil, which represents 13.4% of the refining capacity in Thailand.</p> <p>SPRC strategically located in Map Ta Phut, Thailand's premier petrochemicals hub.</p> <p>Our key products consist of LPG, premium and regular grade of gasoline, jet fuel, diesel and fuel oil.</p> <p>Our unique configuration and flexibility in production enables us to produce more gasoline compared to other Thai refineries.</p>
Registration number	0107555000155
Address	<p>No.1, I-3B Road, Map Ta Phut, Muang Rayong, Rayong 21150</p> <p>Tel: +66 (0) 38 699 000 Fax: +66 (0)38 699 999</p>
Website	www.sprc.co.th
Listing Date	On 8 December 2015
Capital	As of 31 December 2017
Registered Capital	Baht 30,004,442,705 comprising 4,335,902,125 fully paid-up common shares of Baht 6.92 per share
Number of Employees	472 persons (as of 31 December 2017)
Secondary Market	Stock Exchange of Thailand (SET)
Investor Relations	<p>Telephone number: +66 (0) 38 699 887</p> <p>Website: http://investor.sprc.co.th/</p> <p>E-mail: ir@sprc.co.th</p>

6.2 Reference

Securities Registrar	<p>Thailand Securities Depository Co., Ltd.</p> <p>93 Ratchadaphisek Road, Dindaeng, Bangkok 10400, Thailand</p> <p>Tel: +66 (0) 2 009 9000,</p> <p>Fax: +66 (0) 2 009 9991</p> <p>SET Contact Center: +66 (0) 2 009 999</p> <p>Website: http://www.set.or.th/tsd E-mail: SETContactCenter@set.or.th</p>
External Auditor	<p>PricewaterhouseCoopers ABAS Ltd.</p> <p>15th Floor Bangkok City Tower, 179/74-80 South Sathorn Road, Bangkok 10120, Thailand</p>