

Embracing the Sustainable Value



ROBECOSAM
Sustainability Award
Silver Class 2016

MEMBER OF
Dow Jones
Sustainability Indices
In Collaboration with RobecoSAM



Global Compact
LEAD
PARTICIPANT



ANNUAL REPORT 2015

PTT Global Chemical Public Company Limited

The background of the image is a close-up, top-down view of a wood surface. It features a series of concentric, slightly irregular circular rings that radiate from a central point, creating a sense of depth and organic growth. The wood has a warm, light brown or tan color with visible grain patterns and subtle variations in tone between the rings.

Embracing the Sustainable Value

We Contribute to a **Better Living**
Together with Creating Economic,
Social and Environmental Values
for Sustainable Growth



Economic



Social



Environment





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PTTGC is the only chemical company from Thailand and ASEAN that has obtained the Silver Class distinction from RobecoSAM, one of the world's most trusted and accepted sustainability rating agencies. The distinction confirmed that PTTGC is integrating sustainability performance across the value chain and at the global level. Additionally, the annual assessment of companies' sustainability by RobecoSAM is also used for selecting component of DJSI inclusion. The result of the 2015 assessment confirmed the inclusion of PTTGC in the DJSI World members for the third consecutive year.



Contents



- 4 Vision, Mission and Corporate Strategy
- 6 Financial Highlights
- 8 Awards and Recognitions
- 10 Major Events and Activities in 2015
- 12 Message from the Chairman



Business Highlights

- 18 Business Structure
- 20 Business Value Chain
- 22 Nature of Business and Performance
 - 22 Group Performance Center - Refinery & Shared Facilities
 - 22 Group Performance Center - Aromatics
 - 23 Group Performance Center - Olefins
- 23 Polymers Business Unit
- 24 EO-Based Performance Business Unit
- 25 Green Chemicals Business Unit
- 26 High Volume Specialties Business Unit

- 27 Phenol Business Unit
- 28 Services and Others
- 29 Industry Overview in 2015 and Outlook on 2016
- 33 Management's Discussion and Analysis
- 50 Risk Management and Risk Factors
- 55 Internal Control
- 58 Shareholding Structure in Subsidiaries and Affiliates

- 60 Revenue Structure
- 62 Connected Transactions
- 71 Shareholding Structure
- 71 Dividend Payment Policy



Organization Structure

- 74 PTTGC Board of Directors
- 82 PTTGC Executives
- 93 Organization Structure
- 94 Management Structure



Corporate Governance

- 114 Corporate Governance
- 137 People Management and Development Policy



- 140 Report of the Corporate Governance Committee
- 142 Report of the Nomination and Remuneration Committee
- 144 Report of the Risk Management Committee



Sustainable Development

- 148 Sustainable Development
- 153 Safety, Occupational Health, and Environmental Management



Financial Excellence

- 160 Report of the Audit Committee
- 163 Report of the Board of Director's Accountability to Financial Report
- 164 Independent Auditor's Report
- 166 Financial Statements
- 178 Notes to the Financial Statements
- 271 Audit Fee and Non - Audit Fee



Appendix

- 274 Company Information
- 276 Technical Terms & Abbreviations

"Investor may search for more detail of Company information in Form 56-1 available at www.sec.or.th or Company website www.pttgcgroup.com"

Vision

to be a leading
chemical company
for better living



Mission

- We deliver the best business performance through trust worthiness to create fair and sustainable value for shareholders.
- We engage and integrate social and environment to our business with responsibility and care for sustainable development.
- We provide superior solutions from innovative products and services to be the best choice for business partners.
- We create a learning organization and a happy workplace to cultivate proficient workforces with profound engagement and commitment to professional excellence.

Objectives and Goals

PTT Global Chemical Public Company Limited (PTTGC) has reviewed Vision, Mission and Corporate direction annually through strategic planning process to ensure the alignment with current global context and future business trends. PTTGC's aspiration to become a leader in chemical business in the following 3 aspects within 2024:

Business Growth



PTTGC aims to create continuously a steady and sustainable growth as a leading integrated petrochemical player through being competitively prominent in the industry and investing in various growth countries.

Return on Investment



PTTGC aims to achieve a top quartile performance among Asia Pacific's leading players and fairly delivers return to all stakeholders.

Sustainability



PTTGC aims to operate the business upon the balance of economy, society and environment to ensure a sustainable growth.

Corporate Strategies

PTTGC's corporate direction and strategies has focused on sustaining its competitiveness at the top level among peers. Meanwhile, is preparing on various aspects of its organization to accelerate future growth. PTTGC has employed these strategies as a framework for business operations with regular monitoring to ensure the achievement of short-term and long-term goals. Our strategies consist of 3 strategic pillars and 1 strategic enabler as below:

1) Sustain Core

To sustain the competitiveness of core business among new normal of challenging and volatile environment, PTTGC has focused on the following 3 aspects:

- Performance Excellence: continuously developing and improving its operational excellence, marketing excellence, and research & development excellence
- Maximize Integration and Utilization: integrating its value chain and expand its production capacity for the utmost benefit
- Map Ta Phut Retrofit: enhancing the flexibility of current asset to provision a variety of feedstock for future uncertainties

2) Accelerate Growth Levers

To leverage our core competencies, PTTGC is inspired to prolong new business both locally and internationally where there is potential for growth and return on investment, through business partnership or build ours own. There are 3 parallel focus areas:

- Capture competitive feedstock and emerging market opportunity by expanding current business to the new competitive site
- Create new value added products with higher performance, technology driven; respond to diversity product and growing market platform by investing in performance chemical business.
- Striving to be a green flagship in Thailand, we are paving the way for a green business with upgrading national agricultural products as bio based chemical by utilizing our proven joint-ventures' technology

3) Balance Business & Social Value

To become a blue print for sustainability by creating a balance of its business growth, corporate social and environmental responsibility. PTTGC has in parallel strategies, continuously implant corporate social responsibility projects and fair treatment for all stakeholders.

4) Strengthen Enablers

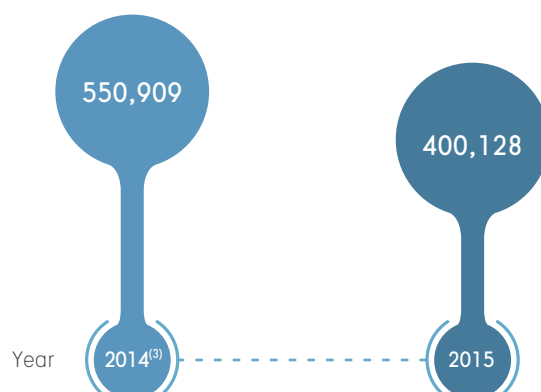
To support corporate growth strategies by developing the organization's capabilities and accelerating tangible outcomes, i.e., improving management systems and operational processes, developing technologies and innovations, creating a learning organization, improving human resource management.



Financial Highlights

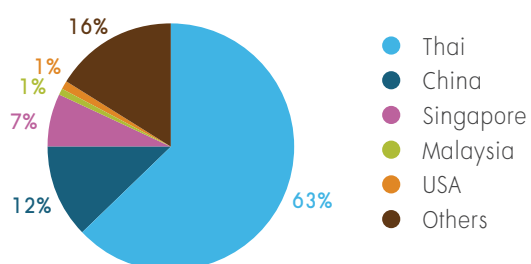
Sales Revenue

Unit : Million THB



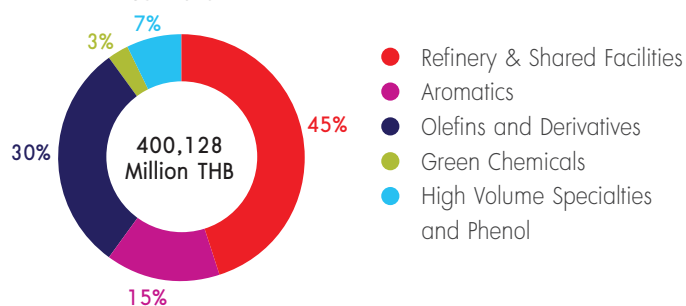
Sales Revenue Breakdown by Geography

Year 2015



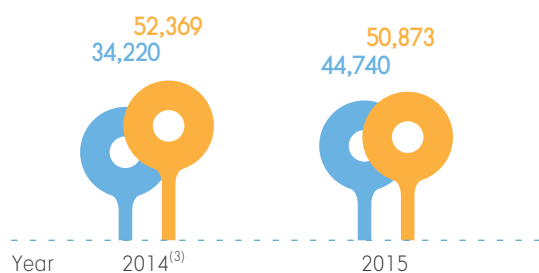
Sales Revenue Breakdown by Business

Year 2015



EBITDA⁽¹⁾

Unit : Million THB

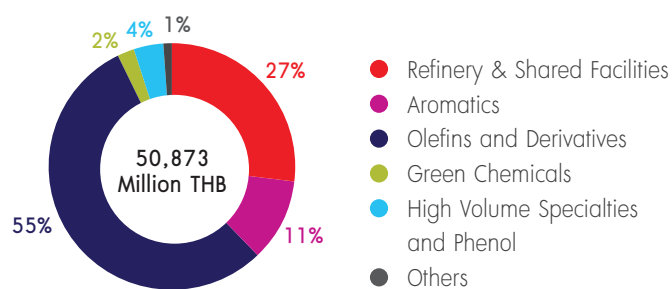


EBITDA⁽¹⁾

Adjusted EBITDA⁽²⁾

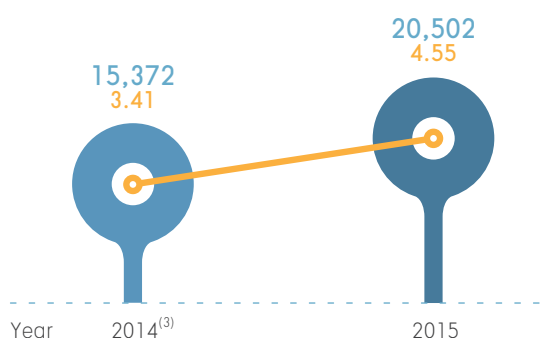
Adjusted EBITDA⁽²⁾ Breakdown by Business

Year 2015



Net Profit

Net Profit (Million THB)
Earning Per Share (Baht/Share)



Statement of Financial Position (Unit : Million THB)				2013 ⁽³⁾	2014 ⁽³⁾	2015
Total Assets				409,286	381,443	377,545
Cash and Cash Equivalents + Short-term Investment				41,704	45,788	47,741
Current Assets				109,662	77,343	70,160
Property, Plant and Equipment				219,318	219,346	220,213
Non-current Assets				38,602	38,966	39,431
Total Liabilities				177,916	152,993	143,280
Loan				115,864	113,142	105,847
Other Liabilities				62,052	39,851	37,433
Total Equity				231,370	228,450	234,265

Statement of Financial Position		2014 ⁽³⁾	2015
Current Ratio (times)		2.19	2.86
EBITDA to Total Revenues (%)		6.21	11.18
Net Profit on Total Revenues (%)		2.79	5.12
Return on Total Assets (%)		5.09	7.36
Return on Equity (%)		6.86	8.99
Interest Bearing Debt to Equity (times)		0.50	0.45
Net Interest Bearing Debt to Equity (times)		0.29	0.25
Net Interest Bearing Debt to EBITDA (times)		1.97	1.30

Dividend Paid (Baht/Share)				Earning per Share (Baht/Share)	Dividend Payout Ratio (%)
	1 st Half	2 nd Half	Full year		
2015 ⁽⁴⁾	1.50	1.30	2.80	4.55	61%
2014 ⁽³⁾	1.37	1.00	2.37	3.41	70%

Note :

- (1) EBITDA is Earnings Before Interest, Taxes, Depreciation and Amortization.
- (2) Adjusted EBITDA refers to EBITDA excluding impact of inventory value (excludes Inventory and NRV) and extraordinary items.
- (3) Restated FY 2013 and FY 2014 Financial Statements from the implementation of Thai Financial Reporting standards (TFRS) no.10 regarding consolidated financial statements and no.11 regarding joint arrangements.
- (4) The Board of Directors at its meeting No.2/2015 held on February 15th, 2015 has approved the proposal to propose at the 2015 Annual General Meeting of Shareholders to consider and approve on the dividend payment for the year 2014 operating performance of Baht 2.80 per share or 61% of the net profit, of which Baht 1.50 per share was paid as an interim dividend on September 22nd, 2014. The final dividend payment will be Baht 1.30 per share, but the right to receive dividend is subject to the approval of Shareholders at the 2015 Annual General Meeting.

Awards and Recognitions

The commitments to operate our business with sustainability can be demonstrated through the awards and success we received both nationally and internationally. Our pride from the awards and recognitions has been motivating us in striving for better.



● DOW JONES SUSTAINABILITY INDICES

MEMBER OF
Dow Jones Sustainability Indices
In Collaboration with RobecoSAM

PTTGC was in the Top 10 Dow Jones Sustainability Indices (DJSI) - World Members in the Chemicals sector for 3rd consecutive year and in Silver Class in 2015.

● BOARD OF THE YEAR 2015



PTTGC received Board of the Year for Distinctive Practices in 2015 for the 2nd time from Thai Institute of Directors Association and other six leading organizations.

Economic

● FORBES GLOBAL 2000



PTTGC was ranked at the 1033th in Forbes 2015 Global 2000 (World's Biggest Companies). Four aspects have been taken into consideration for the evaluation : Sales, Profits, Assets, and Market Value.

● ASEAN CG SCORECARD



PTTGC received ASEAN Corporate Governance Scorecard : TOP 5 ASEAN PLCs and TOP 3 of good governance of the Thailand PLCs from institution ASEAN Capital Market Forum: ACMF.



● BEST MANAGED COMPANY IN ASIA



PTTGC received the Best Managed Company - Oil / Gas / Chemicals / Petrochemicals in Asia, Overall Award 2015 from the EUROMONEY.

● ICIS



PTTGC was ranked at the 17th in the 2015 ICIS Top 100 global chemical companies with outstanding operational excellence.



● BEST ELECTRONIC BANKING IMPLEMENTATION, THAILAND



PTTGC received the Best Electronic Banking Implementation from The Asset Triple A Transaction Banking: Asset Asian Awards 2015.

● PETROCHEMICALS COMPANY OF THE YEAR



PTTGC received Petrochemicals Company of the Year 2015 Award from the Petroleum Economist, England.

Social



UN GLOBAL COMPACT: LEAD



PTTGC is the first company in Thailand that made a commitment to the UN Global Compact at the highest level : LEAD.

GLOBAL REPORTING INITIATIVES



PTTGC Sustainability Report 2014 was in accordance with the Global Reporting Initiative G4 guidelines, for 2nd consecutive year.

ESG 100 COMPANY



PTTGC was ranked ESG 100 2015 (ESG 100 Companies) from Thaipat Institute. PTTGC is a listed company that has been prominent in sustainable business practices that are exposed to society.

GOLDEN PEACOCK AWARD FOR EXCELLENCE IN CORPORATE GOVERNANCE



PTTGC received Golden Peacock Award for Excellence in Corporate Governance 2015 from Institute of Director, India.

BEST CSR & BEST ENVIRONMENTAL RESPONSIBILITY 2015



PTTGC received the Best CSR and Best Environmental Responsibility 2015 from Corporate Governance Asia.

SUSTAINABILITY REPORT AWARD 2015



PTTGC received Sustainability Report Award 2015 in Outstanding category from CSR Club, Thai Listed Companies Association, The Securities and Exchange Commission and Thaipat Institute.

Environment



CLIMATE DISCLOSURE LEADER 2015



PTTGC was recognized by the CDP as a Climate Disclosure Leader for the 3rd consecutive year, receiving full score (100). CDP is a widely accepted organization that assesses environmental management of companies worldwide.

ASEAN ENERGY AWARDS 2015



PPCL representing Thailand, received ASEAN Energy Awards 2015 in Industry Special Submission Category from ASEAN Center for Energy.

ECOMAGINATION AWARDS 2015



PTTGC branch 2 & 3 received Ecomagination Leadership Award and PTTGC branch 2 received Return on Environmental Award: ROE from GE Water and Process Technologies Co., Ltd. (GEWT).

PRIME MINISTER'S INDUSTRY AWARDS 2015



PTTGC received nine Prime Minister's Industry Awards 2015 in five categories on Environmental Management, Energy Management, Productivity, Quality Management and Safety Management from Ministry of Industry.

CARBON FOOTPRINT REDUCTION



Products of Polyethylene, Aromatics, Petroleum, Green Chemicals and Ethoxylate of PTTGC Group were certified for Carbon Footprint Reduction from Thailand Greenhouse Gas Organization (Public Organization). This reflected our commitment to minimize environmental impact from our products.

THAILAND GREEN DESIGN AWARDS



PTTGC received Thailand Green Design Awards 2015 in Honorary Award category, - Product for Life Enhancement from Kasetsart University.

Major Events and Activities in 2015



MAR 12th, 2015



OCT 26th, 2015



FEB 26th, 2015



AUG 4th, 2015



JAN 16th, 2015



APR 9th, 2015



NOV 25th, 2015



NOV 4th, 2015



MAR 20th, 2015

🌐 **January 16th, 2015** Voluntary Emission Trading Scheme Pilot
PTTGC signed MOU for its participation in Thailand's Voluntary Emission Trading Scheme Pilot to prepare itself for the implementation of the Emission Trading Scheme. This is one of the greenhouse gas standard management organized by Thailand Greenhouse Gas Management Organization (Public Organization)

🌐 **February 26th, 2015** Receipt of Plaque for Being One of The Ten Thai Company ranked by DJSI

Prime Minister General Prayut Chan-o-cha presented a congratulatory plaque to Mr. Supattanapong Punmeechaow, PTTGC's President & Chief Executive Officer, for the Company's inclusion as one of the ten Thai company in the Dow Jones Sustainability Indices (DJSI) 2014.

🌐 **March 12th, 2015** MOU Signing for Collaborative Development Efforts in Special Economic Development Zone

PTTGC signed MOU with the Industrial Estate Authority of Thailand. Both parties are to collaboratively develop an industrial area to support the establishment of a cluster of plastic industry and to find partners to invest in Mae Sot's Special Economic Development Zone in Tak province.

🌐 **March 20th, 2015** Development of Amazon Bio Cup from PLA

PTTGC, in collaboration with NatureWorks and PTT, developed the Amazon Bio Cup made from bioplastics (PLA) under the Ingeo brand. The cup is made 100 percent from plants, which can be grown in rotations to replenish the supply. As the cup is biodegradable under certain conditions, which is friendly to the environment.

🌀 **March 23rd, 2015 The Acquisition of 25% Shareholding Interest in PTT Polymer Marketing Co., Ltd.**

At the meeting of the Board of Directors No. 3/2015 has approved the Company's acquisition of 25% shareholding interest in PTT Polymer Marketing Co., Ltd. (PTTPM), divided into 24% shareholding belong to the Company and the remaining 1% hold by Solution Creation Co., Ltd., which is a 100% owned subsidiary by PTTGC.

🌀 **March 23rd, 2015 The Acquisition of 50% Shareholding Interest in PTT Polymer Logistics Co., Ltd.**

At the meeting of the Board of Directors No. 3/2015 has approved the Company's acquisition of 50% shareholding interest in PTT Polymer Logistics Co., Ltd. (PTTPL), divided into 49% shareholding belong to the Company and the remaining 1% hold by Solution Creation Co., Ltd., which is a 100% owned subsidiary by PTTGC.

🌀 **March 29th, 2015 Rescheduled Shutdown of Olefins Plant I-4/1**

PTTGC has rescheduled the shutdown of Olefins Plant I-4/1 from previously scheduled in August 2015 to clean up the Quench Oil Tower.

🌀 **April 9th, 2015 Collaborative Project to Develop Blood Bag Overwrapped Packaging and Medical Plastic Devices**

PTTGC signed MOU for developing blood bag overwrapped packaging and medical plastic devices in collaboration with Blood Donation Center of Thai Red Cross Society and Thai Plastic Bags Industries Co., Ltd. The project also includes researching and development of plastic innovations for medical use.

🌀 **May 18th, 2015 Proposed IPO of the Global Power Synergy PLC.**

The Global Power Synergy PLC.(GPSC), in which PTTGC hold 30.31% shares, has initially listed in the Stock Exchange of Thailand (SET) and initial public offering (IPO). The Company did not increase stake in GPSC, resulted in the dilution in the Company's shareholding portion from previously 30.31% to 22.73% and recognized a gain of Baht 432 million in 2015 Statement of Income.

🌀 **June 29th, 2015 The LLDPE Expansion Project and Comonomer Hexene-1 Project**

At the meeting of the Board of Directors No. 6/2015 has passed the resolution to approve investment budget for LLDPE expansion project and Comonomer Hexene-1 project of 288.2 million USD. The LLDPE project consists of the production capacity expansion of LLDPE of 400,000 tons per year and production of Hexane-1 and Aco-Monomer for LLDPE production of 34,000 tons per year

🌀 **June 29th, 2015 Establishment of PTTGC America Corporation and PTTGC America LLC in USA**

The Board of Directors Meeting No. 6/2015 resolved to establish PTTGC America Corporation, holding 100 percent shares. Then PTTGC America Corporation established and invested in PTTGC America LLC, holding 100 percent of its shares.

🌀 **July 28th, 2015 Notification on the Shutdown of Aromatics Complex 2**

PTTGC has shut down its Aromatics Complex 2 to repair Compressor Motor of Platforming Unit.

🌀 **August 4th, 2015 Opening Ceremony of Science & Innovation Center**

PTTGC opened a Science & Innovation Center at PTTGC Branch 1 (Rayong Office) to support research and development of new products, creating value added to both of main products and by-products.

🌀 **August 24th, 2015 Approval on Share Repurchase Program for Financial Management Purpose (Treasury Stocks)**

The Board of Directors Meeting No. 9/2015 passed the resolution to approve share repurchase program for financial management purpose (Treasury Stocks) in the maximum amount of Baht 4,500 million and the number of the shares to be repurchased is approximately 2% of the total issued shares. The repurchase period covers the duration of 6 months, starting from September 8, 2015. At the end of 2015, the Company has repurchased 41,431,000 shares or 0.919% of the total issued shares, with total value of Baht 2,104,534,625.

🌀 **September 21st-22nd, 2015 Survey of Investment Potential in Tak's Special Economic Development Zone**

PTTGC led plastic processing entrepreneurs and partners to make a survey on investment potential in the Special Economic Development Zone in the Province of Tak, in accordance with the investments support program, and establishment on a cluster of plastic industry in order to increase Thai plastic industry's commercial and its competitiveness.

🌀 **October 26th, 2015 Signing MOU to Exchange Best Practices**

PTTGC signed MOU to exchange best practices with 13 PTT Group companies to build upon organizational quality management and push for achievement of goals in order to win a Thailand Quality Award (TQA).

🌀 **November 4th, 2015 MOU Signing For Business Conducting**

PTTGC signed MOU with Saha Pathana Inter-Holding PLC. and the Department of International Trade Promotion, the Ministry of Commerce, to develop products and packaging, as well as to pioneer the Special Economic Development Zone in Mae Sot, Tak province.

🌀 **November 25th, 2015 MOU Signing for Scientific Research & Development**

PTTGC signed MOU with Vidyasirimedhi Institute of Science and technology (VISTEC) on the subject of advanced technological and scientific research and development under the framework of advanced material research and development and clean technology research.



Message from the Chairman

Dear Shareholders,

The year 2015 marks another proud step during this past four years for PTT Global Chemical Public Company Limited. PTTGC has achieved certain milestones of its goal: for the third year in a row, the Dow Jones Sustainability Indices or DJSI selected us on its 2015 list as one of top 10 companies in the Chemical Sector for sustainable development; we were named one of the TOP FIVE companies in ASEAN PLCs, and ONE of the THREE Thai companies (Top 3 Domestic PLCs), for outstanding corporate governance by ASEAN CG Scorecard; we also received an Outstanding certification from the Board of the Year Awards 2015 by the Thai Institute of Directors for the second time. These accolades are evidences of our capability and quality, which are attributed to a collaborative effort aimed towards being the leader in every aspect

Our performance of the past year may appear to be comparatively lower than the previous year. These are due to a number of internal and external factors. Global situations, whether they be economic, social, or environmental, have been unstable. Economies around the world have been in a constant state of flux due to fluctuating oil prices and unrests in several regions. The Chinese economy slowed down more than anticipated. The stock market affected the public's income as a whole, leading to reduced consumption. Despite improvements on the US and the European economies, as well as Thailand's own economic recovery attributed to the tourism industry and stimulus schemes put in place by the government, the upturn has been nothing but gradual. Nevertheless, PTTGC, as a leading chemical company for better living, has overcome these obstacles in an efficient manner through a prudent management and budget control as we strive to ensure that our operations and projects run smoothly without any negative impact on safety, plant reliability, and company growth.

PTTGC has set strategic plans for three key aspects, to generate sustainable return on investment in order to found confidence among investors, to maintain growth comparable to other leading organizations, and to conduct sustainable business through the balance of the business, society, and the environment.

from Thaipat Institute, which is a testament to our stance as a listed company with sustainability at its core and outstanding public disclosure on environment and safety. We also received an award from the Ministry of Labour for the 17th consecutive year for outstanding safety, occupational health, and environment.

Regardless of any future obstacles and challenges, PTT Global Chemical Public Company Limited will remain committed to conducting our business responsibly and fairly according to our good governance principles and framework of sustainable development. We will always aim for the balance of the economy, society, and the environment by developing green innovations and technologies and treating all stakeholders fairly. We aspire to remain the leader in the chemical business, with stability and sustainability at our very core, for the benefit of Thai society now and into the future.



(Mr. Prasert Bunsumpun)

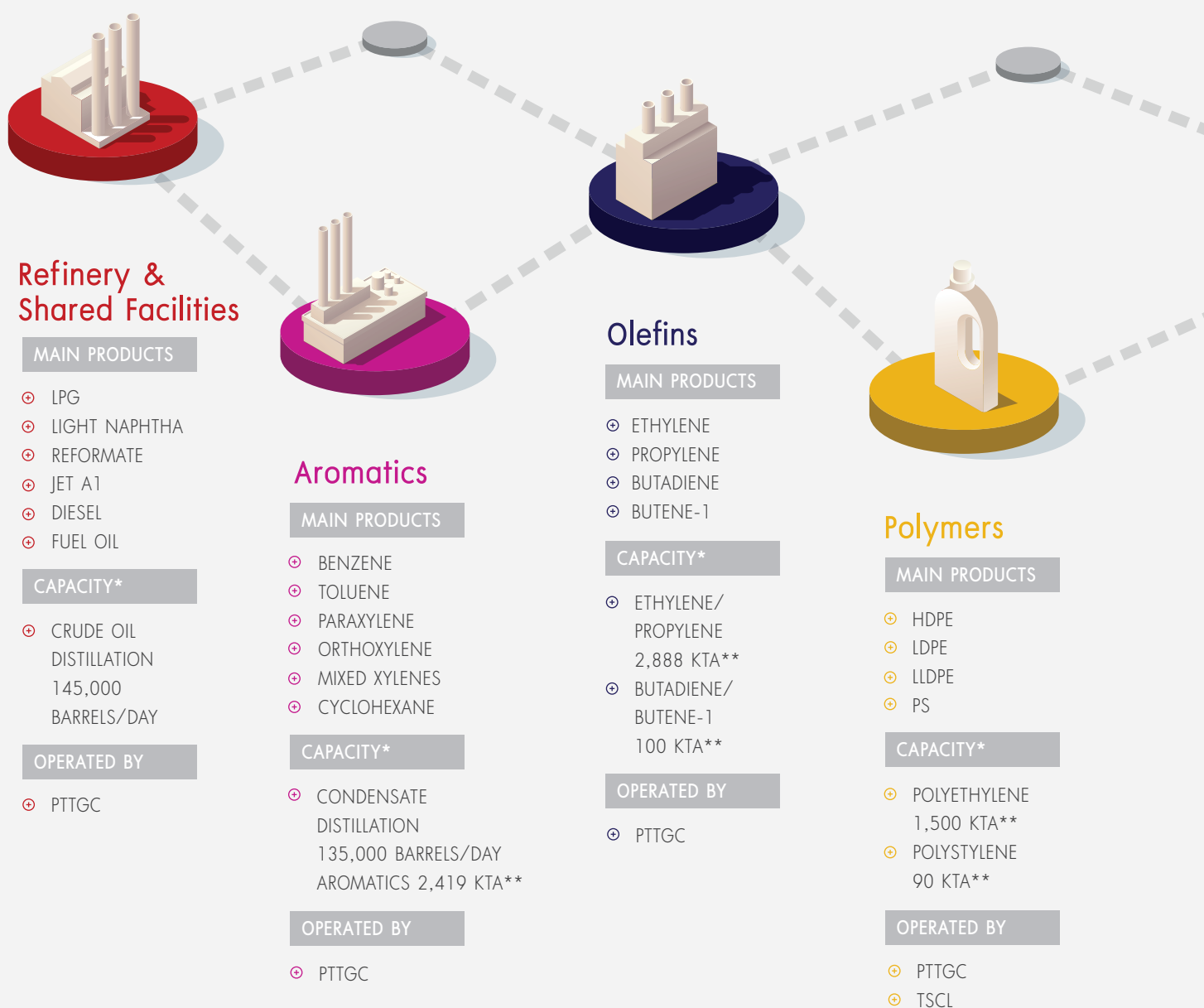
Chairman



The background features a large, light blue circle with a dashed outline, centered on the page. To the left, a vertical strip shows an industrial facility with pipes and structures against a blue sky. The main area is a solid light blue color.

Business Highlights

Business Structure



Remarks * Only capacity that PTTGC hold equal to or more than 50% share and calculate proportionate by percent share
 ** KTA is THOUSAND TONS PER YEAR
 *** Thai Oleochemical Company Limited (TOL) is registered as a Public Limited Company and Changed the registered name to Global Green Chemicals Company Limited (GGC) on February 18th 2016

PTT Global Chemical Public Company Limited (PTTGC), as a Chemical Flagship of PTT Group with a combined chemical / petrochemical capacity of 8.88 million tons per year and crude oil / condensate distillation capacity of 280,000 barrels per day. PTTGC consists of 8 business groups.



Services and Others

- ⊕ Jetty and chemical tank farms
- ⊕ Utility businesses
- ⊕ Plant maintenance and engineering design services
- ⊕ Safety, occupational health, and environmental services
- ⊕ Pipeline infrastructural systems
- ⊕ Information technology services
- ⊕ Labor outsourcing services
- ⊕ Marketing and sales of Methyl Amine derivatives, plastic compound products, specialty products, and health and nutrition products
- ⊕ Polymer sales and marketing services
- ⊕ Logistics services

Operated by TTT
 Operated by GPSC
 Operated by PTTE and PTES
 Operated by NPC S&E
 Operated by EFT
 Operated by PTT ICT
 Operated by BSA

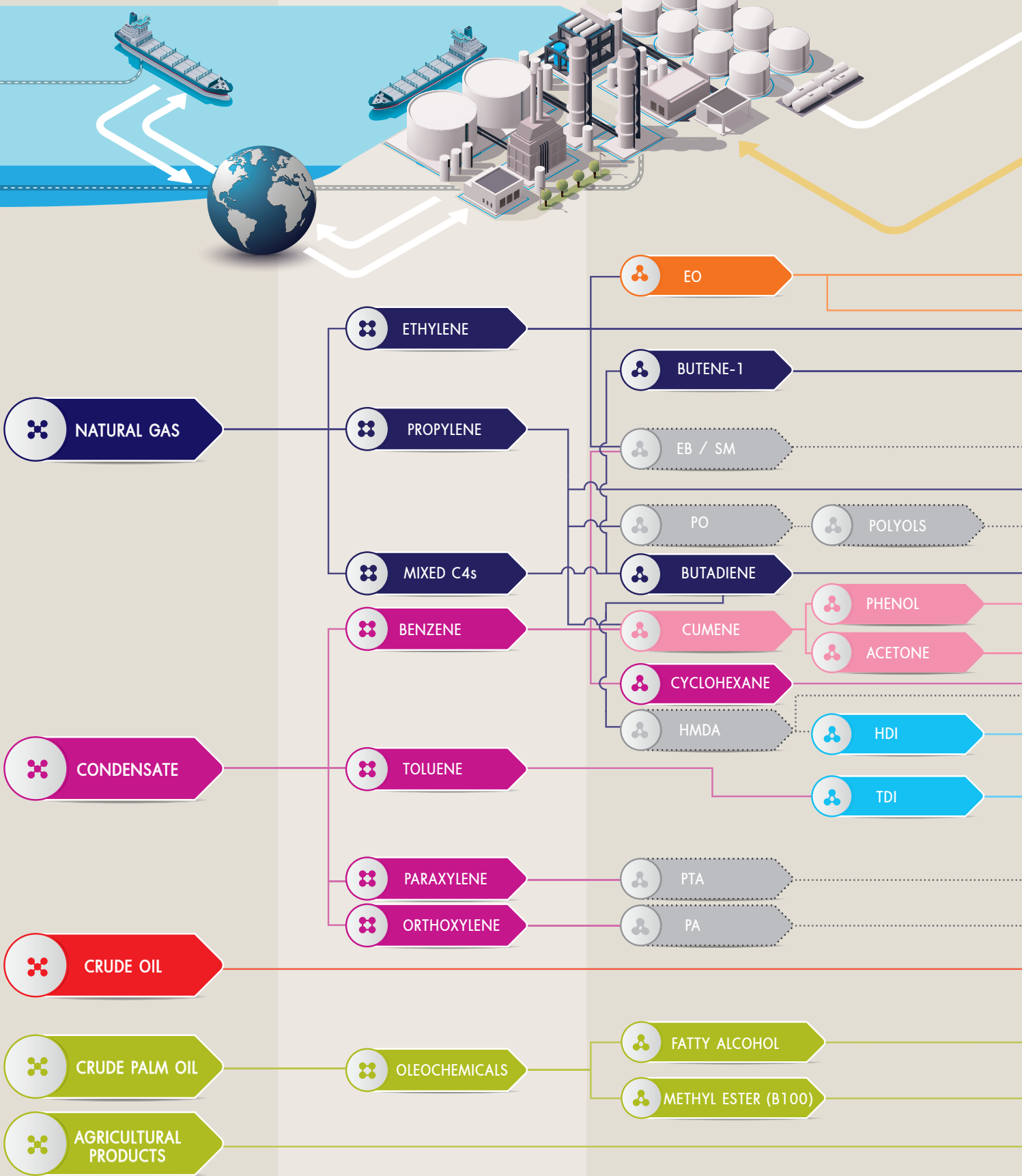
Operated by Solution Creation
 Operated by PTTM and ITT
 Operated by PTTPL

Business Value Chain

FEEDSTOCK

UPSTREAM

INTERMEDIATES



Group Performance Center-Refinery & Shared Facilities

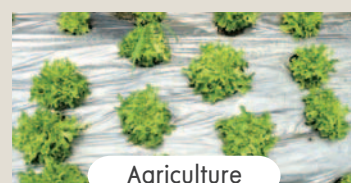
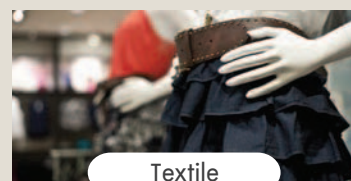
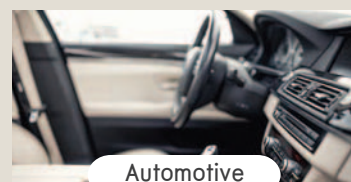
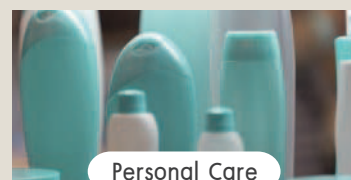
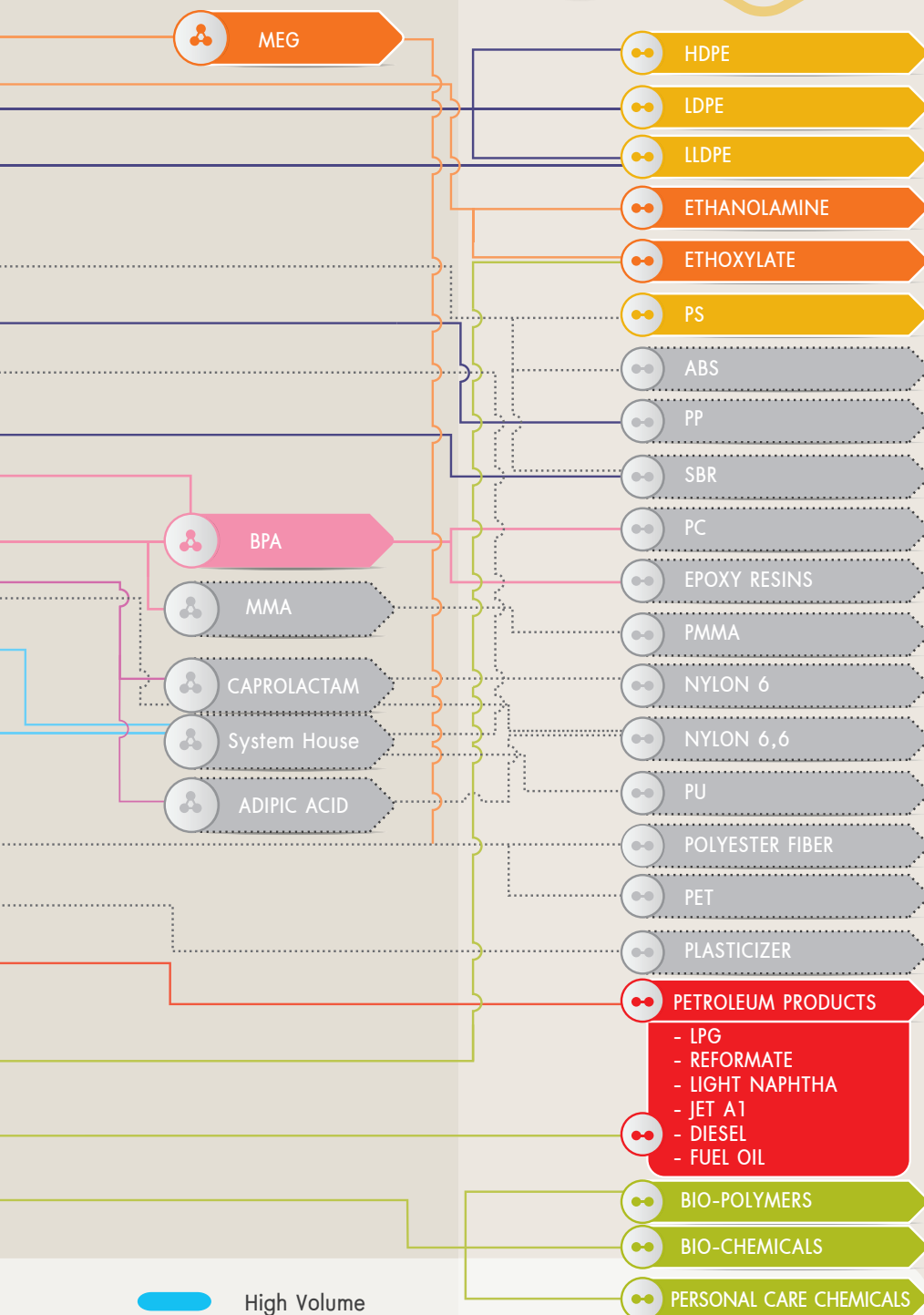
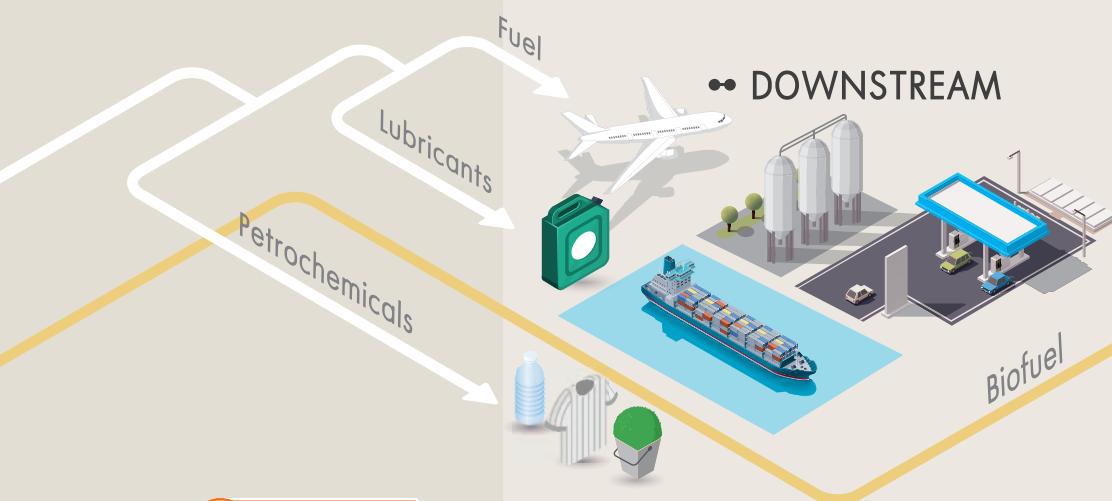
Group Performance Center-Aromatics

Group Performance Center-Olefins

Polymers Business Unit

EO-based Performance Business Unit

Green Chemicals Business Unit



Group Performance Center - Refinery and Shared Facilities

PTTGC is one of the leading refineries and distributors of petroleum in Thailand, owning and operating a modern complex refinery, which is capable of converting low-value fuel oil to more valuable middle distillates. Refining capabilities stand strong at

145,000 barrels per day. Additionally, PTTGC refinery is flexible to adjust its capacity for serving customer demands as well as any volatility in the market. The following is a summary of PTTGC's petroleum production capabilities and their usages:

Petroleum Products		Usages
Light distillates	Liquefied Petroleum Gas or LPG	- Fuel - Petrochemical feedstock (Olefins plant)
	Light Naphtha	- Gasoline blending component - Petrochemical feedstock (Olefins plant)
	Reformate	- Gasoline blending component - Petrochemical feedstock (Aromatics plant)
Middle Distillates	Jet Fuel	- Aviation fuel
	Diesel	- Industry fuel and automotive fuel
Heavy Distillates	Fuel Oil	- Industry fuel and maritime transportation fuel

As of 2015, PTTGC has a domestic market share of Middle Distillates is approximately 19%.

Group Performance Center - Aromatics

PTTGC produces and sells Aromatics such as Paraxylene, Benzene, Orthoxylene, Mixed Xylenes, Toluene, and Cyclohexane by using Condensate, Reformate, and Pyrolysis Gasoline as main feedstocks. The Aromatics product is used in many industries such as textiles, electronics, and automotive parts.

Aside from the products listed above, the Aromatics plants also produce various of by-products such as Liquefied

Petroleum Gas (LPG), Light Naphtha (feedstock of olefins plant), and Condensate Residue (feedstock of refinery plant for refining to Jet, Diesel, and Fuel Oil).

PTTGC currently operates two aromatics plants with a combined capacity of 2.419 million tons per year. The table below shows the production capacity of each product in detail:

Company	Product	Capacity (Thousand Tons per Year)*
PTTGC	Benzene	697
	Toluene**	50
	Paraxylene	1,310
	Orthoxylene	86
	Mixed xylene**	76
	Cyclohexane	200

* This capacity is included the expansion's capacity of Aromatics plant II (Design basis) ** At present, Toluene and Mixed Xylene are used as feedstocks in Aromatics plants.

As of 2015, PTTGC has a domestic market share of Aromatics (Paraxylene, Benzene, Orthoxylene, and Cyclohexane) approximately is 62%.

Group Performance Center - Olefins

PTTGC's olefins plants are capable of producing olefins, such as Ethylene and Propylene by using Natural gas from gulf of Thailand as a main feedstock combined with Natural Gas Liquid (NGL) and Light Naphtha (LN) to fulfill the operation. The olefins' products are used as feedstocks for various industries such as polyethylene, polypropylene, Monoethylene Glycol, Phenol, and synthetic rubber.

Aside from Ethylene and Propylene, the olefins plants also produce various of by-products such as Pyrolysis Gasoline, Mixed C4, Tail Gas, Cracker Bottom, and Hydrogen. The Company creates added values to these by-products through

synergy at its refinery and aromatics plants. For example, Pyrolysis Gasoline is turned into Aromatics products; Cracker Bottom is distilled into petroleum products; Hydrogen is used in the refinery as a substitute for Hydrogen produced by the Hydrogen Manufacturing Unit (HMU), which has higher production costs; and mixed C4 is turned into butadiene and butene-1.

PTTGC has four olefins plants, producing 2.988 million tons per year of Ethylene, Propylene, Butadiene, and Butane-1. The table below shows the breakdown of their capacities:

Company	Product	Capacity (Thousand Tons per Year)
PTTGC	Ethylene	2,376
	Propylene	512
	Butadiene	75
	Butene-1	25

As of 2015, PTTGC has a domestic market share of Ethylene and Propylene are 53% and 24%, respectively.

Polymers Business Unit

Polymers are downstream petrochemical products primarily used as raw material in manufacturing everyday plastic products. They are commonly used in the molding of plastic containers such as plastic bags, bottles, engine lubricant containers, cans, and crates. They are also used as feedstock in other downstream industries, such as electric appliances, fisheries, agricultures, and construction businesses. The following is a list of important PTTGC's polymer-based products:

- ⊗ High Density Polyethylene (HDPE)
- ⊗ Linear Low Density Polyethylene (LLDPE)
- ⊗ Low Density Polyethylene (LDPE)
- ⊗ Polystyrene (PS)

Polyethylene resin pellets are produced by PTTGC and sold under the trademark "InnoPlus", while polystyrene resin pellets which are available as General Purpose Polystyrene (GPPS) and High Impact Polystyrene (HIPS), are produced by Thai Styrenics Co., Ltd. (TSCL), which operates under the supervision of the PTTGC Polymers Business Unit. Polystyrene resin pellets are sold under the trademark "DIAREX".

PTTGC currently operates a total of five commercial polymer plants. They are located at the Map Ta Phut Industrial Estate and the Pha Daeng Industrial Estate, Rayong. Their production capacities are summarized in the table below.

Company	Product	Capacity (Thousand Tons per Year)
PTTGC	HDPE	800
	LLDPE	400
	LDPE	300
TSCL	PS	90

As of 2015, PTTGC has a domestic market share of polyethylene is approximately 45%.

EO-Based Performance Business Unit

PTTGC has expanded its business to cover the production of EO-based performance products to increase the value of olefins products, to meet rising needs of industries and consumers, and finally to fulfill the domestic demand which is filled normally by imports. PTTGC's EO-based performance products and their intended uses can be described as follows.

Ethylene Oxide (EO) and Ethylene Glycol (EG)

EO is a downstream product of Ethylene, which serves as a feedstock in the production of EG and other downstream products. EG-based products include Mono Ethylene Glycol (MEG), Diethylene Glycol (DEG), Triethylene Glycol (TEG), and Polyethylene Glycol (PEG). Among these, the key product is MEG, which is mainly used as a feedstock, together with purified terephthalic acid (PTA), in the production of polyester for using in industries such as textiles, and PET bottle.

Ethanolamine (EA)

EA is produced from EO and primarily comes in the forms of Monoethanolamine (MEA), Diethanolamine (DEA), and Triethanolamine (TEA). EA is used as an ingredient in the

production of shampoos, conditioners, fabric softeners, cosmetics, pharmaceutical products, and cement.

Fatty Alcohol Ethoxylate

Fatty Alcohol Ethoxylate is a downstream product of EO and fatty alcohol. It is used as a feedstock in the production of home products, such as shampoo, dish soap, and cleaning solutions. In addition, it is used in the textile industry as a scouring agent in the preparation process and a softener in the last step of thread preparation.

PTTGC produces EO, EG and EA through TOC Glycol Co., Ltd. (TOCGC), while the production of Fatty Alcohol Ethoxylate is done through Thai Ethoxylate Co., Ltd. (TEX), which is a joint-venture between PTTGC and BASF (Thailand).

In 2015, the EO-Based Performance Business Unit operates three commercial plants, which are located in the Hemaraj Eastern Industrial Estate, Rayong. The breakdown of its production capacity is shown in the table below.

Company	Product	Capacity (Thousand Tons per Year)
TOCGC	MEG	423
	EA	50
TEX	Fatty Alcohol Ethoxylate	66

Green Chemicals Business Unit

Green chemicals are products created from natural feedstock such as palm oil, palm kernel oil, vegetable oil, animal fat, corn, sugar, and cassava. These green chemical products can be made into other downstream products in a variety of industries, such as personal hygiene, pharmaceutical, and bioplastic. PTTGC's green chemical products can be divided into two categories:

Value Added Oleochemicals (VAO)

🌱 **Methyl Ester** or B100 is a basic oleochemical product.

It can be mixed with diesel to make biodiesel that meets EN14214 European standards. Methyl Ester helps augment the efficiency of diesel, both in terms of lubrication and combustion. It also increases an engine's lifespan and minimizes environmental impact.

🌱 **Fatty Alcohol** is a basic oleochemical product used as an important substrate in a number of different processes in the personal care industry.

🌱 **Glycerin** is a by-product from the production of Methyl Ester and Fatty Alcohol. It is used in the pharmaceutical, food, and personal care industries.

🌱 **Fatty Acid** is a basic oleochemical product used in the production of soaps and cosmetics. It is also used as a substrate in downstream production of specialty oleochemicals.

🌱 **Specialty oleochemicals** are made from basic oleochemical substances in a downstream process. These specialty products are used in an extensive range of industries, including cleaning products, personal care products, plastic additives, construction, and oil drills. Examples of specialty oleochemicals include Ozone Acid,

bio-lubricants, green polymer additives, agro-green solutions, and eco-friendly Polyols.

Bioplastics/Biochemicals

Bio-based chemicals and bioplastics are produced from natural feedstocks such as sugar, sugarcane, cassava, and corn, which are turned into substrates, namely Lactic and Succinic Acids, which are used in the production of bioplastics, such as Polylactic Acid (PLA), and Polyesters, such as 1,4-Butanediol.

PTTGC produces these value added oleochemicals (VAO) through Global Green Chemicals Public Company Limited (GGC) and Thai Fatty Alcohol Co., Ltd. (TFA) which is an only Fatty Alcohol producer in Thailand. In addition, PTTGC has a joint-venture with Sime Darby Plantation (M) Sdn. Bhd. in Malaysia to establish Emery Oleochemicals (M) Sdn. Bhd. (EOM) and Emery Specialty Chemicals Sdn. Bhd. (ESC) which Emery is a producer and supplier oleochemical products and located throughout the world including Malaysia, Germany, and US. Moreover, it has a global distribution and marketing network with subsidiaries and distributors located around the world.

PTTGC produces bioplastics and biochemicals through Myriant Corporation, USA, who develops production technologies and is a proprietor of several intellectual properties regarding the production of Succinic Acid. Myriant has a proof-of-concept plant near Lake Providence. It has a production capacity of 14,000 tons per year. Additionally, PTTGC has another joint-venture with Cargill Inc., USA, called NatureWorks LLC. It is the proprietor of the PLA production technology and has a commercial production capacity of 150,000 tons per year.

The Green Chemicals Business Unit operates a number of commercial production plants both in Thailand and overseas. Their capacities are summarized in the table below.

Company	Product	Capacity (Thousand Tons per Year)
GGC*/TFA	Methyl Ester	200
	Glycerin	31
	Fatty Alcohol	100
Emery	Fatty Acid	350
	Glycerin	28
	Fatty Alcohol	40
	Methyl Ester / Methyl Ester Sulfate	80
	Ester Plastic	53
	Ozone Acid	18
	Renewable & Recycled Polyols	35
	Home & Personal Wellness Surfactants	32
NatureWorks	Polylactic Acid	150
Myriant	Succinic Acid	14

* Thai Oleochemicals Company Limited (TOL) is registered as a Public Limited Company and changed the registered name to Global Green Chemicals Public Company Limited. (GGC) as of February 18th, 2016

The primary feedstock for VAO is either vegetable oils or animal fats, depending on which is more readily available in the region of production. For instance, the primary feedstock is animal fats in US, whereas in Asia, the primary feedstock is palm oils. The primary feedstock for the production of Methyl Ester, Fatty Alcohol and Glycerin at GGC and TFA is palm oil

and palm seed oil. They are usually procured from domestic sources to help generate income for Thai farmers and promote the country's domestic supply chains.

As of 2015, GGC has a domestic market share of Methyl Ester approximately is 24%

High Volume Specialties Business Unit

High-volume specialties are used as components in a variety of high-potential industries including automotive, construction, and engineering plastic. The following is a list of PTTGC specialty products and their usages:

Toluene Diisocyanate (TDI)

Toluene diisocyanate (TDI), an important mid-stream petrochemical, is used as feedstock in the production of Polyurethane (PU). PU is vital in the construction and automotive industries. It can be used as an insulation in buildings to make them more energy efficient, as well as in the form of an all-purpose foam found in furniture, bedding, and car seats.

Hexamethylene Diisocyanate (HDI) and Its Derivatives

HDI is another mid-stream petrochemical product used to make PU coating products, which are vital in the construction and automotive industries. By applying the coating on the surface of wood, furniture, and automobile, it can increase scratch resistant.

PTTGC produces TDI and HDI, as well as HDI derivatives, through Vencorex Holding France (Vencorex), which operates three commercial plants in industrial estates in France and US. Their production capacities are detailed below.

Company	Product	Capacity (Thousand Tons per Year)
Vencorex	Toluene Diisocyanate (TDI)	125
	Hexamethylene Diisocyanate (HDI) and its derivatives	35

Phenol Business Unit

PTTGC has invested in the Phenol business by founding a subsidiary called PTT Phenol Co. Ltd. (PPCL) to create added values to upstream products and to support the growth of other downstream industries, including automotive, construction, and engineering plastic. PPCL's key products are listed below:

Phenol

Phenol is an intermediate-stream petrochemical product, which is created from Benzene and Propylene as feedstocks. It is used as an important substrate in the production of Bisphenol A (BPA) and Phenolic resin. Agriculture industry, Pharmaceutical manufacturing industry, Dyeing color industry, etc.

Acetone

Acetone is manufactured through the production of Phenol. It is widely used as a solvent in various industries such as the chemicals, cosmetics, and medical industries. Furthermore, it can be used as a substrate in the production of BPA and Methyl Methacrylate, which are used in plastics, fibers, drugs, and other chemicals.

Bisphenol A

Bisphenol A is an intermediate-stream petrochemical product that is used as a feedstock in the production of Polycarbonate (PC). PC is an engineering plastic that is used in various industries including the automotive components industry, the computer industry, the CD/DVD disk industry, and the home appliance industry. It can also be used during the production of Epoxy resin.

In 2015 PPCL operates two commercial plants located at the Hemaraj Eastern Industrial Estate in Rayong. Their production capacities are detailed in the table below.

Company	Product	Capacity (Thousand Tons per Year)
PPCL	Phenol	220
	Acetone	136
	Bisphenol A	150

The Phenol II plant is currently under construction, which is expected to be complete and ready for operations within the second quarter of 2016. It will have a production capacity of 250,000 and 154,000 for Phenol and Acetone, respectively.

As of 2015, PTTGC's domestic market share for Phenol and BPA are 31% and 5%, respectively.

Services and Others

Apart from the 8 business groups, PTTGC also focuses on activities that promote stability and completeness of its main businesses. These various activities are listed below:

1) Jetty and Chemical Tank Farm

Thai Tank Terminal Limited (TTT) provides jetties and storage for liquid chemicals, as a concession to industrial organizations located within the Map Ta Phut Industrial Estate.

2) Utility Businesses

Global Power Synergy Co., Ltd. (GPSC) is responsible for the production and sale of industrial electricity, steam, and water to PTT's companies and other plants.

3) Plant Maintenance and Engineering Design Services

PTT Maintenance and Engineering Co. Ltd. (PTTME) offers a variety of services, including plant maintenance, design and engineering consultation, construction, pipe work, procurement, material work, and production administration for petroleum and petrochemical companies located in the Map Ta Phut Industrial Estate. Services extend to other organizations located throughout Thailand and in neighboring Asian countries. Additionally, PTTGC, together with other companies in the PTT Group, has invested in PTT Energy Solutions Co., Ltd. (PTTES), which is responsible for providing technical engineering consultations.

4) Safety, Occupational Health, and Environmental Services

NPC Safety and Environmental Services Co., Ltd. (NPC S&E) provides safety, occupational health, and environmental training of all types. It also designs and installs fire protection systems. Additionally, it provides consultation on the subjects of standardizing quality control and safety, occupational health, and environmental systems.

5) Pipeline Infrastructure Systems

Eastern Fluid Transport Co., Ltd. (EFT) provides the pipeline infrastructure for petroleum and petrochemical enterprises located within the Map Ta Phut Industrial Estate and nearby areas.

6) Information Technology Services

PTT ICT Solutions Co., Ltd. (PTT ICT) offers comprehensive information technology and communications services including the design, development, and maintenance of an IT system that responds to business demands.

7) Labor Outsourcing Services

Business Services Alliances Co., Ltd. (BSA) supplies laborers and contractors for PTT and its subsidiaries.

8) Marketing and Sales of Methyl Amine Derivatives, Plastic Compound Products, Specialty Products, and Health and Nutrition Products

Solution Creation Co., Ltd. serves as PTTGC's marketing arm in the sales of PTTGC's products and finds marketing opportunities within niche markets. It also helps with product developments to create added values to products that meet the demand of the various industries such as containers, household chemicals, electronics, textile, food, and supplements.

9) Polymer Sale and Marketing Services

PTT Polymer Marketing Co., Ltd. (PTTPM) is responsible for marketing and sales of PTT's polymer-based products. It has a far-reaching network of authorized dealers in Thailand and in all regions of the world. Additionally, the Company has a joint-venture with PT Pertamina (Persero) called PT Indo Thai Trading (ITT) in Jakarta to sell polymer-based products in Indonesia.

10) Logistics Services

PTT Polymer Logistics Co., Ltd. (PTTPL) offers comprehensive logistics services to polymer producers in the PTT Group.

Industry Overview in 2015 and Outlook on 2016

Petroleum and Petrochemical Markets in 2015

Petroleum

Crude oil price was volatile throughout 2014 and 2015. Dubai crude oil price fluctuated between 31 - 67 US dollars per barrel which is average of 50.91 US dollars per barrel, 47% lower than 2014. This drop can be attributed to the rise in shale-oil productivity and OPEC's continued production more than 30 million barrels per day to maintain its global market share. There was also the anticipation of an Iranian surplus after the United States and the European Union announced the end of their sanction against the modern Persian nation following their nuclear agreement.

Furthermore, the unrest in the Middle East, the Chinese economic slowdown, especially in the final quarter of 2015 and the US Federal Reserve System's (Fed) interest increase played their parts in the volatility of crude oil prices.

Meanwhile, Thailand's refining industry in 2015 still oversupply. However, the gross refinery margin (GRM) still on the good level due to increasing in domestic consumption follows by low crude oil price.

Aromatics

Paraxylene market in 2015 had additional global demand by 1.7 million tons, with 1.6 million tons from Asia, especially in China and India. In terms of supply, the global production rose by 2.8 million tons per year. Most of it was the expansion in Asia, including China, Kazakhstan, and Thailand. Despite much increase in global supply than demand, the second and third quarters saw the supply become strained once again as a number of plants underwent their annual maintenance. Moreover, some plants, such as Dragon Aromatics in China, faced a technical problem led to totally plant shutdown. Additionally, as Polyester and Polyethylene Terephthalate (PTA) producers increased their production rate to 65%

from 60%, the Asian market tightened up. Consequentially, the average product spread between Paraxylene and Naphtha in 2015 was 353 US dollars per ton, similar to the 2014 figure.

For Benzene products, 2015 saw a similar rise of about 0.82 million tons in their global demand and supply. Most of these were from Asia. The product spread between Benzene and Naphtha went up and down according to the current economic condition and the demand/supply balance. The average product spread throughout 2015 was 194 US dollars per ton, which was a reduction of 155 US dollars per ton from the previous year.

Olefins

In 2015, Ethylene products saw a positive impact from its rather tight supply in the first half of the year, especially in the second quarter, resulting from the annual maintenance of a number of olefin plants throughout Asia - in China, Japan, Taiwan, Singapore, and Thailand. Moreover, plants in the Middle East were also faced with production problems, which led to lower Ethylene export to Asia. Although in the latter half of the year, the lower Ethylene demand from Polyethylene, Mono Ethylene Glycol, and Styrene Monomer producers in China compare to the first half of the year as a result of the economic conditions and the high volatility of crude oil, especially in the last quarter of the year. In the end, the average product spread between Ethylene and Naphtha in 2015 was 613 US dollars per ton, or a rise of 79 US dollars per ton from 2014.

For Propylene, there was a new capacity from olefins cracker and on-purpose Propylene plants, particularly in China, start production in 2015, accounted for an increase of 1.9 million tons per year. Moreover, the demand for Polypropylene and Phenol slowed down. As a result, the average product spread between Propylene and Naphtha in 2015 was 283 US dollars per ton, about 101 US dollars per ton lower than 2014.

Polymers

In the first quarter of 2015, the Polyethylene (PE) market was rather volatile. The price of all types of PE continued to sink from the last quarter of 2014. The average prices of HDPE, LLDPE, and LDPE in Southeast Asia were 1,237, 1,234, and 1,249 US dollars per ton, respectively. These were a reduction of 307, 309, and 322 US dollars per ton. All in all, the average product spread between PE (average of all PE products) and Naphtha in 2015 was 749 US dollars per ton, higher than 2014 about 58 US dollars per ton since Naphtha price was dropped faster than PE price.

Ethylene Oxides

Normally, Both the Mono Ethylene Glycol (MEG) and the Polyester markets headed in the same direction. In 2015, although the supply for MEG producer sank due to underwent maintenance of major players, but the polyester market was stagnant and lower feedstock cost lead to the average price of MEG (Asia Spot Price, ASP) fell about 151 US dollars per ton, standing at 774 US dollars per ton in 2015.

Meanwhile, Ethanolamine's demand and supply were rather stable, however, with the drop in Ethylene price following with crude oil price and the Chinese economy's stagnancy in the fourth quarter. The average price of Monoethanolamine in 2015 was 1,158 US dollars per ton, or a reduction of 328 US dollars per ton from 2014.

As for Fatty Alcohol Ethoxylate, despite the continuous growth in demand from personal care and home care businesses, the increase in production in Malaysia, Singapore, and China led to price competition.

Green Chemicals

The key factors affecting Methyl Ester demand were the government's policy and their support. For domestic, the Methyl Ester market saw signs of improvement and progress because the government switched to Biodiesel B7 instead of Biodiesel B5 since January of 2014 (except February 17 - May 13, 2014, and January 22 - April 15, 2015, during which the government turned to Biodiesel B4 instead due to the shortage of palm oil in the country) . The 2015 demand for Methyl Ester was 1.06 million tons per year,

an increase of 11% from 2014. The average price of Methyl Ester in 2015 was 1,050 US dollars per ton, a 30 US dollars per ton reduction from 2014 following the weakened price of palm oil.

The market for basic oleochemical - including Fatty Acid, Fatty Alcohol, and Glycerine - stagnated as a result of economic concerns, especially in China since it is the major consumer. Moreover, as the fall of crude oil prices lowered the cost of oleochemical from petroleum product, there was room for more competition in the market. The average price of Fatty Alcohol (C1214 of the Southeast Asian market) in 2015 was 1,197 US dollars per ton, a reduction of 351 US dollars per ton from 2014 due to weakened palm oil prices.

Phenols

The Phenol market in 2015 was stagnant. Production capacity increased about 525,000 tons compare with additional capacity of 140,000 tons in 2014, leading to the drop in the product spread from 433 US dollars per ton to 274 US dollars per ton. On the other hand, Bisphenol A business in 2015 was comparatively better than 2014 thanks to the balance between demand and supply, in addition to the relatively lower price of phenol feedstock. The difference in cost and selling price increased from 186 US dollars per ton in 2014 to 242 US dollars per ton in 2015.

Specialty Chemical Products

Globally, the Toluene Diisocyanate (TDI) market has seen an average growth of 4.8% per year, and Asia has been the biggest market with a demand of 1 million tons a year. In 2015, Asia's demand for TDI continuously expanded thanks to positive factors from Chinese economic growth in the first three quarters of the year. Despite the slow-down in the last quarter, the demand for TDI in various industries, the automobile industry, in particular, remained high. The need for TDI in Europe and North America also grew thanks to the two continents' economic recovery. The price of Toluene, TDI's feedstock, dropped following the price of crude oil in the global market, and higher competition from new plants in Germany lowered TDI's average price in 2015 to 1,930 US dollars per ton. This was a reduction of 590 US dollars per ton from 2014.

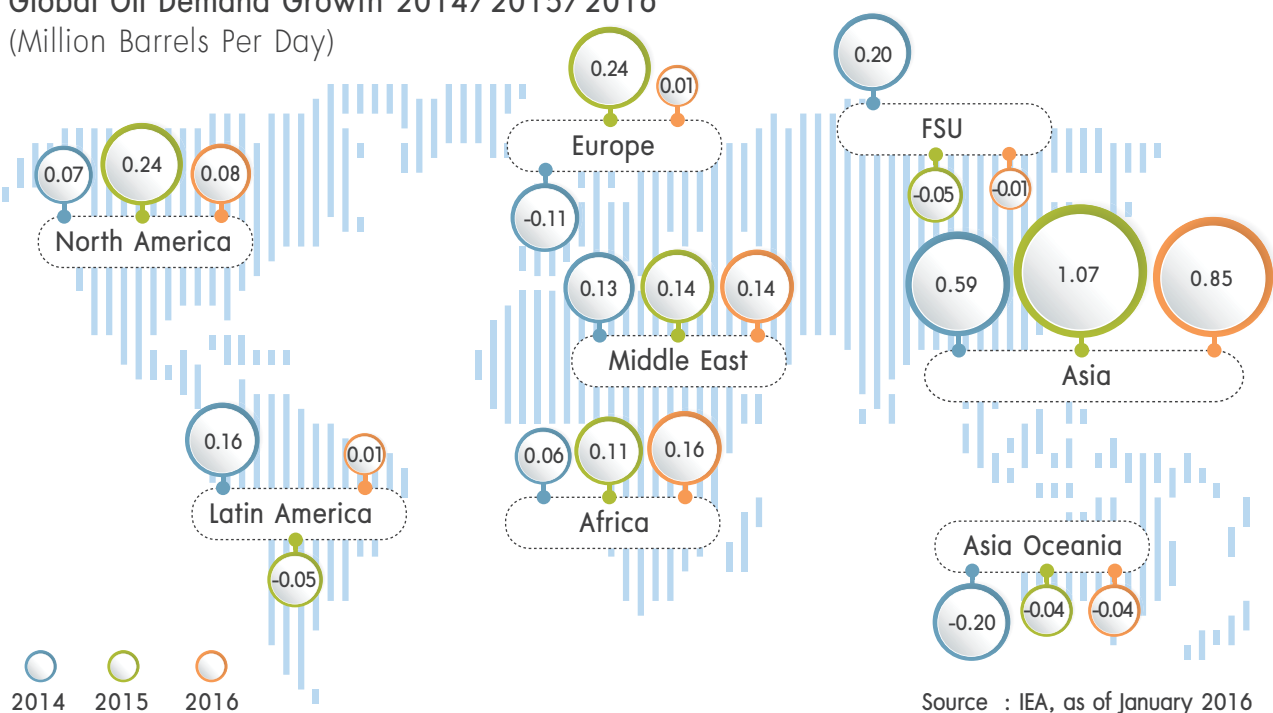
In terms of Hexamethylene Diisocyanate (HDI) and HDI's derivative products, the world has seen an average growth of 4.8% per year, with Asia as the biggest market. In 2015 the demand for HDI remained high, part of this was due to the demand for HDI in Europe and North America following their economic recovery. However, the drop in crude oil price also led to the drop in feedstock price, worsened by higher competition in Asia. The price of HDI on average for 2015 was 6,383 US dollars per ton, a reduction of 407 US dollars per ton from 2014.

Market Outlook on 2016

The International Energy Agency (IEA) is expecting global demand for oil to increase by 1.2 million barrels per day to 95.7 million barrels per day. They anticipated that this

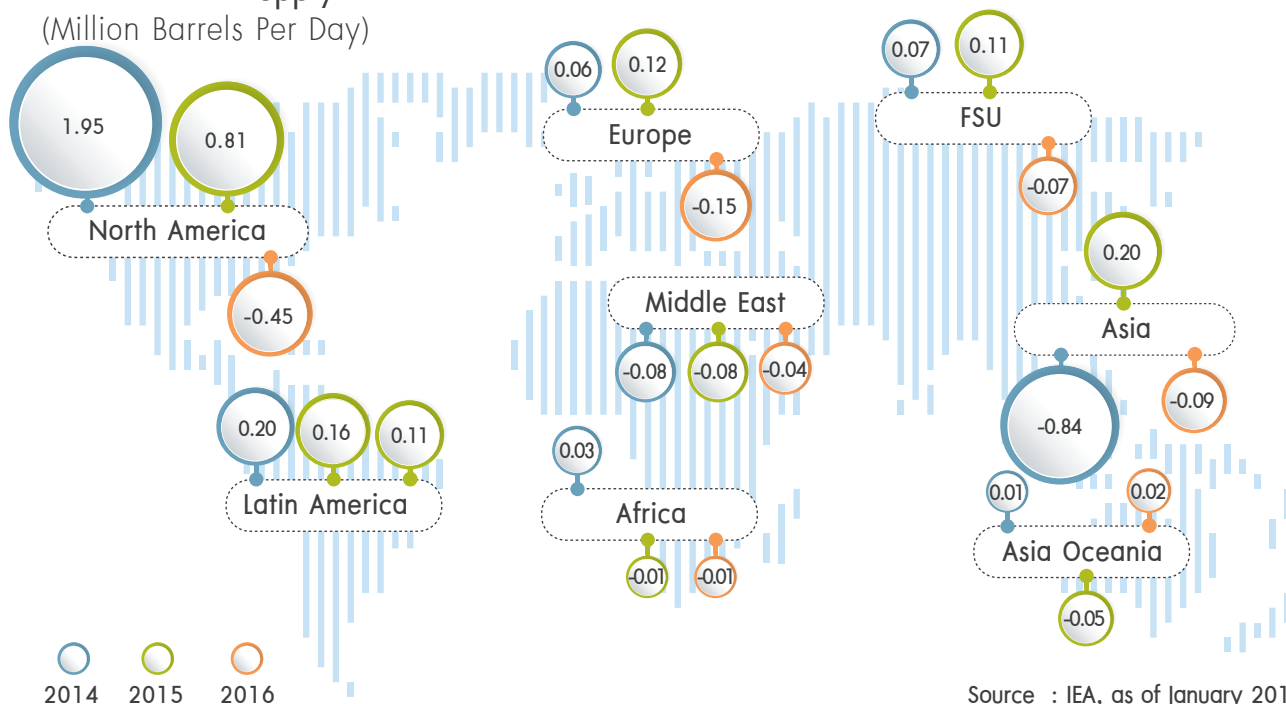
increase will be attributed to countries in Asia, especially China and India, as the reduction in oil prices will stimulate the transportation sector. Furthermore, IEA also forecast that the production of crude oil in 2016 from Non-OPEC will decrease by 0.6 million barrels a day to 57.1 million barrels per day as a direct result of the plunge in oil prices that has rendered the industry less profitable. Moreover, the OPEC meeting on December 4, 2015, could not agree on production ceiling. The conflict between Saudi Arabia and Iran has worsened to the point where the two nations severed their diplomatic ties. Moreover, Iran's production is expected to increase, maybe sooner than anticipated, from IAEA's annulment of the sanction. Even though the price of crude oil has dropped in the first half of the year, it is likely to rise again in the latter half thanks to the increase in demand and decrease in supply from Non-OPEC.

Global Oil Demand Growth 2014/2015/2016 (Million Barrels Per Day)



Non-OPEC Oil Supply Growth 2014/2015/2016

(Million Barrels Per Day)



Source : IEA, as of January 2016

Looking at refined products in Asia, 2016 has already seen an increase of 0.8 million barrels per day in production, most of which is in South and Eastern Asia. However, the demand for oil will rise following the global economic recovery, as well as the price, which has been cheap. So gross refinery margin (GRM) in the region is expected to be at the same level as 2015.

In terms of Aromatics, the price difference between Paraxylene and Naphtha is expected to continue being stable, while the difference between Benzene and Naphtha is expected to become higher from 2015 due to lower supply than demand.

As for Olefins and derivative products, although demand is expected to rise following the global economic recovery, the price difference between Olefins and Naphtha in Asia is expected to be lower from 2015 as a result of

- New capacity in Asia and the Middle East with combined Ethylene and Propylene production of 5.2 and 5.7 million tons per year, respectively.
- The fewer annual maintenance plans and
- The end of the sanction against Iran.

Meanwhile, Polymers price are still pressured from increased supply and volatile crude oil price ever since 2015.

Management's Discussion and Analysis

Executive Summary

In 2015 PTT Global Chemical Public Company Limited ("the Company") had a net profit of 20,502 MB with earning per share (EPS) of 4.55 baht per share, increased 33% from year 2014 with a net profit 15,372 MB or 3.41 baht per share.

Table : Performance Summary

(Unit: Million Baht)	2014**	2015	YoY % + /(-)
Sales Revenue	550,909	400,128	-27%
EBITDA	34,220	44,740	31%
EBITDA Margin (%)	6%	11%	5%
Net Profit	15,372	20,502	33%
EPS (Baht/Share)	3.41	4.55	33%
Adjusted EBITDA*	52,369	50,873	-3%
Adjusted EBITDA Margin (%)	10%	13%	3%

Note: * Adjusted EBITDA refers EBITDA excluding impact of inventory value (Inventory and NRV) and extraordinary items

** Restated FY 2014 Financial Statements from the implementation of Thai Financial Reporting standards (TFRS) no.10 regarding consolidated financial statements and no.11 regarding joint arrangements.

Under the oil market volatility coupled with region economic uncertainty situations in the year 2015, the Company has managed its production and sales to minimize the impact external factors. This has resulted in 2015 performance to improve. The adjusted EBITDA margin of 2015 increased to 13% from 10% in year 2014. An increase in the operating performance was due from an increase in performance of refinery and aromatics business units. For refinery business unit, the spread between petroleum products and its feedstock improved, especially for the gasoline and fuel oil that has increased due to the demand of the market. For aromatics business, although the spread between product price and condensate of main aromatics product as paraxylene and benzene decreased, but the spread of aromatics unit by-products which accounts for about 41% increased following petroleum product spread. However, the performance of olefins and derivatives business declined due to a decrease in polyethylene product price. This has resulted in olefins and

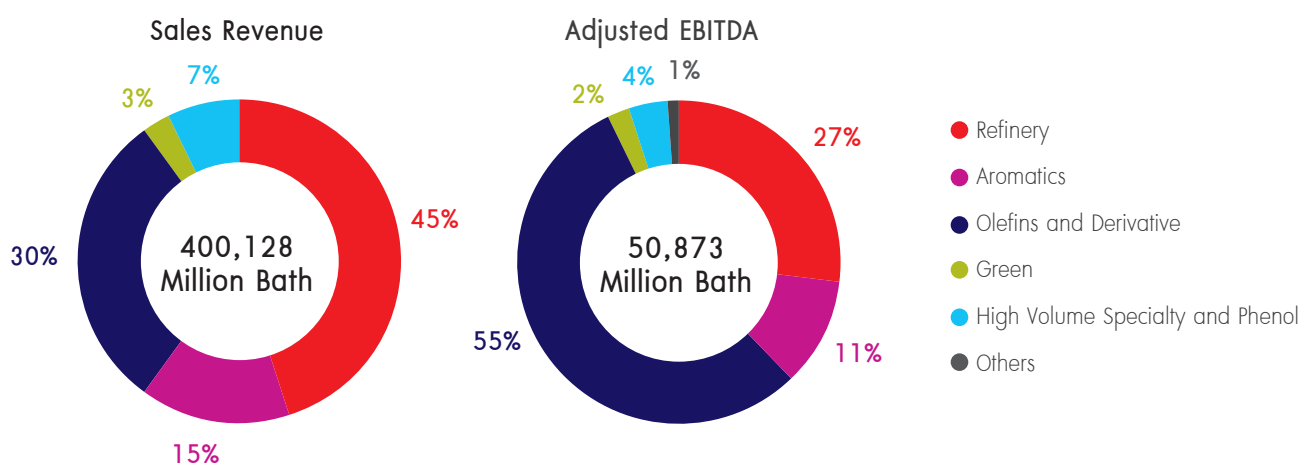
derivatives units adjusted EBITDA margin to drop to 24% in 2015 from 26% in the previous year.

In 2015 Dubai crude oil price opened at 60 USD per bbl and closed at 35 USD per bbl in December 2015. Although Dubai crude price continued to decrease, but the Company was able to mitigate the impact of stock loss using commodity hedging. This resulted in net impact from stock loss of Baht 957 million (stock loss of Baht 6,504 million, NRV gain of Baht 2,902 million and commodity hedging gain of Baht 2,645 million)

Also in 4Q/2015, the Company has recognized an impairment loss of Myriant totaling Baht 2,531 million (or Baht 2,056 million after tax deduction), an impairment of Succinic Acid Plant at Lake Providence, the US as the plant is in the process of the quality of product testing. As a result, the plant cannot utilize its full capacity, therefore, the Company had to recognize the impairment as such.

Table : Adjusted EBITDA Margin

% Adj. EBITDA Margin	2014	2015
Business Unit :		
Refinery	4	8
Aromatics	3	9
Olefins and Derivative	26	24
Green	4	6
High Volume Specialty and Phenol	5	7
Average	10	13



Summary of Core Business Performance

The performance of refinery business unit rose in 2015 from last year. The Adjusted EBITDA increased by 33%, which was mainly due to an increase in some petroleum product spread over crude oil price. The spread of gasoline over Dubai crude oil price in year 2015 increased 28%, and the spread of fuel oil price with Dubai crude oil price increased 40% meanwhile the spread of jet fuel and diesel fuel over Dubai crude oil price dropped 13% and 15% respectively. The Company's refinery has CDU utilization rate of 100%, slightly decreased from last year. As a result, CDU GRM stood at 5.45 USD per bbl, increased 24% from last year. However, the Company realized stock loss, NRV, and commodity hedging of refinery product and feedstock net to Baht 827 million. (Comprising of stock loss of Baht 4,570 million, NRV gain of Baht 1,352 million and net profit from Commodity Hedging of Baht 2,391 million baht)

In 2015, the performance of aromatics business unit increased from last year. The main reason was due to an increase in spread of by-product over condensate coupled with the decrease in crude oil price which led to lower energy value used in aromatics plants. This has resulted in better performance of aromatics units despite the lower spread of main products price over condensate such as paraxylene and benzene. In 2015, the aromatics plant had aromatics utilization rate at 74% dropped from last year and this was due to planned and unplanned shutdown of Aromatics II plant. As a result, the Company reported product to feedstock margin per unit of Aromatics product at 217 USD per ton of aromatic products, increased 25% from last year. The Company also realized stock loss, NRV gain, and commodity hedging gain of net Baht 468 million. (Comprising of stock loss of Baht 1,934 million, NRV gain of Baht 1,431 million and Baht 35 million profit from commodity hedging).

For olefins and derivatives business unit, the performance decreased from previous year. This was due a drop in polyethylene price of approximately 20% when compared to year 2014 which resulted in a drop in olefins and derivatives adjusted EBITDA margin to 24% from 26% in previous year. However, the utilization rate of olefins crackers increased from 91% in 2014 to 94% in 2015.

Change in Accounting Standard

Federation of Accounting Professions has announced five new and revised accounting standards relating to financial reporting (Pack 5) which has been effective since January 1, 2015. In order to comply with new standards, the comparative financial statements for the period of 2014 needed to be restated accordingly.

On June 29, 2015, the Company acquired additional 25% shares of PTT Polymer Marketing Company Limited (PTTPM) from IRPC Public Company Limited (IRPC), which resulted in the increment of shareholding interest in PTTPM from 25% to 50% as well as the change in an investment position from associate to joint venture. In addition, on July 2, 2015, the Company acquired 50% shares in PTT Polymer Logistics Company Limited (PTTPL) from PTT Public Company Limited (PTT), which resulted PTPL being a joint venture company. These business combinations are under common control transaction, therefore, the Company required to restate previous financial statements for comparison purpose, however, the adjustment does not impact the Company's net profit.

2015 Petroleum and Petrochemical Market Overview.

Petroleum Market Overview

Table : Crude Price & Petroleum Product Spreads

Unit : USD per bbl	2014	2015	YoY % + /(-)
Dubai Crude Oil	96.61	50.91	-47%
Jet-Dubai	15.88	13.88	-13%
Diesel-Dubai	16.06	13.66	-15%
Fuel Oil-Dubai	-8.30	-5.02	40%
Gasoline-Dubai	14.31	18.28	28%

Dubai crude price for 2015 has been continually volatiled from ending of last year at 52.9 USD per bbl to close at 31.8 USD per bbl at the end of 2015. The average Dubai crude price for 2015 stayed at 50.9 USD per bbl, decreased by 45.7 USD per bbl or 47% comparing to last year. This was because crude oil price was pressured by supply surplus from Shale Oil production in the US. Meanwhile, OPEC continued to maintain production at around 30 million barrel/day to keep its market share. In addition, Iran and six world powers concluded nearly ten years of negotiations with a landmark nuclear deal in July 2015. Therefore, market perceived additional capacity from Iran after lifting the sanction. In

term of demand, it is still uncertain due to global economic slowdown especially in China.

In 2015, price and spread of petroleum product was fluctuated as a result of sharp drop in crude oil price. This increased the demand for gasoline used in vehicle and therefore spread of gasoline over Dubai crude oil price in 2015 averaged at 18.28 USD per bbl, 3.97 USD per bbl increase from previous year. However, an increase in utilization rate of refineries to serve increased demand for gasoline also increased the production of jet and diesel, while the demand for jet and diesel was still uncertain

due to weaken economic put pressure on demand in industrial sector. Hence spread of jet over Dubai crude oil price averaged at 13.88 USD per bbl, decreased 2.00 USD per bbl from previous year and the spread of diesel over Dubai crude oil price averaged at 13.66 USD per bbl, decreased 2.40 USD per bbl from previous year. On the

other hand, demand for fuel oil increased in shipping sector as decreasing in fuel oil price boosted demand of fuel oil for floating storage, so the spread of fuel oil over Dubai crude oil price increased 3.30 USD per bbl from previous year to averaged at -5.02 USD per bbl in 2015.

Aromatics Market Overview

Table : Aromatics Product Prices and Spreads over Condensate

Unit: USD per ton	2014	2015	YoY % + /(-)
Condensate	836	447	-47%
Paraxylene (FECF)	1,236	829	-33%
Paraxylene (FECF)-Condensate	400	383	-4%
Benzene (Spot Korea)	1,211	685	-43%
Benzene (Spot Korea)-Condensate	375	238	-36%
Naphtha-Condensate	25	44	74%

Paraxylene market has remained in a down cycle since 2014 from large number of new paraxylene capacities pressured paraxylene price to stay at low level. In 2015, spread of paraxylene over condensate averaged at 383 USD per ton, decreased 4% from last year. This year, supply addition for paraxylene was still higher than its demand addition. World supply for paraxylene was 48.7 million ton per year, increased 2.8 million ton per year whereas world demand was 38.4 million ton per year, increased only 1.7 million ton per year. It derived from concerns on global economics especially in China which caused seasonal demand to decline. Moreover, according to uncertainty of crude oil price polyester and PTA players slowdowned their orders. However, there had been factors supporting the price of paraxylene. First, Aromatics plants shutdown during the year caused a tight in paraxylene supply in some period of time such as the shutdown of Dragon Aromatics in China with total capacity of 1.6 million ton per year,

the shutdown of FCFC in Taiwan with total capacity of 580,000 ton per year and the shutdown of Jurong Aromatics Corp. in Singapore with total capacity of 800,000 ton per year. Furthermore, reformate, which is the feedstock for aromatics products, had been use for blending gasoline because of its high demand, helped supporting paraxylene spread over condensate.

In 2015, benzene spread over condensate averaged at 238 USD per ton, decreased 36% from last year. The major reasons were from a decline in crude oil price, China economics slowdown caused demand for downstream products of benzene to decline, and supply surplus in Asia due to the US can produced more benzene and reduced the import from Asia. These reasons pressured benzene spread over condensate to remain low throughout the year.

Olefins and Derivatives Market Overview

Table : Prices and Spreads of Olefins and Derivatives

Unit : USD per ton	2014	2015	YoY % + /(-)
Naphtha (MOPJ)	861	491	-43%
Ethylene (SEA)	1,395	1,104	-21%
HDPE	1,544	1,237	-20%
HDPE-Naphtha	682	747	9%
LLDPE	1,543	1,234	-20%
LLDEP-Naphtha	681	743	9%
LDPE	1,571	1,249	-21%
LDPE-Naphtha	710	758	7%
MEG (ACP)	1,113	948	-15%
MEG-0.65 Ethylene	206	230	12%

In 2015, overall olefins and derivatives products price declined following crude oil price. Ethylene price averaged at 1,104 USD per ton, decreased 21% from 2014, as a result of declined crude oil price. Another factor came from abnormal ethylene market in 2014 which was extremely tight due to many ethylene producers in Asia including China, Japan, Taiwan, Singapore and Thailand had major turnaround and many plants reduced operating rate in 2Q/2015 because of technical problems.

Polyethylene prices in 2015 decreased from previous year following a decline in crude oil price. HDPE price averaged at 1,237 USD per ton, decreased 20%, LLDPE price averaged at 1,234 USD per ton, decreased 20%, LDPE price averaged at 1,249 USD per ton, decreased 21% from previous year. In addition, the effect of Yuan devaluation made manufacturers extremely concern about a decline in China's import. Such devaluation also had the impact on Asian currencies to weaken when compared to the US dollar which is the currency used to purchase polymer. As a result, downstream producers

were more careful in importing raw materials to reduce the impact of the change in the value of money. They, therefore, leaned their inventory in order to minimize the risk of instability of oil prices as well as the economics. However, spread of HDPE over Naphtha remained strong at 747 USD per ton, increased 9%. This was because Naphtha price sharply dropped by 43% following crude oil price whereas demand for polymer remained stable.

In 2015, demand and supply of MEG market was quite balance. Some major producers had maintenance shutdown so the supply was lower for period of time. Nonetheless, due to MEG is the main feedstock for polyester industrial, in which will become main feedstock for textile and PET. Thus, MEG market trend was in the same direction as polyester business that was sluggish because of crude oil price instability and economics weakness. MEG price averaged at 948 USD per ton, decreased 15% from 2014. Yet, ethylene price declined 21%, due to soften crude oil price and tighten ethylene, caused spread of MEG-0.65Ethylene improved.

Performance Analysis by Business Unit

Refinery Business Unit

Table : Refinery Intake

	2014	2015	YoY % + /(-)
Crude (M.BBL)	53.83	53.04	-1%
(KBD)	147.48	145.31	-1%
Condensate Residue & Others (M.BBL)	20.52	21.89	7%
(KBD)	56.21	59.98	7%
Total Intake (M.BBL)	74.35	74.93	1%
(KBD)	203.69	205.29	1%
CDU Utilization Rate	102%	100%	

The performance of refinery business unit increased in 2015 compared to 2014, adjusted EBITDA increased at 33% mainly due to the better petroleum spread of some products along with the higher demand. In 2015, the spread of gasoline over Dubai crude increased 28%, the spread of fuel oil over Dubai crude increased 40% while the spread of Jet/Kero and that of Diesel decreased 13% and 15%, respectively.

In 2015, the Company refinery operated with a full CDU utilization rate at 100% decreased from 2014 at 102% along with the decreasing in imported crude demand at 1%. However, the total intake increased at 1% due to the increasing in demand for cracker bottom, one of the Synergy project, which was completed in 2015. This project helps produce by product from olefins plants such as cracker bottom to be feedstock for aromatics plants.

Table 7 : Petroleum Sales Volume

Product	2014		2015		YoY % + /(-)
	'000 barrels	%	'000 barrels	%	
Naphtha	4,902	7%	5,086	7%	4%
Reformate	4,955	7%	6,081	9%	23%
Jet/Kero	8,995	13%	7,774	11%	-14%
Diesel	34,038	50%	33,652	49%	-1%
Fuel Oil	9,213	14%	9,111	13%	-1%
Others	5,342	8%	6,297	9%	18%
Total	67,446	100%	68,002	100%	1%

In 2015, the Company sales volume of petroleum products was 68Mbbl slightly increased from previous year along with an increase in total intake mainly from increased in sales volume of reformat at 23%. This was due to the Company's product management to take an opportunity and choose

to sell reformat gasoline blending rather than to use as a feedstock due to an increase in spread of gasoline. Moreover, the Company's refinery business unit gained benefits from an decreasing in crude price in 2015 at 47% resulting in lower cost of utilities used in operation.

Table : Gross Refinery Margin

Unit: USD per bbl	2014	2015	YoY % + /(-)
Market GRM	4.41	5.45	24%
CDU GRM	5.61	7.13	27%
CRS GRM	2.77	2.95	7%
Hedging Gain/(Loss)	0.94	0.93	0%
Stock Gain/(Loss) Net NRV	-3.73	-1.78	52%
Accounting GRM	0.98	5.13	421%

In 2015, the Company reported market GRM from CDU (CDU GRM) at 5.45 USD per bbl, increased 27% from 2014 at 4.41 USD per bbl. In 2015, the Company realized stock loss of Baht 4,570 million or -1.78 USD per bbl from a decreasing in crude oil price from 60 USD per bbl in the beginning of the year to 35 USD per bbl in the end of the year. At the end of 2015, product price did not significantly decrease so the Company did not have to revalue the ending inventory.

However, there was the reversal of NRV Loss last year, therefore, the Company reported net NRV Gain of Baht 1,352 million or 0.53 USD per bbl. In 2015, the Company had gain from commodity hedging of Baht 2,391 million or 0.93 USD per bbl mainly from inventory hedging. The accounting GRM in 2015 concluded at 5.13 USD per bbl, 4.1 USD per bbl increased from 2014 accounting GRM at 0.98 USD per bbl.

Aromatics Business Unit

The performance of aromatics business unit in 2015 increased comparing to previous year due to an increase in spread of naphtha over condensate at 74%. Even spread of paraxylene

over condensate and spread of benzene over condensate decreased 4% and 36%, respectively from previous year. The company gained benefits from lower utilities cost due to a decrease in crude oil price at 47%.

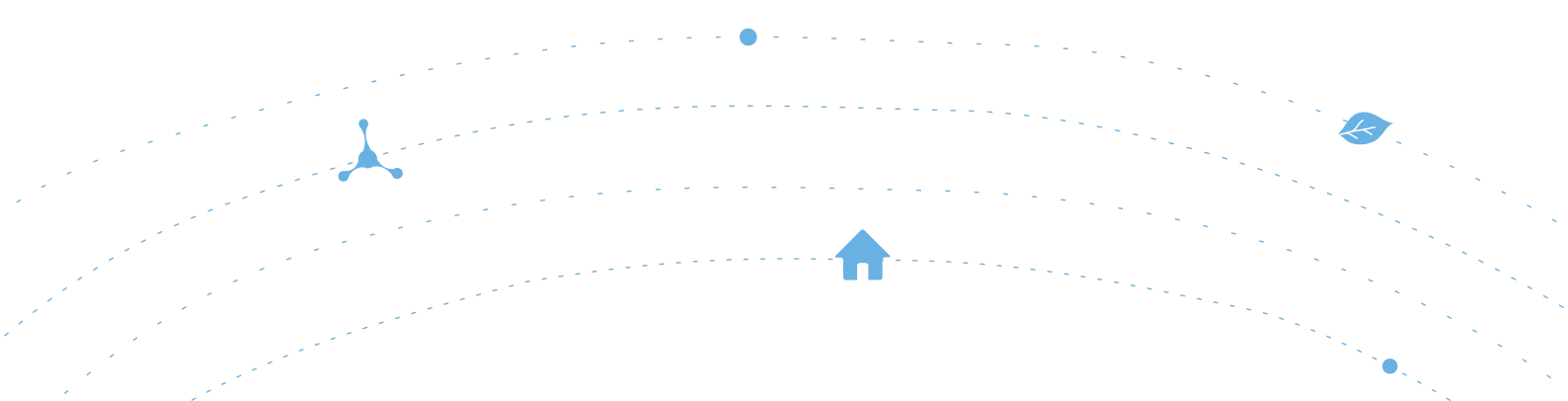


Table : Aromatics Intake and Production

	2014	2015	YoY % + /(-)
Condensate ('000 tons)	4,666	4,697	1%
Others ('000 tons)	936	517	-45%
Total Intake ('000 tons)	5,602	5,214	-7%
Aromatics Production ('000 tons)	1,892	1,720	-9%
Aromatics Utilization Rate	81%	74%	

*Aromatics capacity 2.259 Mton per year

In 2015, aromatics utilization rate averaged at 74% decreased from 81% due to maintenance shutdown plan and unplanned shutdown of Aromatic II plant since July 28, 2015 for 75 days to fix compressor motor at platforming unit. In order to maximize benefits from plants shutdown, the Company rescheduled maintenance shutdown plan and debottlenecking project of

Aromatics II plant to the same period. In 2015, the total intake decreased 7% due to the Company's product management to take an opportunity and choose to sell reformate gasoline blending rather than to use as aromatics feedstock resulting in less reformate gasoline as feedstock for aromatics.

Table : Aromatics Sales Volume

Product	2014		2015		YoY % + /(-)
	'000 tons	%	'000 tons	%	
Benzene (BZ)	552	17%	493	17%	-11%
Cyclohexane	162	5%	157	5%	-4%
Paraxylene (PX)	1,092	34%	1,003	34%	-8%
Other Aromatics Products	53	2%	60	2%	12%
Total Aromatics Products	1,860	59%	1,712	59%	-8%
Naphtha and Raffinate	945	30%	898	31%	-5%
Other By-Products	351	11%	310	11%	-12%
Total	3,176	100%	2,920	100%	-8%

BTX sales volume in 2015 decreased 8% comparing to previous year following a reduction in capacity. The Company sales volume of reformate at 38,908 ton or 5% of total

aromatics products and byproducts to capture the favorable market condition.

Table 11 : Aromatics market P2F

Unit: USD per ton	2014	2015	YoY % + /(-)
Market P2F	174	217	25%
NRV	-23.6	24.4	N/A
Hedging Gain/(Loss)	-0.1	0.6	N/A
Stock Gain/(Loss)	-62.3	-33.0	N/A
Accounting P2F	88	209	137%

Resulting from product spreads and production factors in 2015, the Company reported P2F margin 217 USD per ton, increased 25% or 174 USD per ton from previous year. Aromatics business unit reported a stock loss in 2015 of Baht 1,934 million or

-32.97 USD per ton while reversal of NRV Loss last year of Baht 1,431 million or 24.40 USD per ton resulting in an increase in accounting P2F at 209 USD per ton BTX comparing to previous year at 88 USD per ton BTX.

Olefins and Derivatives Business Unit

Table : Adjusted EBITDA of Olefins and Derivatives

(Unit: Million Baht)	2014	2015	YoY % + /(-)
Adj. EBITDA	34,910	28,032	-20%
Adj. EBITDA Margin	26%	24%	-7%

Table : Sales volume and utilization rate of Olefins and Derivatives

Product	2014		2015		YoY % + /(-)
	Sales Volume '000 tons	Utilization Rate	Sales Volume '000 tons	Utilization Rate	
Olefins *	708	91%	760	94%	7%
HDPE	873	107%	868	108%	-1%
LLDPE	407	100%	365	91%	-10%
LDPE	323	105%	333	111%	3%
Total PE	1,603	105%	1,566	104%	-2%
MEG	382	95%	420	96%	10%

Note: * Sales Volume of Olefins is external volume.

The performance of Olefins and Olefins derivatives declined in 2015 following a decline in crude oil price and polyethylene price decreased by 20% from previous year. The utilization rate of olefins plants averaged at 94% increased from previous year at 91%.

Performance: HDPE

Overall HDPE performance in 2015 declined comparing to 2014. HDPE sales revenue decreased 15% from previous year due to a decrease in HDPE price at 20%. In 2015, the total utilization rate of all 3 HDPE plants averaged at 108%, increased from 2014 at 107% while the sales volume decreased due to a boosting sales at year end 2014 when crude oil price decreased dramatically.

Performance: LLDPE

Overall LLDPE performance in 2015 declined comparing to 2014. LLDPE price decreased in accordance with the crude oil price. In 2015, LLDPE price averaged at 1,234 USD per ton decreased 20% from previous year. The utilization rate of LLDPE plant averaged at 91% in 2015 decreased from that of 2014 at 100%. LLDPE sales volume in 2015 decreased 10% from previous year due to 35 days unplanned shutdown in 2Q/2015 and 16 days shutdown plan in 4Q/2015.

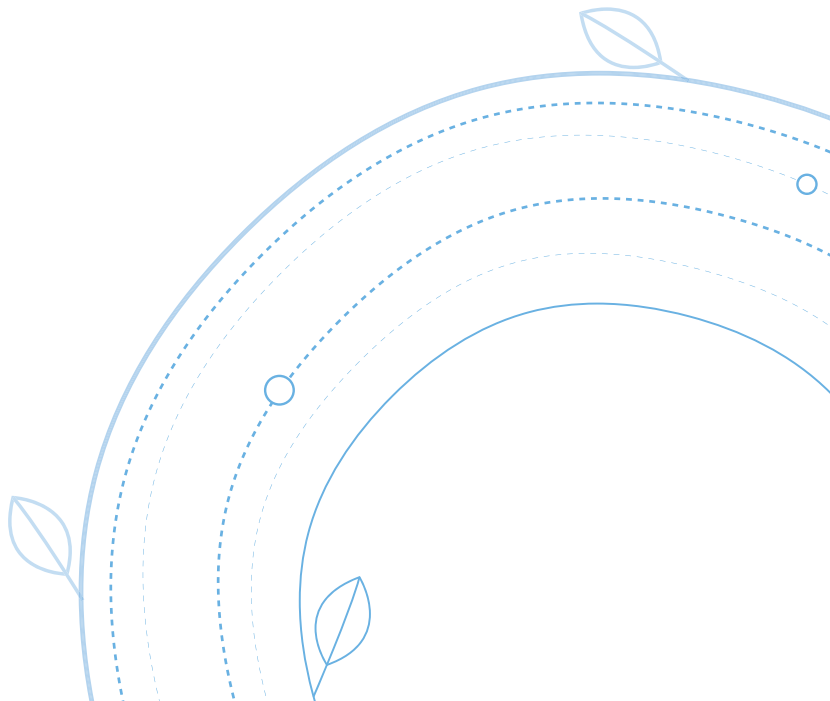
Performance: LDPE

Overall LDPE performance in 2015 declined comparing to 2014. Sales revenue of LDPE decreased 13% from previous year. LDPE price averaged at 1,249 USD per ton decreased 21% from previous year. The utilization rate of LDPE plant averaged at 111% increased from previous year at 105% while sales volume increased 3%.

Ethylene Oxide Business Unit

The performance of ethylene oxide business unit in 2015 declined comparing to 2014 even the spread of products increased due to the expansion in Ethylene Oxide (EO) plant resulting in increasing in sales volume in 4Q/2015 while the spread of product, feedstock price decreased in accordance with the crude oil price. The utilization rate of MEG plant in 2015 averaged at 96% slightly increased from previous year at 95%.

In 4Q/2015, the Company had Ethylene Oxide (EO) plant improvement, EO capacity from 336 Kton per year to 426 Kton per year and MEG capacity from 395 Kton per year to 425 Kton per year.



Operating Performance

	2014**		2015		YoY	
	MB	%	MB	%	MB	%
Sales Revenue	550,909	100	400,128	100	(150,781)	(27)
Feedstock Cost	(449,497)	(82)	(304,672)	(76)	(144,825)	(32)
Product to Feed Margin	101,412	18	95,456	24	(5,956)	(6)
(1) Variable Cost	(28,433)	(5)	(25,752)	(6)	(2,681)	(9)
(2) Fixed Cost	(16,389)	(3)	(16,143)	(4)	(246)	(2)
(3) Stock Gain/(Loss) & NRV	(15,910)	(3)	(3,602)	(1)	12,308	77
(4) Gain/(Loss) Commodity Hedging	2,249	0	2,645	1	396	18
(5) Other Income	4,353	1	5,023	1	670	15
(6) SG&A	(10,823)	(2)	(10,356)	(3)	(467)	(4)
(7) Extra Item:						
Provision for business restructuring	(2,239)	(0)	0	0	(2,239)	N/A
Impairment loss	0	0	(2,531)	(1)	2,531	N/A
EBITDA	34,220	6	44,740	11	10,520	31
Depreciation & Amortization	(15,890)	(3)	(16,382)	(4)	492	3
EBIT	18,330	3	28,358	7	10,028	55
(8) Finance Cost	(4,452)	(1)	(3,967)	(1)	(485)	(11)
(9) FX Gain/(Loss)	618	0	(2,338)	(1)	(2,956)	(478)
(10) Shares of profit/(loss) from investments	177	0	711	0	534	302
(11) Income Tax Expense	(581)	(0)	(1,984)	(0)	1,403	241
Net Profit	14,092	3	20,780	5	6,688	47
Profit/(loss) attributable to:						
Owners of the Company	15,372	3	20,502	5	5,130	33
Non-controlling interests	(1,280)	(0)	278	0	1,558	122
Adjusted EBITDA*	52,369	10	50,873	13	(1,496)	(3)

Note: * Adjusted EBITDA refers to EBITDA excluding impact of inventory value (excludes Inventory gain/(loss) and NRV) and extraordinary items

** Restated FY 2014 Financial Statements from the implementation of Thai Financial Reporting standards (TFRS) no.10 regarding consolidated financial statements and no.11 regarding joint arrangements.

Performance Comparison

(1) Variable Cost

Variable cost decreased by Baht 2,681 million or 9% from last year. Even depreciation of Baht caused variable cost per unit to increase but fuel gas price declined following crude oil price, therefore overall variable cost per unit declined. Moreover, for refinery business, LPG and fuel oil had been more internally used as fuel instead of buying natural gas externally to optimize benefit resulting in a decline in variable cost per unit.

(2) Fixed Cost

Fixed cost decreased by Baht 246 million or 2% from FY2014 which was insignificant change.

(3) Stock Gain/(Loss) and NRV

In 2015, the Company reported Stock Loss of Baht 6,504 million and NRV Gain of Baht 2,902 million, whereas in 2014, there was Stock Loss of 12,835 million and NRV Loss of Baht 3,075 million.

Stock Loss in 2015 of Baht 6,504 million came from Refinery business by Baht 4,570 million and from Aromatics business by Baht 1,934 million. This was resulted from a decline in crude oil price from 60 USD per bbl at the beginning of the year to 35 USD per bbl in December 2558. At the end of 2015, product price did not significantly decrease so the Company did not have to revalue the ending inventory. However, there was the reversal of NRV Loss last year, therefore, the Company reported net NRV Gain for the whole year.

(4) Gain/(Loss) Commodity Hedging

In order to manage risk, the Company has done Crack Spread Hedging, Fuel Loss Hedging, Polyethylene Spread Hedging and Inventory Hedging to hedge the margin and ending inventory value to the targeted level. In 2015, the Company reported gain from Commodity Hedging of Baht 2,645 million which mainly came from Inventory Hedging for Refinery business. The hedging value was 19 USD per bbl higher than the actual value settlement, with the volume of 4.3 million barrels.

(5) Other Income

Other income increased by Baht 670 million or 15% from last year, which mainly came from profit generated from the decrement in investment in GPSC after IPO from 30.31% to 22.73%. The Company recorded profit of GPSC IPO at Baht 432 million in 2Q/2015.

(6) SG&A

Selling, General & Administrative Expense (SG&A) decreased by Baht 467 million or 4% from last year which was insignificant change.

(7) Extraordinary Item

In 2015, the Company realized impairment loss of Succinic Acid production plant of Myriant at Lake Providence, the US totaling to Baht 2,531 million (or Baht 2,056 million after tax deduction). This comprised asset impairment of Baht 2,151 and goodwill impairment of Baht 380 million. Due to the product is under quality test, this plant cannot operate at full capacity, therefore, the Company had to realize such impairment loss.

(8) Finance Cost

Finance cost decreased by Baht 485 million or 11% from last year. This came from the increment in interest income totaling to Baht 215 million and the increment in interest expense totaling to Baht 270 million. Interest expense increased as this year the Company invested more in short term investment. On the other hand, interest expense decreased due to the repayment of USD 300 million-debenture in June 2015.

(9) Gain/(Loss) from Foreign Exchange

In 2015, the Company reported a loss from foreign exchange of Baht 2,338 million, comparing to gain from foreign exchange of Baht 618 million in 2014. Loss this year mainly resulted from revalue of foreign currencies loan. At the end of the year, the Company had loan in foreign currencies of USD 1,100 million. Depreciation of Baht by 3.14 Baht/USD or 9% caused the Company to realized loss from foreign currencies (based on average sales BOT, end of 2015 at 35.26 Baht/USD against end of 2014 at 33.11 Baht/USD). However, according to

hedging policy, the Company had done forward contract to minimize the impact of Baht depreciation. In addition, weaken of Baht also caused sales revenue to increase.

selling its factory at Dusseldorf, Germany according to the Company's strategy to focus on Specialty Oleochemicals.

(10) Share of Profit/(Loss) from investment

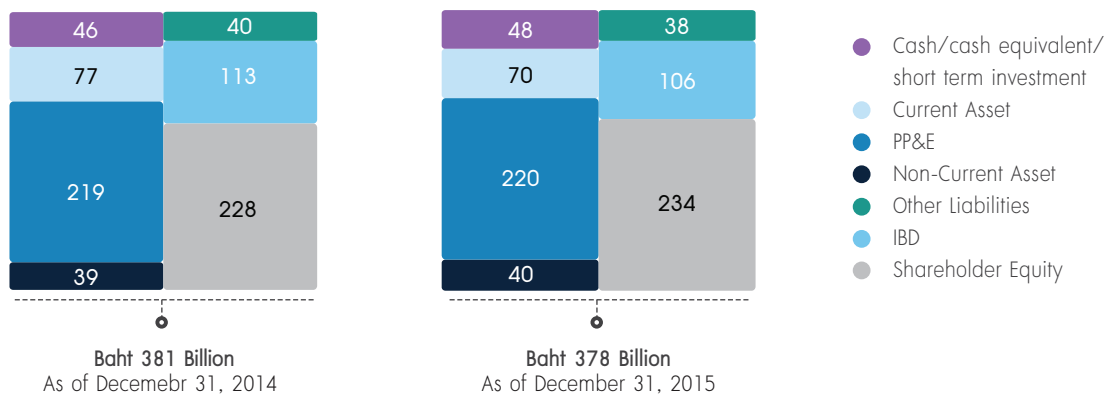
In 2015, the Company realized a total share of profit from investments of Baht 711 million, increased by Baht 534 million from last year. This was mainly resulted from increment in profit of Emery due to its expense control policy. Moreover, Emery realized gain from

(11) Income Tax

In 2015, the Company recognized income tax expense totaling at Baht 1,984 million, increased by Baht 1,403 million from last year. This was resulted from an increase in overall performance in 2015.

Statement of Financial Position

Unit: Billion Baht



Asset

As of December 31, 2015, the Company had total asset of Baht 377,545 million, decreased by Baht 3,898 million or 1% from December 31, 2014 which came from a decrease in current asset of Baht 5,230 million, while there was an increase non-current asset of Baht 1,332 million.

1) Current asset decreased by Baht 5,230 million or 4% mainly due to the following reasons

- Cash and cash equivalents and current investments increased by Baht 1,953 million or 4% which was mainly due to cash received from operation of Baht 50,822 million, net cash received from long term loan of Baht 3,635 million and cash received from interest income and dividend received of Baht 1,716 million. However, there was cash used in purchasing assets and investment activities totaling of Baht 20,309

million, repayment of debenture of Baht 14,643 million and payment of dividend and interest of Baht 17,132 million, and cash received from share buy back of Baht 2,105 million.

- Accounts receivable decreased by Baht 6,358 million or 17%, mainly due to a decrement in product prices when compare with last year. However, sales volume did not significantly change from last year.

	2014 (day)	2015 (day)	+ / (-) (day)
AR Turnover	30	30	-

- AR Turnover for 2015 averaged at 30 days, same as 2014. In addition, AR Turnover of all business units was not significantly different from last year.
- Inventory decreased by Baht 1,647 million or 5%. At the end of last year when crude oil price sharply dropped, the Company had policy to manage inventory level to minimize loss from NRV, thus, inventory at the end of 2014 was lower than normal level. Eventhough inventory level increased from last year, decrease in feedstock and product cost caused ending inventory to decline.

	2014 (day)	2015 (day)	+ / (-) (day)
Inventory Turnover	18	20	2

- Inventory Turnover for 2015 averaged at 20 days, increased from the end of year 2014 by 2 days. This was primarily due to the minimization of inventory level policy at the end of 2014. Therefore, during the end of last year the Company tried to decrease purchasing volume and increase sales volume which caused ending inventory and inventory turnover in 2014 to stay in a low level.

- Other current assets increased by Baht 822 million or 11% mainly due to the following reasons

Other receivable increased by Baht 1,191 million

- which significantly included the increasing in receivables from commodity hedging of Baht 1,670 million. Nevertheless, prepaid income taxes decreased by Baht 624 million. This was due to performance of 2H14 sharply dropped which made income tax payment at first half higher than yearly income tax and therefore the Company reported prepaid income tax at year end. Yet, this year did not occur such an event. Receivables from oil fund decreased by Baht 399 million because of a reduction in compensation rate of LPG Fund from 7.71 Baht/kilogram to 1 Baht/kilogram.

- Non-current asset increased by Baht 3,541 million or 1% which was mainly due to

- Property, plant and equipment increased by Baht 868 million or 0.4%. This was from an increase in assets cost

and assets under construction by Baht 17,771 million. The increment in assets cost was mainly from completed and on-going projects such as Phenol II, TOCGC plant improvement, and Aromatics II debottlenecking project. Moreover, there was an increase in plant turnaround recognized as asset during the period. However, PPE decreased during the period from depreciation and assets disposal of Baht 14,454 million and Baht 292 million, respectively. Additionally, there had been impairment of Myriant's Succinid Acid factory by Baht 2,151 million.

- Other non-current asset increased by Baht 464 million or 1% mainly from an increase in investment in the associates and joint ventures by Baht 315 million which was caused by gain recognized from a reduction in GPSC's investment portion and share of profit from investment during 2015. Moreover, intangible asset increased by Baht 737 million mainly from license for Phenol II and TOCGC plant improvement projects. However, in 2015, the Company impaired the goodwill of Myriant's Succinid Acid factory by Baht 380 million.

Liability

As of December 31, 2015, the Company had total liability of Baht 143,280 million, decreased by 9,713 million or 6% from December 31, 2014 which was resulted from decreasing in current liability by Baht 14,898 million whereas non-current liability increased by Baht 5,185 million.

- Current liability decreased by Baht 14,898 million or 27% from the following reasons

- Bank overdraft and short-term loans from financial institutions decreased by Baht 186 million or 24%. This was mainly due to Vencorex decreased the amount of AR factoring sold to financial institutions as Vencorex had better performance and better cash flow as a result of less working capital needed from the reduction in product and raw material price.
- Accounts payable decreased by Baht 2,029 million or 9%. Even purchase volume declined at year end 2014 according to inventory control during crude oil price volatility, significant drop in feedstock price caused accounts payable to decline.
- Other accounts payable decreased by Baht 360 million or 4%. The main reason was due to a decrease in accrued expenses for the Aromatics II

Debottlenecking and HDI Derivatives projects that almost complete.

- ❖ Payables to contractors decreased by Baht 319 million or 13% from payment during the period according to time schedule.
- ❖ Current portion of long term loan decreased by Baht 13,410 million or 59% due mainly to a repayment of debenture by USD 300 million in June 2015, repayment of Baht bond by Baht 4,500 million in October and December 2015 and loan repayment of Baht 7,500 million. However, there was the reclassification of long term loan and long term debenture to current portion around Baht 8,400 million.
- ❖ Corporate income tax payable increased by Baht 575 million or 846% due to the recognition of income tax for the second half of 2015 as a result of the improvement performance. While in 2014, income tax of the first half of the year was higher than full year actual income tax so there is no corporate income tax payable.
- ❖ Other current liability increased by Baht 831 million or 264% due mainly to the classification of liabilities originally recorded as other liability as it will be paid within the year 2016. This included liability from the amount expected to be paid for 34% increment in Vencorex shares (holding stake increased from 51% to 85%) and reserve expense for Vencorex's restructuring, etc.

2) Non-current liability increased by Baht 5,185 million or 5% which was mainly due to

- ❖ Long-term loan increased by Baht 6,301 million or 7% due to the additional loan drawn down during the period totaling to Baht 11,590 million. Moreover, value of USD debenture increased by 3,141 million as a result of Baht depreciation. However, there had been the reclassification of long term loan and long term debenture to current portion totaling to Baht 8,400 million.
- ❖ Deferred tax liability (net with deferred tax asset) decreased by Baht 336 million or 13%. This was mainly due from the impairment of Myriant's asset so that deferred tax liability of such asset needed to cancel out accordingly.

- ❖ Other liability decreased by Baht 910 million or 49% as a result of the reclassification to other current liability as mentioned above.

Shareholder's Equity

As of December 31, 2015, the Company reported total shareholders' of Baht 234,265 million, increased by Baht 5,815 million or 3% from December 31, 2014. This included an increased in the Company's portion of Baht 6,793 million, a decrease in former shareholder before business restructuring portion of Baht 1,513 million, and an increase in non-controlling interest portion of Baht 535 million.

The Company's portion increased by Baht 6,793 million or 3% from the Company's net profit of Baht 20,502 million. On the other hand, the Company's portion decreased from 1) dividend payment of Baht 11,270 million 2) share buy back in 2015 presented as negative in equity of Baht 2,105 million 3) increment in investment in Myriant during the period resulted in additional recognition of net loss by Baht 480 million (including loss carried forward of Baht 485 million and loss from translation of Baht 5 million).

Former shareholder before business restructuring arose from the purchasing of PTTM's shares from IRPC which made the Company's sharing interest in PTTM increased from 25% to 50% and the purchasing of 50% PTTPL's shares from PTT. These transactions were accounted for business combination under common control, thus, the comparing financial statements needed to be restated as if they were bought from the beginning. As a result, former shareholder before business restructuring portion of Baht 1,513 million was adjusted to present in 2014 financial statements.

Non-controlling interest's portion increased by Baht 535 million or 25% from the profit recognized during the year of Baht 173 million and a recognition of an increase in non-controlling interest portion of Vencorex by Baht 374 million, and increase in non-controlling interest portion of Myriant by Baht 481 million. In addition, there was gain from translation of Baht 2 million, while, there was dividend payment of Baht 495 million.

Statement of Cash Flows

For statement of cash flows for the year ended December 31, 2015, the Company had net cash from operating activities of Baht 50,822 million, net cash used in investment activities of Baht 22,344 million which was mainly from investment in on-going projects such as Phenol II, TOCGC plant improvement and Aromatics II Debottlenecking project, etc. In addition, the Company had net cash paid from financing

activities of Baht 30,028 million from loan repayment, debenture repayment, interest paid, treasury stock project, and dividend paid. Adding up together with beginning cash and cash equivalents and the effect of exchange rate changes on balances held in foreign currencies of Baht 13,033 million, the Company had cash and cash equivalents at the end of 2015 of Baht 11,483 million. Including current investments, the Company reported cash and cash equivalents and current investments totaling to Baht 47,741 million.

Key Financial Ratio

Financial Ratios	2014	2015
Current Ratio (Times)	2.19	2.86
EBITDA to sales revenue (%)	6.21%	11.18%
Net Profits to sales revenues (%)	2.79%	5.12%
Return on total assets (%)	5.09%	7.36%
Return on equity (%)	6.86%	8.99%
Interest Bearing Debt to equity (Times)	0.50	0.45
Net interest bearing debt to equity (Times)	0.29	0.25
Net interest bearing debt to EBITDA (Times)	1.97	1.30

Note:

Current ratio	=	Current assets divided by current liabilities
EBITDA to sales revenue	=	EBITDA divided by sales revenue
Net profit on sale revenue	=	Net profit divided by sales revenue
Return on total assets	=	Net profit divided by average total assets
Return on equity	=	Net profit divided by average total shareholder's equity
Interest Bearing Debt to Shareholders' Equity	=	Interest Bearing Debt divided by shareholder's equity
Net Interest Bearing Debt to Shareholders' Equity	=	Interest Bearing Debt net from cash and cash equivalent and current investments divided by shareholder's equity
Net Interest Bearing Debt to EBITDA	=	Interest Bearing Debt net from cash and cash equivalent and current investments divided by EBITDA

Risk Management and Risk Factors

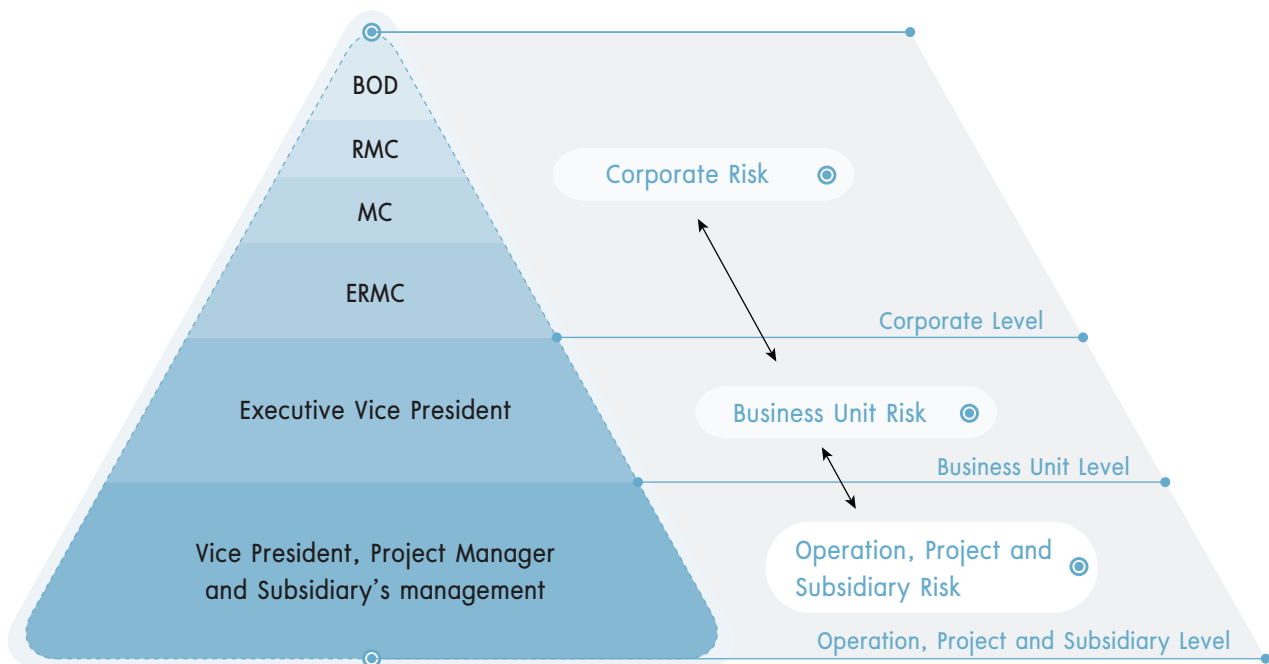
Risk Management

PTT Global Chemical Public Company Limited (PTTGC) places great importance on risk management and has incessantly strived for continual improvements for which we have applied the international risk management standard from the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and ISO 31000 of the International Organization for Standardization. Risk management is in place to manage possible adverse uncertainties against the Company's goals, to reduce the likelihood or potential loss from arising, and/or to attain business opportunities.

PTTGC's risk management structure is divided into three levels: corporate level, functional or business unit level,

and operation or subsidiary level. The Risk Management Committee (RMC), which is comprised of the Board members appointed by the Board of Directors, shall prescribe risk management policy and framework as well as monitor, review and provide recommendations on risk management. In 2015, PTTGC additionally established the Enterprise Risk Management Committee (ERMC), which is comprised of Executives, to closely monitor risk management on monthly basis.

Additionally, the Value Chain Management Committee (VCM), comprised of Executives from relevant functions, has been established to closely monitor the market situation on a weekly basis to manage feedstock, product price volatility and foreign exchange rate fluctuation under the risk management framework approved by the RMC.



Corporate Risk Management Framework

PTTGC has analyzed various uncertainties arisen from both internal and external factors, which may negatively impact (risk) or positively impact (opportunity) on our short and long-term business operation and investment. PTTGC identifies such risks and manages them on a holistic and integrated basis throughout the organization. The risk management tools,

such as risk maps, mitigation plans, and key risk indicators (KRI), are applied to corporate level, functional or business unit level, and important investment projects. PTTGC employs the Monte Carlo simulation technique known as Value at Risk (VaR) to assess the potential financial impact upon volatility of key risk factors. Furthermore, should external uncertainties

may occur in any way during the year, PTTGC has put an early warning system (EWS) in place to proactively monitor and manage risks.

To ensure sustainable growth, PTTGC has striven a risk culture throughout 2015 at all levels. It was driven by the following components:

- ❏ The Board of Directors and Executives have placed highly importance on the subject of risk management by establishing the risk management frameworks and guidelines, as well as continuously and closely monitoring the progress of risk management.
- ❏ Roles, duties, and responsibilities have been clearly and concretely assigned to all related parties.
- ❏ PTTGC has embedded understanding of risk management at all levels, from the Board of Directors, Executives and operational levels. Additionally, risk management has been included in PTTGC's training curriculum.
- ❏ PTTGC has developed an E-Learning program and a monthly newsletter to promote risk management awareness as well as getting involvement from employees in risk management activities.

In 2015, PTTGC was placed among the top 10 global chemical companies in three consecutive years by the Dow Jones Sustainability Indices (DJSI), selected from over 3,000 leading companies around the world. PTTGC received 99 points from 100 points for the crisis and risk management section, demonstrating that the Company's standards for crisis and risk management are internationally acclaimed.

Risk Factors

There are some factors that may influence PTTGC performance and investment including the industry characteristic, the world economy slowdown situation, demand and supply

imbalance in feedstock and product, volatility of petroleum and petrochemicals prices, and geopolitics.

However, during the preparation of this report, other risks which are beyond PTTGC's capacity to foresee may occur. It may also be possible that a risk previously deemed insignificant or "within a risk appetite" may escalate. These may have a significant impact on PTTGC's or its subsidiaries' business goals, investments, and strategies.

Foreseeable risks that could hinder PTTGC from achieving its business goals, investments, and/or strategies in 2016 are listed below.

Price Risk

PTTGC's main feedstock and products are commodity products dependent on global prices. Currently, the crude oil price, main feedstock cost, still continues to be volatile in 2016 and results in petroleum and petrochemical products pricing. As such, price risk could have a high impact on PTTGC's performance either positively or negatively.

Mitigation Measures:

The following are measures that PTTGC has put forth to closely and continuously mitigate its price risk.

- ❏ PTTGC uses a sales-and-purchase agreement to transfer price risk from feedstock to products.
- ❏ PTTGC has an integrated supply chain management system to ensure PTTGC's positive performance under existing business limitations and conditions.
- ❏ PTTGC applies derivatives and/or advance sales-and-purchase agreements to protect itself from the risk of feedstock and product prices under the policy and framework approved by the RMC.

The aforementioned measures are under close supervision by the Value Chain Management Committee (VCM). PTTGC believes that these measures would minimize impact to an acceptable level (risk appetite) on par with 2015.

Long-Term Feedstock Risk

PTTGC relies on natural gas and condensate from the Gulf of Thailand as feedstock. In the long run, the Gulf's natural gas reserve is expected to decline. Meanwhile, legal and regulatory changes may also affect the existing price structure, leading to less competitiveness. These are the uncertainties that PTTGC is aware of, and has put in place the following measures:

Mitigation Measures:

To reduce the effect of this uncontrollable risk factor, PTTGC has further developed its production process to support alternative feedstocks, for example Naphtha feedstock which currently has a lower price, and to build the Company's resilience to handle such a situation. In addition, PTTGC has studied the possibility of importing and using alternative feedstock from other economically viable sources. These are beforehand measures that ensure the readiness of PTTGC to cope with long-term feedstock situation and to maintain PTTGC's competitiveness.

Operational and Safety Risk

As most of PTTGC's businesses are production-based, PTTGC has always placed precedence on operations and safety to ensure that its plants will be able to run continuously and effectively, as well as with the utmost safety. The operational and safety risk can stem from internal and external factors that cannot be foreseen, for example accidents, machine breakdown, and logistic problems etc.

Mitigation Measures:

In addition to the production standard of PTTGC which is in general practice in every plant, there are other measures:

- PTTGC has strengthened its production via the Operational Excellence Management System (OEMS), focusing on reliability and integrity of machinery and other production-related equipment. The OEMS requires that all equipment is systematically tested and maintained by using the same standards throughout the organization. Additionally, PTTGC analyzes and improves a Cash Operating Cost plan to ensure that the Company's

operating cost is competitive with peers in the same industry (benchmarking).

- PTTGC, in recognition of the importance of safety, security, health, and environment (SSHE), has laid down policies and guidelines that are implemented throughout the organization. It also promotes safety awareness among all employees and contractors and encourages them to be more attentive aware of safety in all operation areas through the B-CAREs culture. Furthermore, PTTGC has implemented Process Safety Management (PSM) to enhance safety in production processes.
- PTTGC applies Business Continuity Management (BCM) practices to events that are very low in the probability of occurrence but could have severe effects on the Company if they were to occur. The BCM will help shorten recovery time and/or reduce impact from such events.
- PTTGC has a policy to hold an All Risks Insurance Policy, Business Interruption Policy, and a Third Party Liability Insurance Policy in order to lower the financial loss to the Company and its subsidiaries to an acceptable level in the event of an accident actualizes.





These measures serve as testaments to PTTGC's emphasis on and our readiness to manage the operational and safety risks.

Water Management Risk

In 2015, severe drought greatly affected Thailand as a result of climate change. There was a lack of water in many parts of the country. An effective water management for all is vital. Despite not having been affected, PTTGC cannot rest assured that water shortage will not be a problem in future. Therefore, PTTGC has prepared the mitigation measures to ensure of our precautionary readiness.

Mitigation Measures:

PTTGC's strategy is to use water effectively through both reduction and reuse of water. PTTGC has already prepared a reserve of water supply in addition to closely monitor the government's water management.

-  The 3R's (reduce, reuse, and recycle) project has been applied to manage water, emphasizing the reduction of water consumption to a suitable level by improving the production (reduce), reusing water to curb reliance on outside water sources (reuse), and treating water to recirculate it back into the production process (recycle). This project will reduce PTTGC's reliance on outside water sources in overall.
-  PTTGC utilizes water supplies from the Seawater Reverse Osmosis plant (SWRO) and the Company's reservoir.
-  PTTGC collaborates with government agencies to support and drive government projects related to prevention and mitigation of overall drought problems, especially on finding additional sources and diverting water from the available sources.
-  A water management working team to oversee sustainable water management has been established. It comprises representatives from related functions to concretely set up measures to prevent water shortage.

As such, PTTGC is confident in its preparedness to handle drought situations and will be even better equipped when all the measures are put in place.

Foreign Exchange Rate Risk

The fluctuation of foreign exchange rate is a major financial risk to PTTGC. Since most of PTTGC's feedstock costs, revenue, and foreign debts are linked to the US Dollar, the fluctuation in exchange rate always affects PTTGC's financial performance, which are reported in the Thai currency.

Mitigation Measures:

To mitigate the effects of foreign exchange rate fluctuations, PTTGC manages this risk, both revenue and foreign debts in US currency, by selling US Dollars forward, together with ensuring that the debts in US currency remains at an appropriate portion by using financial instruments such as forward contract or cross currency swap (CCS). These measures are implemented under the framework mandated by the RMC and supervised by the VCM to

ensure that the impact from foreign exchange rate is within an acceptable level.



Investment Risk

To achieve the business growth target, investment to expand and maintain competitiveness of the Company is vital. To fulfill this goal, PTTGC has expanded its production base to new regions, where there is feedstock advantage, such as the US petrochemical complex project. PTTGC has also taken up new ventures, including its expansion into the green business and downstream business like Propylene Oxide/ Polyols project. PTTGC is consistently looking for investment opportunities.

The successful investment will favor long-term growth. However, in the meantime, countless uncertainties may arise. These could be both risks and opportunities. PTTGC has put in place measures to ensure that the Company's investments achieve the target.

Mitigation Measures:

Investment is a business opportunity in which time is crucial in order to achieve benefit for PTTGC and lead to long-term growth. PTTGC has the following measures to manage investment risks.

-  To evaluate investment projects, PTTGC has implemented a Stage Gate process which covers opportunity seeking, feasibility study, and obtaining approval from the Board of Directors. In each step, Executives and experts in charge provide recommendations including its conformity to PTTGC's growth strategies, returns on investment in accordance with Company guidelines, and investment risk management.
-  Risks associated with overseas investment tend to be higher than in the domestic arena; around the end of 2015, PTTGC has established a new business function known as International Business Operations (IBO) to oversee all foreign businesses of the Company. In the target country, PTTGC's expert, who understands the local business context and market competition, will be PTTGC's representative to foster good relations with the local community government and related agencies.

- PTTGC has further put in place an additional process, the scrutiny from the RMC, for the high capital investment projects. The RMC considers the sufficiency of risk assessment and risk management plan prior to proposing to the Board level. The RMC also regularly monitors the progress of risk management as demanded.

- For the completed projects, there is process to collect the lessons learned as well as reasonable caution and will be shared across all related functions to ensure of success in future projects.

The aforementioned measures shall ensure that PTTGC will be able to manage investments effectively and achieve the long-term growth targets as planned.

Innovation Risk

PTTGC is dedicated to research & development (R&D), and innovation, which are key components in augmenting the Company's strength and competitiveness. Innovation also enables PTTGC to consistently grow with sustainability. PTTGC focuses on product development to meet customer expectation and on process innovation to increase its efficiency and productivity. In the past year, PTTGC has developed new products to create further added value, as well as taken part in investments that will provide access to technologies and uplifting its capability.

Mitigation Measures:

The following are measures that will allow PTTGC to grow steadily and sustainably through works of research, development, and innovation.

- Considering the crucial factor toward the successful research, PTTGC has come up with competency development guidelines to enhance the potential and readiness for researchers and employees in Research & Development function.

- To retain personnel with expertise, PTTGC offers a recognition and incentives program comparable to international standards in the Sciences and Innovation occupation.

- Inter-organizational employee exchange program with Joint Venture (JV) companies allows knowledge transfer to PTTGC's research and development function.

- PTTGC has organized an International Innovation Advisory Board (IIAB) conference, comprising leading experts in the field of research and development from educational institutes and the industrial sector. They gave their opinions and suggestions toward the Company's R&D, and innovation plans to ensure that PTTGC is going in the right direction.

- Innovation Stage Gate Process, in accordance with international standards, has been set up to effectively consider PTTGC's innovation projects starting from the feasibility study, lab scale, pilot scale, and commercial scale. These processes will ensure that the benefits of innovative projects be attained as stipulated in the business plan.

- PTTGC enforces a breakthrough innovation by seeking new technologies. Investing in innovation can be done through acquisitions which in turn creates networks in both foreign and domestic companies, and integration/synergy with a joint venture company will deliver technology transfer to enhance PTTGC's capability.

These measures will strengthen PTTGC's potential in R&D, which in turn shall lead to a strong and sustainable business growth for the Company.

Internal Control

PTT Global Chemical Public Company Limited values the importance of Internal Control System which designed to be in accordance with the international standards to ensure its operations to maintain accuracy, transparency, accountability and to mitigate or prevent losses from unexpected risks.

Board of Directors Meeting No. 2/2016 held on February 15th, 2016, evaluated PTTGC's Internal Control System based on internal control assessment report prepared by the Management which follows the guidelines of the Securities and Exchange Commission (SEC), together with the result of the Audit Committee's internal control review. The Board viewed that PTTGC's Internal Control System has been functioning properly in an adequate and effective manner. The operation has been efficiently managed with sufficient number of qualified and competent personnel. In addition, PTTGC has implemented monitoring system to ensure safeguarding of PTTGC Group assets against misuse or unauthorized use by the Board or the Management.

PTTGC's Internal Control System can be summarized as follows;

Control Environment

The Board and the Management strive to promote corporate culture values that focused on integrity and ethics. They also provide supervision of PTTGC's operations to ensure its compliance with the organizational vision and missions and to ensure that PTTGC's control environment is appropriate and effective, as has been detailed below;

The Board maintains its independence from the Management and it is responsible for supervising the overall operation of PTTGC as well as expressing views on the directions and strategy of PTTGC which will be used as guidelines to formulate business and operating plan. Furthermore, the Board regularly monitors the

performance of PTTGC and its Sub-committees to ensure achievement of PTTGC's objectives and goals.

- The Board and the Management have established Corporate Governance Policy, Business Code of Conduct, Corporate Compliance Policy, Internal Control System Policy and Anti-Corruption Guidelines which provide preferred practices for all Directors, the Management and Employees. All Employees are accountable for their internal control activities and maintain effective internal control system. The policies have regularly been communicated and promoted to all employees through training courses, activities, and E-Learning courses regarding Corporate Governance and Business Code of Conduct, Corporate Compliance, Risk Management, and Internal Control.
- PTTGC's corporate structure has been grouped into business units and functions in a way to best support its business operations in an efficient manner and good governance. This structure comes with a system of checks and balances which delegates duties and responsibilities appropriately.
- PTTGC has specified personnel qualifications for individual positions. These qualifications form the basis for recruitment and personnel development. PTTGC has also put in placed succession plan for important management positions to ensure business continuity. Furthermore, it has established performance management and fair rewarding system as incentives provided to motivate efficient towards employees.
- PTTGC organized 'PTTGC Active Citizen' exhibition to raise anti-corruption awareness among the Management and the Employee, as well as encourage them to monitor the transparency, auditable manner and fairness of the operations.

Risk Assessment

The Board and the Management recognizes the significance of risk management which enables PTTGC to achieve its short-term and long-term goals. The Risk Management Committee appointed by the Board, along with Enterprise Risk Management Committee appointed by President and Chief Executive Officer, is responsible to oversee PTTGC's risk management in an appropriate, effective and efficient manner, as following details;

- PTTGC has established Risk Management Framework which follows international standards of ISO 31000 – Risk Management and COSO Enterprise Risk Management. Furthermore, Risk Management Policy has been set as a guideline to manage risks that might have an effect on business operations or PTTGC's strategic direction.
- PTTGC has applied risk management across the entity including (1) Enterprise Risk Management which develops risk profiles at corporate level, business unit level and department level (2) Investment Risk Management (3) Business process level. In addition, PTTGC considers the changes from internal and external factors, and the potential of fraud and corruption in assessing risks to the achievement of objectives. Moreover, mitigation plan is identified in order to manage those risks. Risks and mitigation plans are reviewed and monitored on a monthly basis. All departments are responsible for managing risks to maintain an acceptable level.
- PTTGC has developed Key Risk Indicators (KRI) to monitor changes in risks factors in order that those risks are managed efficiently and timely.

Control Activities

PTTGC has developed efficient and effective control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels. They have been detailed below;

- PTTGC has designed its control activities which follow internal control principles. These include the segregation of duties, policies and good practices for conflicts of interest transactions. In addition, business is operated in a transparent, fair and auditable manner. There is a transparent transaction approval process which takes into account the utmost benefit of the organization
- The Company has adequately implemented manual and automated control of crucial processes.
- PTTGC has established Information Technology Security Policy in accordance with the ISO27001 - Information Security Management standard to ensure efficiency and effectiveness of PTTGC's information technology security.
- PTTGC has written rules, regulations, policies, and procedures to specify work process and appropriately limit the power and authority of Chief Executive Officer, the Management, as well as all levels of Employees. Furthermore, operations are reviewed regularly to ensure their compliance with rules, regulations, policies, and procedures.
- PTTGC has established guidelines to govern and manage companies invested by PTTGC. The purpose of this is to ensure that these companies align with PTTGC in terms of operating direction as well as comply with PTTGC's policies, procedures and strategic direction. Operations of these companies are monitored regularly and continuously.
- The Company has enhanced the efficiency of the SAP GRC – Access Control system, which is a tool to manage access right in the SAP operating system appropriately and effectively in accordance with good practices of segregation of duties.

Information & Communication

PTTGC recognizes the quality of Information & Communication which largely supports the effectiveness of PTTGC's Internal Control System, as has been detailed below;

- PTTGC has set information classification, instructions for filing important documents and controlled documents. This includes information from both internal and external sources. This process is intended to ensure that important information concerning PTTGC and its business operations is accurate, complete, adequate and timely.
- PTTGC has appropriately communicated the relevant information to the Board, the Management, Employees and Stakeholders. Crucial information relevant to PTTGC's performance will be delivered to Directors prior to the Board of Directors meetings in order that they will have sufficient time to study, review and make decisions. When necessary, the Board may request additional information from relevant specific departments or personnel.
- PTTGC has set up several internal communication channels, for example, Town Hall activities for facilitating communication from Senior Managements to Employees, the organization's intranet, e-mail, etc. In addition, new employees receive important information through orientation. Employees can access useful information through Knowledge Based System and E-Learning System.
- PTTGC has set up external communication channels to communicate with stakeholders, such as PTTGC website, e-mail, facebook and twitter. In addition, assigned departments are responsible to disclose important information to all stakeholders regularly.
- PTTGC has established an open communication channel managed by Whistle Blower System. This allows employees and external individuals to be confident that the complaints will be handled with transparency, fairness and confidentiality in timely manner.
- PTTGC has developed STS E-Dataroom to maintain key external factors and share information among business units. The data are from (1) external reports or analyses by consultants, (2) internal information collected by Strategy and Planning Department or business units, and (3) analyses from workshops of business units. This

information is used to prepare strategic plans. In addition, PTTGC has developed the E-Initiative Charter system, which maintains strategic plans of each business units that are in line with the Company's strategies. Information in the system is properly categorized, analyzed and updated.

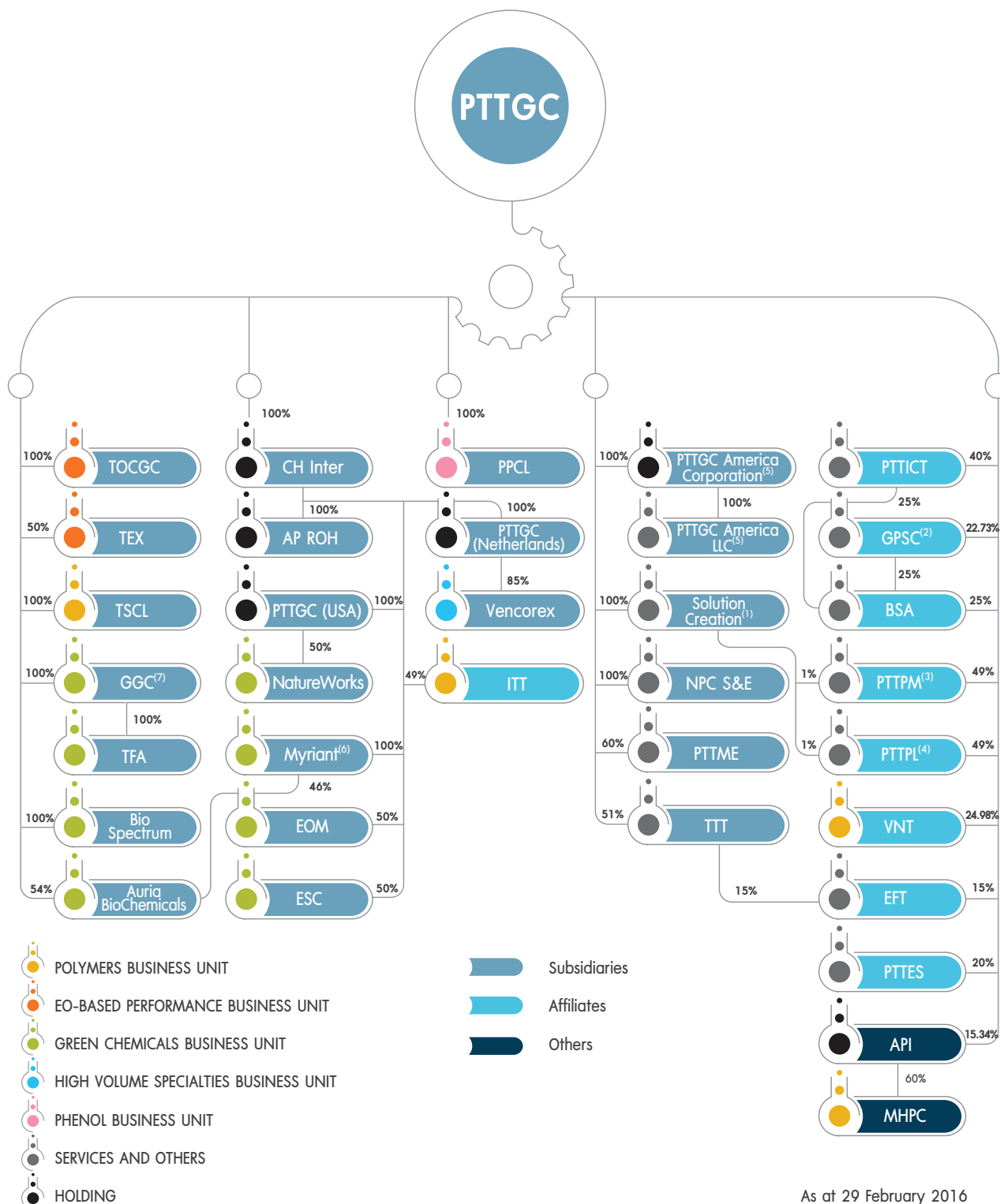
Monitoring Activities

PTTGC has monitored and evaluated the sufficiency of its internal control system. Development and improvement processes have also been in place to ensure the efficiency and effectiveness of PTTGC's Internal Control System. They have been detailed below;

- PTTGC evaluates sufficiency of corporate's internal control system on an annual basis. In addition, PTTGC has implemented Control Self-Assessment (CSA) to evaluate internal control mechanisms at process level. The adequacy and appropriateness of CSA results will be verified by the Internal Control System Division, which also provides recommendations for improvement on internal control deficiencies, if any. A reporting and monitoring process is also in place to report deficiencies to the Management and track remediation progress on a timely basis. In 2015, CSA was performed for the process of Procure to Pay, Plan to Produce and Order to Cash.
- The Internal Audit Department, which is an independent unit reporting directly to the Audit Committee, examines and evaluates the effectiveness of internal control activities according to the audit plan approved by the Audit Committee. Deficiencies and recommendations are communicated to parties responsible for implementation. The audit reports and findings are presented to the Audit Committee on a quarterly basis.

In 2015, the Audit Report did not find any significant issues related to conflicts of interest, fraudulent activities, or any other significant deficiencies in the Internal Control System. Furthermore, no violations of SEC and SET rules and regulations or other laws related to PTTGC were found.

Shareholding Structure in Subsidiaries and Affiliates



As at 29 February 2016

Remarks : Changes in the shareholding structure in 2015

1. April 24th, 2015 : Bio Creation Company Limited changed the registered name to Solution Creation Company Limited.
2. May 18th, 2015 : GPSC's securities started to be traded in the Stock Exchange of Thailand. Offering shares represents 25% of GPSC total paid-up shares. As a result PTTGC's shareholding in GPSC changed from 30.31% to 22.73%
3. June 29th, 2015 : PTTGC and Solution Creation acquired 24% and 1% share in PTTPM consecutively. As a result, PTTGC now holds 49% of share in PTTPM.
4. July 1st, 2015 : PTTGC and Solution Creation acquired 49% and 1% share in PTTPL consecutively. As a result, PTTGC now holds 49% of share in PTTPL.
5. July 1st, 2015 : PTTGC America Corporation and PTTGC America LLC were established. As a result, PTTGC now holds 100% of share in PTTGC America Corporation and PTTGC America Corporation holds 100% of share in PTTGC America LLC.
6. September 10th, 2015 : Myriant is a wholly-owned subsidiary of CH Inter.
7. February 18th, 2016 : Thai Oleochemicals Company Limited is registered as a Public Limited Company and changed the registered name to Global Green Chemicals Public Company Limited.

Subsidiaries

TOCGC	TOC Glycol Company Limited
PPCL	PTT Phenol Company Limited
GGC	Global Green Chemicals Public Company Limited
TFA	Thai Fatty Alcohol Company Limited
TSCL	Thai Styrenics Company Limited
Solution Creation	Solution Creation Company Limited
Bio Spectrum	Bio Spectrum Company Limited
NPC S&E	NPC Safety and Environmental Service Company Limited
CH Inter	PTT Chemical International Private Limited
PTTGC (Netherlands)	PTTGC International (Netherlands) B.V.
PTTGC (USA)	PTTGC International (USA) Inc.
AP ROH	PTT Chemical International (Asia Pacific ROH) Limited
PTTGC America Corporation	PTTGC America Corporation
PTTGC America LLC	PTTGC America LLC
Myriant	Myriant Corporation
PTTME	PTT Maintenance and Engineering Company Limited
Auria BioChemicals	Auria BioChemicals Company Limited
TTT	Thai Tank Terminal Limited
TEX*	Thai Ethoxylate Company Limited
Vencorex	Vencorex Holding
NatureWorks*	NatureWorks LLC
EOM*	Emery Oleochemicals (M) Sdn Bhd
ESC*	Emery Specialty Chemicals Sdn Bhd

* Jointly Controlled Entities

Affiliates

ITT	PT Indo Thai Trading
BSA	Business Services Alliance Company Limited
PTTICT	PTT ICT Solutions Company Limited
GPSC	Global Power Synergy Public Company Limited
PTTPM	PTT Polymer Marketing Company Limited
PTTPL	PTT Polymer Logistics Company Limited
VNT	Vinythai Public Company Limited
EFT	Eastern Fluid Transport Company Limited
PTTES	PTT Energy Solutions Company Limited

Others

API	Alliance Petrochemical Investment (Singapore) Private Limited
MHPC	Mehr Petrochemical Company

Revenue Structure

Business Units	Restated		2015	
	2014*		Revenue	%
	Revenue (Million THB)	%	(Million THB)	%
1. Refinery and Shared Facilities				
(1) Sales revenue from Light Naphtha	14,460	3	8,829	2
(2) Sales revenue from Reformate	19,027	3	16,163	3
(3) Sales revenue from Jet Fuel	40,810	7	24,133	4
(4) Sales revenue from Diesel	149,336	27	109,049	20
(5) Sales revenue from Fuel Oil	34,236	6	13,979	3
(6) Others	4,537	1	9,002	2
Total	262,406	47	181,155	33
2. Aromatics				
(1) Sales revenue from Benzene	13,876	3	5,977	1
(2) Sales revenue from Paraxylene	43,614	8	27,982	5
(3) Sales revenue from Cyclohexane	7,215	1	4,183	1
(4) Sales revenue from Naphtha	26,764	5	13,759	2
(5) Sales revenue from Condensate Residue	-	-	-	-
(6) Others	10,904	2	7,733	1
Total	102,373	18	59,634	11
3. Olefins				
(1) Sales revenue from Ethylene	16,718	3	16,690	3
(2) Sales revenue from Propylene	12,402	2	7,963	1
(3) Sales revenue from Derivatives	4,617	1	5,348	1
(4) Others	4,246	1	5,330	1
Total	37,983	7	35,331	6
4. Polymers				
(1) Sales revenue from Plastic Pellets	80,242	14	66,680	12
(2) Sales revenue from Polystyrene	2,720	0	2,129	0
Total	82,962	15	68,809	12
5. EO-Based Performance				
(1) Sales revenue from EO/EG	14,090	3	12,913	3
(2) Sales revenue from EO Derivatives	1,734	0	1,551	0
Total	15,824	3	14,464	3

Business Units	Restated		2015	
	2014*			
	Revenue (Million THB)	%	Revenue (Million THB)	%
6. Green Chemicals				
(1) Sales revenue from ME/FA	14,814	3	13,775	2
(2) Others	34	0	35	0
Total	14,848	3	13,810	2
7. High-Volume Specialties				
(1) Sales revenue from Phenol	5,223	1	3,912	1
(2) Sales revenue from Acetone and Derivatives	4,272	1	2,458	0
(3) Sales revenue from Bis Phenol A	8,512	2	6,120	1
(4) Sales revenue from HDI / TDI	16,665	3	14,510	3
(5) Others	1,113	0	1,044	0
Total	35,785	7	28,044	5
8. Services & Others				
(1) Sales revenue from Electricity / Water / Steam	-	-	-	-
(2) Others	2,514	0	2,193	0
Total	2,514	0	2,193	0
Net total after deduction from connected transaction	554,695	100	403,440	73

*Restated from the implementation of new Thai financial reporting standard no. 10 regarding consolidation financial statements and no. 11 regarding joint arrangements.

Connected Transactions

Connected Transaction between Related Companies

For the 2015 accounting period, PTTGC conducted significant business transactions with its subsidiaries and related companies with common shareholders and/or Directors. Connected transactions with other entities which may result in conflicts of interest are based on market or contractual prices - if there are no reference market prices. Details of the relationships with these companies are as follows:

Company	Relationship (As at 31 st December 2015)	Connected Transaction	2013	2014	2015
Baht (Million)					
1. PTT Public Company Limited (PTT)	<ul style="list-style-type: none"> Major shareholder holding 48.89% of the shares in PTTGC Common Directors : <ol style="list-style-type: none"> Mr. Prasert Bunsumpun Mr. Don Wasantapruek* Directors who are PTT Executives: <ol style="list-style-type: none"> Mr. Sarun Rungkasiri Mr. Auttapol Rerkpiboon Mrs. Boobpha Amornkiatkajorn** Mr. Supattanapong Punmeechaow Sales/Purchase transaction of products and services * Appointed as Director of PTTGC on Nov 1, 2015 ** Appointed as Director of PTTGC on Oct 1, 2015 	Statements of Income Transactions			
		Sales of goods or rendering of services	192,740	198,065	124,317
		Purchases of goods or receiving of services	363,601	380,555	235,823
		Other incomes	105	102	89
		Other expenses	241	303	112
		Statements of Financial Position Balances			
		Trade accounts receivable	16,113	8,856	6,095
		– related parties			
		Other accounts receivable	289	1,002	448
		– related parties			
		Trade accounts payable	33,850	15,380	13,363
		– related parties			
		Other accounts payable	171	203	46
		– related parties			
		Payables to contractor	1	3	7
		– related parties			
2. PTT Maintenance and Engineering Company Limited (PTTME)	<ul style="list-style-type: none"> Subsidiary company (PTTGC holds 60% of the shares) Major shareholder (PTT) holds 40% of the shares Executive who is Director of PTTME : Mr. Kun Patumraj Services transaction 	Statements of Income Transactions			
		Purchases of goods or services	465	915	661
		Other incomes	161	126	99
		Other expenses	17	20	38
		Dividends	14	-	-
		Statements of Financial Position Balances			
		Other accounts receivable	87	43	28
		– related parties			
		Other accounts payable – related parties	155	151	169
		Payables to contractors – related parties	473	691	593

Company	Relationship (As at 31 st December 2015)	Connected Transaction	2013	2014	2015
			Baht (Million)		
3. PTT Polymer Marketing Company Limited (PTTPM)	<ul style="list-style-type: none"> Joint venture company (PTTGC holds 50% of the shares) Major shareholder (PTT) holds 50% of the shares Common Directors : Mrs. Boobpha Amornkiatkajorn Mr. Sarun Rungkasiri has resigned from directorship on Oct 31, 2015 Executives who are Directors of PTTPM: 1. Mr. Athavudhi Hirunburana 2. Mr. Patiparn Sukornthaman Sales/Purchase transaction of products 	Statements of Income Transactions			
		Sales of goods or rendering of services	67,820	82,960	68,806
		Purchases of goods or services	3	1	1
		Other incomes	14	14	24
		Other expenses	16	13	12
		Statements of Financial Position Balances			
		Trade accounts receivable	7,023	6,919	6,252
		– related parties			
		Other accounts receivable			
		– related parties	4	5	12
4. PTT Polymer Logistic Company Limited (PTTPL)	<ul style="list-style-type: none"> Joint venture company (PTTGC holds 50% of the shares) Major shareholder (PTT) holds 50% of the shares Services transaction 	Statements of Income Transactions			
		Sales of goods or rendering of services	15	9	5
		Purchases of goods or services	585	632	7
		Other income	-	3	5
		Other expenses	227	245	204
		Statements of Financial Position Balances			
		Trade accounts receivable	7	1	3
		– related parties			
		Other accounts receivable	1	-	2
		– related parties			
5. Global Power Synergy Company Limited (GPSC)	<ul style="list-style-type: none"> Affiliate company (PTTGC holds 22.73% of the shares) Major shareholder (PTT) holds 22.58% of the shares Common Director : Mr. Supattanapong Punmeechaow Executives who are Directors of GPSC: Mr. Patiparn Sukornthaman Sales/Purchase transaction of products and services 	Statements of Income Transactions			
		Sales of goods or rendering of services	41	65	55
		Purchases of goods or services	7,387	8,586	7,688
		Other incomes	17	15	22
		Other expenses	6	-	-
		Statements of Financial Position Balances			
		Trade accounts receivable	7	16	11
		– related parties			
		Other accounts receivable	538	193	90
		– related parties			
		Trade accounts payable – related parties	1,987	783	844
		Other accounts payable – related parties	3	1	2

Company	Relationship (As at 31 st December 2015)	Connected Transaction	2013	2014	2015
			Baht (Million)		
6. PTT Energy Solutions Company Limited (PTTES)	<ul style="list-style-type: none"> Affiliate company (PTTGC holds 20% of the shares) Major shareholder (PTT) holds 40% of the shares Executive who is Director of PTES : Mr. Kun Patumraj Services transaction 	Statements of Income Transactions			
		Sales of goods or rendering of services	-	9	8
		Purchases of goods or services	103	168	133
		Other incomes	4	3	1
		Other expenses	9	-	-
		Statements of Financial Position Balances			
		Trade accounts receivable – related parties	-	4	2
		Other accounts receivable – related parties	-	28	26
		Other accounts payable – related parties	9	29	27
7. PTT ICT Solutions Company Limited (PTTICT)	<ul style="list-style-type: none"> Affiliate company (PTTGC holds 40% of the shares) Major shareholder (PTT) holds 20% of the shares Executive who is Director of PTTICT : Mr. Varit Namwong Services transaction 	Statements of Income Transactions			
		Purchases of goods or services	2	13	15
		Other incomes	38	48	43
		Other expenses	317	351	347
		Statements of Financial Position Balances			
		Other accounts receivable – related parties	13	25	20
		Other accounts payable – related parties	40	54	46
		Payables to contractors – related parties	51	67	39
8. Thai Petroleum Pipeline Company Limited (THAPPLINE)	<ul style="list-style-type: none"> Major shareholder (PTT) holds 40.14% of the shares Services transaction 	Statements of Income Transactions			
		Sales of goods or rendering of services	2	2	1
9. Dhipaya Insurance Public Company Limited (DHIPAYA)	<ul style="list-style-type: none"> Major shareholder (PTT) holds 13.33% of the shares Services transaction 	Statements of Income Transactions			
		Purchases of goods or services	713	1,029	1,121
		Other incomes	121	233	702
		Other expenses	59	19	18
		Statements of Financial Position Balances			
		Other accounts receivable – related parties	690	1,119	1,273
		Other accounts payable – related parties	7	38	40
		Payables to contractor – related parties	15	-	2
10. Thai Paraxylene Co., Ltd. (TPX)	<ul style="list-style-type: none"> Subsidiary of TOP Sales/Purchase transaction of products 	Statements of Income Transactions			
		Sales of goods or rendering of services	-	-	543
		Statements of Financial Position Balances			
		Trade accounts receivable – related parties	-	-	140

Company	Relationship (As at 31 st December 2015)	Connected Transaction	2013	2014	2015
			Baht (Million)		
11. Thai Oil Public Company Limited (TOP)	<ul style="list-style-type: none"> Major shareholder (PTT) holds 49.10% of the shares Sales/Purchase transaction of products and services 	Statements of Income Transactions			
		Sales of goods or rendering of services	1,019	605	1,366
		Purchases of goods or services	860	6	574
		Other incomes	7	5	2
		Statements of Financial Position Balances			
		Trade accounts receivable – related parties	23	44	47
		Other accounts receivable – related parties	2	1	-
		Other accounts payable – related parties	-	1	1
12. Bangchak Petroleum Public Company Limited (BCP)	<ul style="list-style-type: none"> On May 8, 2015, the major shareholder (PTT) sold all shares it held in BCP to Vayupak Fund 1 and the Social Security Office Sales/Purchase transaction of products and services 	Statements of Income Transactions			
		Sales of goods or rendering of services	1,381	4,012	187
		Purchases of goods or services	23	-	-
		Statements of Financial Position Balances			
		Trade accounts receivable – related parties	58	4	-
13. TOP Solvent Co., Ltd. (TS)	<ul style="list-style-type: none"> Subsidiary of TOP Sales/Purchase transaction of products 	Statements of Income Transactions			
		Sales of goods or rendering of services	-	-	108
		Purchases of goods or services	-	-	65
		Statements of Financial Position Balances			
		Trade accounts receivable – related parties	-	-	9
		Trade accounts payable – related parties	-	-	9
		Other accounts payable – related parties	-	-	2
14. TOP Solvent (Vietnam) LLC. (TSV)	<ul style="list-style-type: none"> Subsidiary of TOP Sales/Purchase transaction of products 	Statements of Income Transactions			
		Sales of goods or rendering of services	-	-	27
		Statements of Financial Position Balances			
15. Business Services Alliance Company Limited (BSA)	<ul style="list-style-type: none"> Affiliate company (PTTGC holds 25% of the preference shares) Major shareholder (PTT) holds 100% of the shares Services transaction 	Statements of Income Transactions			
		Purchases of goods or services	218	178	262
		Other expenses	134	139	123
		Statements of Financial Position Balances			
		Other accounts receivable – related parties	13	-	-
		Trade accounts payable – related parties	-	16	21
		Other accounts payable – related parties	69	74	58
		Payables to contractor – related parties	1	10	15

Company	Relationship (As at 31 st December 2015)	Connected Transaction	2013	2014	2015
			Baht (Million)		
16. PTT Retail Management Company Limited (PTTRM)	<ul style="list-style-type: none">Subsidiary of PTTRBCommon Director : Mr. Auttapol RerkpiboonServices transaction	Statements of Income Transactions			
		Purchases of goods or services	1	-	-
17. PTTEP Siam Limited (PTTEPS)	<ul style="list-style-type: none">Subsidiary of PTTEPSales/Purchase transaction of products and services	Statements of Income Transactions			
		Sales of goods or rendering of services	78	77	69
		Statements of Financial Position Balances			
		Trade accounts receivable – related parties	9	5	5
		Other accounts receivable – related parties	1	-	-
18. PTTEP International Limited (PTTEPI)	<ul style="list-style-type: none">Subsidiary of PTTEPServices transaction	Statements of Income Transactions			
		Sales of goods or rendering of services	7	4	6
		Statements of Financial Position Balances			
		Trade accounts receivable – related parties	1	-	-
		Other accounts receivable – related parties	3	-	-
19. PTT Exploration and Production Public Company Limited (PTTEP)	<ul style="list-style-type: none">Major shareholder (PTT) holds 65.29% of the sharesSales/Purchase transaction of products and services	Statements of Income Transactions			
		Sales of goods or rendering of services	22	21	20
		Other incomes	-	1	-
		Statements of Financial Position Balances			
		Trade accounts receivable – related parties	3	3	2
20. PTTEP SP Limited (PTTEP SP)	<ul style="list-style-type: none">Subsidiary of PTTEPServices transaction	Statements of Income Transactions			
		Sales of goods or rendering of services	-	-	1
21. PTTEP Services Limited (PTTEP Services)	<ul style="list-style-type: none">Subsidiary of PTTEPServices transaction	Statements of Income Transactions			
		Other expenses	-	-	1
22. PTT Tank Terminal Company Limited (PTT TANK)	<ul style="list-style-type: none">Major shareholder (PTT) holds 100% of the sharesSales/Purchase transaction of products and services	Statements of Income Transactions			
		Sales of goods or rendering of services	168	431	60
		Statements of Financial Position Balances			
		Trade accounts receivable – related parties	141	185	56
		Other accounts receivable – related parties	19	-	-

Company	Relationship (As at 31 st December 2015)	Connected Transaction	2013	2014	2015
			Baht (Million)		
23. PTT Asahi Chemical Company Limited (PTTAC)	<ul style="list-style-type: none"> Major shareholder (PTT) holds 48.50% of the shares Sales/Purchase transaction of products and services 	Statements of Income Transactions			
		Sales of goods or rendering of services	896	1,635	1,052
		Purchases of goods or services	196	162	161
		Other incomes	2	5	-
		Statements of Financial Position Balances			
		Trade accounts receivable	103	132	72
		– related parties			
		Other accounts receivable	9	-	-
		– related parties			
		Trade accounts payable	17	20	17
		– related parties			
24. PTT Energy Resources Company Limited (PTTER) (Formerly PTT International Company Limited (PTTI))	<ul style="list-style-type: none"> Major shareholder (PTT) holds 100% of the shares Services transaction 	Statements of Income Transactions			
		Sales of goods or rendering of services	2	-	-
		Other expense	-	1	-
		Statements of Financial Position Balances			
		Other accounts receivable			
		– related parties	2	-	-
		Other accounts payable	-	1	-
		– related parties			
25. PTT MCC Biochem Company Limited (PTTMCC)	<ul style="list-style-type: none"> Major shareholder (PTT) holds 50% of the shares Sales/Purchase transaction of products and services 	Statements of Income Transactions			
		Sales of goods or rendering of services	-	4	22
		Statements of Financial Position Balances			
		Trade accounts receivable	-	1	7
		– related parties			
26. PTT LNG Company Limited (PTTLNG)	<ul style="list-style-type: none"> Major shareholder (PTT) holds 100% of the shares Sales/Purchase transaction of products and services 	Statements of Income Transactions			
		Sales of goods or rendering of services	2	2	9
		Statements of Financial Position Balances			
		Trade accounts receivable	-	1	2
		– related parties			
27. Rayong Olefins Co., Ltd.	<ul style="list-style-type: none"> Subsidiary of HMC (Major shareholder (PTT) holds 41.44% of the shares) holds 14.27% Sales/Purchase transaction of products and services 	Statements of Income Transactions			
		Sales of goods or rendering of services	39	71	48
		Statements of Financial Position Balances			
		Trade accounts payable	-	3	3
		– related parties			

Company	Relationship (As at 31 st December 2015)	Connected Transaction	2013	2014	2015
Baht (Million)					
28. Star Petroleum Refining Company Limited (SPRC)	<ul style="list-style-type: none"> Major shareholder (PTT) holds 5.45% of the shares Sales/Purchase transaction of products and services * On Dec 3, 2015, the major shareholder (PTT) sold shares 30.6% it held in SPRC and remaining 5.45% is held by available for sales 	Statements of Income Transactions			
		Sales of goods or rendering of services	12,260	9,810	6,234
		Purchases of goods or services	12,540	14,904	9,469
		Other incomes	2	-	57
		Other expenses	15	18	16
		Statements of Financial Position Balances			
		Trade accounts receivable – related parties	755	296	217
		Other accounts receivable – related parties	2	6	7
		Trade accounts payable – related parties	710	392	276
		Other accounts payable – related parties	10	6	6
29. Amata Natural Gas Distribution Company Limited (Amata NGD)	<ul style="list-style-type: none"> Subsidiary of PTT Natural Gas Distribution Company Limited (PTTNGD) Services transaction 	Statements of Income Transactions			
		Sales of goods or rendering of services	-	-	5
		Statements of Financial Position Balances			
30. HMC Polymers Company Limited (HMC)	<ul style="list-style-type: none"> Major shareholder (PTT) holds 41.44% of the shares Shareholder of PTTGC with 1.85% of the shares Executive who is Director of HMC : Mr.Suvit Tinnachote Sales/Purchase transaction of products and services 	Statements of Income Transactions			
		Sales of goods or rendering of services	4,965	5,295	5,010
		Purchases of goods or services	384	450	291
		Statements of Financial Position Balances			
		Trade accounts receivable – related parties	470	444	513
		Other accounts receivable – related parties	1	-	-
		Trade accounts payable – related parties	106	40	37
31. Energy Complex Company Limited (ENCO)	<ul style="list-style-type: none"> Major shareholder (PTT) holds 50% of the shares Services transaction Common Director : Mr. Auttapol Rerkpiboon 	Statements of Income Transactions			
		Purchases of goods or services	5	2	-
		Other expenses	158	139	157
		Statements of Financial Position Balances			
		Other accounts receivable – related parties	-	32	-
		Other accounts payable – related parties	2	2	2

Company	Relationship (As at 31 st December 2015)	Connected Transaction	2013	2014	2015
			Baht (Million)		
32. IRPC Public Company Limited (IRPC)	<ul style="list-style-type: none"> Major shareholder (PTT) holds 38.51% of the shares Common Director : Mr. Sarun Rungkasiri Sales/Purchase transaction of products and services 	Statements of Income Transactions			
		Sales of goods or rendering of services	26,110	28,926	20,166
		Purchases of goods or services	20,339	20,066	14,345
		Other incomes	1	36	74
		Other expenses	2	-	1
		Statements of Financial Position Balances			
		Trade accounts receivable	3,495	2,161	1,672
		– related parties			
		Other accounts receivable	1	-	6
		– related parties			
		Trade accounts payable	2,771	1,567	1,031
		– related parties			
		Other accounts payable	11	-	1
		– related parties			
33. IRPC Polyol Company Limited (IRPCP)	<ul style="list-style-type: none"> Subsidiary of IRPC Sales/Purchase transaction of products 	Statements of Income Transactions			
		Sales of goods or rendering of services	-	9	32
		Statements of Financial Position Balances			
		Trade accounts receivable			
		– related parties	-	9	6
34. PTT International Trading DMCC	<ul style="list-style-type: none"> Subsidiary of PTTT Services transaction 	Statements of Income Transactions			
		Sales of goods or rendering of services	-	437	1,029
35. PTT International Trading Private Limited (PTTT)	<ul style="list-style-type: none"> Major shareholder (PTT) holds 100% of the shares Sales/Purchase transaction of products 	Statements of Income Transactions			
		Sales of goods or rendering of services	35,521	50,391	30,553
		Purchases of goods or services	642	250	223
		Other expenses	9	12	15
		Statements of Financial Position Balances			
		Trade accounts receivable	6,094	4,272	2,408
		– related parties			
		Trade accounts payable	51	-	-
		– related parties			
		Other accounts payable	7	6	10
		– related parties			

Need and Justification of Connected Transaction

The sales of products by PTTGC to connected companies have been carried out mainly so that they may process its products into their own products for sale at prices corresponding to long-term off-take agreements or spot prices. Prices must prove mutually beneficial and based on market prices without any undue transfer of interests or extraordinary items to both parties. When providing services to connected companies, transactions must cover transportation or storage costs of products. The charges for services are both market-based and benefit-based without any undue transfer of interests or extraordinary items.

For the product and feedstock supply and/or services as well as the volume of products, feedstock or services given by connected companies must meet the needs and business operation of PTTGC. Prices of products trading or services are as agreed by PTTGC and connected companies without any undue transfer of interests or extraordinary items. In addition, PTTGC is required to purchase feedstock from connected companies because the capacity and quality of such feedstock meet its needs. PTTGC also saves on transportation expenses since the feedstock can be transferred safely by PTTGC's pipeline systems from their plants in Map Ta Phut Industrial Estate, Rayong.

Measure and Procedure for Approval of Connected Transaction

The Company's Articles of Association stated that a Director can acquire or dispose of PTTGC assets or perform any business transaction involving PTTGC either by himself or herself or on behalf of others only with the approval from the Board of Director. Any Director who personally gains from any

acquisition or disposal of PTTGC asset or any transaction of PTTGC is not allowed to vote on that matter. After receiving approval from the Board of Directors, PTTGC can perform any business transaction or acquire or dispose of major assets in line with the announcement of the Stock Exchange of Thailand (SET). This also applies to PTTGC's subsidiaries in the SET announcement concerning connected transaction of listed companies as well as the buying and selling of registered company assets.

Opinion of Independent Directors

The Independent Directors agreed with the Board of Directors.

Policy and Trend on Future Connected Transaction

Future connected transactions between PTTGC and connected companies will be conducted as part of the normal course of business with no special favors and no transfer of benefits. For the pricing policy between PTTGC and connected companies, the price of products or feedstock purchased will be set in agreement and or linked to market prices. In addition, service charges paid to connected companies will also be at arm's length. The price of product sold or purchased between PTTGC and connected companies will, as a rule, be linked to Market prices. Disclosure of the Company's connected transaction is to comply with the rules and regulations of the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET). The audit standards for connected parties will be as specified by the Federation of Accounting Professions and Office of the Auditor General.

Shareholding Structure

List of Top Ten Major Shareholders (register book closing date on October 30th, 2015)

No.	Shareholders	Shares	(%)
1.	PTT Public Company Limited	2,204,318,913	48.89
2.	Thai NVDR Company Limited	417,830,728	9.27
3.	NORTRUST NOMINEES LTD-CL AC	112,720,206	2.50
4.	STATE STREET BANK EUROPE LIMITED	111,859,991	2.48
5.	HMC Polymers Company Limited	83,427,636	1.85
6.	CHASE NOMINEES LIMITED	68,393,724	1.52
7.	The Siam Cement Public Company Limited	67,089,975	1.49
8.	STATE STREET BANK AND TRUST COMPANY	62,908,730	1.40
9.	THE BANK OF NEW YORK MELLON	60,384,234	1.34
10.	Social Security Office	45,951,951	1.02

Remarks:

- (1) PTT Group Shareholders includes:
 1. PTT Public Company Limited
 2. HMC Polymers Company Limited (PTT Plc. holds 41.44% of the shares)
- (2) Shareholders of Thai NVDR Company Limited holding Non-Voting Depository Receipt: NVDR, are ineligible for voting at shareholder's meeting except when exercising their voting rights on delisting the shares from SET.
- (3) The Siam Cement Group Shareholders includes:
 1. The Siam Cement Public Company Limited Number of Shares holding in PTTGC : 67,089,975 shares
2. Bangkok Synthetics Company Limited (SCC Plc. holds 48.84% of the shares) Number of Shares holding in PTTGC: 43,420,625 shares
3. Thai Plastic and Chemicals Public Company Limited (SCC Plc. and its subsidiaries hold 90.66% of the shares) Number of Shares holding in PTTGC: 8,541,081 shares
- (4) In practice the major shareholders with significant influence on the establishment of PTTGC's policy and strategy is PTT Group Shareholders, which in total holds 49.66% in PTTGC.
- (5) Foreign Shareholders
As of October 30th, 2015; there are 376 foreign shareholders, holding a combined of 965,329,194 shares (21.40% of paid-up capital)

PTTGC has foreign shareholding limitation as specified in article 8 of the Article of Association that "The Company's shares can be transferred without any restriction, except in the case where the said transfer would result in more than thirty-seven (37) percent of the Company's total paid up shares being held by foreigners."

Dividend Payment Policy

PTT Global Chemical Public Company Limited

The Board of Directors Meeting No. 1/2011, held on October 19th, 2011, resolved that the dividend payment policy of PTTGC is to pay dividend at a rate of no less than 30% of net profit after tax and allocation to all reserve funds of PTTGC. Such dividend payment however is subject to the investment plan, other necessary and appropriate considerations in the future.

Subsidiaries' Dividend Payment Policy

The dividend payment policy for PTTGC's subsidiaries shall be considered and proposed by the Board of Directors of each subsidiary for approval at the Annual General Meeting of each subsidiary. The dividend payment of subsidiaries shall be calculated based on the investment plans and other requirements and considerations, such as the adequacy of cash flow of each subsidiary after deducting reserve funds in accordance with the law.



The background features a series of concentric circles in shades of brown and tan, centered on the right side of the frame. On the left, there is a vertical strip showing a blurred image of a blue square with a white symbol, possibly a logo, against a light background.

Organization Structure

PTTGC Board of Directors



Mr. Prasert Bunsumpun

Chairman

Chairman of Independent Directors

Age : 63

Appointed : October 19th, 2011 / April 8th, 2014 (re-elected)

Education / Training :

- Honorary Doctoral of Arts (Innovation and Management) Faculty of Humanities and Social Sciences, Suan Sunandha Rajabhat University
- Honorary Doctoral of Management, Mahasarakham University
- Honorary Doctoral in Management Science, Phetchaburi Rajabhat University
- Honorary Doctoral in Management, National Institute of Development Administration (NIDA)
- Honorary Doctoral in Engineering, Chulalongkorn University
- M.B.A., Utah State University, U.S.A.
- B.Eng. (Civil Engineering), Chulalongkorn University
- Diploma, National Defence Course for the Joint State-Private Sector, Class 10, The National Defence College
- Certificate in Advance Management Program (Class 155), Harvard Business School, U.S.A.
- Advanced Certificate Course in Politics and Governance in Democratic System for Executives, Class 6, King Prajadhipok's Institute
- Capital Market Academy Leadership Program, Class 3, Capital Market Academy
- Certificate, Executive Program on Energy Literacy for a Sustainable Future (TEA), Class 3, Thailand Energy Academy

Director Training :

- Director Accreditation Program (DAP) Class 26/2004 and Role of the Chairman Program (RCP) Class 28/2012, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 4

- Chairman / Chairman of Independent Directors, PTT Global Chemical Public Company Limited
- Independent Director / Member of the Enterprise Risk Management Committee, PTT Public Company Limited
- Chairman / Chairman of the Executive Board of Directors, Thoresen Thai Agencies Public Company Limited
- Independent Director / Chairman of the Nomination and Governance Committee / Member of the Leadership Development and Compensation Committee / Member of the Strategic and Organizational Review Committee, Intouch Holdings Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 1

- Chairman / Non-Executive Chairman, Mermaid Maritime Public Company Limited

Position in Other Organization / Institutions : 5

- Member of the National Legislative Assembly of Thailand
- Chairman, Thailand Business Council for Sustainable Development (TBCSD)
- Chairman, Small and Micro Community Enterprise
- Distinguished Member of Chulalongkorn University Council
- Distinguished Member of the Suranaree University of Technology Council Office

Work Experiences (5-years Past Experiences) :

- 2003 - 2011 President and Chief Executive Officer / Director and Secretary to the Board of Directors, PTT Public Company Limited
- 2011 - Apr. 2015 Independent Director /
- 2014 - Apr. 2015 Chairman of the Board of Executive Directors, Krung Thai Bank Public Company Limited
- 2012 - Apr. 2013 Chairman / Chairman of the Executive Board of Directors, IRPC Public Company Limited
- 2005 - Apr. 2013 Chairman, Thai Lube Base Public Company Limited
- 2000 - 2011 Chairman / Director, PTT Exploration and Production Public Company Limited
- 2007 - 2011 Director, PTT Aromatics and Refining Public Company Limited
- Sep. 2003 - Mar. 2011 Chairman, Independent Power of Thailand Company Limited
- Apr. 2003 - Mar. 2011 Chairman / Director, Thai Oil Power Company Limited

Shareholding : Spouse 271,142 shares (0.006014%) as of December 31st, 2015

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None



Mr. Somchai Kuvijitsuwan

Independent Director /
Chairman of the Audit Committee

Age : 64



Mr. Vasin Teeravechyan

Independent Director /
Chairman of the Nomination and Remuneration Committee

Age : 67

Appointed : October 19th, 2011 / April 2nd, 2012 (1st re-elected) / April 1st, 2015 (2nd re-elected)

Education / Training :

- LL.B., Ramkhamhaeng University Class 1
- Barrister at Law, Class 27, Institute of Thai Bar Association
- Master of Political Science, National Institute of Development Administration
- Provincial Public Prosecutor Program, Class 9/1987
- Capital Market Academy Leadership Program, Class 9, Capital Market Academy
- Certificate, Executive Program on Energy Literacy for a Sustainable Future (TEA), Class 2, Thailand Energy Academy

Director Training :

- Director Accreditation Program (DAP) Class 56/2006
- Director Certification Program (DCP) Class 76/2006
- Understanding the Fundamental of Financial Statement (UFS) Class 3/2006 and Role of the Chairman Program (RCP) Class 28/2012, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Independent Director / Chairman of the Audit Committee, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : None

Position in Other Organization / Institutions : 2

- Commissioner in the Customs Appeal Committee
- Commissioner / Chairman of the Audit Committee and Chairman of the Board of Appeals Office of the Securities and Exchange Commission, Thailand

Work Experiences (5-years Past Experiences) :

- 2013 - 2015 Director-General, Department of Economic Crime Litigation
- 2011 - 2014 Director / Chairman of Corporate Governance and Social Responsibility Committee / Chairman of Risk Management and Internal Control Committee, Provincial Electricity Authority
- 2011 - 2013 Director-General, Department of Public Prosecutor Commission, Office of the Attorney General
- 2001 - 2013 Chairman, Krungthai Laws Company Limited
- 2008 - 2011 Independent Director, Chairman / Director of the Corporate Governance Committee, Director of the Remuneration Committee, PTT Chemical Public Company Limited
- 2008 - 2011 Director-General, Office of Regional Appellate Litigation, Region 9
- 2008 - 2011 Director-General, Department of Policy, Strategy and Budget Planning
- 2009 - 2011 Managing Director, Forest Industry Organization
- 2008 - 2011 Director, Metropolitan Electricity Authority

Shareholding : None

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Appointed : October 19th, 2011 / April 2nd, 2012 (1st re-elected) / April 1st, 2015 (2nd re-elected)

Education / Training :

- M.A. (Law), Chulalongkorn University
- B.A. (Law), Chulalongkorn University
- Barrister at Law, Thailand, 1972
- The National Defence College of Thailand, Class 40

Director Training :

- Director Accreditation Program (DAP) Class 94/2012
- Director Certification Program (DCP) Class 155/2012 and Role of the Nomination and Governance Committee (RNG) Class 5/2013
- Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Independent Director / Chairman of the Nomination and Remuneration Committee, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : None

Position in Other Organization / Institutions : 8

- Advisor, Ministry of Foreign Affairs
- Chairman (Thailand), Thai - Malaysia Land Boundary Committee
- Member of the Special Committee for the Consideration of Treaties, Ministry of Foreign Affairs
- Special Lecturer on Public and Private International Law, School of Law, Mae Fah Luang University, Chiang Rai
- Vice Chairman (Thailand), Thai - Laos Land Boundary Committee
- Vice Chairman (Thailand), Thai - Myanmar Joint Committee on Demarcation for Land Boundary
- Vice Chairman, Thai - Korean Friendship Association
- Advisor, Mitr Phol Sugar Corp. Ltd.

Work Experiences (5-years Past Experiences) :

- 2009 - 2014 Vice-Chairman (Thailand), Thai - Cambodia Joint Technical Committee (Delimitation of Sea Boundary)
- 2008 - 2014 Chairman (Thailand), Thai - Myanmar Joint Committee on Demarcation for Land Boundary Committee
- Chairman (Thailand), Senior Officials' Meeting of the Thai - Laos Land Boundary Committee
- 2011 - Aug. 2013 Director, Bank for Agriculture and Agricultural Co-Operatives
- 2008 - 2010 Chairman (Thailand), Thai - Cambodian Joint Commission on Demarcation for Land Boundary

Shareholding : None

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None



Professor Surapon Nitikraipot

Age : 55

Independent Director / Chairman of the Corporate Governance Committee / Director to the Nomination and Remuneration Committee

Appointed : September 22nd, 2014 / April 1st, 2015 (re-elected)

Education / Training :

- Honorary Doctoral, Soka University, Japan
- Doctorat en droit (mention très honorable), l'Université Robert Schuman de Strasbourg, France
- Diplôme d'études approfondies (D.E.A.) de droit Public, Strasbourg III, France
- Barrister at Law, Class of 35th, Institute of Thai Bar Association of Thailand
- Bachelor of Laws (Second Class Honors), Thammasat University
- Certificat, La Décentralisation et l'Administration Locale, Institut International d'Administration Publique (IIAP), Paris, France
- Capital Market Academy Leadership Program, Class 4, Capital Market Academy
- Diploma, National Defence Course for the Joint State-Private Sector, Class 23, The National Defence College, 2010
- Certificate, Executive Program on Energy Literacy for a Sustainable Future (TEA), Class 7, Thailand Energy Academy

Director Training :

- Director Certification Program (DCP) Class 102/2008 and Role of the Chairman Program (RCP) Class 25/2011 Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Independent Director / Chairman of the Corporate Governance Committee / Director to the Nomination and Remuneration Committee, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 1

- Chairman, The Krungthep Thanakom Company Limited

Position in Other Organization / Institutions : 6

- Professor, Faculty of Law, Thammasat University
- Member of Council of State, Office of the Council of State
- Honorable Member of the Civil Service Commission in Higher Education
- Chairman of the Executive Directors, Thammasat University Hospital
- Member of the 8th Committee of Council of State, Office of the Council of State
- Distinguished Member of the Navamindradhiraj University Council

Work Experiences (5-years Past Experiences) :

- 2009 - 2013 Honorable Member and Chairman of the Audit Committee, Mahidol Wittayanusorn School
- 2010 - 2012 Independent Director / Director to the Corporate Governance Committee, PTT Public Company Limited
- 2009 - 2011 Chairman of the Board, MCOT Public Company Limited
- 2004 - 2010 Rector of Thammasat University

Shareholding : None

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None



Mr. Anon Sirisaengtaksin

Age : 63

Director / Chairman of the Risk Management Committee

Appointed : September 22nd, 2014

Education / Training :

- Honorary Doctor of Public Administration, Bangkok Thonburi University
- M.B.A., Thammasat University
- B.Sc. (Geology), Chulalongkorn University
- Certificate in Project Investment Appraisal and Management and Certificate in Global Leadership, Harvard University, U.S.A.
- Capital Market Academy Leadership Program, Class 1, Capital Market Academy

Director Training :

- Director Accreditation Program (DAP) Class 52/2006 and Director Certification Program (DCP) Class 73/2006 Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Director / Chairman of the Risk Management Committee, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 10

- Chairman, PTT Chemical International Private Limited
- Chairman, PTT Chemical International (Asia Pacific ROH) Limited
- Chairman, Emery Oleochemicals (M) Sdn. Bhd.
- Chairman, Emery Specialty Chemical Sdn. Bhd.
- Chairman, NatureWorks LLC
- Chairman, Vencorex Holding
- Director, Myriant Corporation
- Director / President, PTTGC International (USA) Inc.
- Director / Managing Director, PTTGC International (Netherlands) B.V.
- Independent Director, Bangkok Commercial Asset Management Public Company Limited

Position in Other Organization / Institution : None

Work Experiences (5-years Past Experiences) :

- Oct. 2014 - Sep. 2015 Member of the National Reform Council
- 1 Oct. 2013 - 21 Sep. 2014 Advisor, PTT Global Chemical Public Company Limited
- 2012 - 2013 Director / Chief Executive Officer, PTT Global Chemical Public Company Limited
- 2009 - 2013 Council Committee, King Mongkut's Institute of Technology Ladkrabang Council
- 2008 - 2013 Senior Executive Vice President, PTT Public Company Limited
- 2010 - 2012 President and Chief Executive Officer, PTT Exploration and Production Public Company Limited
- 2010 - 2012 Director, PTTEP FLNG Holding Company Limited
- 2010 - 2012 Director, PTT FLNG Limited

Shareholding : 86,027 shares; Spouse 6,705 shares (0.002057%) as of December 31st, 2015

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None



Miss Ruenvadee Suwanmongkol

Independent Director /
Director to the Audit Committee

Age : 51



Mr. Amnuay Preemonwong

Independent Director /
Director to the Audit Committee

Age : 57

Appointed : March 21st, 2014

Education / Training :

- M.B.A. Walter A. Haas School of Business, University of California at Berkeley
- L.L.M. Harvard Law School, Cambridge Massachusetts, U.S.A.
- Barrister-at-Law Legal Training Institute, Thai Bar Association
- LL.B. (1st Class Honor and Gold Medal) Chulalongkorn University
- Advanced Certificate Course in Promotion of Peaceful Society Class 2 King Prajadhipok's Institute
- The Programme of Senior Executives on Justice Administration Batch 15, National Justice Academy Judicial Training Institute Office of Judiciary
- Diploma, National Defence College, The Joint State - Private Sector Course - Class 25, The National Defence College (NDC)
- The Programme of Junior Executives on Anti-Corruption Class 5, Office of the National Anti-Corruption Commission

Director Training :

- Director Certification Program (DCP) Class 127/2010, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Independent Director / Director to the Audit Committee, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 2

- Director / Audit Committee, Dhanarak Asset Development Company Limited
- Director, DAD SPV Company Limited

Position in Other Organization / Institutions : 5

- Director - General, Legal Execution Department, Ministry of Justice
- Committee Member, The Foundation Assanee Pollajan
- Committee Member, Thai Committee for Refugees Foundation
- Committee Member, The Foundation of Business Lawyer Promotion
- Committee Member, Women for Peace foundation

Work Experiences (5-years Past Experiences) :

- 2012 - 2014 Director - General, Department of Probation Ministry of Justice
- 2014 Sub-Committee / Management Committee Member, Pinkanakorn Development Agency (Public Organization)
- 2012 Inspector and Spokesperson of the Ministry of Justice
- 2009 - 2011 Deputy Director - General, Office of Justice Affairs, Ministry of Justice

Shareholding : None

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Appointed : October 19th, 2011 / April 8th, 2014 (re-elected)

Education / Training :

- M.P.A., National Institute of Development Administration
- L.L.B., Sukhothai Thammathirat Open University
- B.A. in Economics, Ramkhamhaeng University
- Advanced Executive Program, Kellogg School of Management, Northwestern University, U.S.A.
- National Defence College, Class 51

Director Training :

- Director Certification Program (DCP) Class 80/2006
- Financial Statement for Directors (FSD) Class 11/2011
- Audit Committee Program (ACP) Class 38/2012
- and Anti-Corruption for Executive Program (ACEP) Class 13/2014, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 2

- Independent Director / Director to the Audit Committee, PTT Global Chemical Public Company Limited
- Independent Director, Nusasiri Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 1

- Director, Bangkok Commercial Asset Management Public Company Limited

Position in Other Organization / Institutions : 2

- Deputy Permanent Secretary of Ministry of Finance
- Director, Thailand Tobacco Monopoly, Ministry of Finance

Work Experiences (5-years Past Experiences) :

- 2015 Director, Don Muang Tollway Public Company Limited
- 2012 - 2014 Director, Tourism Authority of Thailand
- 2012 - 2014 Committee Member, Government Savings Bank
- 2009 - 2013 Inspector General, Ministry of Finance
- 2012 Chairman, Thailand Tobacco Monopoly
- 2009 - 2012 Chairman, CAT Telecom Public Company Limited

Shareholding : None

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None



Mr. Sarun Rungkasiri

Age : 58

Director / Director to the Nomination and Remuneration Committee / Director to the Risk Management Committee



Mrs. Watanan Petersik

Age : 55

Independent Director / Director to the Risk Management Committee

Appointed : October 18th, 2013 / April 8th, 2014 (re-elected)

Education / Training :

- Master of Science in Management, Polytechnic Institute of New York, U.S.A.
- Bachelor of Engineering in Industrial Engineering, Chulalongkorn University
- Thirty Fourth Oxford Energy Seminar, St. Catherine's College, Oxford University, U.K.
- NIDA-Wharton Executive Leadership Program 2009, The Wharton School of the University of Pennsylvania, U.S.A.
- The Joint State - Private Sector Course, National Defence College, (Class of 23rd)
- Top Executive in Industrial Development and Investment, Class 1, Institute of Business and Industrial Development (IBID)
- Certificate, Executive Program on Energy Literacy for a Sustainable Future (TEA), Class 5, Thailand Energy Academy

Director Training :

- Company Secretary Program (CSP) Class 8/2004
- Director Certification Program (DCP) Class 61/2005 and Finance for Non-Finance Director (FND) Class 19/2005, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 3

- Chief Operating Officer, Downstream Petroleum Business, PTT Public Company Limited
- Director / Director to the Nomination and Remuneration Committee / Director to the Risk Management Committee, PTT Global Chemical Public Company Limited
- Director / Chairman of the Risk Management Committee, Director to the Nomination and Remuneration Committee, IRPC Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : None

Position in Other Organization / Institution : None

Work Experiences (5-years Past Experiences) :

- 2014 - 2015 Chairman, PTT Polymer Marketing Company Limited
- 2011 - 30 Sep. 2013 Senior Executive Vice President, Oil Business Unit, PTT Public Company Limited
- 2010 - 2011 Executive Vice President, Retail Marketing, PTT Public Company Limited
- 2009 - 2010 Executive Vice President, Commercial & International Marketing, PTT Public Company Limited

Shareholding : None

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Appointed : September 22nd, 2014

Education / Training :

- AB Bryn Mawr College, Pennsylvania, U.S.A.
- Bursatra Sdn. Bhd. Mandatory Accreditation Programme (MAP) for Directors of Public Listed Companies (March 2010)

Director Training :

- Director Accreditation Program (DAP) Class 83/2010 and Certificate, Singapore Institute of Directors Course : Role of Director, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 2

- Independent Director / Director to the Risk Management Committee, PTT Global Chemical Public Company Limited
- Independent Director / Member of Audit Committee, CIMB Thai Bank Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 7

- Independent Director, CIMB Holdings Berhad, Malaysia
- Director, Asia Capital Advisory PTE Ltd.
- Director, TE Asia Healthcare Advisory Pte Ltd.
- Director, TE Asia Healthcare Partners Pte Ltd.
- Director, TGC Growth III Asia Internet Holdings Pte Ltd.
- Director, TPG Growth SF Pte Ltd.
- Director, TPG Star SF Pte Ltd.

Position in Other Organization / Institution : 1

- Director, Lien Centre for Social Innovation Singapore Management University

Shareholding : None

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None



Mr. Don Wasantapruerk

Independent Director /
Director to the Corporate Governance Committee

Age : 57



Colonel Nithi Chungcharoen

Independent Director /
Director to the Corporate Governance Committee

Age : 45

Appointed : November 1st, 2015

Education / Training :

- Master of Industrial Engineering, University of New South Wales, Sydney, Australia
- Bachelor of Industrial Engineering, University of New South Wales, Sydney, Australia
- Thailand's 5th National Conference on Collective Action Against Corruption Tackling Corruption through Public - Private Collaboration (October 16th, 2014)
- Certificate, Executive Program on Energy Literacy for a Sustainable Future (TEA), Class 6, Thailand Energy Academy

Director Training :

- Director Accreditation Program (DAP) Class 117/2015 and Role of the Nomination and Governance Committee (RNG) Class 7/2015, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 2

- Independent Director / Member of the Corporate Governance Committee, PTT Public Company Limited
- Independent Director / Director to the Corporate Governance Committee, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : None

Position in Other Organization / Institution : None

Work Experiences (5-years Past Experiences) :

- 2009 - Present Self-employed

Shareholding : None

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Appointed : September 22nd, 2014 / April 1st, 2015 (re-elected)

Education / Training :

- Master of Engineering (Mechanical), Stevens Institute of Technology, New Jersey, U.S.A.
- Bachelor of Science, Chulachomklao Royal Military Academy
- Command and General Staff College, Class 80
- Peace Keeping Operation Course
- Peace Mediation Course

Director Training :

- Director Certification Program (DCP) Class 200/2015 Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Independent Director / Director to the Corporate Governance Committee, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : None

Position in Other Organization / Institution : 1

- Deputy Defence Attaché, Canberra Australia

Work Experiences (5-years Past Experiences) :

- 2014 - 2015 Attached to Directorate of Intelligence
- 2013 - 2014 Deputy Chief of Staff, 11th Army Circle
- 2012 - 2013 Staff Officer Commanding General Office
- 2010 - 2012 Battalion Commander, 3rd Battalion 21st Regiment Queen Guard

Shareholding : None

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None



Mr. Auttapol Rerkpiboon

Director /

Director to the Corporate Governance Committee

Age : 50



Mrs. Boobpha Amornkiatkajorn

Director

Age : 57

Appointed : October 1st, 2015

Education / Training :

- Master of Economics Program, National Institute of Development Administration (NIDA)
- Bachelor of Engineering (Civil Engineering), Chulalongkorn University
- Diploma of Petroleum Management, College of Petroleum Studies, Oxford, England
- Advanced Certificate Course in Politics and Governance in Democratic System for Executives, Class 14, King Prajadhipok's Institute
- Capital Market Academy Leadership Program, Class 20, Capital Market Academy
- NIDA-Wharton Executive Leadership Program 2009, The Wharton School of the University of Pennsylvania, U.S.A.
- PTT Executive Leadership, General Electric, GE, New York, U.S.A.
- Executive Development Program (EDP), The Stock Exchange of Thailand

Director Training :

- Director Certification Program (DCP) Class 173/2013, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 2

- Senior Executive Vice President, Oil Business Unit, PTT Public Company Limited
- Director / Director to the Corporate Governance Committee PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 2

- Chairman, PTT Retail Business Company Limited
- Chairman, PTT Retail Management Company Limited

Position in Other Organization / Institution : 1

- Director, Sustainable Energy Foundation

Work Experiences (5-years Past Experiences) :

- Oct. 2014 - Sep. 2015 Senior Executive Vice President, Sustainability Management and Project Engineering, PTT Public Company Limited
- Jun. 2015 - Oct. 2015 Director, IRPC Public Company Limited
- Feb. 2015 - May 2015 Director, Bangchak Petroleum Public Company Limited
- Dec. 2014 - Nov. 2015 Director, Energy Complex Company Limited
- Oct. 2013 - Oct. 2014 Director, PTT Retail Management Company Limited
- Nov. 2001 - Sep. 2014 Executive Vice President, Retail Marketing, PTT Public Company Limited
- Aug. 2012 - Oct. 2014 Chairman, PTT (Cambodia) Limited
- May 2012 - Oct. 2014 Chairman, Subic Bay Energy Company Limited (Philippines)
- Jun. 2012 - Oct. 2013 Chairman, PTT (LAO) Company Limited
- May 2011 - Oct. 2013 Executive Vice President, Commercial & International Marketing, PTT Public Company Limited
- Apr. 2011 - Apr. 2012 Director, Independent Power of Thailand Company Limited
- Apr. 2011 - Mar. 2012 Director, PTT Utility Company Limited
- 2011 Director, PTT Polymer Marketing Company Limited
- Oct. 2009 - May 2011 Executive Vice President, Corporate Communication & Social Responsibility, PTT Public Company Limited

Shareholding : None

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Appointed : October 1st, 2014 / April 1st, 2015 (re-elected)

Education / Training :

- Master of Business Administration (M.B.A.) Finance (Honor), NIDA
- Bachelor of Science Program in Economics (Honor), Kasetsart University
- Capital Market Academy Leadership Program, Class 21, Capital Market Academy, 2015
- Breakthrough Program for Senior Executives (BPSE) Class 2012, IMD Institute in Switzerland
- Leadership Development Program Class 2009, Institute Center for Creative Leadership, U.S.A.
- Army War College Class 2008, Institute of Army Academics
- Senior Executive Program Class 2003, Sasin Graduate Institute of Business Administration of Chulalongkorn University

Director Training :

- Director Certification Program (DCP) Class 152/2011, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 2

- Senior Executive Vice President, International Trading Business Unit, PTT Public Company Limited
- Director, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 2

- Director, PTT Polymer Marketing Company Limited
- Director, Tiger Energy Trading Pte. Ltd.

Position in Other Organization / Institution : 1

- Vice Chairman Executive Committee, The Institute of Industrial Energy, The Federation of Thai Industries

Work Experiences (5-years Past Experiences) :

- 2014 Executive Vice President, Trading Operation – International Trading Business Unit, PTT Public Company Limited
- 2010 - 2014 Executive Vice President – Downstream Business Group Alignment, PTT Public Company Limited
- 2010 - 2013 Director, Thai Oil Marine Company Limited

Shareholding : 61,704 shares (0.001369%) as of December 31st, 2015

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None



Mr. Praphon Wongtharua

Director

Age : 55



Mr. Supattanapong Punmeechaow Age : 56

Director and Secretary to the Board of Directors /
Director to the Risk Management Committee

Appointed : August 24th, 2015

Education / Training :

- Master of Engineering (Mechanical Engineering), Chulalongkorn University
- Bachelor of Engineering (Mechanical Engineering), King Mongkut's University of Technology North Bangkok
- Diploma, National Defence College, The National Defence Course, Class 2013
- Joint Staff College, Class 45
- Senior Executive Program on Visionary Leadership (Class 55)
- Change Management Leadership Program (The Leadership Grid)

Director Training :

- Director Certification Program (DCP) Class 218/2016, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Director, PTT Global Chemical Public Company Limited

Board member / Management in Listed Company - The Stock Exchange of Thailand : None

Position in Other Organization / Institution : 1

- Deputy Permanent Secretary, Ministry of Energy

Work Experiences (5-years Past Experiences) :

- 1 Oct. 2014 - 20 Jul. 2015 Inspector - General, Ministry of Energy
- Feb. 2014 - Sep. 2014 Deputy Director-General, Energy Policy and Planning Office
- 2008 - 2014 Director, Bureau of Biofuel Development, Department of Alternative Energy Development and Efficiency

Shareholding : None

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Appointed : September 25th, 2014

Education / Training :

- M.B.A., Chulalongkorn University
- B. Eng. (Chemical Engineering), Chulalongkorn University
- Advance Management Program, INSEAD University, France
- The National Defence Course (Class 50) and The Joint State-Private Sector Course (Class 20), National Defence College
- Oxford Energy Seminar 2013, United Kingdom
- Certificate in Top Executives in the Energy Education Program, Thailand Energy Academy (Class 4)
- Corporate Governance Program for Directors and Executives of State Enterprises and Public Organizations (Class 12), 2014, King Prajadhipok's Institute-State Enterprise Policy Office and Office of the Public Sector Development Commission
- The Rule of Law and Democracy Course (Class 3), 2015, College Constitution

Director Training :

- Director Certification Program (DCP) Class 131/2010 and Role of the Chairman Program (RCP) Class 30/2013, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 4

- Senior Executive Vice President, PTT Public Company Limited
- Director and Secretary to the Board of Directors / Director to the Risk Management Committee / President & Chief Executive Officer, PTT Global Chemical Public Company Limited
- Vice Chairman, Vinythai Public Company Limited
- Director, Global Power Synergy Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 3

- Director, PTT Chemical International Private Limited
- Director, PTT Chemical International (Asia Pacific ROH) Limited
- Chairman, Global Green Chemicals Public Company Limited

Position in Other Organization / Institutions : 5

- Member, Council of Trustees, Petroleum Institute of Thailand
- Chairman of the Community Partnership
- Honorary Member of Vidyasirimedhi Institute Council
- Member of Kamnoetvidya Science Academy
- Director of the Center of Excellence on Environmental Health and Toxicology (EHT), Mahidol University

Work Experiences (5-years Past Experiences) :

- 10 Aug. 2015 - 20 Jan. 2016 Chairman, Thai Fatty Alcohol Company Limited
- 2014 - 19 Nov. 2015 Chairman, Sport Services Alliance Limited
- 1 Aug. 2014 - 31 Dec. 2014 Director, Islamic Bank of Thailand
- 1 Apr. 2012 - 30 Sep. 2014 Senior Executive Vice President, Corporate Strategy, PTT Public Company Limited
- 2009 - 2011 Executive Vice President, Business Development, PTT International Company Limited and Executive Vice President, Corporate Strategy, PTT Public Company Limited
- 30 Oct. 2013 - 25 Sep. 2014 Director / Director of the Nomination and Remuneration Committee, Bangchak Petroleum Public Company Limited
- 27 May 2011 - 19 Sep. 2014 Director, Sakari Resources Limited

Shareholding : 40,000 shares (0.000887%) as of December 31st, 2015

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

PTTGC Executives



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1 Mr. Supattanapong Punmeechaow
President & Chief Executive Officer

2 Mr. Kun Patumraj
Chief Operating Officer - Upstream
Petrochemical Business

3 Mr. Patiparn Sukorndhaman
Chief Operating Officer - Downstream
Petrochemical Business

4 Miss Duangkamol Settanung
Executive Vice President - Finance
and Accounting

5 Mr. Varit Namwong
Executive Vice President -
Organizational Effectiveness

6 Mr. Kongkrapan Intarajang
Executive Vice President - International
Business Operations

7 Mr. Athavuth Vikitsreth
Executive Vice President - External Affairs

8 Mr. Narongsak Jivakanun
Senior Vice President - Corporate
Strategy

9 Mrs. Warawan Tippawanich
Senior Vice President - Corporate Affairs
and Corporate Secretary



10 Mr. Chaya Chandavas
Senior Vice President - Science
and Innovation

11 Mr. Saroj Putthammawong
Senior Vice President - Marketing,
Commercial and Supply

12 Mr. Suvit Tinnachote
Executive Vice President - Group
Performance Center - Olefins

13 Mr. Anutin Chuaypen
Senior Vice President - Group
Performance Center - Refinery
and Shared Facilities

14 Mr. Pairush Soovan
Senior Vice President - Group Performance
Center - Aromatics

15 Mr. Booncherd Suwantip
Senior Vice President - Quality, Safety,
Occupational Health and Environment

16 Mr. Suwat Suratchaikarn
Senior Vice President - CAPEX
Excellence

17 Mrs. Jeeranee Pimthanothai
Senior Vice President - Technical and
Operations Excellence

18 Mr. Pairote Utaiup
Senior Vice President - Polymers
Business Unit

19 Mr. Wiboon Chuchepchunkamon
Senior Vice President - EO-Based
Performance Business Unit

20 Mr. Jirawat Nooritanon
Senior Vice President - Green Chemicals
Business Unit

21 Mr. Kumpol Chaikitkosi
Senior Vice President - Phenol
Business Unit

PTTGC Executives

Mr. Supattanapong Punmeechaow

President & Chief Executive Officer

Age : 56

Appointed : October 1st, 2014

Education / Training :

- M.B.A., Chulalongkorn University
- B. Eng. (Chemical Engineering), Chulalongkorn University
- Advance Management Program, INSEAD University, France
- The National Defence Course (Class 50) and The Joint State-Private Sector Course (Class 20), National Defence College
- Oxford Energy Seminar 2013, United Kingdom
- Certificate in Top Executives in the Energy Education Program, Thailand Energy Academy (Class 4)
- Corporate Governance Program for Directors and Executives of State Enterprises and Public Organizations (Class 12), 2014, King Prajadhipok's Institute-State Enterprise Policy Office and Office of the Public Sector Development Commission
- The Rule of Law and Democracy Course (Class 3), 2015, College Constitution
- Director Certification Program (DCP) Class 131/2010 and Role of the Chairman Program (RCP) Class 30/2013, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 4

- Senior Executive Vice President, PTT Public Company Limited
- Director and Secretary to the Board of Directors / Director to the Risk Management Committee / President & Chief Executive Officer, PTT Global Chemical Public Company Limited
- Vice Chairman, Vinythai Public Company Limited
- Director, Global Power Synergy Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 3

- Director, PTT Chemical International Private Limited
- Director, PTT Chemical International (Asia Pacific ROH) Limited
- Chairman, Global Green Chemicals Public Company Limited

Position in Other Organization / Institutions : 5

- Member, Council of Trustees, Petroleum Institute of Thailand
- Chairman of the Community Partnership
- Honorary Member of Vidyasirimedhi Institute Council
- Member of Kamnoetvidya Science Academy
- Director of the Center of Excellence on Environmental Health and Toxicology (EHT), Mahidol University

Work Experiences (5-years Past Experiences) :

- 10 Aug. 2015 - 20 Jan. 2016 Chairman, Thai Fatty Alcohols Company Limited
- 2014 - 19 Nov. 2015 Chairman, Sport Services Alliance Limited
- 1 Aug. 2014 - 31 Dec. 2014 Director, Islamic Bank of Thailand
- 1 Apr. 2012 - 30 Sep. 2014 Senior Executive Vice President, Corporate Strategy , PTT Public Company Limited
- 2009 - 2011 Executive Vice President, Business Development, PTT International Company Limited and Executive Vice President, Corporate Strategy, PTT Public Company Limited
- 30 Oct. 2013 - 25 Sep. 2014 Director / Director of the Nomination and Remuneration Committee, Bangchak Petroleum Public Company Limited
- 27 May. 2011 - 19 Sep. 2014 Director, Sakari Resources Limited

Shareholding : 40,000 shares (0.000887%) as of December 31st, 2015

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mr. Kun Patumraj

Chief Operating Officer - Upstream Petrochemical Business

Age : 59

Appointed : November 1st, 2013

Education / Training :

- B.Sc., in Chemical Engineers, New Jersey Institute of Technology, U.S.A.
- M.Eng., in Chemical Engineers, Manhattan College, New York, U.S.A.
- Certificate of Senior Executive Program (SEP), Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Advance Management Program (AMP), Harvard Business School, U.S.A.
- PTT Executive Leadership Program, GE Crotonville, U.S.A.
- Director Accreditation Program (DAP) Class 91/2011 and Role of the Chairman Program (RCP) Class 27/2012, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Chief Operating Officer - Upstream Petrochemical Business, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 9

- Chairman, PTT Energy Solutions Company Limited
- Chairman, NPC Safety and Environmental Service Company Limited
- Chairman, PTT Maintenance and Engineering Company Limited
- Director, Thai Tank Terminal Limited
- Director, Vencorex Holding
- Director, Myriant Corporation
- Director, PTTGC International (Netherlands) B.V.
- Director, PTTGC America Corporation
- Director, PTTGC America LLC

Work Experiences (5-years Past Experiences) :

- 2011 - 2013 Executive Vice President Engineering and Maintenance, PTT Global Chemical Public Company Limited
- 2013 Director, PTT Polyethylene Company Limited
- 2010 - 2011 Executive Vice President - Technology Engineering & Maintenance, PTT Aromatics and Refining Public Company Limited
- 2006 - 2011 Director, PTT Phenol Company Limited
- Jan. - Apr. 2010 Executive Vice President - Asset Management, PTT Aromatics and Refining Public Company Limited

Shareholding : 114,629 shares (0.002542%) as of December 31st, 2015

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mr. Patiparn Sukorndhaman

Chief Operating Officer - Downstream Petrochemical Business

Age : 54

Appointed : January 1st, 2016**Education / Training :**

- M.B.A. (Finance), The American University, U.S.A.
- B.A. Political Science (Public Administration - Public Finance), 2nd Class Honors, Chulalongkorn University
- Graduate Diploma in Public Law and Management (PLM 8), King Prajadhipok's Institute
- Certification Program for Senior Management 5 (Ex - PSM 5), Fiscal Policy Research Institute Foundation
- Certificate Program for GE : PTT Executive Program, GE U.S.A., 2012
- Certification Program for "Breakthrough Program for Senior Executives", IMD Executive Development Services, Switzerland, 2014
- Certification Program for "Leadership Development Program III (LDP III)", PTT Leadership and Learning Institute, 2014
- Certificate, Executive Program on Energy Literacy for a Sustainable Future (TEA), Class 7, Thailand Energy Academy, 2015
- Director Certification Program (DCP) Class 73/2006, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 2

- Chief Operating Officer - Downstream Petrochemical Business
PTT Global Chemical Public Company Limited
- Director and Member of Nomination and Remuneration Committee,
Global Power Synergy Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 6

- Chairman, TOC Glycol Company Limited
- Chairman, Thai Styrenics Company Limited
- Chairman, Solution Creation Company Limited
- Director, PTT Polymer Marketing Company Limited
- Director, Global Green Chemicals Public Company Limited
- Director, PTT Phenol Company Limited

Work Experiences (5-years Past Experiences) :

- Sep. 2012 - 2015 Director, PTT Chemical International Private Limited
- 2012 - 2015 Director, PTT Chemical International (Asia Pacific ROH) Limited
- Oct. 2009 - 2015 Director, Thai Fatty Alcohol Company Limited
- 19 Oct. 2011 - 31 Dec. 2015 Executive Vice President - Finance & Accounting,
PTT Global Chemical Public Company Limited
- 2011 - 31 Jan. 2015 Director, PTT ICT Solutions Company Limited
- 2011 - 2014 Director, Bio Creation Company Limited
- 2009 - 2012 Director, PTT Polyethylene Company Limited
- 2009 - 2012 Director, Thai Ethanolamines Company Limited
- 2009 - 2011 Executive Vice President, Finance & Accounting,
PTT Chemical Public Company Limited

Shareholding : None

Relation among Family with other Directors, Management,
Major Shareholders of the Company or Subsidiaries : None

Miss Duangkamol Settanung

Executive Vice President - Finance and Accounting

Age : 55

Appointed : November 1st, 2015**Education / Training :**

- Master of Business Administration, Thammasat University
- Bachelor of Science in Statistics 1st Class Honors, Kasetsart University
- PTT Executive Program, GE Crononville, U.S.A.
- PTT Leadership Development Program III
- Director Certification Program (DCP) Class 155/2012, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 2

- Executive Vice President, PTT Public Company Limited
- Executive Vice President, Finance and Accounting, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 5

- Director, PTT Chemical International Private Limited
- Director, PTTGC America Corporation
- Director, PTTGC America LLC
- Director, Emery Oleochemicals (M) Sdn. Bhd.
- Director, Emery Specialty Chemical Sdn. Bhd.

Work Experiences (5-years Past Experiences) :

- 2011 - 2015 Senior Executive Vice President, Corporate Accounting & Finance, IRPC Public Company Limited
- Feb. 2011 - Oct. 2011 Executive Vice President, Finance & Accounting,
PTT Aromatics and Refining Public Company Limited
- Oct. 2010 - Jan. 2011 Senior Vice President, Finance & Accounting,
PTT Aromatics and Refining Public Company Limited
- Dec. 2007 - Sep. 2010 Vice President, Corporate Strategy, PTT Aromatics and Refining Public Company Limited

Shareholding : None

Relation among Family with other Directors, Management,
Major Shareholders of the Company or Subsidiaries : None

Mr. Varit Namwong

Executive Vice President - Organizational Effectiveness

Age : 52

Appointed : October 19th, 2011

Education / Training :

- Master of Business Administration, Business Administration (International Program), Ramkhamhaeng University
- Bachelor of Business Administration, Marketing, Assumption Business Administration College
- Certificate of Senior Executive Program (SEP), Sasri Graduate Institute of Business Administration of Chulalongkorn University
- Certificate of Leadership Development Program III (LDPIII), PTT Leadership and Learning Institute, 2014
- Certificate of Advanced Human Resource Executive Program, The Stephen M. Ross School of Business, University of Michigan, 2014
- Director Accreditation Program (DAP) Class 91/2011 and Director Certification Program (DCP) Class 160/2012, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Executive Vice President - Organizational Effectiveness, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 9

- Director, PTT Chemical International Private Limited
- Director, PTT Chemical International (Asia Pacific ROH) Limited
- Director, Eastern Fluid Transport Company Limited
- Director, PTT ICT Solutions Company Limited
- Director, Sport Services Alliance Limited
- Director, Solution Creation Company Limited
- Director, Vencorex Holding
- Director, PTTGC America Corporation
- Director, PTTGC America LLC

Work Experiences (5-years Past Experiences) :

- 2014 Director, Myriant Corporation
- 2011 - 2014 Director, Thai Styrenics Company Limited
- 2009 - 2011 Executive Vice President - Human Resources & Corporate Administration, PTT Aromatics and Refining Public Company Limited

Shareholding : 108,939 shares (0.002416%) as of December 31st, 2015

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mr. Kongkrapan Intarajang

Executive Vice President - International Business Operations

Age : 48

Appointed : October 1st, 2014

Education / Training :

- Ph.D. Chemical Engineering, University of Houston, U.S.A.
- B.Eng., Chemical Engineering (2nd Class Honors), Chulalongkorn University
- Breakthrough Program for Senior Executives, IMD Business School
- Director Certification Program (DCP) Class 119/2009 and Role of the Chairman Program (RCP) Class 21/2009, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Executive Vice President - International Business Operations, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 11

- Director / Chief Executive Officer, PTT Chemical International Private Limited
- Director / Chief Executive Officer, PTT Chemical International (Asia Pacific ROH) Limited
- Director, Emery Oleochemicals (M) Sdn. Bhd.
- Director, Emery Specialty Chemical Sdn. Bhd.
- Director / Vice President, PTTGC International (USA) Inc.
- Director, NatureWorks LLC
- Director, Vencorex Holding
- Director, Myriant Corporation
- Director, PTTGC International (Netherlands) B.V.
- Director / President & CEO, PTTGC America Corporation
- Director, PTTGC America LLC

Work Experiences (5-years Past Experiences) :

- 2012 - 2014 Executive Vice President under Chief Executive Officer, PTT Global Chemical Public Company Limited
- 2011 - 2012 Senior Vice President, PTT Global Chemical Public Company Limited - appointed as Chief Executive Officer of Emery Oleochemicals (M) Sdn. Bhd.
- 2009 - 2011 Senior Vice President, PTT Chemical Public Company Limited - appointed as Chief Executive Officer of Emery Oleochemicals (M) Sdn. Bhd.
- 2007 - 2010 Director, Thai Ethoxylate Company Limited

Shareholding : None

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mr. Athavuth Vikitsreth

Executive Vice President
External Affairs

Age : 56

Appointed : October 1st, 2013

Education / Training :

- Bachelor of Business Administration (BBA.) Abilene Christian University, Texas, U.S.A.
- Bachelor of Business Administration, Accounting, Assumption Business Administration College
- National Defence Course, Class 23, National Defence College
- Advanced Certificate Course in Politics and Governance in Democratic System for Executives, Class 12, King Prajadhipok's Institute
- Corporate Governance for Directors and Senior Executive of State Enterprises and Public Organizations, Class 2, Public Director Institute (PDI)
- Training Course on Administrative Justice for Executives (BYP), Class 4, The Administrative Courts
- Capital Market Academy Leadership Program, Class 20, Capital Market Academy
- Director Certification Program (DCP) Class 106/2008 / Audit Committee Program (ACP) Class 24/2008 / Monitoring the System of Internal Control and Risk Management (MIR) Class 5/2009 and Monitoring the Internal Audit Function (MIA) Class 5/2009, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Executive Vice President - External Affairs, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 1

- Director / Director to the Internal Audit Committee, Office of the National Broadcasting and Telecommunications Commission (NBTC)

Work Experiences (5-years Past Experiences) :

- 2011 - 2013 Senior Executive Vice President – External Affairs, PTT Global Chemical Public Company Limited
- 2010 - 2011 Senior Vice President - Industry & Independent Organization Management, PTT Aromatics and Refining Public Company Limited
- 2010 - 2011 Advisor, Ministry of Industry

Shareholding : None

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mr. Suvit Tinnachote

Executive Vice President
Group Performance Center - Olefins

Age : 59

Appointed : October 19th, 2011

Education / Training :

- Master of Public and Private Management, National Institute of Development Administration (NIDA)
- Bachelor's Degree in Electrical Engineering, King Mongkut's Institute of Technology (Ladkrabang)
- ASEAN Executive Program (AEP), GE Crotonville
- Director Certification Program (DCP) Class 92/2007, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Executive Vice President, Group Performance Center - Olefins, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 4

- Director, Thai Tank Terminal Limited
- Director, TOC Glycol Company Limited
- Director, PTT Phenol Company Limited
- Director, HMC Polymers Company Limited

Work Experiences (5-years Past Experiences) :

- 2011 - 2013 Director, PTT Polyethylene Company Limited
- May - Aug. 2012 Member Representative to the Governance Board, NatureWorks LLC
- 2011 - Aug. 2012 Member of the Board Directors and President, PTTGC International (USA) Inc.
- 2009 - 2012 Chairman, Thai Styrenics Company Limited
- 2009 - 2011 Director, Bangkok Polyethylene Public Company Limited
- 2008 - 2012 Director, NPC Safety and Environmental Service Company Limited
- 2008 - 2011 Executive Vice President, Polymers Products Value Center, PTT Chemical Public Company Limited

Shareholding : 96,086 shares ; Spouse : 24,313 (0.002670%) as of December 31st, 2015

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mr. Narongsak Jivakanun

Senior Vice President - Corporate Strategy

Age : 47

Appointed : February 1st, 2016

Education / Training :

- Master of Science (Chemical Engineering), Oregon State University, Oregon, U.S.A.
- Bachelor of Engineering (Chemical Engineering) , Chulalongkorn University
- Director Certification Program (DCP) Class 165/2012, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Senior Vice President - Corporate Strategy, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 8

- Chairman, Bio Spectrum Company Limited
- Director, Emery Oleochemicals (M) Sdn. Bhd.
- Director, Emery Specialty Chemical Sdn. Bhd.
- Director, Myriant Corporation
- Director, PTTGC America Corporation
- Director, PTTGC America LLC
- Director, PTT Chemical International Private Limited
- Director, PTT Chemical International (Asia Pacific ROH) Limited

Work Experiences (5-years Past Experiences) :

- 1 Jan. 2010 - 31 Jan. 2016 Chief Executive Officer, PTT Chemical International Private Limited
- Oct 2011 - 31 Jan 2016 Senior Vice President - International Strategy and Business Development under Executive Vice President – International Business Operations, PTT Global Chemical Public Company Limited

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mr. Chaya Chandavas

Senior Vice President - Science and Innovation

Age : 42

Appointed : November 1st, 2015

Education / Training :

- Ph.D. in Chemical Engineering, New Jersey Institute of Technology, U.S.A.
- M.S. in Chemical Engineering, New Jersey Institute of Technology, U.S.A.
- B.Sc. in Chemistry (First Class Honors), Mahidol University
- Advanced Senior Executive Program, Sasin and Kellogg School of Management, 2008
- Director Certification Program (DCP) Class 152/2011, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Senior Vice President - Science and Innovation, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 2

- Chairman, Auria BioChemicals Company Limited
- Director, Solution Creation Company Limited

Work Experiences (5-years Past Experiences) :

- 2014 - 2015 Vice President - Innovation Strategy & Management PTT Global Chemical Public Company Limited
- 2013 - 2014 Vice President - Strategic Initiatives - International Business, PTT Chemical International (Asia Pacific ROH) Limited
- 2011- 2013 Vice President - Innovation & Technology, PTT Global Chemical Public Company Limited

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mrs. Warawan Tippawanich

Senior Vice President - Corporate Affairs and Corporate Secretary

Age : 52

Appointed : January 1st, 2015

Education / Training :

- Master of Business Administration, Management, Chulalongkorn University
- B.Sc., in Chemical Engineering, Chulalongkorn University
- PTT Harvard Business School Leadership Development Program II (2014)
- Company Secretary Program (CSP) Class 57/2014 / Board Reporting Program (BRP) Class 15/2014 / Company Reporting Program (CRP) Class 10/2014 and Director Certification Program (DCP) Class 190/2014, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Senior Vice President – Corporate Affairs and Corporate Secretary, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 3

- Director, TOC Glycol Company Limited
- Director, PTT Chemical International Private Limited
- Director, PTT Chemical International (Asia Pacific ROH) Limited

Work Experiences (5-years Past Experiences) :

- Jan. 2014 - Dec. 2014 Vice President - Corporate Secretary, PTT Global Chemical Public Company Limited
- Oct. 2011 - Dec. 2013 Vice President - Strategy and Planning, PTT Global Chemical Public Company Limited
- 2010 - Oct. 2011 Vice President - Corporate Planning, PTT Chemical Public Company Limited

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : Yes

- Spouse; Mr. Chawalit Tippawanich is a Director of PTTGC's subsidiary

Mr. Saroj Putthammawong

Senior Vice President – Marketing, Commercial and Supply

Age : 47

Appointed : October 1st, 2015

Education / Training :

- Master of Business Administration Program, Thammasat University
- B.Eng. in Chemical Engineering, Chulalongkorn University

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Senior Vice President - Marketing, Commercial and Supply
PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 2

- Director, Solution Creation Company Limited
- Director, Thai Tank Terminal Limited

Work Experiences (5-years Past Experiences) :

- 1 Jul. 2015 - 30 Sep. 2015 Vice President - Marketing Strategy,
PTT Global Chemical Public Company Limited
- 1 Feb. 2013 - 30 Jun. 2015 Vice President - Supply Sourcing,
PTT Global Chemical Public Company Limited
- 19 Oct. 2011 - 31 Jan. 2013 Vice President - Commercial,
PTT Global Chemical Public Company Limited
- 1 Feb. 2009 - 18 Oct. 2011 Vice President - Commercial,
PTT Aromatics and Refining Public Company Limited

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mr. Pairush Soovan

Senior Vice President - Group Performance Center - Aromatics

Age : 56

Appointed : January 1st, 2015

Education / Training :

- Bachelor of Mechanical Engineering, Chulalongkorn University
- Certificate of Senior Executive Program (SEP), Sasri Graduate Institute of Business Administration of Chulalongkorn University
- Director Certification Program (DCP) Class 209/2015, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Senior Vice President - Group Performance Center - Aromatics,
PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 1

- Director, PTT Phenol Company Limited

Work Experiences (5-years Past Experiences) :

- 2013 - 2014 Vice President - Integrity and Reliability,
PTT Global Chemical Public Company Limited
- 2011 - 2013 Vice President - Operational, E&M, Technical Standard and Policy,
PTT Global Chemical Public Company Limited
- 2009 - 2011 Vice President - Engineering and Maintenance Standard and Policy,
PTT Chemical Public Company Limited

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mr. Anutin Chuaypen

Senior Vice President
Group Performance Center – Refinery and Shared Facilities

Age : 51

Appointed : January 1st, 2014

Education / Training :

- Master of Science in Computer & Engineering Management, Assumption University
- B.Sc. in Chemical Engineering, Chulalongkorn University
- Director Certification Program (DCP) Class 200/2015, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Senior Vice President, Group Performance Center – Refinery and Shared Facilities,
PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 2

- Director, PTT Maintenance and Engineering Company Limited
- Director, Thai Tank Terminal Limited

Work Experiences (5-years Past Experiences) :

- 2011 - 2013 Vice President - Refinery and Shared Facilities & Aromatics
Maintenance, PTT Global Chemical Public Company Limited
- 2008 - 2009 Vice President - Aromatics 2 Production,
PTT Aromatics and Refining Public Company Limited

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mr. Booncherd Suwantip

Senior Vice President - Quality, Safety, Occupational Health and Environment

Age : 59

Appointed : August 1st, 2013

Education / Training :

- Bachelor's Degree in Chemistry, Prince of Songkla University
- Certificate of Senior Executive Program (SEP 16), Sasri Graduate Institute of Business Administration of Chulalongkorn University
- Leadership Development Program (LDP)
- Director Certification Program (DCP) Class 198/2014, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Senior Vice President - Quality, Safety, Occupational Health and Environment
PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 1

- Director, NPC Safety and Environmental Service Company Limited

Work Experiences (5-years Past Experiences) :

- 2011 - 2013 Vice President, Technical and Enhance SHE / Quality, Safety,
Occupational Health and Environmental,
PTT Global Chemical Public Company Limited
- 2005 - 2011 Vice President, Technical and Enhance SHE /
Safety, Occupational Health and Environmental,
PTT Chemical Public Company Limited

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mr. Pairote Utaiup

Senior Vice President - Polymers Business Unit

Age : 59

Appointed : January 1st, 2014

Education / Training :

- B.Eng. (Mechanical Engineering), Chulalongkorn University
- NIDA-Wharton Executive Leadership Class 2008, Wharton School of Business, University of Pennsylvania, U.S.A.
- Director Certification Program (DCP) Class 127/2010, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Senior Vice President - Polymers Business Unit
PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 2

- Director / Acting Managing Director, Thai Styrenics Company Limited
- Director, PTT Polymer Logistics Company Limited

Work Experiences (5-years Past Experiences) :

- 2011 - 2013 Vice President, Operations - Polymers Business Unit,
PTT Global Chemical Public Company Limited
- 2009 - 2013 Managing Director, Bangkok Polyethylene Public
Company Limited
- 2005 - 2011 Vice President, Operations - Polymers Business Unit,
PTT Chemical Public Company Limited

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mr. Suwat Suratchaikarn

Senior Vice President – CAPEX Excellence

Age : 58

Appointed : August 1st, 2013

Education / Training :

- M.B.A., Sukhothai Thammathirat University
- B.Eng. (Electrical Engineering), Chulalongkorn University
- Certificate of Senior Executive Program (SEP), Sasn Graduate Institute of Business Administration of Chulalongkorn University
- PTT Executive Leadership Program
- Director Certification Program (DCP) Class 218/2016, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Senior Vice President - CAPEX Excellence
PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 1

- Director, NPC Safety and Environmental Service Company Limited

Work Experiences (5-years Past Experiences) :

- 2010 - 2013 Vice President Integrity & Reliability
PTT Global Chemical Public Company Limited
- 2008 - 2010 Vice President Project Engineering
PTT Aromatics and Refining Public Company Limited

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mrs. Jeeranee Pimthanothai

Senior Vice President - Technical and Operations Excellence

Age : 51

Appointed : September 1st, 2015

Education / Training :

- M.Eng. in Petrochemical Technology, Chulalongkorn University
- B.Sc. in Chemical Engineering, Chulalongkorn University
- Certificate of the Columbia Senior Executive Program, U.S.A.
- Certificate of NIDA-Wharton Executive Leadership Program, U.S.A.
- Certificate of Corporate Governance : The Role of Manager in Supporting Directors, Thai Institute of Directors Association (IOD)
- Leadership Innovation & Strategy, GE Crotonville
- PTT Group Leadership Development Program

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Senior Vice President - Technical and Operations Excellence
PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : None

Work Experiences (5-years Past Experiences) :

- Jan. - Aug. 2015 Vice President - Petrochemicals Subsidiary Planning &
Management Department, PTT Public Company Limited
- 2014 Vice President - Refining Subsidiary Planning &
Management Department and Acting in Vice President -
Petrochemicals Subsidiary Planning & Management
Department and Project Director of PTT Group Operational
Excellence Management System Transformation Project,
PTT Public Company Limited
- Mar. 2012 - Dec. 2013 Vice President - Refining Subsidiary Planning &
Management Department and Project Director - PTT Group
Operational Excellence Management System
Transformation Project, PTT Public Company Limited

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mr. Jirawat Nooritanon

Senior Vice President - Green Chemicals Business Unit

Age : 49

Appointed : October 1st, 2015

Education / Training :

- Master of Engineering Program in Energy Technology, The Asian Institute of Technology (AIT)
- M.B.A., Thammasat University
- B.Eng. in Chemical Engineering, Chulalongkorn University
- Director Accreditation Program (DAP) Class 124/2016, Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Senior Vice President - Green Chemicals Business Unit, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 2

- Director / Managing Director and Secretary to the Board of Directors, Global Green Chemicals Public Company Limited
- Director / Managing Director, Thai Fatty Alcohol Company Limited

Work Experiences (5-years Past Experiences) :

- 2011 - 2015 Vice President, PTT Global Chemical Public Company Limited
- 2008 - 2010 Plant Manager, Thai Oleochemicals Company Limited

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mr. Wiboon Chuchepchumkamon

Senior Vice President - EO-Based Performance Business Unit

Age : 54

Appointed : January 1st, 2016

Education / Training :

- Master of Management, Sasun Graduate Institute of Business Administration of Chulalongkorn University
- Master of Science, Petroleum and Petrochemical, Petroleum and Petrochemical College, Chulalongkorn University
- Bachelor of Engineering, Electrical Engineering, Chulalongkorn University
- Stanford - NUS Executive Program in International Management, Singapore
- Harvard - Leadership Development, Shanghai, China
- Director Certification Program (DCP) Class 219/2016 Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Senior Vice President - EO-Based Performance Business Unit, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 1

- Director / Managing Director, TOC Glycol Company Limited

Work Experiences (5-years Past Experiences) :

- 2013 - 2015 Vice President - Olefins Plant I, PTT Global Chemical Public Company Limited
- 2011 - 2013 Vice President - Linear Low Density Polyethylene Plant, PTT Global Chemical Public Company Limited
- 2005 - 2011 Project Manager - Linear Low Density Polyethylene Plant, PTT Chemical Public Company Limited

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mr. Kumpol Chaikitkosi

Senior Vice President - Phenol Business Unit

Age : 56

Appointed : October 1st, 2015

Education / Training :

- B.Eng. (Chemical Engineering), Chulalongkorn University
- Program for Executive Development, IMD, Switzerland
- Executive Development Program, TLCA
- Director Certification Program (DCP) Class 219/2016 Thai Institute of Directors Association (IOD)

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Senior Vice President - Phenol Business Unit, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : 1

- Director / Managing Director and Secretary to the Board of Directors, PTT Phenol Company Limited

Work Experiences (5-years Past Experiences) :

- 2009 - 2015 Executive Vice President Operation, PTT Phenol Company Limited

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Mr. Adisorn Vichaiatka

Vice President - Internal Audit

Age : 58

Appointed : August 1st, 2013

Education / Training :

- Bachelor's Degree in Engineering Program, King Mongkut's University of Technology Thonburi
- Effective Audit Committee Program
- Best Practices in Value - Added Auditing
- The Executive Program for Senior Management (EX-PMS)
- Enterprise Fraud Prevention

Board member / Management in Listed Company - The Stock Exchange of Thailand : 1

- Vice President - Internal Audit, PTT Global Chemical Public Company Limited

Board member / Management in Non-Listed Company - The Stock Exchange of Thailand : None

Work Experiences (5-years Past Experiences) :

- 19 Oct. 2011 - 31 Jul. 2013 Vice President - Corporate Risk Management and Internal Control, PTT Global Chemical Public Company Limited
- 2005 - 18 Oct. 2011 Vice President - Internal Audit, PTT Chemical Public Company Limited

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries : None

Senior Vice President appointed as Executives of PTTGC's Subsidiaries

Mr. Sekxon Arttamangkura

Senior Vice President, reporting to Chief Operating Officer - Upstream Petrochemical Business, Secondment as Managing Director; NPC Safety and Environmental Service Company Limited

Mr. Wirat Boonbumrungchai

Senior Vice President, reporting to Chief Operating Officer - Upstream Petrochemical Business, Secondment as President; PTT Maintenance and Engineering Company Limited

Mr. Dumrong Pinpuvadol

Senior Vice President reporting to Chief Operating Officer - Upstream Petrochemical Business, Secondment as President; Thai Tank Terminal Limited

Mr. Narongchai Pisutpunya

Senior Vice President, reporting to Chief Operating Officer - Downstream Petrochemical Business Secondment as President; PTT Polymer Marketing Company Limited

Mr. Somkiat Khunlertkit

Senior Vice President, reporting to Chief Operating Officer - Downstream Petrochemical Business Secondment as President; PTT Polymer Logistics Company Limited

PTTGC's Senior Vice President

Mr. Toasaporn Boonyapipat

Senior Vice President, International Performance Management

Mr. Siridech Kumvongdee

Senior Vice President, Human Resources

Mr. Prakob Petcharuttana

Senior Vice President, reporting to Chief Operating Officer - Upstream Petrochemical Business

ORGANIZATION STRUCTURE



Management Structure

The Board of Directors

The Board of Directors as of December 31st, 2015, comprised of:

Name - Last Name	Position	Appointment Date
1. Mr. Prasert Bunsumpun ⁽¹⁾	Chairman / Chairman of the Independent Directors	October 19 th , 2011
2. Mr. Somchai Kuvijitsuwan	Independent Director / Chairman of the Audit Committee	October 19 th , 2011
3. Mr. Vasin Teeravechyan	Independent Director / Chairman of the Nomination and Remuneration Committee	October 19 th , 2011
4. Professor Surapon Nitikraipot	Independent Director / Chairman of the Corporate Governance Committee / Director to the Nomination and Remuneration Committee	September 22 nd , 2014
5. Mr. Anon Sirisaengtaksin	Director / Chairman of the Risk Management Committee	September 22 nd , 2014
6. Miss Ruenvadee Suwanmongkol	Independent Director / Director to the Audit Committee	March 21 st , 2014
7. Mr. Amnuay Preemonwong	Independent Director / Director to the Audit Committee	October 19 th , 2011
8. Mr. Sarun Rungkasiri	Director / Director to the Nomination and Remuneration Committee / Director to the Risk Management Committee	October 18 th , 2013
9. Mrs. Watanan Petersik	Independent Director / Director to the Risk Management Committee	September 22 nd , 2014
10. Mr. Don Wasantapruerk ⁽²⁾	Independent Director / Director to the Corporate Governance Committee	November 1 st , 2015
11. Colonel Nithi Chungcharoen	Independent Director / Director to the Corporate Governance Committee	September 22 nd , 2014
12. Mr. Auttapol Rerkpiboon ⁽³⁾	Director / Director to the Corporate Governance Committee	October 1 st , 2015
13. Mrs. Boobpha Amornkiatkajorn	Director	October 1 st , 2014
14. Mr. Praphon Wongtharua ⁽⁴⁾	Director	August 24 th , 2015
15. Mr. Supattanapong Punmeechaow	Director and Secretary to the Board of Directors / Director to the Risk Management Committee	September 25 th , 2014

Remarks :

(1) Mr. Prasert Bunsumpun was appointed as Chairman of the Independent Directors on November 23rd, 2015.

(2) Mr. Don Wasantapruerk was appointed as Independent Director replaced Mr. Siri Jirapongphan, who resigned on November 1st, 2015.

(3) Mr. Auttapol Rerkpiboon was appointed as Director replaced Mr. Samerjai Suksumek, who resigned on August 1st, 2015.

(4) Mr. Praphon Wongtharua was appointed as Director replaced Mr. Veerasak Kositpaisal, who resigned on June 15th, 2015.

Directors who resigned during the year 2015

Name - Last Name	Position	Time in Office
1. Mr. Veerasak Kositpaisal	Director / Director to the Risk Management Committee	January 26 th , 2015 - May 15 th , 2015
2. Mr. Samerjai Suksumek	Independent Director	April 8 th , 2014 - August 1 st , 2015
3. Mr. Siri Jirapongphan	Independent Director / Director to the Risk Management Committee	September 22 nd , 2014 - November 1 st , 2015

Directors Authorized to Sign and Bind for the Company

According to PTTGC's Articles of Association and its Certification of Incorporation from the Department of Business Development of the Ministry of Commerce as of January 7th, 2016, the names of authorized signatory director(s) are : “(1) Mr. Supattanapong Punmeechaow, Chief Executive Officer, can signs and affixes the Company's seal or (2) Mr. Sarun Rungkasiri, Mr. Anon Sirisaengtaksin, Mrs. Boobpha Amornkiatkajorn any two of these three directors can jointly sign and affix the Company's seal”.

Composition of the Board of Directors

PTTGC's Articles of Association mandates that the Board of Directors shall consist of no less than 5 but no more than 15 Directors. Each Director is to serve a three-year term. At least one-third and no fewer than three Directors of the entire Board must be Independent Directors. Additionally, according to the Corporate Governance Principle, more than half of the Board of Directors must be Independent Directors. These Directors must be residents of the Kingdom of Thailand. Each of them must be qualified and must not possess any attributes prohibited by laws and they must not be older than 70 years of age in accordance with the PTTGC's Good Corporate Governance Principle.

The compositions and qualifications of the Board of Directors comply with PTTGC's Articles of Association as well as the Corporate Governance Principle and regulations as stipulated by the laws without any gender discrimination. The Board of Directors is composed of individuals from diverse fields of knowledge and expertise, with experience beneficial to PTTGC's business operations. In addition, each Director may hold directorship of no more than 5 listed companies with the Stock Exchange of Thailand and no more than 3 state enterprises or juristic persons whose shares are held by state enterprises. The Board of Directors comprises a total of 15 Directors, which is the number appropriate for PTTGC's business size and type. These Directors are divided into the following categories:

- (1) 14 Non-Executive Directors
- (2) 1 Executive Director, namely the President and Chief Executive Officer
- (3) 9 Independent Directors (more than half of the Board; 3 of whom are female directors)

Authorities and Responsibilities of the Board of Directors

The Board of Directors is tasked with overseeing PTTGC's operations and ensuring strict compliance with applicable laws, objectives, regulations, shareholder resolutions, principles of good corporate governance, and best practices for directors of listed companies set forth by the Stock Exchange of Thailand. Each Director possesses suitable knowledge, capability, and the understanding of their role while performing tasks for the benefit of PTTGC and its shareholders. Notable authorities and responsibilities of the Board are summarized below:

- (1) The Board dedicates its time and attention to the vision, mission and strategic direction of PTTGC. Directors of the Board of Directors should freely express their opinions and actively seek out information that could be of use to PTTGC's interests and benefits.
- (2) The Board reviews and approves strategies and important policies, as well as objectives, financial goals, budgets, investments, projects, business contracts, important agreements beyond the authority of the President and Chief Executive Officer, and PTTGC's plans. The Board reviews and revises PTTGC's plans, at least once a year. The Board also regularly supervises and monitors management to ensure their adherence to PTTGC's strategic plans, making sure that management is able to efficiently bring to bear the strategies, directions, and visions of PTTGC.
- (3) The Board is in charge of devising Corporate Governance Policy and Business Code of Conduct, which comprises of principles and guidelines for the Board of Directors, management, and employees. Their aim is to promote awareness and understanding, to encourage strict adherence to these principles and guidelines, in addition to PTTGC rules and regulations, and to assure all stakeholders of fairness.
- (4) The Board ensures that accounting system, financial reporting, and auditing are credible. In addition, the Board supervises the assessment of internal control's appropriateness and makes certain that internal audits are performed efficiently and effectively.
- (5) The Board considers all relevant risk factors and devises comprehensive risk management plans. In extension, the Board sees to it that Executives are equipped with an efficient system or process to

mitigate risks, as well as to explore possible business opportunities that may arise from these risks.

- (6) The Board monitors and manages all conflicts of interest, as well as all related transactions, that may arise. The Board places great importance on key transactions with an aim to maximize benefits to shareholders and stakeholders.
- (7) The Board provides appropriate channels of communication with shareholders. It's also tasked with making certain that any disclosure of information is accurate, transparent, and credible, as well as of the highest standards.
- (8) The Board regularly conducts assessments and reviews of themselves, and of the President and Chief Executive Officer.
- (9) The Board provides a system or mechanism that determines appropriate remuneration for PTTGC's Senior Executives, relative to the profitability of PTTGC's operations, to afford short-term and long-term incentives.
- (10) The Board acts as leaders and role models in accordance with PTTGC's Corporate Governance Policy.
- (11) The Board assesses PTTGC's adherence to the Corporate Governance Policy and Business Code of Conduct at least once a year.
- (12) The Board provides an appropriate, transparent, and fair nomination system for all important managerial positions. PTTGC's Senior Executives, from Executive Vice President to Chief Executive Officer, are appointed by the Board's majority votes.
- (13) The Board reports to PTTGC of any conflicts of interest its Directors or their affiliates may have towards the management of PTTGC or its subsidiaries.
- (14) Each Director must attend every Board meeting, as well as every shareholders meeting. If under any circumstances attendance cannot be fulfilled, the Chairman of the Board must be notified.
- (15) Importance is placed on the business operations with responsibility towards society and the environment, as well as on promoting the well-being and sustainability of Thai society. This starts with improving living standards of communities around PTTGC's plants, fostering an environment where PTTGC's plants and these communities can co-exist.

- (16) The Board provides support to all forms of anti-corruption schemes for the sake of progress and growth.

Moreover, the Board of Directors must obtain permission from shareholders' meeting before acting on the following issues:

- ✎ Acquisition or sale of important assets or any related transaction as outlined by the laws and the Capital Market Supervisory Board
- ✎ Sale or transfer of PTTGC enterprises or its components to other entities
- ✎ Purchase or acquisition of enterprises on behalf of PTTGC
- ✎ Initiation, modification, or termination of all or some important lease contracts of PTTGC, including assignment of lease contracts to other individuals or entry into a partnership with another entity to share profit or loss
- ✎ Making addendums or changes to PTTGC's Memorandum or Articles of Association
- ✎ Increasing or decreasing the registered capital
- ✎ Issuance of debentures for sales to the public
- ✎ Dissolution of PTTGC or merging it with another company
- ✎ Announcing annual dividends
- ✎ Sundry other activities as mandated by laws or PTTGC's Articles of Association to seek approval from shareholders' meeting

Appointment to and Termination from the Board of Directors

PTTGC's Articles of Association provide the following guidelines in relation to the appointment to and termination from the Board of Directors:

Appointment

- ✎ The shareholders' meeting may vote to appoint Director(s) according to the following guidelines:
 - (1) A Shareholder has one vote per share.
 - (2) In the event that the number of nominees does not exceed the number of vacant positions during the nomination, shareholders will vote on those eligible nominees. Shareholders must allocate all of their votes to one nominee per (1), without dividing their votes.
 - (3) In the event that the number of nominees exceeds the number of vacant positions, shareholders will still have to allocate all of their votes to one nominee per

(1), without dividing their votes. Nominees receiving the majority votes will be appointed to the Board until there are no vacancies left. Additionally, in the event that the number of nominees with equal votes exceeds the number of available positions, the Chairman of the meeting will cast the deciding vote.

- The Board of Directors will nominate one Director as the Chairman of the Board of Directors. Decisions made during a Board meeting is based on majority votes, with the Chairman voting only when a deciding vote is needed. In the event that the Director's position becomes vacant for any reason other than the end of the term, the Board will nominate a new Director who is qualified and does not possess any attributes prohibited by laws. However, if the remaining term is less than two (2) months, the new Director will only serve the remaining term of the previous Director. This decision must be made with the agreement of three-quarters (3/4) of the remaining Directors.
- In the event that vacancies cause the number of Directors to fall below the necessary quorum, the only authority the remaining Directors have is to call for a shareholders' meeting to nominate new Directors to fill these vacancies. This must be done within one (1) month from the date on which the number of Directors no longer constitutes the quorum. New Directors will serve the remaining terms of the Directors they replace.

Termination

- In each Annual General Meeting, one-third (1/3) of the serving Directors is to step down. Should the number of serving Directors cannot be equally divided into three (3), the number of Directors stepping down should be as close to the aforementioned ratio of 1:3 as possible. Directors to step down in the first and second years after company registration are randomly selected; however, for later years, Directors with the longest terms are to step down. Directors whose term has ended may be re-elected to the Board.
- In addition to the end of the term, the causes for Directorship termination include death, resignation, or disqualification due to the lack of ability or prohibition by laws. Additionally, Directors can be terminated by shareholders' meeting resolution or by court orders.
- Resigning Directors must submit their resignation notice to PTTGC. Resignation is effective the day PTTGC receives the notice. In addition, Directors may also submit their resignation notice through the Registrar.

- A shareholders' meeting may pass a resolution to force termination of a Director before his/her term ends with three-fourth (3/4) of attending and eligible shareholders' votes. Additionally, these majority votes must constitute at least half (1/2) of the shares held by attending and eligible shareholders.

Independent Directors

According to PTTGC's principles of Corporate Governance, Independent Directors must make up of more than half of the entire Board of Directors. Each of them may hold the position for up to three consecutive terms or up to nine years. The term begins from the date of the 2014 Annual General Shareholders' Meeting onwards, not taking into account their previous terms. These Independent Directors must be experienced and fully qualified per the Capital Market Supervisory Board's requirements. Additionally, they must not hold more than 0.5% of shares in PTTGC (a stricter regulation than the SEC's limit of 1%). Qualifications of Independent Directors are disclosed in the Corporate Governance Handbook and PTTGC's website.

Independent Directors must attend meetings regularly. They are allowed to freely express their opinions during these meetings. To do so, they are entitled to have adequate access to financial and business information. They are also tasked with protecting stakeholders' interests and make sure to prevent conflicts of interest among PTTGC, its Executives, Board of Directors, and Major Shareholders.

Currently, PTTGC has a total of 9 Independent Directors, which is more than one-third of the entire Board and beyond the legal requirements. In addition, this number is in line with PTTGC's Corporate Governance, which stipulates that more than half of the entire Board should be made up of Independent Directors. Moreover, the "Charter of Independent Directors" has been devised to ensure their clear and tangible performance. Duties and responsibilities of Independent Directors to the Board of Directors according to the Charter are as follows:

- Independent Directors provide suggestions and opinions to the Board of Directors on important issues that PTTGC should act up on or issues of interests to PTTGC, its shareholders, and other stakeholders.
- Independent Directors may seek consultation from an outside, independent consultant when necessary. PTTGC will absorb the expenses incurred.

- Independent Directors ensure that PTTGC operates according to all rules and regulations that apply to Independent Directors of agencies that supervise listed companies. They also review the definition of an Independent Director to make sure that it is appropriate and complete according to legal requirements.
- Independent Directors review and make adjustments to the Charter of Independent Directors in an effort to make it more appropriate and up to date.
- Independent Directors may perform other duties assigned by the Board of Directors, as long as they do not interfere with the independent nature required of Independent Directors.

Audit Committee

Name - Last Name	Position
1. Mr. Somchai Kuvijitsuwan	Chairman of the Audit Committee (Independent Director)
2. Miss Ruenvadee Suwanmongkol	Director to the Audit Committee (Independent Director)
3. Mr. Amnuay Preemonwong	Director to the Audit Committee (Independent Director)

Mr. Adisorn Vichaikatka, Vice President of Internal Audit, serves as Secretary to the Audit Committee.

The Audit Committee is comprised of at least 3 Independent Directors. Each Director has a three-year term unless their directorship to the Board ends, or they resign or are removed from position. Each Director to the Audit Committee has qualifications, duties, and responsibilities in line with standards set forth by the Securities and Exchange Commission. Their scope of work is defined by the Capital Market Commission.

Additionally, the Board of Directors has given approval to the Charter of the Audit Committee, which identifies the composition, qualifications, term in the position, and scope of duties according to Good Corporate Governance Principles. Details of the Charter are disclosed in PTTGC's Corporate Governance Handbook and its website.

PTTGC's Audit Committee is comprised of all Independent Directors. The Board believes that they are held in high esteem and possess sufficient knowledge, expertise, and experience in finance and accounting. The Audit Committee's Directors have continuously undergone training to enhance their expertise for the benefit of ensuring that PTTGC has accountable financial and auditing reports, in line with accounting standards, as well as applicable laws and other related standards. The Audit Committee is also tasked with ensuring sufficient

Sub-Committees

In accordance with the Principle of Corporate Governance, the Board of Directors established four different Sub-Committees during its Meeting No. 1/2011, held on October 19th, 2011, namely the Audit Committee, the Nomination and Remuneration Committee, the Corporate Governance Committee, and the Risk Management Committee. Each Director of these Sub-Committees is to serve a three-year term. They are to focus on their specific task with diligence and efficiency. All the Sub-Committees are to present their reports to the Board of Directors. The list of names and the tasks of each Sub-Committee as of December 31st, 2015 are listed below.

and efficient internal control and risk management systems, and reviewing internal processes regarding whistleblowers and receipt of complaints. Furthermore, the Audit Committee nominates candidates for independent auditors and submits a dismissal recommendation to the Board in the event that an independent auditor cannot or neglect or wrongfully perform their duties. Moreover, the Audit Committee ensures that PTTGC's internal auditing system is appropriate and efficient and that Internal Audit Department carry out all their responsibilities according to internal auditing standards. The Audit Committee also reviews reports of connected transaction, vested interests or conflicts of interest to make certain of compliance with applicable laws and the Stock Exchange of Thailand's regulations, affording PTTGC reasonableness, the utmost benefit, and full disclosure.

In 2015, the Audit Committee held a total of 8 meetings and 1 additional meeting with auditors, carrying out its role within the scope of duties and responsibilities as stated in the Audit Committee's Charter and as assigned to them by the Board of Directors. The Audit Committee also reports its monitoring results to the Board on a quarterly basis before further submitting a summary to shareholders in the annual report.

Nomination and Remuneration Committee

Name - Last Name	Position
1. Mr. Vasin Teeravechyan	Chairman of the Nomination and Remuneration Committee (Independent Director)
2. Professor Surapon Nitikraipot	Director to the Nomination and Remuneration Committee (Independent Director)
3. Mr. Sarun Rungkasiri	Director to the Nomination and Remuneration Committee

Mrs. Warawan Tippawanich, Senior Vice President - Corporate Affairs, serves as Secretary to the Nomination and Remuneration Committee.

The Nomination and Remuneration Committee is comprised of at least 3 Directors and more than half of Directors must be Independent Directors. The Chairman of the Nomination and Remuneration Committee must also be an Independent Director. Each Director has a three-year term unless their directorship to the Board ends, or they resign or are removed from position.

The responsibilities of the Nomination and Remuneration Committee included nomination of individuals to be considered for new Director, Sub-Committee, and Chief Executive Officer (CEO) positions. The nomination and remuneration processes must follow established guidelines and be transparent. Criteria include experience, profession, diversity in fields of expertise, and niche qualifications needed for PTTGC's businesses. These criteria aim to strike a balance among all business fields and the utmost benefit to PTTGC. In addition, the Nomination and Remuneration Committee may consider candidates from the Directors' Pool from

trusted organizations and present nominees to the Board and/or the shareholders' meeting for appointment approval.

The Board of Directors has given approval to the Charter of the Nomination and Remuneration Committee, which identifies the composition, qualifications, term in the position, and scope of duties according to Good Corporate Governance Principles. Details of the Charter are disclosed in PTTGC's Corporate Governance Handbook and its website.

In 2015, the Nomination and Remuneration Committee held a total of 5 meetings, carrying out its role within the scope of duties and responsibilities as stated in the Nomination and Remuneration Committee's Charter and as assigned to them by the Board of Directors. The Nomination and Remuneration Committee also reports its performance to the Board before further submitting a summary to shareholders in the annual report.

Corporate Governance Committee

Name - Last Name	Position
1. Professor Surapon Nitikraipot	Chairman of the Corporate Governance Committee (Independent Director)
2. Mr. Don Wasantapruek ⁽¹⁾	Director to the Corporate Governance Committee (Independent Director)
3. Colonel Nithi Chungcharoen	Director to the Corporate Governance Committee (Independent Director)
4. Mr. Auttapol Rerkpiboon ⁽²⁾	Director to the Corporate Governance Committee

Mrs. Warawan Tippawanich, Senior Vice President - Corporate Affairs, serves as Secretary to the Corporate Governance Committee.

Remarks : (1) Mr. Don Wasantapruek was appointed as an additional Director to the Corporate Governance Committee on November 1st, 2015.
(2) Mr. Auttapol Rerkpiboon was appointed as Director to the Corporate Governance Committee on November 1st, 2015, in replacement of Mr. Sarun Rungkasiri, who was appointed as Director to the Risk Management Committee.

The Corporate Governance Committee is comprised of at least 3 Directors and more than half of Directors must be Independent Directors. The Chairman of the Corporate Governance Committee must also be an Independent Director. Each Director has a three-year term unless their directorship to the Board ends, or they resign or are removed from position.

The responsibilities of the Corporate Governance Committee included determining methods and policies related to Business Code of Conduct and Ethics in compliance with the Corporate Governance Policy. These methods and policies are presented to the Board of Directors to be approved and implemented as regulations for the organization as a whole - in an effort to meet the same standard across the organization.

In 2015, the Corporate Governance Committee held a total of 6 meetings, carrying out its role within the scope of duties and responsibilities as stated in the Corporate Governance Committee's Charter and as assigned to them by the Board of

Directors. The Corporate Governance Committee also reports its monitoring results to the Board on a quarterly basis before further submitting a summary to shareholders in the annual report.

Risk Management Committee

Name - Last Name	Position
1. Mr. Anon Sirisaengtaksin	Chairman of the Risk Management Committee
2. Mr. Sarun Rungkasiri ⁽¹⁾	Director to the Risk Management Committee
3. Mrs. Watanan Petersik ⁽²⁾	Director to the Risk Management Committee (Independent Director)
4. Mr. Supattanapong Punmeechaow	Director to the Risk Management Committee

Mr. Amorn Putiphrawan, Vice President of Corporate Risk Management and Internal Control System, serves as Secretary to the Risk Management Committee.

Remarks : (1) Mr. Sarun Rungkasiri was appointed as Director to the Risk Management Committee on November 1st, 2015, in replacement of Mr. Veerasak Kositpaisal, who resigned.
(2) Mrs. Watanan Petersik was appointed as Director to the Risk Management Committee on November 1st, 2015, in replacement of Mr. Siri Jirapongphan, who resigned.

The Risk Management Committee is comprised of at least 3 Directors and at least 1 of Directors must be an Independent Director. Each Director has a three-year term unless their directorship to the Board ends, or they resign or are removed from position. The responsibilities of the Risk Management Committee included setting and reviewing appropriate and effective risk management policies, objectives, and frameworks that are relevant to PTTGC's overall operations. They also provide risk management plans, systems, and processes in an effort to reduce of PTTGC's exposure to various risks. In addition, the Risk Management Committee gives opinions and suggestions on organizational and investment risk mitigation. Its charter is reviewed annually to make sure of its suitability. The Risk Management Committee also monitors and assesses PTTGC's compliance with the risk management framework to ensure that PTTGC has sufficient and suitable risk management.

In 2015, the Risk Management Committee held a total of 8 meetings, carrying out its role within the scope of duties and responsibilities as stated in the Risk Management Committee's Charter and as assigned to them by the Board of Directors. The Risk Management Committee also reports its performance to the Board on a quarterly basis before further submitting a summary to shareholders in the annual report.

The Board of Directors Meetings

In 2015, the Board of Directors, Sub-Committees, and Independent Directors held meetings as illustrated in the table (Page101). These meetings were pre-scheduled. Any Directors who could not attend these meetings due to important urgent matter had submitted written notice to the Chairman of the Board of Directors detailing the reasons. The Chairman informed the meeting of missing Director(s) prior to commencing every meeting.



Name - Last Name	Meetings in 2015							2015 Annual General Shareholders Meeting
	Board of Directors	Independent Directors	Non-Executive Directors	Audit Committee	Nomination and Remuneration Committee	Corporate Governance Committee	Risk Management Committee	
	13 times	1 time	1 time	8 times	5 times	6 times	8 times	
1. Mr. Prasert Bunsumpun	13/13	1/1	1/1	-	-	-	-	1/1
2. Mr. Somchai Kuvijitsuwan	13/13	1/1	1/1	8/8	-	-	-	1/1
3. Mr. Vasin Teeravechyan	10/13	-/1	1/1	-	5/5	-	-	1/1
4. Professor Surapon Nitikraipot	13/13	1/1	1/1	-	5/5	6/6	-	1/1
5. Mr. Anon Sirisaengtaksin	13/13	-	1/1	-	-	-	8/8	1/1
6. Miss Ruenvadee Suwanmongkol	9/13	1/1	1/1	4/8	-	-	-	1/1
7. Mr. Amnuay Preemonwong	12/13	-/1	1/1	8/8	-	-	-	-/1
8. Mr. Sarun Rungkasiri ⁽¹⁾	12/13	-	1/1	-	5/5	5/5	1/1	1/1
9. Mrs. Watanan Petersik ⁽²⁾	8/13	1/1	1/1	-	-	-	1/1	1/1
10. Mr. Don Wasantapruerk ⁽⁵⁾	1/2	1/1	-	-	-	-/1	-	-
11. Colonel Nithi Chungcharoen	12/13	1/1	1/1	-	-	6/6	-	1/1
12. Mr. Auttapol Rerkpiboon ⁽⁴⁾	3/3	-	-	-	-	1/1	-	-
13. Mrs. Boobpha Amornkiatkajorn	12/13	-	1/1	-	-	-	-	1/1
14. Mr. Praphon Wongtharua ⁽³⁾	3/4	-	1/1	-	-	-	-	-
15. Mr. Supattanapong Punmeechaow	12/13	-	-	-	-	-	6/8	1/1

Remarks : (1) Mr. Sarun Rungkasiri was appointed as Director to the Risk Management Committee , and thus stepped down from his former position as Director to the Corporate Governance Committee on November 1st, 2015.

(2) Mrs. Watanan Petersik was appointed as Director to the Risk Management Committee on November 1st, 2015.

(3) Mr. Praphon Wongtharua was appointed as Director, in replacement of Mr. Veerasak Kositpaisal, on August 24th, 2015.

(4) Mr. Auttapol Rerkpiboon was appointed as Director, in replacement of Mr. Samerjai Suksumek, on October 1st, 2015 and as Director to the Corporate Governance Committee, in replacement of Mr. Sarun Rungkasiri on November 1st, 2015.

(5) Mr. Don Wasantapruerk was appointed as Independent Director in replacement of Mr. Siri Jirapongphan and as Director to the Corporate Governance Committee on November 1st, 2015.

Name - Last Name	Meetings in 2015							2015 Annual General Shareholders Meeting	Term during 2015
	Board of Directors	Independent Directors	Non-Executive Directors	Audit Committee	Nomination and Re-muneration Committee	Corporate Governance Committee	Risk Management Committee		
	13 times	1 time	1 time	8 times	5 times	6 times	8 times		
Attendance of Directors who resigned in 2015									
1. Mr. Veerasak Kositpaisal	4/4	-	-/1	-	-	-	2/3	1/1	Jan 26 th , 2015 - Jun 15 th , 2015
2. Mr. Samerjai Suksumek	5/7	-	-/1	-	-	-	-	1/1	Apr 8 th , 2014 - Aug 1 st , 2015
3. Mr. Siri Jirapongphan	11/11	-	1/1	-	-	-	7/7	1/1	Sep 22 nd , 2014 - Nov 1 st , 2015

PTTGC Executives

To ensure the efficient of organizational management and operations that follow policies and directions established by the Board of Directors, the President and Chief Executive Officer of PTTGC, exercising the power vested in him by PTTGC's Articles of Association, formed the Management Committee (MC) and the Group Management Committee (GMC). Both Committees are under the supervision of the President and Chief Executive Officer who, at the highest position of PTTGC's hierarchy, has the authority and duty to ensure that PTTGC operates its business in compliance with the policies, plans, and budgets approved by the Board.

The Management Committee (MC), is responsible for setting up operational directions and guidelines that are in line with the Board's established policies. To do this, MC analyzes, as well as gives suggestions and opinions on PTTGC's policies and operational guidelines that effect crucial changes to PTTGC's operations and to its Group Performance Centers and Business Units. MC also analyzes and gives its opinion on the details of Board Meeting

agenda prior to submission to the Board Meeting. In extension, MC also ensures compliance with the laws, as well as rules and regulations of PTTGC. Furthermore, MC makes sure that tasks are carried out according to the resolutions, suggestions, and opinions given at Board Meetings, as well as acknowledges and follows up on diverse aspects of organizational operations as a whole and as businesses on international level.

The Group Management Committee (GMC), is tasked with analyzing and giving suggestions and opinions on the matter of relevancy between PTTGC's policies and Group Performance Centers and Business Units, in relation to operational guidelines. Moreover, GMC monitors PTTGC's progress on innovation and technology, as well as any projects that contribute to the efficiency of the operations of Group Performance Centers and Business Units.

The Management Committee holds at least 3 meetings monthly, while the Group Management Committee holds at least 1 meeting a month. The Senior Vice President - Corporate Affairs served as Secretary to both the Management Committee and the Group Management Committee.

Executives per Organization Structure as of February 1st, 2016

Name - Last Name	Position
1. Mr. Supattanapong Punmeechaow	President & Chief Executive Officer
2. Mr. Kun Patumraj	Chief Operating Officer - Upstream Petrochemical Business
3. Mr. Patiparn Sukornthaman	Chief Operating Officer - Downstream Petrochemical Business
4. Miss Duangkamol Settanung	Executive Vice President - Finance & Accounting
5. Mr. Varit Namwong	Executive Vice President - Organizational Effectiveness
6. Mr. Kongkrapan Intarajang	Executive Vice President - International Business Operations
7. Mr. Athavuth Vikitsreth	Executive Vice President - External Affairs
8. Mr. Suvit Tinnachote	Executive Vice President - Group Performance Center - Olefins
9. Mr. Narongsak Jivakanun	Senior Vice President - Corporate Strategy
10. Mrs. Warawan Tippawanich	Senior Vice President - Corporate Affairs
11. Mr. Chaya Chandavas	Senior Vice President - Science and Innovation
12. Mr. Saroj Putthammawong	Senior Vice President - Marketing, Commercial and Supply
13. Mr. Anutin Chuaypen	Senior Vice President - Group Performance Center - Refinery and Shared Facilities
14. Mr. Pairush Soovan	Senior Vice President - Group Performance Center - Aromatics
15. Mr. Booncherd Suwantip	Senior Vice President - Quality, Safety, Occupational Health and Environment

Name - Last Name	Position
16. Mr. Suwat Suratchaikarn	Senior Vice President - CAPEX Excellence
17. Mrs. Jeeranee Pimthanothai	Senior Vice President - Technical and Operations Excellence
18. Mr. Pairote Utaisup	Senior Vice President - Polymers Business Unit
19. Mr. Wiboon Chuchepchunkamon	Senior Vice President - EO-Based Performance Business Unit
20. Mr. Jirawat Nooritanon	Senior Vice President - Green Chemicals Business Unit
21. Mr. Kumpol Chaikitkosi	Senior Vice President - Phenol Business Unit

Remark : Executives numbered 1 through 8 are Executives per SEC's definition.

Changes in Executives (per SEC's Definition) during 2015 - February 1st, 2016

- 1) **Mr. Athavudhi Hirunburana**, Chief Operating Officer - Downstream Petrochemical Business, retired on December 31st, 2015.
- 2) **Mr. Sermsak Sriyaphai**, Executive Vice President - EO-Based Performance Business Unit, retired on December 31st, 2015.
- 3) **Mr. Patiparn Sukorndhaman**, Executive Vice President - Finance & Accounting, was appointed as Chief Operating Officer - Downstream Petrochemical Business on January 1st, 2016.
- 4) **Miss Duangkamol Settanung** was appointed as Executive Vice President - Finance & Accounting on November 1st, 2015.
- 5) **Mrs. Sriwan Eamrungrroj**, Executive Vice President - Marketing, Commercial and Supply, returned to PTT PLC, effective on October 1st, 2015.
- 6) **Mrs. Puntip Oungpasuk**, Executive Vice President - Corporate Strategy, resigned, effective on February 1st, 2016.

Company Secretary

In compliance with the Securities and Exchange Commission Act (No. 4) B.E. 2551, Sections 89/15 and 89/16, the Board of Directors appointed **Mrs. Warawan Tippawanich**, Senior Vice President - Corporate Affairs as Company Secretary to PTTGC. By laws, the responsibilities of this position include : the preparation, storage and safeguarding of important company documents, including the roster of Directors, meeting notices, the Board and Shareholders' meeting minutes, annual reports, and reports of connected transactions of Directors and Executives. The Company Secretary is in charge of organizing the Board and Shareholders' meetings, in addition to informing the Board and Executives of rules and regulations they should familiarize themselves with. The Company Secretary also organizes training and orientation for existing and new Directors, alongside providing them with the information central to their performance as Directors. Oversees, as well as collaborates with relevant agencies, compliance with the laws and regulations and resolutions of the Board and Shareholders' meetings. The Company Secretary underwent training courses necessary for her to duly perform her role.

Moreover, Mrs. Warawan Tippawanich was appointed as Secretary to the Nomination and Remuneration Committee and Secretary to the Corporate Governance Committee.

Remuneration for the Board of Directors and Executives

The Board of Directors' Remuneration

The Board of Directors had set up a policy on the determination to remunerate PTTGC's Directors fairly and reasonably in accordance with good corporate governance principles. The Nomination and Remuneration Committee determines Directors' remuneration based on suitability and PTTGC's financial standing by comparing it with other listed companies in the same industry and of similar sizes. The Nomination and Remuneration Committee also takes into account each Director's

responsibilities, any Directors appointed to a Sub-Committee are entitled to additional remuneration due to their added responsibilities.

Directors' remuneration must be approved at a Shareholders' Meeting. At the 2015 General Shareholders Meeting, held on April 1st, 2015, shareholders resolved to award Directors and Directors to Sub-Committees, including bonuses for their 2014 performance, as follows:

(1) Remuneration for the Board of Directors and Sub-Committees.

Type of Remuneration	Rate
1. Board of Directors	<p>Monthly Remuneration</p> <ul style="list-style-type: none"> Chairman 60,000 THB / Month Director 50,000 THB / Month / Director <p>Meeting Remuneration for Meeting Attendance</p> <ul style="list-style-type: none"> Chairman 40,000 THB / Meeting Director 30,000 THB / Meeting / Director
2. Sub-Committees	<p>Meeting Remuneration for Meeting Attendance</p> <ul style="list-style-type: none"> Chairman 50,000 THB / Meeting Director 40,000 THB / Meeting / Director
3. Others	-None-

(2) Directors' bonuses were considered and given based on PTTGC's operating results in 2014. The Board of Directors receives bonuses only when dividend is paid to shareholders within the same year. The amount of Directors bonuses is 0.30% of PTTGC's net profit that year, but not

exceeding 50 Million Baht. It is calculated based on the time served in 2014. The Chairman receives a bonus of 25% higher than other Directors. This became effective from the date of the 2013 Annual General Meeting of Shareholder until the AGM passes a new resolution.

Directors' Remuneration in 2015

Unit : Baht

Name - Last Name	Monthly Remuneration for PTTGC Directors	Remuneration for Meeting Attendance	Remuneration for Sub-Committees Meeting Attendance (THB)				2014 Bonus paid in 2015*	Total
			Audit Committee	Nomination and Remuneration Committee	Corporate Governance Committee	Risk Management Committee		
1. Mr. Prasert Bunsumpun	720,000.00	520,000.00					3,841,628.54	5,081,628.54
2. Mr. Somchai Kuvijitsuan	600,000.00	390,000.00	400,000.00				3,073,302.83	4,463,302.83
3. Mr. Vasin Teeravechyan	600,000.00	300,000.00		300,000.00			3,073,302.83	4,273,302.83
4. Professor Surapon Nitikraipot	600,000.00	390,000.00		240,000.00	310,000.00		850,420.78	2,390,420.78
5. Mr. Anon Sirisaengtaksin	600,000.00	390,000.00				350,000.00	850,420.78	2,190,420.78
6. Miss Ruenvadee Suwanmongkol	600,000.00	300,000.00	200,000.00				2,408,122.22	3,508,122.22
7. Mr. Amnuay Preemonwong	600,000.00	390,000.00	320,000.00				3,073,302.83	4,383,302.83
8. Mr. Sarun Rungkasiri	600,000.00	360,000.00		240,000.00	250,000.00	40,000.00	3,073,302.83	4,563,302.83
9. Mrs. Watanan Petersik	600,000.00	270,000.00				40,000.00	850,420.78	1,760,420.78
10. Mr. Don Wasantapruet	100,000.00	30,000.00						130,000.00
11. Colonel Nithi Chungcharoen	600,000.00	360,000.00			250,000.00		850,420.78	2,060,420.78
12. Mr. Auttapol Rerkpiboon	150,000.00	60,000.00						210,000.00
13. Mrs. Boobpha Amornkiatkajorn	600,000.00	360,000.00					774,640.71	1,734,640.71
14. Mr. Praphon Wongtharua	212,903.23	90,000.00						302,903.23
15. Mr. Supattanapong Punmeechaow**	600,000.00	360,000.00				200,000.00	825,160.76	1,985,160.76
Directors who resigned during 2015 and received remuneration in 2015 ***								
1. Mr. Veerasak Kositpaisal	233,010.76	120,000.00				80,000.00		433,010.76
2. Mr. Samerjai Suksumek	350,000.00	180,000.00					2,256,562.08	2,786,562.08
3. Mr. Siri Jirapongphan	500,000.00	330,000.00				240,000.00	850,420.78	1,920,420.78
Directors who resigned and completed their term during 2014 (received bonus for performance in 2014) ****								
1. Mrs. Raweporn Kuhirun							488,360.45	488,360.45
2. Mr. Prajya Phinyawat							825,160.76	825,160.76
3. Mr. Areepong Bhoocha-oom							1,557,701.44	1,557,701.44
4. Police General Sombat Amornvivat							2,037,641.88	2,037,641.88
5. Mr. Suthep Liumsirijareern							2,037,641.88	2,037,641.88
6. Police Lieutenant General Prawut Thavornsiri							2,037,641.88	2,037,641.88
7. Air Chief Marshal Somchai Thean-anant							2,054,481.90	2,054,481.90
8. Mr. Pailin Chuchottaworn							2,037,641.88	2,037,641.88
9. Mr. Atikom Terbsiri							2,307,082.13	2,307,082.13
10. Mr. Bowon Vongsinudom		28,387.10					3,073,302.83	3,101,689.93
Total	8,865,913.99	5,228,387.10	920,000.00	780,000.00	810,000.00	950,000.00	45,108,086.56	62,662,387.65

Remarks : PTTGC provided a corporate vehicle for the Chairman throughout the duration of his term for corporate-related activities only.

* Bonus for 2014 performance paid in 2015 per time served in 2014.

** Remuneration for directorship only, not including executive remuneration

*** Directors resigned in 2015

Mr. Veerasak Kositpaisal assumed directorship from January 26th, 2015 - June 15th, 2015 / Mr. Samerjai Suksumek assumed directorship from April 8th, 2014 - August 1st, 2015 / Mr. Siri Jirapongphan assumed directorship as Independent Director from September 22nd, 2014 - November 1st, 2015

**** Directors who resigned and completed their term in 2014

Mrs. Raweporn Kuhirun resigned as she reached 70 years of age on February 27th, 2014 / Mr. Prajya Phinyawat's term ended on April 8th, 2014 / Mr. Areepong Bhoocha-oom resigned on July 4th, 2014 / Police General Sombat Amornvivat, Mr. Suthep Liumsirijareern, and Police Lieutenant General Prawut Thavornsiri resigned on August 30th, 2014 / Air Chief Marshal Somchai Thean-anant resigned on September 1st, 2014 / Mr. Pailin Chuchottaworn resigned on September 21st, 2014 / Mr. Atikom Terbsiri resigned on October 1st, 2014 / Mr. Bowon Vongsinudom resigned on December 31st, 2014.

Shares held by Directors, their Spouses, and Minors as of December 31st, 2015

Name – Last Name	Shares			Remarks
	As of January 1 st , 2015	As of December 31 st , 2015	Increase / (Decrease) during the Year (Shares)	
1. Mr. Prasert Bunsumpun	271,142	-None-	(271,142)	On December 23 rd , 2015; transferred 271,142 shares to spouse
Spouse	-None-	271,142	271,142	
2. Mr. Somchai Kuvijitsuwan	-None-	-None-	-No Change-	-
3. Mr. Vasin Teeravechyan	-None-	-None-	-No Change-	-
4. Professor Surapon Nitikraipot	-None-	-None-	-No Change-	-
5. Mr. Anon Sirisaengtaksin	86,027	86,027	-No Change-	-
Spouse	6,705	6,705	-No Change-	-
6. Miss Ruenvadee Suwanmongkol	-None-	-None-	-No Change-	-
7. Mr. Amnuay Preemonwong	-None-	-None-	-No Change-	-
8. Mr. Sarun Rungkasiri	-None-	-None-	-No Change-	-
9. Mrs. Watanan Petersik	-None-	-None-	-No Change-	-
10. Mr. Don Wasantapruerk	-N/A-	-None-	-No Change-	New appointed on Director November 1 st , 2015
11. Colonel Nithi Chungcharoen	-None-	-None-	-No Change-	-
12. Mr. Auttapol Rerkpiboon	-N/A-	-None-	-No Change-	New appointed on Director October 1 st , 2015
13. Mrs. Boobpha Amornkiatkajorn	61,704	61,704	-No Change-	-
14. Mr. Praphon Wongtharua	-N/A-	-None-	-No Change-	New appointed on Director August 24 th , 2015
15. Mr. Supattanapong Punmeechaow	40,000	40,000	-No Change-	-

Remuneration for Directors as Directors in Subsidiaries of PTTGC - PTTGC holds 100% of shares

Name - Last Name	Position	Total Remuneration
PTT Chemical International Private Limited (CH Inter)		
1. Mr. Anon Sirisaengtaksin	Chairman	30,000 Singapore Dollars
2. Mr. Supattanapong Punmeechaow	Director	20,000 Singapore Dollars
Global Green Chemicals Public Company Limited (GGC)		
1. Mr. Supattanapong Punmeechaow	Chairman	157,741.92 THB

Shares held by Executives per SEC's Definition, their Spouses, and Minors as of December 31st, 2015

Name – Last Name (as defined by SEC)	Shares			Remarks
	As of January 1 st , 2015	As of December 31 st , 2015	Increase / (Decrease) during the Year (Shares)	
1. Mr. Supattanapong Punmeechaow	40,000	40,000	-No Change-	-
2. Mr. Kun Patumraj	114,629	114,629	-No Change-	-
3. Mr. Patiparn Sukorndhaman	-None-	-None-	-No Change-	-
4. Miss Duangkamol Settanung	-N/A-	-None-	-No Change-	New Executive appointed on November 1 st , 2015
5. Mr. Varit Namwong	108,939	108,939	-No Change-	-
6. Mr. Kongkrapan Intarajang	-None-	-None-	-No Change-	-
7. Mr. Athavuth Vikitsreth	-None-	-None-	-No Change-	-
8. Mr. Suvit Tinnachote	96,086	96,086	-No Change-	-
Spouse	24,313	24,313	-No Change-	-

Remuneration for the Executives

PTTGC evaluates the performance of its Executives annually using Key Performance Indicator (KPI). These include financial performance, implementation of long-term strategic goals, personal performance, PTTGC performance, and guidelines from listed companies in the same industry and of similar sizes. The evaluation also takes into account their responsibilities, management development, and overall economic situation.

Remuneration for the President and Chief Executive Officer is appropriately determined using transparent, fair and reasonable criteria. The position's duties and responsibilities are also taken into account, in

conjunction with personal performance. The Nomination and Remuneration Committee gives consideration and reviews it prior to submission to the Board of Directors for approval. It should be noted that, at the highest level of PTTGC's management hierarchy, the President and Chief Executive Officer is awarded compensation and other benefits in addition to those received as Director of the Board of Directors.

12 Executives as per SEC's definition, including those who retired and resigned in 2015, were awarded a total of the following figures:

	Number of Executives	Total (THB)
Total Combined Salaries	12	63,444,059.00
Special Bonus	12	25,453,107.93
Provident Fund Contributions	12	8,005,230.08
Total	12	96,902,397.01

Board of Directors appointed as Directors of Subsidiaries / Affiliates / Associated and Related Companies

(as of February 1st, 2016)

No.	Name - Last Name	Subsidiaries										Affiliates / Associated and Related Companies					
		PTGC	GGC*	CH Inter	PTGC (Netherlands)	PTGC (USA)	AP ROH	Myriant	Vencorex	Natureworks	EOM	ESC	PTT	IRPC	GPSC	PTPM	VNT
1	Mr. Prasert Bunsumpun	✳											✳				
2	Mr. Somchai Kuvijitsuwan	✳															
3	Mr. Vasin Teeravechyan	✳															
4	Professor Surapon Nitikraipot	✳															
5	Mr. Anon Sirisaengtaksin	✳		✳	✳	✳	✳	✳	✳	✳	✳						
6	Miss Ruenvadee Suwanmongkol	✳															
7	Mr. Amnuay Preemonwong	✳															
8	Mr. Sarun Rungkasiri	✳											✳	✳			
9	Mrs. Watanan Petersik	✳															
10	Mr. Don Wasantapruet	✳											✳				
11	Colonel Nithi Chungcharoen	✳															
12	Mr. Autapol Rerkpiboon	✳											✳				
13	Mrs. Boobpha Amornkiatkajorn	✳											✳		✳		
14	Mr. Praphon Wongtharua	✳															
15	Mr. Supattanapong Punmeechaow	✳	✳	✳	✳	✳	✳	✳	✳	✳	✳	✳	✳	✳	✳	✳	✳

Remarks :  Chairman  Director  Executive

Executives appointed as Directors of Subsidiaries / Affiliates / Associated and Related Companies

(as of February 1st, 2016)

No.	Name - Last Name	Subsidiaries																		Affiliates / Associated and Related Companies									
		PTGC	TOCGC	PPCL	GGC*	TSL	SUN**	NPC S&E	CH Inter	PTGC (Netherlands)	PTGC (USA)	AP ROH	PTGC America Corporation	PTGC America LLC	Myriant	PTTME	TTT	Vencorex	NatureWorks	EOM	ESC	PTT	HMC	PTTICT	GPSC	PTTPM	VNT	EFT	PTTES
1	Mr. Supattanapong Punmeechaow	🇹🇭	🇹🇭		🇹🇭				🇹🇭			🇹🇭				🇹🇭	🇹🇭					🇹🇭		🇹🇭			🇹🇭		
2	Mr. Kun Patumraj	🇹🇭					🇹🇭	🇹🇭		🇹🇭		🇹🇭		🇹🇭	🇹🇭	🇹🇭	🇹🇭		🇹🇭						🇹🇭				🇹🇭
3	Mr. Patiparn Sukornthaman	🇹🇭	🇹🇭	🇹🇭	🇹🇭	🇹🇭						🇹🇭		🇹🇭										🇹🇭	🇹🇭	🇹🇭			
4	Miss Duangkamol Settanung	🇹🇭						🇹🇭				🇹🇭		🇹🇭						🇹🇭		🇹🇭				🇹🇭			
5	Mr. Varit Namwong	🇹🇭					🇹🇭	🇹🇭			🇹🇭	🇹🇭	🇹🇭	🇹🇭				🇹🇭	🇹🇭		🇹🇭			🇹🇭			🇹🇭		
6	Mr. Kongkrapan Intarajang	🇹🇭						🇹🇭			🇹🇭	🇹🇭	🇹🇭	🇹🇭	🇹🇭			🇹🇭	🇹🇭	🇹🇭	🇹🇭								
7	Mr. Athavuth Vikitsreth	🇹🇭																											
8	Mr. Suvit Tinnachote	🇹🇭	🇹🇭	🇹🇭													🇹🇭					🇹🇭							

Remarks : ● Chairman ● Director ● Executive

Subsidiaries

TOGC	=	TOC Glycol Company Limited
PPCL	=	PTT Phenol Company Limited
GGC*	=	Global Green Chemicals Public Company Limited
TSL	=	Thai Styrenics Company Limited
SUN**	=	Solution Creation Company Limited
NPC S&E	=	NPC Safety and Environmental Service Company Limited
CH Inter	=	PTT Chemical International Private Limited
PTGC (Netherlands)	=	PTTG International (Netherlands) B.V.
PTGC (USA)	=	PTTG International (USA) Inc.
AP ROH	=	PTT Chemical International (Asia Pacific ROH) Limited

Affiliates

PTT ICT	=	PTT ICT Solutions Company Limited
GPSC	=	Global Power Synergy Public Company Limited
PTPM	=	PTT Polymer Marketing Company Limited
VNT	=	Vinythal Public Company Limited
EFT	=	Eastern Fluid Transport Company Limited
PTTES	=	PTT Energy Solutions Company Limited

Associated and Related Companies

PTT	=	PTT Public Company Limited
IRPC	=	IRPC Public Company Limited
HMC	=	HMC Polymers Company Limited

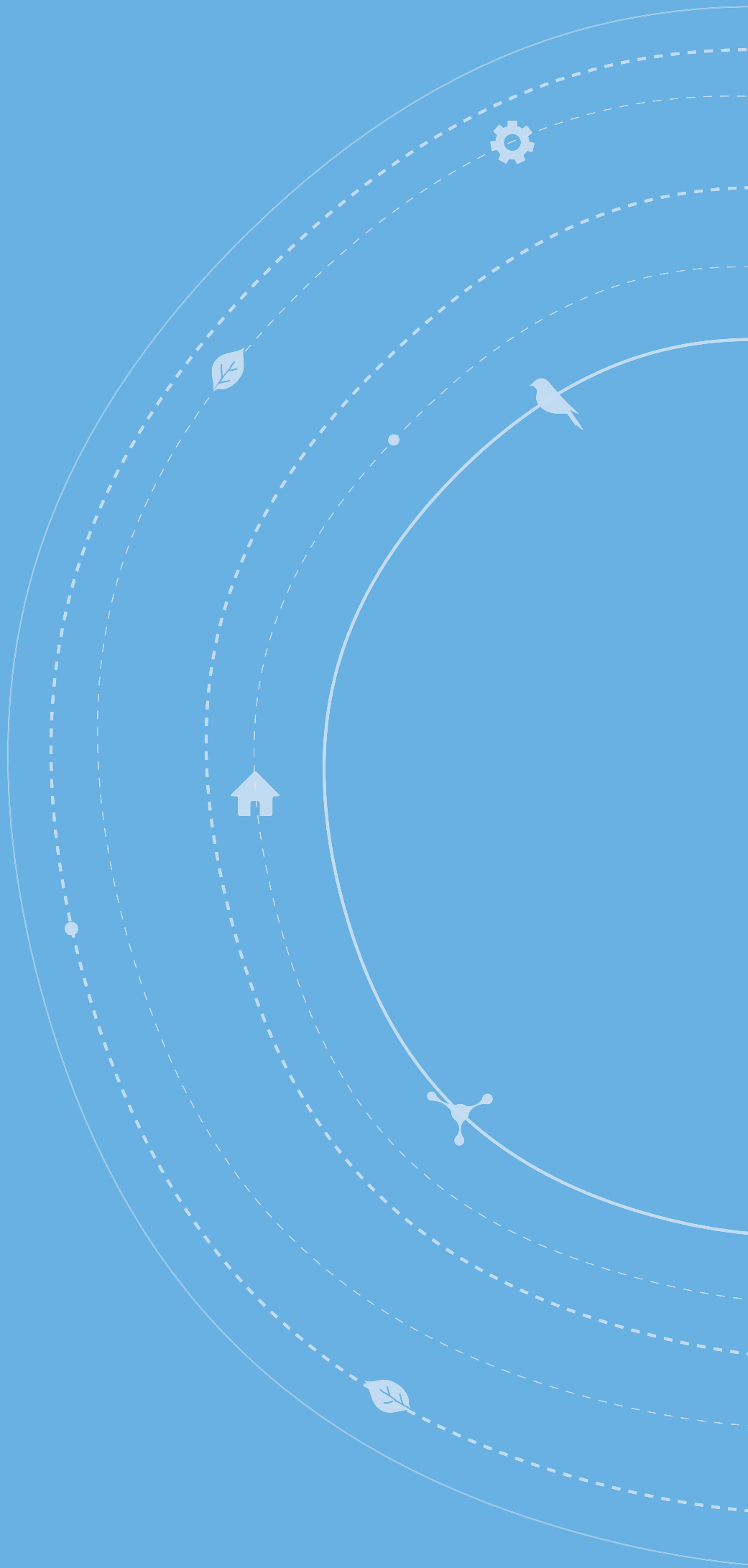
* Thai Oleochemicals Company Limited (TOL) registered as a Public Limited Company and changed the registered name to Global Green Chemicals Public Company Limited (GGC) on February 18th, 2016.** Bio Creation Company Limited changed the registered name to Solution Creation Company Limited (SUN) on April 24th, 2015.

Directors of PTTGC's Subsidiaries – wholly owned by PTTGC
(as of February 1st, 2016)

Name - Last Name	Position
1. TOC Glycol Company Limited	
1. Mr. Patiparn Sukorndhaman	Chairman
2. Mr. Sermsak Sriyaphai	Director
3. Mrs. Warawan Tippawanich	Director
4. Mr. Suvit Tinnachote	Director
5. Mr. Wiboon Chuchepchunkamon	Director / Managing Director
2. PTT Phenol Company Limited	
1. Mr. Bowon Vongsinudom	Chairman
2. Mr. Patiparn Sukorndhaman	Director
3. Mr. Suvit Tinnachote	Director
4. Mr. Pairush Soovan	Director
5. Mr. Pramin Phantawesak	Director
6. Mr. Kumpol Chaikitkosi	Director / Managing Director
3. Global Green Chemicals Public Company Limited*	
1. Mr. Supattanapong Punmeechaow	Chairman
2. Mr. Athavudhi Hirunburana	Director
3. Mr. Patiparn Sukorndhaman	Director
4. Mr. Permsak Shevawattananon	Director
5. Prof. Kumchai Jongjakapun	Director
6. ACM Songtam Chokkanapitag	Director
7. Mrs. Kannika Ngamsopsee	Director
8. Mr. Jirawat Nooritanon	Director / Managing Director
4. Thai Styrenics Company Limited	
1. Mr. Patiparn Sukorndhaman	Chairman
2. Mr. Siridech Kumvongdee	Director
3. Mr. Pairote Utaisup	Acting Managing Director
5. Bio Spectrum Company Limited	
1. Mr. Narongsak Jivakanun	Chairman
2. Mr. Thitipong Jurapornsiridee	Director
3. Mr. Anucha Somjitchob	Director / Managing Director

Name - Last Name	Position
6. Solution Creation Company Limited	
1. Mr. Patiparn Sukorndhaman	Chairman
2. Mr. Chaya Chandavasus	Director
3. Mr. Saroj Putthammawong	Director
4. Mr. Varit Namwong	Director
5. Mr. Kittiphong Limsuwanarot	Director / Managing Director
7. NPC Safety and Environmental Service Company Limited	
1. Mr. Kun Patumraj	Chairman
2. Mr. Booncherd Suwantip	Director
3. Mr. Suwat Suratchaikarn	Director
4. Mr. Sekxon Arttamangkura	Director / Managing Director
8. PTT Chemical International Private Limited	
1. Mr. Anon Sirisaengtaksin	Chairman
2. Mr. Supattanapong Punmeechaow	Director
3. Mr. Narongsak Jivakanun	Director
4. Mr. Varit Namwong	Director
5. Mr. Pipat Suvanajata	Director
6. Miss Duangkamol Settanung	Director
7. Mrs. Warawan Tippawanich	Director
8. Mr. Kongkrapan Intarajang	Director / CEO
9. PTTGC America Corporation	
1. Mr. Kun Patumraj	Director
2. Miss Duangkamol Settanung	Director
3. Mr. Varit Namwong	Director
4. Mr. Narongsak Jivakanun	Director
5. Mr. Kongkrapan Intarajang	Director / President & CEO

* Thai Oleochemicals Company Limited registered as a Public Limited Company and changed the registered name to Global Green Chemicals Public Company Limited on February 18th, 2016.





	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Item 1	1200	1150	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	18000
Item 2	800	750	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	11000
Item 3	500	450	600	700	800	900	1000	1100	1200	1300	1400	1500	7000
Item 4	300	250	400	500	600	700	800	900	1000	1100	1200	1300	4000
Item 5	200	150	300	400	500	600	700	800	900	1000	1100	1200	3000
Item 6	100	100	200	300	400	500	600	700	800	900	1000	1100	1500
Item 7	50	50	100	150	200	250	300	350	400	450	500	550	700
Item 8	20	20	40	60	80	100	120	140	160	180	200	220	300
Item 9	10	10	20	30	40	50	60	70	80	90	100	110	150
Item 10	5	5	10	15	20	25	30	35	40	45	50	55	70
Item 11	2	2	5	8	10	12	15	18	20	22	25	28	35
Item 12	1	1	2	3	4	5	6	7	8	9	10	11	15
Item 13	0.5	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	7
Item 14	0.2	0.2	0.5	0.8	1	1.2	1.5	1.8	2	2.2	2.5	2.8	3.5
Item 15	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.1	1.5
Item 16	0.05	0.05	0.1	0.15	0.2	0.25	0.3	0.35	0.4	0.45	0.5	0.55	0.7
Item 17	0.02	0.02	0.05	0.08	0.1	0.12	0.15	0.18	0.2	0.22	0.25	0.28	0.35
Item 18	0.01	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.1	0.11	0.15
Item 19	0.005	0.005	0.01	0.015	0.02	0.025	0.03	0.035	0.04	0.045	0.05	0.055	0.07
Item 20	0.002	0.002	0.005	0.008	0.01	0.012	0.015	0.018	0.02	0.022	0.025	0.028	0.035
Item 21	0.001	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009	0.01	0.011	0.015
Item 22	0.0005	0.0005	0.001	0.0015	0.002	0.0025	0.003	0.0035	0.004	0.0045	0.005	0.0055	0.007
Item 23	0.0002	0.0002	0.0005	0.0008	0.001	0.0012	0.0015	0.0018	0.002	0.0022	0.0025	0.0028	0.0035
Item 24	0.0001	0.0001	0.0002	0.0003	0.0004	0.0005	0.0006	0.0007	0.0008	0.0009	0.001	0.0011	0.0015
Item 25	0.00005	0.00005	0.0001	0.00015	0.0002	0.00025	0.0003	0.00035	0.0004	0.00045	0.0005	0.00055	0.0007
Item 26	0.00002	0.00002	0.00005	0.00008	0.0001	0.00012	0.00015	0.00018	0.0002	0.00022	0.00025	0.00028	0.00035
Item 27	0.00001	0.00001	0.00002	0.00003	0.00004	0.00005	0.00006	0.00007	0.00008	0.00009	0.0001	0.00011	0.00015
Item 28	0.000005	0.000005	0.00001	0.000015	0.00002	0.000025	0.00003	0.000035	0.00004	0.000045	0.00005	0.000055	0.00007
Item 29	0.000002	0.000002	0.000005	0.000008	0.00001	0.000012	0.000015	0.000018	0.00002	0.000022	0.000025	0.000028	0.000035
Item 30	0.000001	0.000001	0.000002	0.000003	0.000004	0.000005	0.000006	0.000007	0.000008	0.000009	0.00001	0.000011	0.000015
Item 31	0.0000005	0.0000005	0.000001	0.0000015	0.000002	0.0000025	0.000003	0.0000035	0.000004	0.0000045	0.000005	0.0000055	0.000007
Item 32	0.0000002	0.0000002	0.0000005	0.0000008	0.000001	0.0000012	0.0000015	0.0000018	0.000002	0.0000022	0.0000025	0.0000028	0.0000035
Item 33	0.0000001	0.0000001	0.0000002	0.0000003	0.0000004	0.0000005	0.0000006	0.0000007	0.0000008	0.0000009	0.000001	0.0000011	0.0000015
Item 34	0.00000005	0.00000005	0.0000001	0.00000015	0.0000002	0.00000025	0.0000003	0.00000035	0.0000004	0.00000045	0.0000005	0.00000055	0.0000007
Item 35	0.00000002	0.00000002	0.00000005	0.00000008	0.0000001	0.00000012	0.00000015	0.00000018	0.0000002	0.00000022	0.00000025	0.00000028	0.00000035
Item 36	0.00000001	0.00000001	0.00000002	0.00000003	0.00000004	0.00000005	0.00000006	0.00000007	0.00000008	0.00000009	0.0000001	0.00000011	0.00000015
Item 37	0.000000005	0.000000005	0.00000001	0.000000015	0.00000002	0.000000025	0.00000003	0.000000035	0.00000004	0.000000045	0.00000005	0.000000055	0.00000007
Item 38	0.000000002	0.000000002	0.000000005	0.000000008	0.00000001	0.000000012	0.000000015	0.000000018	0.00000002	0.000000022	0.000000025	0.000000028	0.000000035
Item 39	0.000000001	0.000000001	0.000000002	0.000000003	0.000000004	0.000000005	0.000000006	0.000000007	0.000000008	0.000000009	0.00000001	0.000000011	0.000000015
Item 40	0.0000000005	0.0000000005	0.000000001	0.0000000015	0.000000002	0.0000000025	0.000000003	0.0000000035	0.000000004	0.0000000045	0.000000005	0.0000000055	0.000000007
Item 41	0.0000000002	0.0000000002	0.0000000005	0.0000000008	0.000000001	0.0000000012	0.0000000015	0.0000000018	0.000000002	0.0000000022	0.0000000025	0.0000000028	0.0000000035
Item 42	0.0000000001	0.0000000001	0.0000000002	0.0000000003	0.0000000004	0.0000000005	0.0000000006	0.0000000007	0.0000000008	0.0000000009	0.000000001	0.0000000011	0.0000000015
Item 43	0.00000000005	0.00000000005	0.0000000001	0.00000000015	0.0000000002	0.00000000025	0.0000000003	0.00000000035	0.0000000004	0.00000000045	0.0000000005	0.00000000055	0.0000000007
Item 44	0.00000000002	0.00000000002	0.00000000005	0.00000000008	0.0000000001	0.00000000012	0.00000000015	0.00000000018	0.0000000002	0.00000000022	0.00000000025	0.00000000028	0.00000000035
Item 45	0.00000000001	0.00000000001	0.00000000002	0.00000000003	0.00000000004	0.00000000005	0.00000000006	0.00000000007	0.00000000008	0.00000000009	0.0000000001	0.00000000011	0.00000000015
Item 46	0.000000000005	0.000000000005	0.00000000001	0.000000000015	0.00000000002	0.000000000025	0.00000000003	0.000000000035	0.00000000004	0.000000000045	0.00000000005	0.000000000055	0.00000000007
Item 47	0.000000000002	0.000000000002	0.000000000005	0.000000000008	0.00000000001	0.000000000012	0.000000000015	0.000000000018	0.00000000002	0.000000000022	0.000000000025	0.000000000028	0.000000000035
Item 48	0.000000000001	0.000000000001	0.000000000002	0.000000000003	0.000000000004	0.000000000005	0.000000000006	0.000000000007	0.000000000008	0.000000000009	0.00000000001	0.000000000011	0.000000000015
Item 49	0.0000000000005	0.0000000000005	0.000000000001	0.0000000000015	0.000000000002	0.0000000000025	0.000000000003	0.0000000000035	0.000000000004	0.0000000000045	0.000000000005	0.0000000000055	0.000000000007
Item 50	0.0000000000002	0.0000000000002	0.0000000000005	0.0000000000008	0.000000000001	0.0000000000012	0.0000000000015	0.0000000000018	0.000000000002	0.0000000000022	0.0000000000025	0.0000000000028	0.0000000000035
Item 51	0.0000000000001	0.0000000000001	0.0000000000002	0.0000000000003	0.0000000000004	0.0000000000005	0.0000000000006	0.0000000000007	0.0000000000008	0.0000000000009	0.000000000001	0.0000000000011	0.0000000000015
Item 52	0.00000000000005	0.00000000000005	0.0000000000001	0.00000000000015	0.0000000000002	0.00000000000025	0.0000000000003	0.00000000000035	0.0000000000004	0.00000000000045	0.0000000000005	0.00000000000055	0.0000000000007
Item 53	0.00000000000002	0.00000000000002	0.00000000000005	0.00000000000008	0.0000000000001	0.00000000000012	0.00000000000015	0.00000000000018	0.0000000000002	0.00000000000022	0.00000000000025	0.00000000000028	0.00000000000035
Item 54	0.00000000000001	0.00000000000001	0.00000000000002	0.00000000000003	0.00000000000004	0.00000000000005	0.00000000000006	0.00000000000007	0.00000000000008	0.00000000000009	0.0000000000001	0.00000000000011	0.00000000000015
Item 55	0.000000000000005	0.000000000000005	0.00000000000001	0.000000000000015	0.00000000000002	0.000000000000025	0.00000000000003	0.000000000000035	0.00000000000004	0.000000000000045	0.00000000000005	0.000000000000055	0.00000000000007
Item 56	0.000000000000002	0.000000000000002	0.000000000000005	0.000000000000008	0.00000000000001	0.000000000000012	0.000000000000015	0.000000000000018	0.00000000000002	0.000000000000022	0.000000000000025	0.000000000000028	0.000000000000035
Item 57	0.000000000000001	0.000000000000001	0.000000000000002	0.000000000000003	0.000000000000004	0.000000000000005	0.000000000000006	0.000000000000007	0.000000000000008	0.000000000000009	0.00000000000001	0.000000000000011	0.000000000000015
Item 58	0.0000000000000005	0.0000000000000005	0.000000000000001	0.0000000000000015	0.000000000000002	0.0000000000000025	0.000000000000003	0.0000000000000035	0.000000000000004	0.0000000000000045	0.000000000000005	0.0000000000000055	0.000000000000007
Item 59	0.0000000000000002	0.0000000000000002	0.0000000000000005	0.0000000000000008	0.000000000000001	0.0000000000000012	0.0000000000000015	0.0000000000000018	0.000000000000002	0.0000000000000022	0.0000000000000025	0.0000000000000028	0.0000000000000035
Item 60	0.0000000000000001	0.0000000000000001	0.0000000000000002	0.0000000000000003	0.0000000000000004	0.0000000000000005	0.0000000000000006	0.0000000000000007	0.0000000000000008	0.0000000000000009	0.000000000000001	0.0000000000000011	0.0000000000000015
Item 61	0.00000000000000005	0.00000000000000005	0.0000000000000001	0.00000000000000015	0.0000000000000002	0.00000000000000025	0.0000000000000003	0.00000000000000035	0.0000000000000004	0.00000000000000045	0.0000000000000005	0.00000000000000055	0.0000000000000007
Item 62	0.00000000000000002	0.00000000000000002	0.00000000000000005	0.00000000000000008	0.0000000000000001	0.00000000000000012	0.00000000000000015	0.00000000000000018	0.0000000000000002	0.00000000000000022	0.00000000000000025	0.000000	

A hand holding a pen is visible on the left side of the image, positioned over a clipboard with a checklist. The background is a solid blue color, overlaid with a large, semi-transparent blue circle. Inside this circle, there are three concentric dashed circles. The text "Corporate Governance" is centered within the innermost solid circle.

Corporate Governance

Corporate Governance

The Board of Directors of PTT Global Chemical Public Company Limited adheres to Good Corporate Governance and Business Code of Conduct, entrenching transparency and efficiency in our operations. This adherence brings about trust among shareholders, investors, and all groups of stakeholders. Moreover, it bolsters our competitiveness in the market. As a result, our Board of Directors ascertains a strict compliance with our Corporate Governance Policy.

Corporate Governance Policy

The Board of Directors mandates that the Corporate Governance Policy be part of our Business Operations Policy and has tasked the Corporate Governance Committee with regulating, monitoring, and assessing our organization's corporate governance, as well as maintaining its standards. In addition, the Corporate Governance Committee has to make certain that the implementation of the policy meets universally accepted standards, complements our business and operational strategies, and reflects the world's ever changing social and economic situations. It is the Corporate Governance Committee's duty to align our operations and our subsidiaries' operations with applicable laws and regulations, criteria of listed companies' good corporate governance, and other globally established guidelines. Thanks to the Committee's work, we received much praise and recognition at national, regional, and international levels in 2015. The details of which may be found under Awards and Recognitions in this annual report.

Good Corporate Governance and Business Code of Conduct

To bring about subjective Good Corporate Governance, the Board of Directors has issued a Corporate Governance and Business Code of Conduct Handbook. Its content covers a multitude of best practices and guidelines in accordance with the Corporate Governance Policy, which itself has been crafted from global practices. All levels of employees, including Directors and Executives, must adhere to the Policy. Implementation and effectiveness of the Policy according to the 2015 Good Corporate Governance Plan was monitored,

evaluated, and compared with best practices of other listed companies and sundry international standards through regular Sub-Committee Meetings. Findings and beneficial suggestions are regularly reported to the Board and are disclosed to shareholders in the annual report.

The Corporate Governance Committee reviewed the [Good Corporate Governance and Business Code of Conduct Handbook](#) in 2015 and proposed some changes to it to make it conform better with current domestic and international good corporate governance principles, including ASEAN CG Scorecard and Dow Jones Sustainability Indices. The updated handbook was approved by the Board on September 28th, 2015.

Dissemination of Good Corporate Governance Principles

We have always encouraged our employees to observe good corporate governance principles of [CREATE](#), which stands for [Creation](#) of long-term value, [Responsibility](#), [Equitable treatment](#), [Accountability](#), [Transparency](#), and [Ethics](#). The promotion of CREATE awareness among employees starts as early as orientation and continues to instill through seminars, educational programs, and activities. Moreover, in addition to assessing our own Directors' performance and staff's awareness and application of good corporate governance principles, PTTGC is also evaluated by other relevant agencies such as the Securities and Exchange Commission (SEC), the Stock Exchange of Thailand (SET), the Institute of Director (IOD), and the Thai Investors Association (TIA). These assessments and evaluations gauge the efficiency of good corporate governance implementation and serve to uplift the PTTGC's standards to the international level.

Business Code of Conduct of PTT Global Chemical Group

The Board of Directors and Executives act as role models in applying our Business Code of Conduct. They also promote the culture of good corporate governance, take responsibility for stakeholders, and encourage business operations to take into account human rights, consumer rights, and fair use of labor. In addition, it is their task to provide a mechanism for checking, monitoring, evaluating, and reviewing our Business Code of Conduct for sustainable and complete implementation of the Code among all employees.

The Business Code of Conduct Handbook has been distributed to all Directors, Executives, and staff members of PTTGC Group to acknowledge, understand and sign to commit themselves to adhere to the Code when performing their duties. Moreover, this handbook has been distributed to the joint-venture companies, related agencies, stakeholders, and suppliers; it is also available on www.pttgcgroup.com under [Corporate Governance](#) for the convenience of shareholders, investors, and the public.

Corporate Compliance

We are committed to concretely expressing our intention to develop our practices and operations in accordance with domestic and foreign laws and regulations related to our business through a number of channels, e.g., Corporate Governance and Corporate Secretary, Internal Audit, Corporate Risk Management and Internal Control System, and Corporate Compliance. These channels also encourage compliance with PTTGC's other policies, including the [Corporate Compliance Policy](#) that we have disseminated to all relevant parties-namely Directors, Executives, and staff members-for their acknowledgement and to act accordingly.

In this past year, we organized Corporate Compliance Overview for the Board of Directors for it has been the Board's will to perform its role and partake in assuring that PTTGC's operations comply with applicable laws and other internationally established regulations. We also organized a number of activities and projects under the Corporate Compliance Program continuously, for their adherence and compliance and regard as PTTGC Group's culture as well as conforming to PTTGC Group's way of conduct.

In summary, we continued to carry out tasks from the 2014 Corporate Compliance Program in 2015, namely Standards and Policy, Communication & Dissemination and Compliance Monitoring, Auditing and Reporting as below;

- For the second consecutive year, we held a mandatory compliance session called Corporate Compliance Overview for Division to educate division managers on the subject of compliance. Certificates were given

to those managers who passed post-test. In addition, Mandatory Corporate Compliance for US Petrochemical Team was also arranged for Executives and staff members assigned to this United States based project. This lecture session promoted better understanding of the Company's Corporate Compliance Policy.

- Furthermore, we held a session on Modern ISI in a Modern World with All Intelligent & Compliance Program for Executives and staff members under Innovation. This session was a direct result of a risk assessment performed in collaboration between Corporate Compliance and the Innovation Department. Its goal was to educate our researchers and to bolster their confidence. In addition to this, we have placed a great deal of emphasis on other legal concerned risks inside and outside Thailand such as misconduct against human rights. These risks could have effect on PTTGC Group's operation. As a result, we have provided corporate compliance training on a variety of laws and regulations related topics. This past year, the subject was Corporate Compliance Series: Human Rights, Product Liability Law & Anti-Money Laundering.

- We supervised our subsidiaries and affiliates to formulate their own Corporate Compliance Policy and Business Code of Conduct in accordance with ours. In 2015, we focused our attention on two of our foreign companies, namely Vencorex Holding located in France and Emery Oleochemicals (M) Sdn. Bhd. located in Malaysia. These companies created their own policy based on our Compliance Program and Compliance Framework for Subsidiaries. The remaining companies in our Group will be handled in the upcoming years.

- In addition, we have put compliance monitoring and auditing in place using the Compliance Health Check (assessment) method for division managers and high-ranking executives on annual basis to be able to record and analyze compliance assessment result. Also, we have put in place compliance risk assessment, non-compliance detecting system, and compliance monitoring system, i.e. we improved the whistleblower system by including additional requirement to periodically report to the Board of Directors.

Compliance with International Standard of Good Corporate Governance Principles

PTTGC adheres to the Stock Exchange of Thailand's Good Corporate Governance Principles for Listed Companies, as well as the ASEAN Scorecard, and Dow Jones Sustainability Indices (DJSI). We have continuously improved our conduct as summarized below:

Shareholder Rights

PTTGC values and respects the rights of every shareholder, regardless of the proportion of shares they hold, their nationality, or whether they are an institutional or individual investor. In 2015 we carried out the following tasks with respect to shareholder rights:

1. We provided important and pertinent information in regard to our operations that is clear and up to date to shareholders. Regardless of whether it is required by law, if it is deemed necessary, we will forthwith disclose those information on our website and via the Stock Exchange of Thailand's reporting system.
2. We held the 2015 Annual General Meeting of Shareholders on April 1st, 2015, at 2:00 p.m. at Bangkok Convention Center, 5th floor, Central Plaza Ladprao, 1695 Phahon Yothin Rd., Chatuchak, Bangkok. We provided a complete range of facilities for participating shareholders; these are summarized below:

Prior to the Meeting

- 1) We provided opportunities for minority shareholders, any single shareholder or a group of shareholders holding at least 0.5% of all shares with eligible voting rights, to propose agenda items and nominate

qualified candidates to be elected as Director prior to the meeting during the period from September 16th through December 31st, 2015. Nomination criteria and procedures were announced via the Stock Exchange of Thailand's reporting system and on our website, www.pttgcgroup.com, under Corporate Governance / Shareholders' Information / Shareholders' Meeting. In this manner, we demonstrated our respect for shareholder rights and exhibited equitable treatment to all of them. The Nomination and Remuneration Committee will consider qualified candidates to nominate per established criteria, while the Corporate Governance Committee reviews and analyzes proposed agenda items for their benefits and appropriateness as agenda items, the Corporate Governance Committee will further submit them to the Board of Directors to ascertain whether they should be included in the meeting agenda. The Board is obliged to inform the Annual General Meeting of Shareholders of its decisions and reasons regarding the proposed agenda items; however, no shareholders proposed any agenda items or nominated any candidate to be elected as Director in 2015.

- 2) In 2015 the Corporate Governance Committee reconsidered the number of shares required to propose agenda items and nominate candidates to be elected as Director prior to the meeting. It proposed to the Board that the number of shares should be lowered from 0.5% to 0.1%. This new regulation will take effect from the 2016 Annual General Meeting of Shareholders onwards.
- 3) To furnish all shareholders adequate and clear information, as well as to provide them with sufficient time to study it, PTTGC made announcement to



the shareholders through the Stock Exchange of Thailand upon our Board of Directors' meeting held on February 16th, 2015, resolved to convene the 2015 Annual General Meeting of Shareholders on April 1st, 2015. Additionally, we notified shareholders of the record date, the date the registration book is closed to determine Shareholders' names, and dividend payment date being March 2nd, 2015 as announced on our website.

- 4) We published the invitation to the 2015 Annual General Meeting of Shareholders in Thai and English on our website for a period of more than 30 days prior to the meeting. Enclosed with the invitation were meeting documents, procedure for registration and assignment of proxy, and necessary documents required to attend the meeting as well as documents required to assign proxy which are convenient and simple, a map of the location of the meeting, and phone numbers for further information. Meeting agenda, objectives and rationale, opinions of the Board of each agenda, and other necessary information were enclosed as well. The invitation was mailed to shareholders 21 days prior to the meeting.
- 5) For the shareholders who could not attend the meeting themselves, they were allowed to assign an Independent Director who had no stake in the agenda, or any other individual, as their proxy. They could choose to use any of the proxy forms approved by the Ministry of Commerce, which was enclosed with the invitation, although we recommended the form that allowed them to direct their votes. Shareholders could download these proxy forms, available in Thai and English, on our website for their convenience. Additionally, PTTGC allowed shareholders to attend the meeting even after Chairman of the meeting had officially commenced the meeting. They could also vote on any agenda currently being discussed. These shareholders constituted the quorum from the moment they joined the meeting, the number of which was recorded in the minutes of the meeting.

At the Meeting

- 1) PTTGC held the 2015 Annual General Meeting of Shareholders on April 1st, 2015, from 2 p.m. onwards, at Bangkok Convention Center, 5th floor, Central Plaza Ladprao, Bangkok. This location was chosen for its easily accessible location. The meeting room was able to accommodate a large number of attendees, allowing all participants to attend, ask questions, and express their opinions all in one place, rendering the meeting smooth and efficient. PTTGC also put on display an exhibition about our business and performance in front of the meeting room; staff members were available to give explanations and answer questions. Additionally, PTTGC also prepared food and drink for all attendees.
- 2) The meeting procedures were determined in compliance with legal requirements. Much thought went into the convenience, rights, and equality of all shareholders. The barcode registration system made the process quicker and more convenient. In addition, we made sure to provide a sufficient number of staff members and adequate technology to verify shareholders' documents in advance. Registration began two hours prior to the meeting.
- 3) Out of 15 Directors, 14 attended the 2015 Annual General Meeting of Shareholders, including the Chairman of the Board of Directors and all Chairmen of all Sub-Committees, as well as high-ranking Executives, auditors, legal advisors, Thai Investors Association volunteers to protect shareholders' rights, lawyers, and shareholders who volunteered to witness the counting of votes. The Chairman of the Board chaired the meeting, introduced attendees, and announced the number of attendees (6,746 in total) and the number of shares eligible for voting at the 2015 Annual General Meeting of Shareholders. Voting and vote counting procedures were announced prior to the commencement of the meeting. The Chairman proceeded with all the agenda items in order; no other agenda were proposed than those already specified in the invitation. Voting cards-for, against, and abstain-were provided for every agenda.

The Chairman allocated sufficient time for every shareholder to express their opinions and ask questions regarding the agenda and PTTGC's performance. In addition, he assigned Sub-Committee Chairmen, as well as the Chief Executive Officer and related Executives to answer all the questions. Questions asked and opinions expressed were recorded thoroughly in the minutes of the meeting.

- 4) PTTGC shareholders have the right to elect and appoint new Directors to replace those who retired by rotation as per PTTGC's Articles of Association. They also have the right to consider and approve the Board's and Sub-Committees' remuneration. Sufficient information regarding each candidates and the remuneration were provided for shareholders' consideration. On top of the aforementioned, PTTGC also allows free communication among shareholders.

After the Meeting

- 1) PTTGC disclosed the resolutions passed during its 2015 Annual General Meeting of Shareholders through the Stock Exchange of Thailand's press release system on the next business day following the meeting. The disclosed resolutions included the complete set of for, against, and abstain votes of each agenda item. We also put together meeting minutes, specifying the names of Directors and Executives attending the meeting, as well as other related attendees, important explanations, Q and A list, and a summary of opinions expressed. The minutes were made in both Thai and English and

submitted to the Stock Exchange of Thailand and other related agencies within 14 days following the meeting. They were also made available on www.pttgcgroup.com for shareholders' consideration.

In 2015, PTTGC received a perfect score of 100, or Outstanding, for the fourth consecutive year (since the merger) from the Annual General Meeting (AGM) Assessment conducted by the Thai Investors Association thanks to its incessant effort in improving its shareholder meetings.

Equitable Treatment of Shareholders

PTTGC is obligated to protect the rights and interests of all shareholders on a fairly basis, whether majority, minority, institutional, individual, Thai, or foreign. It is PTTGC's policy to treat all shareholders equally at shareholder meetings and in voting. Shareholders are also entitled to information on the operating performance and management policies in a regular and timely. PTTGC has developed methods to assure everyone of equal treatment, especially for minority shareholders.

1. PTTGC values all shareholders regardless of their gender, age, race, nationality, religion, belief, political stance, or handicap status. PTTGC regulates guidelines on Corporate Governance, equally and fairly protects the fundamental rights of shareholders, which builds confidence among investors, allows for efficient operations, and makes room for sustainable growth that continuously gives shareholders suitable return on investment. Furthermore, PTTGC ensures fair treatment towards stakeholders, using accepted modern monitoring tools.



2. **PTTGC engages with all of its shareholders.** Every minority shareholder may compose an email to the Chairman of the Corporate Governance Committee (Independent Director) or the Corporate Secretary at cg@pttgcgroup.com to give suggestions, express opinions, or file a complaint. The Corporate Governance Committee gives every email their consideration and sees to a suitable treatment. For instance, upon receiving a suggestion deemed beneficial to operations, the Corporate Governance Committee presents it to the Board of Directors at a Board Meeting, and the Board considers whether to include it on the agenda of the upcoming General Meeting of Shareholders. As for institutional investors, they may request for information or express their opinions to our Investor Relations via ir@pttgcgroup.com. In the event shareholders would like to assign a proxy to attend a meeting and vote on their behalf, they will find a proxy form that allows them to specify their for, against, and abstain votes towards each agenda item included in the meeting invitation, which is in both Thai and English. Names of Independent Directors, who are proxy options, and their biography details are also appended to the invitation for shareholders' consideration, along with a list of required documents and procedure for assigning proxy.

3. **PTTGC advocates good relations with its shareholders:** In 2015 we organized a variety of activities that not only beneficial to society and the environment but also fostered good relations with our shareholders. The right to partake in these activities was equally granted to all shareholders, regardless of their majority or minority status. One notable activity was Company Visit 2015, in which 500 shareholders visited PTTGC's plants in Rayong during November 24th-25th, 2015, met with Executives, and learned about their operations. During this trip, they also did some social work, including releasing fish and turtles back into the ocean and cleaning turtles' shells and tanks at the Sea Turtle

Conservation Center of the Royal Thai Navy in Sattahip, Chon Buri. PTTGC had another chance to meet its shareholders at Set in the City 2015, organized by PTT Group under the concept of relentless technological advancement to accommodate business sectors and investors to have access to information and connect at a very fast pace. We organize these activities with our shareholders in mind and ready to disclose information transparently.

Stakeholders' Roles

In recognition of stakeholders' roles in augmenting our competitiveness and in increasing our profits and yielding long-term results, we have placed a great deal of importance on all groups of stakeholders-namely, shareholders, customers, suppliers, business competitors, creditors, the public sector, employees, society, communities, and the environment. We have compiled our policies and principles into written documents; these have been made available on our website since 2011. We have also laid down guidelines that cover the protection of stakeholders' rights, as well as any possible effects. In addition, we have provided several channels of communication to our shareholders, where they may send in opinions and suggestions that they believe will benefit PTTGC and create value added. Below is a summary of our policies and guidelines for stakeholders, as well as how they were implemented in 2015:

1. **Shareholders:** PTTGC encourages its shareholders to exercise their fundamental rights, which include the right to participate in the annual general meeting of shareholders, the right to vote, the right to propose an agenda item, and the right to nominate a candidate to be elected as Director. Moreover, PTTGC is committed to the utmost satisfaction of shareholders in regard to sustainable growth, PTTGC's value added, and steady suitable return. It also warrants that its operations comply with principles of good corporate governance. In addition to affording shareholders the rights



aforementioned, PTTGC arranges Company Visit program every year. Furthermore, shareholders may reach out to the Company via www.pttgcgroup.com or by writing an email to ir@pttgcgroup.com or cg@pttgcgroup.com; this information is disclosed under Shareholder Rights and Equitable Treatment toward Shareholders.

2. **Customers:** PTTGC is committed to public and customers to bring them utmost satisfaction and ensure trust for its reasonable priced and quality products and services and to continuously improve our standards. It is also committed to maintaining a good and sustainable relationship with customers. To become customers' best choice, we offers products and services that are innovative as it is PTTGC's obligation to maintain and improve quality of our products and services. To build trust and to yield the utmost satisfaction, we ensure our customers and public earn high-quality products and services for reasonable price through a fair, appropriate, transparent, and accountable management. We take responsibility towards our customers to whom we purchase and sold feedstock and products through a number of activities. Notable ones in 2015 include the following:

- **Striving for customer-centric marketing excellence:** We strived for customer-centric marketing excellence in the following five categories: building values for customers, new product development, pricing strategy, distribution channel strategy, and human resource development.
- **Customer satisfaction survey:** In 2015 we made adjustments to our customer satisfaction survey, aligning it with universal standards and rendering it more comparable to others' in the same industry. The improved survey now gauges six aspects: product quality, service quality of sales representatives and technical support, process quality, value and price, image, and business relationship. Its result reflects our success in fostering a good relationship with our customers, as well as our ability to meet their demands.
- **Fostering a good relationship with customers:** We met with our customers regularly to hear their opinions and exchange information about the industry that could benefits their businesses. We also invited customers to the plants to experience our production and quality control processes first-hand. Moreover, we invited them to dinner parties, during which we expressed our gratitude towards them.

These dinners, in extension, also served to build a network of customers for us. We provided these customers with [a system for receiving and managing complaints](#) about our products and services. The channels for this included the website, email, and telephone. In addition, complaints could also be filed through our customer relationship management system (CRM). We put guidelines in place to mitigate and prevent future problems. We also monitored complaints regularly, as well as evaluated how they were dealt with. The results of the evaluation will be used to improve future business plans.

3. **Suppliers:** We take into consideration equality and honesty in conducting business. To ensure mutual benefits, we strictly adhere to applicable laws, agreement, and business code of conduct. We select and treat our suppliers fairly in accordance with our business code of conduct. We have put procurement regulations in place to assure that the process flows efficiently and smoothly with good and accountable control and is appropriate for the business transaction. Our practices demonstrate our responsibility towards our supplier, harmonizing mutual benefits to the both parties equally and transparently. We recognize our suppliers as our equals and strive for honesty in conducting business. To ensure mutual benefits, PTTGC strictly adheres to applicable laws, agreement, and business code of conduct-through, development of products and services, warranty, full disclosure of information on products and services, complaint management system, customer satisfaction survey, organizing activities that promote good relationship with suppliers, and implementing business code of conduct for procurement team.

PTTGC [refrains from accepting, or giving, fraudulent benefits from or to suppliers](#). The Corporate Governance and Business Code of Conduct Handbook and the Corporate Compliance Policy mandate that all employees must comply with the anti-corruption and anti-bribery law, whether in dealing with government officials or the private sector, both in Thailand and abroad. [Any action that violates the aforementioned law is illegal and does not comply with the Corporate Governance Policy](#); all employees are to resist against and refrain from such an unlawful act. It is everyone's duty to perform their role with transparency for the sole benefit of PTTGC or our subsidiaries and affiliates, which prevents

conflicts of interest. Additionally, all employees are to refrain from encouraging others to unlawfully perform or refrain from performing their duties legally. PTTGC sale and purchase contracts are executed in written form and PTTGC strictly abides by them. Additionally, PTTGC has regular meetings with suppliers to mutually improve work process and to find a solution in the event that PTTGC may be unable to perform its contractual obligations. PTTGC is dedicated to resolve issues **when we cannot follow through with the contract** through meetings, where we determine the root cause and solution. The solution must be satisfactorily to both parties. PTTGC sees to it that the problem is thoroughly solved and find ways to prevent it from reoccurring. Examples are listed below.

- ❁ Procurement is fair, transparent, and efficient, in accordance with partner selection criteria. The Procurement Committee is in charge of the selection process, and the Inspection Committee verifies whether deliverables are delivered and meet conditions. In each procurement, these two committees are to be made up of separate group of people.
- ❁ The Supplier Relationship Management (SRM) team organizes annual activities to promote a good relationship between PTTGC and suppliers. In November of 2015, PTTGC, together with suppliers, held Supplier Conference 2015 to demonstrate our dedication to fostering a sustainable relationship with suppliers. The concept of the event was Inspiring Sustainability to convey our policy of sustainable business with responsibility towards the environment, society, and communities, as well as our anti-corruption stance. The other objective of this event was to foster a good relationship and understanding between PTTGC and suppliers, ensuring efficiency and sustainable mutual growth.
- ❁ PTTGC has procedures and practices in selecting suppliers and contractors as well as anti-corruption measures. We also encourage all employees to follow these applicable laws and regulations.

- 4. **Business Competitors:** Our treatment towards competitors is aligned with international practices under the framework of competition laws. We also adhere to principles of fair competition. At PTTGC, we operate ethically and transparently. We compete fairly with our business competitors under the framework of good competition. We do not seek trade secrets of competitors through inappropriate or dishonest means. We do not defame competitors. PTTGC's policy on treatment towards competitors is aligned with international practices under the framework of competition laws and adheres to principles of fair competition. PTTGC held a lecture titled Corporate Compliance Series: Human Rights, Thai Product Liability Law, Anti-Money Laundering on November 2nd, 2015 and Anti-Dumping and Safeguarding on November 11th, 2015 for Executives and staff members according to the Individual Development Program (IDP).
- 5. **Creditors:** We adhere to the terms and conditions, with fairness, and takes responsibility for our creditors, including making due payments. We commit to equality and our responsibility towards our creditors. We strictly adhere to good practices, our contractual and financial obligations, especially, guarantee or security interest provisions, capital management, and debt repayment. We refrain from employing dishonest practices to conceal information or facts that may cause damage to creditors. In the event that PTTGC cannot perform any of its contractual obligations, we promptly notify our creditors in advance and work with them to find a solution.

All PTTGC's debentures have been issued in compliance with legal requirements and announcements of the Securities and Exchange Commission. PTTGC strictly follows policies, objectives, and resolutions of shareholder meetings. We fully disclose information to stakeholders and have measures to mitigate damage that may occur to stakeholders caused by our failure to follow through with regulations regarding debenture issuer rights and duties or conditions of loan



agreement. The following are measures that have been put in place:

1. PTTGC strictly complies with terms and conditions imposed by creditors in terms of payment and maintain good standing of collateral.
2. PTTGC regularly discloses financial information to creditors.
3. PTTGC duly makes payments.
4. PTTGC refrains from fraud, bribery, and trading benefits for favour.

Furthermore, we focus on disclosure of information to stakeholders, emphasizing accuracy, completeness, speed, and transparency. The disclosed information includes both financial and non-financial matters. PTTGC has no lawsuit on default payment with any of our creditors.

6. **The Public Sector:** We believe that the Public Sector, who is one of the stakeholders, plays a key role in our business. We have devised best practices for the Public Sector in countries we have invested in to avoid inappropriate transactions. We procure feedstock and sell our products, whether in Thailand or other countries our investment located, under Good Corporate Governance Principles and Business Code of Conduct. We value stability and strict compliance with local laws and regulations. We take all stakeholders into consideration. As such we have established our stance on working and exchanging information with relevant governmental agencies both in Thailand and abroad. Every action is based on transparency and honesty, which prevents PTTGC and the nation from gaining bad reputations. We collaborate with governmental agencies on academic matters and provide support for a number of activities that foster good relationship and prove advantageous for society and communities. Additionally, we have made use of the online permit and privilege license system (P & PL Online) to monitor our performance. This also systematically allows people in the field and Executives to keep up with the progress.
7. **Employees:** PTTGC is committed to becoming an organization of learning. We promote the PTTGC culture and encourage teamwork. We prioritize safety and maintain a suitable work environment. We favour development, as well as knowledge and expertise transfer. We give fair compensation

to employees. We open to suggestions from all levels of employees without discrimination. We also promote and instill an organizational culture with a realization that every employee is vital to the success and sustainable growth of the Group. PTTGC adheres to Good Corporate Governance Principles and respects human rights as outlined by the United Nations. We have devised plans for human resource management that is in line with our operations. We have restructured our Science and Innovation Department to support our business unit and to better connect with foreign businesses. We have enlarged our business context in terms of size and diversity. We have prioritized recruiting personnel into groups vital to the success of our organizational strategies. We are prepared to recruit new talents replace retiring talents, while keeping in mind our expansion to foreign markets. There is a plan to expand our candidate base and to recruit and hire domestically and internationally through social media. There is also a plan to build a new network abroad that will help PTTGC marking recognition in the international labour market, which will extend our foreign database. PTTGC promotes happiness in work place, with good quality of living, safety, and occupational health. PTTGC has been dedicated to improving and enhancing our organizational and human resource management as it values human resource as a foundation to a robust and sustainable growth. More details can be found under People Management and Development Policy.

8. **Society, Communities, and the Environment:** PTTGC operates with a great deal of responsibility toward society, communities, and the environment, whether it be in terms of safety, quality of living, conservation of natural resources, or efficient energy consumption. As we value the quality of living of communities around our plants, as well as the entire country, we share a portion of our profits with these communities. In regard to minimizing environmental effects, we start from pre-construction stages, technologies used, production process, and waste management. We also research and develop innovations that promote efficient energy consumption. We conduct our business according to the Code of Conduct. Our mission is to integrate social responsibility and environmental concerns into our operations, which will result in sustainability. PTTGC

is committed to improving the quality of life for people in society, which is the foundation for organizational development. We are also committed to environmental conservation, allowing society, communities, and PTTGC to grow together. The details can be found in the 2015 Sustainable Development Report. This integrated report serves as a framework for global reporting that covers economic, social, environmental, and other aspects that significantly impact PTTGC, on top of the financial report.

Communities and society: Throughout 2015 PTTGC paid much attention to guidelines of UN Global Compact and UNICEF. We made adjustments to render them more suitable to Thailand and our own CSR policy. Directors, Executives and staff members participated in a number of volunteering activities for the benefits of society, including communities around PTTGC's plants, schools, children, women, the elderly, the underprivileged, the handicapped, and many other groups. Further information is disclosed in the 2015 Sustainability Report per DJSI's guidelines.

The Environment: Because PTTGC strives for excellence in stability, safety, occupational health, the environment, and taking responsibility towards surrounding communities,

we laid down the **Quality, Safety, Occupational Health, Environment, and Business Continuity (QSHEB) Policy**. The system and guidelines, put in place as a result of this policy, strictly comply with environmental standards, regulations, and laws. ISO 14001 environmental management system serves as the preliminary standard in our operations; it is implemented alongside other universal best practices. PTTGC's proactive environmental management complements our long-term operation plans. Much importance is placed on minimizing environmental impact by means of control and prevention from the design stage of a project. In addition, PTTGC conducts an environmental impact assessment (EIA) covering every dimension for each project and lays down measures to prevent and mitigate impact from operations both in the construction phase and the production phase. It continuously and adequately monitors environmental quality and present the results to governmental agencies for approval before commencing its projects. PTTGC strictly adheres to comply with prevention and mitigation measures, as well as reports the result of its compliance to these measures to governmental agencies continuously and regularly. The details can be found in Safety, Occupational Health, and Environmental Management.



Anti-Corruption Campaign

PTTGC operates with a great deal of emphasis on Good Corporate Governance and Business Code of Conduct; therefore, our business is transparent and accountable. Processes are put in place to control, monitor, reduce, and prevent against the risk of fraud and corruption within the organization, whether it be direct or indirect. On top of the Corporate Governance Policy, we also laid down in written form the Anti-Corruption, and Anti-Bribery Policy. Furthermore, **PTTGC is a member of the United Nations Global Compact (UNGC), an international anti-corruption organization and on a national level, the Collective Action Coalition (CAC) against Corruption.** The membership of the latter was approved by the Thai Institute of Directors (IOD) on July 4th, 2014. In addition, **THAIPAT Institute gave PTTGC Level 5 in 2015 on its sustainable development evaluation in regard to anti-corruption practices.** This level means that our anti-corruption policy also extends to our business partners.

Our actions in the past year that illustrate our dedication to the fight against corruption and our readiness for the recertification conducted by the IOD every three years as well as the annual assessment mandated by the Audit Committee are summarized below:

- PTTGC conducted a fraud risk assessment (FRA) to analyze and assess risk of the likelihood of fraud, as well as the possible effects of fraud in processes

and procedures within the organization. The tools employed for conducting risk assessment were based on the **Enterprise Risk Management (ERM)** of the Association of Certified Fraud Examiners (ACFE). The analysis was then used to devise measures for internal control and internal audit of fraud and corruption. The result of this assessment is utilized for monitoring, controlling, and reducing fraud opportunity within the organization.

- PTTGC's relevant departments reviewed the existing anti-corruption measures and assessment on our processes and procedures for completeness and being up-to-date since these measures and assessment needed to cope with the ever-changing events and risks. The result of the review was reported to the Corporate Governance Committee, the Audit Committee, and the Board of Directors, respectively.
- We improved our whistleblower system by adding more channels for filing complaints. We also put a system in place to manage complaints more efficiently and in line with criteria of DJSI and CAC.
- We promoted, communicated, created awareness and understanding on the best practices to employees to recognize the importance of the fight against corruption. Activities under PTTGC Active Citizen scheme were organized for Executives and staff members. One of the activities includes the lecture session by an external expert. The lecture described the concept, meaning and different forms of corruption. It also sought to instill moral conscious and ethics, according to the CG principles and Anti-Corruption Policy. Included were cases study; roles and responsibilities of Executives and



staff members in the fight against corruption; compliance with laws, regulations, and policies; culture and tradition; conflicts of interest; and bribery. In addition, PTTGC put together exhibitions and recreational activities that communicated to employees about our anti-corruption stance, Code of Conduct, Corporate Compliance Policy, as well as Anti-Corruption and Whistleblower Policies.

- During Supplier Conference 2015, we communicated to our suppliers our anti-corruption stance, as well as our policy on refraining from accepting gifts and other special benefits in hope that similar guidelines and practices be adopted.
- We lent our support to external agencies' anti-corruption work. For instance, we declared our intention to fight corruption with the governmental and other related agencies on the Anti-Corruption Day. We also supported the establishment of the Anti-Corruption Foundation.

• Whistleblower Channels

We value complaints, suggestions, and opinions submitted to us from all stakeholders through the established whistleblower channels. These channels are provided through our various policies, such as, Competition Law Policy; Human Rights Policy; Intellectual Property Protection Policy; Anti-Money Laundering Policy, Anti-Corruption and Anti-Bribery Policy; and other policies as outlined in our core, Corporate Compliance Policy, and Code of Conduct. We have disclosed our Whistleblower Policy and channels on our website. We accept complaints from both internal and external sources. Whistleblowers who submit these complaints will be protected under the non-retaliation principle. Internal Audit and Corporate Compliance are jointly in charge of these complaints.

In the past year, we have made improvements to our whistleblower system. Related departments-namely Corporate Compliance, Human Resources, Legal Department, Internal Audit, and Sustainability Management-performed a dry run on our whistleblower system to get ready for the system and to gauge whether it requires improvement. Additionally, in collaboration with other related parties; Corporate Compliance Department, as a whistleblower administration center, updated the criteria and made complaints management more efficiently manageable.

• Disclosure and Transparency

It is PTTGC's policy to disclose data and information on our financial matters, general businesses, and operating performance which are accurate, complete, adequate, credible, direct, timely, thorough, and equally distributed to all relevant parties. These data and information must show the status of PTTGC's operations and its true financial standing. In extension, this disclosure reveals our future directions. It allows shareholders and stakeholders convenient and speedy access to data and information in Thai and English, through the SET Portal and our www.pttgcgroup.com website. PTTGC adheres to the laws, rules, and regulations of the SEC, the SET, and other governmental agencies. We also monitor changes to these laws, rules, and regulations to ensure compliance. Such attention to detail serves as a guarantor to shareholders that our business is transparent and straightforward. [Investor Relations \(IR\)](#), [Corporate Governance and Corporate Secretary](#) are in charge of providing data and information and answering questions.

In 2015, we disclosed in full our financial and non-financial information. The disclosure of our financial statement was reviewed and audited by certified auditors to ascertain it being accurate and in accordance with established standards. The financial statement was also approved for disclosure by the Audit Committee and the Board of Directors prior to being made available to the public. The Board also made a report of the Board of Director's Accountability to Financial Report, which is disclosed with the independent auditors' report. This also includes connected transactions, management's discussion and analysis, risk management analysis, and good corporate governance. These information were disclosed in the annual report as well as in Form 56-1 as below;

1. PTTGC disclosed our operational structure, as well as that of the Group, subsidiaries, and joint-ventures. The information disclosed included the shareholder structure of majority shareholders, the number of shares held, and the portion of shares held by institutional investors of more than 5% with over 40% free float shares (51.07%).

2. Directors and Executives must report their interest and those of their related persons if such interests concern the management of PTTGC or its subsidiaries. This reporting duty applies upon each of them taking up the position for the first time and when there is a change to the interests. Furthermore, they must report their securities holding to the Board of Director at the Board Meeting on a monthly basis and disclosed in the annual report on a yearly basis.
3. To prevent conflicts of interest, PTTGC's policy mandates that Director and Executives who may have a conflict of interest in any agenda item in the meeting are not to attend the meeting during the discussion of that particular item. In the event that they are obliged to attend such agenda item to provide information, they are to refrain from voting or giving opinion. The Corporate Secretary or the Secretary of each Sub-Committee is to record the conflict situation of the Directors or Executives in the meeting minutes. Another best practice in line with this is the policy that requires all employees to report any possible conflict of interest pertaining to PTTGC Group in the designated conflict of interest disclosure form. This report is required upon taking up the position, once at the end of every year, and when a conflict of interest arises. This is to show the intention to perform their role with transparency. And to prevent conflicts of interest, PTTGC provides an online conflict of interest disclosure channel to reduce the amount of paper used and to enhance the convenience of collecting such information and searching purpose. This has enabled the Corporate Secretary to compile and propose best practices to their supervisor and to those employees submitting the form.
4. We disclosed our Director nomination procedure, Director performance evaluation procedure, and their performance evaluation results for the year 2014.
5. We disclosed our policy on the remuneration of high-ranking Executives and Director, including the types and amounts of remuneration each Director receives for their position on the Board and in each Sub-Committee. We also disclosed the performance of each Sub-Committee, including each Sub-Committee Director's Meeting attendance and remuneration of each of them individually.

6. We disclose information on important investment projects and their effects through several channels. Shareholders, investors, the media, and stakeholders have equal access to this accurate, thorough and transparent information. Stakeholders and the general public may reach PTTGC to give suggestions through PTTGC's website on the Contact Form page, which is available in Thai and English. They may choose from a selection of topics, i.e. public relations, corporate governance, products and services, investor relations, and CSR.

PTTGC discloses important information in [Thai and English](#) through the following channels:

- SET Community Portal of the Stock Exchange of Thailand
- Our own regularly updated website, www.pttgcgroup.com, where a clear and complete contact information of Directors and relevant departments may also be found
- Other channels such as Better Living magazine, newspapers, press releases, email, exhibitions, and other activities for the benefits of other stakeholders

Insider Information

To emphasize the importance of disclosure and transparency, the Board of Directors laid down a policy regarding this subject matter in the Corporate Governance and Business Code of Conduct Handbook, which is available on PTTGC's website. The handbook serves to inform shareholders about the issue and remind Directors, Executives, and staff members to adhere to the policy. Listed below is a summary of important principles.

- (1) Directors and Executives, from Senior and Executive Vice President to the top, have duty to report on their securities holding in PTTGC including changes thereof as per SEC's specification. This report must be submitted to PTTGC within three business days from the date the securities' holding has changed. They have to sign their name in acknowledgement of this policy upon taking office.

Additionally, as the Board of Directors monitors the implementation of the Business Code of Conduct regarding internal use of information, the said person must submit a copy of the report to the Corporate Secretary, who will report it at the Board meeting or when the change occurs, as well as disclose the accumulative information as recorded at the beginning until the end of the year in the annual report.

- (2) PTTGC sends written notifications to Directors and Executives to notify them that they are prohibited from trading securities 30 days prior to the disclosure of the quarterly and annual financial statements or other information that may affect the price of PTTGC's stock. They are also prohibited from trading PTTGC's securities within 24 hours from the disclosure.
- (3) PTTGC laid down the Confidentiality of Information Policy, which requires all Executives and staff members to safeguard PTTGC's information, business partners' information, and personal information of related parties. They are also to safeguard confidential information or information that is yet to be in public domain for the benefit of the business and to maintain legal practices of confidentiality of information according to Thai and international laws.
- (4) We regularly keep our Director, Executives, and Employees up to date on regulations and policies regarding insider information. On top of ensuring compliance, regular updates also prevent employees from taking advantage of insider information for personal gain or for other people's. PTTGC has outlined clear punitive disciplines for cases of violation. Also, it is supervisors' duty to ensure compliance of their supervisees. There has been no report of violation in this past year.

Investor Relations

PTTGC is well aware that its financial and non-financial information affect the decision making process of investors and stakeholders. Management has placed much importance on disclosure of information that is accurate, credible, regular, and on time. Information disclosure follows the regulations stipulated by the SEC and the SET. [Investor Relations](#)

was founded to serve as the center of communication and information disclosure for shareholders, institutional and individual investors, analysts, and other related agencies. PTTGC controls the quality of financial reporting, including important information that may affect the price of PTTGC's stock, such as financial statements, operating performance, quarterly and annual management discussion and analyses (MD&A) that show current and future trends of PTTGC, and other information disclosed via the SET's portal system. This allows investors in Thailand and abroad to have regular, equal exposure to full and accurate information. PTTGC's information disclosure to investors, shareholders, and other stakeholders is summarized below:

Investor Meetings	
Investor Meetings Abroad	8 times
Domestic Investor Meetings	7 times
Fixed Income Roadshow	2 times
SET Opportunity Day	4 times
Meetings with Financial Analysts	4 times
Meetings at the Company	75 times
Teleconference	17 times

Information Disclosure	
Disclosure via SET's Channels and PTTGC's Website	60 times
Newsletter to Investors (The Better Living)	4 issues

Activities	
Exhibitions, e.g. SET in the City	1 time
Bondholder Site Visit	1 time
Analysts/Fund Site Visit	2 times
Shareholders Site Visit	2 times
Relationship-Fostering Activities with Analysts	1 time
Basic Training with Analysts	2 times

In 2015, the President and Chief Executive Officer and Executives regularly met with individual and institutional investors and analysts throughout the entire year. They were presented with operating performance, financial statements, financial statuses, management discussion and analysis (MD&A), and future trends. They were afforded information

in Thai and English and accommodated in soliciting for information that is complete, speedy, and transparent directly through phone contact with Investor Relations, on the www.pttgcgroup.com website, and via ir@pttgcgroup.com email address. These are the channels to submit questions about PTTGC operations. Detail on each Investor Relations officer is also available for convenience.

Furthermore, Investor Relations put in place [Investor Relations Code of Conduct](#) that outlines the role and best practices that apply to investor relations officer to treat all shareholders equally.

Investors or those interested may reach out to PTTGC via the following four channels:

- 1) Mail : PTT Global Chemical Public Company Limited Investor Relations 555/1 Energy Complex, Building A, 14th-18th Floor, Vibhavadi Rangsit Road, Chatuchak, Chatuchak, Bangkok 10900
- 2) Phone : 66(0) 2265-8574, 66(0) 2265-8172
66(0) 2265-8327, 66(0) 2265-8533
- 3) E-mail : ir@pttgcgroup.com
- 4) Fax : 66(0) 2265-8500

In addition, PTTGC offers a swift and convenient communication channel via email as published on its website under Corporate Governance. Shareholders and the general public may reach out to the Chairman of the Corporate Governance directly. They may also contact the Corporate Secretary for company information at cg@pttgcgroup.com.

Responsibilities of the Board of Directors

The Board of Directors has a pivotal role in corporate governance for the utmost benefit of PTTGC; therefore, PTTGC has outlined the policy on duties of the Board including its composition as well as its roles and responsibilities as follows;

1) Setting Business Strategies, Policies, and Directions

The Board considers and approves PTTGC's business strategies in accordance with current economic situations.

These strategies are reviewed at least once a year. In 2015, the Board met to review PTTGC's long-term direction and business strategies in August. Additionally, the Board ensures that management implemented goals and plans through the President and Chief Executive Officer without neglecting other activities to maintain balance among business, society, and the environment in order to develop sustainable growth in the future.

2) Corporate Governance and Business Code of Conduct

The Board set the Corporate Governance Policy and Business Code of Conduct for PTTGC Group's Director, Executives, and staff members to comply with. These are guiding operations to the highest standards, with ethics, transparency, efficiency, and accountability for PTTGC to earn credibility and recognition. The Corporate Governance Committee is tasked with ensuring that PTTGC is in strict compliance with all applicable laws, regulations and resolutions of shareholders. It devises the Corporate Governance Policy and Business Code of Conduct and Corporate Compliance Policy. It also sees to matters of internal control practices, good and independent auditing, disclosure of important information, equal protection of interests and rights of all shareholders. Furthermore, it raises awareness and understanding of PTTGC's personnel on compliance with the Corporate Governance Policy.

3) Internal Control and Internal Audit

The Board understands the importance of internal control and internal audit. PTTGC and companies under PTTGC Group must have effective internal control system that is consistent with the level of risk that they are exposed to. The Audit Committee and Internal Audit Department are mandated with responsibility for performing reviews and monitoring internal audit on a regular basis. They must ensure that requirements are met on operations, reporting duty and compliance with all laws, rules, and regulations. Furthermore, they must build confidence among Executives, Investors, and other Stakeholders by implementing an internal control system that meets international standards, taking into consideration an appropriate internal control environment, assessment of risks that may jeopardize the objectives and efficient control activities. They must also provide trust-worthy internal and external communication. Adequate and reliable monitoring must be executed regularly. These are described under Internal Control.

4) Risk Management

The Board oversees PTTGC's risk management system. Risk is a barrier to achieving our strategic objectives. The Risk Management Committee is tasked with devising policies and frameworks of risk management as well as supporting and ensuring its efficiency. The Risk Committee considers substantial risk at project level and organization level. The Committee must provide operation plan, monitor, assess, and consistently make adjustments to the risk management plan to decrease exposure to organizational and project risks to an acceptable level. Furthermore, it must provide risk management reports to the Board on regular and ad-hoc basis, as disclosed under Risk Management and Risk Factors.

5) Conflicts of Interest

Our Board of Directors came up with the tools needed to ensure efficient and transparent business management for the utmost benefit of the Group. It has devised policies and guidelines regarding conflicts of interest in the Corporate Governance and Business Code of Conduct Handbook for Directors, Executives, and staff to comply with. Director, Executives from the level of Senior and Executive Vice President to the top, and financial controllers, per requirements of SEC, must report their interest and those of their related persons to PTTGC. As for staff members, they are to report any transaction that may lead to a conflict of interest annually. In the event the conflict of interest arises, parties involved must make an immediate report to PTTGC. We are cautious in ensuring that PTTGC complies with Connected Transaction regulations. Connected Transactions must not be conducted if they are in violation of the rules of the Stock Exchange of Thailand or the Securities and Exchange Commission.

We laid down the following measures to prevent conflicts of interest:

- 1) Directors, Executives, staff members, and related persons must avoid taking part in a financial transaction and/or a relationship with an entity outside the organization that will result in damage to PTTGC, or in a conflict of interest or prevent PTTGC from conducting efficiently.
- 2) Directors, Executives, employees, and stakeholders who may have a conflict of interest in a procurement, bidding, decision making, or approval process must make a report to the attention of their superiors or involved parties, using PTTGC's conflict of interest form, or otherwise withdraw from participating in such process.

Board of Directors and Sub-Committees

Board of Directors

Directors are qualified experts with knowledge, skills, and experiences in various fields. The combination of these skills and qualities is aimed to bring the greatest benefit possible to PTTGC. They dedicate their time to perform their duties for the utmost benefit of PTTGC and for all shareholders. They are nominated and appointed per proper criteria. Their duties and responsibilities are based on applicable laws, PTTGC's rules and regulations, shareholder resolutions, good corporate governance principles and based on the notion that they shall not act in conflict of interest with PTTGC. This is to instill confidence among shareholders and investors. The structure of the Board of Directors as appears in Management Structure allows them to perform their duties efficiently. The number of Directors is suitable for the size and type of business and was approved by shareholders. [In 2015 we made further adjustments to the composition and qualification of Directors, mandating that Independent Director should comprise more than half of the Board. This is now included in the 2016 Edition of the Corporate Governance Handbook and available on PTTGC's website.](#) In addition, PTTGC has implemented a skill matrix that aligns qualifications of Directors with PTTGC's business strategies to facilitate the nomination process.

Sub-Committees

The Board has selected Director with the right expertise to serve on PTTGC's various Sub-Committees mandated by the Articles of Association. These Sub-Committee Directors assist to refine tasks mandated to them that fall under each Sub-Committee's scope of work. Qualifications, length of term in position, and the scope of responsibilities are found in each Sub-Committee's Charter. Members of each Sub-Committees are to report their performance to the Board at a Board Meeting regularly. They are also to report their yearly performance to shareholders on Form 56-1 and in the annual report each year.

Currently, PTTGC has four Sub-Committees, namely the Audit Committee, the Nomination and Remuneration Committee, the Corporate Governance Committee, and the Risk Management Committee. In 2015, the Board of Directors reviewed and made adjustments to the composition of each Sub-Committee to enhance their efficiency. The details on names of these Directors, their roles and responsibilities, and overall number of meetings as well as meeting attendance of each Director are found under [Management Structure](#).

Nomination and Appointment of Directors and President and Chief Executive Officer

Nomination and Appointment of Directors and Independent Directors

The Board of Directors has appointed the Nomination and Remuneration Committee and tasked it with finding candidates with the knowledge, skills, expertise, and experience that will benefit and complement our business strategies when a Director position becomes vacant or a Director's term is due for rotation. Suitable candidates may also be proposed by minority shareholders or majority shareholders and match their qualification with Director Nomination Criteria of the Stock Exchange of Thailand. Nominees may also be nominated from Directors' Pool of trusted organizations such as the Institute of Directors or from the Director Database that has compiled names of experts in various fields that will benefit PTTGC. In considering a candidate to nominate, the Committee values their skills, experience, profession, and expertise that complement our business strategies. This renders the Board diverse and able to maximize benefits to PTTGC. In addition, the Committee takes into account any possible conflict of interest of nominees to ensure thorough transparency of their appointment. Below are the types of appointment:

Directors

- **Nomination of New Directors:** Consideration is given to a number of factors. They must possess qualifications required by laws and related regulations. They must be an expert with knowledge, skills, and experience in the fields that are advantageous to their role as a Director, beneficial to the composition of the Board, and complementary to our business strategies. These possible nominees are considered against a skill matrix, comprising engineering, legal, financial, accounting, economic, security and social, and management skills. This skill matrix helps find the right Director whose skills, when combined with the others', will prove beneficial to our operations and also helps screening possible conflicts of interest.
- **Nomination of Existing Directors:** Consideration is given to past performance, beneficial suggestions given and opinions expressed, time dedication, and participation in various activities.

Independent Directors

On the matter of nominating and appointing an Independent Director, the number of Independent Director is mandated by the SEC. As of December 31st, 2015, there are nine Independent Directors out of all 15 members of the Board. This figure exceeds the number required by SEC and is in line with the information disclosed under Management Structure. The definition and qualifications of an Independent Director are outlined in the Corporate Governance Handbook and also available on the website.

Nomination and Appointment of the Chief Executive Officer

Nominating a candidate to the office of the Chief Executive Officer is done when the position is vacant. The Nomination and Remuneration Committee considers candidates' skills, experience, profession, and specialization that are directly needed and will yield the utmost benefit to PTTGC's business. The nominee has to be approved by the Board. The criteria are listed hereafter:

- Be PTTGC's Director according to the Articles of Association
- Knowledge and skills required to run a business
- Experience in the energy, petroleum, and petrochemical sector
- Experience in leading an organization
- Leadership skills
- Held in high esteem by related businesses and organizations

(More information can be found under [Development of Directors and Executives and Talent Management Succession Plan](#).)

Roles of the Chairman and the President and Chief Executive Officer

The Chairman of the Board of Directors and the President and Chief Executive Officer shall not be the same person. Their roles and responsibilities are separate as outlined below:

The Chairman of the Board of Directors is an Independent Director tasked with supporting management. It is not his or her role to partake in the quotidian operations. The Chairman's main role is to maintain the Board's independence from management and ensure its efficiency. The Chairman works together with the President and Chief Executive Officer, who

also acts as Secretary to the Board, to determine meeting agenda. The Chairman encourages all Directors to participate in Board Meetings, sees to it that Directors comply with PTTGC's Corporate Governance and Business Code of Conduct, and takes responsibility towards shareholders and stakeholders. In addition, the Chairman must not be part of any Sub-Committees to clearly and appropriately segregate his or her duties and to maintain his or her independence as Chairman. The current Chairman has performed his task with prudence, independence, and admirable leadership. His actions reflect his aim for the utmost benefit of PTTGC. He has extensive experience and expertise in energy, petroleum, petrochemical, and management. He is also well regarded by several organizations who would like to use his knowledge and skills to their advantage.

President and Chief Executive Officer appointed from one of the Directors according to the Articles of Association; sits at the highest pinnacle of the corporate hierarchy. He or she is tasked with managing PTTGC according to established policies, plans, and budgets under the authority granted by the Board of Directors and laid down in the Articles of Association and the Company's regulations. The President and Chief Executive Officer also serves as Secretary to the Board. The roles and duties of this position are disclosed on PTTGC's website (www.pttgcgroup.com) in Thai and English. Furthermore, the Articles of Association also mandate that the President and Chief Executive Officer is remunerated and receive benefits for his or her role as the highest-ranking Executive on top of being a Director.

Board Meetings

The Board of Directors schedules the exact date and time of board meetings for the entire year in advance. The agenda of each meeting is also clearly outlined. There were also other special meetings whenever the need arose. Directors received the invitation to the meeting, draft minutes of the previous meeting, and information accompanying the meeting agenda seven days prior to the meeting. In 2015, there were a total of 13 meetings scheduled in advance. Details of Directors' attendance are disclosed in Board Meetings, under Management Structure.

The Chairman chairs these Board Meetings and allows every Director to express their opinion freely. In accordance with best practices, the Board of Directors mandates that at least two-thirds of all Directors must be present to constitute a quorum and the quorum must be maintained until voting. A resolution is passed based on majority votes. Each Director has one vote. Directors who have interests in an agenda item either refrain from attending the meeting during the discussion of that agenda item or from voting on that agenda item. In the event of a tie vote, the Chairman casts his vote to resolve the matter. The Chairman has encouraged all Directors to attend these meetings throughout 2015. The Board also places a great deal of importance on resolving conflicts of interest prudently, justly, and transparently. The Board also discloses information regarding conflicts of interest in full. In the event a Director has interests in the subject matter being considered, that Director must not be part of decision making. After the meeting, Corporate Secretary will complete meeting minutes, which will be presented as the first agenda item of the next meeting. The Chairman then signs his name to approve the minutes, which are then systematically kept as a confidential electronic document together with other agenda-accompanying documents for ease of retrieval and reference purpose.

Independent Directors held an Independent Director Meeting to exchange ideas and give suggestions independently. This meeting allowed them to discuss problems of management that are of interest to them without the presence of management. It was also a chance to discuss the protection of PTTGC's interests, prevention of conflicts of interest between PTTGC and stakeholders, internal control, and efficient and adequate risk management. In addition, there was a Director Meeting without management present that gave the Board a chance to express ideas and give suggestions on PTTGC's business.

Throughout 2015, Board Meetings were all e-meeting. Information and documents were sent to Directors on their iPad for convenience and swiftness, which also contributed to the reduction of paper use. These documents were classified as confidential and safeguarded by a security

system. Furthermore, PTTGC has taken advantage of the advancement of communication technology for members of the Board of Directors and Corporate Secretary to discuss matters relating to Board Meetings and other significant issues, such as news of PTTGC's operations, news released to the media and the public, and information disclosed to the Stock Exchange of Thailand through this communication platform.

Directors' Performance Assessment

Board of Directors

In 2015, the assessment form underwent a revision. The Board of Directors is assessed every year to help Directors review their performance and revisit problems and obstacles of the past year. There were three types of assessment: [group assessment](#), [self-assessment](#), and [cross-assessment](#) (assessing another Director). The score was divided into five levels. The overall assessment was summarized and presented to the Board and is disclosed in the annual report. In order for these assessments to be more suitable, PTTGC has revised questions and criteria in accordance with the guidelines on board assessment. The result of the assessment will be used as one of the criteria for considering annual remuneration for the Board, on top of PTTGC's operating performance. The summary was presented to the Board, who acknowledged it and used suggestions to devise guidelines that will help concretely improve the efficiency of the Board.

1. [Group assessment](#) comprises six categories of questions, namely, board policy, board performance, board structure, board style, board meeting, and board development. 15 Directors in position during the time of assessment in December of 2015 were assessed.

[Group assessment of the Board in 2015 yields a score of 97.8%.](#)

2. [Self-assessment](#) comprises three categories of questions, namely, compliance with ethics and code of conduct, responsibility towards duties, and self-development and teamwork.

[Self-assessment of the Board in 2015 yields a score of 95.6%.](#)

3. [Cross-assessment](#) comprises three categories of questions, namely, independence, time dedication and meeting attendance, and expertise.

[Cross-assessment of the Board in 2015 yields a score of 98.1%.](#)

Sub-Committees

Sub-Committees consist of the Audit Committee, the Nomination and Remuneration Committee, the Risk Management Committee, and the Corporate Governance Committee. These Sub-Committees were assessed as a whole and their members were also assessed individually. In 2015, every Sub-Committee reviewed and improved the topics, questions, and criteria of the assessment.

1. [The Audit Committee](#) was assessed on the topics of its charter; composition; meetings; training and resources; responsibilities; relationship with department managers, internal audit department, auditors, and management; reporting to the Board and shareholders; and how they maintain performance quality. The results are summarized below:

- Group assessment: average of [92.2 %](#)
- Individual assessment: average of [88.1%](#)

2. [The Nomination and Remuneration Committee](#) was assessed on the topics of composition and qualification, scope of duties, meetings, reporting duty, and performance evaluation. This was also the first year that each Director to the Committee was assessed individually. The results are summarized below:

- Group assessment: average of [99%](#)
- Individual assessment: average of [98%](#)

3. [The Corporate Governance Committee](#) was assessed on the topics of composition and qualification, scope of duty, meetings, reporting duty, and performance evaluation. This was also the first year that each Director to the Committee was assessed individually. The results are summarized below:

- Group assessment: average of [98%](#)
- Individual assessment: average of [97%](#)

4. The Risk Management Committee was assessed on the topics of composition and qualification, scope of duty, meetings, reporting duty, and performance evaluation.

The results are summarized below:

- Group assessment: average of 99%
- Individual assessment: average 99%

Additionally, the Nomination and Remuneration Committee will use the results of these assessments as one of the criteria in considering appropriate remuneration for Directors' 2015 performance, on top of PTTGC's operating performance and other criteria.

Development of Directors and Executives

The Board of Directors values continuous training courses pertaining to the development of Directors' knowledge and skills. These courses help with the creation of new ideas that will bolster the performance of the Board. Additionally, PTTGC regularly train Executives to prepare them for position rotations within the organization and for the succession to other important positions in the hierarchy.

Orientation for New Directors

PTTGC requires that all new Directors undergo orientation conducted by high-level Executives, which covers a business summary, data, practices, related rules and regulations, good corporate governance and business code of conduct including other useful information for the assumed position. Directors also get handbooks and other documents needed to perform their role namely, strategic plan, Articles of Association, Memoranda, annual report, related regulations, Corporate Governance and Business Code of Conduct Handbook, Compliance Policy Handbook. These documents for Directors are regularly updated.

Directors Training

PTTGC's Directors are knowledgeable and skillful. They constantly seeking additional knowledge that will help them better perform their role and benefit PTTGC's business. PTTGC encourages all Directors to undergo additional training to enhance their expertise.

- The Board of Directors participated in national events aimed at promoting good corporate governance and uplifting its standards. The Board also exchanged ideas with experts at national and regional level, for example, plant visits. This allowed Directors to have a first-hand experience of PTTGC Group's operations as well as those of joint-ventures. These visits enriched the Directors' understanding of PTTGC's business, as well as optimizing their knowledge and experiences to the benefit of PTTGC.
- All of Directors underwent training with the Thai Institute of Director Association (IOD) and PTTGC still encourages them to take other courses and programs that will help broaden their view, which may be applied to PTTGC's business. In 2015, Directors underwent the following important programs.

Name – Last Name / IOD's Program

1. Mr. Samerjai Suksumek
Director Certification Program (DCP) Class 204/2015
Director Accreditation Program (DAP) Class 120/2015
2. Colonel Nithi Chungcharoen
Director Certification Program (DCP) Class 200/2015
3. Mr. Don Wasantapruet
Director Accreditation Program (DAP) Class 117/2015
Role of the Nomination and Governance Committee (RNG) Class 7/2015
4. Mr. Praphon Wongtharua
Director Certification Program (DCP) Class 218/2016

IOD and Other Training Programs of the Board of Directors

Name – Last Name	DCP	DAP	ACP	RCP	FND	UFS	FSD	RNG	PDI	ACEP	CSP	CMA	TEA	Justice Administration
Mr. Prasert Bunsumpun		26/2004		28/2012								Class 3	Class 3	
Mr. Somchai Kuvijitsuwan	76/2006	56/2006		28/2012		3/2006						Class 9	Class 2	
Mr. Vasin Teeravechyan	155/2012	94/2012						5/2013						
Professor Surapon Nitikraipot	102/2008			25/2011								Class 4	Class 7	
Mr. Anon Sirisaengtaksin	73/2006	52/2006										Class 1		
Miss Ruenvadee Suwanmongkol	127/2010													Class 15
Mr. Amnuay Preemonwong	80/2006		38/2012				11/2011			13/2014				
Mr. Sarun Rungkasiri	61/2005				19/2005						8/2004		Class 5	
Mrs. Watanan Petersik		83/2010												
Mr. Don Wasantapruet		117/2015						7/2015					Class 6	
Colonel Nithi Chungcharoen	200/2015													
Mr. Autapol Rerkpiboon	173/2013											Class 20		
Mrs. Boobpha Amornkiatkajorn	152/2011											Class 21		
Mr. Praphon Wongtharua	218/2016													
Mr. Supattanapong Punmeechaow	131/2010			30/2013					Class 12				Class 4	

DCP : Director Certification Program

DAP : Director Accreditation Program

ACP : Audit Committee Program

RCP : Role of the Chairman Program

FND : Finance for Non-Finance Director Program

UFS : Understanding the Fundamental of

Financial Statement

FSD : Financial Statements for Director

RNG : Role of the Nomination and Governance Committee

PDI : Corporate Governance Program for Directors and Executives of State Enterprises and Public Organizations

ACEP : Anti-Corruption for Executive Program

CSP : Company Secretary Program

CMA : Capital Market Academy Leadership Program Academy

TEA : Executive Program on Energy Literacy for a Sustainable Future

Justice Administration:

The Programme of Senior Executives on Justice Administration

In 2016, PTTGC has already enrolled new Directors for training, in addition to having applied for their IOD membership, which grants them access to necessary information and expands their knowledge. Every time when PTTGC receives training invitations or training material related to the Board of Directors, they will forward such to the Board for enrollment.

A lecture called Corporate Compliance Overview and Modern Board Roles in the Corporate Compliance Program was organized on August 24th, 2015 with the help of a speaker from Hunton & Williams, a well-known international lawfirm. This lecture informed the Board of Directors of corporate compliance guidelines of PTTGC Group and concrete compliance in accordance with international standards.

Talent Management and Succession Plan

PTTGC has a systematic succession plan with Talent Grouping, 360-degree Executive Evaluation, and an Assessment Center that gauges Leadership Competency, Organization Knowledge, and Experience. All of these contribute to effective individual development plans.

Moreover, to support business expansion, the change of organization structure, and to replace vacant positions due to retirement, we laid down succession plans, which ensure business continuity and contribute to the achievement of strategic goals. These plans will help PTTGC manage vacancies from retirement, transfer, or appoint new positions that emerge from restructuring or expansion in Thailand and abroad. Potential candidates to be successor will be part of a systematic development scheme that readies them for succession.

Governance of PTTGC and Its Subsidiaries

The Board of Directors endorsed to devise compliance guidelines for PTTGC's subsidiaries and affiliates. These companies are to operate and manage their business in compliance with PTTGC's Business Principles to ensure efficiency. [The Board of Directors has tasked the President and Chief Executive Officer to regulate policies, criteria, rules, and methods to appoint an employee or a person to be Director of PTTGC's subsidiaries and affiliates. These are listed in human resource management regulations of PTTGC.](#) The person appointed as a Director to a subsidiary or affiliate is tasked with managing the company to which he or she is a Director to generate the utmost benefit. Additionally, the Board of Directors ensures that important policies of these subsidiaries and affiliates comply with regulations of the SEC and the SET, as well as applicable laws. These policies include among others, Management Policy, Corporate Governance Policy, Corporate Compliance Policy, Financial and Accounting Policy, Safety, Occupational Health, and Environmental Management Policy, CSR Policy, Human Resource Management Policy.

The Board of Directors applies a mechanism to govern the investment of PTTGC's subsidiaries and affiliates by appointing PTTGC's Executives to serve as Managing Directors in these companies. In this regard, PTTGC nominates Executives as representatives from PTTGC to be Directors in these subsidiaries and affiliates. The Board issued an order titled [Guidelines for Governance of Policies and Investments of Companies Whose Shares Are Held by PTT Global Chemical Public Company Limited](#). These guidelines help Company's Executives and representatives perform their role in companies under PTTGC with the same or similar governance to PTTGC, yielding efficient, transparent, and fair operations that achieve goals.

Furthermore, person appointed to PTTGC's subsidiaries must ensure that those subsidiaries have regulations on connected transactions that in line with those of PTTGC. They must also have data storage and accounting records that is auditable and can be used to consolidate with the company's financial statements in timely manner.

On July 3rd and 6th, 2015, PTTGC held a lecture titled Mandatory Corporate Compliance for US Petrochemical Team for Executives and staff members appointed to work in the US to prepare them for the job.

Compliance with Other Principles of Good Corporate Governance

In summary of 2015, PTTGC thoroughly comply with good corporate governance principles. PTTGC adopted a non-discriminating against gender, nationality, and religion practice in determining Directors' qualification where the Board will consider nominee(s) based on the possession of diverse knowledge and skills. PTTGC strategies are now reviewed "every year". The Chairman has qualified as an Independent Director. All Sub-Committees must be assessed for their performance yearly. Companies under PTTGC must have similar standards for their financial, accounting, tax, and budget policies. The Corporate Governance Committee is now officially tasked with Corporate Social Responsibility, as mandated by its charter, which aligns with its current role. All possible dimensions of risk are assessed, including

the possibility of corruption within PTTGC. Internal control framework has been made to assess corruption risks at the process level. Internal control systems are regularly evaluated for their suitability and efficiency. [The Charter of the Nomination and Remuneration Committee was updated to require at least two meetings a year](#), replacing the previous once-a-year requirement. PTTGC has placed a great deal of importance on anti-corruption and anti-money laundering campaign, the blackout period in which Directors and Executives with insider information are prohibited from trading PTTGC stocks has been changed from 45 days to 30 days.

Furthermore, according to the Good Corporate Governance Principles, the Board of Directors should consist of 5-12 Directors. As of December 31st, 2015, PTTGC's Board is comprised of 15 Directors. This figure is suitable for the size and growth of PTTGC's business. The Board is comprised of experts held in high esteem with diverse experience and expertise in industrial production, petroleum, petrochemical, management, legal, accounting & finance, and corporate governance etc.



Mr. Adisorn Vichaikatka

Vice President of Internal Audit,
and Secretary to the Audit Committee.

Heads of Internal Audit and Corporate Compliance

Head of Internal Audit

At the meeting of the Audit Committee No. 4/2013, held on July 5th, 2013, has appointed Mr. Adisorn Vichaikatka as Vice President of the Internal Audit Department and serves as secretary to the Audit Committee from August 1st, 2013 onwards. His appointment was made due to his extensive knowledge, skills, experience, and qualifications required for the job. He has been working in Internal Audit, Internal Control, and Risk Management for PTTGC since 2005. He also underwent all extensive training courses required for internal audit. The appointment, termination, and rotation of the Vice President of the Internal Audit Department must be approved by the Audit Committee, as stipulated by its charter.

Head of Corporate Compliance

PTTGC has tasked Mrs. Warawan Tippawanich, Senior Vice President - Corporate Affairs and Corporate Secretary to oversee Corporate Compliance. Her roles and responsibilities are to encourage and support compliance activities among Executives, employees, and PTTGC Group including joint venture companies to comply with the laws, rules, and regulations.

People Management and Development Policy

Organizational and Personnel Management

The development of a strong basic human resource management system is a pivotal mechanism that effectively increases PTTGC's competitiveness in the market and the driving force behind our success. It provides the necessary support for our domestic and international investment, which in turn ensures our sustainable growth. Dedicated to developing High Volume Specialties, eco-friendly and socially responsible products, as well as to expanding our business overseas, we aligned our human resource management plans and objectives with our business. For instance, we have restructured our Research and Development and Innovations departments to support our various ventures, establish better links with our businesses abroad, and increase the size and diversity of our business.

PTTGC places much importance on recruiting talented personnel for departments that are vital to the achievement of our objectives. We are prepared to replace retiring personnel, as well as to support new ventures such as international business development, engineering, and operations. Furthermore, to support the expansion of our business on foreign soil, PTTGC plans to recruit and hire locally. We have added new recruitment channels to find entry-level employees and mid-level management domestically and internationally through social media, including LinkedIn. We have also been building an international network of connections to establish our name in the global labor market, as well as to increase the size of our international database.




PTTGC's performance evaluation is consisted of annual goal setting, mid-year review, and year-end assessment. To ensure impartiality and transparency, we require employees and their supervisors to discuss their performance at least twice a year, in addition to conducting a panel-style peer review in each field of work. The results of this performance evaluation are reflected in the annual salary adjustment outlined in PTTGC's remuneration policy and subject to our earnings. Meanwhile,

PTTGC assures that all of our employees have all the legally required welfare benefits to afford them a good-quality work life. Additionally, the Workplace Welfare Committee is tasked with giving beneficial suggestions to management on the matter of employees' care. It also gives consultation to management and help foster good relations between the Company and its employees.

Career management is a fundamental system in orienting and setting up goals for efficient development and preparation of personnel, which in turn ascertain long-term growth for PTTGC. Our career management system is designed to drive and push for functional excellence in every department. The Company employs career path and progression scheme techniques in the many job families established, such as marketing, finance and accounting, business development, engineering, and operations. Furthermore, the company is establishing other job families, such as human resources and innovations, to assist employees in clearly seeing a chance to grow within their field. Our career management also serves as a way for line managers to develop and help employees gain knowledge and expertise that suit present and future needs.

To bring about effective development, the Company has tasked employees and their supervisors with making an individual development plan (IDP) to develop human resources within their specific field. Career Plans are also made for capable employees, especially those who are considered talents and successors. These employees need to be prepared for their future or target roles. PTTGC focuses on using a systematic job rotation according to employees' IDP or career plan. Last year, we announced the official Rotation Policy to serve as concrete and clear guidelines on the matter. This new policy helps support our existing development policy's 70:20:10 (Experience: Exposure: Education) guidelines. In addition, the Company has started a systematic career development for specialists, from identifying specialists in the area of expertise needed and enhance their in-depth skill/knowledge in order to retain the expertise along organization.

As for employee development, the Company has conducted training through the following channels:

-  In line with PTTGC's human resource management strategy to support business growth, we have launched a program called Marketing & Sales Competency Development (MSCD). It aims to develop the expertise of all sales and marketing employees, from entry-level to executives. Also, we have another program named Overseas Readiness for Specific Group that helps improve employees' English skills and foster their cultural awareness, preparing them for our foreign expansion and projects abroad such as the US Shale Gas Project.
-  To develop PTTGC's leaders at all levels, Leadership Development Roadmap has been established and implemented, namely Foundation of Leadership (FOL) for senior staff, Leadership Development Program 1 (LDP1) for middle management, and Leadership Development Program 2 (LDP2) for senior management. These programs are designed to enhance their leadership and business points of view.
-  To support environmental and energy conservation policy, PTTGC launched 28 training programs in Thailand and overseas for all employees involved. These programs account for 5.5 percent of all training programs the Company has to offer. Some examples of the programs include Energy Awareness and ISO 50001 program, Executive Energy Program (EEP), various energy conservation programs, LCA and Water Footprint program, and ISO 14064-1 Internal Verification program.

Knowledge management, is also of great value to PTTGC because we want our staff to have the proper capability and expertise built on an excellent base of knowledge. As the Company's goal is to become a knowledge-based petrochemical and refinery organization, as well as a true learning organization. In additions, knowledge management is a crucial tool that will enable every department to continuously and systematically collect, exchange, and share working knowledge and experience. It is a method of safeguarding our know-how within our organization, learning from past mistakes to prevent them from recurring, and developing best practices, on new standards can blossom. Moreover, knowledge management enables us to create process and product innovations that meet customer demands. These will in turn yield invaluable outcomes for our organization, help us keep up with business changes, and sustainably support growth. Additionally, knowledge is also used in the forms of coaching or mentoring, on the job training, and general training to increase the potential of an employee to become a trainer. Besides storing knowledge, this system also allows convenient access for employees even when they're working abroad.

The GC SPIRIT core values PTTGC is eager to cultivate our core values and embed it in employees' mindset in order to create unity and drive the company toward its goal which is being a global player on behalf of PTT Group chemical flagship company. In addition, the company has continuously been promoted among PTTGC's personnel, and we encourage them to apply these values in their line of work. For new employees, PTTGC arranges an intensive orientation program, both internally and boot-camp style, to instill the values in them through first-hand experiences.



Leadership Development Program 2 (LDP2)



Leadership Development Program 1 (LDP1)



Functional Awayday

Orientation also helps employees build relations, which will facilitate their cooperation in the long run. GC SPIRIT is also linked to human resource management and development systems, including the annual performance evaluation and competency assessment, leading to expertise development on top of application of the values by employees and executives alike. In addition, PTTGC has redefined the core behaviors that reflect these values to ascertain that they are measurable, so that we will see these core values put into practice in an ongoing and sustainable manner.

As for international human resource management, PTTGC has improved the standard of making contract for overseas secondment, aligning it with our tax policy and the law of the destination country, in an effort to support our growth abroad. Moreover, the Company has improved overseas secondment management processes by clearly outlining steps before, during, and after each employee's overseas secondment. These steps are in line with measures and policies, as well as connected with related units. Furthermore, the company has also built relations with the leading universities by sponsoring TUBC (Thammasat Undergraduate Business Challenge) and retain the connection with the talent from around the world in order to meet our demand as to increase foreign hiring opportunities.

The Company encourages employees to work happily and have good quality of life, safety, and hygiene. We are also dedicated to improving and enhancing our organizational and personnel management capacity because human resources are valuable components of a strong organization with sustainable growth.



G

Global
Mindset

C

Customer
Focus

S

Synergy

P

Performance
Excellence

I

Innovation

R

Responsibility
for Society

I

Integrity and
Ethics

T

Trust and
Respect

Report of the Corporate Governance Committee

Dear Shareholders,

The Corporate Governance Committee is comprised of Professor Surapon Nitikraipot, chairman of the Committee, Colonel Nithi Chungcharoen, and as of November 1st, 2015, the Board of Directors appointed Mr. Auttapol Rerkpiboon (to replace Mr. Sarun Rungkasiri who was appointed to the Risk Management Committee) and also appointed Mr. Don Wasantapruerk to the Committee, having 4 members in total.

In 2015 the Corporate Governance Committee, both former members and new appointees, has successively duly performed its duties set forth in the Company's charter and executed its tasks mandated by the Board of Directors. The Committee held a total of six meetings. Below is a summary of key developments:

1. Monitoring full compliance with applicable regulations, laws and good practice guidelines

- The Committee reviewed administration plan for convening the Annual General Shareholders' Meeting (AGM), and made suggestions to ensure that the AGM is carried out in an orderly, transparent, and efficient manner, in line with good corporate governance guidelines and in compliance with the Stock Exchange of Thailand's AGM Checklist. As a result, the Company's AGM has consecutively been awarded a perfect 100 percent score for its organizational distinction.
- The Committee supervised the stipulation of principles and a timeframe for minority shareholders to provide them opportunity to propose meeting agenda items and nominate any person to be elected as the Company's directors by submitting their proposal to the Company more than three months (from September 28th to December 31st, 2015) prior to the 2016 AGM date in order to promote shareholders' rights and equality. The Committee also reconsidered the number of proportion of shares held by minority shareholders entitled to propose agenda items and nominate any person to be director and lowered the number from 0.5 percent to 0.1 percent. This new principle is to be in effect from the 2016 AGM onwards.
- The Committee oversaw the review and revision of the Corporate Governance handbook to be in line with local guidelines and international standard, including IOD's CGR, CAC's anti-corruption self-evaluation, ASEAN CG Scorecard, and DJSI. Additionally, the Committee ensures that PTTG's global subsidiaries follow similar corporate governance guidelines and that they disseminate the Company's business code of conduct to customers, trade partners and business partners to inform them of our business objectives.

2. Contribute to compliance with good corporate governance and business code of conduct policies

- The Committee considered and approved the Company's corporate governance and corporate compliance plans for 2016, as well as reviewed reports of the previous year's operations, to continuously align the Company's corporate governance practices with accepted international standards.
- The Committee reviewed the reporting of good corporate governance activities in the Company's 2015 Annual Report and in Form 56-1, ascertaining complete disclosure and in accordance with good corporate governance guidelines. It also evaluated the Company's Corporate Governance to make certain that the Company's practices align with Thai and international standards. Consequently, the Company was awarded TOP 5 ASEAN PLCs and TOP 3 Domestic PLCs (Thailand) by the ASEAN Capital Market Forum (ACMF) from the ASEAN CG Scorecard.

- ✎ The Committee considered and approved the review of anti-corruption measures. Updates were made to the self-evaluation form. Risks of corruption in the Company's operations were also assessed in accordance with guidelines and conditions of Thailand's Private Sector Collective Action Coalition Against Corruption (CAC).

3. Supervision of sustainable development operations

- ✎ The Committee continually supervises and monitors the Company's operations on its responsibility toward the various groups of stakeholders to ensure that concrete actions are taken and assessment on sufficiency are made for improvement and development. It also monitors the Company's operations that may have an effect on communities, society and the environment; responsible units submit a summary report of their progress to the Committee, informing it of the comprehensive situation, future countermeasure plans, preventive measures, remedy and aid, social, economic and environmental follow-ups and rehabilitation.
- ✎ The Committee supervises and monitors reporting of sustainable development operations as part of good corporate governance. This includes periodical report as deemed appropriate, field visit to Rayong province to participate in local community activities and to meet with employees at Rayong Office. The visit allowed the Committee to exchange views and hear problems directly from community leaders.

4. Performance, assessment and development

- ✎ The Corporate Governance Committee preset the date of its meetings over a year. This enabled the Committee to consider and acknowledge various matters, including future plans, and to effectively make recommendations to management.
- ✎ Questions in the 2015 operations assessment questionnaire were updated in accordance with the Stock Exchange of Thailand's guidelines, the Board of the Year project as well as the international standards such as DJSI and ASEAN CG Scorecard and local standards such as CGR and CAC. The update aims to clarify any ambiguity and make the questionnaire more relevant to current events.
- ✎ The Committee considered and reported to the Board of Directors the result of its 2015 performance assessment.

The Board of Directors, management and employees of all levels believe in the importance of good corporate governance practices, that they enable the Company to operate efficiently and sustainably. The Corporate Governance Committee is dedicated to ensure the Company's strict compliance with its good corporate governance and business code of conduct policies. The Committee shall endeavor to unceasingly develop our corporate governance in reflection of international practices to earn confidence from our stakeholders as well as global recognition to our Company and its operations now and in the future.

On behalf of the Corporate Governance Committee

(Signed) Surapon Nitikraipot

(Professor Surapon Nitikraipot)

Chairman of the Corporate Governance Committee

Report of the Nomination and Remuneration Committee

Dear Shareholders,

In 2015 the Nomination and Remuneration Committee comprises Mr. Vasin Teeravechyan, the chairman of the Committee, Professor Surapon Nitikraipot and Mr. Sarun Rungkasiri. The Committee held a total of six meetings, and has duly performed its duties set forth in the charter and carried out tasks mandated by the Board of Directors. Below is a summary of key developments:

1. Nomination of director

- ✎ The Committee nominated person to replace those Directors whose term were expired at the 2015 Annual General Shareholders' Meeting (AGM). A period of more than three months prior to the AGM was provided for shareholders to nominate candidates for the vacant positions. There was no nomination proposed to the Company during such period, the Committee, therefore, nominated qualified candidates with the required experience and expertise, suitable for the business of the Company. Those candidates were appointed as Directors by the shareholders at the AGM.
- ✎ The Committee considered appropriate candidates to replace Directors who resigned before the end of their term during the year 2015. The candidates were nominated and presented to the Board of Directors for their consideration and appointment.
- ✎ The Committee considered suitable candidates to fill those vacant positions in Sub-Committee by taking into consideration regulations set forth by the Securities and Exchange Commission, the Stock Exchange of Thailand, the Company's Articles of Association, as well as the charter of each Sub-Committee. The candidates' qualification, knowledge, expertise and relevant experiences that might benefit each Sub-Committee were also taken into account.

2. Remuneration

- ✎ The Committee gave consideration to the remuneration of the Company's Board of Directors and the Directors of each of the Sub-Committees for the year 2015 as well as the Directors' bonus for the year 2014. The consideration was made based on the Board of Directors' performance, economic situation, the Company's performance, and comparison with remunerations of Directors of other listed companies of similar size in the same industry then proposed to the 2015 AGM for consideration and approval.
- ✎ The Committee considered the performance and remuneration of the Company's Chief Executive Officer and President. The remuneration was determined based on a fair and reasonable basis taking into account the past year's performance and scope of responsibility and comparing it to the remuneration of chief executive officers of other companies in the same industry then proposed to the Board of Directors for approval.

3. Assessment of the Board of Directors' performance in 2015

- ✎ The Committee reviewed and adjusted all three assessment methods for the Board of Directors' performance in 2015, namely group assessment, individual self-assessment and cross-assessment. The goal was to make them more complete,

up-to-date, and in line with good practice guidelines, the Stock Exchange of Thailand's guidelines, and international DJSI standard. The assessment results are, in addition to the Company's performance, one of the criteria for determining the annual remuneration of the Directors.

- The Committee also conducted an assessment on its own performance for the year 2015 and reported the results to the Board of Directors and disclosed the same in the Annual Report.

4. Performance development and improvement

- The Committee reviewed the Charter of the Nomination and Remuneration Committee and increased the minimum requirement of meeting from once a year to twice a year, to be in accordance with the updated good corporate governance guidelines.
- The Committee reviewed and made changes to the Skills Matrix of the Board of Directors for consideration of director nomination to be more diversify and suitable for the business, according to international standards for nomination.

The Nomination and Remuneration Committee is committed to perform its duties in a transparent manner with strict adherence to the principles of good corporate governance. This is to ensure confidence among the shareholders and stakeholders in the Committee's nomination and remuneration processes, culminating in an excellent stature for the Company in the long run.

On behalf of the Nomination and Remuneration Committee

(Signed) Vasin Teeravechyan

(Mr. Vasin Teeravechyan)

Chairman of the Nomination and Remuneration Committee

Report of the Risk Management Committee

Dear Shareholders,

PTT Global Chemical Public Company Limited has always placed a great deal of emphasis on risk management to ascertain its performance, under the uncertainty context, to achieve the objectives, to create a value added for the business, and to build sustainable growth for the Company supervised by the Risk Management Committee (RMC). The RMC is composed of qualified professionals with experience and expertise in risk management. Its role is to govern PTTGC risk management as responsibility and accountability assigned by the Board of Directors. In 2015, there were a total of eight RMC meetings. The important issues of what the RMC has done can be demonstrated as below.

1. Reviewed the RMC Charter for the Board of Directors' approval and implementation, as well as deliberate, the policies and frameworks related to the risk management to correspond with PTTGC's business context as appropriate.
2. Gave consent to risk management framework related to the feedstock, product price and foreign exchange rate. During the past year, there is high volatility in petroleum, petrochemical price and exchange rate; without adequate risk management measures, PTTGC's performance could be affected. Therefore, the RMC closely monitored hedging position under the risk management framework. There were special RMC meetings to reconsider the framework suit with the changed situation to effectively manage risks.
3. Reviewed and made recommendations on the risk mitigation measures and key risk indicators (KRIs) for corporate risks to ensure that PTTGC's risk management covered all of important issues were all are in acceptable levels. The RMC also monitored the risk management progress by quarter.
4. Reviewed and provided recommendations on risk assessment and risk management measures for PTTGC's major investment projects, e.g., US Petrochemical Complex, to ascertain the appropriateness and sufficiency of risk management measures for the Board of Directors' consideration.
5. Provided opinions and recommendations on 2016 corporate risk factors to ensure the alignment on business directions, strategies, organizational goals, with the changed environment.

6. Reported the risk management performance to the Board of Directors by quarter.
7. Evaluated the RMC's performance and of each individual members by annual. The results were presented to the Board of Directors for their acknowledgement.

All in all, the Risk Management Committee greatly values its roles, which ensure both efficiency and effectiveness in risk management. Rigorous work of the RMC allowed PTTGC to achieve its goals and objectives, as well as create a long-term sustainable value added to PTTGC for its shareholders and stakeholders.

On behalf of the Risk Management Committee

(Signed) Anon Sirisaengtaksin

(Mr. Anon Sirisaengtaksin)

Chairman of the Risk Management Committee



The background is a solid green color. On the left side, there is a curved, leaf-like shape in a lighter shade of green. In the center, there are three concentric circles. The innermost circle is a solid dark green. The middle circle is a lighter green with a dashed border. The outermost circle is the same light green as the middle one but with a solid border.

Sustainable Development












Sustainable Development

PTTGC incessantly strives for self-development to maintain its leadership in the chemical industry. We have endeavored to achieve all dimensions of operational excellence to become a role model of a sustainable organization and to prepare for global-scale competition. We have developed a framework for sustainable development in accordance with the Dow Jones Sustainability Indices (DJSI) for the chemicals sector. Also, we have been exemplary in ensuring that our business operations are environmentally friendly and socially responsible, as well as taking part in social development. Additionally, we have extended our sustainable business operations to our partners by lending them our know-how, such as business code of conduct and environmental and social responsibility. Consequentially, we've helped laid down the foundation of sustainability for the country, and, in extension, the world.

PTTGC is dedicated to ascertaining that we operate according to sustainable development principles by balancing three facets of business operations, namely economical, social and environmental. By balancing them, we are able to both foster organizational growth and fulfill the demands of stakeholders. Our corporate social and environmental responsibility, under the framework of good corporate governance, is highly regarded by leading organizations, both in local and global.

Awards and Honors

International Awards and Honors in 2015

-  PTTGC was named one of the top 10 listed companies in the chemicals sector in Dow Jones Sustainability Indices (DJSI) for the third consecutive year. In 2015, PTTGC was awarded Silver Class from Dow Jones Sustainability Indices. This is a ranking of the world's leading companies operating under sustainable development principles. PTTGC is the first and only Asian chemicals-sector company to be globally recognized for its leadership in sustainable development.
-  According to Forbes Global 2000, Leading Companies, a list of the world's 2,000 biggest public companies compiled by Forbes, PTTGC was ranked number 1,033. Forbes took four metrics into consideration: sales, profits, assets, and market value.
-  Analyzing information from the world's leading petrochemical and chemical companies, ICIS placed PTTGC at number 17 on its list of the world's top 100 petrochemical companies, based on its outstanding performance.
-  PTTGC received ASEAN CG Scorecard Awards 2015 at the highest level, top five ASEAN PLCs and top three Thailand PLC from ASEAN Capital Market Forum Evaluated and Awards.
-  The American Chemical Society (ACS) ranked PTTGC at the 40th among other 50 places on its list of the world's top petrochemical companies, based on growth and profits.
-  PTTGC's sustainability reporting conformed with the G4 guidelines provided by Global Reporting Initiatives. Our reporting was certified for its accuracy, integrity and completeness of information.
-  PTTGC joined the United Nations Global Compact : LEAD Program, the first Thai company to join this exclusive group.
-  PTTGC was named one of the world's 100 leading companies that are exemplary of its sustainable development work by The Global Compact 100.
-  PTTGC was awarded Petrochemicals Company of the Year 2015 by Petroleum Economist.
-  PTTGC received Best Managed Company – Oil / Gas / Chemicals / Petrochemicals in Asia, Overall in 2015 from EUROMONEY.
-  PTTGC was awarded Best CSR and Best Environmental Responsibility by Corporate Governance Asia magazine in 2015.

Important Award and Honors in 2015



- PTTGC was awarded Golden Peacock Award in 2015 by the Institute of Directors for its outstanding management of corporate governance.
- PTTGC was awarded Asia Responsible Entrepreneurship Award 2015 in the Green Leadership Award from Entrepreneur Asia for the second consecutive year.

National Awards and Honors in 2015

Economy-Related

- PTTGC received two awards in sustainability area namely Registration Sustainability Award and Sustainability Investment Organization Award conferred by the Stock Exchange of Thailand.

- Corporate Brand Success Valuation: PTTGC was recognized for the best brand valuation, with a value of 12.519 billion baht, among petrochemical and chemical businesses in the industrial sector by the Stock Exchange of Thailand and Chulalongkorn University. This is the fourth consecutive year that it has received this honor.
- PTTGC received a Thailand Top Company Award in 2015 under the Fast Growing Company category from BUSINESS+ magazine and the University of Thai Chamber of Commerce.

- PTTGC received an IRR Award for listed companies in 2015 in the excellent CEO, category for the fifth consecutive year and in the excellent CFO and excellent IR categories for the forth consecutive year from the Investment Analysts Association.
- PTTGC was awarded the Best Electronic Banking Implementation from The Asset Triple A Transaction Banking: Asset Asian Awards in 2015.
- PTTGC was named the Best Investor Relations Professional and the Best Investor Relations Company by Corporate Governance Asia magazine in 2015.

Environment and Safety-Related

- PTTGC received nine awards in five categories namely Environmental Conservation, Energy Management, Productivity Improvement, Quality Management and Safety Management from the Prime Minister's Industry Awards conferred by the Ministry of Industry.
- PTTGC's divisions 2, 3, 4, 5, 8, 11, and 12, TOCGC (EG), TOCGC (EA), TOL, TSCL, PPCL (Phenol), and PPCL (BPA) received a Green Industry Recognition at level four from the Ministry of Industry.
- PTTGC received an honorary award in the Product for Life Enhancement category at the Thailand Green Design Awards 2015 from Kasetsart University.
- PTTGC Group's Polyethylene (PE), Aromatics, Petroleum, Green Chemicals and Ethoxylate products received a Global Warming Reduction Label from Thailand Greenhouse Gas Management Organization (Public Organization), which demonstrates our dedication to produce products that have reduced impact on the environment.
- PTTGC was awarded a Carbon Neutral certification on its Annual Report 2015 and Sustainability Report 2015 for the second consecutive year.
- PTTGC's divisions 2, 3, 4, 5, 6, 7, 8, 11, and 12 PPCL, TOCGC, TOL, TSCL, and TEX received a CSR-DIW Continuous award, reflecting our compliance with ISO 26000.

- PTTGC was awarded an excellent establishment on labor relations and social welfare for the fourth consecutive year from the Ministry of Labor.
- PTTGC was awarded an excellent establishment on safety, hygiene and work environment at the national level for the 17th consecutive year from the Ministry of Labor.
- PTTGC received a silver plaque for its campaign to reduce statistics of workplace accidents to zero in 2015.

Society-Related

- PTTGC received an ESG 100 certificate (ESG 100 Companies) from Thaipat Institute, illustrating its commitment to sustainable corporate development and outstanding public disclosure.
- In 2015, PTTGC was awarded CSR Excellence Recognition at the Gold level and Creative Partnership Designation Awards for the sixth consecutive year from American Chamber of commerce in Thailand. The awards were given to the company for its outstanding social responsibility projects.
- PTTGC was awarded the best Sustainability Report Awards 2015 on its Sustainability Report 2015 from CSR Club, Thai Listed Companies Association, Securities and Exchange Commission Thailand and Thaipat Institute.

These awards, certifications and recognition in the local and global areas serve as a sound evidence of PTTGC's commitment to being a sustainable organization according to the vision "To Be a Leading Chemical Company for Better Living."

Corporate Social Responsibility Activities

Strong society and communities are an important force that propels the country forward in a sustainable manner. Our goal is to help these communities develop self-sufficiency. We have divided them into groups to better meet their demands. A summary of the works done can be described below.

The Summary of Social activities in 2015

Group	Focal Social Contributions in 2015
<ul style="list-style-type: none"> Employees 	<ul style="list-style-type: none"> Laid down health and safety measures in line with workplace safety standards. Fostered a culture of workplace safety throughout (B-CAREs).
<ul style="list-style-type: none"> Surrounding Communities 	<ul style="list-style-type: none"> Supported and encouraged employees to continuously participate in various activities and projects to help improve conditions of surrounding communities and society.
<ul style="list-style-type: none"> Consumers 	<ul style="list-style-type: none"> Monitor safe and environmentally friendly manufacturing processes, using the Responsible Care management criteria for chemical companies.
<ul style="list-style-type: none"> Other Stakeholders 	<ul style="list-style-type: none"> Developed sustainably strong communities through collaboration with the Luffala Career Development Project. Local expertise has been used in producing body care products. Various youth education initiatives: <ul style="list-style-type: none"> Rayong Advanced Institute of Science and Technology and Rayong Science Academy, in collaboration with PTT Group University Entrance Assistance Project Chemical Engineering Technician V-ChEPC Development Program Various other public projects, including <ul style="list-style-type: none"> Biodegradable Nursery Bag Project, in collaboration with the Royal Project Provision of plastic pellets for use in artificial breast implants in the Empowerment against Breast Cancer Project InnoPlus Water Tank Project, to be used in the Royal Initiative Projects of the Chaipattana Foundation Helping underprivileged youth countrywide in the For Hopeful Children Project Blanket donation project as tribute to His Majesty the King, in collaboration with EO business group customers Environmental preservation and conservation projects, including <ul style="list-style-type: none"> Bio-diversity Development Project in the Huai Ma Haad Mountain Area Nature Restoration Project through the release of sea turtles and fish Plastic Flapped Sack Project to help prevent landslides

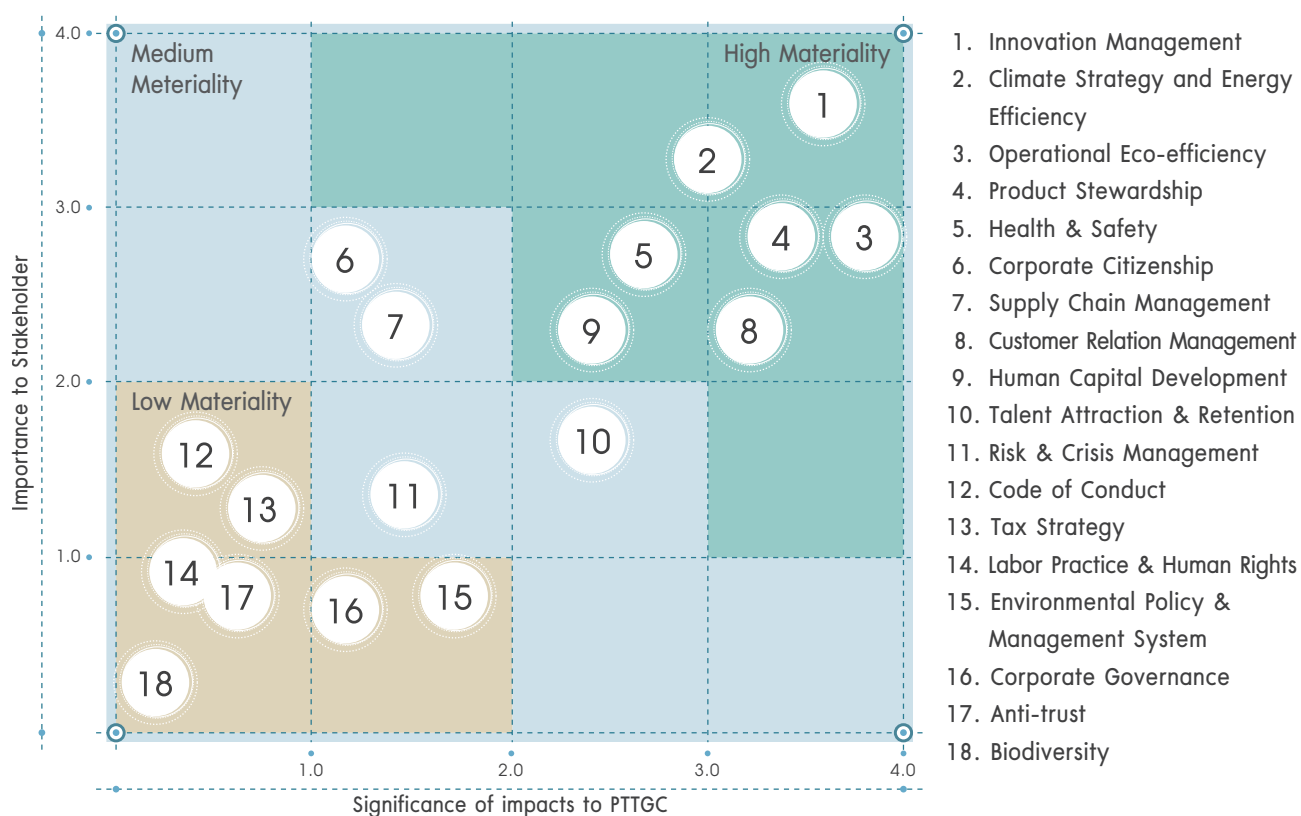
Sustainability Performance

PTTGC corporate social responsibility, both internal processes (in process) and our ability to meet the demands of external stakeholders (after process), is highly regarded by various institutes. This success is attributed to the evaluation of materiality matrix (see Figure 1). In other words, we evaluate what matters most by taking into consideration the expectations from stakeholders and our own ability to create a balance for sustainable development that is suitable for our own strategies.

This evaluation is very important to PTTGC and is designed to align with the guidelines provided by Global Reporting Initiatives (GRI), taking into account factors important to

PTTGC sustainable corporate development and conforming with the expectation of the stakeholders of the Company both directly and indirectly. There are three steps: 1) specifying what matters and outlining the framework of report, 2) determining priority issues per their level of materiality, and 3) reviewing.

In 2015, there were a total of 18 estimated important issues of the Company; among these, seven are of high materiality, four of medium materiality, and seven of low materiality. PTTGC has disclosed medium- and high materiality issues in the 2015 Sustainability Report.



PTTGC's Materiality Matrix

Safety, Occupational Health, and Environmental Management

PTTGC operations follow the Quality, Security, Safety, Occupational Health, Environment and Business Continuity (QSHEB) Policy, which complies with international standards, and is based on Corporate Governance principles. We also strictly follow other safety, occupational health, and environmental standards, in accordance with applicable laws and regulations. This practices of ours have garnered us a score of prestigious awards and accolades that embody our determination for business excellence.

Quality, Security, Safety, Occupational Health, Environment and Business Continuity (QSHEB) Policy

PTTGC is committed to being a leading chemical company and an organization of innovation with corporate social responsibility (CSR). Outlined below are our ways to unceasingly improve quality, security, safety, occupational health, environment, and business continuity:

1. PTTGC complies with quality, security, safety, occupational health, environment, and business continuity laws and regulations, as well as related standards and other requirements.
2. PTTGC implements Total Quality Management (TQM) through quality, knowledge, and productivity management to satisfy customers and to develop eco-friendly innovations.
3. PTTGC implements risk management to prevent danger, work-induced illness, accidental loss, injury, and property damage, while fostering a culture of B-CAREs safety and exercising Process Safety Management (PSM) to ensure everybody's safety.
4. PTTGC is vigilant of security threats in order to protect lives, assets, data, and business continuity of the organization.

5. PTTGC pays attention to occupational health and work environment, including the promotion of good health and happy workplace.
6. PTTGC assesses and minimizes its impacts on the environment, ecosystem, and biodiversity by focusing on at-source improvement and prevention, as well as efficient resource consumption. PTTGC also fosters a strong environmentally aware culture by disseminating information and encouraging employees and stakeholders to be part of the culture.

As all of PTTGC's executives are responsible achieving goals and objectives of PTTGC they are to set examples of and maintain our quality, security, safety, occupational health, environment and business continuity management system. By providing adequate resources, they encourage PTTGC's employees to apply the QSHEB Policy to their everyday operations. Additionally, our executives are also tasked with disseminating the QSHEB performance to all related parties.

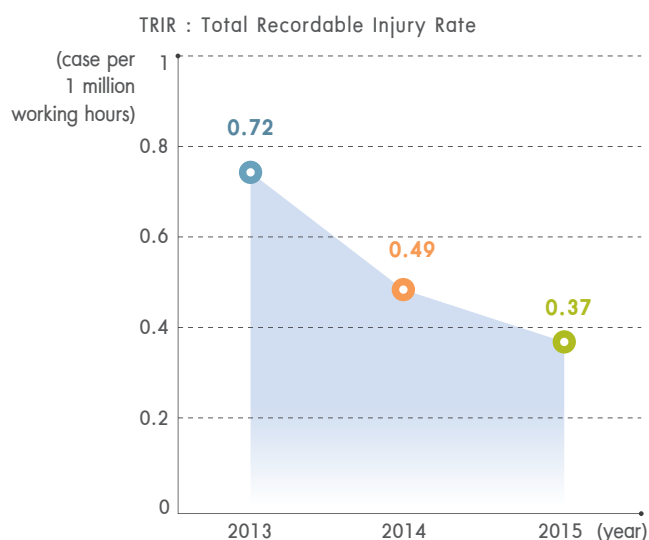
PTTGC's operating results in regard to quality, safety, occupational health and environmental management in 2015 are summarize below:

1. Safety Management

PTTGC firmly believes in the importance of safety for both employees and contractors. We instill in them an awareness of their own safety, as well as that of their colleagues, under the B-CAREs safety culture: "Believe in safe behaviors, care for each others, and stop if unsafe". Aiming to become an organization free from work-induced accidents and injuries, PTTGC has implemented occupational health, safety, and environmental management measures, Process Safety Management, and Contractor Safety Management.



Our 2015 safety statistics are deemed excellent in comparison to those in 2014 and 2013. Proving better than the mean rate of the Top 25% (First Quartile) of the global chemical and refinery industries, PTTGC recorded did not exceed 2 cases per 1 million working hours. In retrospect, in 2013 we had a total of 24 million working hours and recorded only 0.72 cases per 1 million working hours, whereas in 2014 we had a total of 33 million working hours and recorded only 0.49 cases per 1 million working hours. The number of cases went down 30 percent. As for 2015, we had a total of 44 million working hours, an increase of 11 million working hours, but we only recorded 0.37 cases per 1 million hours. These statistics prove the continuous decline of workplace accidents.



PTTGC Group's 2015 Safety Statistics

On another related matter, our subsidiary plants received an Outstanding Establishment Award in Safety, Occupational Health, and Work Environment at the national level for the 18th consecutive year (1998–2015). Also, three of PTTGC plants, namely Aromatics 1, Polyethylene, and PTT Phenol, were granted Industry Excellence Awards for Safety Management presented by the Ministry of Industry (the Prime Minister's Awards) in 2015. These accolades attest to our unceasing excellence in safety management.

As PTTGC's top executives recognize the importance of safety, occupational health, and environmental awareness, it is PTTGC policy to dedicate one day in every year, under

the concept "key of success," to promote this awareness, on top of energy conservation. This year the event was called PTTGC Group SEEK Day 2015. It promoted awareness through process safety management and B-CAREs safety culture. Awards were given to employees who had been exemplary in safety and environmental awareness by our Chief Executive Officer. There was also an exhibition to share knowledge, foster a sense of pride, and relish the achievements we have collectively made in safety, health, and environmental management.

Process [Safety Management \(PSM\)](#) also plays a vital role; it mandates that equipment used in production must pass a Process Hazard Analysis (PHA), even prior to the construction of a plant, to assure the surrounding communities of our high safety standards. PTTGC also employs Contractor Safety Management, which starts from selecting skilled and safety-conscious contractors. We test and train our employees and contractors on the subject of safety regularly. Any modification in the production process needs to undergo a Hazard and Operability Study (HAZOP) and requires a structured Management of Change prior to the said modification or construction. Before turning on a machine in production, an expert engineer conducts a Pre-Startup and Safety Review. Furthermore, anyone working within the production area needs permission to work from the person in charge; they must communicate with each other in accordance with safety measures prior to commencement. Additionally, we have established Process Safety Management Effectiveness KPIs that serve as guidelines to assess the effectiveness of our process safety management. These KPIs are a collaborative effort among related departments to ascertain thorough and complete process safety management.

As for our [safety culture](#), PTTGC conducted a PTTGC SHE Culture Survey to gauge the level of employees' and contractors' safety culture. The results were analyzed then used as guidelines for continuous improvement that will help us achieve the status of an organization with zero accidents or injuries. This included the making of Product Stewardship required by DJSI to communicate product safety information in the form of documents to all related parties, whether internal or external. As such, PTTGC is fully aware of safety qualities of our main and hazardous products.

PTTGC is a founding member of the Emergency Mutual Aid Group (EMAG); we took part in devising an emergency plan for the Province of Rayong and the Map Ta Phut Industrial Estate. We have also joined a group of industrial plants in the estate in a provincial-level emergency drill and an evacuation drill of communities around the estate. Additionally, we have assigned some of our employees who have the experience and expertise in responding to and mitigating a state of emergency—in collaboration with Rayong Provincial Governor, Rayong Voluntary Civil Emergency Relief Center, Map Ta Phut Municipality, and Map Ta Phut Industrial Group—to help nearby communities set up and undergo emergency drills as a preparation to handle possible accidents, which may affect them. We also have a business continuity management system, which helps us prepare for any possible accidents, allowing us to act quickly, collaborate with related parties, and help the area recover in an effective manner. It also allows us to continue our business with minimal disruption. This system has a clear, structured report line. This standardized Business Continuity Plan (BCP) serves as guidelines to help every plant of ours recover; at Olefins 1, it has even received an ISO22301:2012 certification.

2. Occupational Health Management

As PTTGC highly values its employees, particularly those in production processes, we take a proactive approach by reviewing our employees' health checkup program with a focus on the group of employees with a higher chance of exposure to hazardous substances. In addition, we have implemented industrial hygiene measures in all operational areas, covering temperature, illumination, noise, and chemicals. The acquired data are used to improve working conditions. The very same data are also used in our health risk assessment, as to review the existing measures on the prevention of work-induced illnesses. In addition to employee's well-being, PTTGC also care about the people in communities near our plants and established two free-of-charge Pan Nam Jai Clinics located at Aromatics 2 plant and Olefins 3 plant in Nong Faep. We allot 4 million baht a year to the operations of these two clinics. Additionally, in collaboration with the Community Partnership Association (CPA), we initiated a mobile clinic unit to provide basic checkups and healthcare to residents in the 34 communities surrounding the Map Ta Phut Industrial Estate. The clinic is run by volunteers who sacrifice their time on their day off. In response to the yearly flu epidemic, PTTGC

provides free flu vaccination to all employees and directly hired contractors. PTTGC's concern also extends to their family members, who can receive the vaccine at a budget price. And during the campaign to vaccinate against tetanus and diphtheria, PTTGC asked our employees and their family members to register for the vaccine, illustrating our concern for our employees and their family.

3. Environmental Management

PTTGC has strictly followed all environmental standards, laws, and regulations. We employ an environmental management system that conforms to the ISO 14001:2004 standard as a fundamental standard in our operations. Other international standards and good practices are also used, such as the Environmental, Health, and Safety Guidelines by the International Finance Corporation (IFC) of the World Bank Group. We have also laid down a strategic proactive environmental management plan alongside the Company's long-term business plan.

As PTTGC also believes in the prevention of environmental impacts, we have established a stringent set of prevention and control measures that cover from the designing phase to conducting a thorough Environmental Impact Assessment (EIA) for each project. We also have measures to prevent and mitigate impacts during both the construction period and operation. We also appropriately and continuously monitor the quality of the environment. We present all of our findings to the responsible government authority to get an approval or permission prior to the commencement of work. We strictly comply with these prevention and mitigation measures. The results of such compliance are then reported to the supervisory authorities involved on a regular basis.

PTTGC is certified with ISO 14064-1:2006 for reporting of our greenhouse gas (GHG) emission based on international standards. The Company is the first petrochemical and refinery organization in the country to receive this qualification. Our adherence to international standards enables us to employ efficient greenhouse gas management, along with setting up future climate change guidelines. PTTGC Group takes pride in announcing that we will voluntarily reduce [greenhouse gas emission](#) from general operations by 10 percent within 2022, in comparison with the 2012 base year. By 2015, PTTGC has reduced emission by approximately

0.27 Million t-CO_{2e}* and achieved its target of 0.23 Million t-CO_{2e} reduction. We have made determined efforts in operating our business with effective use of energy and resources, while ensuring environmental impact control and minimization. Such endeavors have earned PTTGC the Climate Disclosure Leadership Index (CDLI) award from the Carbon Disclosure Project (CDP) for the third consecutive year. This prominent award is given to companies with outstanding, effective, and internationally recognized climate strategy management.

PTTGC Group uses the Eco-Efficiency program, a significant project that reflects our management efficiency in regard to the optimal use of natural sources, as index to systematically and continuously measure our eco-efficiency. It looks at the following: Water Use, Energy Use, Wastewater Generation, Global Warming Contribution, and Ozone Depleting substance emission. The index aims to help the use of resources to become more effective, while minimizing environmental impacts from all plant manufacturing activities and processes. All in all, PTTGC can ensure that our businesses are environmentally friendly and positively contribute to both the country's economy and environmental management as a whole into the future.

PTTGC Group is determined to drive its businesses toward sustainability and devotion to the environment. In addition to environmental management that is strictly in line with applicable laws, covering both plant processes and activities, PTTGC Group set the Zero Waste to Landfill goal to be completed in 2015. In order to achieve this goal, the 3Rs principle including Reducing waste at the source, Reusing waste and Recycling waste (Reduce, Reuse, and Recycle) has been implemented in conjunction with suitable technological innovations both inside and outside production processes. PTTGC Group also supports research and development to seek ways to increase value to waste, which is part of the established eco-industry development guidelines. Our dedication has proven fruitful, as we have achieved our target of zero waste to landfill at the end of 2014. Furthermore, PTTGC Group has voluntarily stipulated and implemented other measures in addition to the requirements mandated by law. These include the establishment

of stringent criteria for selecting industrial waste management processors. In other words, these selected companies must employ proper methods of waste management, which are practical and effective, as well as install a Global Positioning System (GPS) on all conveyances that transport hazardous waste from PTTGC plants to avoid illegal dumping or management, and make the optimal use of waste, which can no longer be reused at the plants. Furthermore, PTTGC Group provides staff with knowledge and training concerning the environment: environmental management is communicated to new staff during orientation, also, a knowledge refreshment training program conducted every two years. Environmental knowledge has been included in meetings and events, such as the meeting of the Safety, Occupational Health, and Environment Committee, the meeting of the Welfare Committee, the SEEK Day, and the reforestation and water conservation project at the Huai Ma Haad Mountain Area. There are also additional training sessions, including training for contractors who need to come on site for maintenance. We educate them about environmental awareness and management prior to commencement of work through the Safety Introduction Course, which is a requirement for all contractors. It serves as a reminder to all about safety and environmental awareness.

In 2015 the Ministry of Industry granted a Level 4 Green Industry (Green Culture) award to plants of PTTGC Group and we have also garnered Eco Factory award from the Federation of Thai Industries. These are all testaments to our dedication to environmental management for sustainability.

PTTGC highly values the significance of the communities surrounding the plants and has realized some potential problems. Construction of an Enclosed Ground Flare



Enclosed ground flare

* This reduction has not yet been verified as PTTGC is in the process of external third party verification of its emission according to the ISO 14064-1 standard will be published through www.pttgcgroup.com after the verification is complete.

at Olefins 3 plant was invested in accordingly to mitigate possible impacts. Through this Enclosed Ground Flare, the combustion of hydrocarbons is complete and smokeless. Aside from eliminating the light from the flaring process, it incorporates an absorbent material that prevents both heat radiation and noise from being emitted into the atmosphere and to community. This construction is the first and largest of its type in Thailand.

In addition, PTTGC installed [Vapor Recovery Units \(VRU\)](#) to recover hydrocarbon vapors emitted from the raw material and product tanks before returning them to the manufacturing process. This recovery method helps reduce of vapor emission into the atmosphere and also ensures optimal use of resources. The VRU system employed by PTTGC is regarded as the largest of its kind in Thailand.

PTTGC Group began its construction of [Groundwater Monitoring Wells](#) in 1992. To date, a total of 115 wells have been completed, which are ahead of the promulgation of the law on soil and groundwater contamination control within the production area.

In response to the green market demand, all products of PTTGC Group have been granted the carbon footprint labels by the Thailand Greenhouse Gas Management Organization (Public Organization), under the Ministry of Natural Resources and Environment. On top of this, PTTGC Group also underwent a [life cycle assessment \(LCA\)](#), which in 2015, finished assessing olefins and polymer products, and we aim to assess all of our products in the future.

Our operational excellence exceeds any regular operations and certainly goes above and beyond what the law requires, reflecting our environmental and corporate social responsibility. Every production plant in the PTTGC Group obtained the ISO 50001:2011 standard of [energy management](#). This accomplishment signifies our energy efficiency management, as well as our continuous improvement and strict compliance with applicable conditions and legal regulations. These practices stemmed from our awareness of and concern about energy conservation, which has always played a crucial role in all of our operations.

PTTGC has implemented a set of [Pollution Prevention](#) measures as follows:

- PTTGC keeps a record of Volatile Organic Compounds (VOCs) emission and maintains equipments to ensure minimum emission of the substance into the air. These tasks are performed in addition to the installation of the VRU system on truck loading stations.
- PTTGC has installed the hydrocarbon Vapor Return Lines to carry vapors that can possibly be emitted into the atmosphere back into the product tanks for proper air emission management and control.
- PTTGC studies ways to enhance capability for the production of low-sulfur diesel in line with the Euro IV standard for the Clean Fuels project. Achieving this enables PTTGC to provide environmentally friendly fuels, which ultimately contributes to the overall reduction of air pollution in Thailand.
- PTTGC uses clean fuels to lower the emission of sulfur dioxide (SO₂) and improves the ignition of the gas-turbine power generator to lower the emission of oxides of nitrogen (NO_x).
- PTTGC employs Continuous Emission Monitoring Systems (CEMS) by installing the equipment at the top of every stack in our plants and constantly sends around the clock data to the Environmental Monitoring and Control Center (EMC2) located at the Map Ta Phut Industrial Estate Office.
- PTTGC has an effective system to make optimal use of water in the production process, while minimizing release of effluent by recycling treated water in other activities of the plant. A water treatment system is employed so as to monitor and ensure that, prior to its release, the quality of wastewater conforms to the effluent standards.

As a chemical industry leader as well as an organization of innovation, PTTGC Group is determined to operate its businesses with a strong commitment to both society and communities. In the long run, such endeavors will allow us to become a Leading Chemical Company for Better Living.



The image features a vibrant yellow background. On the left side, there is a semi-circular inset showing a blurred image of financial documents, including a line graph and tables of numbers. Overlaid on the yellow background are several concentric circles. The innermost circle is a solid, darker yellow. Surrounding it are three more circles, each defined by a dashed line in a lighter shade of yellow. Centered within the solid inner circle is the text "Financial Excellence" in a clean, white, sans-serif font.

Financial Excellence

Report of the Audit Committee

Dear Shareholders,

The Audit Committee of PTT Global Chemical Public Company Limited (PTTGC) consists of three independent directors who are experienced in the fields of management, finance, accounting, economics, and law. Mr. Somchai Kuvijitsuwan presides over the committee as chairman. The other two directors are Mr. Amnuay Preemonwong and Ms. Ruenwadee Suwanmongkol. Each of them meets all requirements and criteria set forth by the Stock Exchange of Thailand.

The Audit Committee performs its duties as laid out by PTTGC's Board of Directors and in its Charter; these are consistent with announcements from the Stock Exchange of Thailand and the Securities and Exchange Commission. In performing its duties, the Audit Committee has emphasized the adherence to principles of Good Corporate Governance and compliance with related laws, rules and regulations in both domestic and international operations including given precedence to the adequacy and effectiveness of the Company's internal control and internal audit systems, as well as reviewing operating results of all business groups and major investments.

In 2015, the Audit Committee held a total of eight meetings. While Mr. Somchai Kuvijitsuwan and Mr. Amnuay Preemonwong attended all eight, Ms. Ruenwadee Suwanmongkol attended four. The following is a summary of opinions and key activities undertaken by the Audit Committee:

1. **Review of Financial Reports:** The Audit Committee reviewed PTTGC's quarterly and annual financial statements for the year 2015, as well as any transactions that could have led to a conflict of interest. The reviews were attended by related members of management and auditor, to give explanations and clarify any questions that arose related to the accuracy, completeness, significant adjusted entries that affected the financial statements, sufficiency of the information disclosure, and audit results. The Audit Committee has opinion that PTTGC's financial reports present fairly in all material respect in accordance with Thai Financial Reporting Standards. In addition, the meeting between the Audit Committee and auditors without the presence of management was held to make independent discussion on the preparation process of financial statement and reporting, namely the auditor's annual audit plan and framework, risks, internal control, internal audit, allegation, fraud, and other related issues. The Audit Committee realized that auditor received good cooperation and supported from management, independently performed his duties with sufficient knowledge, experience and appropriate audit approach.
2. **Review of Risk Management:** The Board of Directors, the Risk Management Committee, and management in general has given precedence to risk management. Internal and external risk factors have been identified and assessed for their impacts and likelihoods, risk mitigation plans were developed, implemented and regularly monitored to ensure those risks were mitigated down to the acceptable level. Key risk indicators were set to monitor changing factors and enhance the effectiveness and timeliness of the risk responses. The Management reported the progress of risk management activities to the Board of Directors on a regular basis. Additionally, the Audit Committee reviewed the effectiveness of risk management based on business groups' performance reports, internal audit reports and auditor reports. These could reasonably assure that the Company would be able to mitigate potential risks down to acceptable level.

3. **Review of Internal Control Systems' Effectiveness:** The Audit Committee reviewed PTTGC's internal control system by reviewing the result of internal control assessment performed by the management in accordance with the guidelines set forth by the Securities and Exchange Commission (SEC), the internal audit reports and auditor reports. From this review, no major irregularity that could significantly affect the Company was discovered. Moreover, management continuously improves internal control system based on suggestions from the Audit Committee, the auditor, and the internal auditor. These lead to the conclusion that the Company has given precedence to internal control, which could be reasonably assured in its adequacy and effectiveness.
4. **Oversight of Internal Auditing:** The Audit Committee approved an improvement of internal audit charter, risk based internal audit plan covering significant controls of company and its subsidiaries, the internal audit strategic plan which focused on the development of internal audit capabilities, alignment with company strategies, and built good relations with stakeholders including the key performance indicators (KPIs) of Internal audit. From monitoring and assessing the execution of those plans, the Audit Committee found that Internal Audit succeeded in carrying out its tasks as described in the plans and International Standards for the Professional Practice of Internal Auditing and international leading practice were applied. Internal audit has emphasized the adherence to the Code of Ethics, is independent according to the defined structure and has well collaboration with management and auditor. These indicate that the Company has independent and effective internal audit which operate in accordance with the international practices.
5. **Compliance with Related Laws and Regulations set by Stock Exchange of Thailand and other applicable Laws:** Internal audit was assigned by the Audit Committee to review the compliance of applicable laws, rules and regulations that effect the company's operation. The review result indicates that the Company had laid down a system to ensure compliance, including compiling applicable laws and monitoring changes and new laws. The Company had also appointed responsible persons to oversee compliance. No non-compliance that would significantly affect the Company was found. Furthermore, the Audit Committee did not receive any reports from the auditor, allegation from outsiders, or management's information disclosure which indicated that the Company had breached any law and regulations that would significantly affect it. It could be concluded that the Company has effective control of legal compliance and there is no non-compliance that would significantly affect it.
6. **Review of Connected Transactions or Other Transactions that may result in Conflicts of Interest to comply with law and Stock Exchange of Thailand's regulation :** Internal audit was assigned by the Audit Committee to randomly review feedstock and service purchase and sale transactions between company and related parties. The review result indicated that there was no connected transaction which irregularities from approved contracts those were processed in accordance with the announcements of the Securities and Exchange Commission (SEC).

Moreover, the Audit Committee reviewed connected transactions related to acquisition and disposition of assets in regard to the adjustment of stock held in PTT Polymer Marketing Co., Ltd. (PTTPM), and PTT Polymer Logistics Co., Ltd. (PTTPL): The Company bought shares in PTTPM from IRPC Public Company Limited (IRPC) and bought part of PTTPL's stock from PTT Public Company Limited. It is Audit Committee's opinion that the Company processed these transactions in accordance with applicable laws and the SEC's regulations. The aforementioned transactions were reasonable, just, and beneficial to the Company.

7. **Appointment of 2016 Auditor:** The Audit Committee selected auditors to nominate from auditors who proposed their service to the Company. Taken into consideration were their qualifications, capabilities, and service fees. The Audit Committee nominated the following auditors to the Board of Directors, who then proposed these names to the shareholder meeting to be appointed as the 2016 auditor: Mr. Charoen Phosamritlert (Auditor #4068), or Mr. Winij Silamongkol (Auditor #3378), or Mr. Niran Lilamethawat (Auditor #2316) from KPMG Phoomchai Auditors Co., Ltd. All of the nominees were from the list approved by the SEC; they possessed sufficient experience and hadn't audited or expressed their opinions on PTTGC's financial statements for more than five fiscal years.
8. **Review of Company's Self-Assessment on Anti-Corruption Measures according to The Collective Action Coalition against Corruption (CAC):** The Audit Committee reviewed the result of anti-corruption program review and fraud risk assessment performed by company in 2015, the Audit Committee found that the Company has improved its fraud risk assessment program. These improvements included implementation of control self-assessment (CSA) and fraud risk assessment based on the tools recommended by the Association of Certified Fraud Examiners (ACFE). Moreover, the Company implements many activities to promote and communicate anti-corruption stance. Among these were knowledge sharing from outside speakers and informative exhibitions for executives and employees to increase their understanding, and awareness. The Audit Committee believes that these are testaments to the Company's commitment to the battle against corruption and its dedication to improving the effectiveness of existing measures.
9. **Reviews of Audit Committee Charter:** The Audit Committee proposed amendments to its Audit charter by adding the duty and responsibility to terminate an auditor, as well as launching an investigation into an executive director's suspicious activities upon receiving information from the auditor. The amendments were approved by the Board at the board meeting number 3/2015 held on March 23rd, 2015.
10. **Assessments of Audit Committee Performance:** The Audit Committee evaluated its 2015 performance as a whole and of each individual director. The result of the assessment was reported to the Board and is disclosed in this annual report.
11. **Performance Reports of Audit Committee:** The Audit Committee provided reports on its operations and activities to the Board of Directors on a regular basis. In 2015, a total of four reports were made.

From the above-mentioned activities throughout 2015, the Audit Committee believes that the Company has good corporate governance, sufficient internal control that is suitable for its business, effective risk management, credible accounting, and financial reporting, as well as compliance with laws, rules, and regulations applicable to its business.

The Audit Committee received good collaboration throughout 2015 from the Board of Directors, management, the auditor, and relevant parties. As such, we'd like to express our gratitude to all of them.

On behalf of the Audit Committee

(Signed) Somchai Kuvijitsuwan

(Mr. Somchai Kuvijitsuwan)

Chairman of the Audit Committee

Report of the Board of Directors' Accountability to Financial Report

The consolidated financial statements of PTT Global Chemical Public Company Limited and its subsidiaries was prepared in accordance with the Securities Exchange Commission under the Securities and Exchange Act B.E. 2535 and Department of Business Development, issued under the Accounting Act B.E. 2543 Section 11 paragraph 3 in accordance with the Federation of Accounting Professions' Thai Financial Reporting Standards.

The Company's Board of Directors is responsible for financial report of PTT Global Chemical Public Company Limited and its subsidiaries in providing reasonable assurance that the financial report present fairly financial position, financial performance and cash flows. The accounting data is sufficiently and accurately recorded to preserve the Company's assets and prevent fraud and irregularity. The financial report has been prepared accordingly to appropriate accounting policy and consistency practices, and in accordance with Thai Financial Reporting Standards. Significant information has been sufficiently disclosed in notes to financial statements, where the auditor expressed an opinion on the financial statements of PTT Global Chemical Public Company Limited and its subsidiaries in the auditor's report.

(Signed) Prasert Bunsumpun
(Mr. Prasert Bunsumpun)
Chairman

(Signed) Supattanapong Punmeechaow
(Mr. Supattanapong Punmeechaow)
President & Chief Executive Officer

Independent Auditor's Report

To the Shareholders of PTT Global Chemical Public Company Limited

I have audited the accompanying consolidated and separate financial statements of PTT Global Chemical Public Company Limited and its subsidiaries (the "Group"), and of PTT Global Chemical Public Company Limited (the "Company"), respectively, which comprise the consolidated and separate statements of financial position as at 31 December 2015, the consolidated and separate statements of income and comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated and Separate Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated and separate financial statements in accordance with Thai Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated and separate financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

My responsibility is to express an opinion on these consolidated and separate financial statements based on my audit. I conducted my audit in accordance with Thai Standards on Auditing. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated and separate financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Opinion

In my opinion, the consolidated and separate financial statements present fairly, in all material respects, the financial position of the Group and the Company, respectively, as at 31 December 2015 and their financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards.

Emphasis of Matter

Without qualifying my opinion, I draw attention to notes 3 and 5 to the financial statements which describe the effect of the Company's adoption from 1 January 2015 of certain new accounting policies and business combination under common control. The corresponding figures presented are based on the audited financial statements as at and for the year ended 31 December 2014 after making the adjustments described in notes 3 and 5.



(Vairoj Jindamaneepitak)
Certified Public Accountant
Registration No.3565
KPMG Phoomchai Audit Ltd.
Bangkok
15 February 2016

Statement of financial position

PTT Global Chemical Public Company Limited and its Subsidiaries

Assets	Note	Consolidated financial statements			Separate financial statements		
		31 December		1 January	31 December		1 January
		2015	2014	2014	2015	2014	2014
			(Restated)	(Restated)		(Restated)	(Restated)
(in Baht)							
Current assets							
Cash and cash equivalents	7	11,482,803,936	13,819,656,269	16,181,362,225	6,948,680,839	10,136,107,441	10,703,289,676
Current investments	13	36,258,195,511	31,967,946,796	25,522,421,000	35,106,047,000	31,477,456,000	24,675,521,000
Trade accounts receivable	6,8	32,148,157,836	38,506,432,541	56,171,590,897	26,565,899,697	31,498,489,505	49,711,065,844
Other receivables	6,9	6,125,513,333	4,934,904,471	3,278,581,732	5,542,075,140	4,887,083,025	2,629,281,488
Inventories	10	29,930,018,935	31,576,844,410	46,406,068,745	23,392,590,733	25,890,645,365	39,937,558,590
Short-term loans to related parties	6	-	-	-	591,000,000	737,000,000	842,000,000
Current portion of long-term loans to related parties	6	-	-	-	-	2,907,214,080	37,000,000
Receivable from Oil Fuel Fund		17,505,196	356,719,353	811,183,718	17,505,196	356,719,353	811,183,718
Value-added tax receivable		1,064,676,284	876,033,605	1,799,202,801	440,142,509	276,308,487	1,364,182,553
Derivatives	36	22,804,440	27,693,060	49,466,615	20,768,417	6,792,909	6,042,175
Other current assets		850,914,937	1,064,456,654	1,146,462,199	718,860,278	1,006,704,745	1,034,601,469
Total current assets		117,900,590,408	123,130,687,159	151,366,339,932	99,343,569,809	109,180,520,910	131,751,726,513
Non-current assets							
Investments in subsidiaries	6,11	-	-	-	54,706,000,180	43,397,696,336	40,531,172,790
Investments in joint ventures	6,12	11,109,689,855	11,539,335,665	12,072,494,964	1,152,840,400	220,000,000	220,000,000
Investments in associates	6,12	12,392,623,078	11,647,247,701	11,203,178,870	9,322,699,660	9,322,699,660	9,322,699,660
Other long-term investments	13	573,614,909	573,614,909	610,032,641	290,738,392	290,738,392	290,738,392
Long-term loans to related parties	6	-	-	-	-	3,093,896,038	4,853,012,537
Long-term loans to other parties		739,978,684	675,669,579	673,365,478	-	-	-
Property, plant and equipment	14	220,212,777,529	219,345,562,447	219,318,254,941	171,521,410,627	173,431,620,190	175,285,978,090
Land leasehold right	15	400,939,481	439,309,158	476,493,344	400,262,401	438,374,895	476,493,344
Goodwill	16	1,267,501,158	1,643,685,510	1,671,918,401	-	-	-
Intangible assets	17	8,837,070,464	8,099,816,740	7,437,810,059	5,338,539,749	4,937,509,976	3,844,238,859
Derivatives	36	7,845,653	66,609,527	33,526,953	7,845,653	66,609,527	13,050,856
Deferred tax assets	18	304,832,159	329,340,164	324,535,132	-	-	-
Other non-current assets		3,797,391,879	3,952,467,484	4,097,821,854	2,521,062,536	2,693,184,904	2,574,576,507
Total non-current assets		259,644,264,849	258,312,658,884	257,919,432,637	245,261,399,598	237,892,329,918	237,411,961,035
Total assets		377,544,855,257	381,443,346,043	409,285,772,569	344,604,969,407	347,072,850,828	369,163,687,548

The accompanying notes are an integral part of these financial statements.

Statement of financial position

PTT Global Chemical Public Company Limited and its Subsidiaries

Liabilities and equity	Note	Consolidated financial statements			Separate financial statements		
		31 December		1 January	31 December		1 January
		2015	2014	2014	2015	2014	2014
		(Restated)	(Restated)	(Restated)	(Restated)	(Restated)	
(in Baht)							
Current liabilities							
Bank overdraft and short-term loans							
from financial institutions	19	601,668,697	788,312,468	2,253,500,907	-	-	-
Trade accounts payable	6,20	19,650,224,134	21,678,994,897	44,117,811,335	15,873,557,469	18,611,011,870	39,635,191,981
Other payables	6,21	7,779,235,029	8,138,710,909	7,349,552,119	5,625,059,921	5,621,009,526	4,702,145,323
Payables to contractors	6	2,131,516,025	2,450,812,289	3,125,859,492	2,212,474,187	2,243,113,902	2,950,373,658
Short-term loans from related parties	6,19	-	-	-	880,120,417	2,014,622,829	1,237,545,524
Current portion of long-term loans							
from financial institutions	19	7,456,254,643	7,556,121,872	4,442,557,371	5,968,226,000	5,993,539,331	3,159,483,333
Current portion of long-term loans							
from other parties	19	754,909,442	692,128,077	16,870,258	-	-	-
Current portion of debentures	19	1,058,000,000	14,430,805,807	15,000,000,000	1,058,000,000	14,430,805,807	15,000,000,000
Income tax payable		642,529,493	68,164,529	1,272,817,509	557,903,488	-	1,201,628,777
Derivatives	36	431,666,704	273,309,763	193,752,324	425,768,667	270,856,777	122,079,742
Short-term provision		690,032,897	9,608,916	118,025,794	-	9,608,916	118,025,794
Other current liabilities		24,753,092	31,633,111	96,772,282	-	-	353,619,116
Total current liabilities		41,220,790,156	56,118,602,638	77,987,519,391	32,601,110,149	49,194,568,958	68,480,093,248
Non-current liabilities							
Long-term loans from financial institutions	19	44,010,299,423	39,939,567,121	39,533,537,542	31,588,854,000	29,737,360,000	32,062,135,332
Long-term loans from other parties	19	1,158,090,527	1,039,533,029	1,739,359,488	-	-	-
Debentures	19	50,807,499,956	48,695,858,380	52,878,120,050	50,807,499,956	48,695,858,380	52,878,120,050
Deferred tax liabilities	18	2,227,324,764	2,562,889,087	2,764,907,402	1,608,628,604	1,464,770,773	1,577,049,293
Employee benefit obligations	22	2,918,651,764	2,789,246,856	2,257,837,726	1,963,199,810	1,817,878,472	1,353,469,815
Derivatives	36	97,080,566	117,731,965	129,574,958	97,080,566	117,731,965	129,574,958
Long-term provisions		397,827,667	1,268,104,371	207,567,033	-	-	-
Other non-current liabilities		442,529,194	461,808,972	417,607,682	329,420,217	260,273,868	190,958,871
Total non-current liabilities		102,059,303,861	96,874,739,781	99,928,511,881	86,394,683,153	82,093,873,458	88,191,308,319
Total liabilities		143,280,094,017	152,993,342,419	177,916,031,272	118,995,793,302	131,288,442,416	156,671,401,567

The accompanying notes are an integral part of these financial statements.

Statement of financial position

PTT Global Chemical Public Company Limited and its Subsidiaries

Liabilities and equity	Note	Consolidated financial statements			Separate financial statements		
		31 December		1 January	31 December		1 January
		2015	2014	2014	2015	2014	2014
			(Restated)	(Restated)		(Restated)	(Restated)
		(in Baht)					
Equity							
Share capital	23						
Authorised share capital		45,088,491,170	45,088,491,170	45,088,491,170	45,088,491,170	45,088,491,170	45,088,491,170
Issued and paid-up share capital		45,088,491,170	45,088,491,170	45,088,491,170	45,088,491,170	45,088,491,170	45,088,491,170
Treasury shares	24	(2,104,534,625)	-	-	(2,104,534,625)	-	-
Share premium	25	36,936,829,684	36,936,829,684	36,936,829,684	36,936,829,684	36,936,829,684	36,936,829,684
Difference arising from business combination							
under common control	25	(1,658,035,683)	(1,657,080,044)	(1,657,080,044)	-	-	-
Retained earnings							
Appropriated							
Legal reserve	25	4,512,930,269	4,512,930,269	4,512,930,269	4,512,930,269	4,512,930,269	4,512,930,269
Loan repayment reserve		807,802,564	807,802,564	807,802,564	807,802,564	807,802,564	807,802,564
Projects expansion reserve		12,446,994,126	12,446,994,126	12,446,994,126	12,446,994,126	12,446,994,126	12,446,994,126
Treasury shares reserve	25	2,104,534,625	-	-	2,104,534,625	-	-
Unappropriated		132,503,486,704	125,880,676,906	123,786,862,424	125,816,128,292	115,991,360,599	112,699,238,168
Other components of equity		913,050,544	746,039,877	1,503,959,768	-	-	-
Equity attributable to owners of the Company		231,551,549,378	224,762,684,552	223,426,789,961	225,609,176,105	215,784,408,412	212,492,285,981
Former shareholder before business restructuring	3,5	-	1,513,579,251	1,365,596,346	-	-	-
Non-controlling interests		2,713,211,862	2,173,739,821	6,577,354,990	-	-	-
Total equity		234,264,761,240	228,450,003,624	231,369,741,297	225,609,176,105	215,784,408,412	212,492,285,981
Total liabilities and equity		377,544,855,257	381,443,346,043	409,285,772,569	344,604,969,407	347,072,850,828	369,163,687,548

The accompanying notes are an integral part of these financial statements.

Statement of income

PTT Global Chemical Public Company Limited and its Subsidiaries

		Consolidated financial statements		Separate financial statements	
		For the year ended 31 December		For the year ended 31 December	
	Note	2015	2014	2015	2014
			(Restated)		(Restated)
		(in Baht)			
Revenue from sale of goods and rendering of services	6	403,440,229,574	554,695,088,316	359,155,731,950	503,505,213,298
Cost of sale of goods and rendering of services	6	(366,168,005,889)	(526,067,666,212)	(328,405,897,582)	(482,976,177,888)
Gross profit		37,272,223,685	28,627,422,104	30,749,834,368	20,529,035,410
Investment income	6	1,212,296,615	995,092,817	4,668,199,642	5,837,038,973
Other income	6	2,394,866,238	1,494,409,073	2,198,247,816	1,753,623,214
Selling expenses	6,27	(1,283,957,458)	(1,295,343,081)	(670,652,910)	(575,510,729)
Administrative expenses	6,28	(10,139,562,481)	(10,506,788,727)	(7,140,327,864)	(7,289,646,558)
Loss from impairment of assets	11,14,16	(2,530,904,888)	-	(281,551,026)	-
Provisions for business restructuring		-	(2,239,153,040)	-	-
Net derivative gain		2,595,388,702	2,750,065,185	2,636,950,356	2,665,629,289
Net foreign exchange gain (loss)		(2,288,507,809)	117,377,075	(2,333,249,469)	5,000,449
Finance costs	6,31	(5,177,793,631)	(5,447,582,983)	(4,616,400,343)	(4,892,617,990)
Share of loss of investments in joint ventures	12	(14,482,835)	(235,519,531)	-	-
Share of profit of associates	12	725,371,261	412,853,254	-	-
Profit before income tax expense		22,764,937,399	14,672,832,146	25,211,050,570	18,032,552,058
Income tax expense	32	(1,984,085,210)	(581,394,032)	(2,011,732,717)	(251,823,681)
Profit for the year		20,780,852,189	14,091,438,114	23,199,317,853	17,780,728,377
Profit (loss) attributable to:					
Owners of the Company		20,502,497,777	15,371,510,194	23,199,317,853	17,780,728,377
Former shareholder before business restructuring	3,5	105,156,553	241,485,768	-	-
Non-controlling interests		173,197,859	(1,521,557,848)	-	-
Profit for the year		20,780,852,189	14,091,438,114	23,199,317,853	17,780,728,377
Basic earnings per share	34	4.55	3.41	5.15	3.94

The accompanying notes are an integral part of these financial statements.

Statement of comprehensive income

PTT Global Chemical Public Company Limited and its Subsidiaries

	Note	Consolidated financial statements		Separate financial statements	
		For the year ended 31 December		For the year ended 31 December	
		2015	2014 (Restated) (in Baht)	2015	2014 (Restated)
Profit for the year		20,780,852,189	14,091,438,114	23,199,317,853	17,780,728,377
Other comprehensive income (loss)					
<i>Items that will never be reclassified to profit or loss</i>					
Defined benefit plan actuarial gains (losses)	22	41,349,867	(396,250,311)	-	(290,740,658)
Share of other comprehensive loss of investments in joint ventures	12	(46,053,175)	(206,312,060)	-	-
Share of other comprehensive loss of investments in associates	12	(9,241,006)	-	-	-
		(13,944,314)	(602,562,371)	-	(290,740,658)
<i>Items that are or may be reclassified to profit or loss</i>					
Foreign currency translation differences for foreign operations		(309,304,170)	(881,766,939)	-	-
Effective portion of changes in fair value of cash flow hedges		41,165,191	(39,338,764)	-	-
Share of other comprehensive income (loss) of investments in joint ventures	12	471,215,203	(10,226,259)	-	-
Share of other comprehensive income (loss) of investments in associates	12	(40,156,002)	358,074	-	-
		162,920,222	(930,973,888)	-	-
Other comprehensive income (loss) for the year, net of income tax		148,975,908	(1,533,536,259)	-	(290,740,658)
Total comprehensive income for the year		20,929,828,097	12,557,901,855	23,199,317,853	17,489,987,719
Total comprehensive income (loss) attributable to:					
Owners of the Company		20,644,825,847	14,030,597,006	23,199,317,853	17,489,987,719
Former shareholder before business restructuring	3,5	105,445,111	242,482,905	-	-
Non-controlling interests		179,557,139	(1,715,178,056)	-	-
Total comprehensive income for the year		20,929,828,097	12,557,901,855	23,199,317,853	17,489,987,719

The accompanying notes are an integral part of these financial statements.

PTT Global Chemical Public Company Limited and its Subsidiaries

Year ended 31 December 2014														
3	45,088,491,170	36,978,396,897	11,745,983,030	-	4,512,930,269	807,802,564	12,446,994,126	125,510,741,49	1,364,075,713	47,794,681	-	-	6,855,065,491	245,357,808,090
	-	(41,567,213)	(1,745,983,030)	(1,657,080,044)	-	-	-	(1,723,411,725)	(29,198,987)	-	121,288,361	-	(277,710,501)	(15,353,663,139)
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.5	45,088,491,170	36,936,829,684	-	(1,657,080,044)	4,512,930,269	807,802,564	12,446,994,126	123,786,862,424	1,334,876,726	47,794,681	121,288,361	-	1,365,596,346	231,369,741,297
	-	-	-	-	-	-	-	-	-	-	-	-	1,365,596,346	-
Transactions with owners, recorded directly in equity														
Contributions by and distributions to owners of the Company														
3.5	-	-	-	-	-	-	-	(14,197,865,288)	-	-	-	-	(556,076,408)	(14,753,941,696)
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total contributions by and distributions to owners of the Company														
	-	-	-	-	-	-	-	(14,197,865,288)	-	-	-	-	(556,076,408)	(14,753,941,696)
Changes in ownership interests in subsidiaries														
1.1	-	-	-	-	-	-	-	1,503,162,873	-	-	-	-	(4,953,060)	(4,953,060)
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	1,503,162,873	-	-	-	-	62,127,407,645	624,244,772
Total changes in ownership interests in subsidiaries														
	-	-	-	-	-	-	-	1,503,162,873	-	-	-	-	62,127,407,645	624,244,772
Changes in interests from business restructuring														
5	-	-	-	-	-	-	-	-	-	-	-	-	(94,500,000)	(94,500,000)
	-	-	-	-	-	-	-	-	-	-	-	-	(94,500,000)	(94,500,000)
Total changes in interests from business restructuring														
	-	-	-	-	-	-	-	(12,694,702,415)	-	-	-	-	(94,500,000)	(94,500,000)
Total transactions with owners, recorded directly in equity														
	-	-	-	-	-	-	-	(12,694,702,415)	-	-	-	-	(94,500,000)	(94,500,000)
Comprehensive income (loss) for the year (Restated)														
	-	-	-	-	-	-	-	15,371,510,194	-	-	-	241,485,768	(1,521,357,848)	14,091,438,114
	-	-	-	-	-	-	-	(582,593,297)	(707,715,806)	(39,338,764)	(1,223,395)	997,137	(193,620,208)	(1,533,536,259)
	-	-	-	-	-	-	-	14,788,516,897	(707,715,806)	(39,338,764)	(1,223,395)	242,482,905	(1,715,178,056)	12,557,901,855
Total comprehensive income (loss) for the year (Restated)														
	-	-	-	-	-	-	-	125,880,676,906	627,160,920	8,485,917	110,064,966	1,513,579,251	2,173,739,821	228,450,003,624
Balance at 31 December 2014 (Restated)														

The accompanying notes are an integral part of these financial statements.

Statement of changes in equity

PTT Global Chemical Public Company Limited and its Subsidiaries

Year ended 31 December 2015																			
45,088,491,170	-	36,978,395,897	11,745,983,030	-	4,512,930,269	807,802,564	12,446,994,126	-	127,068,097,306	567,247,241	8,455,917	-	1,355,211	577,058,309	239,426,362,731	-	2,449,749,521	241,876,012,252	
3	-	-	(11,745,983,030)	(1,657,080,044)	-	-	-	-	(1,387,930,400)	59,913,679	-	109,067,829	-	168,981,508	(14,663,578,179)	-	(276,009,700)	(149,398,587,879)	
3, 5	-	-	-	-	-	-	-	-	-	-	997,137	-	997,137	-	-	-	-	1,513,579,251	
45,088,491,170	-	36,936,829,684	-	(1,657,080,044)	4,512,930,269	807,802,564	12,446,994,126	-	125,888,676,906	627,160,920	8,455,917	110,064,966	358,074	746,039,877	224,762,684,552	1,513,579,251	2,173,739,821	228,450,083,624	
Transactions with owners, recorded directly in equity																			
Contributions by and distributions to owners of the Company																			
24	-	(2,104,534,625)	-	-	-	-	-	2,104,534,625	(2,104,534,625)	-	-	-	-	-	(2,104,534,625)	-	-	(2,104,534,625)	
35	-	-	-	-	-	-	-	(1,127,015,535)	-	-	-	-	-	-	(1,127,015,535)	-	(494,900,000)	(1,176,915,535)	
	-	(2,104,534,625)	-	-	-	-	-	2,104,534,625	(3,374,550,160)	-	-	-	-	-	(3,374,550,160)	-	(494,900,000)	(3,869,450,160)	
Changes in ownership interests in subsidiaries																			
11	-	-	-	-	-	-	-	-	(484,991,025)	4,535,803	-	-	-	4,535,803	(480,455,222)	-	854,814,902	374,359,680	
	-	-	-	-	-	-	-	-	(484,991,025)	4,535,803	-	-	-	4,535,803	(480,455,222)	-	854,814,902	374,359,680	
Changes in interests from business restructuring																			
3	-	-	-	(955,639)	-	-	-	-	-	-	-	-	-	-	(955,639)	(1,619,024,362)	-	(1,619,980,001)	
	-	-	-	(955,639)	-	-	-	-	-	-	-	-	-	-	(955,639)	(1,619,024,362)	-	(1,619,980,001)	
	-	(2,104,534,625)	-	-	-	-	-	2,104,534,625	(1,389,541,185)	4,535,803	-	-	-	-	4,535,803	(3,885,961,021)	35,934,902	(51,157,076,481)	
Total transactions with owners, recorded directly in equity																			
Comprehensive income (loss) for the year																			
Profit	-	-	-	-	-	-	-	-	20,502,497,777	-	-	-	-	-	20,502,497,777	105,156,553	173,197,859	207,868,521,189	
Other comprehensive income (loss)	-	-	-	-	-	-	-	-	(20,146,794)	(399,460,970)	41,165,191	471,215,203	(40,444,560)	162,474,864	142,323,070	288,558	63,599,280	148,975,908	
Total comprehensive income (loss) for the year	-	-	-	-	-	-	-	-	20,482,350,983	(399,460,970)	41,165,191	471,215,203	(40,444,560)	162,474,864	204,442,584,47	105,445,111	179,857,139	209,298,828,097	
45,088,491,170	(2,104,534,625)	36,936,829,684	-	(1,658,035,083)	4,512,930,269	807,802,564	12,446,994,126	2,104,534,625	132,503,486,704	322,237,53	49,621,108	581,280,169	(40,086,486)	913,850,544	231,551,549,378	-	2,713,211,862	234,264,761,240	
Balance at 31 December 2015																			

The accompanying notes are an integral part of these financial statements.

Statement of changes in equity

PTT Global Chemical Public Company Limited and its Subsidiaries

		Separate financial statements						
		Retained earnings						
		Issued and paid-up share capital	Share premium	Surplus on business combination	Legal reserve	Loans repayment reserve	Projects expansion reserve	Unappropriated
		(in Baht)						
Note								Total equity
Year ended 31 December 2014								
	Balance at 1 January 2014 - as reported	45,088,491,170	36,978,396,897	13,121,061,611	4,512,930,269	807,802,564	12,446,994,126	226,585,884,902
	Impact of changes in accounting policies	-	(41,567,213)	(13,121,061,611)	-	-	-	(14,093,598,921)
3	Balance at 1 January 2014 - restated	45,088,491,170	36,936,829,684	-	4,512,930,269	807,802,564	12,446,994,126	212,492,285,981
Transactions with owners, recorded directly in equity								
<i>Contributions by and distributions to owners of the Company</i>								
35	Dividends to owners of the Company	-	-	-	-	-	-	(14,197,865,288)
	Total contributions by and distributions to owners of the Company	-	-	-	-	-	-	(14,197,865,288)
Comprehensive income for the year								
	Profit	-	-	-	-	-	-	17,780,728,377
	Other comprehensive income (loss)	-	-	-	-	-	-	(290,740,658)
	Total comprehensive income for the year	-	-	-	-	-	-	17,489,987,719
	Balance at 31 December 2014 (Restated)	45,088,491,170	36,936,829,684	-	4,512,930,269	807,802,564	12,446,994,126	215,784,408,412

The accompanying notes are an integral part of these financial statements.

Statement of changes in equity

PTT Global Chemical Public Company Limited and its Subsidiaries

		Separate financial statements									
		Retained earnings									
		Issued and paid-up share capital	Treasury share	Share premium	Surplus on business combination	Legal reserve	Loans repayment reserve	Projects expansion reserve	Treasury shares reserve	Unappropriated	Total equity
	Note										
(in Baht)											
Year ended 31 December 2015											
Balance at 1 January 2015 - as reported											
		45,088,491,170	-	36,978,396,897	13,121,061,611	4,512,930,269	807,802,564	12,446,994,126	-	116,506,646,850	229,462,323,487
	3	-	-	(41,567,213)	(13,121,061,611)	-	-	-	-	(515,286,251)	(13,677,915,075)
Balance at 1 January 2015 - restated											
		45,088,491,170	-	36,936,829,684	-	4,512,930,269	807,802,564	12,446,994,126	-	115,991,360,599	215,784,408,412
Transactions with owners, recorded directly in equity											
Contributions by and distributions to owners of the Company											
	24	-	(2,104,534,625)	-	-	-	-	-	2,104,534,625	(2,104,534,625)	(2,104,534,625)
	35	-	-	-	-	-	-	-	-	(11,270,015,535)	(11,270,015,535)
Total contributions by and distributions to owners of the Company											
		-	(2,104,534,625)	-	-	-	-	-	2,104,534,625	(13,374,550,160)	(13,374,550,160)
Comprehensive income for the year											
		-	-	-	-	-	-	-	-	23,199,317,853	23,199,317,853
		-	-	-	-	-	-	-	-	-	-
Total comprehensive income for the year											
		-	-	-	-	-	-	-	-	23,199,317,853	23,199,317,853
Balance at 31 December 2015											
		45,088,491,170	(2,104,534,625)	36,936,829,684	-	4,512,930,269	807,802,564	12,446,994,126	2,104,534,625	125,816,128,292	225,609,176,105

The accompanying notes are an integral part of these financial statements.

Statement of cash flows

PTT Global Chemical Public Company Limited and its Subsidiaries

	Consolidated financial statements		Separate financial statements	
	For the year ended 31 December		For the year ended 31 December	
	2015	2014 (Restated)	2015	2014 (Restated)
	<i>(in Baht)</i>			
Cash flows from operating activities				
Profit for the year	20,780,852,189	14,091,438,114	23,199,317,853	17,780,728,377
<i>Adjustments for</i>				
Depreciation and amortisation	16,384,825,932	15,941,837,448	12,400,904,368	11,680,116,541
Investment income	(1,212,296,615)	(995,092,817)	(4,668,199,642)	(5,837,038,973)
Finance costs	5,177,793,631	5,447,582,983	4,616,400,343	4,892,617,990
Unrealised loss on derivative	176,302,754	140,971,718	179,048,857	198,662,205
Unrealised loss on exchange rate	3,788,698,967	285,455,960	3,763,296,152	313,054,787
(Reversal) allowance for doubtful accounts	77,896,128	2,574,223	(20,870)	-
Loss from written-off of assets	9,427,742	86,811,486	20,053,049	36,309,906
(Reversal) allowance for loss on decline in value and obsolescence of inventories	(2,902,358,278)	3,111,146,596	(2,845,156,448)	2,955,139,936
Gain from capital distribution of subsidiary	-	-	(42,302,503)	-
Provisions for business restructuring	-	2,239,153,040	-	-
Allowance for loss on impairment of assets	2,619,064,168	6,542,909	369,710,306	-
Loss on disposal of property, plant and equipment	224,334,435	58,078,460	166,996,619	22,208,262
Provision for employee benefit	285,587,782	281,397,827	205,766,997	173,045,226
Realised deferred pipeline income and equipment and other income	(8,535,925)	(17,122,947)	(10,040,842)	(18,751,417)
Share of loss of investments in joint ventures, net of income tax expense	14,482,835	235,519,531	-	-
Share of profit of investments in associates, net of income tax expense	(725,371,261)	(412,853,254)	-	-
Change in investment holding in subsidiary	-	(18,603,561)	-	-
Realised gain on dilution of investment	(432,350,388)	-	-	-
Income tax expense	1,984,085,210	581,394,032	2,011,732,717	251,823,681
	<u>46,242,439,306</u>	<u>41,066,231,748</u>	<u>39,367,506,956</u>	<u>32,447,916,521</u>

The accompanying notes are an integral part of these financial statements.

Statement of cash flows

PTT Global Chemical Public Company Limited and its Subsidiaries

	Consolidated financial statements		Separate financial statements	
	For the year ended 31 December		For the year ended 31 December	
	2015	2014	2015	2014
		(Restated)		(Restated)
	(in Baht)			
Cash flows from operating activities (Continue)				
<i>Changes in operating assets and liabilities</i>				
Trade accounts receivable	6,310,986,025	17,452,735,316	4,923,577,727	18,076,313,913
Other receivables	(1,078,736,516)	(1,111,756,406)	(879,417,172)	(1,903,727,536)
Inventories	4,518,806,856	11,494,702,931	5,323,158,031	11,055,463,383
Value-added tax receivable	(170,980,513)	919,330,216	(163,834,022)	1,087,874,067
Other current assets	454,060,255	504,061,307	627,162,251	448,974,837
Other non-current assets	(855,900,569)	(1,021,822,396)	(557,171,260)	(793,252,409)
Trade accounts payable	(2,047,744,344)	(22,008,525,115)	(2,736,823,777)	(20,682,407,795)
Other payables	(464,738,130)	139,801,533	2,760,416	502,147,187
Provision	(9,608,916)	(80,565,959)	(9,608,916)	(80,565,959)
Other current liabilities	658,207,634	696,286,268	-	84,462,827
Employee benefit obligations	(101,773,673)	(115,621,902)	(60,445,659)	(52,382,913)
Other non-current liabilities	(770,367,183)	670,315,745	86,235,587	81,331,462
Cash generated from operating activities	52,684,650,232	48,605,173,286	45,923,100,162	40,272,147,585
Income tax paid	(1,862,288,778)	(2,650,166,340)	(1,309,370,320)	(2,133,197,409)
Net cash from operating activities	50,822,361,454	45,955,006,946	44,613,729,842	38,138,950,176
Cash flows from investing activities				
Interest received	1,173,340,957	850,119,398	1,932,460,594	1,138,413,334
Dividends received	542,635,015	228,813,798	2,963,095,015	4,645,243,798
Purchase of property, plant and equipment	(17,745,812,935)	(17,303,859,119)	(9,407,871,513)	(9,776,371,771)
Sale of property, plant and equipment	64,028,179	21,183,933	44,702,298	13,162,484
Increase in current investments	(4,188,697,715)	(6,377,012,483)	(3,527,040,000)	(6,733,421,687)
Proceeds from short-term loans to related parties	2,000,000,000	-	2,706,000,000	621,167,213
Proceeds from long-term loans to related parties	-	-	6,425,967,752	431,000,000
Increase in short-term loans to related parties	(2,000,000,000)	-	(2,560,000,000)	(516,167,213)
Increase in long-term loans to related parties	-	-	(563,866,230)	(1,570,728,487)
Purchase of intangible assets	(1,233,178,337)	(1,089,371,854)	(886,656,205)	(963,653,251)
Purchase of land leasehold right	(66,862)	-	-	-
Cash inflow from capital distribution of subsidiary	-	-	42,302,503	-
Cash outflow for investment in subsidiaries, joint ventures and associate	(956,980,000)	(466,861,845)	(12,522,695,271)	(2,866,523,545)
Net cash used in investing activities	(22,344,731,698)	(24,136,988,172)	(15,353,601,057)	(15,577,879,125)

The accompanying notes are an integral part of these financial statements.

Statement of cash flows

PTT Global Chemical Public Company Limited and its Subsidiaries

		Consolidated financial statements		Separate financial statements	
		For the year ended 31 December		For the year ended 31 December	
	Note	2015	2014	2015	2014
			(Restated)		(Restated)
		(in Baht)			
Cash flows from financing activities					
Finance costs paid		(5,157,565,245)	(5,148,071,183)	(4,627,681,731)	(4,893,312,161)
Dividend paid		(11,764,915,535)	(15,093,585,288)	(11,270,015,535)	(14,197,865,288)
Finance lease payments		(209,649,874)	(246,698,188)	(135,122,897)	(174,663,612)
Proceeds from bank overdraft and short-term loans					
from financial institutions		85,000,000	488,908,067	-	-
Proceeds from short-term loans from related parties		-	-	-	931,384,038
Proceeds from short-term loans from other parties		-	48,250,315	-	-
Proceeds from long-term loans from financial institutions		26,433,837,503	21,848,324,274	20,842,500,000	16,387,500,000
Proceeds from long-term loans from other parties		51,572,818	4,300,874	-	-
Repayment of bank overdraft and short-term loans					
from financial institutions		(250,450,153)	(1,797,557,029)	-	-
Repayment of short-term loans from related parties		-	-	(1,134,502,413)	(154,306,733)
Repayment of short-term loans from other parties		-	(66,848,657)	-	-
Repayment of long-term loans from financial institutions		(22,798,674,418)	(18,312,125,657)	(19,362,339,332)	(16,009,483,334)
Repayment of long-term loans from other parties		(43,546,974)	(14,925,061)	-	-
Proceeds from issue of debentures		-	10,000,000,000	-	10,000,000,000
Proceeds from increase in investment in subsidiary					
from non-controlling interests		374,359,680	-	-	-
Repayment of debentures		(14,643,180,000)	(15,000,000,000)	(14,643,180,000)	(15,000,000,000)
Purchase of treasury shares		(2,104,534,625)	-	(2,104,534,625)	-
Purchase of treasury shares in subsidiary		-	(358,161,332)	-	-
Net cash used in financing activities		(30,027,746,823)	(23,648,188,865)	(32,434,876,533)	(23,110,747,090)
Net decrease in cash and cash equivalents		(1,550,117,067)	(1,830,170,091)	(3,174,747,748)	(549,676,039)
Cash and cash equivalents at beginning of year		13,819,656,269	16,181,362,225	10,136,107,441	10,703,289,676
Effect of exchange rate changes on balances held in foreign currencies at end of year		(786,735,266)	(531,535,865)	(12,678,854)	(17,506,196)
Cash and cash equivalents at end of year	7	11,482,803,936	13,819,656,269	6,948,680,839	10,136,107,441

The accompanying notes are an integral part of these financial statements.

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

Note	Contents
1	General information
2	Basis of preparation of the financial statements
3	Changes in accounting policies
4	Significant accounting policies
5	Business combination under common control
6	Related Parties
7	Cash and cash equivalents
8	Trade accounts receivable
9	Other receivables
10	Inventories
11	Investments in subsidiaries
12	Investments in joint ventures and associates
13	Other investments
14	Property, plant and equipment
15	Land leasehold right
16	Goodwill
17	Intangible assets
18	Deferred tax
19	Interest-bearing liabilities
20	Trade accounts payable
21	Other payables
22	Employee benefit obligations
23	Share capital
24	Treasury shares
25	Additional paid-in capital and reserves
26	Segment information
27	Selling expenses
28	Administrative expenses
29	Employee benefit expenses
30	Expenses by nature
31	Finance costs
32	Income tax expense
33	Promotional privileges
34	Basic earnings per share
35	Dividends
36	Financial instruments
37	Commitments with non-related parties
38	Contingent liabilities and assets
39	Litigations
40	Events after the reporting period
41	Thai Financial Reporting Standards (TFRS) not yet adopted

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

These notes form an integral part of the financial statements.

The financial statements issued for Thai statutory and regulatory reporting purposes are prepared in the Thai language. These English language financial statements have been prepared from the Thai language statutory financial statements and, were approved and authorized for issue by the Board of Directors on 15 February 2016.

1 General information

PTT Global Chemical Public Company Limited, “PTTGC”, arose from the amalgamation between PTT Chemical Public Company Limited, “PTTCH”, and PTT Aromatics and Refining Public Company Limited, “PTTAR”, which was registered on 19 October 2011 in accordance with the Public Company Limited Act, B.E. 2535 (1992).

The Board of Governors of the SET approved the listing of the Company on the day that the Registrar accepted the registration of the amalgamation on 19 October 2011.

The Company is a company in the PTT Public Company Limited (“PTT”) group of companies. PTT is incorporated in Thailand and is the major shareholder of the Company, holding 48.89% of the Company’s issued and paid-up share capital.

PTT Global Chemical Public Company Limited, the “Company”, is incorporated in Thailand and has its registered offices as follows:

Head Office	: 555/1, Energy Complex, Building A, 14th - 18th Floor, Vibhavadi-Rangsit Road, Chatuchak, Bangkok, Thailand
Branch 1 (Rayong office Branch)	: 59, Radniyom Road, Tambon Noenphra, Amphoe Mueang Rayong, Rayong, Thailand
Branch 2 (Olefin 1 Branch)	: 14, I-1 Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand
Branch 3 (Olefin 2 Branch)	: 9, I-4 Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand
Branch 4 (Aromatics 1 Branch)	: 4, I-2 Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand
Branch 5 (Aromatics 2 Branch)	: 98/9, Rayong 3191 Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand
Branch 6 (Refining Branch)	: 8, I-8 Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand
Branch 7 (Jetty and Buffer Tank Farm Branch)	: 19, Rong Pui Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Branch 8 (Aromatics reserve Branch)	: 11, I-4 Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand
Branch 9 (Lab Service Center Branch)	: 24/9, Pakorn Songkrao-Rat Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand
Branch 10 (Applications & Quality Assurance Center Branch)	: 123, Suntowers Building B, 40th Floor, Soi Chaoey Phuang, Vibhavadi- Rangsit Road, Chomphon, Chatuchak , Bangkok, Thailand
Branch 11 (Olefin 3 Branch)	: 8, Phadang Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand
Branch 12 (Polyethylene Branch)	: 8, Mab Ta Phut Industrial Estate, I-10 Road, Tambon Map Ta Phut, Amphoe Mueang Rayong, Rayong, Thailand

The principal businesses of the Company are production and distribution of ethylene, propylene polyethylene and biochemical products. By-products are mixed C4, cracker bottom and tail gas and refining and provision of integrated petroleum products and production and distribution of aromatics products with plans to proceed with the production of aromatic products. Minor activities are production and distribution of electricity, water, steam and other utilities. In addition, the Company also operates production support facilities such as jetty and buffer tank farm services for liquid chemical, oil and gas. Details of the Company's subsidiaries and joint ventures as at 31 December 2015 and 2014 were as follows:

Name of the entity	Type of business	Country of incorporation	Ownership interest (%)	
			2015	2014
<i>Direct subsidiaries</i>				
Solution Creation Co., Ltd. (Formerly Bio Creation Co., Ltd.)	Manufacturing and distributing health and nutrition products	Thailand	100	100
TOC Glycol Co., Ltd.	Manufacturing and distributing petrochemical products	Thailand	100	100
Thai Tank Terminal Limited	Service for the storage and handling of liquid chemicals, oil and gas	Thailand	51	51
Thai Styrenics Co., Ltd.	Manufacturing and distributing petrochemical products	Thailand	100	100
Thai Oleochemicals Co., Ltd.	Manufacturing and distributing biochemical products	Thailand	100	100
Bangkok Polyethylene Plc. (in process of liquidation)	Manufacturing and distributing petrochemical products	Thailand	100	100

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Name of the entity	Type of business	Country of incorporation	Ownership interest (%)	
			2015	2014
<i>Direct subsidiaries (Continue)</i>				
Bio Spectrum Co., Ltd.	Manufacturing and distributing biochemical products	Thailand	100	100
PTT Polyethylene Co., Ltd. (Liquidation process completed in August 2015)	Manufacturing and distributing petrochemical products	Thailand	100	100
PTT Phenol Co., Ltd.	Manufacturing and distributing petrochemical products	Thailand	100	100
PTT Maintenance and Engineering Co., Ltd.	Factory maintenance and engineering services	Thailand	60	60
Auria BioChemicals Co., Ltd. (54% Direct interest and 46% Indirect interest)	Research and development of bio-based chemicals	Thailand	100	93
NPC Safety and Environmental Service Co., Ltd.	Safety and environmental services	Thailand	100	100
PTT Chemical International Pte. Ltd.	Holding and operating international business	Singapore	100	100
PTTGC America Corporation	Holding and operating international business	United States of America	100	-
<i>Indirect subsidiaries</i>				
Thai Fatty Alcohols Co., Ltd.	Manufacturing and distributing biochemical products	Thailand	100	100
PTT Chemical International (Asia Pacific ROH) Ltd.	Services rendering to the Group	Thailand	100	100
Myriant Corporation	Research and development of bio-based chemicals	United States of America	100	84
PTTGC International (USA) Inc.	Holding and operating international business	United States of America	100	100
PTTGC International (Netherlands) B.V.	Holding and operating international business	Netherlands	100	100
PTTGC America LLC	Holding and operating international business	United States of America	100	-
Vencorex Holding	Manufacturing and distributing chemical specialties	France	85	85
<i>Direct joint ventures</i>				
Thai Ethoxylate Co., Ltd.	Manufacturing and distributing petrochemical products	Thailand	50	50

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Name of the entity	Type of business	Country of incorporation	Ownership interest (%)	
			2015	2014
<i>Direct joint ventures (continue)</i>				
PTT Polymer Marketing Co., Ltd.	Marketing activities of polymer products	Thailand	50	25
PTT Polymer Logistics Co., Ltd.	Transportation activities of polymer products	Thailand	50	-
<i>Indirect joint ventures</i>				
Emery Oleochemical (M) Sdn. Bhd.	Manufacturing and distributing biochemical products	Malaysia	50	50
Emery Specialty Chemicals Sdn. Bhd.	Manufacturing and distributing chemical specialties	Malaysia	50	50
NatureWorks LLC	Manufacturing and distributing bioplastic products	United States of America	50	50

2 Basis of preparation of the financial statements

(a) Statement of compliance

The financial statements are prepared in accordance with Thai Financial Reporting Standards (TFRS); guidelines promulgated by the Federation of Accounting Professions (“FAP”); and applicable rules and regulations of the Thai Securities and Exchange Commission.

The FAP has issued new and revised TFRS effective for annual accounting periods beginning on or after 1 January 2015. The initial application of these new and revised TFRS has resulted in changes in certain of the Group’s/Company’s accounting policies. The effects of these changes, where such effects are considered material to the financial statements, are disclosed in note 3.

In addition to the above new and revised TFRS, the FAP has issued a number of other new and revised TFRS which are effective for annual financial periods beginning on or after 1 January 2016 and have not been adopted in the preparation of these financial statements. These new and revised TFRS that are relevant to the Group’s/ Company’s operations are disclosed in note 41.

(b) Basis of measurement

The financial statements have been prepared on the historical cost basis except as describe in accounting policy.

(c) Functional and presentation currency

The financial statements are presented in Thai Baht, which is the Company’s functional currency. All financial information presented in Thai Baht has been rounded to the nearest million in notes to the financial statements unless otherwise stated.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

(d) *Use of estimates and judgements*

The preparation of financial statements in conformity with TFRS requires management to make judgements, estimates and assumptions that affect the application of accounting policies and reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised prospectively.

Information about significant areas of estimation uncertainties that have a significant risk of resulting in a material adjustments to the amounts recognised in the financial statements is included in the following notes:

Note 5	Business combination under common control
Note 16	Goodwill
Note 18	Deferred tax
Note 22	Defined benefit obligations
Note 36	Financial instruments

Measurement of fair values

A number of the Group's/Company's accounting policies and disclosures require the measurement of fair values for financial assets and liabilities.

Fair value hierarchy

These fair value measurements for financial assets and liabilities are categorised into 3 levels in the fair value hierarchy based on the inputs to valuation techniques used as follows;

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities that the Group can access at the measurement date.
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3: unobservable inputs and assumptions for fair value measurement for the assets or liabilities.

If the inputs used to measure the fair value of an asset or liability might be categorised in different levels of the fair value hierarchy, then the fair value measurement is categorised in the lowest level input that is significant to the entire measurement. The Group/Company recognises transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

Further information about the assumptions made in measuring fair values is included in note 36.

3 Changes in accounting policies

(a) *Overview*

From 1 January 2015, the Group/Company has adopted following new and revised TFRS which having a material effect on the Group's/Company's financial statements:

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

- TFRS 10 Consolidated Financial Statements
- TFRS 11 Joint Arrangements
- TFRS 12 Disclosure of Interests in Other Entities
- TFRS 13 Fair Value Measurement

A description of the nature and effect of the changes in accounting policy consequent to the adoption of these new and revised TFRS is included in notes 3(b) to 3(f) below:

(b) TFRS 10 - Consolidated Financial Statements

TFRS 10 introduces additional control criteria. As a result, the major shareholder needs to change its control conclusion from previously having no control over the Group/Company and not requiring to consolidate to having control over the Group/Company and requiring to consolidate. In addition, the Group/Company is required to adjust fair value derived from the previous business combination under common control from acquisition method to similar to pooling of interests method. Further details of the effect of the change from the retrospective adjustments are set out in note 3(f).

(c) TFRS 11 - Joint Arrangements

TFRS 11 has changed principle of joint arrangement's determination. The Group need to reclassify joint arrangements into joint ventures in which the parties have rights to the net assets. As a result, the Group is required to adjust from proportionate consolidation to equity method; accordingly, there has been impact on the recognized assets, liabilities and comprehensive income of the Group. Consequently, these companies are reclassified as joint ventures, Thai Ethoxylate Co., Ltd., Emery Oleochemicals (M) Sdn. Bhd., Emery Specialty Chemicals Sdn. Bhd. and NatureWorks LLC. Further details of the effect of the change from the retrospective adjustments are set out in note 3(f).

(d) TFRS 12 - Disclosure of Interests in Other Entities

TFRS 12 brings together into a single standard for all the disclosure requirements about an entity's interests in its subsidiaries, joint arrangements, associates and unconsolidated structured entities. In addition, TFRS 12 requires the disclosure of information about the nature, risks and financial effects of these interests.

(e) TFRS 13 - Fair Value Measurement

TFRS 13 establishes framework for measuring fair value and making disclosures about fair value measurements. In particular, it unifies the definition of fair value as the price at which an orderly transaction to purchase or sell an asset or to transfer a liability would take place between market participants at the measurements date. TFRS 13 also expands the disclosure requirements about fair value measurements in other TFRSs. As a result, the Group/Company has disclosed additional information in note 36.

(f) Quantitative impact

The material impacts resulting from the changes in accounting policies as mentioned in note 3 (b) and (c) and business combination under common control as mentioned in note 5 on the Group/Company statements of financial position, statements of income, statements of comprehensive income and statements of cash flows are as follows;

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

Statement of financial position At 31 December 2014	Consolidated financial statements			Separate financial statements		
	As previously reported	TFRS 10 (see Note 3 (b))	TFRS 11 (see Note 3 (c))	Business combination (see Note 5) (in million Baht)	As previously reported	As restated
Inventories	35,762	-	(4,185)	-	25,891	-
Other current assets	95,779	-	(4,225)	-	83,290	-
Property, plant and equipment	231,209	(3,876)	(7,987)	-	177,344	(3,912)
Goodwill	10,928	(8,732)	(552)	-	7,010	(7,010)
Other non-current assets	31,074	(3,677)	8,411	1,514	68,568	(4,108)
Total assets	404,752	(16,285)	(8,538)	1,514	362,103	(15,030)
Current liabilities	61,796	(64)	(5,613)	-	49,248	(53)
Non-current liabilities	101,080	(1,388)	(2,818)	-	83,393	(1,300)
Total liabilities	162,876	(1,452)	(8,431)	-	132,641	(1,353)
Share capital	45,088	-	-	-	45,088	-
Share premium	36,978	(41)	-	-	36,978	(41)
Surplus on business combination	11,746	(11,746)	-	-	13,121	(13,121)
Difference arising from business combination under common control	-	(1,657)	-	-	-	-
Retained earnings	145,037	(1,389)	-	-	134,275	(515)
Other components of equity	577	-	169	-	-	-
Former shareholder before business restructuring	-	-	-	1,514	-	-
Non-controlling interests	2,450	-	(276)	-	-	-
Total equity	241,876	(14,833)	(107)	1,514	229,462	(13,677)
Total liabilities and equity	404,752	(16,285)	(8,538)	1,514	362,103	(15,030)
						347,073

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

For the year ended 31 December 2014

	Consolidated financial statements			Separate financial statements		
	As previously reported	TFRS 10 (see Note 3 (b))	TFRS 11 (see Note 3 (c))	Business combination (see Note 5) (in million Baht)	As previously reported	TFRS 10 (see Note 3 (b))
				As restated	As restated	As restated
Statement of income						
Revenue from sale of goods and rendering of services	574,010	-	(19,315)	-	554,695	-
Cost of sale of goods and rendering of services	(543,647)	402	17,177	-	(526,068)	421
Selling and administrative expenses	(14,565)	238	2,525	-	(11,802)	203
Share of profit (loss) of investments in joint ventures	-	-	(511)	275	(236)	-
Share of profit (loss) of investments in associates	534	(87)	-	(34)	413	-
Others	(2,800)	(217)	106	-	(2,911)	(208)
Profit (loss) for the year	13,532	336	(18)	241	17,365	416
Profit (loss) attributable to:						
Owners of the Company	15,036	336	-	-	15,372	416
Former shareholder before business restructuring	-	-	-	241	-	-
Non-controlling interests	(1,504)	-	(18)	-	(1,522)	-
Profit (loss) for the year	13,532	336	(18)	241	17,365	416
Statement of comprehensive income						
Profit (loss) for the period	13,532	336	(18)	241	14,091	416
Other comprehensive income (loss) for the period, net of income tax	(1,631)	-	97	1	(1,533)	-
Total comprehensive income (loss) for the period	11,901	336	79	242	12,558	416
Statement of cash flows						
Net cash from operating activities	45,641	-	314	-	45,955	-
Net cash from (used in) investing activities	(25,527)	-	1,390	-	(24,137)	-
Net cash used in financing activities	(22,740)	-	(908)	-	(23,648)	-
Net increase (decrease) in cash and cash equivalents	(2,626)	-	796	-	(550)	-

As previously reported: 503,505 (483,397) (8,068) - - 5,325 17,365 416 17,781

As previously reported: 38,139 (15,578) (23,111) (550) -

As previously reported: 38,139 (15,578) (23,111) (550) -

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

Statement of financial position At 1 January 2014	Consolidated financial statements			Separate financial statements		
	As previously reported	TFRS 10 (see Note 3 (b))	TFRS 11 (see Note 3 (c))	Business combination (see Note 5) <i>(in million Baht)</i>	As restated	As previously reported
Inventories	50,240	-	(3,834)	-	46,406	39,938
Other current assets	110,276	-	(5,316)	-	104,960	91,814
Property, plant and equipment	230,934	(4,257)	(7,359)	-	219,318	179,596
Goodwill	10,982	(8,732)	(578)	-	1,672	7,010
Other non-current assets	30,278	(3,848)	9,134	1,366	36,930	66,459
Total assets	432,710	(16,837)	(7,953)	1,366	409,286	384,817
Current liabilities	83,222	(76)	(5,158)	-	77,988	68,554
Non-current liabilities	104,131	(1,594)	(2,609)	-	99,928	89,677
Total liabilities	187,353	(1,670)	(7,767)	-	177,916	158,231
Share capital	45,088	-	-	-	45,088	45,088
Share premium	36,978	(41)	-	-	36,937	36,978
Surplus on business combination	11,746	(11,746)	-	-	-	13,121
Difference arising from business combination under common control	-	(1,657)	-	-	(1,657)	-
Retained earnings	143,278	(1,723)	-	-	141,555	131,399
Other components of equity	1,412	-	92	-	1,504	-
Former shareholder before business restructuring	-	-	-	1,366	1,366	-
Non-controlling interests	6,855	-	(278)	-	6,577	-
Total equity	245,357	(15,167)	(186)	1,366	231,370	226,586
Total liabilities and equity	432,710	(16,837)	(7,953)	1,366	409,286	384,817
						(15,653)
						212,493
						369,164

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

4 Significant accounting policies

The accounting policies set out below have been applied consistently to all periods presented in these financial statements except as explained in note 3, which addresses changes in accounting policies.

(a) *Basis of consolidation*

The consolidated financial statements relate to the Company and its subsidiaries (together referred to as the “Group”) and the Group’s interests in joint ventures and associates.

Business combinations

The Group/Company applies the acquisition method for all business combinations when the Group/Company has control over the acquiree other than those with entities under common control. Control is same basis as control in subsidiaries.

The Group/Company recognises goodwill at the acquisition date measured as the excess of (1) over (2) as:

- (1) The aggregate of:
 - the fair value of the consideration transferred;
 - the recognised amount of any non-controlling interests in the acquiree; and
 - if the business combination is achieved in stages, the fair value of the existing equity interest in the acquiree.
- (2) The net fair value of the identifiable assets acquired and liabilities assumed.

If value of (1) is less than (2), difference is contributed to gain on bargain purchase and recognised immediately in profit or loss.

The consideration transferred is recognised at fair value at the acquisition date.

Transaction costs that the Group/Company incurs in connection with a business combination, such as legal fees, and other professional and consulting fees are expensed as incurred.

Acquisitions from entities under common control

Business combinations of entities or businesses under common control are accounted for using a method similar to the pooling of interest method and in accordance with the Guideline issued in 2009 by the FAP.

Subsidiaries

Subsidiaries are entities controlled by the Group. The Group controls an entity when it has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

Loss of control

When the Group loses control over a subsidiary, it derecognises the assets and liabilities of the subsidiary, and any related non-controlling interests and other components of equity. Any resulting gain or loss is recognised in profit or loss. Any interest retained in the former subsidiary is measured at fair value when control is lost.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Interests in equity-accounted investees

The Group's interests in equity-accounted investees comprise interests in joint ventures and associates.

A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities. Associates are those entities in which the Group has significant influence, but not control or joint control, over the financial and operating policies.

Interests in joint ventures and associates are accounted for using the equity method. They are recognised initially at cost. Subsequent to initial recognition, the consolidated financial statements include the Group's share of the profit or loss and other comprehensive income of equity-accounted investees, until the date on which joint control or significant influence ceases.

Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealised income or expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements. Unrealised gains and losses arising from transactions with joint ventures and associates are eliminated against the investment to the extent of the Group's interest in the investee.

(b) Foreign currencies

Foreign currency transactions

Transactions in foreign currencies are translated to the functional currency at the dates of the transactions.

Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated to the functional currency at the foreign exchange rates ruling at that date.

Non-monetary assets and liabilities measured at cost in foreign currencies are translated to the functional currency using the foreign exchange rates ruling at the dates of the transactions.

Foreign currency differences arising on retranslation are generally recognised in profit or loss. However, foreign currency differences arising from the retranslation of qualifying cash flow hedges to the extent the hedge is effective are recognised in other comprehensive income.

Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition of foreign operations, are translated to Thai Baht at the exchange rates at the reporting date.

The revenues and expenses of foreign operations are translated to Thai Baht at rates approximating the foreign exchange rates ruling at the dates of the transactions.

Foreign exchange differences are recognised in other comprehensive income and presented in the foreign currency translation reserve in equity until disposal of the investment, except to extent that the translation difference is allocated to non-controlling interest.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

(c) *Derivative financial instruments*

Derivative financial instruments are used to manage exposure to foreign exchange, interest rate arising from operating and financing activities. Derivative financial instruments are not used for trading purposes. However, derivatives that do not qualify for hedge accounting are accounted for as trading instruments.

Derivatives are recognised initially at fair value; attributable transaction costs are recognised in profit or loss when incurred. Subsequent to initial recognition, they are remeasured at fair value. The gain or loss on remeasurement is recognised immediately in profit or loss.

The fair value of interest rate swaps are based on broker quotes at the reporting date. Those quotes are tested for reasonableness by discounting estimated future cash flows based on the terms and maturity of each contract and using market interest rates for a similar instrument at the reporting date.

The fair value of forward exchange contracts is based on their listed market price as the reporting date, if available. If a listed market price is not available, then fair value is estimated by forward contract with the same nature and maturity date at the reporting date.

(d) *Hedging accounting*

Cash flow hedges accounting of the non-financial assets or non-financial liabilities

When a derivative is designated as the hedging instrument in a hedge of the variability in cash flows of a non-financial asset or non-financial liability, the effective portion of gain or loss from subsequent measurement of fair value of the derivative financial instrument is recognised in other comprehensive income and presented in the hedging reserve in equity. Any ineffective portion is recognised immediately in profit or loss.

When a hedge of a non-financial asset or non-financial liability occurs, the gain or loss recognised in other comprehensive income is included in the cost of the non-financial asset or non-financial liability.

Discontinuing hedge accounting

When the hedging instrument expires or is sold, terminated, or no longer qualifies for hedge accounting, the hedge accounting is discontinued prospectively. Any cumulative gain or loss on the hedging instrument existing in equity is retained in equity. When the hedge of the non-financial assets or non-financial liabilities item ultimately occurs, the gain or loss is adjusted according to cash flow hedges accounting.

When the non-financial assets or non-financial liabilities item is no longer expected to occur, the cumulative gain or loss that was reported in equity is recognised in profit or loss immediately.

(e) *Cash and cash equivalents*

Cash and cash equivalents comprise cash balances, call deposits and highly liquid current investments.

(f) *Trade and other receivables*

Trade and other receivables are stated at their invoice value less allowance for doubtful accounts.

The allowance for doubtful accounts is assessed primarily on analysis of overdue aging and future expectations of customer payments. Bad debts are written off when incurred.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

(g) *Inventories*

Inventories are stated at the lower of cost and net realisable value.

Cost is calculated using the weighted average cost principle, and comprises all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition. In the case of manufactured inventories and work-in-progress, cost includes an appropriate share of production overheads based on normal operating capacity.

Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs to complete and to make the sale.

(h) *Non-current assets held for sale*

Non-current assets that are expected to be recovered primarily through sale rather than through continuing use, are classified as held for sale. The assets are measured at the lower of their carrying value and fair value less cost to sell.

(i) *Investments*

Investments in subsidiaries, joint ventures and associates

Investments in subsidiaries, joint ventures and associates in the separate financial statements of the Company are accounted for using the cost method. Investments in joint ventures and associates in the consolidated financial statements are accounted for using the equity method.

Investments in equity securities

Equity securities which are not marketable are stated at cost less any impairment losses.

Disposal of investments

On disposal of an investment, the difference between net disposal proceeds and the carrying amount is recognised in profit or loss.

If the Group/Company disposes of part of its holding of a particular investment, the deemed cost of the part sold is determined using the weighted average method.

(j) *Property, plant and equipment*

Recognition and measurement

Owned assets

Property, plant and equipment are stated at cost less accumulated depreciation and impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and direct labour, any other costs directly attributable to bringing the assets to a working condition for their intended use, the costs of dismantling and removing the items and restoring the site on which they are located, and capitalised borrowing costs. Cost also may include transfers from other comprehensive income of any gain or loss on qualifying cash flow hedges of foreign currency purchases of property, plant and equipment. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment, and are recognised net within other income in profit or loss.

Leased assets

Leases in terms of which the Group/Company substantially assumes all the risk and rewards of ownership are classified as finance leases. Property, plant and equipment acquired by way of finance leases are capitalised at the lower of their fair value and the present value of the minimum lease payments at the inception of the lease, less accumulated depreciation and impairment losses. Lease payments are apportioned between the finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are charged directly to the profit or loss.

Subsequent costs

The cost of replacing a part of an item of property, plant and equipment is recognised in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Group/Company, and its cost can be measured reliably. The carrying amount of the replaced part is derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in profit or loss as incurred.

Depreciation

Depreciation is calculated based on the depreciable amount, which is the cost of an asset, or other amount substituted for cost, less its residual value.

Depreciation is charged to profit or loss on a straight-line basis over the estimated useful lives of each component of an item of property, plant and equipment. The estimated useful lives are as follows:

Leasehold improvement	5-30 years
Plant, machinery, equipment and factory tools	5-35 years
Buildings and buildings improvement	5-30 years
Furniture, fixtures and office equipment	3-10 years
Vehicles	4-25 years

No depreciation is provided on freehold land or assets under construction.

Depreciation methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

(k) Intangible assets

Goodwill

Goodwill that arises upon the acquisition of businesses is included in intangible assets. Subsequent to initial recognition, goodwill is measured at cost less accumulated impairment losses.

Goodwill in investment in associates is included in the carrying amount of the investment in associates, impairment loss on such an investment is deducted directly in investment in associates.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Other intangible assets

Other intangible assets that are acquired by the Group/Company and have finite useful lives are measured at cost less accumulated amortisation and accumulated impairment losses.

Subsequent expenditure

Subsequent expenditure is capitalised only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill and brands, are recognised in profit or loss as incurred.

Amortisation

Amortisation is based on the cost of the asset, or other amount substituted for cost, less its residual value.

Amortisation is recognised in profit or loss on a straight-line basis over the estimated useful lives of intangible assets, other than goodwill, from the date that they are available for use, since this most closely reflects the expected pattern of consumption of the future economic benefits embodied in the asset. The estimated useful lives for the current and comparative periods are as follows:

Right to use pipe rack	6-15 years
Right to use Jetty	9-17 years
Right to use - others	10-15 years
Production licence fees	10-30 years
Computer software	3-20 years
Customer contracts and the related customer relationships	5 years
Trademark	15 years

Amortisation methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

(l) Impairment

The carrying amounts of the Group's/Company's assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the assets' recoverable amounts are estimated. For goodwill and intangible assets that have indefinite useful lives or are not yet available for use, the recoverable amount is estimated each year at the same time.

An impairment loss is recognised if the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount. The impairment loss is recognised in profit or loss.

Calculation of recoverable amount

The recoverable amount of a non-financial asset is the greater of the asset's value in use and fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Reversals of impairment

An impairment loss in respect of a financial asset is reversed if the subsequent increase in recoverable amount can be related objectively to an event occurring after the impairment loss was recognised in profit or loss.

An impairment loss in respect of goodwill is not reversed.

Impairment losses recognised in prior periods in respect of other non-financial assets are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

(m) Interest-bearing liabilities

Interest-bearing liabilities are recognised initially at fair value less attributable transaction charges. Subsequent to initial recognition, interest-bearing liabilities are stated at amortised cost with any difference between cost and redemption value being recognised in profit or loss over the period of the borrowings on an effective interest basis.

(n) Trade and other payables

Trade and other payables are stated at cost.

(o) Employee benefits

Defined contribution plans

Obligations for contributions to defined contribution plans are expensed as the related service is provided.

Defined benefit plans

The Group's/Company's net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in the current and prior periods, discounting that amount.

The calculation of defined benefit obligations is performed every 3 years by a qualified actuary using the projected unit credit method.

Remeasurements of the net defined benefit liability, actuarial gain or loss are recognized immediately in OCI. The Group/Company determines the interest expense on the net defined benefit liability for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period. Net interest expense and other expenses related to defined benefit plans are recognized in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognised immediately in profit or loss. The Group/Company recognises gains and losses on the settlement of a defined benefit plan when the settlement occurs.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Other long-term employee benefits

The Group's/Company's net obligation in respect of long-term employee benefits is the amount of future benefit that employees have earned in return for their service in the current and prior periods. That benefit is discounted to determine its present value. Remeasurements are recognized in profit or loss in the period in which they arise.

Termination benefits

Termination benefits are expensed at the earlier of when the Group/Company can no longer withdraw the offer of those benefits and when the Group/Company recognizes costs for a restructuring. If benefits are not expected to be settled wholly within 12 months of the end of the reporting period, then they are discounted.

Short-term employee benefits

Short-term employee benefits are expensed as the related service is provided. A liability is recognised for the amount expected to be paid if the Group/Company has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

(p) Provisions

A provision is recognised if, as a result of a past event, the Group/Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount on provisions is recognised as finance cost.

(q) Repurchase of share capital (treasury shares)

When share capital recognised as equity is repurchased, the amount of consideration paid, including directly attributable costs, is classified as treasury shares and recognised as a deduction from equity. An equal amount is appropriated from retained earnings and taken to a reserve for treasury shares within equity. When treasury shares are sold, the amount received is recognised as an increase in equity by crediting the cost of the treasury shares sold, calculated using the weighted average method, to the treasury shares account and transferring the equivalent amount back from reserve for treasury shares to retained earnings. Surpluses on the sale of treasury shares are taken directly to a separate category within equity, 'Surplus on treasury shares'. Net deficits on sale or cancellation of treasury shares are debited to retained earnings after setting off against any remaining balance of surplus on treasury shares.

(r) Revenue

Revenue excludes value added taxes and is arrived at after deduction of trade discounts.

Sale of goods and services rendered

Revenue is recognised in profit or loss when the significant risks and rewards of ownership have been transferred to the buyer. No revenue is recognised if there is continuing management involvement with the goods or there are significant uncertainties regarding recovery of the consideration due, associated costs or the probable return of goods. Service income is recognised as services are provided.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Investments

Revenue from investments comprises dividend and interest income from investments and bank deposits.

Dividend income

Dividend income is recognised in profit or loss on the date the Group's/Company's right to receive payments is established.

Interest income

Interest income is recognised in profit or loss as it accrues.

(s) Finance costs

Finance costs comprise interest expense on borrowings, unwinding of the discount on provisions and contingent consideration, fair value losses on financial assets at fair value through profit or loss, impairment losses recognised on financial assets (other than trade receivables), and losses on hedging instruments that are recognised in profit or loss.

Borrowing costs that are not directly attributable to the acquisition, construction or production of a qualifying asset are recognised in profit or loss using the effective interest method.

(t) Lease payments

Payments made under operating leases are recognised in profit or loss on a straight line basis over the term of the lease.

Contingent lease payments which the lease adjustment is confirmed are accounted for by revising the minimum lease payments over the remaining term of the lease.

(u) Income tax

Income tax expense for the year comprises current and deferred tax. Current and deferred tax are recognised in profit or loss except to the extent that they are relate to the items recognised in equity are recognised in equity are recognised in other comprehensive income.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted at the end of the reporting period, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised in respect of temporary differences between the carrying amounts and taxable value of assets and liabilities, using tax rates enacted or substantively enacted to the temporary differences when they reverse.

Deferred tax is not recognised for the following temporary differences:

- the initial recognition of goodwill and related transactions;
- the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss;
- differences relating to investments in subsidiaries and joint ventures to the extent that it is probable that they will not reverse in the foreseeable future.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

The measurement of deferred tax reflects the tax consequences that would follow the manner in which the Group/Company expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

In determining the amount of current and deferred tax, the Group/Company takes into account the impact of uncertain tax positions and whether additional taxes and interest may be due. The Group/Company believes that its accruals for tax liabilities are adequate for all open tax years based on its assessment of many factors, including interpretations of tax law and prior experience. This assessment relies on estimates and assumptions and may involve a series of judgements about future events. New information may become available that causes the Group/Company to change its judgement regarding the adequacy of existing tax liabilities; such changes to tax liabilities will impact tax expense in the period that such a determination is made.

Deferred tax assets and liabilities on different tax entities are offset if there is a legally enforceable right to offset current tax assets and liabilities, and they relate to income taxes levied by the same tax authority.

A deferred tax asset is recognised to the extent that it is probable that deferred tax assets can be utilised as future tax benefit. Deferred tax assets are reviewed at each reporting date and reduced to the extent that it is no longer probable that the related tax benefit will be realised.

(v) *Earnings per share*

The Group/Company presents basic earnings per share (EPS) data for its ordinary shares. Basic EPS is calculated by dividing the profit or loss attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the year, adjusted for treasury shares.

(w) *Segment reporting*

Segment results that are reported to the Group's Management Committee (the chief operating decision maker) include items directly attributable to a segment as well as those that can be allocated on a reasonable basis.

5 Business combination under common control

PTT Polymer Marketing Co., Ltd.

On 29 June 2015, the Group acquired a 25% shareholding interest in PTT Polymer Marketing Company Limited ("PTTPM") from IRPC Public Company Limited divided into 24% shareholding interest by the Company and the remaining 1% by Solution Creation Company Limited, which is a subsidiary of the Company. This transaction is acquisition from company which is under common control with the Group. The Group settled the acquisition amounting to Baht 250 million.

PTT Polymer Logistics Co., Ltd.

On 1 July 2015, the Group acquired a 50% shareholding interest in PTT Polymer Logistics Company Limited ("PTTPL") from PTT Public Company Limited divided into 49% shareholding interest by the Company and the remaining 1% by Solution Creation Company Limited, which is a subsidiary of the Company. This transaction is the share acquisition from the Parent Company. The Group settled the acquisition amounting to Baht 707 million.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

The consolidated financial statements have been prepared on the basis of a business combination under common control. The acquired interest of PTTPM and PTTPL are accounted for at book values and included as equity method in the consolidated financial statements. The Company has restated the financial statements since 1 January 2014.

In addition, the difference between the consideration of Baht 250 million and the carrying amount of net assets of PTTPM at the Company's ownership at the transaction date of Baht 264 million is amounting to Baht 14 million and the difference between the consideration of Baht 707 million and the carrying amount of net assets of PTTPL at the Company's ownership at the transaction date of Baht 692 million is amounting to Baht 15 million which the net balance is recognised as "different arising from business combination under common control" in the consolidated statement of changes in equity for the year ended 31 December 2015.

The consolidated statement of financial position at 31 December 2014 and the consolidated statement of income and comprehensive income for the year ended 31 December 2014 have been restated accordingly. The effects of the change from the retrospective adjustments are summarised as follows:

Statement of financial position

	Consolidated financial statements		
	Impact of adjustments		
	PTTPM	PTTPL	Total
	<i>(in million Baht)</i>		
At 31 December 2014			
Increase in investments in joint ventures	470	1,279	1,749
Decrease in investments in associates	(235)	-	(235)
Increase in former shareholder before business restructuring	235	1,279	1,514
At 1 January 2014			
Increase in investments in joint ventures	444	1,144	1,588
Decrease in investments in associates	(222)	-	(222)
Increase in former shareholder before business restructuring	222	1,144	1,366

Statement of income

	Consolidated financial statements		
	Impact of adjustments		
	PTTPM	PTTPL	Total
	<i>(in million Baht)</i>		
For the year ended 31 December 2014			
Increase in share of profit of investments in joint ventures	69	206	275
Decrease in share of profit of investments in associates	(34)	-	(34)
Increase in profit for the year	35	206	241
Profit attributable to:			
Increase in former shareholder before business restructuring	35	206	241
Increase in profit for the year	35	206	241

The impacts of above retrospective adjustments are presented as a part of note 3 (f).

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

6 Related parties

A related party is as follows;

- An individual or an entity which has the ability, directly or indirectly, to control or joint control or exercise significant influence over the Group/Company in making financial and operating decisions or;
- An individual or an entity which is subject to common control or common significant influence with the Group/Company or;
- The Group/Company has the ability, directly or indirectly, to control or joint control or exercise significant influence over an individual or an entity in making financial and operating decisions.

Relationships with related parties were as follows:

Name of entities	Country of incorporation/ nationality	Nature of relationships
PTT Plc.	Thailand	Parent Company, some common directors and management and the Company's director as a management
Solution Creation Co., Ltd. (Formerly Bio Creation Co., Ltd.)	Thailand	Subsidiary, 100% shareholding and the Company's management as a director
TOC Glycol Co., Ltd.	Thailand	Subsidiary, 100% shareholding and the Company's management as a director
Thai Tank Terminal Limited	Thailand	Subsidiary, 51% shareholding, and the Company's management as a director
Thai Styrenics Co., Ltd.	Thailand	Subsidiary, 100% shareholding and the Company's management as a director
Thai Oleochemicals Co., Ltd.	Thailand	Subsidiary, 100% shareholding, some common directors and the Company's management as a director
Bangkok Polyethylene Plc. (In process of liquidation)	Thailand	Subsidiary, 100% shareholding
Bio Spectrum Co., Ltd.	Thailand	Subsidiary, 100% shareholding
PTT Polyethylene Co., Ltd. (Liquidation process completed in August 2015)	Thailand	Subsidiary, 100% shareholding
PTT Phenol Co., Ltd.	Thailand	Subsidiary, 100% shareholding and the Company's management as a director
PTT Maintenance and Engineering Co., Ltd.	Thailand	Subsidiary, 60% shareholding and the Company's management as a director

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Name of entities	Country of incorporation/ nationality	Nature of relationships
Auria BioChemicals Co., Ltd.	Thailand	Subsidiary, 54% shareholding by the Company and 46% shareholding by subsidiary of the Company's subsidiary
NPC Safety and Environmental Service Co., Ltd.	Thailand	Subsidiary, 100% shareholding and the Company's management as a director
PTT Chemical International Pte. Ltd.	Singapore	Subsidiary, 100% shareholding, some common directors and the Company's management as a director
PTTGC America Corporation	United States of America	Subsidiary, 100% shareholding, some common management and the Company's management as a director
PTTGC America LLC	United States of America	Subsidiary of the Company's subsidiary, 100% shareholding by the Company's subsidiary, some common management and the Company's management as a director
Thai Fatty Alcohols Co., Ltd.	Thailand	Subsidiary of the Company's subsidiary, 100% shareholding by the Company's subsidiary, some common directors and the Company's management as a director
PTT Chemical International (Asia Pacific ROH) Ltd.	Thailand	Subsidiary of the Company's subsidiary, 100% shareholding by the Company's subsidiary, some common directors and the Company's management as a director
Vencorex (Thailand) Co., Ltd.	Thailand	Subsidiary of subsidiary of subsidiary of the Company's subsidiary, 100% shareholding by subsidiary of subsidiary of the Company's subsidiary
Myriant Corporation	United States of America	Subsidiary of the Company's subsidiary, 100% shareholding by the Company's subsidiary, some common directors and the Company's management as a director
PTTGC International (Netherlands) B.V.	Netherlands	Subsidiary of the Company's subsidiary, 100% shareholding by the Company's subsidiary, some common directors and the Company's management as a director
PTTGC International (USA) Inc.	United States of America	Subsidiary of the Company's subsidiary, 100% shareholding by the Company's subsidiary, some common directors and the Company's management as a director

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Name of entities	Country of incorporation/ nationality	Nature of relationships
Vencorex France S.A.S	France	Subsidiary of subsidiary of subsidiary of the Company's subsidiary, 100% shareholding by subsidiary of subsidiary of the Company's subsidiary
Vencorex Holding	France	Subsidiary of subsidiary of the Company's subsidiary, 85% shareholding by subsidiary of the Company's subsidiary, some common directors and the Company's management as a director
Thai Ethoxylate Co., Ltd.	Thailand	Joint venture, 50% shareholding and the Company's management as a director
PTT Polymer Marketing Co., Ltd.	Thailand	Joint venture, 49% shareholding by the Company, 1% shareholding by the Company's subsidiary and shareholding by Parent Company, some common directors and the Company's management as a director
PTT Polymer Logistics Co., Ltd.	Thailand	Joint venture, 49% shareholding by the Company, 1% shareholding by the Company's subsidiary and shareholding by Parent Company
Emery Oleochemicals (M) Sdn. Bhd.	Malaysia	Joint venture of the Company's subsidiary, 50% shareholding by the Company's subsidiary, some common directors and the Company's management as a director
Emery Specialty Chemicals Sdn. Bhd.	Malaysia	Joint venture of the Company's subsidiary, 50% shareholding by the Company's subsidiary, some common directors and the Company's management as a director
Emeryoleo Specialties (M) Sdn. Bhd.	Malaysia	Subsidiary of joint venture of the Company's subsidiary, 100% shareholding by joint venture of the Company's subsidiary
NatureWorks LLC	United States of America	Joint venture of subsidiary of the Company's subsidiary, 50% shareholding by subsidiary of the Company's subsidiary, some common directors and the Company's management as a director

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Name of entities	Country of incorporation/ nationality	Nature of relationships
NatureWorks Asia Pacific Co., Ltd.	Thailand	Subsidiary of joint venture of subsidiary of the Company's subsidiary, 100% shareholding by joint venture of subsidiary of the Company's subsidiary
Global Power Synergy Plc.	Thailand	Associate, 23% shareholding, shareholding by Parent Company, some common directors and the Company's management as a director
PTT Energy Solutions Co., Ltd.	Thailand	Associate, 20% shareholding, shareholding by Parent Company and the Company's management as a director
PTT ICT Solutions Co., Ltd.	Thailand	Associate, 40% shareholding, shareholding by Parent Company and the Company's management as a director
Vinythai Plc.	Thailand	Associate, 25% shareholding, some common directors and the Company's management as a director
Eastern Fluid Transport Co., Ltd.	Thailand	Associate, 15% shareholding, 15% shareholding by the Company's subsidiary and the Company's management as a director
PT. Indo Thai Trading	Indonesia	Associate of the Company's subsidiary, 49% shareholding by the Company's subsidiary and the Company's management as a director
Thai Petroleum Pipeline Co., Ltd.	Thailand	Shareholding by Parent Company
Dhipaya Insurance Plc.	Thailand	Shareholding by Parent Company
Thai Paraxylene Co., Ltd.	Thailand	Subsidiary of the Company's related party that has shareholding by Parent Company
Thai Oil Plc.	Thailand	Shareholding by Parent Company
Bangchak Petroleum Plc.	Thailand	Shareholding by the Company's major shareholder until 8 May 2015
TOP Solvent Co., Ltd.	Thailand	Subsidiary of the Company's related party that has shareholding by Parent Company
TOP Solvent (Vietnam) LLC.	Vietnam	Subsidiary of the Company's related party that has shareholding by Parent Company
Business Services Alliance Co., Ltd.	Thailand	Shareholding by Parent Company, the Company and two Company's associates, each of 25%

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Name of entities	Country of incorporation/ nationality	shareholding of preferred stock Nature of relationships
PTT Natural Gas Distribution Co., Ltd.	Thailand	Shareholding by Parent Company
PTT Retail Services Co., Ltd.	Thailand	Subsidiary of the Company's related party that has shareholding by Parent Company
PTT Retail Management Co., Ltd.	Thailand	Subsidiary of the Company's related party that has shareholding by Parent Company
PTTEP Siam Limited	Thailand	Subsidiary of the Company's related party that has shareholding by Parent Company
PTTEP International Limited	Thailand	Subsidiary of the Company's related party that has shareholding by Parent Company
PTT Exploration and Production Plc.	Thailand	Shareholding by Parent Company
PTT Tank Terminal Co., Ltd.	Thailand	Shareholding by Parent Company
PTT Asahi Chemical Co., Ltd.	Thailand	Shareholding by Parent Company
PTT Energy Resources Co., Ltd.	Thailand	Shareholding by Parent Company
PTT MCC Biochem Co., Ltd.	Thailand	Shareholding by Parent Company
PTT LNG Co., Ltd.	Thailand	Shareholding by Parent Company
Rayong Olefins Co., Ltd.	Thailand	Shareholding by Parent Company
Star Petroleum Refining Plc.	Thailand	Shareholding by Parent Company until 3 December 2015
Community Partnership Association	Thailand	Some common directors
Amata Natural Gas Distribution Co., Ltd.	Thailand	Subsidiary of the Company's related party that has shareholding by Parent Company
HMC Polymers Co., Ltd.	Thailand	Shareholding by Parent Company and some common directors
Energy Complex Co., Ltd.	Thailand	Shareholding by Parent Company and some common directors
Advanced Biochemical (Thailand) Co., Ltd.	Thailand	Subsidiary of the Company's associates
IRPC Plc.	Thailand	Shareholding by Parent Company and some common directors

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Name of entities	Country of incorporation/ nationality	Nature of relationships
IRPC Polyol Co., Ltd.	Thailand	Subsidiary of the Company's related party that has shareholding by Parent Company
Carigali-PTTEPI Operating Company Sdn. Bhd.	Malaysia	Joint operation of subsidiary of the Company's related party that has shareholding by Parent Company
PTT Green Energy Pte. Ltd.	Singapore	Shareholding by Parent Company
PTT International Trading DMCC	United Arab Emirates	Subsidiary of the Company's related party that has shareholding by Parent Company
PTT International Trading Pte. Ltd.	Singapore	Shareholding by Parent Company

The pricing policies for particular types of transactions are explained further below:

Transactions	Pricing policies
Sale of goods	Contract price / Regional market price / World market price
Rendering of services	Contract price
Purchase of goods / raw materials / services	Contract price / Market price
Interest on loan	Average cost of fund / Contractually agreed rate

Significant transactions for the year ended 31 December 2015 and 2014 with related parties were as follows:

	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014 (Restated)
	<i>(in million Baht)</i>			
Parent Company				
Sales of goods or rendering of services	124,317	198,065	118,465	191,891
Purchases of goods or receiving of services	235,823	380,555	235,489	379,535
Other income	89	102	75	85
Other expense	112	303	95	92
Subsidiaries				
Sales of goods or rendering of services	-	-	16,330	20,478
Purchases of goods or receiving of services	-	-	2,073	2,566
Interest income	-	-	563	630
Dividend income	-	-	2,426	4,065
Other income	-	-	681	568
Interest expense	-	-	45	63
Other expense	-	-	853	653
Joint ventures				
Sales of goods or rendering of services	70,257	82,969	66,676	80,236
Purchases of goods or receiving of services	14	633	6	624
Dividend income	-	-	176	137
Other income	65	40	63	39
Other expense	217	258	97	109

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014 (Restated)
	<i>(in million Baht)</i>			
Associates				
Sales of goods or rendering of services	6,346	7,362	6,231	7,240
Purchases of goods or receiving of services	7,926	8,856	4,367	5,092
Dividend income	-	-	360	84
Other income	67	68	67	67
Other expense	347	351	331	334
Other related parties				
Sales of goods or rendering of services	66,635	97,652	63,834	94,381
Purchases of goods or receiving of services	26,559	48,124	25,815	46,775
Other income	835	280	834	274
Other expense	332	350	304	317
Key management personnel				
Key management personnel compensation				
Short-term benefits	366	345	236	228
Post-employment benefits and other long-term benefits	5	5	4	4
Total key management personnel compensation	371	350	240	232

Balances as at 31 December with related parties were as follows:

<i>Trade accounts receivable - related parties</i>	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014
	<i>(in million Baht)</i>			
Parent Company				
PTT Plc.	6,095	8,856	5,380	8,185
Subsidiaries				
TOC Glycol Co., Ltd.	-	-	864	782
Thai Tank Terminal Limited	-	-	6	7
Thai Styrenics Co., Ltd.	-	-	2	2
Thai Oleochemicals Co., Ltd.	-	-	4	7
PTT Phenol Co., Ltd.	-	-	705	796
Joint Ventures				
Thai Ethoxylate Co., Ltd.	242	240	-	-
PTT Polymer Marketing Co., Ltd.	6,252	6,918	6,101	6,758
PTT Ploymer Logistic Co., Ltd.	3	1	-	-
Associates				
Global Power Synergy Plc.	11	16	-	-
PTT Energy Solutions Co., Ltd.	2	4	-	-
Vinythai Plc.	678	471	676	469

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

<i>Trade accounts receivable - related parties</i> <i>(Continue)</i>	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014
	<i>(in million Baht)</i>			
Other related parties				
TOP Solvent Co., Ltd.	9	-	1	-
Thai Oil Plc.	47	44	-	-
Thai Paraxylene Plc.	140	-	140	-
Bangchak Petroleum Plc.	-	4	-	-
PTTEP Siam Limited	5	5	-	-
PTT Exploration and Production Plc.	2	3	-	-
PTT Tank Terminal Co., Ltd.	56	185	4	4
PTT Asahi Chemical Co., Ltd.	72	132	-	-
PTT MCC Biochem Co.,Ltd.	7	1	-	-
Advanced Biochemical (Thailand) Co.,Ltd.	11	-	-	-
PTT LNG Co.,Ltd.	2	1	-	-
Star Petroleum Refining Plc.	-	296	-	258
Amata Natural Gas Distribution Co., Ltd.	5	-	-	-
HMC Polymers Co., Ltd.	513	444	507	442
IRPC Plc.	1,672	2,161	1,668	2,139
IRPC Polyol Co., Ltd.	6	9	-	-
PTT International Trading Pte. Ltd.	2,408	4,272	2,408	4,272
TOP Solvent (Vietnam) LLC.	4	-	-	-
Total	18,242	24,063	18,466	24,121
Less allowance for doubtful accounts	-	-	-	-
Net	18,242	24,063	18,466	24,121
Bad and doubtful debts expense for the year	-	-	-	-

<i>Other receivables - related parties</i>	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014
	<i>(in million Baht)</i>			
Parent Company				
PTT Plc.	448	1,002	445	1,000
Subsidiaries				
Solution Creation Co., Ltd.	-	-	1	2
TOC Glycol Co., Ltd.	-	-	27	25
Thai Tank Terminal Limited	-	-	28	4
Thai Styrenics Co., Ltd.	-	-	1	-
Thai Oleochemicals Co., Ltd.	-	-	19	13
PTT Phenol Co., Ltd.	-	-	15	8
PTT Maintenance and Engineering Co., Ltd.	-	-	28	44
Auria BioChemicals Co., Ltd.	-	-	2	1

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Other receivables - related parties

	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014
<i>(in million Baht)</i>				
Subsidiaries (Continue)				
NPC Safety and Environmental Service Co., Ltd.	-	-	12	11
Thai Fatty Alcohols Co., Ltd.	-	-	1	1
PTT Chemical International (Asia Pacific ROH) Ltd.	-	-	3	3
Vencorex (Thailand) Co., Ltd.	-	-	12	2
Myriant Corporation	-	-	-	630
PTTGC America Corporation	-	-	21	-
Vencorex France S.A.S	-	-	2	-
Vencorex Holding	-	-	17	10
Joint Ventures				
Thai Ethoxylate Co., Ltd.	9	7	8	6
NatureWorks Asia Pacific Co., Ltd.	5	-	5	-
PTT Polymer Marketing Co., Ltd.	12	5	12	5
PTT Ploymer Logistic Co., Ltd.	2	-	2	-
Emery Oleochemicals (M) Sdn. Bhd.	1	2	1	2
NatureWorks LLC	1	1	1	1
Associates				
Global Power Synergy Plc.	90	193	90	4
PTT Energy Solutions Co., Ltd.	26	28	26	28
PTT ICT Solutions Co., Ltd.	20	25	20	25
Vinythai Plc.	1	1	1	1
Eastern Fluid Transport Co.,Ltd.	14	-	13	-
PT. Indo Thai Trading	1	-	1	-
Other related parties				
Dhipaya Insurance Plc.	1,273	1,115	1,163	1,001
Thai Oil Plc.	-	1	-	1
Star Petroleum Refining Plc.	-	6	-	6
Energy Complex Co., Ltd.	-	32	-	32
IRPC Plc.	6	-	6	-
Total	1,909	2,418	1,983	2,866
Less allowance for doubtful accounts	-	-	-	-
Net	1,909	2,418	1,983	2,866
Bad and doubtful debts expense for the year	-	-	-	-

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

<i>Loans to related parties</i>	Interest rate		Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014	2015	2014
<i>Short-term loans</i>	<i>(% per annum)</i>		<i>(in million Baht)</i>			
Subsidiaries						
Thai Styrenics Co., Ltd.	4.30-4.72	4.71-4.98	-	-	550	615
NPC Safety and Environmental Service Co., Ltd.	4.30-4.72	4.71-4.98	-	-	41	122
Total			-	-	591	737
Less allowance for doubtful accounts			-	-	-	-
Short-term loans to related parties, net			-	-	591	737
Long-term loans						
Subsidiaries						
Thai Oleochemicals Co., Ltd.	-	4.71-4.98	-	-	-	1,359
Myriant Corporation		Greater of the U.S. Prime Rate plus margin or fixed rate				
Vencorex Holding	-	6.50	-	-	-	4,239
Total			-	-	-	6,001
Less current portion due within one year			-	-	-	(2,907)
Less allowance for doubtful accounts			-	-	-	-
Long-term loans to related parties, net			-	-	-	3,094
Summary of loans to related parties						
Short-term loans			-	-	591	737
Current portion due within one year			-	-	-	2,907
Long-term loans			-	-	-	3,094
Total			-	-	591	6,738
Less allowance for doubtful accounts			-	-	-	-
Total loans to related parties, net			-	-	591	6,738
Bad and doubtful debts expense for the year			-	-	-	-

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Movements during the year ended 31 December 2015 and 2014 of loans to related parties were as follows:

<i>Loans to related parties</i>	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	<i>(in million Baht)</i>			
Short-term loans				
Parent Company				
At 1 January	-	-	-	-
Increase	2,000	-	2,000	-
Decrease	(2,000)	-	(2,000)	-
At 31 December	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Subsidiaries				
At 1 January	-	-	737	842
Increase	-	-	560	516
Decrease	-	-	(706)	(621)
At 31 December	<u>-</u>	<u>-</u>	<u>591</u>	<u>737</u>
Total				
At 1 January	-	-	737	842
Increase	2,000	-	2,560	516
Decrease	(2,000)	-	(2,706)	(621)
At 31 December	<u>-</u>	<u>-</u>	<u>591</u>	<u>737</u>
Long-term loans				
Subsidiaries				
At 1 January	-	-	6,001	4,890
Increase	-	-	564	1,571
Decrease	-	-	(6,426)	(431)
Effect of change in exchange rates	-	-	(139)	(29)
	<u>-</u>	<u>-</u>	<u>-</u>	<u>6,001</u>
<i>Less current portion due within one year</i>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(2,907)</u>
At 31 December	<u>-</u>	<u>-</u>	<u>-</u>	<u>3,094</u>
	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
		(Restated)		(Restated)
	<i>(in million Baht)</i>			
Investments in subsidiaries (Note 11)	<u>-</u>	<u>-</u>	<u>54,706</u>	<u>43,938</u>
Investments in joint ventures (Note 12)	<u>11,110</u>	<u>11,539</u>	<u>1,153</u>	<u>220</u>
Investments in associates (Note 12)	<u>12,393</u>	<u>11,647</u>	<u>9,323</u>	<u>9,323</u>

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Trade accounts payable - related parties

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	<i>(in million Baht)</i>			
Parent Company				
PTT Plc.	13,363	15,380	13,361	15,319
Subsidiaries				
Thai Oleochemicals Co., Ltd.	-	-	44	49
PTT Phenol Co., Ltd.	-	-	3	4
Joint Venture				
PTT Polymer Logistics Co., Ltd.	-	1	-	1
Associates				
Global Power Synergy Co., Ltd.	844	783	494	437
Vinythai Plc.	9	11	9	10
Other related parties				
TOP Solvent Co., Ltd.	9	-	9	-
Business Services Alliance Co., Ltd.	21	16	-	-
PTT Asahi Chemical Co., Ltd.	17	20	-	-
Rayong Olefins Co., Ltd.	3	3	3	4
Star Petroleum Refining Plc.	-	392	-	392
HMC Polymers Co., Ltd.	37	40	37	40
IRPC Plc.	1,031	1,567	1,024	1,503
Total	15,334	18,213	14,984	17,759

Other payables - related parties

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	<i>(Restated)</i>			
	<i>(in million Baht)</i>			
Parent Company				
PTT Plc.	46	203	45	165
Subsidiaries				
TOC Glycol Co., Ltd.	-	-	24	22
Thai Tank Terminal Limited	-	-	46	47
Thai Styrenics Co., Ltd.	-	-	5	3
Thai Oleochemicals Co., Ltd.	-	-	19	23
PTT Phenol Co., Ltd.	-	-	41	6
PTT Maintenance and Engineering Co., Ltd.	-	-	169	151
NPC Safety and Environmental Service Co., Ltd.	-	-	23	27
PTT Chemical International (Asia Pacific ROH) Ltd.	-	-	24	20
Vencorex (Thailand) Co., Ltd.	-	-	1	1
Myriant Corporation	-	-	-	2
Vencorex France S.A.S.	-	-	15	-
Joint Ventures				
Thai Ethoxylate Co., Ltd.	-	2	-	-
PTT Polymer Marketing Co., Ltd.	1	1	1	-
PTT Polymer Logistic Co., Ltd.	178	231	160	196
Emery Oleochemicals (M) Sdn. Bhd.	1	1	1	1
Associates				
Global Power Synergy Plc.	2	1	1	1
PTT Energy Solutions Co., Ltd.	27	29	27	29
PTT ICT Solutions Co., Ltd.	46	54	42	45

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Other payables - related parties (Continue)

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	(Restated)			
	(in million Baht)			
Associates (Continue)				
Vinythai Plc.	1	-	1	-
Eastern Fluid Transport Co., Ltd	14	-	14	-
Other related parties				
Dhipaya Insurance Plc.	40	38	34	35
TOP Solvent Co.,Ltd.	2	-	-	-
Thai Oil Plc.	1	1	-	-
Business Services Alliance Co., Ltd.	58	74	51	71
PTT Energy Resources Co.,Ltd.	-	1	-	1
Star Petroleum Refining Plc.	-	6	-	6
Energy Complex Co., Ltd.	2	2	2	2
IRPC Plc.	1	-	1	-
PTT International Trading Pte. Ltd.	10	6	10	5
Total	430	650	757	859

Payables to contractor - related parties

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	(in million Baht)			
Parent Company				
PTT Plc.	7	3	-	-
Subsidiaries				
PTT Maintenance and Engineering Co., Ltd.	-	-	593	691
NPC Safety and Environmental Service Co., Ltd.	-	-	1	-
Associate				
PTT ICT Solutions Co., Ltd.	39	67	39	67
Other related parties				
Dhipaya Insurance Plc.	2	-	2	-
Business Services Alliance Co., Ltd.	15	10	9	8
Total	63	80	644	766

Loans from related parties

	Interest rate		Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014	2015	2014
	(% per annum)		(in million Baht)			
Short-term loans						
Subsidiaries						
TOC Glycol Co., Ltd.	1.82-2.79	2.34-3.06	-	-	865	1,083
Solution Creation Co., Ltd.	1.82-2.79	2.34-3.06	-	-	15	18
Thai Oleochemicals Co., Ltd.	1.83-2.79	2.34-3.06	-	-	-	914
Total loans from related parties			-	-	880	2,015

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Movements during the year ended 31 December 2015 and 2014 of loans from related parties were as follows:

<i>Loans from related parties</i>	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	<i>(in million Baht)</i>			
Subsidiaries				
At 1 January	-	-	2,015	1,238
Increase	-	-	-	931
Decrease	-	-	(1,135)	(154)
At 31 December	-	-	880	2,015

Significant agreements with related parties

As at 31 December 2015, the Group/Company has significant agreements with related parties as follows:

Olefins Sales and Purchase Agreements

The Company has 4 Ethylene sales and purchase agreements with its parent company and 2 related parties. Selling prices are determined based on prices prevailing in the world market, Ethane price and Ethylene price in the world market. These agreements are for the periods from 7 years to 15 years, commencing from the effective date specified in each agreement. One agreement that is expired in July 2016 is automatically renewable except for advance cancellation not less than 1 year through written notice by each party. Other 3 agreements will expire in August 2021, December 2021 and May 2022.

The Company has 3 Propylene sales and purchase agreements with 2 related parties. Selling prices are determined based on Polypropylene and Propylene prices in the world market. These agreements are for the periods from 12 years to 15 years, commencing from the effective date specified in each agreement and expiring in December 2016, December 2023 and December 2026.

By Product Sales and Purchase Agreements

The Company has a Hydrogen sales and purchase agreement with a related party. Selling price in the agreement is determined based on Natural Gas price for the industry. The agreement is for the period of 15 years, commencing from the date as specified in the agreement and expiring in March 2024.

The Company has a Tail Gas sales and purchase agreement with a related party. Selling price in the agreement is determined based on Natural Gas price for the industry. The agreement is for the period of 15 years, commencing from the date as specified in the agreement and expiring in July 2022.

Utilities and Other Services Agreements

The Company has 2 Power Supply agreements with 2 related parties. Selling prices in these agreements are determined based on reference price from the Provincial Electricity Authority. These agreements are for the period of 15 years, commencing from the date as specified in each agreement and expiring in December 2016 and September 2028.

The Company has 2 Utilities agreements covering electricity, steam and demineralised water with a related party. These agreements are for the periods from 10 years to 20 years, commencing from the date as specified in each agreement and expiring in December 2016 and December 2028.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

The Company and certain related parties have various Utilities agreements for the industries covering electricity, steam, and water with a related party. These agreements are for the periods from 15 years to 20 years, commencing from the date as specified in each agreement and expiring from December 2021, to February 2031. These agreements can be renewed for the period of 5 years with the terms and conditions agree by both parties.

The Company has a Product Transportation agreement with a related party. The agreement is for the period of 3 years, commencing from the date as specified in the agreement and expiring in December 2018. The agreement is automatically renewable for another period of 3 years except for advance cancellation through written notice by each party, not exceeding a total period of 15 years.

Feedstock and Fuel Gas Sales and Purchase Agreements

The Company has a LPG sales and purchase agreement with its parent company. Selling price is determined based on the Polypropylene price. The agreement is for the period of 15 years, commencing from the date as specified in the agreement and expiring in May 2021.

The Company has a Natural Gas sales and purchase agreement with its parent company. Selling price is determined based on fuel oil prices. The agreement is for the period of 20 years, commencing from the date as specified in the agreement and expiring in December 2018. The agreement is renewable for the period of 4 years, by providing not less than 1 year advance written notice to the counterparty.

The Company has 2 Natural Gas sales and purchase agreements with its parent company. Selling prices are determined based on gas price as specified in each agreement and on the Thailand Producer Price Index (PPI). These agreements are for the period of 10 years, commencing from the date as specified in each agreement and expiring in May 2018 and December 2018.

The Company and a related party have 2 Natural Gas sales and purchase agreements with its parent company. Selling price in an agreement is determined based on gas price as specified in the agreement and another agreement is determined based on the Thailand Producer Price Index. These agreements are for the periods from 10 years to 15 years, commencing from the date as specified in each agreement and expiring between November 2019 and July 2023.

The Company has a Benzene sales and purchase agreement with a related party. Selling price is determined based on the benzene price as specified in the agreement. The agreement is for the period of 15 years, commencing from the date as specified in the agreement and expiring in March 2024.

The Company has a Natural Gas Liquid sales and purchase agreement with its parent company. Selling price is determined based on the standard price of Naphtha in the region. The agreement is for the period of 15 years, commencing from the date as specified in the agreement and expiring in May 2021. The agreement is renewable for the period of 5 years with the agreement of both parties.

The Company has 2 Ethane, Propane and LPG sales and purchase agreements with its parent company. Selling price in the agreement is determined based on the Polyethylene and Polypropylene price and another agreement is determined based on the Polyethylene price. These agreements have been extended and consequently will expire in December 2020.

The Company has 2 LPG sales and purchase agreements with its parent company. Selling prices are determined based on Polypropylene price. These agreements are for the period of 8 years, commencing from the date as specified in each agreement and expiring in December 2020.

The Company has an Ethane sales and purchase agreement with its parent company. Selling price is determined based on prices prevailing in the high density Polyethylene price in the world market. The agreement is for the period of 15 years, commencing from the date as specified in the agreement and

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

expiring in January 2025. The agreement is renewable for 5 years, by providing not less than 1 year advance written notice to the counterparty.

The Company has an Ethane Rich Gas sales and purchase agreement with a related party. Selling price is determined based on prevailing prices of Polyethylene and Polypropylene in the region. This agreement is for the period of 10 years and will expire in January 2021.

From 1 August 2012, the Company has entered into the adjustment of the pricing formula in the sales and purchase agreements of petrochemical natural gas feedstock with its parent company.

Petroleum Product Offtake Agreement

The Company has a Petroleum Product sales and purchase agreement with its parent company and another company. For domestic sales, the product price reflects prices prevailing in Thailand for products of a similar quality that are sold in or imported to Thailand. For export sales, the product price reflects the prevailing international spot price for that product. The agreement is for the period of 18 years, commencing from the date as specified in the agreement and expiring in February 2024. The agreement is automatically renewable except for advance cancellation through written notice by each party.

Expansion Phase Product Offtake Agreement

The Company has an expansion phase product offtake agreement with its parent company, whereas a parent company agree to purchase 100% of the volume of refined petroleum products produce by reforming and upgrading complexes. As specified in the Product Offtake Agreement, at least 50% of such volume will be sold at a competitive domestic market price and the remaining sold at a competitive export market price or other mutually agreed price. The agreement is for the period of 18 years, commencing from the date as specified in the agreement and expiring in February 2024. The agreement is automatically renewable except for advance cancellation through written notice by each party.

Long-term Crude Oil and Other Raw materials Supply Agreements

The Company entered into 2 supply agreements for crude oil and other raw materials with its parent company, the reference price being based on market price of crude oil and other raw materials. These agreements are for the periods of 15 years and 20 years, will expire in December 2016 and February 2024. The agreements are automatically renewable except for advance cancellation through written notice by each party.

Crack Spread Swap Agreements

The Company has entered into crack spread swap agreements with its parent company to hedge the Company's oil refinery margin. Under the agreements the floating amount of the basket refinery margin, (calculated based on the Singapore price of refined petroleum products, Gasoil, Kerosene and Fuel Oil against the price of Dubai crude oil), is swapped for a fixed amount of the basket refinery margin for a fixed quantity per month. Under the agreement, the Company shall make payment or receive of the crack spread difference according to terms and conditions stipulated in the agreements.

Crude Oil and Feedstock Time Spread Agreements

The Company has entered into crude oil and feedstock time spread agreements to mitigate price risk with its parent company, calculated based on the difference of the average price of crude oil and feedstock for the current month and the price of the following month. The Company shall make

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

payment or receive of the difference according to terms and conditions stipulated in the agreements. As at 31 December 2015, the Company has oil volume under the agreement totaling 350,000 barrels.

Sales and Purchase Aromatics Product Agreements

The Company, a parent company, related parties and various other companies have entered into raw material and product sales and purchase agreements. The sales and purchase prices of raw material and product are based on the prices specified in the agreements. These agreements are for the periods from 1 year to 15 years, commencing from the effective date as specified in each agreement. One agreement that is expired in 2023 and other Agreements are automatically renewable except for an advance cancellation period of 1-2 years through written notice by each party.

Polyethylene Sales and Purchase Agreements

The Company and a related party have the Polyethylene sales and purchase agreements with a related party. The Company agreed to sell all Polyethylene to a related party for distributing to the customers in the market. Under the agreement, the Polyethylene pricing structure is changed to link to the Polyethylene product price, which the Company sells to end customers, adjusted by the appropriate marketing expenses for fairness to both parties. These agreements are for the periods of 15 years, commencing from the effective date as specified in each agreement. Two agreements will expire in December 2021, one agreement will expire in January 2022 and another will expire in September 2023.

Loan Agreements

The Company has unsecured short-term lending agreements for the period of 3 years through Liquidity Management System “LMS” with 3 related parties with the credit facility of Baht 1,000 million, Baht 80 million and Baht 20 million. These loans bear interest at the rate of the Company’s average cost of funds.

The Company has unsecured short-term borrowing agreements for the period of 3 years through Liquidity Management System “LMS” with 3 related parties with the credit facility of Baht 4,000 million, Baht 60 million and Baht 50 million. These loans bear interest at the rate of the Company’s average return on current investment minus 0.25% per annum.

The Company provides unsecured short-term loans to 2 related parties by receiving the promissory notes amounting to Baht 591 million. The loans bear interest at the rate of the Company’s average cost of funds. The promissory notes are for the period of 3 months and are renewable.

The Company has an uncommitted and unsecured short-term Inter-Company Borrowing & Lending agreement (ICBL) for the period of 1 year with its parent company with the borrowing and lending credit facility of Baht 5,000 million and Baht 2,000 million, respectively. The agreement will expire on 19 December 2016. This facility bears interest based on market rate referenced to BIBOR or LIBOR plus interest rate spread by taking into account the return on short-term investment, short-term interest rate and the credit ratings of the Company or the borrowing company.

Service Agreements

The Company has Shared Service agreements with 14 related parties for the provision of general services. All of these agreements are effective from the date as specified in the agreements and are automatically renewable except for 3 months advance cancellation through written notice by each party. The service charges will be agreed in the fourth quarter of each year.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

The Company has a Technical Services agreement with a related party. Under the contract, the Company agreed to obtain certain technical advisory services, limited to 2,100 service hours in each year. The agreement duration is 5 years, including the initial service fee as specified in the agreement which will be adjusted in line with the increase in the labour cost index. The agreement can be renewed for another 5 years.

The Company has Management and Engineering agreement, Design, Supply, Construction and Installation agreement, Inspection of Construction, Equipment and Machinery agreement and Management and Maintenance Work agreement with a related party. These agreements are for the periods from 1 year to 3 years 3 months, commencing from the date as specified in each agreement and expiring in December 2018.

The Company has 3 Services agreements to have the right to lay the pipelines for delivery of raw material and product on pipeline structure with its parent company. These agreements are for the period of 15 years from the date as specified in each agreement and expiring in June 2025.

The Company has a Security Service and Fire Protection agreement with a related party. The agreement is to provide security and fire protection service to asset, employees and visitors in the location of the Company. The agreement is for the period of 3 years and will expire in December 2017.

The Company has 2 Warehouse Management agreements with a related party. The agreements are for the period of 10 years and will expire in December 2019. These agreements are renewable by providing not less than 30 days written notice to the counterparty.

The Company has 2 Tank Maintenance Service agreements with a related party. These agreements are for the periods from 2 years 6 months to 3 years 7 months, will expire in December 2016 and February 2018.

The Company has entered into Information and Communication Technology Service agreements with a related party. A related party will provide Information Technology system maintenance and support services, system structure and data center management, system supporting and advisory, including system design and development to meet the Company's requirements. These agreements are for the periods from 5 years to 15 years, commencing from the date as specified in each agreement and expiring in December 2027.

Rental Agreements

The Company has Office Rental and Service agreement with a related party. The agreement is for the period of 2 years and will expire in September 2017 with rental and service rate and conditions as stipulated in the agreement.

The Company has entered into a Land Lease agreement with its parent company to operate jetty and buffer tank farm services. The agreement is for the period of 22 years 6 months, commencing from the date signed in the agreement by both parties, with land rental rate and condition as specified in the agreement, and will expire in December 2037.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

7 Cash and cash equivalents

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	(Restated)			
	(in million Baht)			
Cash on hand	2	2	2	2
Cash at banks - current accounts	2,089	842	163	12
Cash at banks - savings accounts	3,145	4,476	1,972	2,037
Cash at banks - foreign accounts	963	5,159	809	5,085
Highly liquid current investments	5,284	3,341	4,003	3,000
Total	11,483	13,820	6,949	10,136

The currency denomination of cash and cash equivalents as at 31 December was as follows:

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	(Restated)			
	(in million Baht)			
Thai Baht (THB)	8,383	7,659	6,137	5,051
United States Dollars (USD)	1,778	5,733	810	5,085
Euro (EUR)	1,288	338	-	-
Singapore Dollar (SGD)	15	39	-	-
Brazilian Real (BRL)	9	48	-	-
Chinese Yuan (CNY)	10	3	2	-
Total	11,483	13,820	6,949	10,136

8 Trade accounts receivable

	<i>Note</i>	Consolidated financial statements		Separate financial statements	
		2015	2014	2015	2014
		(Restated)			
		(in million Baht)			
Related parties	6	18,242	24,063	18,466	24,121
Other parties		13,992	14,514	8,119	7,396
Total		32,234	38,577	26,585	31,517
Less allowance for doubtful accounts		(86)	(71)	(19)	(19)
Net		32,148	38,506	26,566	31,498
Bad and doubtful debts expense for the year		15	3	-	-

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Aging analyses for trade accounts receivable were as follows:

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	(Restated)			
	(in million Baht)			
Related parties				
Within credit terms	18,229	24,052	18,466	24,121
Overdue:				
Less than 3 months	11	11	-	-
3 - 6 months	2	-	-	-
6 - 12 months	-	-	-	-
Over 12 months	-	-	-	-
	<u>18,242</u>	<u>24,063</u>	<u>18,466</u>	<u>24,121</u>
Less allowance for doubtful accounts	-	-	-	-
Net	<u>18,242</u>	<u>24,063</u>	<u>18,466</u>	<u>24,121</u>
Other parties				
Within credit terms	13,784	14,206	8,098	7,313
Overdue:				
Less than 3 months	110	217	2	64
3 - 6 months	5	15	-	-
6 - 12 months	-	4	-	-
Over 12 months	93	72	19	19
	<u>13,992</u>	<u>14,514</u>	<u>8,119</u>	<u>7,396</u>
Less allowance for doubtful accounts	(86)	(71)	(19)	(19)
Net	<u>13,906</u>	<u>14,443</u>	<u>8,100</u>	<u>7,377</u>
Total	<u>32,148</u>	<u>38,506</u>	<u>26,566</u>	<u>31,498</u>

The normal credit term granted by the Group/Company ranges from 15 days to 90 days.

The currency denomination of trade accounts receivable as at 31 December was as follows:

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	(Restated)			
	(in million Baht)			
Thai Baht (THB)	25,018	27,594	22,961	25,139
United States Dollars (USD)	5,380	8,854	3,605	6,359
Euro (EUR)	1,604	1,804	-	-
Others	146	254	-	-
Total	32,148	38,506	26,566	31,498

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

9 Other receivables

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
		(Restated)		
		(in million Baht)		
Prepaid expenses	1,554	1,677	1,156	1,130
Receivable from oil hedging contracts	2,980	1,310	2,980	1,310
Accrued income	582	616	605	998
Other receivables	675	401	708	722
Prepaid income tax expense	3	748	-	623
Receivable from Revenue Department	146	30	-	1
Others	186	153	93	103
Total	6,126	4,935	5,542	4,887

10 Inventories

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
		(Restated)		
		(in million Baht)		
Finished goods	11,566	11,986	7,623	8,845
Work in progress	1,809	2,557	1,074	1,694
Raw materials	6,766	10,894	6,115	10,136
Factory supplies and spare parts	8,728	8,073	7,276	6,687
Goods in transit	1,674	1,626	1,522	1,619
	30,543	35,136	23,610	28,981
Less allowance for decline in value	(467)	(3,221)	(168)	(3,012)
allowance for obsolescence	(146)	(338)	(49)	(78)
Net	29,930	31,577	23,393	25,891

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
		(Restated)		(Restated)
		(in million Baht)		
Inventories recognised as an expense in 'cost of sales of goods':				
- Cost	367,136	520,509	331,026	479,852
- Write - down to net realisable value	256	3,111	167	2,955
- Reversal of write - down to net realisable value	(3,158)	-	(3,012)	-
Net	364,234	523,620	328,181	482,807

As at 31 December 2015 and 2014, the Company's inventories included petroleum legal reserve of 306 million liters with approximated value of Baht 2,834 million and 268 million liters with approximated value of Baht 4,179 million, respectively.

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

11 Investments in subsidiaries

	Separate financial statements	
	2015	2014
		(Restated)
	<i>(in million Baht)</i>	
<i>Subsidiaries</i>		
At 1 January	43,398	40,532
Acquisition	11,590	2,866
Impairment losses	(282)	-
At 31 December	54,706	43,398

Separate financial statements											
Ownership Interest	Paid-up capital		Cost		Impairment		At cost-net		Fair value of listed securities	Dividend income for the year ended	
	2015	2014	2015	2014	2015	2014	2015	2014			
(%)			(Restated)		(Restated)		(Restated)				
Subsidiaries											
100	100	5,395	5,395	5,395	5,395	-	-	5,395	5,395	-	-
51	51	900	900	459	459	-	-	459	459	-	-
100	100	190	190	190	190	-	-	190	190	-	-
100	100	7,400	7,400	7,400	7,400	-	-	7,400	7,400	-	-
100	100	1,700	1,700	1	1	-	-	1	1	-	-
100	100	116	92	116	92	-	-	116	92	-	-
100	100	146	146	146	146	(41)	(41)	105	105	-	-
100	100	22,000	22,000	-	-	-	-	-	-	-	-
100	100	11,201	10,682	12,505	11,986	-	-	12,505	11,986	-	-
60	60	137	137	82	82	-	-	82	82	-	-
54	54	90	90	49	49	-	-	49	49	-	-
100	100	165	165	165	165	-	-	165	165	-	-
100	-	-	-	2,134	-	-	-	2,134	-	-	-
100	100	27,387	18,474	27,387	18,474	(1,282)	(1,000)	26,105	17,474	-	-
Total				56,029	44,439	(1,323)	(1,041)	54,706	43,398	-	-
										2,426	4,065

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Change in investment in subsidiaries

On 5 January 2015, PTT Chemical International Pte. Ltd. has called for paid-up capital from the capital increase by the Board of Directors Meeting held on 20 February 2014 to invest in Vencorex Holding which the Company holds a 100% interest through PTTGC International (Netherlands) B.V. in accordance with business plan of Vencorex group. The share capital was registered and called at EUR 19.98 million or equivalent to Baht 806.10 million (1,997.5 million shares at EUR 0.01 par value), of which fully received in January 2015.

On 5 June 2015, Solution Creation Co., Ltd. (Formerly Bio Creation Co., Ltd.) has called for the additional paid-up capital of the remaining share capital by the Board of Directors Meeting held on 31 March 2015 to invest in PTT Polymer Marketing Co., Ltd. and PTT Polymer Logistics Co., Ltd. at Baht 17.25 per share, 1.4 million shares, totalling Baht 24.15 million, of which fully received in June 2015.

At the Board of Directors Meeting of the Company held on 29 June 2015, the Board approved to establish PTTGC America Corporation which is 100% owned by the Company and PTTGC America LLC which is 100% owned by PTTGC America Corporation. On 13 July 2015, PTTGC America Corporation has called for paid-up capital to invest in PTTGC America LLC. for conduct a study and invest in US Petrochemical Complex Project in the US. at USD 36.4 million or equivalent to Baht 1,305 million, of which fully received in July and September 2015.

On 16 July 2015, PTT Phenol Co., Ltd. has called for paid-up capital from the capital increase by the Extraordinary General Meeting of shareholders held on 11 July 2013 for the purpose of Phenol 2 project at Baht 20 per share, 25.99 million shares, totalling Baht 519.84 million, of which fully received in July 2015.

On 17 July 2015, PTT Chemical International Pte. Ltd. has called for paid-up capital from the capital increase by the Board of Directors Meeting held on 20 February 2014 to invest in Vencorex Holding which the Company holds a 100% interest through PTTGC International (Netherlands) B.V. in accordance with business plan of Vencorex group. The share capital was registered and called at EUR 17 million (1,700 million shares at EUR 0.01 par value) or equivalent to Baht 641.29 million, of which fully received in July 2015.

On 24 August 2015, PTT Chemical International Pte. Ltd. has called for paid-up capital from the capital increase by the Board of Directors Meeting held on 5 August 2015 to invest in Myriant Corporation ("Myriant") at USD 184.08 million or equivalent to Baht 6,614 million, of which fully received in August 2015. As a result, the group's shareholding in Myriant changed from 84.18% to 100%.

On 5 October 2015, PTT Chemical International Pte. Ltd. has called for paid-up capital from the capital increase by the Board of Directors Meeting held on 25 September 2015 to invest in Myriant Corporation ("Myriant") totalling USD 5 million or equivalent to Baht 177 million, of which fully received in October 2015.

On 12 November 2015, PTTGC America Corporation has called for paid-up capital from the capital increase by the Board of Directors Meeting held on 29 June 2015 for the purpose of US Petrochemical Complex project at USD 23 million or equivalent to Baht 829 million, of which fully received in November 2015.

On 2 December 2015, PTT Chemical International Pte. Ltd. has called for paid-up capital from the capital increase by the Board of Directors Meeting held on 20 February 2014 to invest in Vencorex Holding which the Company holds a 100% interest through PTTGC International (Netherlands) B.V. in accordance with business plan of Vencorex group. The share capital was registered and called at EUR 17 million or equivalent to Baht 673.98 million (1,700 million shares at EUR 0.01 par value), of which fully received in December 2015.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

On 2 January 2014, Myriant Corporation has purchased shares from the existing shareholders totalling 3,406,569 shares and subsequently cancelled of those purchased shares. As a result, the group's shareholding in Myriant changed from 72.21% to 84.18%.

On 9 January 2014, PTT Phenol Co., Ltd. has called for paid-up capital from the capital increase by the Extraordinary General Meeting of shareholders held on 11 July 2013 for the purpose of Phenol 2 project at Baht 18 per share, 22.52 million shares, totalling Baht 405.4 million, of which fully received in January 2014.

On 27 June 2014, PTT Chemical International Pte. Ltd. has called for paid-up capital from the capital increase by the Board of Directors Meeting held on 27 April 2012 to invest in Emery Specialty Chemicals (M) Sdn. Bhd. The share capital was registered and called at USD 4.88 million (4.88 million shares at USD 1 par value), of which fully received in June 2014.

On 18 July 2014, PTT Chemical International Pte. Ltd. has called for paid-up capital from the capital increase by the Board of Directors Meeting held on 4 April 2014 to invest in PT. Indo Thai Trading. The share capital was registered and called at USD 3.92 million (3.92 million shares at USD 1 par value), of which fully received in July 2014.

On 5 August 2014, PTT Phenol Co., Ltd. has called for paid-up capital from the capital increase by the Extraordinary General Meeting of shareholders held on 11 July 2013 at Baht 22 per share, 22.52 million shares, totalling Baht 495.4 million, of which fully received in August 2014.

On 28 August 2014, PTTGC International (Netherlands) B.V. ("PTTGC NL") in which the Company holds a 100% interest through a subsidiary PTT Chemical International Pte. Ltd. ("CH Inter"), and Perstorp Holding AB ("Perstorp") agreed to amend the Securityholders Agreement related to call and put options on the remaining 49% of equity still held by Perstorp. PTTGC NL acquired an additional 34% of the registered capital in Vencorex Holding ("Vencorex") from Perstorp, and as a result its shareholding interest in Vencorex increased from 51% to 85%. The consideration will be determined based on the financial performance of Vencorex during the years 2014 and 2015. As at 31 December 2015, the Company estimated the consideration at EUR 5.97 million or approximately Baht 227 million and recognised a liability for that amount in other non-current liabilities. The estimate will be remeasured at the end of the financial reporting period. In addition, Perstorp retained a put option to sell the remaining of shareholding in Vencorex to PTTGC NL and PTTGC NL retained call option to buy the remaining of Perstorp's shareholding in Vencorex.

Subsequently, under the amended agreement, Vencorex increased its registered share capital by EUR 20 million (2,000 million shares at par value EUR 0.01). As a result, the Company has increased its capital interest in Vencorex proportionately via CH Inter and PTTGC NL in accordance with the approval of the Board of Directors held on 18 February 2014. Vencorex fully received the paid-up capital in August 2014.

On 20 November 2014, PTT Chemical International Pte. Ltd. has called for paid-up capital from the capital increase by the Board of Directors Meeting held on 27 April 2012 to invest in Emery Oleochemicals (M) Sdn. Bhd for the purpose of Bio Polyols manufacturing project. The share capital was registered and called at USD 2.50 million (2.50 million shares at USD 1 par value), of which fully received in November 2014.

On 1 December 2014, PTT Phenol Co., Ltd. has called for paid-up capital from the capital increase by the Extraordinary General Meeting of shareholders held on 11 July 2013 for the purpose of Phenol 2 project at Baht 30 per share, 25.99 million shares, totalling Baht 779.8 million, of which fully received in December 2014.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

On 19 December 2014, PTT Chemical International Pte. Ltd. has called for paid-up capital from the capital increase by the Board of Directors Meeting held on 27 April 2012 to invest in Emery Oleochemicals (M) Sdn. Bhd for the purpose of Specialties Oleochemicals' Research and Technology center project. The share capital was registered and called at USD 3.03 million (3.03 million shares at USD 1 par value), of which fully received in December 2014.

Dividends paid by subsidiaries

At the Annual General Meeting of the shareholders of Thai Oleochemicals Co., Ltd. held on 21 April 2015, the shareholders approved the appropriation of dividends of Baht 6.64 per share, amounting to Baht 491.36 million, of which amounting to Baht 414.40 million, was paid as an interim dividend in 2014. The remaining dividend at the rate of Baht 1.04 per share, amounting to Baht 76.96 million was paid to the shareholders in April 2015.

At the Annual General Meeting of the shareholders of Thai Tank Terminal Ltd. held on 23 April 2015, the shareholders approved the appropriation of dividends of Baht 33.33 per share, amounting to Baht 300 million. The dividend was paid to the shareholders in May and June 2015.

At the Annual General Meeting of the shareholders of TOC Glycol Co., Ltd. held on 23 April 2015, the shareholders approved the appropriation of dividends of Baht 49 per share, amounting to Baht 2,643.55 million, of which amounting to Baht 2,373.80 million, was paid as an interim dividend in 2014. The remaining dividend at the rate of Baht 5 per share, amounting to Baht 269.75 million was paid to the shareholders in April 2015.

At the Board of Directors Meeting of TOC Glycol Co., Ltd. held on 28 May 2015, the Board approved the appropriation of interim dividends of Baht 11 per share, amounting to Baht 593.45 million. The dividend was paid to the shareholders in May 2015.

At the Board of Directors Meeting of TOC Glycol Co., Ltd. held on 28 August 2015, the Board approved the appropriation of interim dividends of Baht 13 per share, amounting to Baht 701.35 million. The dividend was paid to the shareholders in August 2015.

At the Board of Directors Meeting of TOC Glycol Co., Ltd. held on 19 November 2015, the Board approved the appropriation of interim dividends of Baht 5 per share, amounting to Baht 269.75 million. The dividend was paid to the shareholders in November 2015.

At the Annual General Meeting of the shareholders of Thai Tank Terminal Ltd. held on 17 December 2015, the shareholders approved the appropriation of dividends of Baht 78.89 per share, amounting to Baht 710 million. The dividend was paid to the shareholders in December 2015.

At the Annual General Meeting of the shareholders of TOC Glycol Co., Ltd. held on 24 April 2014, the shareholders approved the appropriation of dividends of Baht 33 per share, amounting to Baht 1,780.35 million, of which amounting to Baht 1,079 million, was paid as an interim dividend in 2013. The remaining dividend at the rate of Baht 13 per share, amounting to Baht 701.35 million was paid to the shareholders in April 2014.

At the Annual General Meeting of the shareholders of Thai Tank Terminal Ltd. held on 27 April 2014, the shareholders approved the appropriation of dividends of Baht 125.33 per share, amounting to Baht 1,128 million. The dividend was paid to the shareholders in July and December 2014.

At the Board of Directors Meeting of TOC Glycol Co., Ltd. held on 29 May 2014, the Board approved the appropriation of interim dividends of Baht 5 per share, amounting to Baht 269.75 million. The dividend was paid to the shareholders in May 2014.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

At the Board of Directors Meeting of TOC Glycol Co., Ltd. held on 28 August 2014, the Board approved the appropriation of interim dividends of Baht 17 per share, amounting to Baht 917.15 million. The dividend was paid to the shareholders in August 2014.

At the Board of Directors Meeting of Thai Oleochemicals Co., Ltd. held on 4 September 2014, the Board approved the appropriation of interim dividends of Baht 2.6 per share, amounting to Baht 192.40 million. The dividend was paid to the shareholders in September 2014.

At the Board of Directors Meeting of TOC Glycol Co., Ltd. held on 13 November 2014, the Board approved the appropriation of interim dividends of Baht 22 per share, amounting to Baht 1,186.90 million. The dividend was paid to the shareholders in November 2014.

At the Board of Directors Meeting of Thai Oleochemicals Co., Ltd. held on 13 November 2014, the Board approved the appropriation of interim dividends of Baht 3 per share, amounting to Baht 222 million. The dividend was paid to the shareholders in November 2014.

Impairment loss on investment in subsidiary

During the year ended 31 December 2015, the Company recognized impairment loss on the investment in PTT Chemical International Pte. Ltd. totalling Baht 282 million in the separate financial statements as a result of recoverable amount in investment in Myriant Corporation held by PTT Chemical International Pte. Ltd. was less than its carrying amount.

12 Investments in joint ventures and associates

	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014 (Restated)
	(in million Baht)			
Joint ventures				
At 1 January	11,539	12,073	220	220
Acquisitions	-	342	933	-
Share of loss of investment in joint ventures	(14)	(236)	-	-
Share of other comprehensive income (loss) of investments in joint ventures	425	(217)	-	-
Dividend income	(840)	(231)	-	-
Effect of change in exchange rates	-	(192)	-	-
At 31 December	11,110	11,539	1,153	220
Associates				
At 1 January	11,647	11,203	9,323	9,323
Acquisitions	-	124	-	-
Share of profit of investment in associates	725	413	-	-
Share of other comprehensive loss of investments in associates	(49)	-	-	-
Dividend income	(363)	(87)	-	-
Realised gain on dilution of investment	432	-	-	-
Effect of change in exchange rates	-	(6)	-	-
At 31 December	12,392	11,647	9,323	9,323

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated) <i>(in million Baht)</i>	2015	2014 (Restated)
<i>Total</i>				
At 1 January	23,186	23,276	9,543	9,543
Acquisitions	-	466	933	-
Share of profits of investment in joint ventures and associates	711	177	-	-
Share of other comprehensive income (loss) of investments in joint ventures and associates	376	(217)	-	-
Dividend income	(1,203)	(318)	-	-
Realised gain on dilution of investment	432	-	-	-
Effect of change in exchange rates	-	(198)	-	-
At 31 December	23,502	23,186	10,476	9,543

Change in investment in associate

On 18 May 2015, Global Power Synergy Plc. (“GPSC”) which 30.31% shareholding by the Company offered shares to Initial Public Offering (IPO) in the Stock Exchange of Thailand. The Company did not acquire additional shares resulting in dilution of an interest in its ownership from 30.31% to 22.73%. The Group recognised realised gain on dilution of investment in amount of Baht 432 million in the consolidated statement of income for the year ended 31 December 2015.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Investments in joint ventures and associates as at 31 December 2015 and 2014, and dividend income from those investments for the years then ended were as follows:

Consolidated financial statements											
Ownership interest	Paid-up capital		Cost		Equity		Impairment		Equity - net		Dividend income
	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015
(%)			(Restated)	(Restated)	(Restated)	(Restated)	(Restated)	(Restated)	(Restated)	(Restated)	(Restated)
<i>(in million Baht)</i>											
Direct joint ventures											
Thai Ethoxylate Co., Ltd.	50	420	420	210	660	684	-	-	660	684	122
PTT Polymer Marketing Co., Ltd.*	50	40	40	10	495	470	-	-	495	470	55
PTT Polymer Logistics Co., Ltd.*	50	1,200	1,200	-	768	1,279	-	-	768	1,279	663
				220	1,923	2,433	-	-	1,923	2,433	840
											231
Indirect joint ventures											
Emery Oleochemicals (M) Sdn. Bhd.	50	4,530	4,530	4,966	5,256	4,653	-	-	5,256	4,653	-
Emery Specialty Chemicals Sdn. Bhd.	50	818	818	407	227	297	-	-	227	297	-
NatureWorks LLC	50	43,167	43,167	4,809	3,704	4,156	-	-	3,704	4,156	-
				10,182	9,187	9,106	-	-	9,187	9,106	-
											-
Total - joint ventures				10,402	11,110	11,539	-	-	11,110	11,539	840
											231

*The comparative information for 2014 regards to PTT Polymer Marketing Co., Ltd. and PTT Polymer Logistics Co., Ltd. was adjusted by equity method as if the group had the ownership interest of 50% due to the transaction is the business combination under common control as described in note 5.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Consolidated financial statements

Ownership interest	Paid-up capital		Cost		Equity		Impairment		Equity - net		Dividend income	
	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014
(%)			(Restated)	(Restated)	(Restated)	(Restated)	(in million Baht)	(Restated)	(Restated)	(Restated)	(Restated)	(Restated)
<i>Direct associates</i>												
23	30	14,983	11,237	5,934	5,934	7,800	7,215	-	-	7,800	7,215	299
20	20	150	150	30	30	44	44	-	-	44	44	-
40	40	150	150	60	60	403	339	-	-	403	339	26
25	25	7,111	7,111	3,297	3,297	4,020	3,947	-	-	4,020	3,947	30
23	23	10	10	2	2	15	18	-	-	15	18	8
				<u>9,323</u>	<u>9,323</u>	<u>12,282</u>	<u>11,563</u>	<u>-</u>	<u>-</u>	<u>12,282</u>	<u>11,563</u>	<u>363</u>
												<u>87</u>
<i>Indirect associate</i>												
49	49	255	255	124	124	110	84	-	-	110	84	-
				<u>124</u>	<u>124</u>	<u>110</u>	<u>84</u>	<u>-</u>	<u>-</u>	<u>110</u>	<u>84</u>	<u>-</u>
Total - associates												
				<u>9,447</u>	<u>9,447</u>	<u>12,392</u>	<u>11,647</u>	<u>-</u>	<u>-</u>	<u>12,392</u>	<u>11,647</u>	<u>363</u>
				<u>20,806</u>	<u>19,849</u>	<u>23,502</u>	<u>23,186</u>	<u>-</u>	<u>-</u>	<u>23,502</u>	<u>23,186</u>	<u>1,203</u>
												<u>318</u>

The Group's has associates which are listed on the Stock Exchange of Thailand, Global Power Synergy Public Company Limited and Vinythai Public Company Limited which based on the closing price of Baht 22.20 and Baht 9.25 at 31 December 2015 respectively. (2014: nil and Baht 9.85, respectively)

Separate financial statements

	Ownership interest		Paid-up capital		Cost		Impairment		Equity - net		Market price of listed securities			Dividend income	
	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	
(in million Baht)															
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PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Associates

The financial information of the associate adjusted for fair value adjustments at acquisition and differences in accounting policies. The details are as follows;

Global Power
Synergy Plc.
(in million Baht)

For the year ended 31 December 2015

Statement of income

Revenue	21,758
Profit for the year	1,916
Comprehensive income	(186)
Total comprehensive income for the year	1,730

As at 31 December 2015

Statement of financial position

Current assets	16,347
Non-current assets	39,548
Current liabilities	(4,560)
Non-current liabilities	(13,995)
Net assets	37,340

The reconciliation of the summarised financial information to the carrying amount of the Group's interest in this company.

Global Power
Synergy Plc.
(in million Baht)

Group's interest in net assets of investee at 1 January 2015	6,853
Total comprehensive income attributable to the Group	451
Dividends received during the year	(299)
Group's interest in net assets of investee at end of year	7,005
Gain on dilution of investment	432
Others	363
Carrying amount of interest in investee at 31 December 2015	7,800

Immaterial joint ventures and associates

The summarised financial information for the Group's interest in immaterial joint ventures and associates based on the amounts reported in the Group's consolidated financial statements:

	Immaterial Joint ventures	Immaterial Associates
	(in million Baht)	
For the year ended 31 December 2015		
Carrying amount of interests in immaterial joint ventures and associates	11,110	4,593
Group's share of:		
- Profit (loss) for the year	(14)	232
- Other comprehensive income (loss)	425	(7)
- Total comprehensive income (loss) for the year	411	225

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

13 Other investments

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	(Restated)			
	(in million Baht)			
Current investment				
Promissory notes -financial institutions	36,258	31,968	35,106	31,477
	36,258	31,968	35,106	31,477
Other long - term investments				
Other non marketable equity securities				
Alliance Petrochemical Investment (Singapore) Pte. Ltd. (15.34% shareholding by the Company)	290	290	290	290
Exeltium SAS (4% shareholding by the Group)	283	283	-	-
Business Services Alliance Co., Ltd. (25% Preferred share shareholding)	1	1	1	1
	574	574	291	291
Total	36,832	32,542	35,397	31,768

The currency denomination of other investments as at 31 December was as follows:

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	(Restated)			
	(in million Baht)			
Thai Baht (THB)	26,443	16,782	25,291	16,291
United States Dollars (USD)	6,825	7,766	6,825	7,766
Euro Dollars (EUR)	283	283	-	-
Chinese Yuan (CNY)	3,281	7,711	3,281	7,711
Total	36,832	32,542	35,397	31,768

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

14 Property, plant and equipment

Consolidated financial statements						
	Land& improvement	Plant, machinery, factory equipment and tools	Buildings& buildings improvement	Furniture, fixtures and equipment	Vehicles	Asset under construction
			<i>(in million Baht)</i>			
						Total
Cost						
At 1 January 2014 (Restated)	6,815	285,023	14,041	3,274	843	332,390
Additions	11	729	29	222	86	17,238
Transfers	44	13,221	411	70	-	(919)
Disposals	(10)	(410)	(112)	(242)	(37)	(811)
Effect of change in exchange rates	37	(1,245)	176	(24)	-	(1,290)
At 31 December 2014 and 1 January 2015 (Restated)	6,897	297,318	14,545	3,300	892	346,608
Additions	5	464	18	212	22	17,770
Transfers	22	9,174	75	(664)	-	(268)
Disposals	(4)	(1,372)	(16)	(172)	(88)	(1,661)
Effect of change in exchange rates	4	(60)	(5)	7	-	416
At 31 December 2015	6,924	305,524	14,617	2,683	826	362,865

Land & improvement	Plant, machinery, factory equipment and tools	Buildings & buildings improvement	Furniture, fixtures and equipment	Vehicles	Asset under construction	Total
			(in million Baht)			
(504)	(104,652)	(4,718)	(2,417)	(553)	(228)	(113,072)
(78)	(12,890)	(584)	(329)	(89)	-	(13,970)
-	(221)	92	5	-	-	(124)
6	363	89	240	29	-	727
(4)	(1,064)	(37)	-	-	(52)	(1,157)
(15)	294	17	31	-	7	334
(595)	(118,170)	(5,141)	(2,470)	(613)	(273)	(127,262)
(78)	(13,455)	(600)	(245)	(76)	-	(14,454)
-	(494)	2	470	-	-	(22)
1	1,120	2	170	76	-	1,369
-	-	-	-	-	(2,151)	(2,151)
(4)	(8)	(4)	(4)	-	(112)	(132)
(676)	(131,007)	(5,741)	(2,079)	(613)	(2,536)	(142,652)

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

	Consolidated financial statements					
	Land & improvement	Plant, machinery, factory equipment and tools	Buildings & buildings improvement	Furniture, fixtures and equipment	Vehicles	Asset under construction
				(in million Baht)		Total
<i>Net book value</i>						
At 1 January 2014 (Restated)						
Owned assets	6,311	180,356	9,248	699	171	218,951
Assets under finance leases	-	15	75	158	119	367
	6,311	180,371	9,323	857	290	219,318
31 December 2014 and 1 January 2015 (Restated)						
Owned assets	6,256	178,974	9,398	615	91	218,717
Assets under finance leases	46	174	6	215	188	629
	6,302	179,148	9,404	830	279	219,346
At 31 December 2015						
Owned assets	6,216	174,499	8,873	399	125	219,867
Assets under finance leases	32	18	3	205	88	346
	6,248	174,517	8,876	604	213	220,213

The gross amount of the Group's fully depreciated property and equipment that was still in use as at 31 December 2015 amounted to Baht 11,824 million. (2014: Baht 8,647 million)

Security

At 31 December 2015, the Group's properties with a net book value of Baht 8,766 million (2014: Baht 8,818 million) were registered to secure Bank loan (see note 19).

Property, plant and equipment under construction

Capitalised borrowing costs relating to the acquisition of the land and the construction of the new factory amounted to Baht 186 million (2014: Baht 80 million), with a capitalization rate of 3.73% to 5.00% (2014: 4.18% to 5.35%).

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Impairment in Myriant Corporation

For the year ended 31 December 2015, the Group recognised impairment loss in Myriant Corporation's assets due to machines at the plant cannot be operating at full capacity. The recoverable amount is based on fair value from Depreciated Replacement Value adjusted with current production capacity. The valuation was done by independent professional valuer.

Allowance for impairment loss on the related assets were recognised in the consolidated statement of income for the year ended 31 December 2015 as follows:

	<i>Note</i>	<i>(in million Baht)</i>
Impairment loss		
Property, plant and equipment		2,151
Goodwill	16	380
Total		<u>2,531</u>
Less Effect from the reversal of related deferred tax liabilities		<u>(475)</u>
Net		<u>2,056</u>

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

Separate financial statements

Cost	Land & improvement	Plant, machinery, factory equipment and tools	Buildings & buildings improvement	Furniture, fixtures and equipment <i>(in million Baht)</i>	Vehicles	Asset under construction	Total
At 1 January 2014 (Restated)	4,988	234,218	8,364	2,305	584	14,025	264,484
Additions	11	428	17	141	38	8,897	9,532
Transfers	38	10,827	705	60	-	(12,444)	(814)
Disposals	(10)	(100)	(80)	(213)	(21)	-	(424)
At 31 December 2014 and 1 January 2015							
(Restated)	5,027	245,373	9,006	2,293	601	10,478	272,778
Additions	3	342	13	140	6	9,007	9,511
Transfers	7	4,580	34	(82)	-	(4,478)	61
Disposals	(4)	(975)	(6)	(145)	(53)	-	(1,183)
At 31 December 2015	5,033	249,320	9,047	2,206	554	15,007	281,167
Depreciation							
At 1 January 2014 (Restated)	(338)	(83,937)	(2,617)	(1,936)	(370)	-	(89,198)
Depreciation charge for the year	(54)	(9,833)	(400)	(183)	(68)	-	(10,538)
Transfers	-	-	-	5	-	-	5
Disposals	6	72	79	213	15	-	385
At 31 December 2014 and 1 January 2015							
(Restated)	(386)	(93,698)	(2,938)	(1,901)	(423)	-	(99,346)
Depreciation charge for the year	(52)	(10,604)	(381)	(179)	(52)	-	(11,268)
Transfers	-	(166)	-	166	-	-	-
Disposals	-	779	1	146	42	-	968
At 31 December 2015	(438)	(103,689)	(3,318)	(1,768)	(433)	-	(109,646)

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

	Separate financial statements					
	Land & improvement	Plant, machinery, factory equipment and tools	Buildings & buildings improvement	Furniture, fixtures and equipment	Vehicles	Asset under construction
				(in million Baht)		Total
<i>Net book value</i>						
At 1 January 2014 (Restated)						
Owned assets	4,650	150,281	5,747	194	87	174,984
Assets under finance leases	-	-	-	175	127	302
	4,650	150,281	5,747	369	214	175,286
At 31 December 2014 and 1 January 2015 (Restated)						
Owned assets	4,641	151,675	6,068	217	51	173,130
Assets under finance leases	-	-	-	175	127	302
	4,641	151,675	6,068	392	178	173,432
At 31 December 2015						
Owned assets	4,595	145,631	5,729	283	85	171,330
Assets under finance leases	-	-	-	155	36	191
	4,595	145,631	5,729	438	121	171,521

The gross amount of the Company's fully depreciated property and equipment that was still in use as at 31 December 2015 amounted to Baht 7,570 million (2014: Baht 6,459 million).

Property, plant and equipment under construction

Capitalised borrowing costs relating to the acquisition of the land and the construction of the new factory amounted to Baht 18 million (2014: nil), with a capitalisation rate of 5% (2014: nil).

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

15 Land leasehold right

	Consolidated financial statements <i>(in million Baht)</i>	Separate financial statements
<i>Cost</i>		
At 1 January 2014 (Restated)	1,130	1,130
Additions	1	-
Effect of change in exchange rates	-	-
At 31 December 2014 and 1 January 2015 (Restated)	1,131	1,130
Additions	-	-
Effect of change in exchange rates	-	-
At 31 December 2015	1,131	1,130
<i>Amortisation</i>		
At 1 January 2014 (Restated)	(654)	(654)
Amortisation charge for the year	(38)	(38)
At 31 December 2014 and 1 January 2015 (Restated)	(692)	(692)
Amortisation charge for the year	(38)	(38)
At 31 December 2015	(730)	(730)
<i>Net book value</i>		
At 1 January 2014 (Restated)	476	476
At 31 December 2014 and 1 January 2015 (Restated)	439	438
At 31 December 2015	401	400

16 Goodwill

	Consolidated financial statements <i>(in million Baht)</i>
<i>Cost</i>	
At 1 January 2014 (Restated)	1,672
Effect of change in exchange rates	(28)
At 31 December 2014	1,644
and 1 January 2015 (Restated)	1,644
Effect of change in exchange rates	4
At 31 December 2014	1,648
<i>Impairment losses</i>	
At 1 January 2014	-
Impairment loss	-
At 31 December 2014 and 1 January 2015	-
Impairment loss	(380)
At 31 December 2015	(380)
<i>Net book value</i>	
At 1 January 2014 (Restated)	1,672
At 31 December 2014 and 1 January 2015 (Restated)	1,644
At 31 December 2015	1,268

	Consolidated financial statements						
	License for production process	Software licences	Customer contracts and the related customer relationships (in million Baht)	Right to use pipeline	Right for other operation	Intangible in progress	Total
<i>Amortisation and impairment losses</i>							
At 1 January 2014 (Restated)	(1,601)	(1,126)	(80)	(225)	(315)	-	(3,347)
Amortisation charge for the year	(215)	(259)	(18)	(27)	(216)	-	(735)
Transfers	23	(55)	-	(6)	27	-	(11)
Impairment loss	-	-	-	-	(97)	-	(97)
Effect of change in exchange rates	-	12	1	-	32	-	45
At 31 December 2014 and 1 January 2015 (Restated)	(1,793)	(1,428)	(97)	(258)	(569)	-	(4,145)
Amortisation charge for the year	(191)	(274)	(12)	(29)	(220)	-	(726)
Transfers	(1)	47	-	(7)	7	-	46
Effect of change in exchange rates	-	(1)	(8)	-	(15)	-	(24)
At 31 December 2015	(1,985)	(1,656)	(117)	(294)	(797)	-	(4,849)
<i>Net book value</i>							
At 1 January 2014 (Restated)	3,517	871	74	194	2,342	440	7,438
At 31 December 2014 and 1 January 2015 (Restated)	3,671	1,791	55	167	1,908	508	8,100
At 31 December 2015	3,579	1,824	47	165	1,989	1,233	8,837

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

	License for production process	Software licences	Right to use pipeline (in million Baht)	Right for other operation	Intangible in progress	Total
Cost						
At 1 January 2014 (Restated)	3,551	1,468	355	122	393	5,889
Additions	4	16	-	-	890	910
Transfers	377	1,145	-	(122)	(818)	582
At 31 December 2014 and 1 January 2015 (Restated)	3,932	2,629	355	-	465	7,381
Additions	18	20	12	-	836	886
Transfers	-	311	-	-	(376)	(65)
At 31 December 2015	3,950	2,960	367	-	925	8,202
Amortisation						
At 1 January 2014 (Restated)	(982)	(842)	(171)	(50)	-	(2,045)
Amortisation charge for the year	(176)	(180)	(24)	(13)	-	(393)
Transfers	(34)	(34)	-	63	-	(5)
At 31 December 2014 and 1 January 2015 (Restated)	(1,192)	(1,056)	(195)	-	-	(2,443)
Amortisation charge for the year	(150)	(244)	(26)	-	-	(420)
At 31 December 2015	(1,342)	(1,300)	(221)	-	-	(2,863)
Net book value						
At 1 January 2014 (Restated)	2,569	626	184	72	393	3,844
At 31 December 2014 and 1 January 2015 (Restated)	2,740	1,573	160	-	465	4,938
At 31 December 2015	2,608	1,660	146	-	925	5,339

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

18 Deferred tax

Deferred tax assets and liabilities as at 31 December were as follows:

	Consolidated financial statements			
	Assets		Liabilities	
	2015	2014	2015	2014
		(Restated)		(Restated)
	<i>(in million Baht)</i>			
Total	1,535	1,716	(3,457)	(3,950)
Set off of tax	(1,230)	(1,387)	1,230	1,387
Net deferred tax assets (liabilities)	305	329	(2,227)	(2,563)

	Separate financial statements			
	Assets		Liabilities	
	2015	2014	2015	2014
		(Restated)		(Restated)
	<i>(in million Baht)</i>			
Total	1,143	1,311	(2,752)	(2,776)
Set off of tax	(1,143)	(1,311)	1,143	1,311
Net deferred tax assets (liabilities)	-	-	(1,609)	(1,465)

Movements in total deferred tax assets and liabilities during the year were as follows:

	Consolidated financial statements				
	(Charged) / credited to:				
	At 1 January 2015 (Restated)	Profit and loss (note 32)	Other comprehensive income	Acquisition of subsidiary	Exchange differences
	<i>(in million Baht)</i>				
Deferred tax assets					
Inventories	7	(5)	-	-	-
Employee benefit expenses	415	38	1	-	-
Coverable oil spill expenses form insurance	149	(149)	-	-	-
Capital distribution from subsidiaries	365	-	-	-	-
Others	780	(76)	-	-	10
Total	1,716	(192)	1	-	10
Deferred tax liabilities					
Property, plant and equipment	(3,473)	502	-	-	(16)
Finance lease assets	(6)	2	-	-	-
Others	(471)	35	-	-	(30)
Total	(3,950)	539	-	-	(46)
Net	(2,234)	347	1	-	(36)

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

	Consolidated financial statements					
		(Charged) / credited to:				
	At 1 January 2014 (Restated)	Profit and loss (note 32)	Other comprehensive income	Acquisition of subsidiary	Exchange differences	At 31 December 2014 (Restated)
	(in million Baht)					
<i>Deferred tax assets</i>						
Inventories	13	(6)	-	-	-	7
Employee benefit expenses	303	54	58	-	-	415
Coverable oil spill expenses form insurance	150	(1)	-	-	-	149
Capital distribution from subsidiaries	365	-	-	-	-	365
Others	687	92	-	-	1	780
Total	1,518	139	58	-	1	1,716
<i>Deferred tax liabilities</i>						
Property, plant and equipment	(3,273)	(235)	-	-	35	(3,473)
Finance lease assets	(9)	3	-	-	-	(6)
Gain on disposal of investment	(310)	310	-	-	-	-
Others	(367)	(102)	-	-	(2)	(471)
Total	(3,959)	(24)	-	-	33	(3,950)
Net	(2,441)	115	58	-	34	(2,234)

	Separate financial statements			
	At 1 January 2015 (Restated)	(Charged) / credited to: Profit and loss (note 32)	Other comprehensive income	At 31 December 2015
<i>(in million Baht)</i>				
Deferred tax assets				
Inventories	4	(3)	-	1
Employee benefit expenses	364	29	-	393
Coverable oil spill expenses form insurance	149	(149)	-	-
Capital distribution from subsidiaries	365	-	-	365
Loss carry forward	87	(87)	-	-
Others	342	42	-	384
Total	1,311	(168)	-	1,143
Deferred tax liabilities				
Inventories	(100)	(20)	-	(120)
Property, plant and equipment	(2,637)	13	-	(2,624)
Finance lease assets	(4)	1	-	(3)
Others	(35)	30	-	(5)
Total	(2,776)	24	-	(2,752)
Net	(1,465)	(144)	-	(1,609)

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

	At 1 January 2014 (Restated)	Separate financial statements (Charged) / credited to:		At 31 December 2014 (Restated)
		Profit and loss (note 32)	Other comprehensive income	
		(in million Baht)		
Deferred tax assets				
Inventories	13	(9)	-	4
Employee benefit expenses	269	42	53	364
Coverable oil spill expenses form insurance	150	(1)	-	149
Capital distribution from subsidiaries	365	-	-	365
Loss carry forward	-	87	-	87
Others	323	19	-	342
Total	1,120	138	53	1,311
Deferred tax liabilities				
Inventories	(6)	(94)	-	(100)
Property, plant and equipment	(2,372)	(265)	-	(2,637)
Finance lease assets	(8)	4	-	(4)
Gain on disposal of investment	(310)	310	-	-
Others	(1)	(34)	-	(35)
Total	(2,697)	(79)	-	(2,776)
Net	(1,577)	59	53	(1,465)

19 Interest-bearing liabilities

Interest bearing liabilities are defined as bank overdrafts, loans and finance lease liabilities which are as follows;

	Note	Consolidated financial statements		Separate financial statements	
		2015	2014 (Restated)	2015	2014 (Restated)
		(in million Baht)			
Current					
Bank overdrafts and short-term loans from financial institutions					
secured		602	788	-	-
Short-term loans from related parties					
unsecured	6	-	-	880	2,015
Short-term loans		602	788	880	2,015

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014 (Restated)
	<i>(in million Baht)</i>			
Current (continue)				
Current portion of long-term loans from financial institutions				
secured	1,446	1,186	-	-
unsecured	6,010	6,370	5,968	5,993
Current portion of long-term loans from other parties				
secured	739	677	-	-
unsecured	16	15	-	-
Current portion of debentures				
unsecured	1,058	14,431	1,058	14,431
Current portion of long-term loans	9,269	22,679	7,026	20,424
Current portion of financial lease liabilities	173	202	105	124
Total current	10,044	23,669	8,011	22,563
Non-current				
Long-term loans from financial institutions				
secured	9,446	7,762	-	-
unsecured	34,565	32,178	31,589	29,737
Long-term loans from other parties				
secured	970	885	-	-
unsecured	188	154	-	-
Debentures				
unsecured	50,807	48,696	50,807	48,696
Long-term loans	95,976	89,675	82,396	78,433
Finance lease liabilities	185	208	93	100
Total non-current	96,161	89,883	82,489	78,533
Total	106,205	113,552	90,500	101,096

The currency denomination of interest-bearing liabilities as at 31 December was as follows:

	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014 (Restated)
	<i>(in million Baht)</i>			
Thai Baht (THB)	61,801	61,894	50,807	53,895
United States Dollars (USD)	41,609	48,779	39,693	47,201
Euro (EUR)	2,795	2,873	-	-
Others	-	6	-	-
Total	106,205	113,552	90,500	101,096

As at 31 December 2015, the Group and the Company had unutilised credit facilities totalling Baht 43,031 million and 29,759 million, respectively. (2014(Restated): Baht 46,494 million and 40,064 million, respectively)

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

The periods to maturity of interest-bearing liabilities, excluding finance lease liabilities, as at 31 December were as follows:

	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014 (Restated)
	<i>(in million Baht)</i>			
Within one year	9,871	23,467	7,906	22,439
After one year but within five years	41,525	36,162	36,328	29,788
After five years	54,451	53,513	46,068	48,645
Total	105,847	113,142	90,302	100,872

Long-term loans as at 31 December were secured on the following assets;

	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014
	<i>(in million Baht)</i>			
Property, Plant and equipment	8,766	8,818	-	-

Debentures and Loans from financial institutions of the Group/Company were as follow;

Debentures

As at 31 December 2015, the Company had unsubordinated and unsecured debentures in US dollar and Thai Baht in the amount of Baht 51,865 million (2014: Baht 63,127 million). These debentures have maturity periods between 7 years to 10 years, bear different interest rates and repayment schedules as specified in each agreement.

Details of the Company's debentures as at 31 December 2015 were as follows:

	Currency	Facilities (in million)	Face value per share	Years	Interest rates (%) p.a.	Repayment Terms
Unsubordinated debenture unsecured with a debenture holders' representative	Baht	2,800	1,000	10	5.50	Interest is payable on semi-annual basis and maturity in October 2017
Unsubordinated debenture unsecured with a debenture holders' representative	Baht	1,058	1,000	7	4.90	Interest is payable on semi-annual basis and maturity in June 2016

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

	Currency	Facilities (in million)	Face value per share	Years	Interest rates (%) p.a.	Repayment Terms
Unsubordinated debenture unsecured with a debenture holders' representative	Baht	1,942	1,000	10	5.50	Interest is payable on semi-annual basis and maturity in June 2019
Unsubordinated debenture at 99.108% of the face value unsecured with a debenture holders' representative	USD	1,000	1,000	10	4.25	Interest is payable on semi-annual basis and maturity in September 2022
Unsubordinated debenture unsecured with a debenture holders' representative	Baht	10,000	1,000	7	4.50	Interest is payable on semi-annual basis and maturity in August 2021

Loans from financial institution

As at 31 December 2015, the Group and the Company had long-term and revolving long-term credit facility agreements with several financial institutions totalling Baht 51,467 million and 37,557 million, (2014: Baht 47,496 million and Baht 35,730 million, respectively), bear different interest rates as specified in each agreement. The Company is required to comply with certain covenants pertaining to maintenance of certain financial ratios, percentage of share held by the major shareholder and other conditions as specified in each agreement.

Details of the Group/Company's loans as at 31 December 2015 were as follows:

Currency	Facilities (in million)	Interest Rates (%) p.a.	Repayment Terms
The Company			
Baht	7,500	Highest interest rate for 6 month-fixed deposit plus margin	Principal is repayable on semi-annual basis, in 15 instalments commencing from August 2011.
Baht	1,600	THBFIX 6 M plus margin	Principal is repayable on semi-annual basis, in 8 instalments commencing from March 2013.
Baht	2,500	THBFIX 6 M plus margin	Principal is repayable on annual basis, in 3 instalments commencing from July 2016.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Currency	Facilities (in million)	Interest Rates (%) p.a.	Repayment Terms
The Company (continue)			
Baht	2,000	Highest interest rate for 6 month-fixed deposit plus margin	Principal is repayable at the end of contract, in May 2017.
Baht	2,000	Highest interest rate for 3 month-fixed deposit plus margin	Principal is repayable in 2 instalments at 28 September 2018 and 30 September 2020.
Baht	3,000	Prime Rate less discount	Principal is repayable at the end of contract, in December 2017.
Baht	9,898	Highest interest rate for 6 month-fixed deposit plus margin	Principal is repayable on semi-annual basis, in 20 instalments commencing from March 2011.
USD	100	LIBOR 6M plus margin	Principal is repayable on semi-annual basis, in 10 instalments commencing from March 2016.
Baht	7,000	Highest interest rate for 6 month-fixed deposit plus margin	Principal is repayable on semi-annual basis, in 15 instalments commencing from September 2013.
Baht	3,000	Highest interest rate for 6 month-fixed deposit plus margin	Principal is repayable on semi-annual basis, in 14 instalments commencing from March 2014.
Baht	3,000	THBFIX 6 M plus margin	Principal is repayable at the end of contract, in June 2020.
Baht	3,000	Highest interest rate for 6 month-fixed deposit plus margin	Principal is repayable on semi-annual basis, in 10 instalments commencing from July 2015.
Subsidiaries			
Baht	700	BIBOR 3 M plus a margin	Principal is repayable on quarterly basis, in 16 instalments, commencing from September 2014.
Baht	700	BIBOR 3 M plus a margin	Principal is repayable on quarterly basis, in 20 instalments, commencing from March 2016.
Baht	6,320	FDR 6 M-average of 4 banks plus a margin	Principal is repayable on semi-annual basis, in 11 instalments commencing from September 2013.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Currency	Facilities (in million)	Interest Rates (%) p.a.	Repayment Terms
Subsidiaries (continue)			
Baht	3,240	FDR 6 M-average of 4 banks plus a margin	Principal is repayable on semi-annual basis, in 17 instalments commencing from September 2013.
Baht	7,000	Highest interest rate for 6 month-fixed deposit plus margin	Principal is repayable on semi-annual basis, in 20 instalments commencing from March 2017.
Baht	900	Highest interest rate for 6 month-fixed deposit plus margin	Principal is repayable on semi-annual basis, in 14 instalments commencing from April 2016.
Baht	900	Highest interest rate for 6 month-fixed deposit plus margin	Principal is repayable on semi-annual basis, in 14 instalments commencing from May 2016.
Baht	900	Highest interest rate for 6 month-fixed deposit plus margin	Principal is repayable on semi-annual basis, in 14 instalments commencing from June 2016.
EURO	190	EURIBOR 3 M plus a margin	Principal is repayable on annually basis, in 6 instalments commencing from 2017.
USD	5	Fixed rate	Principle is repayable at the end of contract, in July 2016.

20 Trade accounts payable

	Note	Consolidated financial statements		Separate financial statements	
		2015	2014	2015	2014
			(Restated)		
			(in million Baht)		
Related parties	6	15,334	18,213	14,984	17,759
Other parties		4,316	3,466	890	852
Total		19,650	21,679	15,874	18,611

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

The currency denomination of trade accounts payable as at 31 December was as follows:

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	(Restated)			
	<i>(in million Baht)</i>			
Thai Baht (THB)	17,066	18,666	15,850	17,614
United States Dollars (USD)	537	1,306	24	997
Euro (EUR)	2,020	1,691	-	-
Singapore Dollars (SGD)	-	5	-	-
Japanese Yen (JPY)	1	-	-	-
Brazilian real (BRL)	19	8	-	-
Others	7	3	-	-
Total	19,650	21,679	15,874	18,611

21 Other payables

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	(Restated)			
	<i>(in million Baht)</i>			
Accrued operating expenses	2,203	2,593	1,305	934
Accrued interest expenses	701	708	669	683
Other payables	3,163	2,821	2,751	2,800
Deposits and advances received	97	165	17	20
Retention payables	95	294	45	275
Current portion of finance lease liabilities	173	202	105	124
Withholding tax payable	354	296	233	253
Accrued other tax expenses	515	567	493	504
Others	478	493	7	28
Total	7,779	8,139	5,625	5,621

22 Employee benefit obligations

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	(Restated)			
	<i>(in million Baht)</i>			
Statement of financial position				
Statement of financial position				
obligations for:				
Present value of unfunded obligation	2,566	2,260	1,640	1,503
Other long-term employee benefits	353	529	323	315
Total	2,919	2,789	1,963	1,818

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Movement in the present value of the defined benefit obligations:

		Consolidated financial statements		Separate financial statements	
	Note	2015	2014 (Restated)	2015	2014
<i>(in million Baht)</i>					
Defined benefit obligations at 1 January		2,789	2,258	1,818	1,353
Include in profit or loss:	29				
Current service costs		191	194	131	110
Interest on obligation		94	89	75	63
Past service costs		-	1	-	-
		<u>285</u>	<u>284</u>	<u>206</u>	<u>173</u>
Included in other comprehensive income					
Actuarial (gain) losses recognised in other comprehensive income		(40)	454	-	344
Currency translation differences		(14)	(92)	-	-
		<u>(54)</u>	<u>362</u>	<u>-</u>	<u>344</u>
Others					
Benefits paid by the plan		(101)	(116)	(65)	(52)
Others		-	1	4	-
		<u>(101)</u>	<u>(115)</u>	<u>(61)</u>	<u>(52)</u>
Defined benefit obligations at 31 December		<u>2,919</u>	<u>2,789</u>	<u>1,963</u>	<u>1,818</u>

Actuarial gains and losses recognised in other comprehensive income arising from:

	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014
<i>(in million Baht)</i>				
Demographic assumptions	-	(30)	-	-
Financial assumptions	(8)	360	-	265
Experience adjustment	(32)	124	-	79
Total	<u>(40)</u>	<u>454</u>	<u>-</u>	<u>344</u>

	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014
<i>(in million Baht)</i>				
Year ended 31 December				
Statement of income:				
Recognised in profit or loss:				
Long-term employee benefit obligations	234	222	168	134
Other long-term employee benefit obligations	51	62	38	39
Total	<u>285</u>	<u>284</u>	<u>206</u>	<u>173</u>

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	(Restated)			
	(in million Baht)			
Statement of comprehensive income:				
Recognised in other comprehensive income:				
Actuarial losses (gain) recognised during the year	(40)	454	-	344
Cumulative actuarial losses recognised	477	517	368	368

The expense is recognised in the following line items in the statement of income:

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	(Restated)			
	(in million Baht)			
Cost of sales	179	104	111	74
Administrative expenses	106	180	95	99
Total	285	284	206	173

Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date (expressed as weighted averages).

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	(Restated)			
	(%)			
Discount rate	1.9-4.2	1.75-4.2	4.2	4.2
Future salary growth	2.5-7	2.5-7	7	7
Turnover rate	0-15	0-15	0-3	0-3
Retirement age	55-65 years	55-65 years	60 years	60 years

At 31 December 2015, the weighted-average duration of the defined benefit obligation was 12 years (2014: 12 years).

Sensitivity analysis

Reasonably possible changes at the reporting date to one of the relevant actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below;

	Consolidated financial statements		Separate financial statements	
	(in million Baht)			
Defined benefit obligation 31 December 2015	Increase	Decrease	Increase	Decrease
Discount rate (1% movement)	(300)	358	(203)	240
Future salary growth (1% movement)	327	(279)	226	(194)

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

23 Share capital

	Par value per share (Baht)	2015		2014	
		Number	Amount (million shares / million Baht)	Number	Amount
<i>Authorised</i>					
At 1 January					
ordinary shares	10	4,508.8	45,088.5	4,508.8	45,088.5
At 31 December					
ordinary shares	10	4,508.8	45,088.5	4,508.8	45,088.5
<i>Issued and paid-up</i>					
At 1 January					
ordinary shares	10	4,508.8	45,088.5	4,508.8	45,088.5
At 31 December					
ordinary shares	10	4,508.8	45,088.5	4,508.8	45,088.5

24 Treasury shares

At the Board of Directors' Meeting held on 24 August 2015, the Board approved a share repurchase program for financial management purpose (Treasury Stocks) not exceeding 90 million shares, or approximately 2 percent of the total issued shares, with the maximum amount of Baht 4,500 million. The Company can purchase the shares through the Stock Exchange of Thailand within the period of 6 months, during the period from 8 September 2015 to 7 March 2016. The shares purchased may be resold after 6 months from the date of purchase but must not exceed 3 years from such completion.

As at 31 December 2015, the Company held 41.4 million of the Company's shares, comprising 0.919% of the Company's issued share capital, at a total cost of Baht 2,104.5 million and an equivalent amount had been appropriated from retained earnings to treasury shares reserve.

25 Additional paid-in capital and reserves

Share premium

Section 51 of the Public Companies Act B.E. 2535 requires companies to set aside share subscription monies received in excess of the par value of the shares issued to a reserve account ("share premium"). Share premium is not available for dividend distribution.

Difference arising from business combination under common control

Difference on common control transactions arising within equity represents the difference of the book values of certain entities or businesses under common control under their cost as of the date of their acquisition. The reserve is non-distributable and will be retained until the respective business are sold or otherwise disposed of.

Legal reserve

Section 116 of the Public Companies Act B.E. 2535 requires that a company shall allocate not less than 5% of its annual net profit, less any accumulated losses brought forward (if any), to a reserve account ("legal reserve"), until this account reaches an amount not less than 10% of the registered authorised capital. The legal reserve is not available for dividend distribution.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Treasury shares reserve

The treasury shares reserve represents the amount appropriated from retained earnings equal to the cost of the Company's own shares held by the Company. The treasury shares reserve is not available for dividend distribution.

Other components of equity

Currency translation differences

The currency translation differences account within equity comprises all foreign currency differences arising from the translation of the financial statements of foreign operations, as well as from the translation of liabilities that hedge the Company's net investment in a foreign operation.

Cash flow hedges

The cash flow hedges account within equity comprises the cumulative net change in the fair value of cash flow hedges related to hedged transactions that have not yet occurred for effective portion.

26 Segment information

The Group has significant business segments which offer different products and services, and are managed separately. For each of the business segments, the chief operating decision maker (CODM) reviews internal management reports on at least a quarterly basis. The operations in each of the Group's reportable segments have 7 reportable segments as described below.

Segment 1	Refinery and shared facilities
Segment 2	Aromatics
Segment 3	Olefins and Derivatives
Segment 4	EO-Based Performance
Segment 5	Green Chemicals
Segment 6	High Volume Specialties
Segment 7	Services and Others

Other operations in 2015 and 2014, none of these segments meets the quantitative thresholds for determining additional reportable segments.

Performance information of each reportable segment is measured based on segment profit before interest expense, tax, depreciation and amortisation which as included in the internal management reports that are reviewed by the Group's CODM. Management believes that using profit before interest expense, tax, depreciation and amortisation to measure performance is the most relevant in evaluating the results of certain segments relative to other entities that operate within these industries.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Information about reporting segments for the year ended 31 December 2015

	Refinery & shared facilities	Aromatics	Olefins & Derivatives	EO-Based Performance	Green Chemicals (in million Baht)	High Volume Specialties	Services & Others	Elimination	Total
External revenues	181,155	59,634	104,140	14,464	13,810	28,044	2,193	-	403,440
Inter-segment revenues	8,308	36,464	15,207	1	961	47	4,658	(65,646)	-
Total revenues	189,463	96,098	119,347	14,465	14,771	28,091	6,851	(65,646)	403,440
Cost of sales and rendering of services	(181,065)	(89,948)	(89,831)	(12,623)	(12,836)	(24,770)	(5,572)	65,791	(350,854)
Selling and administrative expenses	(662)	(1,141)	(3,896)	(428)	(1,516)	(1,938)	(1,625)	850	(10,356)
Profit before interest expense, tax, depreciation and amortisation	10,555	5,095	26,630	1,536	495	1,861	848	251	47,271
Interest income	209	252	681	27	29	42	574	(604)	1,210
Finance costs	(542)	(606)	(1,284)	(4)	(777)	(401)	(2,237)	673	(5,178)
Depreciation and amortisation	(3,167)	(2,905)	(6,299)	(931)	(660)	(2,022)	(521)	123	(16,382)
Loss from impairment of assets	-	-	-	-	(2,151)	-	(380)	-	(2,531)
Dividend income	-	-	-	-	-	-	2,118	(2,116)	2
Share of profit (loss) of investments in joint ventures	-	-	229	96	(342)	-	-	3	(14)
Share of profit (loss) of investments in associates	-	-	149	-	-	-	590	(14)	725
Others	1,265	(187)	(656)	19	66	(63)	(2,782)	-	(2,338)
Profit (loss) before tax	8,320	1,649	19,450	743	(3,340)	(583)	(1,790)	(1,684)	22,765
Profit (loss) for reportable segment	8,140	1,358	17,802	574	(2,641)	(672)	(2,352)	(1,707)	20,502

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

Information about reporting segments for the year ended 31 December 2014 (Restated)

	Refinery & shared facilities	Aromatics	Olefins & Derivatives	EO-Based Performance	Green Chemicals (in million Baht)	High Volume Specialties	Services & Others	Elimination	Total
External revenues	262,406	102,373	120,945	15,824	14,848	35,785	2,514	-	554,695
Inter-segment revenues	18,214	62,385	19,532	1	876	50	4,545	(105,603)	-
Total segment revenues	280,620	164,758	140,477	15,825	15,724	35,835	7,059	(105,603)	554,695
Cost of sales and rendering of services	(282,660)	(165,368)	(103,355)	(13,729)	(13,767)	(32,426)	(5,464)	105,613	(511,156)
Selling and administrative expenses	(770)	(1,524)	(4,069)	(432)	(1,472)	(4,111)	(1,292)	608	(13,062)
Profit (loss) before interest expense, tax, depreciation and amortisation	(230)	(2,074)	33,418	1,778	593	(545)	1,329	(49)	34,220
Interest income	75	76	216	43	34	44	1,199	(692)	995
Finance costs	(613)	(760)	(1,575)	(4)	(798)	(402)	(2,014)	718	(5,448)
Depreciation and amortisation	(2,982)	(2,791)	(5,853)	(952)	(671)	(2,331)	(424)	114	(15,890)
Dividend income	-	-	-	-	-	-	4,284	(4,284)	-
Share of profit (loss) of investments in joint ventures	-	-	276	119	(631)	-	-	1	(235)
Share of profit (loss) of investments in associates	-	-	(276)	-	-	-	691	(2)	413
Others	471	35	(59)	22	28	141	(20)	-	618
Profit (loss) before tax	(3,279)	(5,514)	26,147	1,006	(1,445)	(3,093)	5,045	(4,194)	14,673
Profit (loss) for reportable segment	(3,231)	(5,437)	25,775	864	(1,124)	(1,470)	4,188	(4,193)	15,372

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

	Refinery & shared facilities	Aromatics	Olefins & Derivatives	EO-Based Performance	Green Chemicals	High Volume Specialties	Services & Others	Elimination	Total
	<i>(in million Baht)</i>								
At 31 December 2015									
Segment assets	72,967	75,961	130,532	15,999	13,142	42,168	72,366	(45,590)	377,545
Investment in joint ventures and associates	-	-	-	-	-	-	23,502	-	23,502
Change in non-current assets	(1,206)	(270)	(3,282)	970	1,592	3,174	(5,014)	5,450	1,414
At 31 December 2014 (Restated)									
Segment assets	74,192	76,538	137,473	15,730	12,911	38,893	81,862	(56,156)	381,443
Investment in joint ventures and associates	-	-	-	-	-	-	23,187	-	23,187
Change in non-current assets	(764)	(499)	4,643	274	(1,526)	550	343	(1,302)	1,719

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Geographical segments

In presenting information on the basis of geographical segments, segment sales and service revenues are based on the geographical location of customers. Segment non-current assets (exclude derivatives and deferred tax) are based on the geographical location of the assets.

Geographical information

	Revenues	
	2015	2014 (Restated)
	<i>(in million Baht)</i>	
Thailand	254,789	347,465
The People's Republic of China	48,268	61,056
Singapore	27,683	47,050
Malaysia	4,152	17,967
United States of America	2,684	3,501
Other countries	65,864	77,656
Total	403,440	554,695

	Non-current assets	
	2015	2014 (Restated)
	<i>(in million Baht)</i>	
Thailand	235,751	234,516
United States of America	10,324	10,540
France	7,653	7,436
Malaysia	5,491	4,950
Other countries	113	475
Total	259,332	257,917

Major customers

The Group's sales and service revenues mainly comprise of revenue from one customer of Refinery and shared facilities, Aromatics and Olefins and derivatives segment represents Baht 124,317 million (2014: Baht 198,065 million) and revenue from another customer of Olefins and derivatives segment represents Baht 68,806 million (2014: Baht 82,960 million).

27 Selling expenses

	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014 (Restated)
	<i>(in million Baht)</i>			
Distribution	1,056	1,057	632	539
Promotional	48	40	19	13
Marketing	35	37	20	24
Personnel	145	161	-	-
Total	1,284	1,295	671	576

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

28 Administrative expenses

	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014 (Restated)
	<i>(in million Baht)</i>			
Personnel expense	4,550	4,052	3,067	2,794
Professional fee and consultancy fee	831	1,119	830	881
Secondment fee	49	78	248	193
Depreciation and amortisation	1,068	990	659	602
Loss on disposal of fixed assets	234	256	187	59
Donation	226	859	223	857
Others	3,182	3,153	1,926	1,904
Total	10,140	10,507	7,140	7,290

29 Employee benefit expenses

	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014
	<i>(in million Baht)</i>			
Management				
Salaries, bonus, wages and other welfares	355	334	225	218
Contribution to provident funds	11	11	10	10
Long-term employee benefits	5	5	4	4
	371	350	239	232
Other employees				
Salaries, bonus, wages and other welfares	11,108	10,171	6,449	5,718
Contribution to provident funds	431	393	363	327
Long-term employee benefits	229	217	164	130
Other long-term employee benefits	51	62	38	39
	11,819	10,843	7,014	6,214
Total	12,190	11,193	7,253	6,446

Defined benefit plans

Details of the defined benefit plans are given in note 22.

Defined contribution plans

The defined contribution plans comprise provident funds established by the Group/Company for its employees. Membership to the funds is on a voluntary basis. Contributions are made monthly by the employees at the minimum rate as required by law not exceeding 15% of their basic salaries and the Group/Company contributes at the minimum rate as required by law not exceeding 15% of the employees' basic salaries. The provident funds are registered with the Ministry of Finance as juristic entities and are managed by a licensed Fund Manager.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

30 Expenses by nature

The statements of income include an analysis of expenses by function. Expenses by nature disclosed in accordance with the requirements of various TFRS were as follows:

	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014 (Restated)
	<i>(in million Baht)</i>			
<i>Included in cost of sales of goods:</i>				
Changes in inventories of finished goods and work in progress	1,168	4,111	1,842	4,052
Raw materials used	478,725	548,078	405,990	492,035
Personnel expense	7,495	6,980	4,186	3,652
Depreciation of property, plant and equipment	13,695	13,239	10,811	10,087
Amortisation of intangible assets	417	476	218	242
<i>Included in selling and administrative expenses:</i>				
Personnel expense	4,695	4,213	3,067	2,794
Depreciation of property, plant and equipment	759	731	457	451
Amortisation of intangible assets	309	259	202	151
Minimum lease payments recognised as an operating lease expense	510	352	356	313

31 Finance costs

		Consolidated financial statements		Separate financial statements	
	Note	2015	2014 (Restated)	2015	2014 (Restated)
		<i>(in million Baht)</i>			
<i>Interest expense :</i>					
Subsidiaries	6	-	-	45	63
Debentures		2,833	2,981	2,833	2,981
Bank loans and overdrafts		1,846	1,814	1,371	1,392
Loans from other parties		125	137	-	-
Total interest expense		4,804	4,932	4,249	4,436
Other finance costs		560	596	385	457
<i>Less: Capitalised as cost of assets under construction</i>	14	(186)	(80)	(18)	-
Net		5,178	5,448	4,616	4,893

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

32 Income tax expense

		Consolidated financial statements		Separate financial statements	
	Note	2015	2014 (Restated)	2015	2014 (Restated)
		(in million Baht)			
Current tax expense					
Current year		2,294	413	1,868	-
Under provided in prior years		37	283	-	311
		<u>2,331</u>	<u>696</u>	<u>1,868</u>	<u>311</u>
Deferred tax expense					
Movements in temporary differences	18	(347)	(115)	144	(59)
Total		<u>1,984</u>	<u>581</u>	<u>2,012</u>	<u>252</u>
Reconciliation of effective tax rate					
		Consolidated financial statements			
		2015		2014 (Restated)	
		Rate (%)	(in million Baht)	Rate (%)	(in million Baht)
Profit before income tax expense			22,765		14,673
Income tax using the Thai corporation tax rate	20.0		4,553	20.0	2,935
Effect of different tax rates in foreign jurisdictions			379		823
Income not subject to tax			(3,317)		(4,062)
Expenses not deductible for tax purposes			301		598
Under provided in prior years			37		283
Others			31		4
Total		<u>8.7</u>	<u>1,984</u>	<u>4.0</u>	<u>581</u>
Separate financial statements					
		2015		2014 (Restated)	
		Rate (%)	(in million Baht)	Rate (%)	(in million Baht)
Profit before income tax expense			25,211		18,033
Income tax using the Thai corporation tax rate	20.0		5,042	20.0	3,607
Income not subject to tax			(3,311)		(4,161)
Expenses not deductible for tax purposes			281		495
Under provided in prior years			-		311
Total		<u>8.0</u>	<u>2,012</u>	<u>1.4</u>	<u>252</u>

Income tax reduction

Royal Decree No. 530 B.E. 2554 dated 21 December 2011 grants a reduction in the corporate income tax rate for the three accounting periods 2012, 2013 and 2014; from 30% to 23% for the accounting period 2012 which begins on or after 1 January 2012 and to 20% for the following two accounting periods (2013 and 2014) which begin on or after 1 January 2013 and 2014, respectively.

Royal Decree No. 577 B.E. 2557 dated 10 November 2014 grants the reduction to 20% of net taxable profit for the accounting period 2015 which begins on or after 1 January 2015.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

On 22 January 2016, The National Legislative Assembly has approved a reduction of the corporate income tax rate from 30% to 20% of net taxable profit for the accounting period which begins on or after 1 January 2016.

33 Promotional privileges

By virtue of the provisions of the Industrial Investment Promotion Act of B.E. 2520, the Company has been granted privileges by the Board of Investment relating to production of upstream, intermediate and downstream petrochemical, utilities and production support facilities, jetty for transportation and storage of liquid product and transportation by marine vessels, production of petroleum product, research and development of polymer products and chemical formula, lab testing services and refinery. The privileges granted include:

- (a) exemption from payment of import duty on machinery approved by the Board;
- (b) exemption from payment of income tax not over 100 percent of investment excluded land and working capital of certain operations for a period of eight years from the date on which the income is first derived from such operations
- (c) a 50% reduction in the normal income tax rate on the net profit derived from certain operations for a period of five years, commencing from the expiry date in (b) above.

As promoted companies, the Company must comply with certain terms and conditions prescribed in the promotional certificates.

Summary of revenues from promoted and non-promoted businesses:

	Separate financial statements					
	2015			2014		
	Promoted businesses	Non- promoted businesses	Total	Promoted businesses	Non- promoted businesses	Total
	<i>(in million Baht)</i>					
Export sales	2,792	52,971	55,763	801	73,782	74,583
Local sales	78,293	224,722	303,015	119,925	308,656	428,581
Service income	16	362	378	18	323	341
Total revenue	81,101	278,055	359,156	120,744	382,761	503,505

Certain subsidiaries in the Group have been granted promotional privileges as same as the Company.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

34 Basic earnings per share

The calculation of basic earnings per share for the year ended 31 December 2015 and 2014 were based on the profit for the years attributable to ordinary shareholders of the Company and the weighted average number of ordinary shares outstanding during the years as follows:

	Consolidated financial statements		Separate financial statements	
	2015	2014 (Restated)	2015	2014 (Restated)
	<i>(in million Baht / million shares)</i>			
Profit attributable to ordinary shareholders of the Company (basic)	<u>20,502.50</u>	<u>15,371.51</u>	<u>23,199.32</u>	<u>17,780.73</u>
Number of ordinary shares as at 1 January	4,508.85	4,508.85	4,508.85	4,508.85
Effect of treasury shares	<u>(2.66)</u>	<u>-</u>	<u>(2.66)</u>	<u>-</u>
Weighted average number of ordinary shares outstanding (basic)	<u>4,506.19</u>	<u>4,508.85</u>	<u>4,506.19</u>	<u>4,508.85</u>
Earnings per share (basic) (in Baht)	<u>4.55</u>	<u>3.41</u>	<u>5.15</u>	<u>3.94</u>

35 Dividends

At the Annual General Meeting of the shareholders of the Company held on 1 April 2015, the shareholders approved the appropriation of annual dividend from 2014 performance at Baht 2.37 per share, amounting to Baht 10,686 million. The Company had paid interim dividend of the first half year of 2014 at Baht 1.37 per share, amounting to Baht 6,175 million on 15 August 2014. The remaining dividend was paid for the second half year of 2014 at Baht 1.00 per share, amounting to Baht 4,507 million. The dividend amounting to Baht 4,507 million was paid to the rightful shareholders in April 2015.

At the Board of Directors' Meeting held on 24 August 2015, the Board approved the appropriation of interim dividends from the earnings from 1 January 2015 to 30 June 2015 at Baht 1.50 per share, amounting to Baht 6,763 million. The dividend amounting to Baht 6,763 million was paid to the rightful shareholders in September 2015.

At the Annual General Meeting of the shareholders of the Company held on 8 April 2014, the shareholders approved the appropriation of annual dividend from 2013 performance at Baht 3.40 per share, amounting to Baht 15,330 million. The Company had paid interim dividend of the first half year of 2013 at Baht 1.62 per share, amounting to Baht 7,304 million on 16 August 2013. The remaining dividend was paid for the second half year of 2013 at Baht 1.78 per share, amounting to Baht 8,026 million. The dividend amounting to Baht 8,023 million was paid to the rightful shareholders in April 2014.

At the Board of Directors' Meeting held on 15 August 2014, the Board approved the appropriation of interim dividends from the earnings from 1 January 2014 to 30 June 2014 at Baht 1.37 per share, amounting to Baht 6,191 million. The dividend amounting to Baht 6,175 million was paid to the rightful shareholders in September 2014.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

36 Financial instruments

Financial risk management policies

The Group/Company is exposed to normal business risks from changes in market interest rates and currency exchange rates and from non-performance of contractual obligations by counterparties. The Group/Company does not hold or issue derivative financial instruments for speculative or trading purposes.

Risk management is integral to the whole business of the Group/Company. The management continually monitors the Group's/Company's risk management process to ensure that an appropriate balance between risk and control is achieved.

Capital management

The Board of Directors' policy is to maintain a strong capital base so as to maintain investor, creditor, partners and other stakeholders. In addition, the Board monitors the return on capital and the level of dividends to ensure business sustainability.

Interest rate risk

Interest rate risk is the risk that future movements in market interest rates will affect the results of the Group/Company's operations and its cash flows because the Group/Company's finances loans which have both floating and fixed interest rates for their operations. The Group/Company has managed this risk to ensure the appropriateness to the business operation.

The effective interest rates of interest-bearing liabilities at 31 December 2015 and 2014 and the periods in which those liabilities mature or re-price were disclosed in note 19.

Foreign currency risk

The Group/Company is exposed to foreign currency risk relating to purchases and sales, including borrowings which are denominated in foreign currencies. The Group/Company primarily utilises forward exchange contracts to hedge such financial assets and liabilities denominated in foreign currencies. The forward exchange contracts entered into at the reporting date also relate to anticipated purchases and sales, denominated in foreign currencies, for the subsequent period.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

At 31 December, the Group/Company was exposed to foreign currency risk in respect of financial assets and liabilities denominated in the following currencies:

		Consolidated financial statements		Separate financial statements	
	Note	2015	2014	2015	2014
		(Restated)			
		(in million Baht)			
USD					
Cash and cash equivalents	7	1,778	5,733	810	5,085
Trade accounts receivable	8	5,380	8,854	3,605	6,359
Other receivables		3,057	2,078	3,015	2,036
Long-term loans to related parties	6	-	-	-	4,239
Long-term loans to other parties		740	676	-	-
Other investments	13	6,825	7,766	6,825	7,766
Interest-bearing liabilities	19	(41,609)	(48,779)	(39,693)	(47,201)
Trade accounts payable	20	(537)	(1,306)	(24)	(997)
Payable to contractors		(725)	(741)	(335)	(610)
Other payables		(1,328)	(1,183)	(907)	(917)
Gross statement of financial position exposure		(26,419)	(26,902)	(26,704)	(24,240)
Currency forwards		5,221	(7,217)	3,984	(8,839)

The Group/Company performs foreign currency risk management on assets and liabilities held in USD. The Group/ Company has net liabilities under USD currency. The Group/ Company managed net USD liabilities by naturally hedged USD portion of net profit to minimize the impact from fluctuation in foreign currency to the Group/Company's performance.

In addition to forward exchange contracts, the Group/Company uses derivatives financial instruments, principally currency swaps and interest rate swap, to manage exposure to fluctuations in interest rates and in exchange rates. As at 31 December 2015, the Group/Company entered into foreign currency and interest rate swap contracts, totalling Baht 7,793 million (2014: Baht 2,813 million) to repay certain interest bearing liabilities in foreign currencies.

		Consolidated financial statements		Separate financial statements	
	Note	2015	2014	2015	2014
		(Restated)			
		(in million Baht)			
EUR					
Cash and cash equivalents	7	1,288	338	-	-
Trade accounts receivable	8	1,604	1,804	-	-
Other receivables		513	164	127	94
Long-term loans to related parties	6	-	-	-	403
Other investments	13	283	283	-	-
Interest-bearing liabilities	19	(2,795)	(2,873)	-	-
Trade accounts payable	20	(2,020)	(1,691)	-	-
Payable to contractors		(46)	(17)	(46)	(17)
Other payables		(646)	(746)	(72)	(100)
Gross statement of financial position exposure		(1,819)	(2,738)	9	380
Currency forwards		4	46	-	2

PTT Global Chemical Public Company Limited and its Subsidiaries
Notes to the financial statements

		Consolidated financial statements		Separate financial statements	
	Note	2015	2014 (Restated)	2015	2014
		(in million Baht)			
SGD					
Cash and cash equivalents	7	15	39	-	-
Trade accounts payable	20	-	(5)	-	-
Other payables		(3)	(1)	-	(1)
Gross statement of financial position exposure		12	33	-	(1)
Currency forwards		-	-	-	-
JPY					
Other receivables		5	18	-	16
Trade accounts payable	20	(1)	-	-	-
Payable to contractors		(10)	1	(10)	1
Other payables		(4)	(18)	(4)	(17)
Gross statement of financial position exposure		(10)	1	(14)	-
Currency forwards		-	9	-	-
MYR					
Other payables		(1)	(1)	(1)	(1)
Gross statement of financial position exposure		(1)	(1)	(1)	(1)
Currency forwards		-	-	-	-
Others					
Cash and cash equivalents	7	19	51	-	-
Trade accounts receivable	8	146	254	-	-
Other receivables		99	174	80	158
Other investments	13	3,281	7,711	3,281	7,711
Interest-bearing liabilities	19	-	(6)	-	-
Trade accounts payable	20	(26)	(11)	-	-
Payable to contractors		(5)	(2)	(5)	-
Other payables		(15)	(6)	(7)	(2)
Gross statement of financial position exposure		3,499	8,165	3,349	7,867
Currency forwards		(3,177)	(3,274)	(3,177)	(8,000)

Credit risk

Credit risk is risk of failure from a customer or a counterparty to settle its obligations to the Group/Company as and when they fall due.

Management has a policy in place and the exposure to credit risk is monitored on an ongoing basis. Credit evaluations are performed on all customers requiring credit over a certain amount. At the reporting date, there were no significant concentrations of credit risk. The maximum exposure to credit risk is represented by the carrying amount of each financial asset in the statement of financial position. However, the majority of the customers are on the long-term contracted commitment and parts of them

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

are the Company's shareholders which the company has consistently collected from them. For the customers who do not have the long-term contracted commitments, the Group/Company monitors the risk on an ongoing basis and would do the business only with the credible customers by limiting the credit lines and requesting the guarantee on some cases. For the export, the credit of counterparty will be considered and will demand a payment on a case to case basis and also has commercial credit insurance. Management does not anticipate material losses from its debt collection.

Liquidity risk

The Group/Company monitors its liquidity risk and maintains a level of cash and cash equivalents deemed adequate by management to finance the Group's/Company's operations and to mitigate the effects of fluctuations in cash flows.

Fair values of financial assets and liabilities

As at 31 December 2015 and 2014, fair values of financial asset and liabilities is taken to approximately the carrying value, except the following items:

Consolidated financial statements							
Carrying value			Fair value				
Current	Non-current	Total	Level 1	Level 2	Level 3	Total	
(in million Baht)							
31 December 2015							
Financial assets							
Derivatives	23	8	31	-	31	-	31
Total	23	8	31	-	31	-	31
Financial liabilities							
Debentures	1,058	50,807	51,865	-	54,200	-	54,200
Derivatives	432	97	529	-	529	-	529
Total	1,490	50,904	52,394	-	54,729	-	54,729

Separate financial statements							
Carrying value			Fair value				
Current	Non-current	Total	Level 1	Level 2	Level 3	Total	
(in million Baht)							
31 December 2015							
Financial assets							
Derivatives	21	8	29	-	29	-	29
Total	21	8	29	-	29	-	29
Financial liabilities							
Debentures	1,058	50,807	51,865	-	54,200	-	54,200
Derivatives	426	97	523	-	523	-	523
Total	1,484	50,904	52,388	-	54,723	-	54,723

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

Level 2 fair values for simple over-the-counter derivative financial instruments are based on broker quotes. Those quotes are tested for reasonableness by discounting expected future cash flows using market interest rate for a similar instrument at the measurement date. Fair values reflect the credit risk of the instrument and include adjustments to take account of the credit risk of the Group/Company and counterparty when appropriate.

37 Commitments with non-related parties

	Consolidated financial statements		Separate financial statements	
	2015	2014	2015	2014
	(Restated)			
	(in million Baht)			
<i>Capital commitments</i>				
<i>Contracted but not provided for</i>				
Land	17	16	-	16
Plant, machinery and equipment	10,147	5,267	7,274	1,482
Buildings	42	40	27	39
Others	982	1	980	-
Total	11,188	5,324	8,281	1,537
<i>Non-cancellable operating lease commitments</i>				
Within one year	99	109	31	34
After one year but within five years	318	277	141	151
After five years	303	367	45	75
Total	720	753	217	260
<i>Other commitments</i>				
Unused letters of credits	11	139	11	-
Bank guarantees	3,328	4,645	861	1,931
Forward contracts	17,141	18,913	15,720	16,841
Swap contracts	7,793	2,813	7,793	2,786
Guarantees for credit facilities and bank guarantees	8,677	3,341	8,676	3,341
Other agreements	9,375	2,340	9,190	1,272
Total	46,325	32,191	42,251	26,171

38 Contingent liabilities and assets

From oil spill incident on 27 July 2013, the Company recognised expenses resulted from this incident in the period that expenses incurred. During 2014, insurance company paid compensation to the Company for preliminary damage claim. During 2015, the Company received the remaining damage claim compensation from insurance company. The Company has recognised the payments as other income in the respective year.

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

39 Litigation

a) Purchase and sales of raw materials agreement legal case

On 3 December 2009, a company filed for arbitration against PTT Plc. (“PTT”) and the Company as a producer to perform according to purchase and sales of raw materials agreement, of which the said company has been committed by PTT, or to compensate for damages of approximately Baht 13,805 million. On 8 March 2010, the dispute was thrown out of the case-list by the arbitration ruling that the Company was not a party to the contract.

On 27 August 2010, the said company filed a civil suit against PTT and the Company as a producer to perform according to purchase and sales of raw materials agreement, of which the said company has been committed by PTT, or to compensate for damages of approximately Baht 9,380 million. In this regards, the Company filed objections against the indictment with the civil court on the basis that the Company was not a party to the contract.

Subsequently, on 21 May 2013, the Civil Court considered that the arbitration process between such company and PTT has not yet finalised; therefore, they has temporary thrown out of the case-list until the final decision has been reached under arbitration process. Then, either party or both parties can resubmit the case to the Civil Court for further trail. The Company believes that the outcome of the consideration will not result in any liability to the Company, and therefore, has not provided against any loss that may result from this matter in the financial statements.

b) Oil spill incident legal case

During the 3rd quarter of 2014, the number of people in Rayong filed several lawsuits with the Civil Court and Rayong Provincial Court against the Company to claim the extra compensation from oil spill incident and to perform the rehabilitation of the sea and natural environmental recovery. Currently, some cases have been dismissed and the remaining cases are in the mediation process by the Courts. The Company believes that the outcome of the consideration will not result in material damage and material financial impact to the Company. Therefore, the Company has not provided against any loss that may result from this matter in the financial statements.

40 Events after the reporting period

At the Board of Directors’ meeting held on 15 February 2016, the Board approved to submit for approval at the Annual General Meeting of the Shareholders, a full year 2015 dividend payment at the rate of Baht 2.80 per share, of which Baht 1.50 per share was paid as an interim dividend in September 2015 as discussed in note 35. Thus, the remaining dividend will be at the rate of Baht 1.30 per share to the shareholders entitled to receive dividends. This dividend is subject to the approval of the Shareholders at the Annual General Meeting to be held on 5 April 2016.

41 Thai Financial Reporting Standards (TFRS) not yet adopted

A number of new and revised TFRS have been issued but are not yet effective and have not been applied in preparing these financial statements. Those new and revised TFRS that may be relevant to the Group’s/Company’s operations, which become effective for annual financial periods beginning on or after 1 January 2016 as follow;

PTT Global Chemical Public Company Limited and its Subsidiaries

Notes to the financial statements

TFRS	Topic
TAS 1 (revised 2015)	Presentation of Financial Statements
TAS 2 (revised 2015)	Inventories
TAS 7 (revised 2015)	Statement of Cash Flows
TAS 8 (revised 2015)	Accounting Policies, Changes in Accounting Estimates and Errors
TAS 10 (revised 2015)	Events After the Reporting Period
TAS 11 (revised 2015)	Construction Contracts
TAS 12 (revised 2015)	Income Taxes
TAS 16 (revised 2015)	Property, Plant and Equipment
TAS 17 (revised 2015)	Leases
TAS 18 (revised 2015)	Revenue
TAS 19 (revised 2015)	Employee Benefits
TAS 20 (revised 2015)	Accounting for Government Grants and Disclosure of Government Assistance
TAS 21 (revised 2015)	The Effects of Changes in Foreign Exchange Rates
TAS 23 (revised 2015)	Borrowing Costs
TAS 24 (revised 2015)	Related Party Disclosures
TAS 26 (revised 2015)	Accounting and Reporting by Retirement Benefit Plans
TAS 27 (revised 2015)	Separate Financial Statements
TAS 28 (revised 2015)	Investments in Associates and Joint Ventures
TAS 33 (revised 2015)	Earnings Per Share
TAS 34 (revised 2015)	Interim Financial Reporting
TAS 36 (revised 2015)	Impairment of Assets
TAS 37 (revised 2015)	Provisions, Contingent Liabilities and Contingent Assets
TAS 38 (revised 2015)	Intangible Assets
TFRS 3 (revised 2015)	Business Combinations
TFRS 5 (revised 2015)	Non-current Assets Held for Sale and Discontinued Operations
TFRS 8 (revised 2015)	Operating Segments
TFRS 10 (revised 2015)	Consolidated Financial Statements
TFRS 11 (revised 2015)	Joint Arrangements
TFRS 12 (revised 2015)	Disclosure of Interests in Other Entities
TFRS 13 (revised 2015)	Fair Value Measurement
TSIC 10 (revised 2015)	Government Assistance – No Specific Relation to Operating Activities
TSIC 15 (revised 2015)	Operating Leases – Incentives
TSIC 25 (revised 2015)	Income Taxes – Changes in the Tax Status of an Enterprise or its Shareholders
TSIC 27 (revised 2015)	Evaluating the Substance of Transactions in the Legal Form of a Lease
TFRIC 4 (revised 2015)	Determining Whether an Arrangement Contains a Lease
TFRIC 10 (revised 2015)	Interim Financial Reporting and Impairment
TFRIC 13 (revised 2015)	Customer Loyalty Programmes
TFRIC 14 (revised 2015)	TAS 19 (revised 2015) <i>Employee Benefits</i> – The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction

The Group/Company has made a preliminary assessment of the potential initial impact on the consolidated and separate financial statements of these new and revised TFRS and expects that there will be no material impact on the financial statements in the period of initial application.

Audit Fee and Non-Audit Fee

1. Audit Fee

PTTGC and its subsidiaries paid the audit fee to:

- KPMG Phoomchai Audit Limited, which is the auditor of PTTGC amounting to 7,112,990 THB. Of this amount PTTGC paid 3,539,040 THB and its subsidiaries paid 3,573,950 THB.
- The audit company that the auditor worked for, including persons or entities that are related to the auditors and the audit company for the fiscal year of 2015 amounting to 31,815 SGD, 451,490 Euro and 402,000 USD.

2. Non-Audit Fee

PTTGC and its subsidiaries paid the non-audit fee for tax compliance and tax consulting services, consulting in access rights controls review project and other audits by agreed-upon procedures to:

- KPMG Phoomchai Audit Limited, which is the auditor of PTTGC for incomplete services in the fiscal year of 2015 that will be paid for a total of 1,515,000 THB.
- The audit company that the auditor worked for, including persons or entities that are related to the auditors and the audit company for the fiscal year of 2015 amounting to 1,778,709 THB, 5,250 SGD; plus for incomplete services in the fiscal year of 2015 that will be paid for a total of 4,616,250 THB, 12,500 Euro, 20,000 USD and 12,500 SGD.



A spiral-bound notebook is partially visible on the left side of the image, resting on a dark wooden surface. A large, semi-transparent gray circle is centered on the page, containing the word 'Appendix'. Inside this circle are three concentric dashed lines. The overall design is minimalist and professional.

Appendix

Company Information

Name : PTT Global Chemical Public Company Limited

Initial : PTTGC

Website : www.pttgcgroup.com

Registered : 0107554000267

Number and Value of Issued Shares : As at 31 December 2014, the Company's registered share capital was Baht 45,088,491,170 made up of 4,508,849,117 common shares at a par value of Baht 10 per share. Paid-up capital was Baht 45,088,491,170

Establishment : 19 October 2011

First Day Trade on the SET : 21 October 2011

Business Structure and Value Chain :

- : Group Performance Center - Refinery & Shared Facilities
- : Group Performance Center - Aromatics
- : Group Performance Center - Olefins
- : Polymer Business Unit
- : EO – Based Performance Business Unit
- : Green Chemical Business Unit
- : High-Volume Specialist (HVS) Business Unit
- : Phenol Business Unit
- : Services & Others

Number of Employees PTTGC Group : 6,120
as of December 31st, 2015

Contact

Investor Relation

Tel: 66(0) 2 265-8172, 66(0) 2 265-8327,
66(0) 2 265-8533

Email: ir@pttgcgroup.com

Corporate Governance and Corporate secretary

Tel: 66(0) 2 265-8635, 8456, 66(0) 2 140-8759

Email: cg@pttgcgroup.com

Head Office Address

555/1 Energy Complex, Building A, 14-18th Floor
Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900

Tel: 66 (0) 2 265-8400

Fax: 66 (0) 2 265-8500

Branch 1 : Rayong Office

59 Ratniyom Road, Noen-Phra Sub-District,
Mueang Rayong District, Rayong Province 21150

Tel: 66(0) 3899-4000

Fax: 66(0) 3899-4111

Branch 2 : Olefins I-1

14 I-1 Road, Map Ta Phut Industrial Estate, Map Ta Phut
Sub-District, Mueang Rayong District, Rayong Province 21150

Tel: 66(0) 3899-4000

Fax: 66(0) 3899-4111

Branch 3 : Olefins I-4

9 I-4 Road, Map Ta Phut Industrial Estate, Map Ta Phut
Sub-District, Mueang Rayong District, Rayong Province 21150

Tel: 66(0) 3899-4000

Fax: 66(0) 3899-4111

Branch 4 : Aromatics I

4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut
Sub-District, Mueang Rayong District, Rayong Province 21150

Tel: 66(0) 3897-1000

Fax: 66(0) 3899-4111

Branch 5 : Aromatics II

98/9 Rayong Highway Road 3191, RIL Industrial Estate,
Map Ta Phut Sub-District, Mueang Rayong District,
Rayong Province 21150

Tel: 66(0) 3897-1000

Fax: 66(0) 3899-4111

Branch 6 : Refinery

8, I-8 Road, Map Ta Phut Industrial Estate, Map Ta Phut
Sub-District, Mueang Rayong District, Rayong Province
21150

Tel: 66(0) 3897-1000

Fax: 66(0) 3899-4111

Branch 7 : Jetty and Buffer Tank Farm

19 Rong-Pui Road, Map Ta Phut Industrial Estate,
Map Ta Phut Sub-District, Mueang Rayong District,
Rayong Province 21150

Tel: 66(0) 3899-4000

Fax: 66(0) 3899-4111

Branch 8 : Aromatics Tank Farm

11, I-4 Road, Map Ta Phut Industrial Estate, Map Ta Phut
Sub-District, Mueang Rayong District, Rayong Province 21150

Tel: 66(0) 3897-1000

Fax: 66(0) 3899-4111

Branch 9 : Laboratory Service Center

24/9 Pakorn Songkrorat Road, Map Ta Phut Sub-District,
Mueang Rayong District, Rayong Province 21150

Tel: 66(0) 3899-4000

Fax: 66(0) 3899-4111

Branch 10 : Applications & Quality Assurance Center (AQA)

123, Suntowers Buliding B, 40th Floor, Chaei Puang
Alley, Vibhavadi Rangsit Road, Chompol Sub-District,
Chatuchak District, Bangkok 10900

Tel: 66(0) 2265-8400

Fax: 66(0) 2265-8389

Branch 11 : Olefins III Plant

8, Padaeng Road, Map Ta Phut Sub-District,
Mueang Rayong District, Rayong Province 21150

Tel: 66(0) 3899-4000

Fax: 66(0) 3897-6205

Branch 12 : Polyethylene Plant

8, I-10 Road, Map Ta Phut Industrial Estate,
Map Ta Phut Sub-District, Mueang Rayong District,
Rayong Province 21150

Tel: 66(0) 3899-4000

Fax: 66(0) 3897-6977

References**Securities Registrar**

Thailand Securities Depository Company Limited
93 Rachadapisek Road, Dindaeng, Dindaeng, Bangkok 10400

Tel: 66(0) 2 009-9000 Call center 66(0) 2 009-9999

Fax: 66(0) 2 009-9991

Website <http://www.set.or.th/tsd>

Registrar and Debenture Holders Representative

Bank of Ayudhya Public Company Limited
1222 Rama III Road, Bang Phongphang, Yan Nawa,
Bangkok 10120

Tel: 66(0) 2 296-3582, 5557, 5689

Fax: 66(0) 2683-1298

Website <https://www.krungsri.com>

Registrar Services**The Siam Commercial Bank Public Company Limited**

Registrar Services 1, Markets Operations Division
Building 2, 3rd Floor., 1060 New Phetchburi Road,
Mukkasun, Ratchathewi, Bangkok 10400

Tel: 66(0) 2256-2323 (2325, 2326, 2327, 2328, 2329)

Fax: 66(0) 2256-2406

Global Transaction Services Division Corporate Trust

7th Floor Zone A, 9 Ratchadapisek Road, Chatuchak,
Bangkok 10900

Tel: 66(0) 2544-2923 Fax: 66(0) 2544-7475

Website: www.scb.co.th

US Dollar Bond Registrar

Citibank, N.A.

39th Floor, Citibank Tower, Citibank Plaza, 3 Garden Road,
Central, Hong Kong

Tel: +852-2868 7961

Fax: +852 2323 0279

Auditor

1. Vairoj Jindamaneepitak

CPA No. 3565 or

2. Mr. Winid Silamongkol

CPA No. 3378 or

3. Mr. Niran Lilamethawat

CPA No. 2316 or

4. Mr. Charoen Phosamritlert

CPA No. 4068

KPMG Phoomchai Audit Limited

50-51th Floor, Empire Tower, 195 South Sathorn Road, Bangkok 10120

Tel: 66(0) 2 677-2000 Fax: 66(0) 2 677-2222

Website: www.kpmg.co.th

Legal Advisor**Baker&McKenzie Limited**

5, 22-25th Floor, Abdulrahim Place,

990 Rama IV Road, Silom, Bangrak, Bangkok 10500

Tel: 66(0) 2636-2000 Fax: 66(0) 2636-2111

Website www.bakermckenzie.com

Siam Premier International Law Office Limited

26th Floor, The Offices at Central World,

999/9 Rama I Road, Pathumwan, Pathumwan,
Bangkok 10330

Tel: 66(0) 2646-1888 Fax: 66(0) 2646-1919

Website: www.siamlaw.co.th

Damnern Somkiat and Boonma Law Office Limited

719 Si phraya Road, Bangkok 10500

Tel: 66(0) 2639-1955 Fax: 66(0) 2-639-1958

Website: www.dsb.co.th

Technical Terms & Abbreviations

Technical Terms & Abbreviations	
Aromatics	A group of unsaturated cyclic hydrocarbons containing one or more benzene rings of six carbon atoms. They are highly reactive and chemically versatile. The group name is derived from the strong and not unpleasant odor characteristic of most chemicals in this family.
Bis Phenol A (BPA)	BPA is an intermediate product produced from acetone and phenol used to produce polycarbonate and epoxy resins.
Butadiene	Butadiene is an intermediate in 4 carbon atoms family, used in the making of synthetic rubber. It is also used extensively in the production of plastics.
Butene -1	Butene-1 is an organic chemical base, derived from cracking of petroleum or C4 distillate, and used mainly to produce butadiene and butanol.
Carotenoid	Carotenoid is used as a colorant in food for human consumption and as constituents in vitamins and dietary supplements.
EO Base Performance	EO Based is Ethylene Oxide derivatives such as Ethylene Oxide, Ethylene Glycol, Ethanolamine Product and Ethoxylate.
Ethanolamine (EA)	EA include Monoethanolamine, Diethanolamine and Triethanolamine. Ethanolamine are used as sweeteners, detergent and specialty cleaner formulations, flexible urethane foam catalysts, and pharmaceuticals.
Ethoxylate	Ethoxylate is produced from Ethylene Oxide and is often processed to be used as a foaming control agent in soap and detergent.
Ethylene	Ethylene is an essential organic chemical base derived from the thermal cracking of Ethane and Naphtha or from dehydration of Ethanol. It is used to produce many organic chemical intermediates, such as Polyethylene, Ethylene Oxide, Ethylene Glycol, Vinyl Chloride, Styrene, Acetaldehyde and Ethanol.
Ethylene Glycol (EG)	EG is produced from Ethylene (ethene), via the intermediate Ethylene Oxide. Ethylene Oxide reacts with water to produce Ethylene Glycol. On purpose product is Monoethylene Glycol and major byproducts are the Ethylene Glycol Oligomers Diethylene Glycol and Triethylene Glycol.
Ethylene Oxide (EO)	EO is a highly reactive chemical intermediate used in the production of Ethylene Glycol and other Oxide derivatives such as Glycol Ethers, Polyethylene Glycol, Polyether Polyols, Diethylene and Triethylene Glycols and Ethanolamine.
Fatty Alcohol	Fatty alcohol is produced from Methyl Ester and Hydrogen (Hydrogenation). Fatty alcohol may be used in personal care product.
Glycerin	Glycerin is a by-product from Methyl Ester production. Glycerin may be used in pharmaceutical, food, and personal care product

Technical Terms & Abbreviations

Hexamethylene Diisocyanate (HDI)	HDI is an intermediary chemical used in the production of polyurethane.
High Density Polyethylene (HDPE)	Produced from Ethylene, HDPE is an inexpensive, flexible, durable and Chemical-resistant. One of the major uses of HDPE is in blow-molding applications, such as bottles for milk and non-carbonated drinks, fuel tanks for automobiles and containers of household and industrial chemicals. HDPE is also used for films and pipes
Hydrocracking	Hydrocracking is an oil refinery process that makes use of hydrogen. The process may be used for producing gasoline, jet fuels and high-quality lubricating oils. It may also convert distillation residues into lighter oils.
Linear Low Density Polyethylene (LLDPE)	LLDPE is a type of Polyethylene and has basic properties similar to LDPE. LDPE and LLDPE are to a certain extent substitutable for each other.
Low Density Polyethylene (LDPE)	LDPE is a type of Polyethylene used for thin films, tubes, mechanical parts, toys and electric wire insulation.
Methyl Ester	Methyl Ester are oleochemicals derived from vegetable feedstock, such as palm-kernel oils. Methyl Ester may be used in the esterification reaction for biodiesel resources.
Methyl Amines	Methyl Amines derivatives have beneficial uses in many industries, including water treatment, gas and oil treatment, animal nutrient, agricultural chemicals and personal care products.
Mixed C4s	Mixed C4s are the colorless gases produced from naphtha crackers. It may be used in as a raw material for the production of Butadiene and Butane-1.
Mixed Xylenes	Mixed Xylenes are the mixture containing xylenes such as Orthoxylene, Metaxylene and Paraxylene and are used in the production of solvents and high value downstream product.
Mono Ethylene Glycol (MEG)	MEG is an organic chemical compound derived from the oxidation of Ethylene. It is produced by the reaction of Ethylene Oxide and water. MEG is mainly used for Polyester and anti-freeze production.
Naphtha	Naphtha is a general term used for low boiling hydrocarbon fractions that are a product of crude oil or condensate splitter.
Olefins	Olefins are straight or branched-chain hydrocarbon with at least one unsaturated carbon-carbon bond. Produced by cracking feedstock from raw materials such as natural gas and light naphtha. The main Olefins are Ethylene and Propylene and also include Butadiene, and C4 derivatives.
Oleochemicals	Oleochemicals are bio-based and environmentally friendly chemicals derived from plants and animal fats, which have similar functions as petrochemicals derived from petroleum.

Technical Terms & Abbreviations

O-Xylene or Orthoxylene (OX)	An Aromatic compound used in the manufacture of plasticizers and unsaturated polyesters.
Polyethylene Terephthalate (PET)	PET is made by the combination of Ethylene Glycol and Terephthalic acid. Typical end uses for PET are packaging and fibers.
PolyVinyl Chloride (PVC)	PVC is a versatile thermoplastic polymer produced from Vinyl Chloride Monomer (VCM). It is extensively used in the construction sector for a variety of applications including pipes, siding and window/door profiles, wire and cable insulation, rigid film/sheet and flooring.
Polymers	When certain individual molecules (Monomers) come together and link up in a chain-like fashion, they form a Polymer. The chemical reaction that forms a Polymer is called polymerization.
Polyurethane (PU)	PU is a Polymer composed of a chain of organic units joined by urethane links.
Propylene	Propylene is a flammable gas which is largely derived either as a co-product of the refinery FCC process used to make gasoline or as a co-product of the steam cracking process used to make Ethylene. Propylene has virtually no independent end use, but is an important input for a significant number of industrial products, and is the main feedstock used to make Polypropylene and Acrylonitrile.
P-xylene or Paraxylene (PX)	PX is an Aromatic Hydrocarbon in the form of a colorless, flammable liquid that is recovered from mixed Xylenes streams by adsorption and by Isomerization of Aromatics. It is an upstream raw material for PTA and DMT, which are used for production of downstream Polyester fiber and Polyethylene Terephthalate.
Pyrolysis Gasoline	Pyrolysis Gasoline is a naphtha-range product with a high aromatics content used in the production of Benzene, Toluene and Mixed Xylenes and as a motor vehicle gas blending stock.
Toluene	Toluene is an Aromatic Hydrocarbon used as an octane enhancer in gasoline, as a chemical intermediate in the production of Benzene, Paraxylene, toluene diisocyanate and as a solvent in paints.
Toluene diisocyanate (TDI)	TDI is an intermediary chemical used in the production of polyurethane.



PTT Global Chemical Public Company Limited
555/1 Energy Complex Building A, 14th-18th Floor,
Vibhavadi Rangsit Road, Chatuchak, Chatuchak,
Bangkok 10900 Thailand
Tel : 66 (0) 2265-8400 Fax : 66 (0) 2265-8500
www.pttggroup.com