

1. PTT and its subsidiaries' performance

The world economy in the fourth quarter of 2013 (Q4/2013) continued to grow at a slower pace from the third quarter of 2013 (Q3/2013), but better than expected. Advanced economies, especially the U.S., strongly expanded from an increase in domestic demand. Despite there is a temporary shutdown of some government agencies for 16 days. In addition, developing and emerging economies improved further from a recovery in exports that helped to alleviate the effects of weak domestic consumption and investment. Although, the economic activity was better than expected, the global economy grew at a slightly slower rate in 2013 than in 2012. The International Monetary Fund (IMF), in January 2014, projected the world economy to grow 3.0% in 2013, down from 3.1% 2012.

The International Energy Agency (IEA), in December 2013, reported that global oil demand in Q4/2013 was 92.0 million barrels per day (MBD), an increase of 0.1 MBD and 0.9 MBD from Q3/2013 and Q4/2012 respectively. Global oil demand in 2013 was at 91.2 MBD, increasing 1.2 MBD from 2012, supported by a demand surge in India, China and Japan.

The average Dubai crude oil price in Q4/2013 slightly rose to US\$106.8 per barrel compared with US\$ 106.3 per barrel in Q3/2013 as a result of seasonal winter demand. The negotiation between Iran and the so-called P5+1 countries including the U.S., the UK, France, China, Russia, and Germany is likely to be granted Iran's sanctions relief, thus allowing Iran to raise oil export which would be main factor pressuring oil price. Overall, the average Dubai price at US\$ 105.5 per barrel in 2013, decreased from US\$109.1 per barrel in 2012. Most of petroleum product prices in the Singapore Spot Market in Q4/2013 slightly rose from Q3/2013. The average diesel price increased from seasonal winter demand and a tight supply. In addition, average fuel oil price was supported by both robust demand from China, Japan, and South Korea and the lower exported from the Middle East due to a surge in domestic demand. The average price of petroleum products in 2013 decreased as a result of a fall in crude oil prices and demand along with an increasing supply.

Petrochemical prices in Q4/2013 compared with Q3/2013, Olefins product prices rose in parallel with crude and naphtha prices, agricultural demand, and year-end manufacturing season. For Aromatics product, the Benzene price increased, supported by strong Benzene demand of the U.S. and Europe while the Paraxylene price declined as a result of sluggish PTA demand from declining polyester and PET market in China. Overall, petrochemical prices in 2013 rose as a result of recovering demand. Olefins prices increased in line with higher demand from China. Most of Aromatics product prices were also rising except Paraxylene. The average Benzene price in 2013 grew following U.S. Benzene price from lower supply as a result of shale gas and shale

oil production. On the other hand, Paraxylene price in 2013 declined from the previous year due to additional production capacity while demand retreated from sluggish PTA market.

National Energy Policy Committee (NEPC) resolved to raise the retail price of LPG in the household sector by Baht 0.50 per kilogram per month for 12 months starting September 1, 2013. The increasing in retail price will be collected to oil fund.

Thai economy expansion in Q4/2013 was significantly less than Q3/2013 since private consumption and investment declined as well as the lower-than-expected government spending from the delay of disbursement, mainly due to the prolonged political demonstration, while export sector was still fragile. As of February 2014, the Office of the National Economic and Social Development Board (NESDB) has projected the Thai economy to grow 2.9% in 2013, decreasing from previously projected in November 2013 of 3.0%.

As a result of the factors mentioned above, PTT and its subsidiaries' financial performance of Q4/2013 compared with Q4/2012 and Q3/2013 as well as 2013 compared with 2012 as follows:

Unit: million Baht

	Q4/2012	Q3/2013	Q4/2013	% Increase/(Decrease)		Y2012	Y2013	%Increase/ (Decrease)
				YoY	QoQ			
Dubai crude price (US\$/bbl)	107.5	106.3	106.8	(0.7%)	0.5%	109.1	105.5	(3.3%)
Sales & services	732,886	723,152	749,995	2.3%	3.7%	2,793,833	2,842,688	1.7%
: Exploration & Production	57,657	57,100	58,791	2.0%	3.0%	212,537	224,973	5.9%
: Natural gas ^{1/}	135,696	132,844	133,350	(1.7%)	0.4%	510,684	529,330	3.7%
: Oil ^{2/}	151,253	150,642	157,968	4.4%	4.9%	608,371	617,305	1.5%
: International Trading ^{3/}	430,205	429,002	448,085	4.2%	4.4%	1,635,520	1,655,735	1.2%
: Petrochemical ^{4/}	21,973	23,296	25,688	16.9%	10.3%	83,406	93,054	11.6%
: Coal ^{5/}	7,039	6,465	7,269	3.3%	12.4%	28,739	24,978	(13.1%)
: Others ^{6/}	1,082	1,039	1,058	(2.2%)	1.8%	4,348	4,027	(7.4%)
: Elimination	(72,019)	(77,236)	(82,214)	(14.2%)	(6.4%)	(289,772)	(306,714)	(5.8%)
EBITDA	53,316	56,691	58,984	10.6%	4.0%	227,843	228,972	0.5%
: Exploration & Production	39,663	40,804	40,128	1.2%	(1.7%)	152,098	161,273	6.0%
: Natural gas	9,262	11,076	12,381	33.7%	11.8%	52,267	45,098	(13.7%)
: Oil	3,270	3,034	2,088	(36.2%)	(31.2%)	15,929	13,361	(16.1%)
: International Trading	(1,591)	(217)	(550)	65.4%	n.m.	(3,846)	(2,143)	44.3%
: Petrochemical	590	562	509	(13.7%)	(9.4%)	2,698	2,041	(24.4%)
: Coal	1,594	1,043	2,307	44.7%	n.m.	7,703	5,809	(24.6%)
: Others	421	201	932	n.m.	n.m.	1,164	1,697	45.8%
: Elimination	107	188	1,189	n.m.	n.m.	(170)	1,836	n.m.
EBIT	36,624	37,629	36,681	0.2%	(2.5%)	162,788	152,657	(6.2%)
: Exploration & Production	28,645	27,887	25,543	(10.8%)	(8.4%)	109,406	110,922	1.4%
: Natural gas	5,862	7,571	8,741	49.1%	15.5%	38,862	31,176	(19.8%)
: Oil	2,607	2,353	1,411	(45.9%)	(40.0%)	13,366	10,716	(19.8%)
: International Trading								
- Excluding Effect of FX	(1,595)	(220)	(554)	65.2%	n.m.	(3,861)	(2,156)	44.2%
- Including Effect of FX	1,087	797	(60)	n.m.	n.m.	3,811	3,686	(3.3%)
: Petrochemical	381	236	174	(54.3%)	(26.3%)	1,895	769	(59.4%)
: Coal	603	(158)	(308)	n.m.	(94.9%)	3,598	(591)	n.m.
: Others	13	(228)	485	n.m.	n.m.	(310)	(17)	94.5%
: Elimination	108	188	1,189	n.m.	n.m.	(168)	1,838	n.m.
Depreciation and amortization expenses	16,693	19,062	22,302	33.6%	17.0%	65,055	76,315	17.3%
Finance costs	5,506	5,073	5,314	(3.5%)	4.8%	19,747	20,394	3.3%
Gain (loss) on foreign exchange	3,536	2,047	(5,014)	n.m.	n.m.	7,434	305	(95.9%)
Income taxes	12,455	9,321	13,362	7.3%	43.3%	46,516	47,692	2.5%
Net income	22,678	30,877	15,392	(32.1%)	(50.2%)	104,608	94,652	(9.5%)
Earnings per share (Baht/share) ^{7/}	7.91	10.81	5.32	(32.7%)	(50.8%)	36.59	33.07	(9.6%)

Notes : /1 Including the natural gas business, the consolidation of PTT Natural Gas Distribution Co., Ltd. (PTTNGD), PTT LNG Co., Ltd (PTTLNG), the proportionate consolidation of Trans Thai-Malaysia (Thailand) Co.,Ltd. (TTM (T)), Trans Thai-Malaysia (Malaysia) Sdn. Bhd. (TTM (M)) and District Cooling System and Power Plant Co., Ltd. (DCAP). On December 24, 2013, the Company sold its investments in Combined Heat and Power Producing Company Limited (CHPP) and Thai Solar Renewable Co.,Ltd. (TSR), 100% and 40% shareholdings held by PTT, respectively, to Global Power Synergy Co., Ltd. (GPSC), in according with the approval of the board director meeting No.9/2013 on September 27, 2013.

/2 Including the oil marketing business, the consolidation of PTT (Cambodia) Co., Ltd. (PTTCL), Subic Bay Energy Co., Ltd. (SBECL), PTT Tank Terminal Co., Ltd. (PTT TANK), PTT Retail Business Co., Ltd. (PTTRB) and the consolidated Thai Lube Blending Company Limited (TLBC) due to the 100% TLBC's shareholding acquisition by PTTRB and PTT, and PTT Oil Myanmar CO., Ltd. (PTTOM)(100% shareholding held by PTT).

/3 Including the international trading business and the consolidation of PTT International Trading Pte Ltd (PTTT).

/4 Including the consolidation of PTT Polymer Marketing Co., Ltd. (PTTPM), PTT Polymer Logistics Co., Ltd. (PTTPL) and PTT PMMA Co., Ltd. (PTTPMMA) (100% shareholding held by PTT) and the proportionate consolidation of PTT Asahi Chemical Co., Ltd. (PTTAC), HMC Polymers Co., Ltd. (HMC) and PTT MCC BioChem Co.,Ltd. (PTTMCC)

/5 Including Sakari Resources Ltd. (SAR) and International Coal Holding Limited (ICH) (94.58% and 100% shareholdings, respectively, held by PTT Mining Limited (PTTML), a 100% shareholding subsidiary of PTT International Company Limited (PTTI)).

/6 Including the consolidation of Energy Complex Co., Ltd. (EnCo), Business Services Alliance Co., Ltd. (BSA), PTT Green Energy Pte Ltd (PTTGE), PTT International Company Limited (PTTI), and PTT Regional Treasury Center Pte. Ltd. (PTTRTC)(100% shareholding held by PTT).

/7 Basic earnings per share is calculated by dividing net income attributable to ordinary shareholders by the weighted average number of ordinary shares which are held by third parties during the periods.

1.1 Overall performance of PTT and its subsidiaries

Fourth quarter of 2013 compared with Fourth quarter of 2012

In Q4/2013, sales revenue of PTT and its subsidiaries was Baht 749,995 million, increasing from the fourth quarter of 2012 (Q4/2012) by Baht 17,109 million or 2.3%, mainly from higher sales volume of oil business. The average Dubai crude oil price decreased from US\$ 107.5 per barrel in Q4/2012 to US\$ 106.8 per barrel in Q4/2013. Earnings before finance costs, income taxes, depreciation and amortization expenses, and other non-operating income and expenses (EBITDA) increased by Baht 5,668 million or 10.6% principally due to the better performance of gas and international trading businesses. In Q4/2013, share of gain from investments in associates of PTT and its subsidiaries was Baht 5,089 million, decreased by Baht 2,816 million from Baht 7,905 million in Q4/2012, as a result of the lower performance of petrochemical and refining associates. The performances of Aromatics petrochemical associates were affected by the sharply drop in spreads margins in Q4/2013 because Aromatics plants resumed their normal operation while in Q4/2012 Paraxylene and Benzene supply were tighten. Additionally, the lower performance of Olefins petrochemical associates was mainly caused by the lightning strike incident at Gas Separation Plant Unit 5 (GSP Unit 5) of PTT, which caused lower utilization for PTTGC's plants. Moreover, the performance of refining associates declined due to lower spread margin of refined petroleum products of almost all products, especially gasoline, caused by lower demand of imported oil in Indonesia, the major oil importer in the region.

The foreign exchange losses of PTT and its subsidiaries were Baht 5,014 million in Q4/2013, while the foreign exchange gains were Baht 3,536 million in Q4/2012, due to the Baht depreciation in Q4/2013, compared with the Baht appreciation in Q4/2012. The income taxes of PTT and its subsidiaries in Q4/2013

were Baht 13,362 million, increasing from Q4/2012 by Baht 907 million or 7.3%. Consequently, the net income of PTT and its subsidiaries decreased by Baht 7,286 million or 32.1% from Baht 22,678 million in Q4/2012 (or Baht 7.91 per share) to Baht 15,392 million in Q4/2013 (or Baht 5.32 per share).

Fourth quarter of 2013 compared with Third quarter of 2013

In Q4/2013, sales revenue of PTT and its subsidiaries was Baht 749,995 million, increasing from Q3/2013 by Baht 26,843 million or 3.7%. The average Dubai crude oil price slightly increased from US\$ 106.3 per barrel in Q3/2013 to US\$ 106.8 per barrel in Q4/2013. As a result, EBITDA increased by Baht 2,293 million or 4.0% principally due to the better performance of natural gas and coal business. However, in Q4/2013, share of gain from investments in associates of PTT and its subsidiaries was Baht 5,089 million, decreasing from Baht 10,492 in Q3/2013 by Baht 5,403 million due to lower performance of almost all business units, mainly from refining and petrochemical associates. The refining associates had lower Gross Refining Margin (GRM), especially from the lower diesel-crude spread, due to lower demand in the region and higher stock loss in Q3/2013. Furthermore, the performance of Aromatics petrochemical associates decreased because of lower Paraxylene spread due to PTA plants lower their production as well as higher supply in the region after the resumption of Aromatics plants in Indonesia in Q4/2013. While, the performance of Olefins petrochemical associates increased because PTTGC's LDPE plant resumed its operation in late September 2013 after shutdown in Q3/2013, also, Olefin-derivatives spread increased in all products.

The foreign exchange losses of PTT and its subsidiaries were Baht 5,014 million in Q4/2013 while there were Baht 2,047 million foreign exchange gains in Q3/2013. The income taxes of PTT and its subsidiaries in Q4/2013 were Baht 13,362 million, increasing from Baht 9,321 million in Q3/2013 by Baht 4,041 million, mainly due to higher petroleum income taxes and corporate income taxes of PTTEP. Consequently, the net income of PTT and its subsidiaries in Q4/2013 decreased by Baht 15,485 million from Baht 30,877 million in Q3/2013 (or Baht 10.81 per share) to Baht 15,392 million in Q4/2013 (or Baht 5.32 per share).

Year 2013 compared with Year of 2012

In 2013, sales revenue of PTT and its subsidiaries was Baht 2,842,688 million, increasing by 1.7% from Baht 2,793,833 million in 2012 from an increase in sales volume mainly from oil business, even the average Dubai crude oil price decreased from US\$ 109.1 per barrel in 2012 to US\$ 105.5 per barrel in 2013. EBITDA rose by Baht 1,129 million or 0.5% from Baht 227,843 million to Baht 228,972 million principally due to the better performance of PTTEP and international trading business. In 2013, share of gain from investments in associates of PTT and its subsidiaries was Baht 27,079 million, slightly increasing by Baht 64 million compared with last year due to the better performance of gas and oil associates. On the other hand, the performance of refining and petrochemical associates marginally declined. There were foreign exchange losses in many refineries as a result of the Baht depreciation against \$US while there were exchange gains in the previous year; even though, Gross Refining Margin (GRM) increased from higher stock gains in 2013, compared with stock losses last year. Additionally, the lower performance of petrochemical associates was partly affected by the Baht depreciation against \$US, together with PTTGC's LDPE plant shut down and incident in GSP Unit 5 causing PTTGC to lower its production, and PTTGC's expenses from oil spill incident,

despite higher spread margins of Aromatics and Olefins products compared with 2012, mainly from better spread margin of Benzene, HDPE and Polypropylene.

The foreign exchange gains of PTT and its subsidiaries in 2013 were Baht 305 million, decreasing by Baht 7,129 million from 2012. The income taxes of PTT and its subsidiaries were Baht 47,692 million, increasing from 2012 by Baht 1,176 million or 2.5%. Consequently, the net income of PTT and its subsidiaries decreased by Baht 9,956 million or 9.5% from Baht 104,608 million in 2012 (or Baht 36.59 per share) to Baht 94,652 million in 2013 (or Baht 33.07 per share); even though, in 2012, PTTEP reported impairment loss on Montara assets amounting to Baht 6,366 million and PTT International Company Limited (PTTI) recognized impairment loss from its investment in EMG amounting to Baht 3,972 million.

Non-recurring items of PTT and its subsidiaries in 2013:

Time	Non-recurring item
January	The amalgamation of PTT Utility Company Limited ("PTTUT") and Independent Power (Thailand) Company Limited ("IPT") was completed. The name of the merged company is Global Power Synergy Company Limited (GPSC). Moreover, PTT Asahi Chemical Co., Ltd. (PTTAC) has started its commercial operation.
July	PTTGC shut down its LDPE plant for 77 days.
August	There was an accident incurring from the lightning strike on the Waste Heat Recovery Unit or WHRU of GSP Unit 5, resulting in its cease of operation. Anyway, in October, 2013, GSP Unit 5 has officially resumed its operation at 50% capacity. However, PTT has both Property Damage and Business Interruption insurance coverage.
September	PTT has established PTT Regional Treasury Center ("PTT RTC") in Singapore to centralize treasury operation of PTT group to enhance ability to comprehensively support overall financial management of PTT group.
November	PTT has transferred power business assets of PTT and its subsidiaries to GPSC in accordance to PTT's strategic direction in conducting PTT Group power business through GPSC.

Even there were political demonstrations, PTT business operations are still running as normal without an impact due to an activation of PTT Business Continuity Management ("BCM").

1.2 Segmentation performance of PTT and its subsidiaries

1.2.1 Upstream Petroleum and Natural Gas Business Group

- **Petroleum Exploration and Production Business: PTT Exploration and Production Public Co., Ltd. (PTTEP)**

Fourth quarter of 2013 compared with Fourth quarter of 2012

In Q4/2013, sales revenue of PTTEP, a subsidiary of PTT, was Baht 58,791 million, increasing by Baht 1,134 million or 2.0% from Q4/2012, mainly due to the higher average sales volume increasing from 294,233 barrels of oil equivalent per day (BOED) in Q4/2012 to 299,716 BOED in Q4/2013. The increasing sales volume was principally from the Vietnam 16-1 project, which was recognize the first revenue from sales

volume in December 2013, the PTTEP Australasia project, which began offloading crude oil for sales in August 2013, and the Natuna Sea A project, from the acquisition of Natuna 2 B.V. in December 2013. However, the sales volume of the Arthit and the Contract 4 projects decreased because of the lower nomination from PTT and the sales volume of the Yadana project decreased due to two days partial production shutdown and lower natural gas demand in the winter. While, the average selling price dropped by 2.9% from US\$ 66.4 per barrel of oil equivalent (BOE) in Q4/2012 to US\$ 64.5 per BOE in Q4/2013.

EBITDA in Q4/2013 was Baht 40,128 million, increasing by Baht 465 million or 1.2% from Q4/2012 due to an increase in average sales volume as aforementioned. Nevertheless, administrative expenses increased mainly due to higher administrative expenses of MTJDA-B17 project paid to Malaysia-Thailand Joint Authority in line with higher amount of condensate sales according to obligation in Production Sharing Contract.

EBIT in Q4/2013 was Baht 25,543 million, decreasing by Baht 3,102 million or 10.8% from Q4/2012 mainly due to an increase in the depreciation and amortization expenses from an increase in the completed assets and higher production rates of the Bongkot and S1 project and higher production rates of PTTEP Australasia projects. However, depreciation and amortization expenses of the Vietnam 16-1 project decreased due to higher proved reserve and proved developed reserves revision in 2013.

Fourth quarter of 2013 compared with Third quarter of 2013

In Q4/2013, sales revenue of PTTEP was Baht 58,791 million, increasing by Baht 1,691 million or 3.0% from Q3/2013, mainly due to higher average sales volume, which rose from 286,578 BOED in Q3/2013 to 299,716 BOED in Q4/2013 principally from the Vietnam 16-1 and the Natuna Sea A projects as well as production shutdown of the B8/32 & 9A and the Bongkot projects in Q3/2013; even though, the sales volume decreased as a result of the S1 and Oman 44 projects. However, the average selling prices lowered by 1.8% from US\$ 65.7 per BOE in Q3/2013 to US\$ 64.5 per BOE in Q4/2013.

EBITDA in Q4/2013 was Baht 40,128 million, decreasing by Baht 676 million or 1.7% from Q3/2013 principally due to higher administrative expenses of MTJDA-B17 project paid to Malaysia-Thailand Joint Authority in line with higher amount of condensate sales according to obligation in Production Sharing Contract as well as higher allocated administrative expenses from the Algeria 433A & 416B project.

EBIT in Q4/2013 was Baht 25,543 million, decreasing by Baht 2,344 million or 8.4% from Q3/2013 mainly due to a decrease in EBITDA as aforementioned. Additionally, depreciation and amortization expenses increased principally from the PTTEP Australasia, which began offloading crude oil for sales in August 2013, the Arthit project, due to lower proved reserves and proved developed reserves revision in Q4/2013, and the Contract 4, the B8/32&9A, the 9A and the Bongkot projects, in relation to an increase in completed assets and production rates.

Year 2013 compared with Year 2012

In 2013, sales revenue of PTTEP was Baht 224,973 million, increasing by Baht 12,436 million or 5.9% from 2012, mainly due to both the higher average sales volume and average selling price. The average sales volume increased from 275,923 BOED in 2012 to 292,629 BOED in 2013 mainly from the Bongkot

project. The South Bongkot project started its production as required by the Gas Sales Agreement in June 2012. Additionally, the Artificial lift technique of the S1, the Vietnam 16-1, the PTTEP Australasia and the Natuna Sea A projects also contribute a higher sales volume. On the other hand, sales volume of the Arthit project decreased because of lower nomination from PTT. In terms of price, the average selling prices rose by 1.1% from US\$ 64.9 per BOE in 2012 to US\$ 65.6 per BOE in 2013.

EBITDA in 2013 was Baht 161,273 million, increasing by Baht 9,175 million or 6.0% from 2012 due to an increase in average sales volume and average selling price as aforementioned, together with the decrease in the petroleum exploration expenses by Baht 1,279 million from lower seismic cost of the PTTEP Australasia, the A4/48 & A5/58 and the Myanmar M11 projects.

EBIT in 2013 was Baht 110,922 million, increasing by Baht 1,516 million or 1.4% from 2012 mainly due to an increase in EBITDA as aforementioned. However, the depreciation and amortization expenses escalated mainly due to an increase in the number of completed assets and higher production rates of the Bongkot and the S1 projects as well as an increase in the number of completed assets of the Contract 4, the MTJDA-B17, and PTTEP Australasia project. However, depreciation and amortization expenses of the Vietnam 16-1 project decreased due to higher proved reserves and proved developed reserves revision.

- **Natural Gas Business Group**

Fourth quarter of 2013 compared with Fourth quarter of 2012

Sales revenue of Natural Gas Business was Baht 133,350 million in Q4/2013, decreasing by Baht 2,346 million or 1.7% from Q4/2012 due to the followings:

- The average natural gas sales volume decreased by 284 million cubic feet per day (mmcf) from 4,746 mmcf in Q4/2012 to 4,462 mmcf in Q4/2013 (calculated at heating value of 1,000 BTU per cubic foot) or 6.0%. The demand of natural gas declined mainly from the power producers and GSPs.
- The average natural gas selling prices rose in all customer groups, except for industrial customers in relation to lower fuel oil price.
- The sales volume of all products from gas separation plants (including NGL derived from Dew Point Control Units) decreased by 13.8% from 1,748,375 tons in Q4/2012 to 1,506,831 tons in Q4/2013, mainly due to an incident from the lightning strike on Waste Heat Recover Unit (WHRU) of GSP Unit 5 on August 14, 2013, even though it has started the production at 50% of utilization rate since October 21, 2013.
- The average product selling prices of the gas separation plants increased in relation to the global reference prices.

EBITDA and EBIT of Natural Gas Business in Q4/2013 were Baht 12,381 million and Baht 8,741 million, respectively, increasing from Q4/2012 by Baht 3,119 million and Baht 2,879 million, or 33.7% and 49.1%, respectively. The main reason was higher profit of gas separation plants due to the rise in selling prices in relation to the global reference petrochemical prices, especially HDPE and Polypropylene even the higher loss on NGV.

Fourth quarter of 2013 compared with Third quarter of 2013

Sales revenue of Natural Gas Business was Baht 133,350 million in Q4/2013, increasing by Baht 506 million or 0.4% from Q3/2013 due to the followings:

- The average natural gas selling prices in Q4/2013 mainly increased from Q3/2013 in all customer groups in relation to the rise in the reference fuel oil price. However, the average natural gas sales volume decreased by 26 mmcf from 4,488 mmcf in Q3/2013 to 4,462 mmcf in Q4/2013 (calculated at heating value of 1,000 BTU per cubic foot) or 0.6% mainly from EGAT while the demand of gas separation plants increased from the resumption of GSP Unit 5.
- The sales volume of products from gas separation plants (including NGL derived from Dew Point Control Units) increased by 4.2% from 1,445,991 tons in Q3/2013 to 1,506,831 tons in Q4/2013, because GSP Unit 5, which shut down from lightning strike on WHRU, has started its production at 50% of utilization rate since October 21, 2013. In addition, PTTGC's LDPE plant resumed its operation after a shutdown in Q3/2013.
- The product selling prices of the gas separation plants increased in accordance with the global selling petrochemical prices.

EBITDA and EBIT of Natural Gas Business in Q4/2013 were Baht 12,381 million and Baht 8,741 million, respectively, increasing from Q3/2013 by Baht 1,305 million and Baht 1,170 million or 11.8% and 15.5%, respectively. The main reason was higher profit of natural gas together with a drop in operating expenses owing to a payment of gas compensation to EGAT in Q3/2013 in order to subsidize the cost of production of Khanom Power Plant.

Year 2013 compared with Year 2012

Sales revenue of Natural Gas Business was Baht 529,330 million in 2013, increasing by Baht 18,646 million or 3.7% from 2012 due to the followings:

- The average natural gas selling prices in 2013 rose in all customer groups, except for industrial customers in relation to lower fuel oil price.
- The average natural gas sales volume increased by 43 mmcf or 0.9% from 4,537 mmcf in 2012 to 4,580 mmcf in 2013 (calculated at heating value of 1,000 BTU per cubic foot). This resulted from higher demand of natural gas mainly from the power producers, especially SPP.
- Almost all product selling prices of the gas separation plants (including NGL derived from Dew Point Control Units) increased in relation to the reference petrochemical prices.
- The sales volume of products from gas separation plants declined by 4.0% from 6,467,981 tons in 2012 to 6,210,549 tons in 2013. This was caused by the lower utilization rates of the gas separation plants from 96.7% in 2012 to 90.2% in 2013 as a result of an incident from lightning strike on WHRU of GSP Unit 5 on August 14, 2013 as aforementioned.

EBITDA and EBIT of Natural Gas Business in 2013 were Baht 45,098 million and Baht 31,176 million, respectively, decreasing from 2012 by Baht 7,169 million and Baht 7,686 million or 13.7% and 19.8%, respectively. The main reasons were the lower profit of natural gas sold to industrial customers due to the drop in selling prices relative to the reference fuel oil price and higher feed costs. The profit of products from

gas separation plants also decreased in relation to the rise in feed costs. Additionally, the sales volume dropped as a result of unplanned shutdown of GSP Unit 5. Furthermore, the loss from NGV business increased in relation to an increase in sales volume and feed cost. As of December 31, 2013, the NGV retail price was Baht 10.50 per kilogram, except for public transportation receiving Baht 2.00 per kilogram compensation from PTT.

The details of all product sales volume from gas separation plants are as follows:

Unit: Ton	Q4/2012	Q3/2013	Q4/2013	Inc.(Dec.)		2012	2013	Inc. (Dec.)
				YoY	QoQ			
LPG	768,658	601,753	647,667	(15.7%)	7.6%	2,905,594	2,690,389	(7.4%)
Ethane	580,904	489,196	509,507	(12.3%)	4.2%	2,109,234	2,074,467	(1.6%)
Propane	210,684	179,642	177,124	(15.9%)	(1.4%)	726,424	726,952	0.1%
NGL	188,129	175,400	172,533	(8.3%)	(1.6%)	726,729	718,741	(1.1%)
Total	1,748,375	1,445,991	1,506,831	(13.8%)	4.2%	6,467,981	6,210,549	(4.0%)

The details of reference product prices for the calculation of GSPs' products selling prices are as follows:

Unit: USD per Ton	Q4/2012	Q3/2013	Q4/2013	Inc. (Dec.)		2012	2013	Inc. (Dec.)
				YoY	QoQ			
LPG ^{1/, 4/}	998	825	964	(3.4%)	16.8%	916	871	(4.9%)
Ethylene ^{2/}	1,286	1,325	1,427	11.0%	7.7%	1,229	1,352	10.0%
Propylene ^{2/}	1,248	1,336	1,367	9.5%	2.3%	1,266	1,327	4.8%
High Density Polyethylene ^{2/}	1,393	1,489	1,535	10.2%	3.1%	1,380	1,487	7.8%
Polypropylene ^{2/}	1,462	1,516	1,537	5.1%	1.4%	1,445	1,516	4.9%
Naphtha ^{3/}	863	837	864	0.1%	3.2%	863	842	(2.4%)

Note: 1/ Contract price (CP)

2/ South East Asia Spot Price

3/ MOP Singapore (MOP'S)

4/ LPG price is controlled by the Government via the Committee on Energy Policy Administration ("the Committee").

LPG ex-refinery price was fixed at Baht 10.996 per kilogram. However, on August 27, 2009, the Committee approved the new LPG ex-refinery price to be capped at US\$ 332.7549 per ton with floating foreign exchange rate. The adjustment of the exchange rate will be based on the average exchange rate in the previous month.

1.2.2 Downstream Petroleum Business Group

● Oil Business Group

Fourth quarter of 2013 compared with Fourth quarter of 2012

Sales revenue of oil business in Q4/2013 was Baht 157,968 million, increasing by Baht 6,715 million or 4.4% from Q4/2012 because the sales volume increased by 191 million liters or 0.7% from 5,840

million liters or equivalent to 399,281 barrels per day in Q4/2012 to 6,031 million liters or equivalent to 412,346 barrels per day. The increase was mainly from the sales volume of aviation fuel and fuel oil. However, average Dubai crude oil price in Q4/2013 was slightly decreased US\$ 107.5 per barrel in Q4/2012 to US\$ 106.8 per barrel in Q4/2013.

EBITDA in Q4/2013 was Baht 2,088 million which decreased by Baht 1,182 million or 36.2% from Q4/2012. Additionally, EBIT in Q4/2013 was Baht 1,411 million, decreasing by Baht 1,196 million as a result of lower EBITDA as aforementioned mainly from a drop in diesel and LPG margins.

Fourth quarter of 2013 compared with Third quarter of 2013

Sales revenue of oil business in Q4/2013 was Baht 157,968 million, increasing by Baht 7,326 million or 4.9% from Q3/2013 because the sales volume in this quarter increased by 206 million liters or 3.5% from 5,826 million liters or equivalent to 398,330 barrels per day in Q3/2013 to 6,031 million liters or equivalent to 412,346 barrels per day in Q4/2013, mainly from higher aviation and diesel sales volume. In addition, the average Dubai crude oil price increased from US\$ 106.3 per barrel in Q3/2013 to US\$ 106.8 per barrel in Q4/2013.

EBITDA in Q4/2013 was Baht 2,088 million which decreased by Baht 946 million or 31.2% from Q3/2013. Furthermore, EBIT in Q4/2013 was Baht 1,411 million which decreased by Baht 942 million because of lower gasoline margin mainly from higher ethanol cost as well as lower fuel oil margins, despite higher aviation margin.

Year 2013 compared with Year 2012

Sales revenue of oil business in 2013 was Baht 617,305 million, increasing by Baht 8,934 million or 1.5% from 2012 because the sales volume increased by 787 million liters or 3.4% from 23,035 million liters or equivalent to 395,869 barrels per day in 2012 to 23,822 million liters or equivalent to 410,518 barrels per day in 2013, mainly from higher sales volume of aviation as well as higher gasoline sales volume as a result of the first car policy. Nonetheless, the average Dubai crude oil price decreased from US\$ 109.1 per barrel in 2012 to US\$ 105.5 per barrel in 2013.

EBITDA in 2013 was Baht 13,361 million which decreased by Baht 2,568 million or 16.1% from 2012. In addition, EBIT was Baht 10,716 million which decreased by Baht 2,650 million as a result of the drop in EBITDA as aforementioned, mainly from the decrease in diesel and lower gasoline margins from higher ethanol cost.

- **International Trading Business Group**

Fourth quarter of 2013 compared with Fourth quarter of 2012

Sales revenue of international trading business group was Baht 448,085 million in Q4/2013, increasing by Baht 17,880 million or 4.2% from Q4/2012 which was resulted from the rise in sales volume of PTT International Trading Pte Ltd (PTTT), while the sales volume of PTT's international trading business declined. Total sales volume in this quarter decreased by 1,692 million liters or 9.1% from 18,516 million liters or equivalent to 1,265,919 barrels per day in Q4/2012 to 16,824 million liters or equivalent to 1,150,239 barrels per day in Q4/2013 because of the decrease in sales volume of imported crude oil, Petrochemical and refined petroleum products as well as the Baht depreciation.

EBITDA in Q4/2013 had Baht 550 million losses and EBIT, which included effect on foreign exchange, in Q4/2013 had Baht 60 million losses, increased by Baht 1,147 million losses which was resulted from drop in both sales volume and margin per unit of refined petroleum product margin of PTT's international trading business.

Fourth quarter of 2013 compared with Third quarter of 2013

Sales revenue of international trading business group was Baht 448,085 million in Q4/2013, increasing by Baht 19,083 million or 4.4% from Q3/2013 which was resulted from the rise in sales volume of PTTT and PTT's international trading business. The sales volume in this quarter increased by 41 million liters or 0.2% from 16,784 million liters or equivalent to 1,147,470 barrels per day in Q3/2013 to 16,824 million liters or equivalent to 1,150,239 barrels per day in this quarter. This was resulted from the rise in sales volume of crude oil and refined petroleum products from the out – out transactions, and imported crude oil. Moreover, the oil selling prices also increased in accordance with global oil market prices.

EBITDA in Q4/2013 had Baht 550 million losses, which increased by Baht 333 million losses from Q3/2013. Additionally, EBIT, which included effect on foreign exchange, in Q4/2013 had Baht 60 million losses, increased by Baht 857 million from Q3/2013. This was resulted from the lower gains on exchange rate in relation to the Baht depreciation, despite the rise in imported crude oil margin.

Year 2013 compared with Year 2012

Sales revenue of international trading business group was Baht 1,655,735 million in 2013, which increased by Baht 20,215 million or 1.2% from 2012 due to the rise in sales volume of PTTT while the sales volume of PTT's international trading business declined. Total sales volume in 2013 decreased by 1,135 million liters or 1.7% from 68,342 million liters or equivalent to 1,174,500 barrels per day in 2012 to 67,208 million liters or equivalent to 1,158,168 barrels per day in 2013. This was resulted mainly from the drop in sales volume of crude oil and condensate from the out – in transactions. Furthermore, the oil selling prices decreased in accordance with global oil market prices.

EBITDA in 2013 had Baht 2,143 million losses, which was lower from losses in 2012 by Baht 1,703 million. However, EBIT, which included effect on foreign exchange, was Baht 3,686 million gains in this period, decreasing from 2012 by Baht 125 million. This was resulted mainly from the lower gains on exchange rate in relation to the Baht depreciation, despite the rise in condensate margin.

● Petrochemical Business Group

Fourth quarter of 2013 compared with Fourth quarter of 2012

Sales revenue of petrochemical subsidiaries and jointly controlled entities of PTT in Q4/2013 was Baht 25,688 million, increasing by Baht 3,715 million or 16.9% from Q4/2012 mainly due to increase in both petrochemical sales volume and average selling price of PTTPM (PTT's subsidiary in polymer marketing business). The sales volume and average selling price increased by 16.5% and 16.0% from Q4/2012, respectively. Moreover, the commercial production of PTTAC, a jointly controlled entity that produces and distributes AN and MMA products, since January 1, 2013 also led to the rise in sales revenue.

EBITDA in Q4/2013 was Baht 509 million, decreasing by Baht 81 million or 13.7% from Q4/2012. EBIT in Q4/2013 was Baht 174 million, decreasing by Baht 206 million or 54.2% from Q4/2012 as a result of a rise in depreciation and amortization expenses of PTTAC owing to the production start-up in Q1/2013.

Fourth quarter of 2013 compared with Third quarter of 2013

Sales revenue of petrochemical subsidiaries and jointly controlled entities of PTT in Q4/2013 was Baht 25,688 million, increasing by Baht 2,392 million or 10.3% from Q3/2013, mainly due to the rise in both petrochemical sales volume and average selling price of PTTM which were increased by 7.3% and 4.8% from Q3/2013, respectively.

EBITDA in Q4/2013 was Baht 509 million, decreasing by Baht 53 million from Q3/2013. Moreover, EBIT in Q4/2013 was Baht 174 million, decreasing by Baht 62 million or 26.3% from Q3/2013. This was resulted from unplanned maintenance shutdowns of PTTAC's AN/MMA plants in Q4/2013 due to the failure of power control system.

Year 2013 compared with Year 2012

Sales revenue of petrochemical subsidiaries and jointly controlled entities of PTT in 2013 was Baht 93,054 million, increasing by Baht 9,647 million or 11.6% from 2012. This was resulted from the rise in petrochemical sales volume and average selling price of PTTM by 13.5% and 6.2%, respectively, as well as the production start-up of PTTAC since January 1, 2013.

EBITDA in 2013 was Baht 2,041 million, decreasing by Baht 657 million or 24.4% from 2012. In addition, EBIT was Baht 769 million, decreasing by Baht 1,126 million or 59.4% from 2012. This was resulted mainly from a decrease in product spread of HMC, the jointly controlled entity that produces and distributes Polypropylene and Propylene products, due to the change in feedstock price formula. Additionally, an increase in depreciation and amortization expenses from PTTAC production start-up since January 1, 2013.

● Coal Business

Fourth quarter of 2013 compared with Fourth quarter of 2012

In Q4/2013, sales revenue of coal business was Baht 7,269 million, increasing by Baht 230 million or 3.3% from Q4/2012 because the sales volume increased by 13.8% from 2.9 million tons in Q4/2012 to 3.3 million tons in Q4/2013, mainly from a rise in sales volume of Sebuiku mine by 43.3%. However, the average selling price decreased by 9.7% from US\$ 77.6 per ton in Q4/2012 to US\$ 70.1 per ton in Q4/2013.

EBITDA in Q4/2013 was Baht 2,307 million, increasing by Baht 713 million or 44.7% from Q4/2012, because sales revenue increased, while outsourcing and staff costs decreased in Q4/2013. Nonetheless, EBIT in Q4/2013 had Baht 308 million losses, decreasing by Baht 911 million from Baht 603 million gains in Q4/2012 as a result of the increase in deferred stripping costs in Q4/2013 because the actual stripping ratio was less than the average life of mine ratio.

Fourth quarter of 2013 compared with Third quarter of 2013

In Q4/2013, sales revenue of coal business was Baht 7,269 million, increasing by Baht 804 million or 12.4% from Q3/2013 mainly because the sales volume increased by 13.8% from 2.9 million tons in

Q3/2013 to 3.3 million tons mainly from the higher sales volume of Sebuk mine by 16.5%. However, the average selling price was US\$ 70.1 per ton, which was approximately the same as in Q3/2013.

EBITDA in Q4/2013 was Baht 2,307 million, increasing by Baht 1,264 million from Q3/2013 mainly due to the rise in sales revenue as mentioned above. Nonetheless, EBIT in Q4/2013 had Baht 308 million losses, increased by Baht 150 million from Q3/2013 as a result of the increase in deferred stripping cost as aforementioned.

Year 2013 compared with Year 2012

In 2013, sales revenue of coal business was Baht 24,978 million, decreasing by Baht 3,761 million or 13.1% from 2012 mainly due to the drop in average selling price, which decreased by 17.1% from US\$ 87.7 per ton in 2012 to US\$ 72.7 per ton in 2013. Nevertheless, the sales volume increased by 3.7% from 10.8 million tons in 2012 to 11.2 million tons in 2013 mainly due to a rise in sales volume of Sebuk mine by 15.4% from the start-up of new pits operation in Northern Lease.

EBITDA in 2013 was Baht 5,809 million, which decreased by Baht 1,894 million or 24.6% from 2012 due to the drop in sales revenue as aforementioned. Nonetheless, EBIT in 2013 had Baht 591 million losses, which decreased by Baht 4,189 million from Baht 3,598 million gains in last year as a result of the decrease in EBITDA as aforementioned and the rise in deferred stripping cost because the actual stripping ratio was less than the average life of mine ratio. (The stripping ratio was 9.1 in 2013, while it was 10.6 in 2012.)

1.3 Share of Net Income from Investment in Associates and Net Income

Fourth quarter of 2013 compared with Fourth quarter of 2012

: Net income of PTT and its subsidiaries in Q4/2013 was Baht 15,392 million, decreasing from Q4/2012 by Baht 7,286 million or 32.1% due to the performance of each business group of PTT, subsidiaries and jointly controlled entities as mentioned, and the following reasons:

: In Q4/2013, the share of net income from investments in associates decreased by Baht 2,816 million from Baht 7,905 million in Q4/2012 to Baht 5,089 million in Q4/2013, mainly caused by the followings:

- The performance of refining business associates decreased as PTT Group refineries' GRM (including stock gain/loss and hedging gain/loss, excluding PTTGC's refining unit) decreased from US\$ 4.14 per barrel in Q4/2012 to US\$ 3.81 per barrel in Q4/2013. This was resulted from lower spread margin of almost all refined petroleum products, especially gasoline. The spreads declined as a result of lower importing demand of oil in Indonesia, the major oil importer in the region, as Indonesian rupiah depreciated considerably. However, refining business associates had higher stock gains in Q4/2013, while it had stock losses in Q4/2012.

- The performance of Olefins and Aromatics petrochemical associates decreased compared with Q4/2012, especially Paraxylene and Benzene spread margins, because many Aromatics plants resumed their normal operation while in Q4/2012 Paraxylene and Benzene supplies were tighten. The performance of Olefins petrochemical associates also decreased mainly from lower utilization rate of PTTGC' plants caused by the lightning strike incident on the Waste Heat Recover Unit (WHRU) of GSP Unit 5 of PTT.

: In Q4/2012, PTTEP recognized the impairment loss on Montara assets amounting to Baht 2,911 million.

: In Q4/2013, PTT and its subsidiaries had foreign exchange Baht 5,014 million losses, which decreased from Baht 3,536 million gains in Q4/2012.

: In Q4/2013, PTT and its subsidiaries' finance costs decreased by Baht 192 million or 3.5% from Baht 5,506 million in Q4/2012 to Baht 5,314 million in Q4/2013, mainly from increasing debts from issuance and public offering of bonds, including loans for stock acquiring in Cove Energy Plc. for PTTEP in Q4/2012.

: The corporate income taxes in Q4/2013 were Baht 13,362 million, increasing by Baht 906 million or 7.3% from Baht 12,455 million in Q4/2012 mainly from an increase in corporate income taxes and petroleum income taxes of PTTEP.

Fourth quarter of 2013 compared with Third quarter of 2013

: Net income of PTT and its subsidiaries in Q4/2013 was Baht 15,392 million, decreasing by Baht 15,485 million or 50.2% from Baht 30,877 million in Q3/2013, mainly due to lower performance of gas business. Beside performance of each business group of PTT, subsidiaries and jointly controlled entities as mentioned, other reasons are as follows:

: In Q4/2013, the share of net income from investments in associates decreased by Baht 5,403 million from Baht 10,492 million in Q3/2013 to Baht 5,089 million, mainly caused by the followings:

- The performance of refining business associates decreased as PTT Group refineries' GRM (including stock gain/loss and hedging gain/loss, excluding PTTGC's refining unit) decreased from US\$ 7.39 per barrel in Q3/2013 to US\$ 3.81 per barrel in Q4/2013, especially the drop in gasoline – crude oil spread, caused by lower regional demand and higher stock loss compared with Q3/2012. However, diesel, aviation fuel and fuel oil spreads over Dubai crude prices slightly increased because of tighten supply, which was caused by lower utilization rates of some refineries in the region due to lower gross refining margins outlook.

- The performance of petrochemical associates decreased mainly from the lower performance of Aromatics petrochemical businesses because of lower Paraxylene spread due to PTA plants lower their production as well as higher supply in the region after the resumption of Indonesian Aromatics plants in Q4/2013. While the performance of Olefins petrochemical associates increased as PTTGC's LDPE plants resumed its operation in late September 2013 after a shutdown in Q3/2013. Moreover, olefins-derivative spreads increased in all products.

: In Q4/2013, the loss on foreign exchange of PTT and its subsidiaries was Baht 5,014 million, which decreased from Baht 2,047 million gains on foreign exchange in Q3/2013.

: In Q4/2013, the finance costs of PTT and its subsidiaries increased by Baht 241 million or 4.8% from Baht 5,073 million in Q3/2013 to Baht 5,314 million in Q4/2013 mainly from the issuance of the Baht debentures of Baht 22,000 million.

: The corporate income taxes in Q4/2013 were Baht 13,362 million, increasing by Baht 4,041 million or 43.3% from Q3/2013 mainly due to the rise in petroleum income taxes and corporate income taxes of PTTEP.

Year 2013 compared with Year 2012

: Net income of PTT and its subsidiaries in 2013 was Baht 94,652 million, decreasing from 2012 by Baht 9,956 million or 9.5% due mainly to a decrease in performance of PTT's natural gas business in relation to higher feed costs and loss from the NGV business. Nonetheless, the performance of PTTEP and the share of net income from investments in associates increased.

: In 2013, the share of net income from investments in associates slightly increased by Baht 64 million from Baht 27,015 million in 2012 to Baht 27,079 million, mainly caused by the better performance of gas and oil associates.

- The performance of refining business associates slightly decreased from previous year mainly from Thai Baht depreciation against US\$ resulting in losses on foreign exchange rate in many refining associates, while they had gains on foreign exchange rate in 2012. However, the performance of refining business associates, stripping out losses on foreign exchange rate, the performances increased as PTT Group refineries' GRM (including stock gain/loss and hedging gain/loss, excluding PTTGC's refining unit) increased from US\$4.35 per barrel in 2012 to US\$ 4.75 per barrel in 2013 due to a rise in stock gains despite stock losses in 2012. However, market GRM dropped in almost all products, especially fuel oil, caused by the declining demand in relation to economic slowdown.

- The performance of petrochemical associates slightly decreased because of losses on exchange rate in 2013 from Thai Baht depreciation against US\$ together with incident in GSP unit 5 causing PTTGC to lower its production. Moreover there were expenses from oil spill incident in 2013, despite the higher spread margins of Aromatics and Olefins products compared with 2012 mainly from better spread margin of Benzene, HDPE and Polypropylene.

: In 2013, there was no recognition of impairment losses on investments and assets. Nevertheless, in 2012, PTTI recognized impairment losses of its investment in EMG amounting to Baht 3,972 million and PTTEP recognized impairment loss on Montara assets amounting to Baht 6,366 million.

: In 2013, PTT and its subsidiaries had the gain on foreign exchange of Baht 305 million, decreasing by Baht 7,129 million or 95.9% from Baht 7,434 million in 2012.

: In 2013, PTT and its subsidiaries' finance costs increased by Baht 648 million or 3.3% from Baht 19,747 million in 2012 to Baht 20,394 million in 2013 mainly from the issuance of PTT's Baht debentures of Baht 32,000 million and the issuance of PTTEP's debenture of US\$ 500 million.

: The corporate income taxes in 2013 were Baht 47,692 million, increasing by Baht 1,176 million or 2.5% from 2012.

Details of net income from investments in associates are as follows:

Unit: million Baht	Q4/2012	Q3/2013	Q4/2013	% Inc.(Dec.)		2012	2013	% Inc. (Dec.)
				YoY	QoQ			
Refining associates	2,289	5,439	620	(72.9%)	(88.6%).	8,788	8,648	(1.6%)
Petrochemical associates	5,387	4,690	4,138	(23.2%)	(11.8%).	17,121	16,959	(0.9%)
Oil associates	106	159	159	50.0%	-	544	609	11.9%
Gas associates	104	154	139	33.7%	(9.7%)	435	724	66.4%
Other associates	19	50	33	73.7%	(34.0%)	127	139	9.4%
Total	7,905	10,492	5,089	(35.6%)	(51.5%)	27,015	27,079	0.2%

2. The analysis of PTT and its subsidiaries' consolidated financial position as of December 31, 2013, compared with December 31, 2012.

Financial position of PTT and its subsidiaries as of December 31, 2013, compared with December 31, 2012, are as follows:

Unit: million Baht

	Consolidated Financial Statements			
	31-Dec-13	31-Dec-12	Inc./(Dec.)	%Change
Assets				
Current Assets	523,144	472,146	50,998	10.8
Available-for-sales investments, investments in associates and other long-term investments	260,877	250,813	10,064	4.0
Property, plant and Equipments, net	740,649	650,561	90,088	13.8
Other non-current assets	277,052	255,991	21,061	8.2
Total Assets	1,801,722	1,629,511	172,211	10.6
Liabilities				
Current Liabilities	360,464	341,060	19,404	5.7
Long-term loans (including current portion)	468,507	437,344	31,163	7.1
Other non-current liabilities	149,572	121,211	28,361	23.4
Total Liabilities	978,543	899,615	78,928	8.8
Equity				
Total equity attributable to equity holders of the company	682,647	603,920	78,727	13.0
Non-controlling interests	140,532	125,976	14,556	11.6
Total Equity	823,179	729,896	93,283	12.8
Total Liabilities and Equity	1,801,722	1,629,511	172,211	10.6

Assets

As of December 31, 2013, total assets of PTT and its subsidiaries were Baht 1,801,722 million, increasing by Baht 172,211 million or 10.6% compared with December 31, 2012. This increase was mainly from the net effect of the following:

An increase of Baht 90,088 million or 13.8% in property, plant and equipment was primarily from an increase in petroleum exploration and production assets of PTTEP in Zawtika, PTTEP Australasia, Bongkot, Arthit, and Natuna Sea A projects, resulted from the acquisition of Natuna B.V of PTTEP in December 2013. In addition, PTT has invested in Nakonsawan pipeline and the fourth transmission pipeline projects.

An increase of Baht 50,998 million or 10.8% in current assets was mainly from cash and cash equivalent and trade accounts receivable within credit terms, increasing by Baht 20,759 million and Baht 34,287 million, respectively. This was primarily from the net effect of cash provided by operating activities of PTT and PTTEP, cash outflow from the additional investment in petroleum exploration and production assets of PTTEP, and dividend payment for the second half-year performances of 2012 and the first half-year performances of 2013 of PTT and PTTEP. Nevertheless, current investments and other receivable decreased by Baht 3,722 and 2,110 million, respectively.

An increase of Baht 21,061 million or 8.2% in other non-current assets was mainly from the additional investment in petroleum exploration and production assets which were in exploration projects of PTTEP and goodwill from the acquisition of Natuna B.V. Moreover, inventories increased due to higher percentage of legal oil reserve from 5% to 6%, according to the Notice of the Department of Energy Business B.E. 2556 (2013).

An increase of Baht 10,064 million or 4.0% in available-for-sale investments, investments in associates and other long-term investments was mainly from share of gain from investments in associates for the performance of 2013 by Baht 27,079 million. In addition, there was an increasing in share capital of associates amounting to Baht 2,911 million, which was mainly from Global Power Synergy company limited (GPSC) (a 30.1% shareholding associate of PTT) and Xayaburi Power Company Limited (XPCL), as well as difference currency translations of Baht 2,070 million. However, there were dividends received from associates amounting to 15,373 million and the disposal on investment amounting to Baht 6,439 million. PTT disposed the investment in PPCL (a 40% shareholding associate of PTT) to PTTGC, the investment in XPCL and Bangpa-in Cogeneration Limited (BIC) (a 25% shareholding associate of PTT), Combined Heat and Power Producing Co., Ltd. (CHPP), Thai Solar Renewable Co., Ltd. (TSR) to GPSC, and the investment in B.Grimm BIP (a 23% shareholding associate of PTT) to B.Grimm Power.

Liabilities

As of December 31, 2013, PTT and its subsidiaries had total liabilities of Baht 978,543 million, increasing by Baht 78,928 million or 8.8%, mainly from the followings:

Long-term loans (including the current portion within 1 year) were Baht 468,507 million, increasing by Baht 31,163 million or 7.1%. The increase was mainly from the issuance of the Baht debentures of Baht 32,000 million and the foreign currency debentures of US\$ 310 million, equivalent to Baht 9,135 million, of PTT. In addition, PTTEP had the debentures issuance of US\$ 500 million, equivalent to Baht 15,363 million. However, there were redemptions of Baht debentures of PTT and PTTEP amounting to Baht 24,550 million and Baht 5,000 million, respectively. The maturities of long-term loans and debentures are as follows:

Unit: million Baht

Maturity (since Dec 31, 2013)	PTT	PTTEP	PTTI	TTM(T)	PTTAC	HMC	EnCo	PTTPL	DCAP	TTM(M)	PTTNGD	Total
Within 1 year (December 31, 2014)	28,113.71	11,698.80	2,772.75	738.31	697.17	573.42	450.00	300.00	130.81	59.03	100.80	45,634.80
Over 1 year - 2 years	34,552.83	24,540.27	3,043.50	644.10	699.04	573.33	450.00	300.00	130.81	27.87	75.60	65,037.35
Over 2 years - 5 years	92,512.84	48,841.66	-	1,932.29	2,108.66	3,308.91	1,350.00	225.00	392.44	83.62	-	150,755.42
Over 5 years	152,192.07	46,927.66	-	4,365.24	1,352.99	-	1,400.00	-	156.32	141.00	-	206,535.28
Total	307,371.45	132,008.39	5,816.25	7,679.94	4,857.86	4,455.66	3,650.00	825.00	810.38	311.52	176.40	467,962.85

Note: Excluding liabilities under finance leases of Baht 543.98 million.

The outstanding loans (including long-term loans, debentures and bonds due within one year and later than one year) as of December 31, 2013 consisted of loans in Baht currency and foreign currency. Details of which are as follows:

Unit: million Baht

Long-term loans	PTT	PTTEP	PTTI	TTM(T)	PTTAC	HMC	EnCo	PTTPL	DCAP	TTM(M)	PTTNGD	Total
Baht currency	181,399.28	19,195.44	-	-	-	2,241.38	3,650.00	825.00	810.38	-	176.40	208,297.88
Foreign currency	125,972.17	112,812.95	5,816.25	7,679.94	4,857.86	2,214.28	-	-	-	311.52	-	259,664.97
Total	307,371.45	132,008.39	5,816.25	7,679.94	4,857.86	4,455.66	3,650.00	825.00	810.38	311.52	176.40	467,962.85
Proportion of long-term foreign currency loans to total long - term loans (%)	40.98%	85.46%	100.00%	100.00%	100.00%	49.70%	-	-	-	100.00%	-	55.49%

As of December 31, 2013, the loans amounting to Baht 6,000 million were guaranteed by the Ministry of Finance.

Other non-current liabilities increased by Baht 28,362 million or 23.4% mainly from increases in provision for remuneration for the renewal of petroleum production of Bongkot project, provision for decommissioning costs of MTJDA - B17 and Zawtika projects, and deferred tax liabilities from the effect of foreign exchange rate of 2013, and Natuna B.V. acquisition of PTTEP.

The increase of Baht 19,404 million or 5.7% of current liabilities was primarily from increases in accounts payable and income tax payable by Baht 16,441 and 3,493 million, respectively. The rise was mostly from corporate income taxes and petroleum income taxes of PTTEP.

Equity

As of December 31, 2013, PTT and its subsidiaries had total shareholders' equity of Baht 823,179 million, increasing by Baht 93,283 million or 12.8% principally from an increase in retained earnings of Baht 57,504 million which resulted from an increase of Baht 94,652 million in net income of PTT and its subsidiaries for 2013. However, there were payments of dividends for the second half-year performances of 2012 and the first half-year performances of 2013 amounting to Baht 37,127 million, other comprehensive income, and non-controlling interests, increasing by Baht 21,222 million and Baht 14,556 million, respectively.

Liquidity

For the year ended December 31, 2013, PTT and its subsidiaries had net increase in cash and cash equivalents amounting to Baht 20,759 million, while cash and cash equivalents at the beginning of the period was Baht 136,924 million. As a result, cash and cash equivalents at the end of the period was Baht 157,683 million. Details of cash flow by activities are as follows:

	Amount (million Baht)
Net cash provided by operating activities	165,327
Net cash used in investing activities	(95,364)
Net cash used in financing activities	(55,790)
Effects of exchange rates on cash and cash equivalents	3,538
Currency translation differences	3,048
Net increase in cash and cash equivalents during the period	20,759
Cash and cash equivalents at the beginning of the period	136,924
Cash and cash equivalents at the end of the period	157,683

Net cash provided by operating activities of Baht 165,327 million was derived from Baht 94,652 million of net income attributable to equity holders of the company, adjusted by net income to net cash provided (used in) by operating activities. The main transactions resulting to an increase in net cash flow operations were Baht 76,315 million of depreciation and amortization expenses, Baht 47,692 million of income taxes expenses, Baht 20,473 million of net income attributable to non-controlling interests, and Baht 18,295 million of interest expenses. However, the main transactions resulting to a decrease in net cash flow operations was Baht 27,079 million of share of net income from investments in associates. In addition, the net changes in net operating assets decreased by Baht 25,592 million as well as Baht 45,822 million of the payment of income taxes.

Net cash used in investing activities was Baht 95,364 million;

: The cash outflow of investments in property, plant and equipment and intangible assets amounting to Baht 114,457 million due to the additional investments of PTTEP in petroleum exploration and production and intangible assets amounting to Baht 81,923 million mainly from the investments in Zawtika, PTTEP Australasia, Bongkot and Arthit projects. In addition, there were investments in various projects of PTT amounting to Baht 22,912 million mainly from the Nakornsawan pipeline project, the fourth transmission pipeline project and the on-shore compressor station 4 project in Rayong.

: The payment of investment in subsidiaries, joint controlled entities, associates and others amounting to Baht 11,255 million were mainly from Baht 7,403 million payment of the acquisition of Natuna 2 B.V. of PTTEP, Baht 1,806 million payment for additional share capital in Global Power Synergy Co.,Ltd. (GPSC), Baht 956 million payment of additional shareholdings in XPCL, an associate of NCS which is a subsidiary of PTTI, Baht 680 million of the investment in TSR which operates solar power plants, and payment of the 0.95% additional shareholdings in Sakari Resources Ltd. (SAR), which resulted to a totally 94.58% shareholding subsidiary of SAR, by PTTML, a 100% shareholding subsidiary of PTTI.

: The proceeds of long-term investments amounting to Baht 6,789 million were derived from Baht 4,644 million of the disposal of investment in PPCL (40% shareholdings held by PTT) to PTTGC, Baht 1,962 million of the disposals of investments in CHPP, TSR, and BIC (100%, 40% and 25% held by PTT, respectively), and of the disposal of investment in NSC (including XPCL), 100% held by PTTI, to GPSC.

Net cash used by financing activities was Baht 55,790 million, resulting mainly from the repayment of short-term loans of PTT, PTTI and PTTEP amounting to Baht 26,275 million, Baht 7,835 million and Baht 1,905 million, respectively, the repayment of long-term loans, debentures, and bonds of PTT amounting to

Baht 29,416 million, the redemption of Baht bonds of PTTEP amounting to Baht 5,396 million, and the repayment of long-term loan of PTTI amounting to Baht 2,668 million. Moreover, there were the payments of dividends and interest expenses by Baht 46,368 million and 20,089 million, respectively. However, there were the proceeds from bill of exchanges of PTT amounting to Baht 21,275 million, from short-term loans of PTTI amounting to Baht 7,374 million, from debentures and long-term USD loan of PTT amounting to Baht 41,135 million, and from debentures of PTTEP amounting to Baht 15,363 million.

Financial ratios and earnings per share of PTT and its subsidiaries are as follows:

Financial Ratio and Earning Per Share	Unit	2013	2012
<u>Liquidity Ratios</u>			
Current ratio	Time	1.29	1.24
Quick ratio	Time	1.08	1.02
Account receivables turnover	Time	10.83	13.34
Collection period	Day	33.25	26.99
Inventory turnover	Time	91.42	94.01
Days of inventory on hand	Day	3.94	3.83
Account payables turnover	Time	9.96	11.37
Payment period	Day	36.15	31.67
Cash Cycle	Day	1.03	(0.84)
<u>Profitability Ratios</u>			
Gross Profit Margin	%	7.89%	8.33%
Net Profit Margin ^{1/}	%	3.33%	3.74%
Return on equity	%	14.71%	18.06%
<u>Activity Ratios</u>			
Total asset turnover	%	5.52%	6.90%
Fixed asset turnover	%	20.07%	22.81%
Working capital turnover ^{2/}	Time	1.66	1.84
<u>Solvency Ratios</u>			
Debt to equity	Time	1.19	1.23
Interest coverage	Time	11.45	12.22
Dividend payout ratio	%	39.3%	35.5%
<u>Earnings per share</u>			
Earnings per share	Baht/share	33.07	36.59

Note : /1 Net Profit margin = Net Income/Net Sale The formula is changed from Net Income divided by Total revenues

However, using total revenue would include non-recurring incomes. This would make the ratio not be able to compare business as usual in each period

/2 Working capital turnover = Net Sale/ Average Total Asset The formula is changed from Total Revenue divided by Average Total Asset However, using total revenue would include non-recurring incomes. This would make the ratio not be able to compare business as usual in each period

Liquidity ratios

Overall liquidity of PTT group in 2013 was slightly higher than in the previous year. The liquidity ratio and quick ratio were 1.29 and 1.08 in 2013 increased from 1.24 and 1.02 in 2012, respectively. Cash cycle in 2013 was 1.03 days, rising from (0.84) days in 2012 due to longer payment period from 31.67 days to 36.15

days and longer collection period from 26.99 days to 33.25 days, caused by an increase in outstanding of accounts receivable balance which was higher than an increase in sales.

Profitability ratios

Gross profit margin, net profit margin and return on equity were 7.89%, 3.33% and 14.71%, respectively, which were lower than in 2012, mainly from lower gross profit due to higher feed costs of gas, together with higher depreciation expenses especially PTTEP from the Bongkot, the S1, and the PTTEP Australasia projects. Net income in 2013 decreased because of the Baht depreciation against US\$ in 2013 (the Baht appreciation against US\$ in 2012), resulting in lower foreign exchange gains in 2013.

Activity ratios

Total asset turnover, fixed asset turnover and working capital turnover were 5.52%, 20.07% and 1.66, respectively, which decreased from 2012, mainly from a decrease in net income due to reasons as aforementioned. Furthermore, fixed assets increased as a result of additional investments in petroleum and exploration assets of the Zawtika, the PTTEP Australasia, the Bongkot, the Arthit, and the Natuna Sea A projects of PTTEP.

3. Economic and Petroleum Outlook in 2014

The world economy is expected to expand in 2014 with the IMF expecting growth of 3.7%, up from 3.0% in 2013 due to the advanced economies continue to recover. The U.S. economy is likely to grow strongly partly from the approved budget bill to increase spending. Meanwhile, the EU economy tends to recover from recession. Developing and emerging economies are expected to grow continuously, despite domestic consumption and investment are expected to remain subdued. However, the Federal Reserve (Fed) reduced its Quantitative Easing (QE) program by trimming its monthly government bonds and mortgage-backed securities purchases from US\$85 billion to US\$75 billion in January 2014, and to US\$65 billion starting from February 2014 and likely to continue tapering its monthly purchases in 2014 if the U.S. economy shows signs of improvement. Moreover, risk factors that need to be monitored including deflation especially EU countries, debt ceiling and long term fiscal balance in the U.S., and the volatility in capital flow and financial market and volatility from QE tapering.

Global oil demand in 2014 is forecasted to grow by 1.2 MBD and reach 92.4 MBD, according to the IEA reported in December 2013, mainly driven by an increase in oil demand from developing and emerging countries, particularly China, India, and Middle East. However, demand from developed countries such as the U.S. and Europe remain constant. Despite an increased oil demand, a sufficient oil supply is expected, specifically from a surge in U.S. shale oil production. As a result, average Dubai oil price in 2014 is estimated to fall from 2013 to be in the range of US\$100-105 per barrel. Though, a spike in oil price is possible from supply disruption due to political turmoil in the Middle East. In contrast, the bleak global economic situation might trigger a collapse in oil price.

Dubai crude cracking in Singapore in 2014 is estimated to be the same level as 2013 since refined product prices are expected to be stable.

Olefins price in 2014 is on a rising trend due to an increasing plastic demand in countries such as China, India, and Indonesia etc. while additional capacity will be less than incremental demand. HDPE and Polypropylene prices are expected to be at US\$ 1,545 and US\$ 1,547 per ton respectively. In contrast, Aromatics prices tend to decrease due to excess supply from additional capacity in North East Asia. Benzene and Paraxylene prices are expected to be at US\$ 1,269 per ton and US\$ 1,373 per ton, respectively.

Thai economy is expected to expand slightly higher in 2014 compared to 2013, mainly driven by export sector which is expected to improve as well as private consumption and investment from accommodative monetary policy with low interest rates. Meanwhile, large government investment projects are expected to delay. However, the Thai economy faces greater risk from political distress. If the situations prolong, confidences of consumer, investor and tourist will be affected. Moreover, volatility in financial markets due to capital flows continues to put pressure on Thai baht. As of February 2014, the Office of the National Economic and Social Development Board (NESDB) has projected the Thai economy to grow in range of 3.0 -4.0 %