



NAVIGATING TOWARDS SUSTAINABILITY

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Vision, Mission and Values

VISION

To be the most trusted Asian investment group, consistently delivering enhanced stakeholder experience



MISSION

To maximize shareholders value

To create and facilitate sustainable growth

To identify, invest, govern and grow our group business portfolio

To give back to the society

CORE VALUES

Integrity

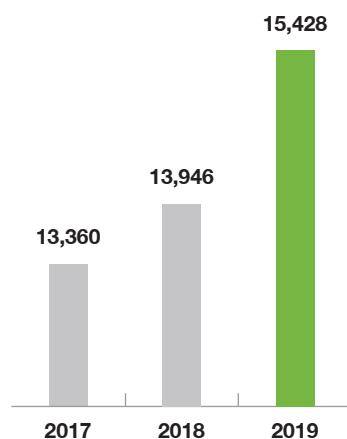
Team Spirit

Excellence

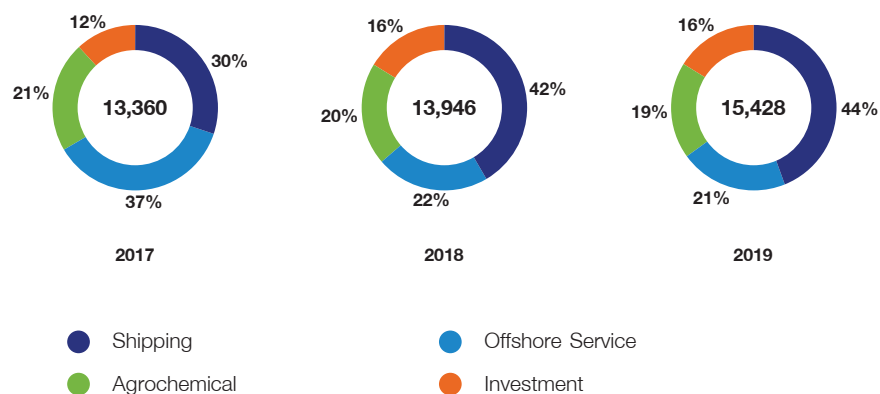
Commitment

Group Financial Summary

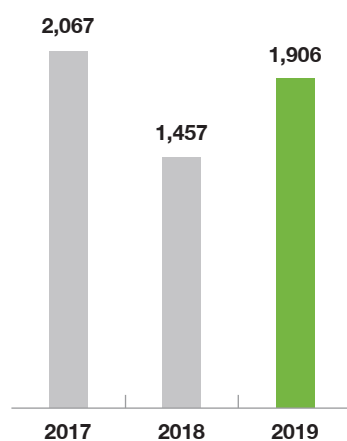
Revenues (Million Baht)



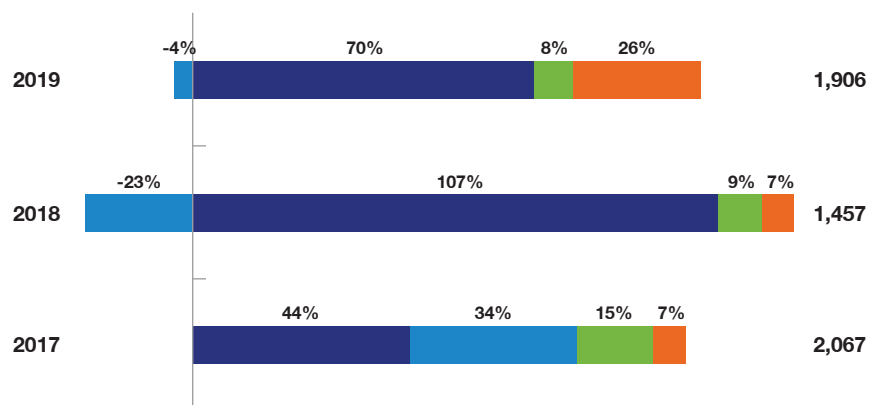
Revenue Breakdown



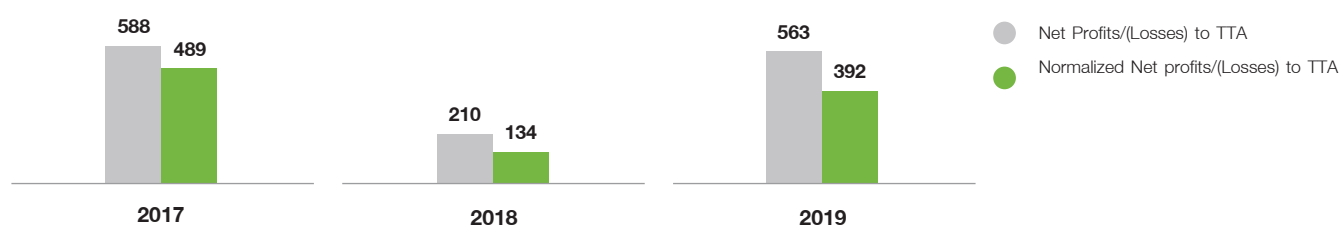
EBITDA ⁽¹⁾ (Million Baht)



EBITDA ⁽¹⁾ Breakdown



Net Profits/Normalized Net Profits ⁽²⁾ (Million Baht)



Statement of Financial Position (Million Baht)

	2017	2018	2019
Total Assets	35,585	37,112	33,473
Cash under Management ⁽³⁾	6,423	6,867	7,085
Other Current Assets	4,492	4,832	5,229
Tangible Assets ⁽⁴⁾	17,468	17,628	13,946
Other Non-Current Assets	7,202	7,785	7,213
Total Liabilities	10,531	12,525	10,874
Interest Bearing Debt	8,109	9,825	8,281
Other Liabilities	2,422	2,700	2,593
Total Equity	25,054	24,587	22,599

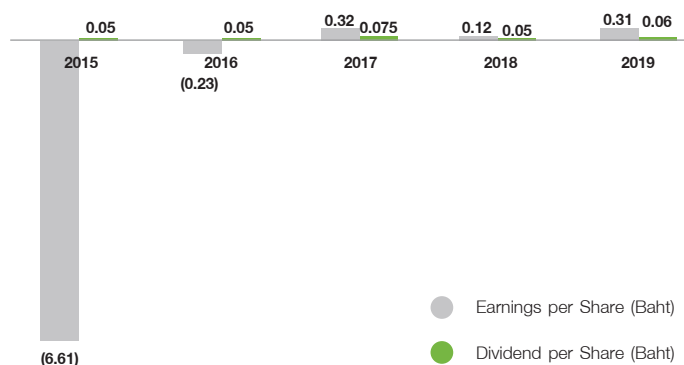
Key Financial Ratio

	2017	2018	2019
Gross Margin ⁽⁵⁾ (%)	25.6%	22.1%	20.5%
EBITDA Margin (%)	15.5%	10.5%	12.4%
Net Profit Margin (to TTA) (%)	4.4%	1.5%	3.6%
Net Profit Margin (%)	5.2%	-1.3%	1.4%
Return on Total Assets (%)	1.8%	-0.5%	0.6%
Return on Equity (%)	2.9%	1.1%	3.0%
Current Ratio (Times)	1.75	2.44	3.15
Interest Bearing Debt to Equity (Times)	0.32	0.40	0.37
Net Interest Bearing Debt to Equity ⁽⁶⁾ (Times)	0.07	0.12	0.05

EPS and Dividend Payment

	2015	2016	2017	2018	2019
Earnings per Share (Baht)	(6.61)	(0.23)	0.32	0.12	0.31
Dividend per Share (Baht)	0.05	0.05	0.075	0.05	0.06 ⁽⁷⁾
Number of Shares (Million)*	1,822	1,822	1,822	1,822	1,822

* As the end of period



⁽¹⁾ EBITDA = Earnings before interest, tax, depreciation, and amortization

⁽²⁾ Normalized net profits/ (losses) = Net profits/ (losses) -non-recurring items

⁽³⁾ Cash, cash equivalents, and other current financial assets

⁽⁴⁾ Property, plant, equipment, and investment properties

⁽⁵⁾ Excluding depreciation and amortization

⁽⁶⁾ Net interest bearing debt to equity = (Interest bearing debt - cash and cash equivalents - other current financial assets)/ total shareholder's equity

⁽⁷⁾ Subject to the approval of shareholders at the 2020 AGM on 30 April 2020

“

The sustainable business perspective takes into account not only profits and returns on investment

but also how business operations affect the environment, natural resources, and future generations.

Of course, profit driven is our corporate objective

”

Prayudh Mahagitsiri

Honorary Chairman



Messages from Chairman & CEO



Dear Shareholders,

On behalf of the Board of Directors, we would like to report that in the year 2019, TTA has achieved earning growth in the midst of a difficult global business environment. TTA recorded consolidated revenues of Baht 15,428 million in 2019, increased by 11% from the previous year. Gross profits amounted Baht 3,159.3 million while EBITDA remained positive at Baht 1,906.4 million. Likewise, net profits to TTA grew 168% to Baht 562.6 million.

Key Business Performance

The Shipping Segment of Thoresen Shipping maintained its outstanding position in the market throughout the year due to efficient cost control and outperformed freight rate. In 2019, Thoresen Shipping reported net profits to TTA of Baht 749 million. It is expected that there is positive momentum from US-China trade agreement, which will support grain and soybean trade in 2020. Supply growth is also expected to be limited by the positive impact of the IMO 2020 Global

Sulphur Cap, including scrubber retrofit time, slower operating speeds and increased recycling.

For the Offshore Service Segment, Mermaid Maritime Public Company Limited (“Mermaid”) delivered stronger performance. In 2019, Mermaid reported an improvement over previous year with a normalized net loss to TTA of Baht 358.8 million, and order book rose to US\$ 217 million

at the end of 2019. Mermaid will continue to position itself to secure lucrative subsea installation engineering projects both in the Middle East & North Sea Regions. Additionally, Mermaid continues to adjust its capabilities in offering a wider range of integrated subsea services and increase its fleet capability by venturing into new markets in the Mediterranean, Egypt and West Africa.

The Agrochemical Segment of PM Thoresen Asia Holdings Public Company Limited (“PMTA”), despite facing many challenges this year from Chinese competition to low agricultural price, had continued to be profitable and maintained its market position. As a result, PMTA reported net profits to TTA of Baht 30 million in 2019. PMTA strongly believes in the potential of growth in the agrochemical business through business operation by following strategies such as : increasing key high-margin products, expanding distribution channels, offering new products and technology, finding more business partners and penetrating into new markets and expanding exportation.

TTA continued to expand its food and beverage business. At year-end 2019, Pizza Hut has 147 outlets nationwide and Taco Bell has 5 outlets in Bangkok Metropolitan Area. Taco Bell launched its first outlet in January 2019 and received overwhelming response from customers.

Navigating towards Sustainability

TTA continues to look ahead to the next exciting challenges and growth opportunities. TTA has also added non-financial objectives to help shape our future, beyond just financials. TTA realizes that good corporate governance, transparency and sustainable development have become increasingly important to us, not only from the perspective of good corporate citizenship but also due to market, industry and investor expectations.

In 2019, TTA attained “Excellent” level (5 stars) for the Corporate Governance Report of Thai Listed Companies (“CGR”) developed by the Thai Institute of Directors (“IOD”) and The Stock Exchange of Thailand. In addition, the Board

of Directors appointed Corporate Governance Committee to review the CG policy and to monitor compliance of the policy and practices. Moreover, TTA has already declared its intention to join “Thailand’s Private Sector Collective Action Coalition Against Corruption (“CAC”) on 8 November 2019 in order to take part in the Thai business sector’s attempt to tackle problem of corruption.

The Board of Directors also approved the establishment of the Sustainable Development Committee (“SDC”). The Committee comprises Chief Finance Officers (“CFO”) and other senior management executives from each business unit to ensure that the sustainability development will be implemented throughout the Company.

Taking into consideration how business activities impact society’s resources and future generation, TTA actively encourages its subsidiaries to incorporate principles of sustainability across all their operations and supply chain. Examples of sustainable business practices include efforts to reduce energy use and non-polluting resources.

TTA is confident that giving priority to good corporate governance and sustainability in business strategies and goals will lead TTA to better business performance and enhance trust among stakeholders. As a part of transparent governance, TTA will also accord an opportunity to shareholders to propose the agenda and director candidates for AGM.

For the first time in this annual report, TTA is pleased to present the Company’s Sustainability Report in accordance with the Global Reporting Initiative (“GRI”) Standards. This report covers the Company’s performance on material issues that matter most to TTA and our stakeholders and communicates our material analysis on economic, environment, social, and governance topics that are relevant to stakeholders and may potentially impact the Company. The Sustainability Report summarizes TTA’s interactions with stakeholders and reflects continuous search for way to improve at all levels.

We aim to grow our business in a sustainable manner and benchmark ourselves against the global standards. We will continue to bring positive outcome to our stakeholders, including our shareholders, employees, customers, business partners as well as communities and environment around us. Although we are still on our journey there, we are encouraged by the progress that we have made to date.

Preparing for another Difficult Year in 2020

2020 may be another difficult year for TTA. The outbreak of Coronavirus (COVID-19) and the drop of oil prices may have resulted in a major uncertainty in the global economy, with the potential to trigger a worldwide recession.

There might be a drop in the dry bulk cargo movement as the shutdown in China has meant that ships cannot enter Chinese ports. The longer the outbreaks of COVID-19 and the lower oil prices continue to have more impacts on shipping industry.

The low oil price environment could lead to weaker demand in subsea service and limit opportunities for offshore service companies to find new contracts as oil companies may cut exploration activity in an attempt to reduce capital spending.

On the other hand, TTA's agrochemical business in Vietnam may receive a boon due to a decline of Chinese fertilizer products. Our food sector, mainly Pizza Hut has an

opportunity to grow its business with a delivery service amid coronavirus fears. Lower interest rates may be much more beneficial for TTA to take out new bank loans or issue new bonds to invest in the expansion of our businesses, if needed.

Meanwhile, TTA will take the COVID-19 outbreak seriously and consider the health and safety of our employees as the highest priority. We are well-prepared to adjust our business strategy and marketing plan for any potential impact to our businesses both for the short-term and long-term period. In addition, TTA will also continue pursuing cost control and careful investment policies. Our management will take full efforts to drive business growth amid this unpredictable situation.

On behalf of the Board of Directors, we would like to thank the management team and employees for their commitment, dedication and unwavering efforts which led to business growth in the past year. We would like to express our sincere gratitude to all shareholders, customers and business partners for their relentless support and understanding through this period as we persist in our continuous efforts to make higher profitability in order to generate stronger returns for our shareholders while continuing to be a good corporate citizen.



Prasert Bunsumpun
Chairman of the Board of Directors



Chalermchai Mahagitsiri
President and Chief Executive Officer

Board of Directors



Mr. Prasert Bunsumpun

Chairman of the Board of Directors /
Chairman of Executive Committee

Mr. Chalermchai Mahagitsiri

Director / President and Chief Executive Officer /
Member of Executive Committee /
Chairman of Investment Committee



Mr. Jean Paul Thevenin

Director / Member of Executive Committee /
Member of Risk Management Committee /
Member of Investment Committee



Mr. Jitender Pal Verma

Director / Senior Executive Vice President
and Group CFO / Member of Executive Committee /
Member of Corporate Governance Committee /
Member of Risk Management /
Member of Investment Committee /
Chairman of Sustainable Development Committee



Ms. Ausana Mahagitsiri

Director / Member of Nomination
and Remuneration Committee /
Member of Corporate Governance Committee



Mr. Kamolsut Dabbaransi

Director / Senior Executive Vice President,
Head of Food & Beverage



Mr. Somboonkiat Kasemsuwan

Independent Director /
Chairman of Audit Committee



Mr. Santi Bangor

Independent Director / Chairman of Nomination
and Remuneration Committee /
Chairman of Corporate Governance Committee /
Member of Audit Committee



Mr. Cherdpong Siriwit

Independent Director /
Chairman of Risk Management Committee /
Member of Audit Committee



Mr. Chitrapongse Kwangsukstith

Independent Director



**Mr. Mohammed Rashed
Ahmad M. Al Nasser**

Independent Director / Member of Nomination
and Remuneration Committee

Executives



Mr. Chalermchai Mahagitsiri

President
and Chief Executive Officer



**Mr. Jitender
Pal Verma**

Senior Executive
Vice President &
Group CFO



**Mr. Kamolsut
Dabbaransi**

Senior Executive
Vice President,
Head of Food &
Beverage



**Mr. Sigmund
Stromme**

Executive Vice
President, Agro
and Logistics



**Mr. Vincent
Siaw**

Executive Vice
President, Legal &
International Projects



**Mr. Ng Kit
Wei, David**

Executive Vice
President, Investment,
Corporate Strategy &
Risk Management



**Mr. Somchai
Apinyanukul**

Executive Vice
President, Group
Human Resources

*Biography of the Board of Directors appears in the section
“Details of the Board of Directors and Executives”*

Important Changes and Developments

2015



- Thoresen Thai Agencies Plc. (“TTA” or “The Company”) raised Baht 7,286 million via a rights offering in combination with warrants to purchase ordinary shares of TTA No. 5 (“TTA-W5”).
- TTA successfully floated PM Thoresen Asia Holdings Plc. (“PMTA”) on the Stock Exchange of Thailand (“SET”) on 6 May 2015. Post the listing, PMTA became a 67.2% owned TTA subsidiary.
- TTA issued senior unsecured domestic debentures of Baht 2.0 billion to refinance existing loans and increase working capital.
- With the objective to develop innovation in Thailand, Mermaid Maritime Plc. (“Mermaid”), a 58.22% owned subsidiary of TTA, and PTT Exploration and Production Public Company Limited (“PTTEP”) signed a Memorandum of Understanding on 27 October 2015 to cooperate on research and development towards full functional autonomous underwater vehicles (“AUV”) for petroleum exploration and production.
- PMTA secured exclusive distributorship of the highly innovative and powerful “N-Protect” urea fertilizer products from global chemical production leader, Solvay (Belgium) for Vietnam, Laos, Cambodia and some African countries.

2016



- TTA wholly-owned subsidiary Soleado Holdings Pte. Ltd. (“Soleado”) invested in a USD 20 million convertible loan issued by Sino Grandness.
- TTA divested its 49% stake in Thoresen Shipping and Logistics Ltd. (“TSL”) for Baht 28 million on 13 July 2016.
- Through wholly-owned subsidiary Asia Coating Services Ltd. (“ACS”), TTA invested in a 30% stake in Laser Game Asia Co., Ltd. (“LGA”).
- TTA strategically established a joint venture company, TTA Suez Company Limited (“TTA SUEZ”) with global water and waste management company, Suez Environnement South East Asia Limited to develop drinking and waste water services business in Thailand.
- Baconco received a Certificate of Compliment from Ba Ria Vung Tau Power Company recognising Baconco success on energy saving and regulation compliance.

2017

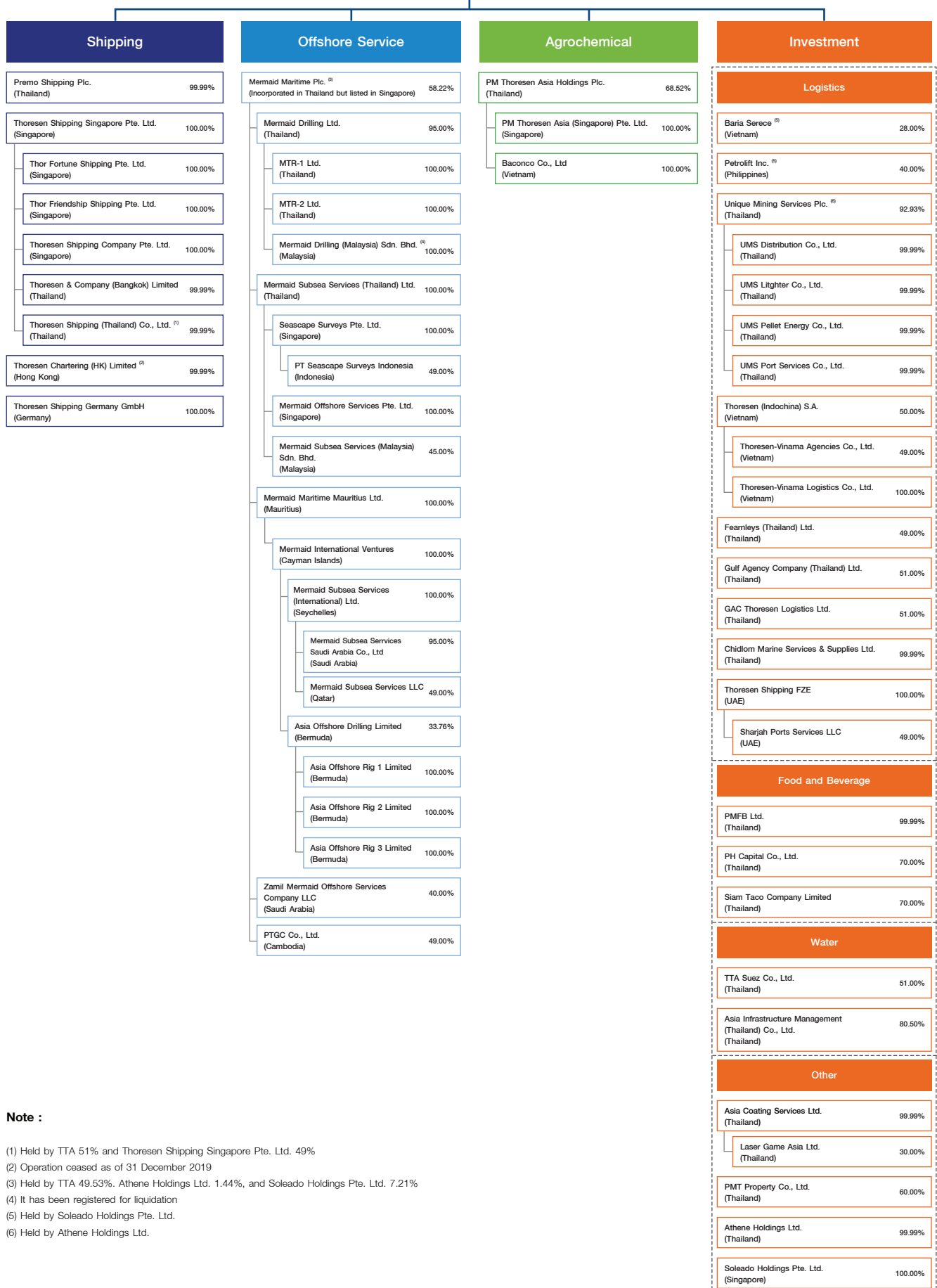
- Thoresen Shipping Singapore Pte. Ltd. ("TSS") acquired three second-hand dry bulk vessels.
- TTA established 70% owned subsidiary PH Capital Co., Ltd. ("PHC") and through PHC, TTA successfully acquired the Pizza Hut business in Thailand from Yum Restaurants International (Thailand) Co., Ltd. ("YUM") on 1 June 2017. PHC has been operating all Pizza Hut restaurants in Thailand since then.
- TTA and TSS established Thoresen Shipping (Thailand) Co., Ltd. ("TST") to own and operate Thai-flagged vessels. One vessel was transferred from TSS to TST to operate business.
- Mermaid acquired a 49% stake in Cambodian company, PTGC Co., Ltd. ("PTGC"), to generate future returns.

2018

- TSS acquired two second-hand dry bulk vessels.
- TTA, through its 70% owned subsidiary Siam Taco Co., Ltd. ("STC") was granted the rights to enter into a Franchise Agreement (the Agreement was signed in early 2019) with Taco Bell Restaurants Asia Pte. Ltd. ("TBRA") to operate Taco Bell restaurants in Thailand and to expand its business into fast-growing and stable food retail sector.
- TTA issued 2 tranches of senior unsecured domestic debentures in the total amount of Baht 3,305.2 million to repay maturing debentures and increase its working capital.
- TTA acquired an 80.5% stake in a Thai water service specialist, Asia Infrastructure Management (Thailand) Co., Ltd. ("AIM"), to enhance its existing Water Business.
- Asia Coating Services Ltd. ("ACS"), 99.99% owned subsidiary of TTA, acquired a 16.67% stake in Alpha Digital Pte. Ltd. ("Alpha") in Singapore to invest in V-Finance Technologies Ltd. ("V-Finance"), a company incorporated in Israel.
- TTA won Asia's Most Influential Companies Award at the Asia Corporate Excellence & Sustainability Awards 2018 ("ACES Awards 2018"), organized by MORS Group to recognize Asia's leading organizations and entrepreneurs who exemplify a strong and sustainable growth.

2019

- TTA declared its intention to join Thailand's Private Sector Collective Action Against Corruption ("CAC") in order to participate in the Thailand's Private Sector Collective Action Coalition against Corruption (CAC) on 8 November 2019.
- TTA disposed 40% of its interests in PMT Property Co., Ltd. ("PMT"), a 99.99% owned subsidiary of TTA, to Kanden Realty & Development Co., Ltd. ("KRD") on 19 July 2019 to jointly develop real estate business on the land owned by PMT.
- PHC operates 147 Pizza Hut restaurants in Thailand.
- STC has opened 5 Taco Bell restaurants in Bangkok. The first outlet is located at the Mercury Ville @Chidlom and the other branches are at Siam Paragon, Central Plaza Pinklao, Samyan Mitrtown, and Central Plaza Westgate respectively.

**Note :**

- (1) Held by TTA 51% and Thoresen Shipping Singapore Pte. Ltd. 49%
- (2) Operation ceased as of 31 December 2019
- (3) Held by TTA 49.53%, Athene Holdings Ltd. 1.44%, and Soleado Holdings Pte. Ltd. 7.21%
- (4) It has been registered for liquidation
- (5) Held by Soleado Holdings Pte. Ltd.
- (6) Held by Athene Holdings Ltd.

Business Review and Outlook

Strategic Business Units



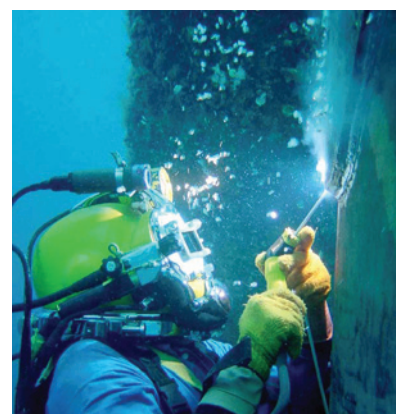
Shipping



100%



Offshore Services



58.2%

68.5%



Food and Beverage



70%



70%



Company Overview

Corporate Section

Thoresen Thai Agencies Public Company Limited

Thoresen Thai Agencies Public Company Limited (“TTA” or the “Company”) has grown from its humble beginnings in 1904 as a shipping service company to now a global business group with presence throughout Asia, the Middle East and Europe. Listed on the Stock Exchange of Thailand (the “SET”), TTA operates a diversified business under four primary business group - Shipping, Offshore Service, Agrochemical and Investment.

Beginning in 1985 when TTA first started its dry bulk shipping services, shipping continues to be the main primary business with TTA since acquiring and expanding the business to include owning shipping vessels. This marine business subsequently expanded to penetrate the offshore oil and gas services industry when TTA acquired an offshore oil and gas service company, Mermaid Marine Services Ltd, and as this business expanded, it eventually was listed on the Singapore Stock Exchange in 2007 as Mermaid Maritime Public Company Limited (“Mermaid”). TTA moved to diversify beyond the marine sector in 2009 when it acquired a large stake in Unique Mining Services Public Company Limited (“UMS”), and Vietnamese fertilizer company, Baconco Co., Ltd, which for the latter, TTA has since unlocked value in 2015 via the successful listing of PM Thoresen Asia Holdings Company Limited (“PMTA”) on the Stock Exchange of Thailand. Other than providing shareholders new source of growth, TTA expanded to reduce exposure to the highly cyclical marine business and diversify its earnings.

In 2011, TTA went through a major change with the emergence of a new major shareholder, Mr. Chalermchai Mahagitsiri. Under Mr. Chalermchai, TTA reassessed its position, and made conscientious changes to lay new foundations to enhance existing core business performance and solidify its financials. Then, to achieve its objective, TTA underwent two successful rounds of rights capital offering, while Mermaid underwent one rights issuance and private placement.

Aspiring “To be the most trusted Asian investment group”, TTA articulated its new vision and direction in 2014. Under the new strategic direction, while still staying firm to its existing core, TTA aims at the same time to diversify more and seek better more resilient and sustainable growth. To meet this strategic challenge, TTA underwent another round of capital raising in 2015 through a Baht 7,286 million rights offering.

TTA has since penetrated the food retail and water resource management industry in Thailand. Its food retail expansion kick off with the acquisition of the Pizza Hut business in Thailand from YUM Restaurants International (Thailand) Company Limited in 2017 and building on this new competency, TTA subsequently secured and launched the Taco Bell food franchise in Thailand (2019). In water resource management, TTA strategically acquired in 2018 a controlling stake in a leading Thai water resource management specialist, Asia Infrastructure Management (Thailand) Co., Ltd. (“AIM”). With the acquisition, TTA is well-positioned to penetrate and fully capitalize on the growing business opportunities for the sector in Thailand and the region.

VISION & BUSINESS STRATEGY

Anchored by our vision “To be the most trusted Asian investment group”, we want to be a leader in the business by responsibly operating and excelling in sustainable businesses and delivering long-term value and growth. With the objective to consistently deliver enhanced stakeholders experience under our multi-business model and core competencies, we would look to strengthen the competitive position of our portfolio companies to sustain and enhance performance and ensure each business continues to grow in profitability to ensure superior and sustainable financials and returns. We are committed to grow and develop our core business franchise and reputation where we will continue to sharpen the execution of our businesses through constant improvements to optimize productivity and efficiencies, and where warranted (and possible), we will intensify efforts to recalibrate focusing on quality and cost leadership.

TTA ultimately aims to deliver balanced and consistent growth across businesses, and accelerate growth through diversification of strategic opportunities that generate long-term sustainable returns on capital. Undoubtedly an ongoing

pursuit, we will continue our strategic transformation as coming years will be set to further consolidate and develop the growth engines within our enlarged core business. This is not to say we will not stay opportunistic for any merger and acquisition or business expansion especially for more defensive, resilient and high barrier to entry business in Thailand and Indochina region but we will be more selective and rigorous. We will pursue partnerships for new business to develop organically.

As a diversified business group, our success ultimately depends on its ability to prudently and effectively manage investments and businesses through different industry cycles, and sustain value by managing for the long-term. We will be forward looking and have talented people and strong capabilities, right solutions and innovation and robust governance and discipline across all our business.

We will be a more diversified conglomerate with bottom line and shareholder value focus.

BUSINESS PORTFOLIO

As a holding company, TTA has a diversified business portfolio with four main segments: Shipping, Offshore Service, Agrochemical and Investment, and within Investment, among others, TTA operates primarily food retail, water resource management and logistics service business. With the ultimate goal to create and sustain shareholder value, TTA is focused on managing and enhancing the value of its overall business portfolio.

Key business portfolio as at the end of December 2019 comprised the following business groups and the key companies within the group as follows.

SHIPPING

- Thoresen Shipping Singapore Pte. Ltd. (100%)
Dry bulk shipping operator

OFFSHORE SERVICE

- Mermaid Maritime Public Company Limited (58.22%)
Subsea engineering and oil and gas offshore service specialist

AGROCHEMICAL

- PM Thoresen Asia Holdings Public Company Limited (68.52%)
Vietnamese fertilizer producer/distributor & factory management service provider

INVESTMENT

- PH Capital Company Limited (70%)
Thailand food retail franchisee
- Siam Taco Company Limited (70%)
Thailand food retail franchisee
- Asia Infrastructure Management (Thailand) Co., Ltd. (80.5%)
Thailand/Indochina water resource management specialist
- Unique Mining Services Public Company Limited (92.93%)
Thailand commodity logistic specialist
- Others

Shipping

Thoresen Shipping

Business Review

The TTA dry bulk shipping business trades under the brand name Thoresen Shipping and is an internationally acclaimed participant in the global freight markets with roots going back over 110 years.

Thoresen Shipping provides deep sea transportation services to customers from all corners of the world, hauling a wide range of dry bulk and break bulk commodities such as mineral ore, coal, agriculture products, construction materials and steel products.

Our fleet services our clients' requirements in the spot market, under time charters and through Contracts of Affreightment ("COA"). In addition to our own vessels, we engage in freight trading activities using our owned tonnage as well as a fleet of chartered-in vessels from the market.

The combined fleet is commercially managed by Thoresen's experienced and professional teams based in Singapore, Thailand, United Arab Emirates and London.

Thoresen vessels, and those we charter in, are fitted with cranes which enable self-loading and self-discharging of cargoes in ports with limited or no shore based infrastructure. By being able to call in these hard-to-reach ports, often in emerging markets - we can charge a premium for shipping services that are not available to larger, more conventional bulk carriers.

Dry bulk freight markets are very competitive as the global fleet has grown at a fast pace over the last 10 years. Our competitive advantage continues to come from the efficiency of our operation and the skills of our people.

After increasing our commercial capacity and further enabled by considerable freight market volatility during 2019 we have dramatically increased our earnings from freight trading. At the same time our seasonal hedging strategy for owned ships has contributed positively to the bottom line as own vessel earnings have outperformed the market index

During 2019 the company has continued its focus on:

- Sustained cost efficiency program delivering one of the lowest daily vessel operating expenses in the industry.
- Continue project to retrofit all vessels with ballast water treatment systems
- Managing preparation and transition for low sulphur fuels post IMO2020
- Improved operational efficiencies
- Retained expert independent risk measuring and weekly reporting
- Awarded new Canadian project and continue to be one of the world's largest carriers of coated line pipe

Thoresen Shipping's in-house ship management and crewing department deliver ship operational expenses 19 percent less than industrial averages.

Commercially we have a strong client base of key customers who look to Thoresen Shipping for freight to conclude commodity sales in the spot and forward markets.

We have sophisticated voyage management, risk measuring, and reporting software that allow for careful control of the bottom line.

A : Products and Services

Fleet Structure and Commercial Services

At the end of 2019 Thoresen Shipping owned 21 Supramax vessels with a total carrying capacity of 1.16 million deadweight tons. The average age of the remaining vessels in the fleet is 12.71 years and average DWT is 55,285 tons. In addition, approximately 16.1 full-time equivalent dry bulk vessels were chartered in to meet client demand during the year.

Fleet Structure (as end December 2019)

1. Number of Vessels

Number of Vessels				
Type of Vessels	Owned Vessels	No. of Chartered in Vessel equivalent	Newbuild Vessels on Order	Total
Handymax	-	0.4	-	0.4
Supramax	21	15.7	-	36.7
TOTAL	21	16.1	-	37.1

2. Simple Average Age

Simple Average Age of Vessels				
Type of Vessels	Owned Vessels	Chartered in Vessels	Newbuild Vessels on Order	Total
Handymax	-	9.80	-	9.80
Supramax	12.71	8.31	-	8.81
TOTAL	12.71	8.35	-	8.84

3) Bulk Carriers

BULK CARRIERS 2019							
Vessel Name	Year Built	DWT	Age		Design	Classification	
1 Thor Achiever	05-01-2010	57,015	9.99	Bulk Carrier	Standard	BV	
2 Thor Brave	15-11-2012	53,506	7.13	Bulk Carrier	Open Hatch / Box Shape	ABS	
3 Thor Breeze	13-08-2013	53,572	6.39	Bulk Carrier	Open Hatch / Box Shape	ABS	
4 Thor Fearless	09-11-2005	54,881	14.15	Bulk Carrier	Open Hatch / Box Shape	NKK	
5 Thor Fortune	15-06-2011	54,123	8.55	Bulk Carrier	Open Hatch / Box Shape	NKK	
6 Thor Friendship	13-01-2010	54,123	9.97	Bulk Carrier	Open Hatch / Box Shape	NKK	
7 Thor Future	03-03-2006	54,170	13.84	Bulk Carrier	Open Hatch / Box Shape	NKK	
8 Thor Independence	23-10-2001	52,407	18.20	Bulk Carrier	Standard	NKK	
9 Thor Infinity	01-02-2002	52,383	17.92	Bulk Carrier	Standard	NKK	
10 Thor Insuvi	16-11-2005	52,489	14.13	Bulk Carrier	Standard	NKK	
11 Thor Integrity	02-04-2001	52,375	18.76	Bulk Carrier	Standard	BV	
12 Thor Madoc	15-07-2005	55,695	14.47	Bulk Carrier	Standard	KR	
13 Thor Magnhild	28-06-2006	56,023	13.52	Bulk Carrier	Standard	NKK	
14 Thor Maximus	07-10-2006	55,695	14.24	Bulk Carrier	Standard	KR	
15 Thor Menelaus	25-08-2006	55,710	13.36	Bulk Carrier	Standard	KR	
16 Thor Mercury	11-10-2005	55,862	14.23	Bulk Carrier	Standard	ABS	
17 Thor Monadic	05-09-2006	56,026	13.33	Bulk Carrier	Standard	NKK	
18 Thor Confidence	25-06-2008	58,781	11.52	Bulk Carrier	Standard	KR	
19 Thor Courage	22-04-2009	58,693	10.70	Bulk Carrier	Standard	DNV-GL	
20 Thor Caliber	19-12-2008	58,732	11.04	Bulk Carrier	Standard	NKK	
21 Thor Chaiyo	16-07-2008	58,731	11.47	Bulk Carrier	Standard	NKK	
TOTAL THORESEN FLEET		1,160,992	DWT				

ABS : Amercian Bureau of Shipping

BV : Bureau Veritas

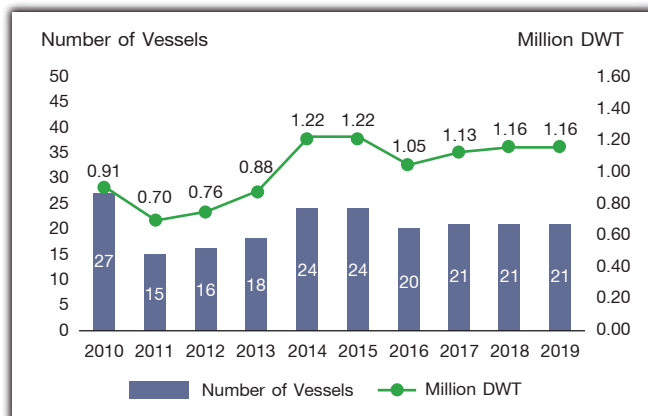
DNV-GL: Det Norske Veritas and Germanischer Lloyd

NKK : Nippon Kaiji Kyokai

KR : Korean Register of Shipping

Source : TTA

Chart : Thoresen Fleet 2010-2019



Source : TTA

Commercial Services

During 2019 the market has been events driven leading to significant volatility. The first half of the year was impacted with Vale dam tragedy and a loss of iron ore volumes from the market. There was a strong recovery during the second half of the year on iron ore restocking and increased trade volumes before the new IMO2020 fuel regulations become effective at the end of the year. With a significant number of larger vessels in the capesize sector being in dry dock for extended periods in order to retrofit exhaust gas scrubbers, there was also a reduction on supply side that lead to second half of the year strength.

Market volatility also contributes to an increase in trading opportunities. We keep our focus on being of service to our key customers and continue to work to align our freight trading and shipowning activities. In this way we can use our client base and cargo bookings to secure profitable business for our own ships as well as time charter arbitrage activity.

We spread our geographic risk by keeping vessels distributed in different markets such as Atlantic, Indian and Pacific Oceans. Where possible we position vessels to target seasonal grain harvests, where an increase in the number of shipments leads to an increase in freight levels. We also mix in some short period employment as hedge for the coming quarter and to outperform the spot market.

B: Marketing and Competition

Cargo Operations and Customer Focus, Competitive Advantage

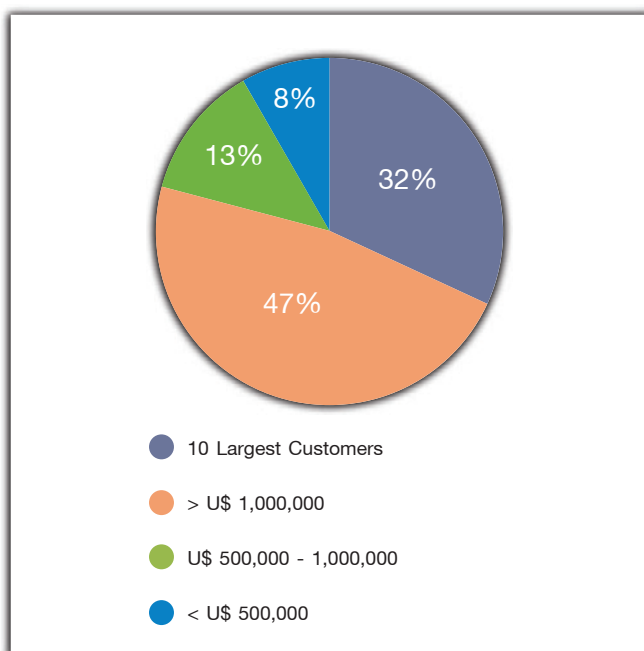
Cargo Operations and Customer Focus

Thoresen Shipping continues to grow its business with cargo customers. We have brought renewed focus to our marketing strategy and work closely with key clients to continue to provide them with the freight they need both for spot sales and forward contracts. This requires a good understanding of the freight and bunker markets.

By bringing focus to both customers and their regional needs, we have built a strong reputation in Indian and Pacific Oceans and now develop a client base in the Atlantic as well.

We are one of the world's largest specialist carriers of coated line pipe. Thoresen Shipping has both the necessary vessel type and operational expertise to provide freight for this niche segment.

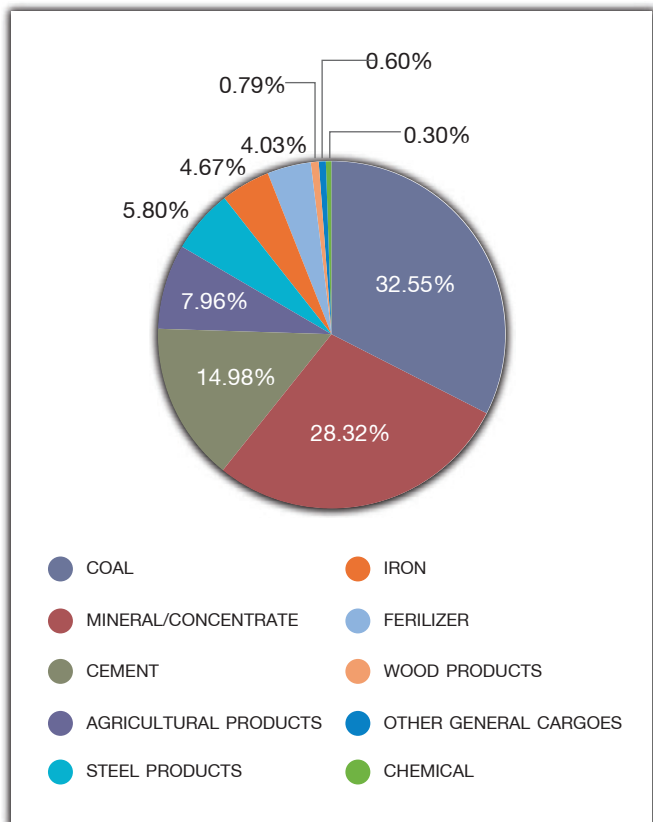
Chart : FY2019 Freight Revenues (by Client Size)



Source : TTA

Thoresen carried 15.76 million tons of cargo during 2019 divided roughly 70/30 between major bulks such as coal, mineral/concentrate and agricultural products, and minor bulk such as steels, fertilizer, cement and others.

Chart : FY2019 Cargoes



Source : TTA

Competitive Advantage

Thoresen continues to be a fully integrated dry bulk shipping company. The majority of our competitors rely on outsourced services such as crewing, technical management, insurance and procurement, but at Thoresen this is all performed in-house.

Thoresen Shipping has a solid platform of experienced on-board staff, who with our Bangkok based Marine Operations Department contribute to ensuring we operate with one of the lowest daily vessel operating expenses in the industry.

The strong vertical integration of all our departments including crewing, technical, chartering, commercial operations, finance and risk also resonates well with our industrial clients. They know that shipping cargoes with Thoresen ensures efficiency, professional conduct and the flexibility they need to successfully support their cargo operations.

With further focus on efficiency gains, strong communication and a diversified portfolio of both vessels and cargo positions. We believe that Thoresen is very well positioned to benefit from the different stages of the dry bulk freight cycle.

The Dry Bulk Shipping Market - Industry and Market Outlook

Year 2019 was a year of two halves, with the first half of the year underperforming expectations before a strong recovery in the second half of the year. The market has continued to move within a range where a cost effective ship owning and operating platform like Thoresen Shipping can deliver good profits. Market volatility has enabled increased profits from our freight trading.

Delivery of new buildings to the market has ticked up from last year's long term lows. And though the deletion of units by recycling has remained very low, global fleet growth has been low enough to support profitable earnings.

Headline news of trade wars and slower global growth has affected sentiment. This impacts the forward freight derivative curve and also the levels that can be achieved for period charter. This then also lowers the level at which forward cover and earnings can be secured for 2020.

Growth in major dry bulk commodities like iron ore and coal slowed in 2019, especially in the vital for dry bulk market of China. Despite the importance of coal in providing energy to much of the world's population it becomes an industry that is blamed for global warming. Alternative energy sources are growing fast. Despite this the Indian sub-continent and some South East Asian countries continued to see significant growth in coal imports. Iron ore shipments have been impacted on the supply side particularly Brazil, but also disrupted by cyclones in Australia leading for the first time in many years to a decrease in annual volumes. Iron volumes are expected to return to growth next year.

Minor bulks that are predominantly carried on craned bulk carriers within our sector, have in comparison to major bulks, seen better trade growth, notably bauxite and nickel ore. Growth in nickel ore that is vital for stainless steel makers has been driven this year by Indonesian export restrictions which will start at the beginning of 2020, so will likely slow next year. Otherwise minor bulk trade volumes are expected to grow in line with supramax fleet growth.

Growth in grain volumes has slowed this year mainly due to African swine fever effecting Asian pork production particularly in China. There should be some increase next year as Chinese farmers rebuild their breeding stocks. Now that Phase 1 of a Sino-USA trade agreement is in place we expect some recovery in USA grain exports particularly for the new harvest towards the end of 2020.

Vessel values have stayed fairly flat for most of the year before declining towards the year end. There has been a reasonable level of activity, but with uncertainties over managing IMO2020 fuel transition period and caution over global economic environment buyers have held back.

In the larger sizes there will be a higher number of new buildings delivering in 2020 than in recent years and this will drag on the market especially in the first half of the year. Hopefully, there will also be a pick-up in what have been very low levels of ship demolitions in the last two years. In our sector, we expect the supply side to continue to stay under control in the coming year or two.

Dry Bulk Carrier Orderbook as of December 2019

Bulk Orderbook	No. of vessels	Total Capacity (million dwt)	Orderbook % Fleet
• Handysize Bulker Orderbook	197	6.55	6.4%
• Handymax Bulker Orderbook	307	18.87	9.4%
• Panamax Bulker Orderbook	324	26.81	13.0%
• Capesize Bulker Orderbook	231	53.21	15.9%
Total			
• Bulkcarrier			
• Orderbook	1,059	105.44	12.5%

Source : Clarksons

Oil Prices

We have strict fuel price hedging strategy for forward cargo bookings using bunker swap agreements.

Offshore Service

Mermaid Maritime Public Company Limited

Business Overview

The offshore services segment is primarily driven by Mermaid Maritime Public Company Limited (“Mermaid”), in which TTA holds a 58.22% stake as of 31 December 2019. Mermaid, commenced its operations in 1983, was partially acquired by TTA in 1995 and was successfully listed on the Singapore Stock Exchange (“SGX”) on 16 October 2007.

Mermaid is a leading international subsea and offshore drilling services company for major oil and gas companies or their contractors. Our corporate headquarter is in Thailand. We have operational bases in Thailand, Singapore, Indonesia, Qatar, Saudi Arabia, United Arab Emirates and the United Kingdom.

Mermaid provides full turnkey services to oil and gas majors operating offshore through our diversified portfolio of subsea vessels, specialized diving equipment, remotely operated vehicles and drilling and accommodation rigs. We have been in the offshore business for over 30 years and we are today present in five geographical regions with a team of over 1,000 professional divers, drillers, technicians, surveyors, management and support staff. Our vision is to be a premium service provider to the offshore oil and gas industry and to constantly deliver enhanced return to our shareholders.

As a result of the challenging outlook across the oil and gas industry, our two-pronged strategy continues to be implemented by Mermaid’s senior management team that takes into account both a short-term /tactical approach (“Strengthening our Core”) and a longer term vision (“Positioning for Growth”), that will ensure our ability to continue to build sustained shareholder value.

Strengthening our Core: In adhering to our “Strengthening our Core” strategy, we prioritized the safeguard to our home market and streamlined our internal processes. Key achievements in 2019 included securing a key IRM contract extension, rationalization of non-performing assets across our subsea services segments, qualifying as a decommissioning service provider, expanding into the offshore wind cable installation market, extensive consolidation and cost efficiency improvement while remaining a high quality of services.

Positioning for Growth: In furtherance to our “Positioning for Growth” strategy, we focused on a groundwork for new market expansion and cross selling of services through the value chain move to higher value engineering segments offering short and medium range turnkey contracts or lump sum contracts.

A: Products and Services

Fleet Structure and Services

Subsea Services

Mermaid’s subsea engineering centers around diving and remote intervention by unmanned submersibles (“ROV”). Its subsea division is represented by Mermaid Subsea Services (Thailand), Mermaid Subsea Services (International), and Seascope Surveys. All three subsea units were integrated and operate under the same new company name as “Mermaid Subsea Services”. A wide range of subsea engineering services are provided, including subsea installation engineering, offshore decommissioning, inspection, repair and maintenance, construction and installation support, commissioning, cable and pipe laying projects.

As of 31 December 2019, the subsea fleet consists of 6 subsea support vessels, 3 of which are specialized dive support vessels, and 13 ROV systems, including deep water and ultra-deep-water heavy construction class systems. Apart from its key assets, the Subsea Division has a workforce up to 1,000 professional engineers, divers, technicians, surveyors, HSE personnel, marine personnel and support staff to work on its subsea engineering projects in addition to a permanent workforce.

Fleet and Diving Services

All vessels are classified by DNV or ABS, which are two of the leading classification societies. All vessels are subject to regular inspection by class surveyors, in addition to regular dry-docking and other planned maintenance.

Another core competency for the Subsea Division is running its diving operations to world class standards, especially those set by the International Oil and Gas Producers Association (“OGP”).

Mermaid Subsea Fleet List

No.	Name of Vessels	Vessel Type	Calendar Year	
			Build Year	Purchase Year
1.	Mermaid Commander	DP2 Dive Support Vessel	1987	2005
2.	Mermaid Endurer	DP2 Dive Support Vessel	2010	2010
3.	Mermaid Asiana	DP2 Dive Support Vessel	2010	2010
4.	Mermaid Sapphire	DP2 ROV Support Vessel	2009	2009
5.	Mermaid Challenger	General Utility Vessel	2008	2008
6.	Mermaid Siam	DP2 Construction Support Vessel	1991	2010

The following details the Subsea Division's core services:

Exploration services	Pre-installation surveys; rig positioning and installation assistance, subsea equipment maintenance.
Development services	Installation of subsea pipelines, flow lines, control umbilical's, manifolds, risers, pipe lay and burial, installation and tie-in of riser and manifold assembly; commissioning, testing, and inspection, offshore decommissioning, SURF and cable lay and connection.
Production services	Inspection, maintenance, and repair of production structure, risers, pipelines, and subsea equipment.

Drilling Services

Asia Offshore Drilling Ltd. ("AOD"), Mermaid's 33.76% owned associate company which owns and operates a modern fleet of high specification jack-up rigs, added three jack-up rigs AOD-I, AOD-II and AOD-III in 2013. Service

contracts for all its three jack-up rigs commenced in 2013 and have been extended on a continual basis with its existing customer to 2022. In 2019, we achieved near full utilization on average for the three jack-up rigs.

Drilling Rig Fleet List

No.	Name of Rigs	Rig Type	Calendar Year	
			Build Year	Purchase Year
1.	AOD-I	Premium Jack-Up Rig	2013	2010
2.	AOD-II	Premium Jack-Up Rig	2013	2010
3.	AOD-III	Premium Jack-Up Rig	2013	2011

Drilling rigs require classification from a recognized classification society, which classifies them based on structural integrity and safety. AOD's jack-up rigs are subject to classification by ABS.

Fleet Services

In 2019, AOD successfully secured an extension to the service contracts for all its three of its jack-up rigs thus ensuring continued employment until 2022. AOD's rigs have delivered exemplary operating results with near full utilization for all three jack-up rigs in 2019.

AOD's three jack-up rigs are from the Keppel FELS Mod V - B Class design, which is understood to be the preferred jack-up rig design by major drilling companies and used by oil

companies in all shallow water areas of the world. The rigs are designed for year-round operations in the areas of Gulf of Mexico, Indian Ocean, Southern North Sea, Coast of the Middle East, Offshore India, Offshore Australia, Offshore New Zealand, and Offshore South East Asia.

B: Marketing and Competition

I. Clients and Target Customers, Distribution Channels

Subsea and Drilling Services Clients

Major National and International oil and gas producers and suppliers, pipeline transmission companies, and offshore engineering and construction firms trust Mermaid as their partner in our regional markets of Europe (North Sea), Middle East and South East Asia. In 2019, subsea services were provided to over 30 clients.

Clients in the Middle East remain a major contribution to Mermaid's business. A key diving contract secured in 2013 through the Company's Middle East joint venture, Zamil, Mermaid continues to buoy Mermaid's revenues and returns, and will continue to do so until end of 2023 after securing a three-year contract extension in 2019.

Mermaid's strategy "Positioning for growth" is expected to pace regional market expansion into other markets for the Subsea Division such as North Sea, West Africa and Mediterranean over the next few years.

Maximize vessel utilization continues as one of top priority while at the same time, cross selling of services through the value chain and longer contract durations in growth areas e.g. North Sea, South East Asia, and the Middle East.

Since 2013, AOD's three jack-up rigs have served one of the largest oil and gas companies in the world with its current contracts ending in 2022. As a result, AOD was able to achieve an outstanding near full utilization rate on average for these three jack-up rigs in 2019 in line with the Company's target. This was primarily due to all jack-up rigs experiencing high operating performance with limited downtime.

Competition

Customer service remains our crucial differentiator. There are many reasons why our customers choose us. We have an excellent health, safety and environment track record which we are proud of. We also offer first tier service quality in a competitive price mix. We have capability and resources to handle large and small projects as required, and to this end provide a 'one-stop shop' service point. We are supported by a large pool of in-house experienced and dedicated personnel, strategic local partnerships in various geographies, and we are fully compliant with international standards on our vessels, rigs and equipment.

We have also worked hard to earn a track record of successful projects with reputable clients, to expand business to the new geographical area and develop regionally based operations with long-term customer relationships and have systems in place to allow dedicated customer support and quick response to emergency call outs and variation orders at all times and in all situations. As a result, we are pleased to receive continued repeat business from our customers.

II - Industry & Outlook

2.1 - 2019/2020 - AN OIL GLUT IS INEVITABLE IN 2020

The Energy Information Administration (EIA) has forecasted that the Brent crude oil spot price will average US\$65 per barrel (b) in 2020 and US\$68/b in 2021 and that the West Texas Intermediate (WTI) spot price will average US\$59/b in 2020 and US\$62/b in 2021.

The EIA has reported that it expects that crude oil prices will remain elevated in the first few months of 2020, reflecting a price premium on crude oil from recent geopolitical events. However, this price premium will diminish in the first half of 2020, and market fundamentals will drive the crude oil price forecast in the second half of 2020 and in 2021.

Recently there has been several geopolitical incidents that have provided an upward trend on the crude oil prices. These incidents include attacks on oil tankers transiting the Persian Gulf and the Red Sea, the September 2019 attack on Saudi Arabia's energy infrastructure, and recent tensions between the United States and Iran. With these incidences the monthly average Brent prices rose from US\$63/b in September to US\$67/b in December. Crude oil prices increased during this period despite global liquid fuels inventories growing by 130,000 barrels per day (b/d).

The U.S. military action in Iraq in January 2020 further increased the geopolitical risk premium on oil prices and increased the uncertainty about possible disruptions to oil production and shipping segments in the Middle East. Following this development, the price of Brent crude oil touched \$70/b but since then the prices have consequently plunged.

As the risk premium decreases, the EIA has assumed that the Brent Oil price will decline in early 2020 to an average of US\$62/b in May and with that does not forecast significant supply disruptions putting an upward pressure on prices.

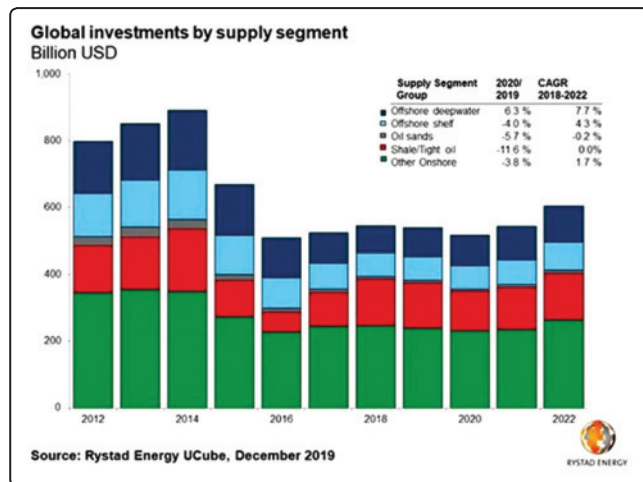
(Source: www.worldoil.com)

Forecasts for average Brent oil price in 2020 are as tabled below.

2020 Brent Price Forecast	
Goldman Sachs	US\$63
JP Morgan	US\$64.50
S&P Global Platts	US\$62.50
Morgan Stanley	US\$61.25
Reuter poll	US\$62.50
WSJ poll	US\$61.23

Source: oilprice.com

The International Energy Agency (IEA) forecasts non-OPEC supply will add a 2.3 million barrels a day in 2020, with the growth coming from production in the United States, Brazil, Canada, Norway and Guyana. That will more than cover anticipated increases in global oil demand of 1.2 million barrels a day and force OPEC and some non-OPEC partners, led by Russia, to continue price-supportive supply cuts.



According to Rystad Energy, overall global upstream investments in 2020 will decrease by around 4% with investments in shale oil expected to contract the most, by almost 12%.

Rystad Energy also believes that the lower oil price and weaker cash flows will force shale companies to reduce activity. Deepwater is the only segment expected to grow above 5% next year, spelling a boom for the industry.

On a regional level, Africa, Russia, and South America are expected to see growth or flat development in investments, with key players like Mozambique, Libya, and Mauritania pushing the largest continent's growth to the highest worldwide at 11%.

Brazil, owing to Marlim and Mero projects, will likely prop up South America to a predicted growth of almost 6% next year. Investments in the Middle East and Australia also are expected to grow on the back of new LNG projects and the redevelopment of old oil fields.

Companies no matter the size have announced plans to reduce their capital budgets next year, including Apache and Occidental Petroleum, fresh off its acquisition of Anadarko Petroleum.

However, Rystad Energy have also noted that "massive investments in exploration and sanctioning are still needed" in the coming years to meet growing global demand. The global inventory of already discovered oil fields with a

breakeven below a US\$60/b Brent crude oil price is enough to meet demand growth and offset declines from maturing fields until around 2027. But additional volumes from not-yet-discovered fields will be needed to meet total liquids demand, the consultancy said. "This means that although we need to discover additional resources, only fields with breakeven prices below US\$60 are likely to be commercial through 2030 and likely towards 2040," said head of oilfield services research at Rystad. "If the global E&P [exploration and production] industry were to fail to discover sufficient resources at such breakeven prices, global demand would need to be satisfied by utilizing otherwise uncommercial fields, or transition more quickly to a different power mix," he said.

In 2019, oil and gas projects representing around US\$200 billion of investments were sanctioned. In 2020, Rystad Energy forecasts as much as US\$225 billion worth of projects will be sanctioned, driven primarily by gas projects. Offshore project sanctioning is likely to surpass US\$100 billion next year.

2.2.THE OFFSHORE OIL AND GAS SECTOR

Offshore oil production is expected to hit a peak in 2020 before joining the shale industry in a slowdown that could dramatically rewrite market supply predictions.

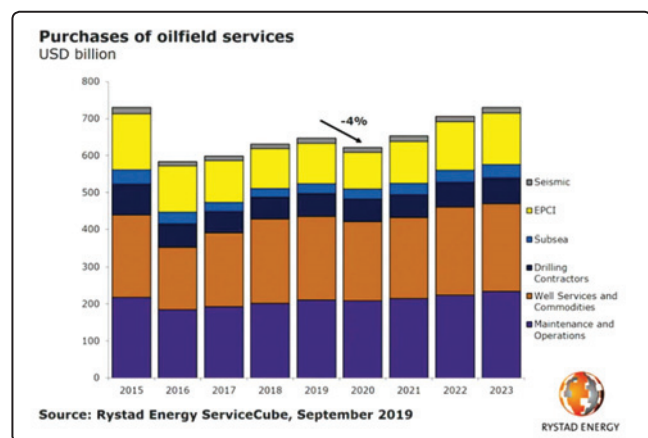
It has been reported that the service market achieved a 2% growth ceiling in 2019, reaching US\$647 billion. In 2020 this number may fall to US\$621 billion with a Brent oil price of US\$60 per barrel .

Looking at the various market segments, the shale industry will likely drag down oilfield service purchases as it contracts by 6%. Offshore will fall 1% as oil companies cut brownfield and exploration activity to reduce spending. Other onshore activity will see revenues slashed by around 5% as OPEC scales back investments to curtail output.

However, due to the existing backlog, some service segments may still realize positive revenue growth. Subsea equipment, SURF (subsea umbilical's, risers, and flowlines) and offshore drilling can still accelerate in 2020, but growth will fall from the double-digits to the single-digits. In 2021, the long cycle effects manifesting into a greenfield, exploration and brownfield wave will come into play and initiate a 5% growth as the oil market sees relief and investments follow.

Looking towards 2023, offshore market segments, shale, and other onshore segments are likely to realize an average compounded annual growth rate of 2% to 3%. Subsea purchases,

construction and installation, and equipment seem even more robust at 7% due to the massive influx of large offshore and LNG projects and the fact that subsea developments see a new renaissance according to Rystad Energy.



(Source: Rystad Energy)

3. SUBSEA SERVICES

3.1 THE SUBSEA MARKET

Oil prices in the range of US\$60/b to US\$70/b will underpin 7% annual growth in the subsea sector until 2025, says Rystad Energy. Even if oil falls to US\$50/b, growth in the subsea sector would be 5% annually until 2022. While that is good news for subsea vessel owners such as Subsea 7, DOF Subsea, and Oceaneering, Rystad Energy warns the growth rate will drop to zero after 2022 if oil falls in price.

The offshore and onshore conventional service market in 2020 will benefit from increasing project sanctions, the total value of which is expected to grow to as much as \$225 billion in 2020 from US\$200 billion in 2019, the consultancy said. Gas projects are projected to drive most of the growth, with US\$50 billion worth of contribution from onshore LNG.

Offshore project sanctioning could total some US\$100 billion in 2020, keeping offshore service purchases flat for the year before a wave of projects matures into execution mode, driving purchases up 5% and 7% in 2021 and 2022, respectively. The land market will also get a boost, albeit further in the future once expected LNG projects have entered the most intense construction period, Rystad said.

In Rystad Energy's latest market report it looks at market developments in floating production, storage and offloading vessels (FPSOs), installation of sub-sea umbilical's, risers and flow lines (SURF), plus Deepwater and LNG projects.

With the FPSO market, contractors have won 13 new orders in 2019. This brought the total number at various stages of development to 28. Rystad Energy suggests that there is not

enough industrial capacity to complete all additional orders on time during 2020.

As for the installation of SURF market, order books are booming, and suppliers are facing problems in keeping pace with demand. For example, some 600 subsea Christmas trees were ordered in the year 2018 to 2019. In addition, subsea contractors are facing the challenge of installing about 4000 kilometers of subsea oil and gas flow lines and umbilical's in 2020.

(Source: Rigzone & Rystad Energy)

3.2 TYPES OF SUBSEA VESSELS

The offshore industry is a varied sector within which many vessel types operate, performing numerous different tasks with often-unique systems and equipment. These vessels can range from purpose-built specialized ships which may, for example, only perform diving operations, to vessels which have been repeatedly converted from one vessel type to another as nature of the business changes. The term "offshore support vessel" can include many vessel types and it is unusual for one single vessel to only fulfill one particular function. Depending on configuration, a vessel could perform diving, remotely operated vehicle ("ROV") support, survey and construction support operations.

Generally, dive support vessels (DSV) within the offshore industry can range from converted vessels fitted with rudimentary air diving spreads to purpose-built vessels fitted with extensive and complex saturation diving system. ROV support vessels can include vessels fitted with portable launching systems, which can be mobilized and demobilized to the vessel within very short periods of time. Construction support vessels will have many generic characteristics and design features associated with dive and ROV support vessels, the main function of the offshore construction vessel will be before the installation and decommissioning of subsea and surface structure installations. Pipe lay vessels may have different design features of systems and equipment on board however the main function of these vessels will be the lay pipe along a designated seabed channel or route.

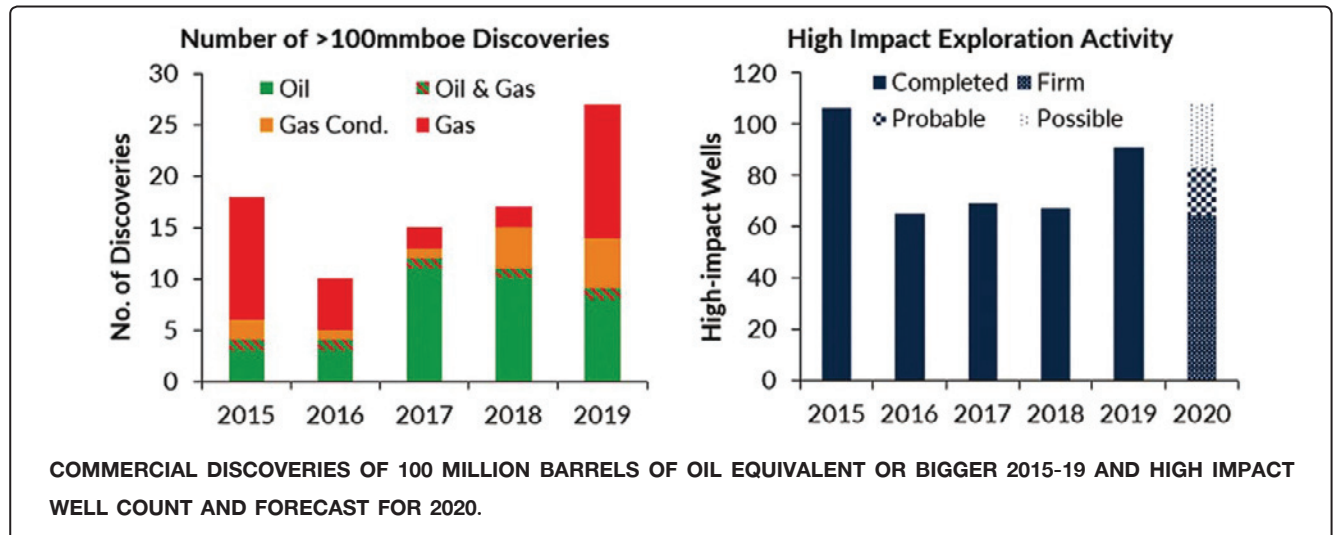
4. OFFSHORE DRILLING - SLIGHT IMPROVEMENT, RATES REMAINED FLAT

4.1 THE OFFSHORE DRILLING MARKET

According to reports the Energy Transition and Extinction Rebellion may have led the energy news agenda and stimulated reflection in many E&P boardrooms in 2019, but the impact on exploration drilling is not yet apparent. The global high impact well count in 2019 was 91 wells, up 36% from 2018. Drilling spend was flat at \$3.5 billion, however, as

average well costs fell. Discovered commercial volume was the highest since 2015 at around 13 billion barrels of oil equivalent (boe) from the 27 high impact discoveries announced so far. The commercial success rate was at a 10-year high of 32%. This level of activity looks likely to be sustained through 2020.

77% of total estimated 13bn boe discovered was gas, with seven of the top ten discoveries being gas in Russia (2), Iran, Mauritania, Senegal, Indonesia and Cyprus. The two biggest oil discoveries were both in the Stabroek licence in Guyana, which at 6 billion barrels and counting, is one of the most prolific oil licences ever issued.



(Source: Westwood Analysis)

As has been reported by Westwood, 2019 was the year that North West Europe topped the charts for high impact drilling globally. This was extraordinary given the maturity of the plays in the UK and Norway. Unfortunately, and some would say predictably, only two high impact discoveries resulted from the 27 well programme - Glengorm in the UK and Liata mnet in Norway. This is a miserable success rate of only 7%. Two wells are still drilling and could yet deliver discoveries, but the low discovery rate should cause pause for thought and the high impact well count should drop in 2020.

Guyana topped the oil discovery charts again in 2019 with the Liza field coming onstream in December and another billion barrels added in the Exxon operated Stabroek licence with some more gas also. The five commercial discoveries in 2019 brought the total to 14. The Tullow operated JV made two play opening discoveries that first sounded promising but turned out to be heavy and sour, contributing to a dramatic fall from grace for Tullow with its share price crashing.

Already the oil volume discovered and planned for development is far more than the tiny economy of Guyana can handle and the pace may have to slow 2020 if Guyana is to cope. The industry will nonetheless continue to try to push the boundaries of the play beyond the Stabroek licence into both shallower and deeper Guyanese waters. The significant Maka Central discovery operated by Apache and announced in January 2020 looks to be the first

commercial discovery outside of Stabroek, extending the play into neighbouring Suriname.

In Mexico, the 5 high impact exploration wells completed by international oil companies (IOC) in 2019 failed to deliver a commercial discovery. In 2020 it should become clearer whether Mexico will deliver the bounty that IOCs hoped for with at least 10 wells operated by seven different IOCs testing over 2.5 billion barrels of un-risked prospective volume in a range of frontier and emerging plays. The geology is complex and mixed results can be expected.

Brazil is another country to watch in 2020 with one high impact well currently drilling and seven wells planned for 2020 in recently awarded licences testing 6 billion barrels of un-risked volume in pre-salt plays in the Santos and Campos basins, and the Ceara Basin. Exxon will operate its first two wells since its re-entry and Premier will operate its first well in the Ceara Basin. It's not going to be shooting fish in a barrel in the Santos Basin though with several wells being drilled outside the proven pre-salt play. The much anticipated Peroba well drilled in 2019 by BP, for which a \$598 million signature bonus was paid in the 2017 bid round, is understood to have found high CO2 content gas and is considered non-commercial.

In Africa, high impact drilling remained subdued at 14 wells completed in 2019 but commercial success rates were high

at 57% with over 3 billion boe discovered of which ~80% was gas. There was one frontier play opening gas condensate discovery at Brulpadda in South Africa and there were high impact discoveries in five other countries - Senegal, Mauritania, Nigeria, Angola and Ghana. In 2020, a similar number of high impact wells are expected spread across 10 countries with potentially six frontier play tests in Guinea Bissau, Kenya, Namibia and Gabon. Total is testing a new play concept at a well in Block 48, Congo Basin Angola, notable for being the deepest water exploration well ever at over 3600m.

In the emerging gas plays of the Eastern Mediterranean there were six wells drilled and two commercial discoveries delivering 5 tcf. Three of the six wells were drilled by TPAO, two of which were in the Cyprus area and were political rather than technical tests. Five wells testing 16 tcf of gas are planned in 2020 including Total's Byblos-1 well offshore Lebanon.

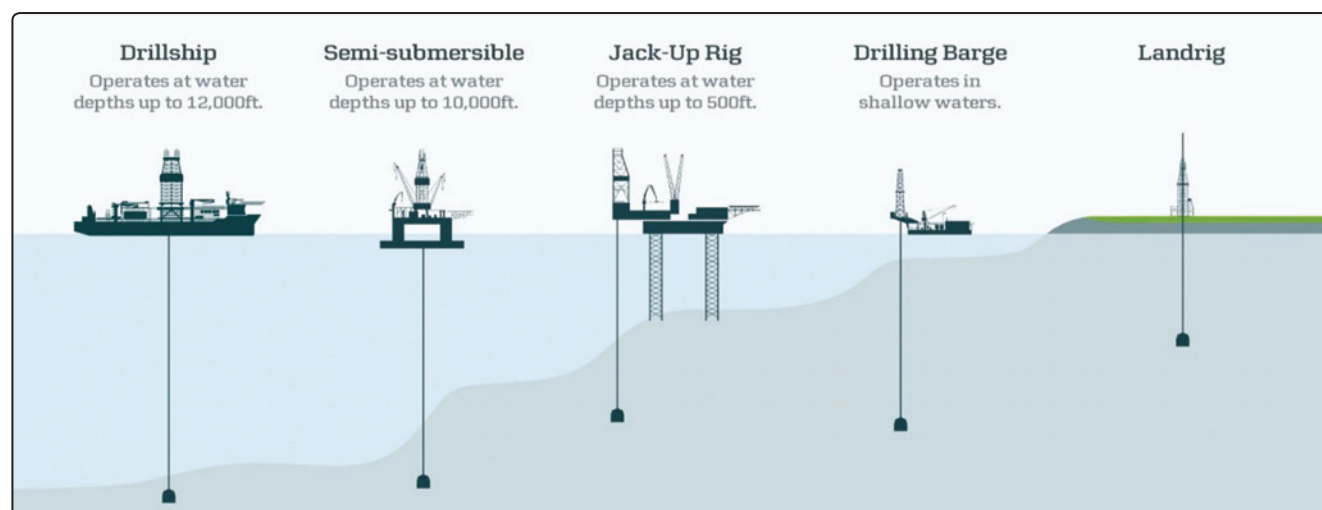
Drilling in Australasia is set to pick up in 2020 after a quiet 2019 with one potentially high impact gas discovery made in the onshore Perth Basin at the West Ereggulla well.

In 2020, high impact drilling is mainly about gas with wells planned in Australia, New Zealand, PNG and Timor Leste testing over 10 tcf of gas most of which are testing frontier plays. South East Asia was quiet in 2019 with just three high impact wells and two high impact discoveries in Indonesia and Malaysia discovering 5 tcf of gas.

Based on current plans it looks like high impact drilling could be at a similar level in 2020 but with shift of focus to North and South America. Westwood estimates that industry drilling plans are weighted 70/30 oil to gas. Whilst recognising that the industry has had a habit of finding gas when looking for oil it doesn't seem the appetite for finding oil is diminishing. The four most active companies in 2020 are expected to be the European Supermajors Total, Equinor, Shell and ENI, each participating in 14 or more high impact wells. Whilst there has been much talk about the energy transition in 2019, there is little sign of its impact on exploration plans for 2020.

4.2 TYPES OF OFFSHORE DRILLING RIGS

There are different types of drilling units, typically known as Mobile Offshore Drilling Units ("MODU").



(Source: IHS Petrodata)

Tender Rigs

A tender rig is a barge moored alongside a platform and carries its own drilling equipment and has a crane capable of erecting the derrick onto the neighboring platform, eliminating the need for a separate derrick barge and related equipment. Tender rigs can operate in water depths of up to 2,000 feet and capable of drilling as far as 18,000 feet.

Jack-up Rigs

A jack-up rig is a mobile self-elevating drilling platform equipped with legs that can be lowered down to the ocean floor. Once a foundation is established, the drilling platform

is then elevated up the legs so that it rests above the highest expected wave height. Jack-up rigs can drill in water depths of 350-450 feet and are capable of drilling as far as 40,000 feet.

Semisubmersible Rigs

A semisubmersible rig is a floating drilling platform with columns and pontoons featuring a ballast system enabling the platform to adjust the draft of the partially submerged hull and can either be self-propelled or non-propelled, it utilizes DP systems or mooring to maintain their position over the wellhead. Semisubmersibles can operate in water depths of 1,000 to 10,000 feet and can drill beyond 40,000 feet.

Drillships

Drillships have designs based on ship hulls, are self-propelled, and utilize DP systems or mooring to maintain their position over the wellhead. Drilling operations are performed utilizing the derrick and the moon pool which is fitted mid-ship. Drillships are well suited for drilling in remote locations due to their mobility. These vessels can operate in water depths of 1,000 to 12,000 feet and can drill beyond 40,000 feet.

4.3 THE JACK-UP DRILLING RIG MARKET

The expectation for jackups being used in the offshore drilling industry in 2020 is neutral, although, Rigzone claims that the demand will plateau in Europe and farther east. In the North Sea, the demand for jackup rigs will climb slightly, but it will drop in other areas of the world. Rigzone claims that the demand for these types of rigs will remain stagnant for North America and South America in 2020 and 2021.

In January of 2020, one of the major oil drilling companies, OPEC, announced that it will be reducing its production of offshore drilling. They will be reducing their production by approximately 500,000 barrels per day. The company will continue the reduction for three months. According to a report by MSN Money, OPEC and other companies have already reduced their production by 1.2 million barrels per day.

Research indicates that there will be more activity in South America in 2021. Rigzone believes that Exxon Mobil will add a few more floaters to their fleets. There's also a trend of new offshore drilling activity surrounding the country of Brazil. Rigzone suggests some additions to its fleet of drill ships, and the companies operating around Brazil are expected to add more semi-submersible platforms to their operations. These changes will depend upon how regulations mature within Brazil's governing channels.

The offshore drilling industry is becoming more popular off the coasts of West Africa. Rigzone reports that offshore drilling ships will become more plentiful. However, there will be hardly any change in the number of semi-submersible platforms that operate in the area. Rigzone also reports that Nigeria and Angola will experience the beginning of "long-term developments" in offshore drilling.

There have been some exploratory measures in the recent past that will cause the trend of floaters in the waters around the Gulf of Mexico to increase in 2020. Trinidad should see a slight increase in drilling in the next few years. Rigzone claims that the drilling procedures surrounding these areas will depend upon "the success of new exploration campaigns."

Offshore drilling operators are expected to cut costs to maintain their current operations in the next year. MSN Money has reported that operators are expected to increase their

efficiency levels as well. The low cost of operating efficient rigs will reflect upon profits shared between all parties.

The price of current assets involved in offshore drilling is expected to remain the same until 2021. According to recent reports, there won't be any major repricing in the upcoming year. This does not mean that there won't be major negotiations being conducted in the industry. However, the industry prognosis indicates that there are going to be few changes to the number of actual rigs in commission, so activities will be centered around those with the money to make decisions about where to drill. Seeking Alpha speculates that the financiers are having their own challenges putting money together. There is also an issue with many of the drillers handling their current levels of debt.

(Source: Rigzone, seeking alpha & LinchpinSEO)

5. MERMAID'S INDUSTRY POSITIONING

Having served the Oil & Gas industry for over 30 years, Mermaid boasts a proven track record of subsea excellence. With operations throughout South East Asia, Middle East and now the North Sea, Mermaid plays a pioneering role in the global subsea markets. Mermaid has the ability provide a subsea engineering solution, in any water depth which involve complex and challenging engineering, in any region of the world for the Oil and Gas markets.

Owning and operating a fleet of subsea construction, intervention and survey vessels that enable us to offer differentiated positions with our clients, Mermaid focuses on long term relationships that enhance our service delivery and reduce overall risk.

Mermaid continues to take a cautionary perspective on the offshore oil and gas market outlook over the next 12 months. With the recent oil market rebalance, many commentators in the industry have put forward certain features of offshore oil and gas service companies that would make them better placed than others in this context. Having taken these various factors into account, Mermaid believes that it is one of those well-placed companies to capitalize on the current market conditions. This is due to Mermaid's strategic industry positioning, reputation, track record, and fiscal discipline. This is further elaborated below:

Geographical coverage and shallow water focused

The majority of Mermaid's subsea vessel fleet operate in relatively shallow water which is known to be more defensive and less affected by lower oil prices. This is because break even costs of such fields are reported to be lower than deeper water fields and therefore less likely to be subject to contraction in service demand. Mermaid has also



developed strong local joint ventures in cabotage-protected markets serving NOC's in those countries. This includes countries throughout Europe, Middle East and Asia Pacific regions exposing Mermaid to the benefits of local expansions as NOC's strive for continued growth and energy security and therefore tend to be less price sensitive.

IRM focused, and geographical expansion

One of Mermaid's core businesses is dedicated to the NOC's yearly inspection, repair and maintenance programs which is less exposed to capital expenditure reduction. In particular, medium to long-term demand is expected to remain relatively intact which should bode well for Mermaid. Mermaid continues to pursue other service and geographical expansion to those countries where demand growth is relatively strong especially in the IRM, subsea engineering, SURF and cable installation markets.

Track record of quality and safety, modern asset base

Mermaid remains one of the key industry players with an excellent operational and safety record and a stable management team. This provides a competitive advantage in tighter market conditions as oil and gas majors will give preference to contractors with an established track record over new players. Mermaid's subsea fleet is relatively young, with many of them less than 15 years old thus placing them in a favorable

position with oil and gas majors who have shown a tendency to prefer newer equipment due to superior capabilities and operational efficiency. Mermaid has already implemented asset growth plans through chartering-in of additional subsea vessels. This allows Mermaid the flexibility to serve anticipated demand or to release such charters in the event of falling demand without the need for major capital expenditure.

Mermaid has a stable order book mostly in the subsea services sector, with more near term contract wins expected. This contract backlog is expected to provide a backbone of revenue in 2020 with room for additional upside.

Fiscal discipline

In these challenging market conditions, Mermaid retains low gearing and sufficient cash reserves. It allows the company to remain agile and be ready to take advantage of any opportunistic and organic growth that may present itself in the present time.

(References: IHS Markit, Kennedy Marr, Organization of the Petroleum Exporting Countries (OPEC), Pareto Securities Research, Rigzone, Rystad Energy, Strategic Offshore Research, U.S. Energy Information Administration (EIA), Moody's, Wood Mackenzie).

Agrochemical

PM Thoresen Asia Holding Public Company Limited

Bussiness Overview

PM Thoresen Asia Holdings Public Company Limited (“PMTA” or the “Company”) is a holding company of Baconco Co., Ltd. (“Baconco”) and PM Thoresen Asia (Singapore) Pte. Ltd. (“PMTS”). Baconco is currently operating in the agrochemical industry, having its headquarters located in southern Vietnam about 70 kilometers from Ho Chi Minh City. PMTS, incorporated in Singapore, principally functions as an offshore procurement organization for Baconco, providing purchasing services mainly for macronutrient products.

Baconco develops, manufactures, markets and distributes mixed, single and compound fertilizers with a total production capacity of approximately 450,000 metric tons per year and packaging capacity of 550,000 metric tons per year. All Baconco’s fertilizers distributed in Vietnam are under the “STORK” trademark registered by Baconco since 2005. The STORK brand has been highly-recognized and credited for quality and reliability, a result from Baconco’s strategy to produce high-quality fertilizers with major nutrients of nitrogen (N), phosphate (P_2O_5) and potash (K_2O).



Baconco’s trademark, STORK, has been registered in Vietnam since 2005.

To expand customer base and to increase sales and distribution channels overseas, Baconco also manufactures and distributes fertilizers for external customers. At present, it exports fertilizers relation over 30 countries worldwide with main clusters of customers in Africa, MEA and SEA. Apart from the fertilizers, Baconco also distributes pesticides in Vietnam and foliar both in Vietnam and abroad where it outsources production process and packaging of pesticides based on formulas and criteria determined thereby to the third party. In addition, Baconco markets, sells and distributes fertilizers, pesticides and foliar under its trademarks registered in Vietnam and overseas.

A: Products and Services

1. Fertilizers

The essential ingredients in chemical fertilizers are nitrogen (N), phosphate (P_2O_5) which provides phosphorus (P), and potash (K_2O) which provides potassium (K) as well as other supplements. Major and supplementing nutrients restore and increase soil nutrients to enhance cultivation yields and productivity. Nitrogen not only helps leaves required for photosynthesis to grow quickly but also helps producing seeds. Phosphorus encourages trunks to grow, strengthens and expands roots. Potassium is used in the transportation and production of starch to feed growing parts or to roots and stems while reducing infection.

1.1 NPK Compound Fertilizers

NPK Compound Fertilizers are composed of all three main nutrients, namely, nitrogen (N), phosphate (P_2O_5) which provides phosphorus (P), and potash (K_2O) which provides potassium (K) for plants. The N-P-K mix may vary according to purposes and each crop’s biological needs. Baconco sells NPK Compound Fertilizers both in Vietnam and overseas. These fertilizers are Baconco’s main products.

1.2 Other Fertilizers

The Other Fertilizers segment includes single fertilizer which contains a single nutrient; and compound fertilizer composing of at least two nutrients. The fertilizers are widely used due to the flexibility they offer end users to mix based on their needs or types of plants. Nitrogen-based (N) fertilizers speed up photosynthesis and the production of seeds. Phosphorus-based (P) fertilizers helps developing the plant’s stems and roots. Potash (K) in fertilizer creates and transports nutrients to develop growing parts, improves fruit quality and increases protein contents to prevent infection.

2. Other Agrochemical Products

Other Agrochemical Products include pesticides which Baconco uses outsourcing to repackage and sells under its trademark; as well as Foliar fertilizers.

2.1 Pesticides

Pesticides are biochemical or chemically-synthesis substances created to protect, destroy, deter or discourage pests. Mostly-found pests are insects, plant pathogens, weeds and microbes that spread disease, damage agricultural products and reduce production. Baconco distributes its pesticide products under the STORK trademark in Vietnam only.

2.2 Foliar

Foliar fertilizers are liquid fertilizers sprayed onto plants to be consumed through leaves which absorb nutrients faster than through roots. Foliar offers similar nutrients to the NPK Compound fertilizer; that's why foliar are commonly used with fruits and vegetables for higher and better productivity.

3. Factory Area Service Management

Baconco is located in southern Vietnam at the Phu My I Industrial Park, Ba Ria Vung Tau Area, which is 70 kilometers from Ho Chi Minh City. Locating next to the river, the Phu My I Industrial Park attracts industries and is one of Vietnam's export centers in the South. The industrial estate also benefits from demands for storage of goods or raw materials prior to shipping or logistics. Moreover, as the business in the agrochemical industry within Vietnam and overseas are highly depending on an

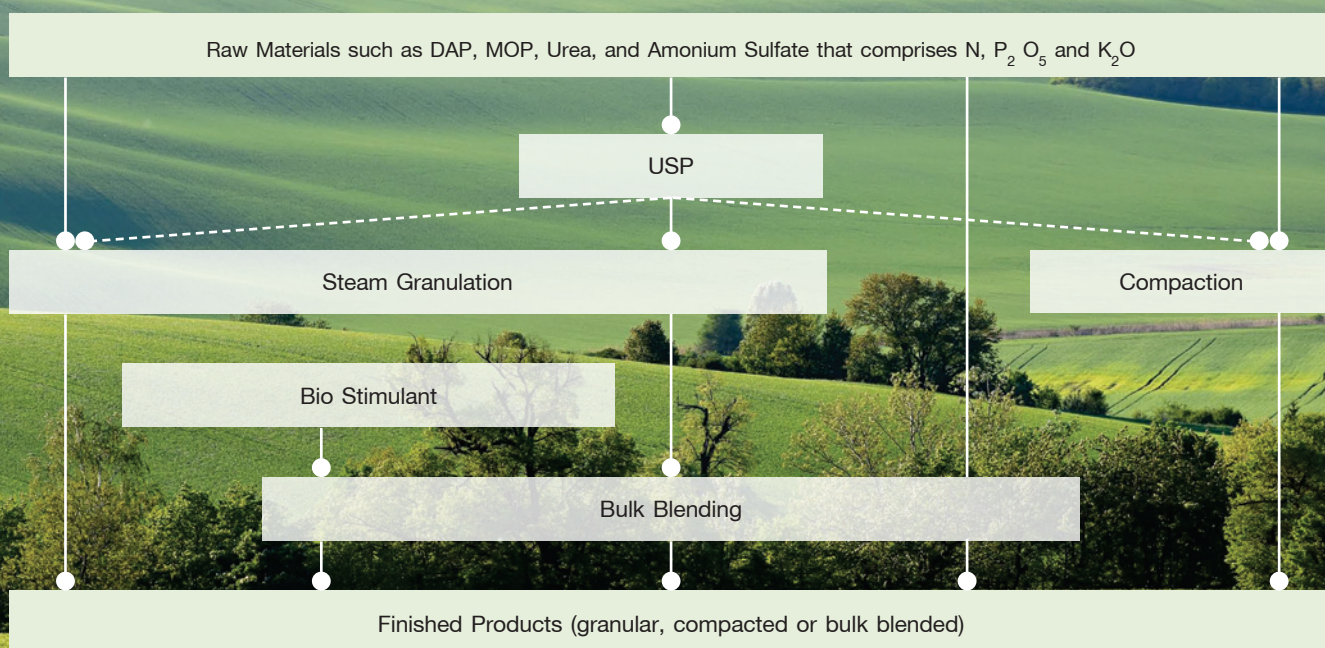
agricultural cycle which may differ throughout the year. Baconco therefore foresees an opportunity to offer factory space for rent to industries to generate recurring incomes from rent and to also diversify its business risk to maintain sustainable growth.

The customers of each warehouse are different based on their objectives and sizes of the warehouses that are available to store products. To elaborate, Baconco I ("BCC I") and Baconco III ("BCC III") are for the Company's raw materials, finished products, parts and others required for its agrochemical business while redundant areas may be leased to tenants on a short-term basis. Baconco V ("BCC V") was reserved for foliar packaging line expansion and the other space remaining for factory area service. Baconco's storage facilities can be segmented to different sizes to suit customers' requirements. The facilities also offer integrated services such as parking lot for trucks, trucking area, security guards and other infrastructures (electricity, water and ventilation system).

Fertilizer Production Capacity

At present, Baconco has an average production capacity of 450,000 metric tons of fertilizers per year and the average packaging capacity of 550,000 metric tons per year.

Production Process

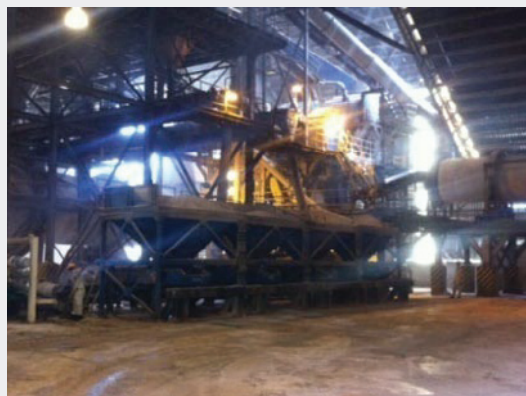


Baconco produces three types of fertilizers, namely, Granulated, Compacted and Bulk Blending. Moreover, it produces enhancing additives known as Urea Super Phosphate (USP) and Bio Stimulant which is used to increase the fertilizer's efficiency in order to add value to

Baconco's products and to make customer's money more worthwhile. The fertilizer production process requires both expertise and sophisticated technology where Baconco will produce at least 50,000 metric tons of fertilizer for each production line.



Bulk Blending



Granulation Line



Packaging



Granular Fertilizer Dryer

B: Marketing and Competition

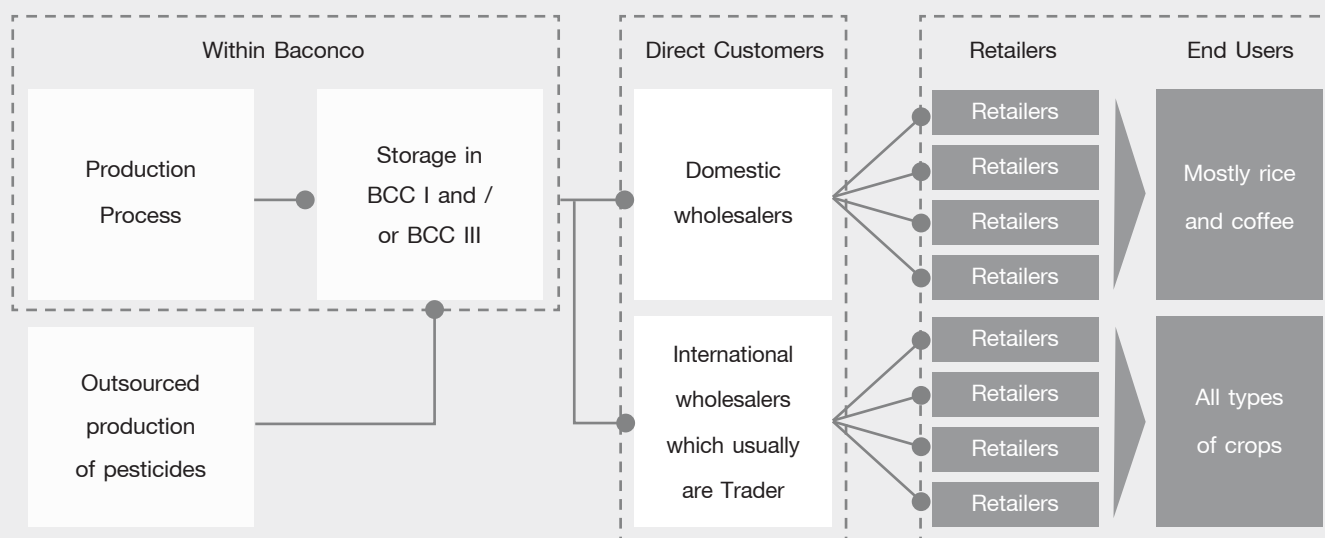
Baconco has started distributing fertilizers in Vietnam under the STORK trademark since 1995 before registering it as our trademark officially in 2005. Baconco's strategy is to directly capture wholesalers who are direct customers. Because of Baconco's superior products and strong brand image, it has become one of the leaders in Vietnam's agrochemical.

Competitive Strategy

As Vietnam's economy is driven by the agro industry together with the fact that fertilizer is a commodity, Vietnam's agrochemical industry is heavily competitive. Nonetheless, thanks to Baconco's superior products, it is able to retain its position as one of the market leaders in the local agrochemical scene. The STORK trademark is widely recognized and renowned for its product quality and is Baconco's main competitive strategy

Distribution Channels

Agrochemical Business



Baconco directly sells its products to wholesalers in Vietnam who distribute them to retailers who later re-distribute them to end users at the end. Meanwhile, Baconco's international customers are trading companies who contract Baconco to manufacture fertilizers by order.

Industry Overview and Future Trends

Global Fertilizer Market

According to the report on World Fertilizer Trends and Outlook reported by the Food and Agriculture Organization of the United Nations, total fertilizer nutrient consumption is estimated at 191.8 million metric tons in 2019 and is forecasted to reach 201.6 million metric tons by the end of 2020. Asia is the largest consumer of fertilizer in the world and most of which are consumptions from East and South Asia.

Vietnam's Fertilizer Industry

Although there is the challenging from the weather conditions, Vietnam's fertilizer industry still has high potential. This is driven by a stable and constant fertilizer demand since more than 60% of the population work in the agricultural sector. The growth of the fertilizer industry depends on the level of agricultural price recovery and the production of key crops. Moreover, the adequacy of rainfalls and water supplies are significant issue as some agricultural areas are potentially encountering drought. In addition, the fluctuation of raw material prices could also impact the demand and the trend of fertilizer industry.

Investment

Coal Logistics

Unique Mining Services Public Company Limited

Business Overview

The main business of Unique Mining Services Public Company Limited or (“UMS”) is an importation of high quality coals, bituminous and sub-bituminous, with medium moderate calorific value and less environmental impact. The coal is mainly imported from Indonesia or bought from other importers in Thailand to distribute to large, medium and small-sized industrial factories especially those located in Bangkok and other provinces surrounding it. The primary industrial targets of UMS were food and beverage sector, pulp and paper including cement industries. UMS strategically carries out quality handling and preparation test to ensure that our coal can meet the engineering requirements of each boiler in different industrial factories.

UMS has set its strategy to deliver coal to customers in a timely manner through complete supply chain management with efficient administration in coal stockpiles and warehouses to ensure coal adequacy for delivery to customers. This enables the customers never have to remain stress-free about stocking up coal and preparing stations or warehouse to store coal on their own.

A: Products or Services

Coal is a fossil fuel that has a large amount of reserves. Coal resources spread over more than 100 countries around the world making the coal to be a fuel with high volume stability. The price of coal is very competitive its price becomes cheaper than other fuels, especially natural gas and fuel oil. Coal is a type of natural fuel which has a solid state. The main component of coal is carbon. Generally, coal is dark brown or black in color and can be divided into many types. The best quality coal is measured by the calorific value, moisture and sulfur content respectively such as anthracite, bituminous, sub bituminous and lignite.

UMS imports bituminous and sub-bituminous coals because of their high quality as they contain moderate calorific value, moisture content and ash content at appropriate level. Another thing that makes these coals special is that their sulfur content is relatively low compared to fuel oil (fuel oil has a sulfur content of approximately 0.1% to 3.0 %). Thus, they will create less environmental pollution. UMS does not

import anthracite coal due to its higher cost, limited domestic consumption and lack of growth trend. Lignite is the lowest quality coal as it carries a lot of sulfur content which may lead to more negative impact on the environment. As a result, it becomes unpopular with the customers.

UMS’s business operation begins when the coal is imported from Indonesia or bought from other domestic suppliers for sale to industrial factories. UMS is able to deliver its coal to all large and some medium-sized factories as soon as possible without any need to make a stop at its warehouse. For small and medium industrial customers, some of them require coal that undergoes the coal preparation and screening process. Approximately 50,000 tons of run-of-mine coals are imported each time. Their qualities vary in terms of calorific value, moisture, ash and sulfur content. Therefore, it is important that these coals are properly graded prior to the delivery. Each type of run-of-mine coal has different attributes such as the calorific value although they come from the same mine. (Coal in different soil layer has different features, for instance the sub-bituminous coal can be divided into several types depending on the calorific value, moisture, ash and sulfur content, etc.) The coal will then be mixed with UMS’s unique formula to meet customer requirements. The coal will also be classified to have appropriate quality for the boilers used in the industrial plant of each customer since each boiler is differently engineered to achieve highest combustion. UMS provides delivery service to its customers on a daily basis according to their usage which may ease the burden of finding coal storage in the customer’s facility since many customers do not have enough spaces to store it.

B: Marketing & Competition

Marketing Policy

UMS uses a marketing strategy based on strengths of coal. To be more specific, the cost of coal is lower than fuel oil with more available proven reserves. That makes coal more popular than other sources of power. UMS has succeeded in keeping relationships with existing customers for small and medium-sized industrial factories by using the following marketing strategy.

Competitive Strategy

(1) Goods and Services

UMS's product strategy includes extensively carrying out quality handling and preparation test to ensure that our coal can achieve maximum efficiency of fuel combustion of boilers used in each factory. At present, UMS uses this technique for medium and small-sized industrial plants which adds value to its products and relieves price competitive pressure, especially with the major coal suppliers in the country. UMS is determined to penetrate more medium and small industrial markets since this market segment is less competitive than the large industrial market.

(2) Customer Base Expansion

Because coal is obtainable from large quantities of proven reserves compared with fuel oil and gas, its price is low. Coal also has very little environmental impact (bituminous coal and sub-bituminous coal), so many industrial factories are prone to switch their source of power to coal in a long run. UMS is a company with long history in coal industry and has customers in various industries. The declining sales volume of UMS in recent years has diminished the number of its customers, UMS is now focusing to rebuild the relationship with ex-customers and increase orders from them prior to this year but the sales volume was still lower than expected. The company will however keep continuing for the time being.

(3) Cost Administration

UMS manages its inventory through a good inventory management, transportation system and fabricating a warehouse near the industrial sites of its customers to save significant amount of shipping costs. UMS owns several lighters to reduce the transport outsourcing expenses. UMS has maintained a good relationship with coal suppliers/manufacturers for many consecutive years. UMS also sources coal from several suppliers, thus it is unnecessary for UMS to overstock its inventory which allows it to manage stock more efficiently and lowers cost and loss arising from stockpile.

Clients & Target Customer, Distribution Channels

UMS sells coal to domestic factories divided into large, medium, and small-sized industrial plants. UMS pursues its policy of expanding its customer base to medium and small-sized industries which are not major coal distributors' sales target. With its policy, UMS can minimize price competition against its major competitors. Currently, there are approximately 30 small and medium-sized factories and 2 large-sized factories being mainly in pulp and paper industry including food and beverage that UMS serves.

UMS's targets are in industries requiring thermal energy in producing steam for manufacturing processes such as food processing, pulp and paper, rubber gloves, feed mill industries, etc.

UMS's customers can be segmented by size of the industry into two groups as follows:

1. Small and Medium-Sized Industries

This segment is UMS's existing customers located in Bangkok, Samut Sakhon, Nakhon Pathom, Ratchaburi, Pathum Thani and Ayuttaya. The customers are conversant with the use of coal with many years of business relationship and continuous trust in UMS's products throughout the years. The members in this segment mainly included food processing, rubber glove, pulp and paper, etc.

2. Large-Sized Industries

Large industrial plants using coal are mainly in cement industry in which a large quantity of coal is purchased through a procurement auction. The coal price is the main factor in customer's decision. At present, the number of customers is limited.

Competition & Industry Outlook

Competition

The business of coal sales for industrial factories in Thailand is operated by approximately 20 vendors consisting of large, medium and small vendors. The price competition has become more fiercely for years because of a growing number of new small vendors. This year the prices of coal were rather stable as there weren't many upward or downward swings in its prices.

The Company focuses on increasing the number of customers from small and medium factories. At the same time, it also looks for opportunities to penetrate into the market of large-sized factories in order to expand its customer base and boost the sales volume. The Company also offers services in similar areas and seeks to invest in other businesses to achieve a sustainable growth.

Industry Outlook

For Thailand coal industry overview in 2019, due to its lower price compared to natural gas and fuel oil, coal remains an important energy source for industrial development especially in countries with high economic growth rate such as Asian countries including Thailand. The demand of coal had been increasing during the first 10 months of 2019. Thailand imported approximately 19.19 million tons of coal, up 9.4% YoY. The imported coal was high quality coal used in electricity generation and other industrial segments.

For the global coal market in 2020, although China is likely to import less coal and control its coal price, the demand of coal used in electricity generation in Asian countries, such as India and Vietnam, seems to increase, leading to an increase in overall demand. This may cause overall coal demand to be unchanged or slightly increase.



For Thai coal market in 2020, it is expected that overall coal consumption might remain stable or slightly drop as the consumption is mainly from industrial sector in line with economic climate. Coal price is also expected to fluctuate slightly. However, political uncertainties may affect coal price.

C: Coal Procurement Procedure

UMS has a standard procedure for product sourcing and services as below:

1. UMS procures coal from domestic suppliers or imports bituminous and sub-bituminous coals from Indonesia, one of the top three coal producer in the world. UMS selects the good quality coal based on calorific value, moisture, ash and sulfur content to match with customers' demand and be environmental friendly. Unlike other coal producer countries, the location of Indonesia is not far from Thailand, so the transportation cost is low. UMS imports approximately 50,000 tons of coal per shipment.
2. The main vessel from Indonesia anchors at Koh Sri Chang which located at Si Racha district in Chonburi. Then the coal is transferred to lighters which can carry 1,500 - 2,500 each. After that the lighter will dock at Nakornluang site, Ayutthaya port for discharging.
3. UMS can deliver coal to its customer right away by truck transportation. In an event that the Company has to transport the coal to its warehouses in Ayutthaya before a screening and quality improving are carried out, the finished coal will be transported to customers by contractor's trucks.

4. UMS has a policy to maintain a certain inventory level for achieving customer demand.
5. It takes around 45 days for the procurement transaction from Indonesia to UMS's warehouses in Thailand to complete.

From the historical data, it was found that the fluctuation of coal prices vary depending on global coal prices. The Company has the policy of sourcing coal from many distributors to reserve an appropriate level of coal, to achieve the business expansion and to balance of power to negotiate prices with other distributors. This is to diversify the risk of coal purchasing.

Besides the price factor, the reliability and the trust in the coal source are another factor that the Company focuses heavily, especially the quality of coal, productivity, coal to port transportation system and the reputation of the supplier etc. Moreover, the Company is confident that it will receive the high quality coal from its partners because it has built up a good relationship with its partners for a long period of time.

The Company has the policy to supply good quality coal and be environmentally friendly to meet the customers' need. Moreover, the Company has a process for coal quality checks from the very beginning at supplier, mine, transportation and production line until it was finally delivered to the customers to ensure their satisfaction.

Sustainability Report

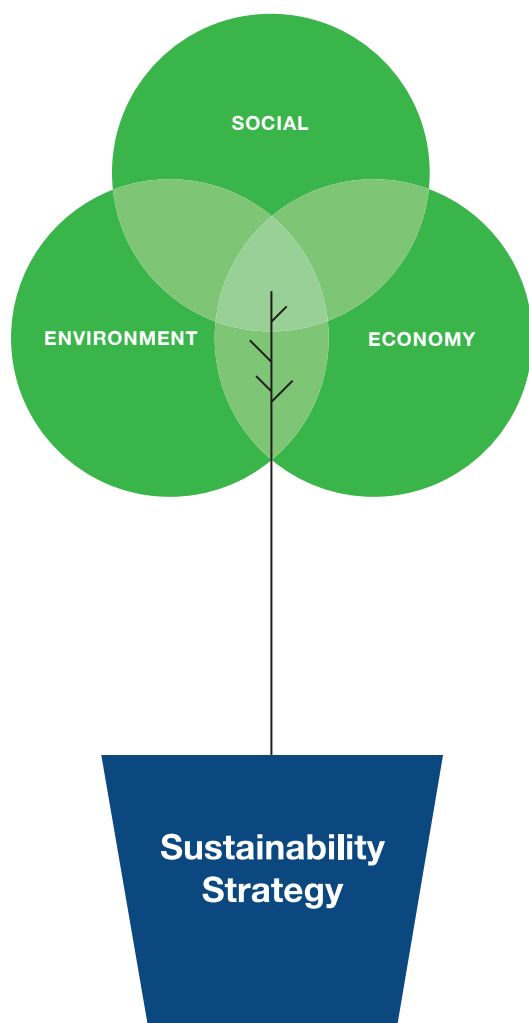
The Compass: Navigating Towards Sustainability

Sustainability Roadmap

TTA's Approach to Sustainability

Thoresen Thai Agencies Public Company Limited, or TTA, is a strategic investment holding company that has a balanced portfolio diversified both locally and internationally. Included in its current business portfolio are shipping, offshore services, agrochemical, and investment. TTA always focuses not only on increasing positive value, but also on reducing negative impacts of business operation on the society and the environment. The missions of TTA are to create and facilitate sustainable growth in order to add value to our stakeholders, community, society, and environment throughout every process of our business operation.

At the end of the year 2019, the Board of Directors approved an establishment of Sustainable Development Committee ("SD Committee"), consisting of representatives from the Board of Directors themselves and executives of each business group and other units involved. Responsibilities of the Committee include develop policies, formulate strategies, and carry out sustainable development plan in accordance with the business operation in view of economic, social and environmental aspects. The Company also determines to generate lasting value for all groups of stakeholders while striving for an implementation and cooperation in the operation of projects under the framework of sustainable development with relevant internal and external sectors. Sustainable Development Working Group ("Working Group") has been established to apply and align the implementation of the sustainable development strategies throughout the organization to be in the same direction. Members of such group have been selected from senior managers and



TTA's Sustainable Development Goals

- 1 Reducing plastic waste from usual business operation by 30% within 3 years from 2020 onwards.
- 2 Reducing lost time injury frequency rate (LTIFR)
- 3 Training all of the employees (100%) about human rights within the year 2021.
- 4 Being a certified member of Thailand's Private Sector Collective Action Coalition Against Corruption ("CAC") within 2021.
- 5 Conducting quality and safety checks for products and services of all Pizza Hut branches and every supplier.
- 6 Reducing the turnover rate of TTA and subsidiaries' employees.

managers of related business sectors. Furthermore, regular follow-up on the operating progress is reported by Sustainable Development Committee to the Chairman of the Board and the Board of Directors. To promote true knowledge and comprehension of achieving sustainable growth in business operation, a sustainable development consultant company has been considered and approved by the Board of Directors to provide advice on how to plan and collect data for sustainable development of the Company and its subsidiaries, and training to the SD Committee, the Working Group, and related employees.

The Company has prepared the Sustainability Report for the first time in the year 2019. One of the engines that drives the Company towards sustainable growth is this report which can contribute to a formation of reviewing process and a continuous development in sustainable business growth. In-depth data are also presented in this report to show a development and business operation of the Company's and its subsidiaries under an influence of Environmental, Social and Governance ("ESG") factors and respond to the present issues regarding sustainability.

2019 Performance Highlights



Society

Thoresen Shipping has been collaborating with Nakhon Si Thammarat Vocational College to establish a "Maritime Cooks Training Program". The year 2019 marks the ninth year of this project which started in 2011 with the aim to develop professional onboard cooks. There are more than 120 students who graduated from this program.

Environment

The International Oil Pollution Prevention Certificate (IOPP Certificate) is issued to the shipping business after its strict compliance with the maritime regulations. The oil content in the water processed from our oily water separator (OWS) is confirmed to be less than 15 ppm of oil.



Economy

TTA declared its intention to join Thailand's Private Sector Collective Action Coalition against Corruption (CAC) on 8 November 2019 with an aim to be certified by the CAC by 2021.

Navigating Towards Sustainability

About this Report

In its determination to create Sustainability Report, TTA has set sustainable development as one of the most prioritized topics of the Company. This is also one of the topics that every industry around the world places high importance to. To strengthen its resolution to develop sustainably, the Company has produced a sustainability report for the year 2019 and incorporated it within this annual report for year 2018. The year 2019 marks the first step that the Company began to communicate an importance of sustainable development to relevant stakeholders such as shareholders, business partners, customers, employees, etc. of the Company and its subsidiaries. The Company aims to expand and further develop its sustainable development projects to assure its stakeholders of all groups that it will not only grow robustly but also sustainably at the same time.



TTA's significant stakeholders

- | | |
|--------------------------|------------------------|
| ● Customers | ● Partners |
| ● Stockholders/Investors | ● Community |
| ● Employees | ● Public Sectors |
| ● Financial Supporters | ● Mass Media |
| ● Investment Analysts | ● Industry Association |

TTA's Stakeholder Identification

The SD Committee, consisting of representatives from four main business groups, has discussed about group of TTA's stakeholders and come to the conclusion that TTA's stakeholders could be categorized into 2 groups, which are:

- **Primary Stakeholders** who gain direct benefits or effects from the Company and its subsidiaries' business operation are shareholders, investors, customers, employees, business partners, financial supporters, communities in the area where the business operations of the Company and its subsidiaries are carried out etc.
- **Secondary Stakeholders** who gain indirect benefits or effects from the Company and its subsidiaries' business operation are investment analysts, public sectors, mass media, and industry association.

Stakeholder Relationships Development

Stakeholders	Engagement Channels	Examples of Topics
Shareholders/Investors	<ul style="list-style-type: none"> - Annual General Meeting - Quarterly investors meetings - Company visits - Open communication channels e.g. the Company's website, email, telephone, etc. - Whistle Blowing Channels 	<ul style="list-style-type: none"> - Good corporate governance - Innovation and technology development - Operational risk management - Investments in other businesses - Obtain stable and sustainable turnover and the business development
Customers	<ul style="list-style-type: none"> - Call Center 	<ul style="list-style-type: none"> - Quality and safety of products and services
Employees	<ul style="list-style-type: none"> - Intranet, We-Connect Letter, email, video clip, employees' group chat - CEO Coffee Talk - Annual party and annual trip for the employees of the Company and its subsidiaries - MAX Evaluation 	<ul style="list-style-type: none"> - Career advancement - Compensation, benefits, and welfare - Occupational health and safety
Business Partners	<ul style="list-style-type: none"> - Annual seminar and meeting - Telephone, email - Open channels for complaints, opinions, and suggestions 	<ul style="list-style-type: none"> - Human rights and environmental impacts - Fair business practices - Building the partners' capability
Financial Supporters	<ul style="list-style-type: none"> - Company visit - Telephone, email 	<ul style="list-style-type: none"> - Strict compliance with contract conditions - Ability to pay off debt correctly and within a timely manner - Disclose true financial status
Community	<ul style="list-style-type: none"> - Telephone, email - Open channels for complaints, opinions, and suggestions 	<ul style="list-style-type: none"> - Conducting business responsibly for safety, and good environment - Take part in quality of life and community development

Stakeholders	Engagement Channels	Examples of Topics
Investment Analysts	<ul style="list-style-type: none"> - Quarterly analyst meetings - Company visit - Open communication channels e.g. the Company's website, email, telephone, etc. 	<ul style="list-style-type: none"> - Disclose correct information, sufficiently and within a timely manner - Good corporate governance - Obtain stable and sustainable turnover and the business development
Public Sectors	<ul style="list-style-type: none"> - Open channels for complaints, opinions, and suggestions 	<ul style="list-style-type: none"> - Comply with related laws, rules and regulations - Control and support community activities - Anti-corruption
Mass Media	<ul style="list-style-type: none"> - Telephone, email - Corporate communication's annual meeting 	<ul style="list-style-type: none"> - Disclose correct information sufficiently and within a timely manner
Industry Association	<ul style="list-style-type: none"> - Open channels for complaints, opinions, and suggestions - Telephone, email 	<ul style="list-style-type: none"> - Conduct business operations that produce least environmental impacts on the environment and community

Materiality Assessment

A materiality assessment that aligns with the Global Reporting Initiative ("GRI") standards is used by the Company as a guideline to respond to the needs of its internal and external stakeholders. This 'materiality matrix' is designed by considering the level of impacts on its stakeholders' evaluation and discretion along with the overall impacts of the Company and its subsidiaries on economy, society and environment. The assessment procedures are as follows:

1. Materiality Identification

The Company has identified 14 materiality topics from the collection of global sustainability trend and the topics that top related industrial companies pay attention to the most. Positive and negative effects of TTA's business operation on 10 groups of stakeholders and their expectations towards TTA have also been taken into consideration.

2. Materiality Prioritization

To ensure that all Company's and stakeholders' materiality has been reached, Materiality Prioritization is considered to be part of the Materiality Assessment process of GRI standards which aims to formulate sustainable development strategies in terms of economy, society and environment of the Company. Moreover, stakeholders' opinions and interests have been

acknowledged and properly included in the Sustainability Report. From September 2019 to October 2019, the Company asked all 10 groups of its stakeholders, managements and employees to take part in an online questionnaire about materiality. The results of such questionnaire have been analyzed and used in both Materiality Prioritization and Materiality Matrix to identify the importance of each issue based on each group of internal and external stakeholders.

3. Materiality Validation

TTA's important issues had been reviewed and validated by Sustainable Development Committee and Sustainable Development Working Group and proposed to the Board of Directors for further consideration and approval. As a result, the Board of Directors has reviewed the important issues that have potential to affect the Company and its subsidiaries as well as external stakeholders.

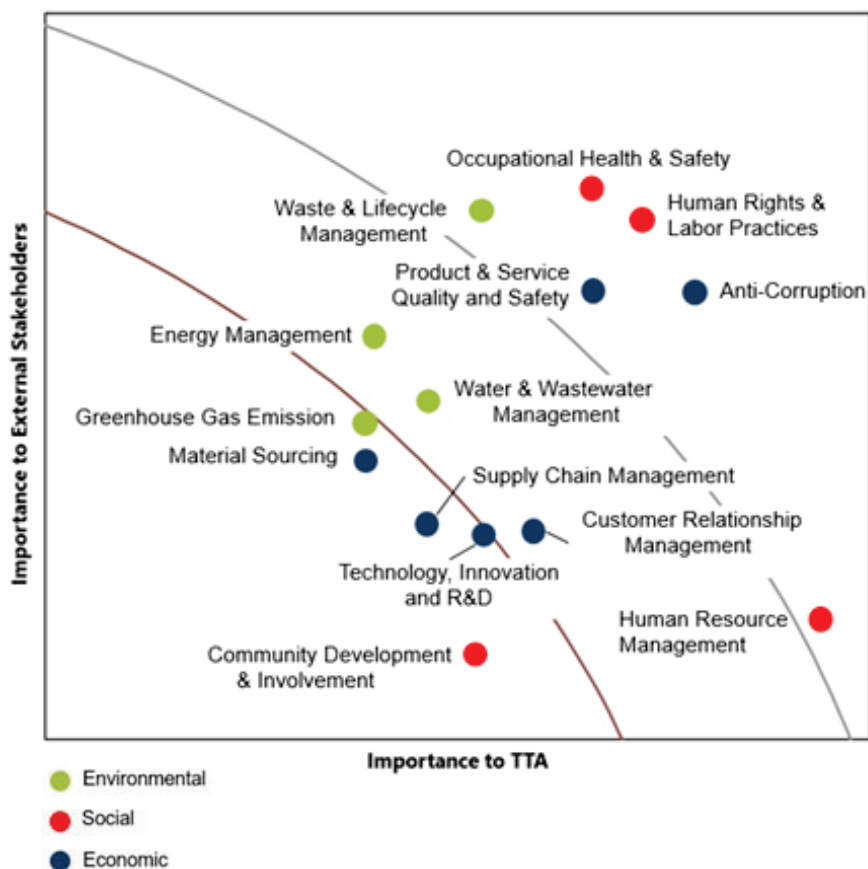
4. Materiality Review

To foster the sustainable development practices throughout the Company, a follow-up plan for materiality management and a disclosure of the actual performance concerning important materiality issues were implemented to meet with reporting standards and requirements. The follow-up is also made and reported to the Board of Directors regularly.

Stakeholder Engagement

Results from materiality assessment have been reviewed by SD Committee and Working Group and prioritized based on their importance by considering the information collected from our stakeholders were approved by TTA Board of Directors. Consequently, the results had been processed and assigned by their levels of importance in the 'materiality matrix' which are based differently on their sustainable components in the economic, social and environmental aspects. In 2019, the topic that both internal and external stakeholders of the Company paid attention to the most was Occupational Health and Safety, Human Rights and Labour Practices, Anti-corruption, Waste and Life cycles Management, Quality and Safety of Products and Services, and Human Resources Management.

TTA Materiality Matrix



Reporting Principles

The year 2019 marks the first year of TTA's Sustainability Report. The Company and its subsidiaries, which are shipping business, offshore services business, agrochemical business, and food business, have disclosed their actual performance in economic, social and environmental aspects. The qualitative data were collected from January 1, 2019 to December 31, 2019 while the quantitative data were collected from October 30, 2019 to December 31, 2019.



This Sustainability Report was prepared in accordance with the Global Reporting Initiative ("GRI") Standard: Core Option and additional disclosures from the Food Processing Sector Supplement. The Company has also reported the data according to Sustainable Development Goals ("SDGs") and disclosed information under the requirements of Thailand Sustainability Investment ("THSI").

Communication Channel

TTA always values all stakeholders' opinions and expectations as the Company believes that constructive comments can promote its sustainable development and help improve its performance in the coming year. Therefore, the following channels for communication have been provided to receive comments, suggestions, and inquiries:

Company Secretary Office

Thoresen Thai Agency Public Company Limited, Orakarn Building,
 7th Floor, 26/26-27 Soi Chidlom, Ploenchit Road, Lumpinee Sub-district, Pathumwan District, Bangkok 10330
 Telephone: +66 (0) 2250-0569 Email: COR@thoresen.com



Economic Aspect

Approach to Sustainable Growth

Supply Chain Management

Development of new technology and innovation can reduce transportation costs and shorten production supply chain including service rendering period. During the period, blockchain's role in monitoring supply chain of businesses began to increase as it can make the customers monitor products delivery time or progress on information service rendered by the service providers. However, the Company cannot only consider about factor which is important to supply chain service but it has to also consider about social and environment factors within supply chain of product and service of the Company, such as labor issues and results from negative impacts on society arising from incomprehensive management throughout the supply chains. Therefore, the stakeholders expected that the companies should manage supply chain by taking into consideration social and environment factors, beginning from upstream until the delivery process of products and services to customers or consumers. Effective supply chain management can reduce production costs and can help the business partners to prosper together and it can make the Company monitor, inspect problems occurred and can solve problems in time. In addition, it can signify responsibility to overall society and the relevant stakeholders, directly and indirectly. On the contrary, ineffective management of supply chain can make other stakeholders lose confidences in the Company, can tarnish the Company's image and may reduce customer-base that it may lead to failure on business operations.

TTA is the manufacturer of products and provider of services, so its involvement begins from production process to product and service delivery to the consumers. Hence, TTA foresaw importance on supply chain management; as a result, the Supplier Code of Conduct has been developed and expected to be approved by the Board in 2020 which is to specify and apply with all of the TTA's business partners. TTA also issued regulations on procurement including criteria on selection of business partners, by consideration that the service providers' business strategies must be consistent with TTA's strategies. Most importantly, they must put emphasis on society and environment and must comply with international criteria and regulations. Working group has been appointed to inspect and ensure that such procurement has been undertaken with transparency and conformity with the relevant rules. TTA specified that its business partners must sign for acknowledgement of the TTA's Supplier Code of Conduct and shall consent TTA to inspect the production process and service rendering to ensure that they conform to TTA's regulations. In addition, it is specified that internal audit of all subsidiaries must be conducted to make sure that business partners have complied with the criteria or regulations specified by TTA, for instance companies in TTA's Group engaging in food franchise business shall comply with partnership regulations of the franchise's owner or the companies of TTA's Group

engaging in marine transportation business are required to have external certified inspector to jointly inspect the operations to make them conform to the international practices.

Outstanding Project

Project on how to reduce the Company's costs and enhance relationship with the suppliers.

Reduction methods on cost and expenses of each product of Pizza Hut have been explored. In addition, the arrangement of activities for the suppliers who are main business partners by inviting them to attend the seminar with the suppliers of YUM!, so that they can understand working procedures of the Company and its future targets. In addition, Food Safety Seminar has been provided to the suppliers once a year.



Material Sourcing

TTA and its subsidiaries, especially the food companies, place a lot of importance on raw material procurement since customer safety is first priority in the food industry as it costs the trust of its customers. Furthermore, the Company must consider the procurement of raw materials from sources that do not cause any impact on society and the environment, by which business partners must strictly follow as stated in the Company's Ethics Guide for Partners 2019.

The Company strives to procure quality and safe raw materials from manufacturers with social and environmental responsibility. Accordingly, Pizza Hut and Taco Bell, a franchise business of YUM Restaurants International, must comply with the regulations of franchising, including the procurement and sources of raw materials that must meet the quality standards set by the franchise owner. Pizza Hut and Taco Bell comply with the policy of procurement by using palm oil and packaging from Yum!'s plantation forest. Moreover, Taco Bell has the policy to use only paper produced from the planted forest, which does not do any harm to the environment. In procurement, every raw material in production processes must pass the Food Safety testing and quality checks following Yum!'s policies.

The Company established a procurement department to ensure that operations have been carried out to meet the procurement standards, as well as a Procurement Audit Committee selected from non-procurement staff to inspect and ensure the transparency of operation. Pizza Hut and Taco Bell assigned its procurement managers to procure, follow up, and inspect raw materials as Yum!'s standards.

The Company has cooperated with its business partners in raw material procurement by giving partners a certificate to avoid any business partners with no business ethics and awareness to society and the environment. For example, Pizza Hut issues a certificate to its palm oil procurement partners after the due diligence process. Pizza Hut also operates a business with SCG which produces packaging for Pizza Hut. An eco-packaging is produced from plantation wood and easy to be decomposed. Moreover, the Company always examines its partners as well as checking raw materials cost annually to ensure that all materials are of high quality, safe, and friendly to the environment.

Quality and Safety of Products and Services

Quality and safety of products and services are one of the key factors that can improve quality of life. Even though a growing interest in healthy foods and organic products has certainly gained popularity in this day and age, there is an urgent need to address the restrictions which apply to consumers' health such as the risks for developing diseases and allergy risks from certain types of food. Thus, business owners should realize their importance and prioritize them more than the quantities of products and services given to consumers.

Low-level of foodservice quality and food safety may have an adverse effect on the lives, health, and safety of consumers. This could impact negatively on the credibility of the Company at last. Moreover, not only time and costs are required to alleviate the aforesaid problem, its employees will be unemployed and will not have enough income to support their family in an event that the company is forced to close its door. Thus, by complying with food safety regulations, the Company can reduce the cost-related problems that come with it, improve customers' health and build customers' trust. This will surely improve the consumption of its products and services over time and contribute to the sustainable growth of the Company.

TTA operates its food business under two restaurant franchises, namely Pizza Hut and Taco Bell. Therefore, it has a responsibility to deliver quality food that will not cause our consumers to fall ill. Under the Company's food safety management plan, every branch managers must possess food handling certificates, issued by the Ministry of Public Health. The Company also follows laws and regulations on food safety from the Food and Drug Administration (FDA) and terms and conditions posted by its franchisor, YUM! International. In-class or online training courses about the quality and safety of food are arranged to all restaurant employees to assure that those food products are clean and safe before delivering to the consumers. For example, the staff is instructed to wash their hands every time they enter the cooking area as well as before the food preparation. Business partners are also required to attend classroom training every year to update their understanding of food safety standards for products. In 2019, all of Pizza and Taco Bell's staff have already completed the quality and safety of food training. Furthermore, 100% of Pizza Hut's business partners has already passed the food safety standards. Apart from that, the Company also buys vegetables from sellers who obtained *Good*

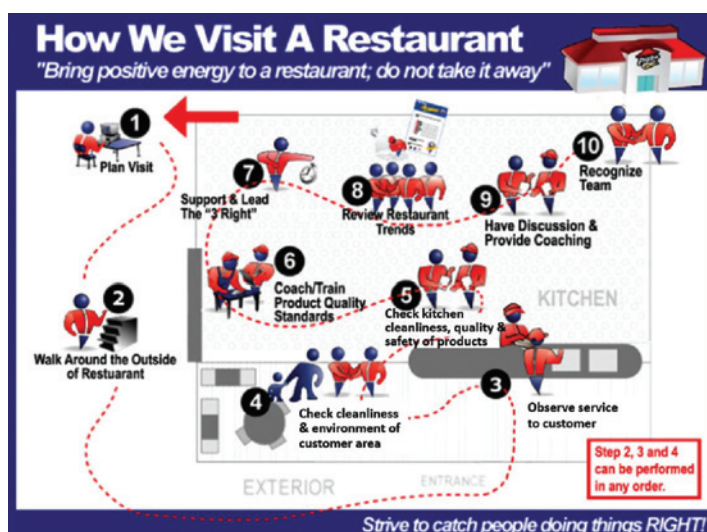
Agricultural Practices (GAP) certification and establishes quality and food safety policy.

Results of the quality and safety of food and services training

Participant in quality and safety of food and services training	Percentage of participant in quality and safety of food and services training		
	The year 2017	The year 2018	The year 2019
Employees	N/A	100	100
Business partners	N/A	100	100

Both Pizza Hut and Taco Bell are committed to deliver quality and safety food to the consumers to maintain their good health. Thus, the Company carries out food safety audits throughout its restaurants and business partners every year. Its restaurants are inspected approximately five times per year. Three out of five are conducted by internal audits and two-fifths of which are conducted by third-party food safety audits hired by the franchisor. The purpose of the audit is to analyze each branch's problems and to improve its service. For Pizza Hut, a branch manager is responsible for controlling food quality and safety as well as operating audit process. Consequently, the audit reports will be proposed to Food Safety Thailand Committee consisting of 2 Supply QAs and 4 Restaurant QAs for a service improvement and development. The reports will be also sent to Leadership Team, restaurant operations and related divisions. All the processes are to ensure its operations and quality and safety food before delivering to the customers. Moreover, Pizza Hut discloses nutrition information on its website to allow customers to stay informed about their food choices.

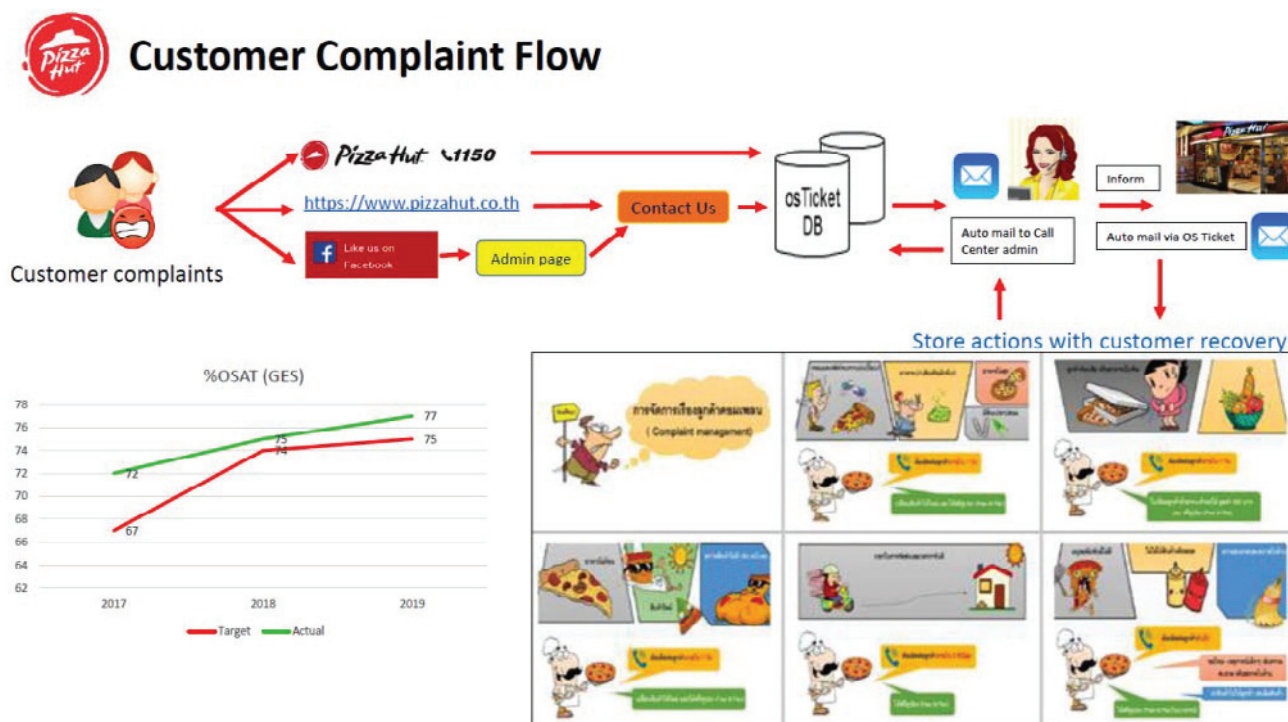
Flowchart of Pizza Hut Restaurant Visit



Additionally, the customers can use various channels to file a complaint regarding quality and safety of products and services such as call center at 1150, www.pizzahut.co.th or

www.facebook.com/pizzahutthailand. The Call Center is in charge of investigating the complaint in the first step and then reports to the Operation Department for further investigation. After the inspection is completed, the Company will improve its service and the customer will be compensated by the Operation Department.

The procedure for handling complaints



Complaints regarding quality and safety of products and services

Number of Complaints (times)	2017	2018	2019
• Total numbers of received complaints	N/A	622	430
• Number of resolved complaints	N/A	622	430

Customer Relationship Management

Customers are the core of every business as its operation cannot run smoothly without them. The understanding of customer's behaviors can increase a number of company's products that meet the needs of each customer group. Nowadays, over 70% of Thais use internet and smartphones. Thus, it is a great opportunity to bring technology into the scene to improve customer relationship management such as to develop mobile applications in order to advertise, and receive feedbacks along with suggestions from customers from the website and use Big Data to determine business strategies.

As a services provider, the Company and its subsidiaries recognized the necessity of analyzing customers' demands and fulfilling their real needs. Therefore, effective customer management will help the Company and its subsidiaries to gain customers' trust, retain existing customer base and expand customer reach by encouraging customers to use products and services from the Company more.

To succeed in customer relations management, the Company has incorporated customer treatment policy and guidelines in the Company's Business Ethics which was enforced in December 2009 and revised in December 2018 as follows:

- Deliver good quality products and services that meet customers' demand
- Provide correct and complete information to customers within an appropriate time
- Strictly follow the terms and conditions given to customers
- Be polite and attentive to customers to earn their trust
- Information obtained from customers must be kept confidential and never be used for personal or third parties benefit.

For more information, please visit http://th.thoresen.com/corporate_governance.html

In food business, Pizza Hut franchise has improved its customer relationship management to be more efficient and increased its customer satisfaction. It also relies on an analysis of customer information from Big Data to offer new products and response to real customer's needs. A campaign features special menus or products according to customer groups. The customer relationship management is carried out by store manager and central office of Pizza Hut efficiently.

Pizza Hut has conducted assessments and surveys on customer satisfaction via online questionnaires or SMS. The number of respondents and surveys has met with the Yum!’s standards. The questionnaire includes questions regarding flavors, visual aspects, prices and other satisfaction factors. Market research data from Pizza Hut’s marketing team and outsource revealed that customer satisfaction level was at 77.

Indicator	Customer Satisfaction Survey		
	2017	2018	2019
% OSAT (GES)	72	72	77

Note : OSAT = customer’s overall satisfaction

Furthermore, Pizza Hut provides the following channels to receive customers’ complaints or suggestions: Call Center at 1150 or the company’s website (www.pizzahut.co.th) where the data is collected for service improvement. In an event that a complaint regarding services is filed, the store manager will analyze the received problems or complaints in various aspects for instance the cause of the problem(s), the location where a complaint arises, the number of complaints, etc. and conduct an assessment of satisfaction resulting from the resolved complaints. Until now, there were no complaint regarding health and safety from Pizza Hut’s services. For more details, please refer to the Quality and Safety of Products and Services.

Technology, Innovation, and Research and Development

Speediness of present-day technology can change lifestyles and global business operations and such change intensified challenges on undertakings of business. Development of innovation and technology is the heart of business operations as it can elevate competitive edge and make the Company able to quickly and promptly respond to the customers’ demands. Thus credibility and customer-bases of the Company can be increased and operating costs can be saved.

The Company has a policy to encourage innovation to support development and effective operations of the organization. Innovative strategy has been formulated to make it conform to the Company’s directions and business development plans on continued basis. Presently, the Company has developed systems and implemented technology with its marine cargo transportation business, which made cargo able to be transported speedily and on time and it can also promptly respond to the customers’ requirements. Technology has been applied to increase security of business operations. The Company’s Communication & Technology Department has been assigned to conduct study and research on new technology to be used in the operations, for instance, installation of CCTV to prevent the pirates. The Company also realized the importance on application of innovation and

technology and strictly compliance with the rules and regulations on environment to mitigate environmental impact, for instance, the Company installed Ballast Water Treatment system purchased from the experienced supplier in the United States of America with its cargo ships to make sure that ballast water is clean and do not jeopardize the environment before discharging into the sea constantly. NS Enterprise Software for Operation & Maintenance management has been used to compilation of information on procurement, planned maintenance and overhaul and personnel management as the centralized data of the Company. Additionally, trainings have been provided to the users on software development to increase convenience and for ease of application including for development of other systems pursuant to the international requirements.

With regards to restaurant business of Pizza Hut and Taco Bell, Research & Development Department and Communication & Technology Department have been assigned to research and develop products as well as to explore new technology for improvement of services. Pizza Hut has implemented production technology to reduce costs and increase convenience and service channel for easier accessible to products via Food Application by cooperation with Grab Food and Food Panda. In addition, POS system, i.e. Wallet QR Code, has been developed to respond to the Cashless Society Lifestyle which has tendency to grow swiftly in the same direction all over the world. It is expected that this system can be commenced in January 2020. Big Data System has also been developed in order to be accessible to the customers’ requirements and package program has been used to analyze the customer’s information and it is expected that this system can be implemented in 2020.

In aspect of product development, the Company is determined to develop products for restaurant business (Pizza Hut) continually. Many studies have been conducted, for instance, Global Trend by experimenting with real customers and Global Success of Pizza Hut Businesses in various countries. The Company has cooperated with the customers on development of more varieties of products and development of manufacturing technology. Data of food delivery business, i.e. Grab Food, has been used to analyze the customers’ demands and behaviors (small serving for one person), to strengthen confidence on rendering services to customers as food can be delivered on time and to help the Company’s business partners on business expansion. Pizza Hut has developed production process by using smaller ovens which can reduce amount of used oil, save electricity cost and oil. Study on production process and procurement of good quality raw materials for producing heat used for making pizza has been conducted in order to develop quality and taste of food. Manufactures and farmers have also been inspected.

Outstanding Project

“Co-branding” Marketing Collaboration Project

Pizza Hut has cooperated with Bar B Q Plaza to invent new menus under “Fin Ver Hut Jer Gon” campaign. This collaboration can attract customer bases and expand selling channels of both businesses.



Anti-corruption practices

As corruption remains a major threat to the world, every organization should realize the importance and collaborate in fight against it. All forms of corruption results in higher production costs and leads to a decrease in profit if product prices remain unchanged. On the contrary, if the Company would like to increase product prices due to higher costs, the demand for products may decrease. If the Company recognizes the importance of anti-corruption, it not only benefits from an increase in profit by reducing costs but also an improvement in Company image and a rise in demand for products. The Company believes that all stakeholders are pleased to join or invest in the companies with good corporate governance and anti-corruption policy. With such belief and business collaboration, the Company can expand its business steadily.

The Company conducts business ethically and is committed to its responsibility for all stakeholders. To provide an anti-corruption practice guideline, the Board of Directors approved the Company to introduce the Anti-Corruption Policy from 2010 onwards. A revised policy is issued on 30 October 2019 to ensure that it covers and is in line with current state of business conduct. For further information, the revised policy is disclosed at http://th.thoresen.com/corporate_governance.html. Moreover, the resolution of the Board also approved for participation in Thailand's Private Sector Collective Action Coalition against Corruption (“CAC”). The Company announced its intention in CAC on 8 November 2019 to show determination to operate on transparency basis and to give all stakeholders confidence in its business conduct concerning anti-corruption. The Company is currently in process of preparation for applying for CAC certificate with an aim to finally acquire it within 2023.



To achieve the Company's goals, the Company has introduced policies and measures, for instance, giving and receiving gifts, hospitality or other benefits, charitable donation or sponsorship policy, etc. These policies are established to comply with the revised guidelines on our Anti-Corruption Policy and must be pursued by all divisions including its subsidiaries and joint ventures. The Company has communicated the aforementioned policies both within and outside organization. Our employees can receive a notification via an Intranet system while an email is used to notify all stakeholders and business partners. This is to ensure that all parties involved acknowledged and adhered to its implementation.

In addition, the Company has the risk management unit whose responsibilities are to assess business and corruption risks and to investigate and evaluate our internal controls system regularly to ensure an adequate and appropriate internal control system that can prevent corruption practices. The Company has also promoted anti-corruption campaign with an anti-corruption awareness raising video from Company's executives, a hand to hand distribution of anti-corruption stickers to all personnel at their working desks, and an anti-corruption training course for new employees to acknowledge and understand Company's policies. The training course for current employees is planned to be held at least once per year starting from 2020 onwards.

To ensure that all employees have a good understanding about anti-corruption, after the training course the Company will request them to complete an anti-corruption online survey. If there is any topic that employees do not understand, the further training course covering such topic will be held.

The Company established various channels of communication, so that employees can submit any complaints of corruption practices via letter, email, or directly to the Internal Audit. Once the complaint is filed to the Company, the Internal Audit will be responsible for the pre-inspection. Then it will be reported to the Audit Committee for further consideration for the inspection result as well as an appropriate penalty in an event that a breach of the anti-corruption policy is found. In the previous year, there is no corruption activity found in the Company. The Company aims to remain free from any forms of corruption at all times.

Channels for reporting and inspection in case of violation with the Anti-Corruption Policy

- Website: www.thoresen.com
- Email: whistleblowing@thoresen.com
- Postal: Post box no.12, non-delivery post office, Siam Commercial Bank, Lumpini Pathumwan District, Bangkok 10330

Performance on Anti-corruption

Number of Complaints (times)	2018	2019
• Number of complaints concerning corruption received	0	0
• Number of complaints concerning corruption with proven guilty	0	0

Outstanding Project

TTA officers joined an event to fight against corruption under the concept “Join hands against Corruption”

In the previous year, TTA and its subsidiaries participated in the Anti-Corruption Day 2019 under the concept of “Join hands against Corruption” held by Anti-Corruption Organization of Thailand at Bangkok International Trade and Exhibition Centre on 6 September 2019.





Environmental Aspect

Consciousness and Awareness

Environmental Management

The Company is aware that the surrounding environment and communities may be affected by its business operations. Therefore, it has set the policy encouraging environmentally-friendly business activities both in the Company and its subsidiaries. To reduce aforementioned impacts caused by the business operation, the Company has conducted a risk assessment prior to a launch of new projects and sought to find the most effective solution. Moreover, the Company sets goals to minimize the use of non-eco-friendly materials, as well as initiates campaigns on a responsible use of natural resources and non-renewable energy. The Company also encourages and activates an environmentally responsible mindset among employees through continuous participation in various activities such as reforestation.

The Company is committed to be more environmentally responsible and determined to improve its role in environmental protection. At the same time, it never ceases to find the best practice for sustainable organizational development. For this reasons, its business operations are conducted in accordance with environmental legal requirements and international standards to promote constant development and to move towards its sustainable goals.

The Company inspires employees via business communication to ensure that in all its operations, at every value chain, it will benefit environmental management. There are 4 major environmental management issues: waste management and product life cycle, energy management, greenhouse gasses emission, and water and wastewater management. TTA's long-term goal is to reduce plastic waste from its operations by 30% within 3 years from the amount of total waste collected in 2020.

Energy management

Nowadays, the demand for energy has increased globally due to the increasing demands from consumers for various energy. The Company realizes the importance of non-renewable energy and that it is a significant factor in business operations. Efficient energy management will not only cut production costs but also mitigate negative impacts on the environment and global community.

The Company policy supports energy efficiency in its buildings and smart choice making, such as turning the lights off during lunch break to save energy or using eco-friendly LED light bulbs. TTA's administrative department is

responsible for energy management in its offices. Furthermore, the Company is also determined to find eco-friendly alternative energy and control pollution to make sustainable business operations happen both in the Company and its subsidiaries. For food business, Pizza Hut went for better options: switching from fluorescent bulbs to LED in all new locations and replacing broken ones in its existing branches. Apart from these changes, the Company has also replaced its equipment such as air-conditioners, toaster ovens, and air fryers to the more energy-saving models. For shipping business, standard light bulbs in the office and container ships were replaced by LED tubes, which generate less heat, more energy-saving and reduce waste production. The Company aims to change to the new lighting system on every container ship by 2020. Consequently, the Alpha Lubricator control system for large machines fuel pumping and the tool Mewist Duct on the

tilter are installed on the ships to improve engine performances, cut energy use in each sailing, and save fuel. At the same time, Mermaid Maritime, an offshore business, has improved its Energy Review System, which will be updated annually.

Outstanding Project

Energy-saving Cold Storage Project

In 2019, the Company initiated an energy-saving cold storage project because Pizza Hut requires 5 to 6 refrigerators to store ingredients, which consume a lot of energy. Therefore, the Company collaborated with an experienced partner to invent energy-efficient cold storage that can keep ingredients fresh up to its standards. At present, energy consumption is being measured and recorded to compare with other locations.

Greenhouse gas emissions

Climate change is now the issue every country in the world pays attention to, as well as Thailand, which has joined the United Nations Framework Convention on Climate Change (UNFCCC) since 1994. Moreover, Thailand also ratified the Kyoto Protocol in 2002, along with the Paris Agreement, which the member countries made the pledge to control world greenhouse gas emissions. Thailand, as one of the associate members, has planned Nationally Determined Contributions (NDC) while focusing on these three fields: Energy and Transport, Waste, and Industrial Process by aiming to reduce its greenhouse gas emissions by 20-25 percent by 2030.

Since every involved department highly values world climate change, the world climate control commitment is formed. Although the greenhouse gas emissions during the industrial process are strictly controlled, it turns to be a new challenge for the private sector, including TTA, which is a leading company investing in a variety of businesses, as well as a shipping business. While the shipping business seems to have some effects on climate change, it is also affected by the issue in some ways as well.

The greenhouse gas emission data in this 2019 annual report covers all businesses that are the primary source of the Company revenue and the businesses that the Company has more than 50-percent ownership and management control, which includes shipping business and offshore service business. For the other business, such as food business and agricultural chemicals business, the data will be collected next year.



Management Approaches

From the beginning, the company always gives priority to the use of natural resources for maximum benefit and minimum environmental impact by using efficient, energy-saving, and green technologies. Presently, the company has concrete policies and measures to reduce greenhouse gas emissions as well as short and long term goals and strategies; moreover, there are also innovations used during the processes. Marine Department is in charge of establishing policies and managing

greenhouse gas to ensure effective processes while also establishing energy management approach and looking for alternative energy source. The Company, furthermore, has policies for its invested companies to set measures for reducing greenhouse gas emissions and effective energy management in order to strictly comply with each industry's regulations and to successfully solve the greenhouse gas emission issue along with society.

Greenhouse Emission Mitigation

This table shows the actions the Company has against greenhouse gas.

Activities	Results	Goals in 2020
<ul style="list-style-type: none"> Thoresen Shipping reduces the emissions of greenhouse gas by strictly follows the MARPOL Annex VI which is the regulations for the prevention of air pollution from ships adopted by the International Maritime Organization (IMO) in order to lower the impact on the ecosystem and environment, as well as climate change in every area within shipping service. The Company uses IMO Data Collection System (DCS) to record every ship's carbon dioxide emissions in order to help with the eco sailing project which can reduce the emissions of carbon dioxide. 	<ul style="list-style-type: none"> Thoresen Shipping received a certificate of the prevention of carbon dioxide emission from the company's ship by following the regulation of EU MRV (Monitoring, Reporting, and Verification) which includes monitoring, reporting, and verifying each ship's carbon dioxide emissions. 	<ul style="list-style-type: none"> Controlling the emissions of sulfur dioxide or any greenhouse gas to be lower than 3.5 percent as the recent regulation Planning to reduce sulfur dioxide to be lower than 0.5 percent as stated in the recent IMO regulation which is going to apply since 1 January 2020
<ul style="list-style-type: none"> Mermaid Maritime aims to continually reduce greenhouse gas emissions as planned both at drilling rig and during business travel while also improves energy efficiency and strictly follows ISO50001:2011 standard. 	<ul style="list-style-type: none"> In 2019, Mermaid Maritime was able to lower greenhouse gas emissions (Scope 1) by 22 percent when compared to 2018 while lower by 19 percent when compared to 2017. In 2019, Mermaid Maritime was able to lower greenhouse gas emissions (Scope 2) by 42 percent when compared to 2018 while lower by 39 percent when compared to 2017. 	-
<ul style="list-style-type: none"> Mermaid Maritime has the Energy Review System which reviews the system quality and yearly advancement along with the assessment of the quality of energy usage data and greenhouse emissions from the outsource team. 	<ul style="list-style-type: none"> In 2019, Mermaid Maritime was able to lower the amount of electricity used by 1,362,689 watts from 2,132,565 watts in 2018. 	-
<ul style="list-style-type: none"> Mermaid Maritime has installed solar panels to be used as renewable energy on board. 	<ul style="list-style-type: none"> In 2019, Mermaid Maritime was able to lower the amount of the oil used in generating electricity for use in fleet by 38 percent when compared to 2018, resulting in 796-ton reduction of sulfur dioxide emissions from 1,247 tons in 2018; moreover, this also caused the reduction of nitrogen oxide by 831 tons from 1,302 tons in 2018 	<ul style="list-style-type: none"> Mermaid Maritime is currently studying the installation of solar panels to be used as renewable energy on board.

Outstanding Projects

Carbon dioxide emission plans of Thoresen Shipping's ships

Carbon dioxide is one of the greenhouse gases causing global warming. According to IMO study in 2014, it is stated that the shipping business caused around 2.2 percent of the world greenhouse effect. Being aware of the effect, TTA has established measures to help reduce the greenhouse effect and initiated various projects as follows.

1. Raising awareness of the fleet in reducing gas emission and monitoring the emission of each ship
2. Formulating strategies and actions to reduce gas emissions for the fleet:
 - Use fuel with lower sulfur dioxide and try mixing special fluids with fuel to help complete combustion and reduce fuel wastage
 - Use an alpha lubricant control system to reduce waste of fuel in the cylinder
 - Maintain the equipment to be in proper condition to be able to operate at full capacity
 - Test 100 percent of scrubber system on ship and use colors that reduce the friction in seawater
 - Study the feasibility of applying the Green Passport Certification to ships

With its commitment and continuous effort in mitigating greenhouse gas emissions, Thoresen Shipping was granted a certificate of the prevention of carbon dioxide emission from the company ship by following the regulation of EU MRV (Monitoring, Reporting, and Verification) which includes monitoring, reporting, and verifying each ship's carbon dioxide emissions. By following the regulations perfectly, not only is it benefit the environment, Thoresen Shipping service is trusted by most important customers around the world, especially, when shipping to a strict area such as ECA (Emission Control Area) in Europe and North America. Moreover, the company also achieved the certificate of data collection on fuel consumption during Europe shipping from EUMRV and IMODCS which certified that the company's ships are verified and report the CO2 emissions according to the global requirements.

Mermaid Maritime's Greenhouse gas emission plans

Continuously emitting greenhouse gases into the atmosphere according to action plans both at drilling rig and during business travel

Wastewater management

In this day and age, human exploitation of natural resources has caused climate change and environmental problems. Deforestation increases surface temperature, while droughts and water scarcity are becoming more frequent. Therefore,

it is critical to recognize the cruciality of water conservation, resource finding, and optimum use of water. A complete water management system can reduce not only the costs of untreated water used in productions but also the amount of wastewater and the expenses of wastewater management.

The Company places importance on environment conservation, imposing an environmental policy, which is available on the Company's website at http://th.thoresen.com/corporate_governance.html. In the same way, the environmental policy has also been set out by its subsidiaries. For shipping and offshore services businesses, the wastewater is treated before being discharged into the ocean. For Thoresen Shipping, regulations on ship's ballast water treatment are formulated and an innovative tool to destroy invasive and alien species in ballast water before releasing into the ocean is installed. At present, the tools have been installed on 17 ships, or 80% of all ships. The company aims to complete the installation on every ship by December 2020.

TTA is both a manufacturer and a services provider. Its businesses, especially shipping service and submarine engineering, directly affect on water resources by wastewater discharges. Thoresen Shipping and Mermaid Maritime have established Technical Department to monitor water and wastewater management. Furthermore, to comply with the International Maritime Organization's Regulations, Thoresen Shipping also has measures for reducing contaminated water from oil spills by installing oily water separator to filter out oil generated from operations from the wastewater before discharging into the sea. The separators have been installed on every ship and used before discharging wastewater into the sea. The wastewater quality testing is also carried out before all wastewater discharges to save environment and the ocean from being contaminated. Previous test results show that the amount of oil content in the wastewater discharged into the ocean is not greater than 15 ppm. Owing to its continuous effort to improve water and wastewater management and strict adherence to the regulations, Thoresen Shipping has earned the International Oil Pollution Prevention Certificate (IOPP Certificate). In addition to this, Mermaid Maritime and Thoresen Shipping have installed a wastewater management system (separator), which was certified and inspected by surveyors.

For food businesses such as Pizza Hut or Taco Bell, grease traps were installed to intercept grease before releasing the water into the mall's pipeline. Furthermore, water quality tests are conducted randomly by an external health organization. For agrochemical business, PMTA has recruited certified contractors to manage its waste. Consequently, the wastewater management system was installed, inspected, followed-up and reported to the governmental authority.

Waste and product life cycles management

Nowadays, the demand for products and services has increased as a result of the rapid growth of the world population. This has led to higher consumption and the problems regarding the management of waste and product life cycles, which is one of the main concerns in many countries around the world. It has been predicted that, in the year 2050 or thirty years in the future, the global waste will increase by 3.40 million tons - around two to three times of the present waste - with East Asia and Pacific Regions as the biggest source of the waste. Therefore, good and effective waste management should be done to reduce the impact on the environment. For example, in the Company's shipping business, the determination to decrease greenhouse gas emissions and the amount of waste dumped into the oceans has been set to help save the marine environment and build the Company's image and reputation at the same time. Moreover, good waste management can also help promote the company's credibility, attracting more customers as many people nowadays have more awareness of the environmental problems and waste management.

The Company has been fully aware of waste and product life cycles management and focused on more effective usage of resources by running the business in accordance with the environmental policy, managing waste properly, making full use of resources throughout the value chain, and continuously reducing the amount of waste production to the least. The Company has introduced the environmental policy, including waste management (for more information, please visit http://th.thoresen.com/corporate_governance.html) and encourage all of the Company's employees to apply 4Rs in waste management at workplace. 4Rs consists of:



Furthermore, the Company has developed the waste management system for handling, following up, and preventing the impacts of the production process on the community, the society, and the environment, starting from

sorting, keeping, moving, to destroying waste. The quantity of waste production and the quantity of waste destruction are recorded and reviewed regularly, in order to find ways to make full use of limited resources and to reduce costs for waste management. Some sorted waste, such as cartons, used paper, used oil, etc. are sold or reused for more value.

The Company has set the target of 30% plastic waste reduction from usual business operation since 2020, by applying 4Rs and assigning the administration division, safety officers, head chefs and chefs of Thoresen Shipping and Mermaid Maritime, and general managers of Pizza Hut and Taco Bell to be responsible for managing waste of the business operation.

For Thoresen Shipping and Mermaid Maritime, the system for managing waste and reducing waste has been implemented. All employees have been trained in on-board waste management, which partly fulfills the requirements of the International Convention for the Prevention of Pollution from Ships (MARPOL) and helps raise awareness among the employees.

For PM Thoresen Asia Holdings Public Company Limited ("PMTA"), a company in Vietnam that handles the raw material procurement to support Baconco's agrochemical business, has hired the certified contractors to manage both hazardous waste and non-hazardous waste, complying with the Vietnam law. PMTA has also implemented the system for wastewater treatment and the control of air pollutant emissions, with the processing costs of 10,000-15,000 US Dollars per month. The performance is regularly reviewed, followed up, and reported to the government.

In 2019, PMTA launched a project to reduce fuel costs and decrease the amount of sulfur dioxide emissions that negatively affect the environment by reclaiming and reusing tires as fuel.

Outstanding Project

Reducing Plastic Use and Production Campaign by Thoresen Shipping

In 2019, Thoresen Shipping launched a campaign to reduce plastic use and production by making posters for merchant marine officers and other employees, describing the impacts of waste on the environment and how to help save the world, such as using cloth bags, sorting and managing waste systematically. As a result, Thoresen Shipping has got a certificate from Shore Facility, ensuring that the company has been managing waste properly with no negative effects on the environment.



Social Aspect

Participation Encouragement

Human Rights and Labour Practices

In today's world, the realization of human rights has become more prominent globally. This can be seen in the assembly of people to protect rights, human dignity, and fundamental rights and freedoms of individuals as well as communities. Thus, it is important to integrate human rights into business operations as it can encourage employees from different cultures and backgrounds to merge and come together as one to reduce the human rights risks of related stakeholders, namely its employees, partners, customers, communities and environmental footprint of our operations across the business.

Policy and Guidelines for Human Rights Management

TTA Human Right Policy

TTA aims to conduct business on human rights basis, which is in accordance with international labor standards and domestic laws where its businesses are operated. The Company's rules and regulations which align with the Labor Protection Act, the Labor Relation law and relevant regulations have taken effect since 2010. Apart from this, the Company's Human Rights Policy which was announced in 2019 is based on universal human right standards such as United Nations Global Compact (UNGC) and the International Labor Organization (ILO) Declaration on

Fundamental Principles and Rights at Work. This is to ensure that the human rights management in all operations will cover its employees, joint ventures, business partners i.e. partners, contractors and customers and other relevant organizations where the business operations of the Company and subsidiaries are operated.

Guidelines on Human Rights Management

For our human rights operations, the Company has assigned Sustainable Development Committee and working groups comprising of executives and directors from all business units and various departments, and especially Human Resource Department to be responsible for monitor compliance and to develop human rights management process. In addition, their duty also includes communicating policies which is a guideline for the effective human rights operations to other departments, for instance, employees, partners, customers and stakeholders.

The Company's short-term goal in 2020 is to announce its Human Rights Policy which will be applied to its subsidiaries as well. Such policy has been announced since December 2019 and can be found at http://th.thoresen.com/corporate_governance.html. Moreover, the Company also has a long-term goal of communicating and providing knowledge to employees

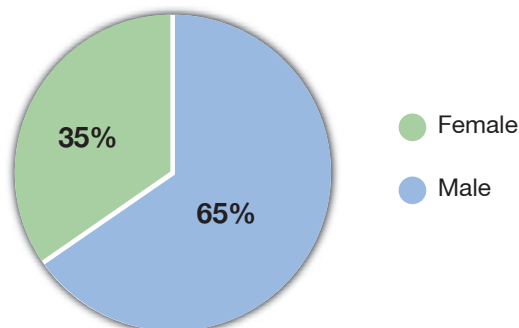
with an aim to promote sustainable business operations and ethics. The Company expects all of employees to be trained in a human rights program by 2022. The Pizza Hut has already carried out the human rights training program in 2019.

Guidelines on human rights management for the stakeholders

• Employees

TTA has offered fair employment conditions without any discrimination to all groups of people, who have the qualifications that meet the job requirements, regardless of their races, nationalities, religious, genders, ages, skin colors, disabilities and family names. According to the Company's policy, the Company plans to build an amicable working environment where all employees treat each other with respect and preventing any forms of discriminations, for example, abusive expression or action causing infringement of rights. The human rights management practices are stated in the Company and subsidiaries' Code of Conduct. Moreover, Mermaid Maritime also encourages the fair treatment in workplace by initiating its own Anti-Harassment and Discrimination Policy. The purpose of this policy is to avoid all types of threats within the workplace and promote equality as well as gender diversity among its employees. In 2019, the number of female workers made up 35% of all employees.

Percentage of employees by genders

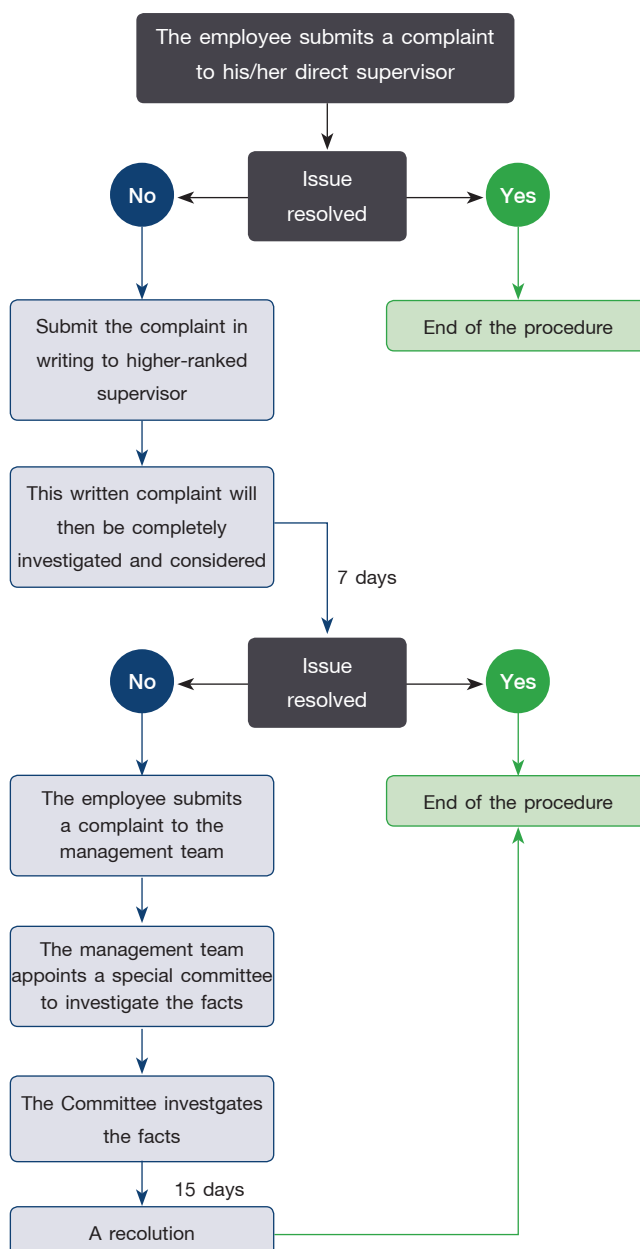


• Business Partners

To uphold and safeguard human rights principles following the principles of Universal Declaration of Human Rights and to ensure that all business operations are compliance with relevant laws and regulations. The Company is committed to establish Supplier Code of Conduct and to announce its application by 2020 as mentioned in Supply Chain Management section. This is to create an opportunity for the Company, subsidiaries and business partners to take part in the social and environmental development. The Company also expects its business partners to support, respect and protect principles on human rights to ensure that all related parties are not involved in any human rights violations.

The Company has established a complaint handling procedure and is open to accepting any employees' opinions and issues regarding human rights. In first step, an employee can consult with his/her direct supervisor. If the problem cannot be resolved in this process, the employee can move to the next step by submitting the complaint in writing to the higher-ranked supervisor. This written complaint will then be completely investigated and considered within a period of seven days. If the second step still cannot be resolved, the employee can submit his/her written complaint directly to the management team within the period of seven days. Then, the special committee will be appointed to investigate the facts. The management team is willing to consider and execute any issues accurately and fairly. A resolution of the management team in this stage will be deemed final.

Complaints Handling Procedure



Outstanding Project

“Leading with Heart” Training

The Pizza Hut arranged a training course titled “Leading with Heart” with topics covering self-awareness and soft skills training to treat others including colleagues and customers with respect. Two trainings were arranged for RSC level employees (Restaurant Support Center and Store Level employees) by the end of 2019 with the total number of 50 participants or 6.87% of total employees working as of 31 December 2019 amounting 728 persons or 1.82% of all level of employee (permanent and contract employee) as of 31 December 2019 amounting 2,752 persons. The Company expects all AC and RC level employees to be trained by the end of 2020.



Human resources management

TTA and its subsidiaries realize that personnel are a major fundamental factor helping drive the organization to achieve its sustainable development goal. Human resource management is one of indicators showing international leading organizations' success and drives business success. Good human resource management with reasonable welfare will motivate more outside proficient personnel to join the organization and enhance business performance. In addition, seminars or training courses will give an opportunity for employees to improve their knowledge and work skills helping the Company in the future.

Human Resource Management and Administration Guidelines

TTA and its subsidiaries plan to develop the ability and potential of the employees in all levels to be the “good and skillful person” by providing training courses that match their positions and giving career advancement opportunity. TTA also supports work-life balance to ensure that employees work efficiently and happily. Competitive compensations in form of salary, bonus payment, health insurance, welfare, provident fund, overtime payment, annual leaves increasing in line with service period and long service award are provided for employees as incentives to work. With its management, TTA expects its employees will have strong relationship with the organization and aims to reduce turnover rate which will be set as a clear quantitative target in the year 2020.

TTA has assigned its Human Resource Department and subsidiaries to manage the personnel effectively and to follow

the rules and regulations relating to the Universal Declaration of Human Rights and also respect individuality throughout human dignity by undertaking the following guidelines.

Employees' Performance Development and Improvement

TTA has operational plans for managing and developing its employees, the policy of employee's remuneration and individual development plan which aligns with employee's need.

- Employees are encouraged to attend training courses and seminars to improve their knowledge and monitor changes in business environment.
- All Directors attended the seminars creating value for the organization such as Director Certification Program (DCP), or are required to attend Director Accreditation Program (DAP) held by Thai Institute of Directors Association (IOD) at least.
- Provide Provident fund training program for employees
- Training course on sustainable development such as Preliminary to Corporate Sustainability held by the Stock Exchange of Thailand (SET)
- Employees are encouraged to apply for useful training courses such as
 - “COSO ERM: COSO Enterprise Risk Management Integrating with Strategy and Performance” held by the Stock Exchange of Thailand.
 - “Value Added Business Control: The Right Way to Manage Risk” held by the Institute of Internal Auditors of Thailand

- “Analytical Thinking in the Internal Audit Process” held by the Federation of Accounting Professions under the Royal Patronage of His Majesty the King
- “Risk Management and Internal Control” held by Risk and Internal Control Club, Thai Listed Companies Association

Social Protection and Working Conditions for Employees

- Establish and revise employee manual and rules of conduct in timely manner to comply with the Labor Protection Act B.E. 2541 and the Labor Relations Act B.E. 2548 and other related laws.
- Provide fair employment conditions and reasonable payment for employees
- Provide maternity benefit and leaves enabling employees to work effectively and spend time with their families
- Provide suitable workplace for employees
- Impose proper overtime pay regulation including weekly and annual leaves

Systematic, Transparent and Fair Performance Evaluation

- TTA establishes policy and criteria to evaluate the annual performance of employees in all levels by using the MAX Performance Evaluation Scheme consisting of annual performance planning, mid-year review and year-end review. Supervisors and staffs are required to discuss about the job description and knowledge development plan at least 2 times per year.
- TTA has a measure of improving employee’s performance with a below standard. The employee will be provided an opportunity to improve his/her performance by attending a 3-month Performance Plan training program held 2 times per year.



With an aim to manage human resources more effectively and easily accessible to all employees, The Company established various channels of communication, so that employees experiencing unequal treatment can submit any complaints to Audit Committee via the Company’s website or PO Box as well as company’s labor union. In addition, Line group for staff is also another channel for communicating and publicizing the Company’s interesting activities and welfares.

Operational Result of TTA

Ratio of Men to Women Employees		
Description	2018	2019
• Ratio of women to total employees	59%	63%
• Ratio of women in executive positions to total employees	3%	4%

Operational Result of TTA Human Resource Management

Operation	Operational Result		
	2017	2018	2019
Employees’ Training			
• Average training hour (hour/person/year)	5.33	6.33	4.82
• Employees attended the Sustainable Development seminar (person)*	-	-	4
• Employees attended the S01-S03 seminar (person)*	-	-	2
Performance Evaluation			
• Employees passed the evaluation after attended ‘Performance Plan’ project (%)	100	100	100
Employees’ Maintaining and Retaining**			
• Turnover rate (%)	45.65	29.54	53.84
• Number of employee resignation	42	26	56
• New hire rate (%)	44.56	27.27	54.80
• Number of new employees	41	24	57

Notes : * This seminar held by the Stock Exchange of Thailand and only 2 persons per company can attend each time.

** Number of permanent, contract and transferred employee had been included as turnover rate.

Outstanding Projects

Long-Service Awards Project

TTA and its subsidiaries set up a Long-Service Awards project with an aim to increase motivation for long-term working with the Company. A reward plaque and gold necklace will be provided to employees who work with the Company for 10, 15, 20, 25 and 30 years consequently. The gold weight is based on working duration, starting from 1 baht gold to the maximum of 5 baht gold. The Long-Service Awards ceremony will be held in New Year party during the end of the year. In 2019, the total of 28 bath gold necklaces were given to 12 employees.



7 Habits Training Program

7 Habits Training Program or 7 Habits of the Highly Effective People (Signature Edition 4.0) program, an internationally recognized and proven independent leadership development process, aims to reach 3 levels of effective leadership: individual, team, and organizational level. TTA has applied this principle to elevate its employees' performance and broaden leadership experience and to be in line with its Human Resources strategies, aiming to elevate employees' capabilities in all areas as well as cultivating leadership to be ready for managing business changes in a digital age. In the seminar, the employees learned about 7 habits and development processes of leadership and teamwork skills both theoretically and practically. This program provided a chance for the employees to expand their worldview and shared their opinions. With this chance, the employees could apply knowledge of this program in every working life.

TTA Excite: Yoga Therapy for Balanced Body and Peaceful Mind

With a belief that employees who have good physical and mental health are more productive and good temper, the Company organized "TTA Excite: Yoga therapy for balanced body and peaceful mind" activity last year. "Yoga Bhavana" class taught by Thanawat Gatewimut or Yoga Master Don, the Chairman of Jivitasikkha Network, is the integration of yoga and meditation. The staff joining the class had a chance to exercise which help cure office syndrome and relieve body pain and at the same time to practice the meditation for mind calm.



Thoresen Shipping Sports Day

Thoresen Shipping organized annual Sports Day to strengthen friendship between its employees and employees' family bond. The employees and their families enjoyed exercising and had fun through activities at Polo Football Park. There were many activities such as flag-race running, tug-of-war, and a football friendly match between shipping crews and office staff. All activities showed satisfying results. There were 200 employees and their families attended the Sports Day.



Occupational Health and Safety

TTA is well-aware that human resources, with the support from machines and technology, are essential for the business operation. Therefore, human resources are like valuable assets of the company. From the beginning of TTA's production to the shipment of TTA's goods to customers, "safety" must be taken into consideration in every process. This not only includes the safety of its employees, but also includes the safety of its contractors, sub-contractors, and other related individuals. Hence, effective management of occupational health, safety, and working environment needs to be done, in order to promote good health, high efficiency, and perfect safety in the workplace. For example, if the Company has effective management of occupational health, safety, and working environment, loss of lives and properties will be reduced, employees will enjoy good health, etc.

TTA and its subsidiaries thereby have introduced the policy on promoting good health and safety of its employees, contractors, sub-contractors, and other related individuals in the workplace as much as possible. In doing so, international regulations and standards are adopted, which include:

- Labour Law for the Administration and Management of Occupational Safety, Health and Environment (B.E. 2549).
- Occupational Safety, Health and Environment Act (B.E. 2554).
- Occupational Safety, Health and Environment Act (B.E. 2554) regarding the Standard for Service, Management, and Proceeding on Occupational Safety, Health and Environment at a Workplace for Prevention and Extinguishment of Fire (B.E.2555).

Moreover, there are general practices in terms of occupational health, safety, and working environment in related industries as follows:

- Thoresen Shipping, an international dry bulk shipping company, prioritizes the prevention of accidents and dangers from hazardous substances that could occur to any employees who work on board. The Workplace Hazardous Materials Information System (WHMIS) has been adapted in order to ensure the safety of the employees.
- Thoresen Shipping always runs the business conforming to all regulations and convention of International Maritime Organization (IMO) as follows:
 - International Convention for the Safety of Life at Sea (SOLAS)
 - The International Convention for the Prevention of Pollution from Ships (MARPOL)

- International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) and The Maritime Labour Convention (MLC)
- International Convention for the Control and Management of Ships' Ballast Water and Sediments 2004, which becomes effective on September 8, 2017.
- International Maritime Dangerous Goods (IMDG) Code
- International Maritime Solid Bulk Cargoes (IMSBC) Code
- International Safety Management (ISM) Code
- International Ship and Port Facility Security (ISPS) Code
- Mermaid Maritime, which provides subsea engineering and drilling services, has established the Safety Health Environment Quality and Security (SHEQS) management system. The system conforms to the international standards ISM, ISO 9001, ISO 14001 and OHSAS 18001, as well as the rules and regulations developed by International Maritime Organization (IMO).

All of the rules and regulations above have been imposed both onshore and offshore in accordance with international standards in order to promote safety at sea, prevent injuries and loss of lives, and avoid causing damage that might occur to the environment.

Objectives and Strategies

The Company determines to run the business with the effective management based on occupational health, safety, and working environment and intends to reduce Work Related Accident Frequency Rate to zero. TTA and its subsidiaries have set clear goals for the management of occupational health, safety, and working environment as follows:

- Reducing Lost Time Injury Frequency Rate
- Reducing Fatal Accident Frequency Rate

The strategies employed to reach the goals are:

- Foster a culture of workplace safety by instructing all employees to set their first priority to save lives.
- Encourage all supervisors to be safety leaders to show that the Company pays attention to the safety of employees, contractors, and other related third parties in every working process.
- Provide workplace safety manuals and training for all management and employees to promote understanding of occupational health, safety, and working environment for appropriate and effective management.
- Analyze and review accident prevention measures, as well as conducting risk assessment for occupational health and safety to create a more inclusive framework for new regulations.

Management Guidelines

1. Introduce Controls for Workplace Safety in Every Section and Process

Safety and health at workplace are everyone's ultimate responsibilities. This includes the management, employees, contractors, sub-contractors, and other related third parties who entering the workplace, whether onshore or offshore, at the headquarters or at sea, loading or shipping, drilling oil or maintaining machines, etc. All of them must strictly follow the safety regulations, for example, wearing personal protection equipment - gloves, helmets, glasses, masks, etc. - to decrease damage or prevent workplace injuries.

2. Establish Occupational Health and Safe Working Environment Committee

In each affiliate of TTA, representatives of the management and employees have been elected to be on Occupational Health and Safe Working Environment Committee. The purposes of the establishment are to observe unsafe working environment in the Company, consider policies, create plans, and set up standards for workplace safety, in order to prevent work related accidents, dangers, sickness, annoyance resulting from work or other risky incidents that might occur to employees, contractors and outsiders who enter the workplace for working or for receiving services.

Furthermore, Thoresen Shipping has established Safety Committee for every ship which consists of at least 7 members from division chiefs and seafarers from each section. Progressing report of each meeting will always be sent to supervisors and related parties for acknowledgement, to ensure the effectiveness of management and safety of all on-board employees.

3. Implement Risk Control Measures

In order to evaluate effects and improve the safety measures, TTA has made an observation on workplace safety operation and review the accident frequency rate at least once a month. For Thoresen Shipping, on-board security guards have been assigned to observe and record all accidents, and prepare a risk assessment report in reference to the standard statistics regarding management of occupational health, safety, and working environment from reliable institutions such as HOPM/12 and SOPM/04.

Thoresen Shipping also holds a Tool Box Meeting, a small-scale meeting for risk and harm assessment, before any operations. This helps predict accidents that might occur during the operation, develop preventive measures and prepare protective equipment for accidental damage. For example, emergency equipment is set up at the beginning of the process to promote safety and reduce work related accident frequency rate.

Moreover, on-board security guards are responsible for training and explaining the safety policy to all on-board employees, especially new employees who need to be cautious about using hazardous substances, be aware of their physical limitations, and be trained in appropriate shipping methods for safety of their lives and cargos.

For Mermaid Maritime, Health and Safety Risk Management System has been developed and supervisors have been assigned with a duty to explain workplace safety measures to all employees before starting any new projects. On-board security guards are required to check all parts of the ship at least once every three months to ensure safety and their compliance with regulations and Merchant Shipping Notices. They are also required to patrol the whole working area and keep safety records in forms of MSS-SHEQS-FRM-105 Minutes of Safety Committee Meeting, MSS Operational Offices, MSS Workshops and Warehouses, and MSS Vessels every month. This is for benefits of developing safety measures in the future.

4. Report and Investigate Causes of Accidents

Promoting occupational health and safety is everyone's responsibility. The working environment and nature of work need to be taken into consideration for safety management in every area. If there is something unusual or something wrong in an area, supervisors in that area must be informed immediately, especially when accidents occurring while at work, so that the supervisors could assess the level of severity and then report to all related parties consequently. If it is found that the working environment is likely to pose harm to life and property, everyone must stop working in that area immediately and safety measures must be taken the soonest to maintain the safety standards.

To maximize the standards of occupational safety, health and environment measures, TTA has evaluated the performance of the operation to see whether it is in line with the safety policy and continuously improved it. Occupational Health and Safe Working Environment Committee is responsible for prepare an annual performance report indicating problems that the committee confronts during the operation and making suggestions for further improvement to its supervisor. This is to prove that the measures for occupational safety, health and environment yield maximum benefits to the Company.

5. Develop the Knowledge of Occupational Health and Safety

Trainings in occupational health and safety are arranged to all executives and employees according to their job descriptions and in compliance with the laws. For example, trainings in prevention and extinguishment of fire, prevention of occupational diseases, practice on first

aid in the workplace, knowledge of the International Maritime Dangerous Goods (IMDG) Code to prevent the risks that might occur during sea transport, etc. This is to ensure that all of the operators have acquired enough knowledge about occupational health and safety.

6. Promote Good Health

The Company provides checkups for new employees and annual checkups for all employees by considering individual risk factors according to their nature of work and taking precaution for impacts that may arise from operational work. For example, lung health and heart health checkups, hearing tests, etc. The company also provides health promotion activities such as setting up a fitness room with standard equipment to encourage employees to exercise, hiring a nutritionist to educate employees on healthy food, holding a fat-burning competition, arranging yoga workshop to heal office syndromes, etc.

7. Prevent and Decrease Impacts on Supply Chains

All affiliated companies of TTA are required to set up a Contractor Management System, a system that covers the process of selecting contractors, dealing with contractors, and auditing in order to prevent risks associated with occupational safety and health that might happen in the workplace during working.

Performance

Thoresen Shipping has kept statistics on occupational safety, health and environment as the details below:

Statistics	Performance in 2019	Target in 2020
• Violation of ISM Code	0 NC/1 observation	0
• Violation of ISPS	0 NC/2 observation	0

Mermaid Maritime has kept statistics on occupational safety, health and environment, with the objective of reducing Lost Time Injury Frequency Rate (LTIFR) to be less than 0.06 within the year 2019. For the year 2019, its major performance is as follows:

Statistics	Performance in 2019	Target in 2020
• Lost Time Injury Frequency Rate (LTIFR)	0	0
• Fatality Frequency Rate	0	<0.65
• Restricted Work Case (RWC) Frequency Rate	0	<2
• Medical Treatment Case (MTC) Frequency Rate	11	<2
• First Aid Injury (FAC) Frequency Rate	5.95	<2.0

Outstanding Projects

Menu of the Month / Menu of the Year

Because Thoresen Shipping are concerned for the well-being of all on-board employees, especially the food intake that has to be in good quality and safe. Therefore, a food competition is held under the name “Menu of the Month” to allow on-board chefs and their assistants of every ship to create and submit new dishes every month. A winner each month will receive prize money and then become a contestant in the annual competition or “Menu of the Year”. The criteria used to select a winner are novelty, difficulty, creativity, and quality of ingredients under the limited budget.

The objective of this project is to encourage chefs to create various menus with good taste, good ingredients, and good nutrition. This is for the well-being of all on-board employees. The competition has been held for three months with good cooperation from on-board chefs and assistant chefs of every ship and great interest from on-board employees.

This Year's Menu Winner



Training Programs for Merchant Navy Officers

Thoresen Shipping realizes an importance of continuous development of safety management skills for its merchant navy officers. Hence, all merchant navy officers are required to participate in training programs and keep records in Training Record Book.

The training programs for navy officers help enhance knowledge of life and property safety. This includes keeping working environment on board professionally. The curriculum of the training programs is mainly about laws and regulations from each country, such as International Safety Management (ISM) Code, International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), International Convention for the Safety of Life at Sea (SOLAS), and Convention for Prevention of Marine Pollution (MARPOL). These programs also help creating familiarity with the use of safety equipment, working processes, and preventive measures against environmental pollutions. Additionally, emergency mock drills for merchant navy officers such as International Ship and Port Facility Security (ISPS) Code Drills, Oil Spills and Ship Groundings Drills, Fire in Engine Room with Injured Crew and Rescue Operations with Helicopter, etc. are also included in the trainings. Each month, fundamental training programs and special training programs are offered to merchant navy officers, who must take every program. Chief merchant navy officers are responsible for implementing the policy to continuously enhance merchant navy officers' knowledge and skills.

Merchant navy officers are obliged to be trained in occupational health and safety when they officially work on board. This is to ensure that Thoresen Shipping merchant navy officers can carry out their duties efficiently with proper knowledge and skills in safe working environment.

PHOTO REPORT FIRE DRILL

SHIP NAME: M.V. THOR INTEGRITY CALL SIGN: 9V9627 MMSI: 566274000
CARRIED OUT ON DATE: 16 OCTOBER 2019 TIME: 1042 - 1105 LT (GMT-0400)
AT NORTH ATLANTIC OCEAN POSITION LAT 38°45.9'N ,LONG 064°28.7'W



Community Development and Involvement

TTA realizes that strong community and society are important factor that can lead to sustainable development for business, social and national economic sectors. TTA's operations involved with the communities in various aspects. If TTA's operates business by not considering any negative impact or damage to the communities and continue to participate in community development, TTA can operate its business smoothly with support and cooperation from the communities.

Scope of Report

Operations on social and community development in this report cover activities for communities and societies undertaken by the Company and its subsidiaries such as Shipping Business, Offshores Service Business and Food & Beverage Business. It is expected that from next year onwards, performance of other businesses shall be additionally disclosed in the Sustainability Report.

Management Guidelines for Mutual Sustainability

TTA and its subsidiaries have the policy to cultivate conscious mind on giving back to the society and this value will be one of the corporate culture which has been announced and applied since 2015. For more details about the Company's mission, please visit http://th.thoresen.com/business_vision.html. This policy covers throughout TTA and its subsidiaries from executives to employees. Giving back to the society does not only limit to donation of money but also includes time, workforce, work process and awareness of community responsibility, society and environment with determination to build positive impact on social and economic sectors as well as conservation of environment in the community where TTA is involved with. Moreover, it takes solidarity of all parties of TTA and the Group to bring prosperity to the community, society and country as a while in applying the Sustainable Development Goals to all dimensions, from education promotion, quality of life development, and conservation of natural resources to distress relieve & public charity. All sectors should be driven on awareness and cooperation that it could lead to joint building a sustainable society.

Outstanding Projects

1. Promotion of Education

TTA and the Group place importance on human resources development with main target to build skilled personnel who is specialize in merchant navy profession to Thailand.

Preparation Course for Merchant Navy students

Thoresen Shipping supports trainings to students of Merchant Navy Training Center by providing knowledgeable and experienced personnel in the commercial navigation as special lecturer during the orientation of the merchant navy students, who attend a Bachelor of Science Program in Nautical Science and a Bachelor of Engineering Program in Marine Engineering at Merchant Navy Training Center, Samut Prakarn Province. The objective of this project is provide correct knowledgebase on operating procedures, self-management and security policy on performing the work in cargo ship to the merchant navy students who will be on field training exercise with the international sea-going vessels. In 2019, there were 150 merchant navy students who participated in this orientation.

Scholarship Project

Thoresen Shipping organizes Thoresen Maritime Awards every year for 17 consecutive years with objective to provide scholarship to the children of the crews who are well-conducted and have good academic record. This is to boost morale and lift up living standards of the crew's family so that they can work efficiently and happily.

Performance

Operating Year	Number of Scholarship Granted	Amount of Fund (Baht)
2019	30	240,000
2018	31	248,000
2017	21	210,000



Co-developing merchant navy courses with the Office of the Vocational Education Commission

Thoresen Shipping has signed in the Memorandum of Understanding (MOU) with the Office of the Vocational Education Commission for the cooperation project on teaching & learning process including formulating and criticizing curricular on merchant navy and navigation to many educational institutes such as Nakhom Si Thammarat Vocational College, Merchant Navy Training Center etc. TTA is the consultant on designing the such curricular to make them consistent with the current demands of merchant navy personnel in the commercial navigation industry. Such work has been acknowledged and appreciated by the participating institutes.

3 Mor. Project

PH Capital, the franchisee of Pizza Hut Restaurant in Thailand participated in 3 Mor. Project, which is the collaboration project between Department of Employment, Eastern Technology College (E-Tech) and many leading companies in Thailand to increase opportunity on employment and learning for development of knowledge and capability of the students. This project can play a part to help reduce the illegal employment which is against the labor law, both on minimum wage payment and employment of people under 18 years old.

TTA has accepted the interns in 2019 for the first year, by starting from the north-eastern and eastern regions and it has a plan to expand to other regions nationwide in the future. Senior high school students (M. 6) who pass TTA's selection criteria shall be accepted to be trained at Pizza Hut Restaurant in various branches and they shall receive hourly remuneration, monthly accommodation fee and scholarship for 2 years of apprentice program. Having participation in 3 Mor. Project can make the Company have opportunity to select the qualified students and develop them to the Company's employees after they graduated from the program.

In 2019, 50 students from this project applied to be the apprentices in Pizza Hut Restaurant. These students have entered into employment contract and occupational training course contract for 2 years. They can work at maximum 8 hours a day, 6 days a week and can choose time for work as appropriated. After they graduated from the course, they have a chance to grow in their career and become the team manager.

2. Health Promotion

"Building Chef for Sea-going Vessel" Project

TTA pays attention to health of the employees who work in the cargo ship and considered that they must be provided with quality and hygienic food which must be prepared by the professional chefs who possessed certificates and graduated from the courses of the certified agencies. Such courses consisted of food storage on board and food preparation, both theory and practices. In addition, they must understand about the importance of culture, religions and society when having dining together. Consequently, Thoresen Shipping joined hand with Nakhom Si Thammarat Vocational College to initiate the

"Building Chef for Sea-going Vessel" Project since 2011. This High Vocational Certificate course on Food Preparation on International Ship Vessel pursuant to Nutrition Principles has been developed to create professional marine chefs. These students will learn both theory and practice for a period of 2 years and after graduation, they can choose to work with Thoresen Shipping immediately. This is 1 of 50 courses which have received appreciation from Ministry of Education and Vocational Colleges because it cannot only create qualified personnel to work with the Company but it can also build qualified personnel for labor market in shipping business. Presently, there were 9 classes in total and more than 120 students graduated from this course.

Internship Program

Every year, Thoresen Shipping accepts the merchant navy interns to practice in the actual establishment and in order to enhance qualified personnel in the navigation industry of Thailand. In 2019, there were more than 50 students from Navigation and Engineering Branches of Merchant Navy Training Center participated in the Company's internship program. Students with good performance shall be granted opportunity to work with the Company in the future. For the past years, 15 interns have returned to work with the Company.



ความร่วมมือระหว่าง กรมการจัดหางาน, วิทยาลัยอี.เทค และ บริษัทชั้นนำในประเทศไทย เพื่อเพิ่มโอกาสในการจ้างงาน และเรียนรู้เพื่อพัฒนาความรู้ความสามารถของนักศึกษา





3. Natural Resources Conservation

Forest Rehabilitation Project to Commemorate His Majesty the King's Birthday

TTA's executives, staffs and subsidiaries, in cooperation with Baan Din Thai volunteer network, united together to organize the forest rehabilitation, artificial salt lick and check dam construction project at Nong Yao Forest Protection Unit, Pachee River Wildlife Sanctuary, Ratchaburi Province, on Wednesday 24 July, 2019, to commemorate His Majesty King Maha Vajiralongkorn (King Rama X) on the occasion of his 67th birthday anniversary on July 28, 2019. During this social activity, the volunteers have planted a great number of trees to reduce impact from global warming, made an artificial salt lick - a vital mineral resource for wildlife, and built check dams to mitigate strong water current to maintain balance in the ecosystem and natural resources. From satisfactory assessment survey of the participants and the relevant agencies, results revealed that 98 percent of participants were very satisfied with the arrangement of this project.

4. Distress Relief and Public Charity

Volunteer Spirit Project during the Royal Coronation Ceremony

Executives and employees of TTA and its subsidiaries jointly participated in the Royal Coronation Ceremony in honor of His Majesty King Maha Vajiralongkorn (King Rama X) and expressed loyalty for the monarchy by wearing yellow shirts bearing the royal emblem of King Rama X during the "TTA Volunteers Do Good by Heart". In the Ceremony, 15,000 sets of sticky rice and squids; 10,000 sets of pandan custard bread; 20,000 bottles of P80 natural extract nutria drinks; and 5,000 bottles of P80 carbonate longan drinks were provided to locals and foreigners gathered for the event during 5-6 May 2019.



Wheelchair Donation to People with Disability

TTA supports "Wheelchairs for the Disability" project of Thai with Disability Foundation by donating wheelchairs to Mr. Soros Prasongsilp, Director of Thai with Disability Foundation to boost morale and improve quality of life of the disabilities. The year 2019 was the second year that the company held this activity.



Corporate Governance Report

Corporate Governance (“CG”) is a structure and process of relationships between a company’s management, Board of Directors (“Board”), and its shareholders with underlying objectives to enhance its long-term competitiveness and value to shareholders.

At the Board meeting of Thoresen Thai Agencies Public Company Limited (the “Company” or “TTA”) on 28 November 2011, the Board established a Corporate Governance Committee (the “CGC”) to review corporate governance practices and the Code of Business Conduct and to monitor compliance of the practices so that it remains within an ethical framework. The corporate governance policy has been set as a part of the Business Conduct and has been reviewed every year.

The CGC proposed to review and revise the Company’s Corporate Governance Policy, in reference to the Principles of Good Corporate Governance for Listed Companies 2012 by SET, which was approved by the Board on 13 November 2017.

The Company’s corporate governance principles are as follows:

- **Rule of law:** Management and operations shall be in line with relevant laws, charters, regulations, and Board resolutions
- **Accountability:** All concerned parties, including the Board and management have to be aware of their duties and responsibilities
- **Transparency:** Business activities and operations shall be auditable and transparent
- **Participation:** Recognition of the rights of shareholders and stakeholders to participate in company activities
- **Value for money:** All investments and resource utilization must meet targeted financial and economic returns

The main components of the Company’s Corporate Governance Policy which has been set in accordance with the guidelines of the SET are as follows:

1. Rights of Shareholders
2. Equitable Treatment of Shareholders
3. Role of Stakeholders
4. Information Disclosure and Transparency
5. Structure and Responsibilities of the Board of Directors

Previously, the Board reviewed the Company’s Corporate Governance Policy and revised the Board of Directors Charter and its business ethics to be in line with the Principles of Good Corporate Governance, as well as business strategies, business direction, present business situation and also all laws and regulations as appropriated. Thus, the Company Secretary has proposed changing an annual review of the Board of Directors Charter from 2019 onwards.

The CGC has reviewed the Company’s Corporate Governance report and agreed that the Company has been conducting the business in accordance with the international standard of Corporate Governance practices, both the Principles of Good Corporate Governance for Listed Companies 2012 by SET and ASEAN Corporate Governance Scorecard (“ACGS”).

Furthermore, the CGC has reviewed the Company’s Corporate Governance Policy, in reference to the Principles of Good Corporate Governance for Listed Companies 2012 by the SET and the Corporate Governance Code (“CG Code”) for Listed Companies 2017 by the Securities and Exchange Commission (“SEC”), and found that, generally, the Company’s Corporate Governance Policy and practice are in line with the CG Code. The CGC has also informed the Board about the policy and the role of the Board as a Company’s governing body. The CG Code has been suggested for adaptation in order to sustainably increase value for the business, society, and environment, as well as generate the maximum profit for both shareholders and stakeholders. It can also be a guideline for the Board, the Company’s management, and the employees to comply with the relevant laws and regulations.

The CG practices for the year 2019 were as follows:

1. Rights of Shareholders

The Company is accountable and recognizes the duty to ensure fair treatment to all shareholders to safeguard their rights. The Company complies with all applicable laws and regulations.

SHAREHOLDERS’ MEETINGS

The Company conducts shareholders’ meetings in accordance with applicable laws and generally accepted practices, which allow shareholders to exercise their rights by getting fully information. Within four months after our financial year-end, the Company organizes an Annual General Meeting of Shareholders (“AGM”) which is conducted in accordance with applicable laws and SET requirements, from the calling of the meeting, the notification of the meeting agendas, the dispatch of meeting materials, the conduct of the meeting, and the distribution of minutes. Besides the mentioned general shareholder’s meeting, for urgent matters that affect or involve the shareholders’ interest or involve conditions,

regulations, or laws that require the shareholders' approval, an Extraordinary General Meeting of Shareholders ("EGM") shall be called on a case by case basis.

The Company held the Annual General Meeting of Shareholders (the "AGM 2019") on 24 April 2019 at 1:30 P.M., at Arnoma Grand, 3rd Floor, Arnoma Grand Bangkok Hotel, No. 99 Ratchadamri Road, Pathumwan District, Bangkok, Thailand.

Procedures for the shareholders' meeting were as follows:

(i) Procedures prior to the meeting

At the Board of Directors meeting No. 2/2019 held on 7 March 2019, the Board resolved to call the 2019 AGM on 24 April 2019 at 1:30 P.M., at Arnoma Grand, 3rd Floor, Arnoma Grand Bangkok Hotel, No. 99 Ratchadamri Road, Pathumwan District, Bangkok, Thailand.

The meeting venue was easily accessible through public transportation systems and convenient for the shareholders to travel to the place of the meeting with appropriate time allocation, sufficient for discussion. The Company informed the shareholders of the date, time, place, and meeting agenda together with the rationales and opinion of the Board on each agenda via SET Portal on the same day on which the Board resolved to call the shareholders' meeting on 7 March 2019.

The Company provided the opportunity for shareholders to ensure sufficient time to scrutinize meeting notice or request additional information ahead of the meetings. The notice, both Thai and English, and relevant documents including proxy forms to the AGM 2019 were sent to shareholders 21 days in advance by mail which was in accordance with the Principles of Good Corporate Governance. The meeting agenda and detailed documents were also provided, with indications for consideration or matters for approval. All matters were clearly categorized, for example, for the Board's report, directors appointment and directors' compensation approval were separated into two items, with facts and supporting details from the Board in each item. For the agenda of appointment of auditors, the auditors' profiles, company and audit fee were completely and clearly illustrated for shareholders' consideration of the performance and appropriateness of auditors. Moreover, the Board as both a meeting attendee and a shareholder did not allow adding unnecessary agenda items that were not informed in advance, especially those requiring shareholders to scrutinize before making decisions.

The Company specified the identification documents and a list of documents required for attending the meeting to assist the shareholders in exercising their rights and

casting their votes on each agenda item. In the case of the shareholders could not attend the meeting, they could identify their votes to approve, disapprove or abstain their votes on each agenda. Moreover, the profiles of the Company's independent directors, who represent to be a proxy as well as the procedures and related documents to appoint the independent director to vote on their behalf, were distributed prior to the meeting. Envelopes were made readily available for shareholders together with the meeting notification to assist them to mail the proxy forms.

The Company encourages all shareholders including individual and juristic persons and institutional investors to attend the Company's shareholders' meetings. Apart from direct mailings, the Company notified its shareholders via SET Portal that the notice of AGM 2019 and relevant documents, in both Thai and English, were available to download on the Company's website at www.thoresen.com from 11 March 2019 forty-four days in advance prior to the meeting.

The Company also advertises the shareholders' meeting notice both in Thai and one English in a newspaper for each language for three consecutive days prior to the shareholders' meeting date to inform shareholders to prepare in advance before participating in the meeting. The notice of the AGM 2019 both Thai and English was advertised in a newspaper for three days on 10-12 April 2019.

Rights of shareholders to propose agenda, and director candidates, and submit questions for Annual General Meeting in advance

For the AGM 2020, in order to comply with the principles of good corporate governance regarding shareholders' rights, in the Board of Directors meeting No.6/2019 held on October 30, 2019, the Board of Directors approved the policy for the rights of shareholders to propose agenda, director candidates, and submit questions for AGM 2020 in advance from November 1, 2019 to January 31, 2020, through the methods and channels indicated by the Company. Those methods and channels have been publicized on the Company's website as informed to SET via SET Link on October 30, 2019.

The rights of shareholders to propose agenda of the AGM in advance was granted for a shareholder who, on the day of proposing a meeting agenda and on the Record Date of that specific year, owned no less than 5 percent of the Company's ordinary shares consecutively for at least 12 months, either a single shareholder or a group of shareholders. The Company Secretary would

review the qualification of such shareholders and the completion and correctness of submitted documents with the criteria and methods introduced by the Company, before proposing to the Board of Directors for further consideration and approval. If an agenda was approved, it would be added in an invitation to the Annual General Meeting of Shareholders with an indication that it was proposed by a shareholder and some comments from the Board of Directors. If an agenda was not approved, a shareholder who proposed the agenda would be informed of reasons in the AGM or via other appropriate methods.

The rights of shareholders to propose the candidates to be elected as the Company's Board members in the AGM in advance was granted for a shareholder who, on the day of proposing a meeting agenda and on the record date of that specific year, owned no less than 5 percent of the Company's common stocks. The Company's Secretary would review the qualification of such shareholders and the completion and correctness of submitted documents with the criteria and methods introduced by the Company, before proposing to the Nomination and Remuneration Committee for further consideration through recruitment and selection procedure. The Nomination and Remuneration Committee would nominate a qualified individual for election of Board members to the Board of Directors for consideration before bringing to the Annual General Meeting. If a qualified individual was not approved by the Board of Directors, a shareholder who nominated the individual would be informed of reasons in the Annual General Meeting or via other appropriate methods. The decision of the Board of Directors was considered the final resolution.

Furthermore, shareholders could submit the original copies of the documents for proposing agendas and nominating individuals for election of board members before the Company's 2020 AGM with all necessary documents that were required. All of the documents had to arrive at the Company by January 31, 2020, addressing Company Secretary Office:

Thoresen Thai Agency Public Company Limited
Orakarn Building 7th Floor, 26/26-27 Soi Chidlom,
Ploenchit Road, Lumpinee District, Pathumwan,
Bangkok 10330
Telephone: +66 (0) 2250 0569 Ext. 276

Shareholders could unofficially send the documents above to the Company first via COR@thoresen.com

However, there were no shareholders proposing agenda and nominating individuals for election of Board members

in advance before the Company's AGM 2020 via the methods and channels indicated by the Company.

For questions submitted by shareholders before the Company's AGM 2020 through www.thoresen.com, the Company had gathered and would answer them with reasons in the AGM 2020 which would be held on April 30, 2020.

(ii) Date of shareholders' meeting

At the date of shareholders' meeting, the Company facilitated registration by separating lines between individual shareholders and juristic persons. The Company used a barcode system to register meeting attendees and to count votes for punctuality and accuracy. Officers were also assigned to promote the convenience by checking the shareholders' documents in advance. To check and verify the attendants' supporting documents, the Company started accepting registrations for 2 hours before the meeting. Additionally, food and beverage were provided for all meeting attendees adequately.

(iii) During the meeting

The Chairman of the Board of Directors ("Chairman") presides over the shareholders' meeting. For shareholders' convenience and clarification, multimedia presentations are shown during all meetings. The Company conducts the meeting in accordance with the agenda and offers an equal opportunity for each shareholder to cast their vote.

In the AGM 2019 which held on 24 April 2019, there were 11 directors attending which was 100 percent of the Board. The Chairman of the Board was the Chairman of the meeting and was responsible for keeping the meeting continuing under the relevant laws, rules, or the Company's Articles of Association. The Chairman of the meeting would allocate time appropriately and equally to each shareholder to present their ideas and raise questions in the meeting according to the agenda, apart from encouraging all directors including the Company's top management to attend the meeting. To facilitate the meeting and enhance clarification, media was used for the presentation during the meeting, especially when it was voting and scoring time. All shareholders would be informed of the amount and ratio of shareholders' attendance, including proxies, meeting process, shareholders' voting process, and counting votes before beginning. The Company has convened the meetings with frequency required by the law and provided all shareholders opportunities to vote. However, in the agenda items that consists more than one topic, appointment of directors for example, the Company offered each shareholder the right to vote. The Company's

officers would collect all the vote cards to count - approve, disapprove, and abstain vote.

For the appointment of directors agenda, the directors who have conflict of interest in such matter would temporarily leave the meeting room to promote shareholders' freedom for questioning and voting.

To support Thai speaking shareholders, the Company managed to have the interpreter in case foreign directors report the Company's performance or answer the shareholders' questions in English. Moreover, legal advisors from A.C. Bangkok Law Office were engaged to act as independent inspectors to monitor the registration and the counting of votes, and in the AGM, the Chairman asked for two shareholders to bear witness to the vote counting, to ensure the meeting was transparent and complied with applicable laws. At the meeting, the Chairman conducted the meeting in compliance with all the requirements imposed by the law. He provided the shareholders with clarifications on all the meeting procedures including vote counting methods and exercise of voting rights. Under each agenda item, the Chairman gave the shareholders an opportunity for giving opinions and suggestions as well as asking questions. In response to the questions, the Chairman and the executives gave the shareholders appropriate answers and explanations. The shareholders were requested to vote and adopt resolutions on all agenda items. The vote results had to be revealed to all attendees, presenting the scores from approve, disapprove, and abstain vote in each agenda item. In addition, all important ideas and questions needed recording in the meeting report.

(iv) Procedures following the meeting

The Company submitted to the SET the resolutions of the shareholders' meeting No. 2019 held on 24 April 2019 with details of voting results - approve, disapprove, and abstain vote - of each agenda through the SET Portal and also posted the resolutions immediately on the Company's website at www.thoresen.com.

The Company prepared and submitted the minutes of 1/2019 AGM both in Thai and English to the SET and related organization since 8 May 2019 within the required timeframe (fourteen days). The minutes were also posted on the Company's website www.thoresen.com for the shareholders.

The Company's Annual General Meeting minutes presented the information as follows:

- (1) List of the directors, the management, and other attendees with ratio showing the directors who attend the meeting and those who did not.

- (2) Meeting procedures showing how to vote and how to count votes, resolutions, and voting results (approve, disapprove and abstain vote) of each agenda.
- (3) Instructions for significant matters.
- (4) Questions and answers, brief opinions, and names of both questioners and answerers.

The Company has been rated the quality of AGM arrangement as "Excellent" (scores ranging between 90-99) consecutively since the year 2007. The assessment results were based on the assessment form conducted by the Thai Investors Association ("TIA") in conjunction with the SEC and the Listed Companies Association. In 2019, the Company was rated Excellent, with a score for the quality of the 2019 AGM arrangement, held on 24 April 2019, of 91.00 points. The score was classified under TIA 4 (scores ranging between 90-99) with 672 listed companies participating in the assessment.

2. Equitable Treatment of Shareholders

2.1 Equitable Treatment

The Company realizes its responsibilities to protect and due care for the interests of all Thai and foreign, major and minor shareholders fairly. All shareholders including individual and juristic shareholders and institutional investors were treated equally under the Company's policy. In addition, the Company sets policy for equitable treatment to all shareholders for attending and vote in the shareholders' meetings, sharing in profits, regularly and timely obtained adequate information, business performance and management policy. In the shareholders' meeting, each shareholder shall have one vote on each share. Proxy form and requiring documents were delivered together with invitation letter for shareholders who would like to appoint a proxy. Proxy form, which contains detail of voting as approve, disapprove or abstain, as well as details of independent directors are also attached for shareholders consideration as alternative proxy. In addition, voting cards were provided for each agenda especially the agenda of appointment of directors of which being appointed by individual. In every shareholder's meeting, the meetings were conducted to be in line with the agenda without any additional topic from what have been expressed in the invitation letter otherwise rights of the shareholders who could not participate in the meeting by themselves will be deprived, especially one requiring shareholders to scrutinize before making decisions.

2.2 Prevention of Inside Information

The Board prohibits directors, executives, and employees from using an opportunity or information acquired while working in their positions to seek personal benefit or to establish a competing or related business with the Company. This includes a complete prohibition against using material insider information to buy or sell the Company's securities for their own interest and against giving insider information to other persons or entities to buy or sell the Company's securities as well.

The Company requires that directors and executives, ranking from executive vice president up, report trading transactions of the Company's securities, and their securities holding, within 3 days after the changes occur, according to the code by SEC. At present, it is reported through www.sec.or.th according to the new code by the SEC, and requires the person in charge to submit a copy of report on changes of shares and securities to the Company Secretary, in order to keep the Board informed every meeting and show the information in the Annual Report, both at the beginning and at the end of a year.

In addition, the Company prohibits all directors and senior executives from trading the Company's shares and securities during the period of 21 days before the release of our quarterly and annual financial results (the "Blackout Period") with the SET and public as well as during 24 hours right after the information has been revealed to the public. This prohibition applies to entities in which our directors have a beneficial interest, are employed by, or act as a representative thereof. The Company Secretary will remind directors and executives about the restriction at least seven days in advance of the Blackout Period.

No reports of the violation of improper use of inside information were made in 2019.

2.3 Information Disclosure of Stakeholders

Since 2009, directors and executives have been required to submit a report that provides details of the directorship and the securities ownership in other companies together with such a report of their related persons. This information is filed at the Company for monitoring potential related party or connected transactions. New directors and senior executives of the Company shall submit this report within thirty days after being appointed.

In case there are changes in related persons and close relatives, directors and executives shall submit a revised report to the Company within fourteen days after changes occurred.

Directors, executives, and employees must refrain from any transactions that may lead to a conflict of interest with the Company and its subsidiaries. Any directors, executives, and employees who have conflict of interests are not allowed to participate in the decision-making process. In particular, directors who have conflict of interests which could prevent them from reasonable judgement are prohibited from considering or casting their votes on matters in which they may have a potential conflict of interest.

3. Roles of Stakeholders

3.1 Rights of Stakeholders

(A) SHAREHOLDERS

The Company always makes an effort to maximize shareholders' long-term benefits through careful consideration of business risks. The Company shall fairly and transparently disclose all information in a timely manner and use best efforts to protect the Company's assets and reputation.

Besides the basic rights of shareholders and the rights stipulated by law and the Articles of Association, such as the right to request a verification of the number of shares; the right to receive share certificates; the right to attend and vote at the shareholders' meetings; the right to freely express opinions at the shareholders' meetings; and the right to receive a fair return; The Company also gives shareholders the right, as the owners of the Company, to make suggestions and comments on the Company's affairs to the independent directors. Each comment and suggestion will be carefully considered and presented to the Board. Further comments and suggestions from shareholders to the Company are provided via the Company's www.thoresen.com, and Investors@thoresen.com, or by mails to the Company address.

(B) EMPLOYEES

Employees are regarded as valuable assets of the Company, who can strengthen operational excellence and sustainable growth of the Company as well as drive its business in accordance with the strategic and operating plans in long-run. Therefore, human resources management and development strategies have been introduced in order to encourage the employee in all level to maximize their performance in accordance with the business operation. The Company provides and supports the employee's benefits and welfare not only based on legal requirement but also consideration of appropriateness in order to retain

capable and experienced employees. The Company continually seeks to recruit and retain capable and experienced employees in accordance with the Company's strategic and operating plans, focusing on retention of employees by creating a work-life balance for employees. The Company pays appropriate remuneration to employees, and competitive with other companies in the same industry. It is the Company's policy to pay remuneration to employees at the rate consistent with the Company's short-term and long-term performance, for short-term as salary or bonus, varies according to the performance of the employee and the operating results of the Company, and for long-term as provident fund for employees in order to enrich their living and provide them with supposedly sufficient financial security once they resign or retire. To encourage the employee's saving, the Company arranged the 2019 TISCO Provident Fund Investment and Financial Planning seminar by TISCO to educate the employee about financial planning and saving after their retirement as well as the selection of investment on the individual and risk basis.

Fair Compensation

Each year, the Company reviews the employees' compensation and benefits to ensure the competitiveness in the market of the same industry. The Company also organizes a subcommittee for special compensation to conduct and approve practices related to special compensation and rewards for each affiliated company. This is to standardize the process of granting compensation for the whole company in accordance with the Company's strategies.

To ensure the effective employees development, the policy and procedure of performance evaluation, which is called MAX Performance Evaluation, is thoroughly executed for evaluating employee in all level following the stages of MAX Performance Cycle as set out below:

- 1) Performance Planning;
- 2) Mid-Year Review; and
- 3) Year-End Review.

This maximizes the employee's efficiency and effectiveness via performance planning which is aligned with the Company's strategic planning as well as encourages clarity and synergy within the Company. In addition, the MAX Performance Evaluation also emphasizes the importance of systematic planning, stewardships, and appraisal throughout the entire process. Moreover, to ensure the transparency and alignment, the supervisors and the employees are

encouraged to consult and work together in order to promote regular dialogues, knowledge sharing and development opportunities at least two times a year following MAX Performance Cycle. This information will be used to support annual salary adjustment in keeping with remuneration and operation results policy.

Considerable Welfare Benefits for Employees

The Company has implemented the Company's welfare benefits policy for all employees equally to reduce cost of living, ease worry, and promote health and well-being which can positively influence the employees' performance and lives. The benefits are announced through employee handbook and media, in forms of email internal portal and LINE group. The benefits can be divided into 4 main categories as follows:

- **Welfare benefits:** baby gifts, get-well presents, condolence money, mobile phone fees, etc.
- **Health and insurance:** health checks before employment, annual health checks (depending on different needs of ages and genders), group health insurance and accident insurance, etc.
- **Funds:** provident fund, compensation fund, social security fund, etc.
- **Internal and external activities:** New Year party, seminars, etc.

In addition, the Human Resources Department of the Company has studying the process, pros and cons of the employee stock options in prior decision making.

With respect to occupational environment and health, the Company has determined a safety policy and established the Occupational Safety, Health, and Environment Working Committee to ensure good health and a good environment in the workplace, safety for lives and properties of the employees and the Company. All employees shall notify the supervisor or persons assigned by the Company of any unsafe conditions. New employees are trained regarding safety at the orientation. This is to ensure that employees are aware of the potential hazards at the workplace, and understand how to conduct themselves in an event of danger. In 2019, the Company has no report on work-related accident statistics with zero staff casualty, dead or severely injured at work.

The Company encourages employees across all departments and companies to be mindful of the environmental impact of their work; promote the concept of reducing, reusing, and recycling items - e.g. printing on both sides of the paper, using electronic documents instead of paper, reusing various materials, and more. The

Company implements energy-saving measures in the workplace - e.g. use of energy-efficient lighting, turning off lights and air conditioning units when not in use, during breaks, or outside of working hours. In addition, the Company arranged the activities to promote environmental conservation among not only the employees but also their families; for example, forest rehabilitation to save natural resources. The details of saving environmental and natural resources activities are illustrated in the section of Sustainable Development Report.

For shipping business, the Company organized staff training in relation to environment for sea staffs about Vessel Fuel Performance Management Course and Marine Energy Efficiency Management Course.

Training and Personal Development

The Company emphasizes on the importance of employees' development by implementing Individual Development Plans that allow employees to create development plans concerning their individual needs. The Company encourages learning and the development of its personnel by supporting and arranging internal and external training of which appropriate for year of service, career path, and responsibility. In 2019, 51 courses were held, covering both technical skills and soft skills. The Company strongly believes that improvement of employees' capabilities will ultimately increase the Company's competitiveness in the long run.

In 2019, the Company's employees attended various courses such as the 7 Habits of Highly Effective People, Anti-Corruption Working Paper, Financial Instruments, Investor Relations and Thai Stock Market, with 501 training hours in total or 4.82 hours/person/year averagely. The Company also encouraged the employees to develop other working skills by attending the course Preliminary to Corporate Sustainability held by the SET, for better understanding the importance of sustainability before practice. Moreover, the Company has arranged the in-house training to introduce fundamental Corporate Sustainability to the Board and the Company's management by having a guest speaker from Sustainable Business Development Institute or SBDi on 26 February 2019. The objective of the course was to raise awareness of the importance of social-responsible management and strategic management for sustainable development, which were the foundation for appropriate development towards economic, social, and environmental sustainability.

In August 2019, the Company hired a sustainable development consultant to provide knowledge and promote comprehension for the Sustainable Development Committee and the Sustainable Development Working Group under the topics of how to plan and achieve sustainable growth in business operation, taking Environment, Social and Governance (ESG) issues and Effective Risk Management into account. This was to strengthen Responsibility Investment, considering possible effects on all groups of stakeholders. The Company also prepared a Sustainability Report aligning with Global Reporting Initiative ("GRI") standards and Regulations of the Stock Exchange of Thailand for sustainability growth.

Summary of training hours in 2019

Training Hours by Level	Overall Training Hours	Average Training Hours
Top management	173 hours	17.30 Hours/ Person/Year
Mid-level management	208 hours	5.94 Hours/ Person/Year
Operational level officers	120 hours	2.03 Hours/ Person/Year
Total training hours	501 hours	4.82 Hours/ Person/Year

(C) COUNTERPARTIES

The Company conducts business affairs with counterparties, including clients, competitors, creditors, business partners, etc., in accordance with the contracted terms and conditions, in a fair and ethical manner. Treatment of counterparties practices of the Company to create good understanding and cooperation shall be as follows:

Competitors: The Company treats competitors fairly, by operating its business with integrity and professionalism, as follows:

- The Company will not commit any action that violates or breaches the law governing trade competition; and
- The Company has implemented an Anti-Corruption Policy and prohibited its directors, executives, employees, or any of whom acting on behalf of the Company from taking unlawful or inappropriate actions to secure business advantages.

Creditors: The Company is always committed to maintaining sustainable relationships with its creditors and credit guarantees with fair and equitable policy, by providing accurate, transparent, and traceable information for them, and strictly adhering to the terms and conditions made with creditors, in terms of payment of the principal, interest, and fees, maintenance of the financial ratio, and other conditions. If the Company fails to comply with any such condition, the Company will promptly notify the creditor, in order to mutually agree on a solution. During the last year, there was no payment default occurred.

Bondholder: The Company abides by regulation of the right and duty of bondholder and issuer, the criteria and announcement of SEC, as well as related laws. At last year 2019, the Company compensated principle and interests of debenture in time and there was no due payment. In addition, the Company held the activity for making the relationship with bondholders.

Business Partners: The Company sets criteria for choosing a business partner or a service provider, to ensure that the business strategy of a potential service provider is consistent with that of the Company, in terms of competitiveness, business continuity, protection and treatment of clients, and risk management approaches. The criteria for choosing a service provider are as follows:

- Technical skills, including expertise and experience;
- Financial position;
- Business reputation;
- History on complaints and legal actions;
- Service policies;
- Risks posed by provision of services to several clients;
- Security and environment; and
- Anti-corruption efforts.

The Company treats its service providers fairly vice versa.

(D) CLIENTS

The Company recognizes that clients are crucial to the success of its operations. Accordingly, the Company aims at building clients' satisfaction, provided with high-quality services that meet their needs and expectations in a fair and professional manner. The Company's policy and practices on the treatment of clients as specified in the Code of Business Conduct are as follows:

- Deliver quality services and goods as per client's expectation;
- Provide accurate and complete information regarding the goods and services of the Company in a timely manner;
- Strictly follow the terms and conditions agreed upon with the client;
- Treat customers politely and effectively to gain their trust; and
- Keep the client's secrets confidential, and avoid using them to gain benefits for oneself or other persons.

3.2 Anti-Corruption Efforts

The Company conducts business with strong ethics and responsibility for all concerned parties. The Board has approved the Anti-Corruption Policy as a guideline for anti-corruption practices. In addition, practices of anti-corruption have been collated since 2010 and published to provide guidelines for anti-corruption. These practices are in line with the Company's Anti-Corruption Policy.

The Company published its Anti-Corruption Policies internally to employee through TTA's Portal and also communicated the policies to Directors, management and employees. An internal control system has been put into place to fight corruption and protect against corruption within the Company. It has set policy, criteria, and control processes such as the delegation of authorities in approving various types of transactions, the Company also set up procurement policies to prevent corruption in procurement by determining procedures of purchasing, power of procurement division and sub-committee who were engaged in good receiving.

Pursuant to the Board of Directors Meeting No.6/2019, held on October 30, 2019, the Board of Directors updated the Company's anti-corruption policies, making them cover more issues possible and comply with the present business operation. Moreover, the Board of Directors approved a resolution to join Thailand's Private Sector Collective Action Coalition Against Corruption (CAC), announcing the same intentions to follow Thai laws for preventing any forms of corruption. The request for participation in CAC was done on November 8, 2019 and now it was during the process of gathering and submitting necessary documents to CAC for certification.

The Company implemented new policies and practices complying with the new edition of the Company's Anti-Corruption Policies. The steps taken by the Company in the previous year were presented here:

- The Company published the Anti-Corruption Policies and practices on the Company website www.thoresen.com available for employees and any other interested people.
- The Anti-Corruption Policies and practices were acknowledged and followed by the Board of Directors, the management, and the employees of the Company and the subsidiaries.
- The Company participated in Anti-Corruption Day 2019 which was organized by Anti-Corruption Organization of Thailand at BITEC Bangna on September 6, 2019 to promote an anti-corruption campaign.
- The Company launched “Say No to Corruption”, an anti-corruption campaign, to raise awareness among the Company’s employees. A video clip promoting the campaign was made by the Company’s management and employees and published on official Line and Facebook of the Company. Moreover, anti-corruption stickers were created and attached to all employees’ desks to promote the campaign and strengthen the awareness of such matter.

The Company also conducted an internal audit every three months to investigate each department whether they operated under the anti-Corruption Policies and practices. Reports of the internal audit needed to be done and submitted to the Audit Committee and the Board of Directors.

The Company set up Risk Management division to estimate all potential risks, including risks on corruption, proceedings of risk management policies, follow-up the risk management policies and maintain appropriate frameworks, risk management structure and all recommendations. For internal control, the internal audit conducts the system of internal control every year to ensure an appropriate mandate of internal audit for the company’s business operation.

3.2.1 Policy and Measures against Corruption and Bribery

The Company had strict policy and measures against corruption and bribery. All personnel including the Company’s directors, executives and employees had to strictly follow and comply with the anti-corruption laws, regulations, and policies in order to ensure the Company’s stakeholders of fairness and transparency, as well as effective anti-corruption practices. The Company also introduced written Anti-Corruption Policy in compliance with Corporate Governance Policy and Code of Business Conduct of the Company.

In 2019, the Company had reviewed and improved the policy and measures against corruption and bribery, as well as other related practices. This was

to ensure that the Company had appropriate, effective, and comprehensive processes to prevent corruption and bribery, and also ran business in compliance with Corporate Governance Policy by CAC.

The Company’s directors, executives and employees are prohibited to call for, perform or accept any action which is relevant to giving or acceptance of bribery and all forms of corruption (zero tolerance), directly and indirectly, for benefits of their own, the Company or any person in all countries and agencies, both public sector and private sector, that the Company’s businesses involved with. Every year, the Company conducts risk assessment for corruption, implements measures to cope with the risk, and reviews the performance for further improvement. The Board of Directors have assigned the Audit Committee the responsibilities for supervising the anti-corruption practices by reviewing related internal measures and controls, considering reports on sufficiency and effectiveness of the anti-corruption practices, and reporting the results with suggestions for improvement to the Board of Directors and the management regularly. Appropriate risk management also needs to be done to prevent any forms of corruption and bribery.

In order to prevent possible corruption and bribery, the Company has introduced anti-corruption measures for directors, executives and employees of the Company and the subsidiaries to follow. The measures are as follows:

1. Giving or accepting gift, entertainment or other benefits

The directors, executives and employees shall not offer or give a gift, present, entertainment or other benefits which might be perceived as illegal or improperly to the interested persons. However, the directors, executives and employees can offer or give goods, gift, present, entertainment or other benefits only in occasion which is consistent with customary business practices or within morality, for enhancement of relationship for good image of the Company. Value should be considered to make it suitable with the opportunity, person or position of the giver and the receiver. However, such action shall not influence any business decision or unfair benefits or have any impact to the Company’s operations and it shall not cause any conflict of interest between private benefits and the Company’s and its subsidiary’s benefits.

The directors, executives and employees shall not accept or give anything in form of cash or cash equivalent, particularly to the government

official because it may have risk for being misunderstood as bribery. Moreover, the business entertainment may be provided as necessary and expenses spent shall be reasonably, that is, it shall not be unnecessarily large amount or extravagant in value or shall not occur frequently, and it shall conform to the giving and acceptance of gift and entertainment measures specified by the Company.

2. Charitable contributions or sponsorships

All kinds of charitable contributions or sponsorships shall be correctly, openly and transparently provided on behalf of the Company and it shall not against the morality, or illegally. It shall be in line with the Company's regulations as well as those of the government agencies, the state enterprises and other relevant agencies. Such act shall not cause any conflict of interest between private benefits and the Company's benefits, or used as an excuse for corruption. The request for the fund indicating objective and name of the recipient/ the donee's agency shall be prepared and submitted to the authorized person for approval before the fund can be granted. In addition, it is required to follow-up the written evidencing document on acceptance of donation/support fund for the Company's record and inspection.

3. Political contributions

The Company adheres to the democracy system with the King as Head of State and has neutral, fair and transparent political policy and it shall not support or perform any action which is favorable to any political party. The Company's participation in any political activities shall be transparently and shall not against the relevant laws, rules and regulations. In addition, the directors, executives and employees shall have personal right and liberty to participate in any political activity under the constitution, however, the Company's name shall not be referred to and the Company's assets or equipment, tools shall not be used for benefits of political operations.

3.2.2 Whistleblowing Procedures, Request for Recommendation, and Whistleblower Protection Whistleblowing

In case the directors, executives and employees and other stakeholders is suspicious that any action might be regarded as violation or non-compliance with the Anti-Corruption Policy, they are obligated to notify the clue via the communication channels specified in the policy as follows:

The Audit Committee

Email : whistleblowing@thoresen.com

Postal mail : The Audit Committee

Thoresen Thai Agencies Plc.

PO Box 12, Non-delivery Post Office,

Siam Commercial Bank, Lumpini, Pathumwan, Bangkok 10330

In case any matter is needed to be urgently reported, the director, executive and employee are obligated to notify the high-level management or the Board of Directors for acknowledgement of the concerned issue or situation via such channel, or the internal audit report shall be brought for attention of the corporate corruption management process. The investigation committee shall gather information, prepare the investigation result report, as well as recommendation and submit to the President and the Chief Executive Officer for consideration and making decision.

Request for recommendation

If any director, executive, employee or stakeholder has any question about the anti-corruption measures and policy or they are not sure about which action is regarded as bribery or corrupt practice, or any other concerns, they shall directly consult with their direct superior officer, or promptly make enquiry to or request for preliminary recommendation from the Office of Company Secretary.

Protection of whistleblower or informant and confidentiality

The Company shall not disclose name and details on contents of the relevant complaint, grievance or fact to other irrelevant people, unless it has to be disclosed under the law only. The whistleblower or the informant who reports the facts in good faith, without any bias or personal benefits, shall be protected by the Company.

The Company shall provide fairness and protect the employee who denies corruption and in order to strengthen confidence and fairness to all employees, the Company shall not have any policy to demote, punish or there will not be adverse consequences for the employee who refuses to accept bribery or corrupt practices, even though his/her act may make the Company lose the business opportunity. or retaliation, in accordance with the Company's Code of Business Conduct.

3.2.3 Communication Channel for Stakeholders

Any concern or information on violation of regulations or corruption may be submitted to the Company through the channels illustrated in 4.6 Whistleblowing Policy and Whistleblower Protection Policy.

3.3 Responsibility to the Community, Society, and Environment

TTA emphasizes on the most effective use of natural resources with the least environmental effect. The Company employs technology and develops work processes that are environmentally friendly, while raising awareness of effects of employee's performance towards the environment to employees. The Company believes that to progress and grow in a sustainable manner, a business must develop its organization, taking into account responsibility to society and the environment. Details on the Company's responsibility to community, society, and environment can be found under the topic of "Sustainable Development Report".

4. Information Disclosure and Transparency

The Company has determined upon the timely disclosure of accurate, complete, and transparent information, both financial and non-financial, and also general information related to the Company's business in Thai and English language to shareholders, investors, and stakeholders in conformity with the relevant rules of law and regulations. Such information is disclosed via SET Portal of the SET and on the Company's website at www.thoresen.com. Investors Relation and Company Secretary are in charge of providing such information and responding to inquiries.

Disclosed Important information is as follows:

4.1 Corporate Governance Policy and Implementation Results

The Company is committed to the timely disclosure of accurate, complete, and transparent information, both financial and non-financial, and also general information that related to Company's business and operating results. The complete, consistent and updated information will truly reflect the Company's financial performance and future business direction. Such information were disclosed to shareholders, investors and any related parties via SET Portal system, Company's website at www.thoresen.com, press release, Company's Annual Report as well as participating in the "Opportunity Day" which is arranged by the SET. Moreover, the Company has protected the sensitive and confidential information relevant to the Company's stock price prior to disclose to the public in an appropriate time.

(1) Disclosure of Important Information in the Annual Report and in Form 56-1

- **Financial Information:** The Company's financial statements are reviewed and audited by a professional auditor for the accuracy of significant information, followed the accounting standards. Each financial statement had been approved by the Audit

Committee and the Board of Directors prior to disclose to the shareholders and public. The Board of Directors' statement on the responsibilities of the financial statements has also been disclosed together with auditor's report in this Annual Report as well as the related party transactions, and Management Discussion and Analysis.

- **Non-Financial Information:** For the non-financial information i.e. shareholding structure, conflict of interest report of the stakeholders and related person upon the first appointment as the director or executive and have been reported to the Board and kept by the Company Secretary every time the change occurred. The Directors must also report their securities holding every meeting.

(2) Channel of disclosure information both in Thai and English

- SET Link of the SET.
- The Company's website at www.thoresen.com which is regularly updated. Channels that may be used to contact the relevant divisions are also clearly displayed.
- Press releases as well as participation in the "Opportunity Day" which is arranged by the SET every quarter.

4.2 Remuneration of Directors and Executives

Policy of Directors' Remuneration and Executives has been clearly set with transparency and could be comparable to the general practice in the same industry and be appealing enough to attract and retain qualified directors. The directors who also are appointed to be the member of any subcommittees will be paid appropriately more in accordance with the extra work. The Nomination and Remuneration Committee will consider the remuneration and propose for consideration of the Board of Directors prior to further approval from the shareholders.

The remuneration of directors and executives is detailed under the topic of "Management Structure".

4.3 Responsibilities of the Board for the Financial Statements

The Board of Directors is responsible for the Company's consolidated financial statements and any financial information which are disclosed in the Company's Annual Report. Such financial statements were prepared in accordance with the general acceptance-accounting standard in Thailand with appropriated financial policy. The reports were carefully considered and prepared with sufficient information in the notes to the financial statements. For more assurance and reliability, the

financial statements have been audited and commented independently by the authorized auditors of SEC.

The Board of Directors also set out and maintained for the efficiency of the Company's internal control system to ensure that the financial information had been correctly and accurately booked and sufficient to maintain the Company's assets and be aware of weak point in order to prevent whether from any dishonesty or significant error. The Board of Directors had appointed the Audit Committee of which comprised of independent directors to be responsible for the quality of the financial statements and the internal control system and disclosed such opinion in the Annual Report under the Report of the Audit Committee. The opinion of the Audit Committee has already been disclosed in the Annual Report. Moreover, Report of the Board of Directors' responsibility on the Company's Financial Statements was also attached in the Company's Annual Report.

4.4 Roles and Responsibilities of the Board

The Company disclosed the name and profile of each director with roles and duties of the Board, the Executive Committee, the Audit Committee, the Nomination and Remuneration Committee, the Risk Management Committee, the Corporate Governance Committee, and the Investment Committee under this "Corporate Governance Report" as well as knowledge, skills, experience, and other significant information. The performances of the directors and each subcommittee member were also presented in the Annual Report.

4.5 Relationship with Investors

The Company established Corporate Communications and Investor Relations to communicate with both institutional and retail investors, shareholders, analysts, relevant agencies, and the general public, in an appropriate and equitable manner.

In 2019, the Company met and provided information to interested parties on various occasions as follows:

1. One-on-one and group meetings with investors, and analysts, 4 meetings via conference call and live broadcast;
2. Quarterly meetings with analysts and investors at the SET's Opportunity Day to discuss the Company's most recent financial performance, 4 presentations;
4. Meetings with financial analysts, 4 times;
6. Meetings with credit rating agency, 1 time; and
7. Disclosure of periodic reports, such as quarterly financial statements, Management Discussion and Analysis reports (MD&A), reports on reviewed quarterly financial statements (F45-3), the Company's

Annual Information Disclosure Form (Form 56-1), the report on the use of proceeds, and the Company's Annual Report, 12 disclosures;

8. Disclosure of non-periodic reports, such as the notification of general meeting of shareholders and its resolutions, asset dispositions and acquisitions, and investments, 15 disclosures;
9. Press releases and news scoops, 26 releases;
10. Photo releases regarding the Company's activities, 7 releases;
11. Media relations activities 55 times; 24 activities, 28 local media interviews, 3 press conferences.

4.6 Whistleblowing Policy and Whistleblower Protection Policy

The Company implements a Whistleblowing Policy and Whistleblower Protection Policy as part of the Company's Code of Business Conduct to ensure good corporate governance of the Company and equal rights of all employees and stakeholders to communicate with the Audit Committee through the reporting from Internal Audit Department. In case that an employee has any concern, knowledge of violation or corruption or breach of the law, business ethics, or policies of the Company, grievance concerning violation of rights, opinion, complaint, or suggestion that may affect the good corporate governance or business ethics of the Company, they may report through the following channels:

- Website: www.thoresen.com
- Email: whistleblowing@thoresen.com
- Mail: P.O. Box 12, SCB Post Office, Lumpinee Sub-district, Pathumwan District, Bangkok 10330, Thailand

Information, grievances, and suggestions will be considered, and appropriate actions will be taken on a case-by-case basis, without disclosing the name of the whistleblower or the content of the complaint. Measures are put in place to protect the whistleblower, to ensure that they will not be affected by the submission of information or a complaint.

The Internal Audit Department will open the mailbox weekly to check if there is any submission of information or a complaint. If there is any, it will be conveyed to the Audit Committee in a quarterly meeting.

In 2019, there were two complaints in total from both an insider and an outsider. Investigations of the two cases were done and finished in 2019 without any issues concerning the violation of the anti-corruption policies, trade and competition policies, business ethics, or the Company policies.

4.7 Corporate Social Responsibility Policy

Please see the topic "Sustainable Development Report".

4.8 Disclosure of Related Party Transaction

The disclosures of related party transaction are closely monitored by the Company. In case the directors acquire or dispose the Company's asset or perform any business transaction involving the Company either by himself or herself or on behalf of the others, such transactions will be effective only after receiving the approval from the Board of Directors. Directors having an interest in any transaction are not allowed to participate in the approval process. The connected transactions are disclosed to the stakeholders via the SET Portal system.

5. Structure and Responsibilities of the Board of Directors

(A) BOARD STRUCTURE

The size of the Board complies with Public Limited Companies Act, B.E. 2535 and the Company's Articles of Association.

The Board must be composed of members of various professions and experiences which are beneficial to business operations of the Company, i.e. accounting/finance, management, strategic planning, legal and corporate governance without having any gender discrimination. All directors have a number of duties and responsibilities as specified in the Articles of Association. In conducting the Company's business, a director shall perform his duties with responsibility, due care and loyalty, and shall comply with all laws, the Company's objectives and the Articles of Association, including resolutions of the shareholders' meetings.

Each director may hold a directorship in listed companies not more than five companies. However, there were two directors has directorship in six Thai listed companies, including the Company's subsidiaries. For this reason, the directors can take into account each business strategies and the overall performance of the Company and its subsidiaries effectively.

(A.1) Independent Director

An independent director is a director who does not manage the Company or any of its subsidiaries, is independent from management and major shareholders, and has no business dealings with the Company, which may compromise the Company's interests and/or the shareholders' interests.

The qualifications of an independent director are as per the definition of the Notification of the Capital Market Supervisory Board which is also available on the Company's website. Each independent director shall comply with the following rules:

1. Holding shares not exceeding one percent of the total number of shares with voting rights of the Company, its subsidiary company, associate company, major shareholder or controlling person, including shares held by related persons of such independent director;
2. Neither being nor used to be an executive director, employee, staff, advisor who receives salary, or controlling person of the Company, its subsidiary company, associate company, same-level subsidiary company, major shareholder or controlling person, unless the foregoing status has ended not less than two years prior to the appointment. Such prohibited characteristic shall not include the case where the independent director used to be a government official or advisor of a government unit which is a major shareholder or controlling person of the Company;
3. Not being a person related by blood or legal registration as father, mother, spouse, sibling, and child, including spouse of child, executive, major shareholder, controlling person, or person to be nominated as executive or controlling person of the Company or its subsidiary company;
4. Neither having nor used to have a business relationship with the Company, its subsidiary company, associate company, major shareholder or controlling person, in the manner which may interfere with his independent judgement, and neither being nor used to be a significant shareholder or controlling person of any person having a business relationship with the Company, its subsidiary company, associate company, major shareholder or controlling person, unless the foregoing relationship has ended not less than two years prior to the appointment;
5. Neither being nor used to be an auditor of the Company, its subsidiary company, associate company, major shareholder or controlling person, and not being a significant shareholder, controlling person, or partner of an audit firm which employs auditors of the Company, its subsidiary company, associate company, major shareholder or controlling person, unless the foregoing relationship has ended not less than two years prior to the appointment;
6. Neither being nor used to be a provider of any professional services including those as legal advisor or financial advisor who receives service fees exceeding two million Baht per year from the Company, its subsidiary company,

associate company, major shareholder or controlling person, and not being a significant shareholder, controlling person or partner of the provider of professional services, unless the foregoing relationship has ended not less than two years prior to the appointment;

7. Not being a director appointed as a representative of directors of the Company, major shareholder or shareholder who is related to major shareholder;
8. Not undertaking any business in the same nature and in competition to the business of the Company or its subsidiary company or not being a significant partner in a partnership or being an executive director, employee, staff, advisor who receives salary or holding shares exceeding one percent of the total number of shares with voting rights of other company which undertakes business in the same nature and in competition to the business of the Company or its subsidiary company; and

9. Not having any other characteristics which cause the inability to express independent opinions with regard to the Company's business operations.

After being appointed as independent director with the qualifications under (1) to (9), the independent director may be assigned by the Board to take part in the business decision of the Company, its subsidiary company, associate company, same-level subsidiary company, major shareholder or controlling person, provided that such decision shall be in the form of collective decision.

(A.2) The Board of Directors

The Board is composed of eleven directors, consisting of five executive directors (45.46% of the total number of directors), and six non-executive directors (54.54% of the total number of directors) which comprising five independent directors and one non-executive director. The Board as of 31 December 2019 consisted of the following persons:

Members of the Board as of 31 December 2019

Name	Position	First Appointment Date
1. Mr. Prasert Bunsumpun	Chairman of the Board/Chairman of Executive Committee	31 Jan 2012
2. Mr. Chalermchai Mahagitsiri	Director/President and Chief Executive Officer Member of Executive Committee Chairman of Investment Committee	31 Jan 2012
3. Mr. Jean Paul Thevenin	Director/Member of Executive Committee Member of Risk Management Committee Member of Investment Committee	30 Jan 2014
4. Mr. Jitender Pal Verma	Director/Senior Executive Vice President and Group CFO Member of Executive Committee/Member of Corporate Governance Committee/Member of Risk Management Committee/Member of Investment Committee Chairman of Sustainable Development Committee	26 Apr 2017
5. Ms. Ausana Mahagitsiri	Director/Member of Nomination and Remuneration Committee/Member of Corporate Governance Committee	31 Jan 2012
6. Mr. Kamolsut Dabbaransi	Director	27 Apr 2016
7. Mr. Somboonkiat Kasemsuwan	Independent Director/Chairman of Audit Committee	14 Nov 2016
8. Mr. Santi Bangor	Independent Director/Chairman of Nomination and Remuneration Committee/Chairman of Corporate Governance Committee/Member of Audit Committee	31 Jan 2012
9. Mr. Cherdpong Siriwit	Independent Director/Chairman of Risk Management Committee/Member of Audit Committee	30 Jan 2013
10. Mr. Chitrapongse Kwangsukstith	Independent Director	13 May 2015
11. Mr. Mohammed Rashed Ahmad M. Al Nasser	Independent Director/Member of Nomination and Remuneration Committee	30 Jan 2013

Authority and Duties of the Board

1. Review and approve the vision, mission, and Code of Business Conduct of the Company, including support and promote compliance of the Company's management with the good corporate governance principles.
2. Review and approve the strategies, business plans, budgets, and policies, including annual business plans, investment budgets, and operational objectives of the Company.
3. Appoint subcommittees and assign authority and duties to each subcommittee to perform duties of the committees, as assigned by the Board.
4. Assign duties to the President and Chief Executive Officer concerning management of the Company in accordance with the policies, strategies, business plans, budgets, and objectives of the Company.
5. Ensure that the management consistently perform their duties under the work plan in accordance with the organizational direction and strategies.
6. Review and approve human resources management strategies and human resources development plans, and determine an appropriate remuneration policy.
7. Ensure that the Company has proper systems in place to communicate effectively with its stakeholders and the public and monitor their application.
8. Determine the guidelines for evaluating the Board and hold regular evaluation of the performance of the Board.
9. Approve significant investments, related party transactions and acquisition and disposition of Assets.
10. Monitor the IT Governance to be aligned with the relevant laws and standards, consider the policies and procedures relevant to cyber and IT risk management and risk mitigation, and encourage the use of innovation and technology in business strategy and operation to strengthen the business competitiveness of the Company.
11. Encourage and support the Company to implement any form of the anti-bribery and anti-corruption activities to ensure sustainable and growth development

(A.3) Segregation of Positions

The Board elects one of its non-executive directors as Chairman. The Chairman and President and Chief Executive Officer are two separate individuals. The Chairman oversees the implementation of policies

and guidelines pursuant to the strategies established by the Board and management and ensure that Board meetings are successfully conducted. During each meeting, all directors are encouraged to actively participate and raise essential questions.

The authority of the Board and management are clearly defined and segregated. At the same time, the Board will not interfere with routine or business operation under management responsibility.

Duties and Responsibilities of the Chairman

1. Convene Board meetings and assign the Company Secretary to arrange for delivery of notices of meetings and documents to ensure that the Board receives sufficient information in a timely manner.
2. Preside at the Board meetings.
3. Preside at the shareholders' meetings and ensure that the meetings are conducted in accordance with the Articles of Association and the agenda specified.
4. Ensure efficient communication between the directors and the shareholders.
5. Perform duties specified by laws as the duties of a chairman.

Duties and Responsibilities of the President and Chief Executive Officer

The President and Chief Executive Officer has the duties to manage the Company as assigned by the Board, and in accordance with the work plan or budget approved by the Board, in order to protect the best interests of the Company and its shareholders. The authority and duties of the President and Chief Executive Officer also cover other matters, namely:

1. Conduct necessary activities and manage daily tasks of the Company; and
2. Approve operating expenses and investment expenses in accordance with the budgets approved by the Board.

(A.4) Term of Directors

Term of Directorship

Under the Articles of Association, at every AGM, one-third of the Board, or if the number is not a multiple of three, the number nearest to one-third, shall retire from office. In choosing those directors who retire, length of service on the Board should be considered, so that those who have served the longest are most eligible to retire. The term of each director is approximately 3 years. A retiring director is eligible for re-election.

Number of Consecutive Terms of Directors

The Company believes that each of its elected directors is a highly qualified individual who is respected for being knowledgeable, moral, and effective. If shareholders show confidence in a director by re-electing him or her, the Board will honour that decision.

The procedure for selection new director is conducted by the Nomination Committee in event that there are the Directors whose term ended either in due time or before due time. The working experiences, educational background and specific skills are considered of which must be in line with the Company's business strategy prior to present to the shareholders' meeting for the approval. In case that the Nomination Committee proposes the current director to continue another term, the performance of that director will also be used for the consideration.

The Company determined the policy that the independent directors shall be in post no longer than 3 terms except getting a unanimous approval from the Nomination and Remuneration Committee due to his/her contribution to the Company and the Committee ensures that the extra term will not cause or impact to the independent of such director.

(A.5) The Board of Directors Meeting

The Board schedules at least six Board meetings with the exact date and time for the entire year in advance, and notifies each director, also clearly outlines the agenda of each meeting i.e. the approval of quarterly financial performance, review and approval of business plans and corporate strategy, and approval of annual budget. Particularly for the Board meetings relating to the approval of quarterly financial performance, it will be scheduled for approval on the last week of each quarter because the Company has to consolidate the financial statements of its subsidiaries into the Company's financial statements. The Board may also call for special meetings whenever the need arises. Additionally, the Board assigned the Executive Committee to convene the meeting in order to acknowledge the performance of the Company and its subsidiaries prior to the next Board meeting. The significant matters had been also reported to the Board. In 2019, there were a total of eight Board meetings.

The Chairman presides over these Board meetings and is authorized to approve the meeting agenda.

Each director, executives, and senior management are entitled to propose matters that are beneficial to the Company for discussion in the meetings. The Company Secretary will deliver the notice of meeting, agenda, and information accompanying the meeting agenda to the directors no later than seven days in advance of the meeting, so that the directors have sufficient time to review the matters for discussion. As per the Articles of Association of the Company, the quorum of a Board Meeting requires no less than a half of the total number of directors on the Board. Also, the Chairman affords every Director a chance to participate and express his or her opinion freely to ensure that the Board's approval for each transaction will not negatively affect business continuity, financial liquidity, and solvency, as well as allocates sufficient time for them to discuss any significant issues with executives and senior management. A resolution is passed based on majority votes. The Chairman shall cast his vote, which is the deciding vote, only in the event of a tie.

The Board encourages senior executives to participate in every Board meeting to report their operating performance directly and any significant matters with regard to the Company's business operation as well as to provide additional information and suggestions to the Board to ensure that closely monitoring of the Company's business operation has been taken. The Board also encourages top management of the Company and subsidiaries to participate in the Board meeting to report their financial performance, financial positions, and to monitor their operation as assigned by the Board for acknowledgement by quarterly basis.

The Board should have access to accurate, relevant, timely and clear information required for their respective roles from the Company Secretary, or designated executive. If necessary, the Board may seek independent professional advice at the Company's expense.

The Board believes in the importance of prudent, impartial and transparent management of conflicts of interest. All information regarding conflicts of interest is fully disclosed. Should any Director have an interest in an agenda item, he or she must refrain from partaking in the decision-making process of that particular agenda item, get out of the meeting room and/or abstain their votes in order that the directors who have no conflict of

interest can express their opinion effectively and cast their vote freely. The Company Secretary will inform the meeting for the name of directors who has conflict of interest in such agenda.

In addition, the Company has reviewed and amended the Code Business of Conduct and CG Policy on the conflict of interest and information disclosure regarding transaction that may lead to a conflict of interest to cover not only the Company but also its subsidiaries, and the Board has approved the matter at the Board meeting held on 12 December 2018.

After every meeting, the Company Secretary is responsible for completing the minutes, which will be presented for the Board's approval as the first agenda item of the next meeting. Once the Chairman places his signature on the minutes, they are approved and are systematically kept with an electronic copy, together with other agenda-accompanying documents, for ease of retrieval and reference purposes.

In every Board of Directors' Meeting, directors and management are required to report the change of their holding in TTA security from the date of previous meeting to existing date. This report is required as fixed agenda of the meeting.

Non-Executive Directors Meeting

Non-Executive Directors should have a separate meeting in the absence of the management of the Company as often as required for discussion of any necessary topic. For convenience of the meeting, Company Secretary will be appointed as the secretary of the meeting.

In 2019, the Company held one meeting of Non-Executive Directors, among themselves, without the management team to discuss about the declaration of intention to join CAC of the Self-Evaluation of the Company.

(A.6) Nomination of Directors

The Board assigned the Nomination and Remuneration Committee to seek qualified candidates as a director of the Company. The Nomination and Remuneration Committee will consider the profile, age, knowledge, experience, potential, and other factors that may be required of a director of the Company.

Moreover, the Company will consider qualified candidate with the right talent, knowledge, expertise, wide ranges of experiences and professions in accordance with the Company's business to manage the Company's business and achieve its objectives and the set goals, and without possessing any prohibited characteristics as defined by law. The Company has no policy to discriminate gender or nationality for nominated directors.

(B) SUBCOMMITTEES AND COMPANY SECRETARY

The Board has appointed six committees, namely 1) Audit Committee, 2) Executive Committee, 3) Nomination and Remuneration Committee, 4) Corporate Governance Committee, 5) Risk Management Committee and 6) Investment Committee, 7) Sustainable Development Committee, and the Company Secretary.

(B.1) Audit Committee

The Audit Committee ("AC") is composed of at least three independent directors. The Board approved the appointment of AC and the AC's Charter.

The AC has full delegated authority from the Board to perform its tasks. An audit plan and meeting schedule are set each year to allow the AC to monitor financial information report procedures, the internal control and financial risk management system, and audit procedures, including the procedures for monitoring compliance with laws and regulations.

No.	Name	Position	First Appointment Date
1.	Mr. Somboonkiat Kasemsuwan	Chairman	14 Nov 2016
2.	Mr. Santi Bangor	Member	14 Feb 2012
3.	Mr. Cherdpong Siriwit	Member	14 Feb 2013

All AC members are independent directors. In 2019, the AC convened seven meetings.

Roles and responsibilities of AC

- Review the accuracy, sufficiency, credibility, and objectivity of the financial reporting process by coordinating with the external auditors and executives responsible for preparing the quarterly and yearly financial reports.
 - Promote the development of financial reporting systems in compliance with International Financial Reporting Standards and consider and endorse the significant change in accounting policy of TTA and subsidiaries prior to proposing to the Board of Directors for approval.
- Review the appropriateness and effectiveness of internal control systems and internal audit functions by coordinating with the external auditors and internal auditors to ensure the adequacy of the internal control systems and internal audit functions as follows:
 - Review the activities and organizational structure of the internal audit function which reports functionally to the Audit Committee and Audit Committee review the execution of the Internal Audit Office for the performance assessment to ensure no unjustified restrictions or limitations are made.
 - Determine an internal audit unit's independence.
 - Consider and approve on the appointment, removal, transfer, or dismissal of senior executives of Internal Audit.
 - Consider audit reports and recommendations presented by internal auditors and monitor the implementation of the recommendations.
 - Review the adequacy of the Company's risk management and ensure that risk management complies with the guidelines of the relevant authorities and the Company's internal policies.
 - Evaluate the performance of senior executives of Internal Audit with the President and Chief Executive Officer.
 - Approve audit plans, budgets, number of staff and staff training plans of Internal Audit

Department to ensure that the audit scope covers finance, accounts and operations and monitor the performance as per the audit plans.

- Review the Company's business operations, ensure that they comply with the laws on securities and exchange, the SET's regulations and the laws relating to the Company's business.
- Consider, select, nominate and remove an independent person to be the Company's auditor, including auditing fee negotiation and the following main activities:
 - Review the performance of the external auditors by taking into account the auditor's credibility, the adequacy of resources, audit engagements, and experience of its staff assigned to audit the Company's accounts.
 - Review the external auditors' proposed audit scope and approach and ensure no unjustified and restrictions or limitations have been placed on the scope.
 - Make recommendations to the Board regarding the reappointment of the external auditors.
 - Consider audit reports and recommendations presented by the external auditors and monitor the implementation of the recommendations.
 - During the year, the AC meets with the external auditors and the Head of Internal Audit separately without any management in attendance at least once a year.
- Consider the Company's business operations including connected transactions to ensure that there is no conflict of interest, taking into consideration transactions between the Company and subsidiaries or related parties in order to assure the effectiveness of the system for monitoring compliance with laws and regulations and to be reasonable for the highest benefit of the Company.
- Prepare and disclose in the Company's Annual Report, the Audit Committee Report which must be signed by the AC's Chairman and consist of at least the following information:
 - An opinion on the accuracy, completeness and credibility of the Company's financial report.
 - An opinion on the adequacy of the Company's internal control system.

- An opinion on the compliance with the laws on securities and exchange, the SET's regulations, or the laws relating to the Company's business.
 - An opinion on the suitability of an auditor. The Company has a policy to safeguard the independence of the external auditors by limiting non-audit services to define audit-related and tax services. The selection of the external auditor shall be considered bidding for new external auditors every 4 years.
 - An opinion on the transactions that may lead to conflict of interest.
 - The number of the AC meetings, and the attendance of such meetings by each committee member.
 - An opinion or overview comment received by the AC regarding its performance of duties in accordance with the Charter. Other transactions which, according to the AC's opinion, should be known to the shareholders and general investors, subject to the scope of duties and responsibilities assigned by the Board.
7. Perform any other duties as assigned by the Board, with the approval of the AC.
 8. Report the performance of the AC at every Board's quarterly meeting.
 9. Review the summary and evidence of fraud of employees or executives which result in the damage to the Company and propose the reviewed report by the AC to the Board for consideration.
 10. Review the AC's performance on an annual basis.
 11. Review and reassess the adequacy of this Charter periodically and recommend any proposed changes to the Board for approval.
 12. Proceed the process of overseeing and receiving complaint or information submitted directly by stakeholders.
 13. Hire external parties temporarily or as needed basis to ensure that Internal Audit function has adequate resources to complete the required works effectively and timely.

The AC has emphasized the effective and appropriate risk management and internal control system by

implementation of the Three Lines of Defense Concept to internal control system in order to encourage every department to understand the compliance of the Company. For this concept, the first line should understand their role in compliance risks management and ensure the compliance of their functions. The Risk Management, meanwhile, serves as the second line to monitor and control in support of management including risk, and control functions. Additionally, the third line, Internal Audit provides the independent assurance to the Board as well as evaluates and improves the effectiveness of risk management and control process.

Appointment of the Auditors and Fixing the Audit Fee

The Board assigned the AC to consider and propose the appointment of the external auditors and the audit fee to shareholders for approval at every AGM. At the 2019 AGM on 24 April 2019, the shareholders approved the following items:

1. The appointment of the following auditors to be the Company's auditors for the fiscal year 2019 ended 31 December 2019 (1 January - 31 December 2019).
 1. Mr. Banthit Tangpakorn Certified Public Account No. 8509;
 2. Mr. Sakda Kaothanthong Certified Public Account No. 4628;
 3. Mr. Watchara Pattarapitak Certified Public Account No. 6669; and
 4. Mr. Veerachai Ratanajaratkul Certified Public Account No. 4323.
2. The audit fee at the amount of Baht 3.924 million to review and audit the Company's financial statements and consolidated financial statements.

(B.2) Executive Committee

The Board approved the appointment of the Executive Committee ("EC") and the EC's Charter.

The EC comprises a minimum four members from the Company's directors.

Members of the EC as of 31 December 2019

No.	Name	Position	First Appointment date
1.	Mr. Prasert Bunsumpun	Chairman	14 Feb 2012
2.	Mr. Chalermchai Mahagitsiri	Member	14 Feb 2012
3.	Mr. Jean Paul Thevenin	Member	12 Feb 2014
4.	Mr. Jitender Pal Verma	Member	13 May 2015

Roles and responsibilities of EC

1. Consider business plan, direction and structure as well as the Company's strategies, and delegation of authorities for further approval of the Board of Directors;
2. Monitor, audit and set the management policies for efficiency and productivities as well as to conform with the instruction of the Board of Directors;
3. Consider and approve the Company's investment and annual budget prior to further approval of the Board of Directors;
4. Consider the overall performance of the Company and provide recommendations to enhance performance;
5. Consider and approve the appointment of executives of the subsidiaries;
6. Review and reassess the adequacy of the Charter and recommended any proposed changes to the Board of Directors for approval.

Additionally, to ensure and closely monitor the performance of the Company, the management of each business unit is entrusted by the ExCom Charter to directly report the

Executive Committee its performance and update the material issues to the ExCom meeting. Furthermore, in line with the Board Charter, it delineates the roles and responsibilities of the Board to be involved in business plans, strategies, and budget reviews. Therefore, the Board closely monitors the Company's performance through the direct report and updates from the management of each business unit at the Board meeting quarterly.

In 2019, the EC convened eight meetings to acknowledge the Company and main business' annual performance, considering business plans, reviewing investment strategy and key corporate goals, and annual budget for presentation to the Board.

(B.3) Nomination and Remuneration Committee

The Board approved the appointment of the Nomination and Remuneration Committee ("NRC") and the NRC's Charter. The NRC comprises at least three non-executive directors.

Members of the NRC as of 31 December 2019

No.	Name	Position	First Appointment Date
1.	Mr. Santi Bangor	Chairman	14 Feb 2013
2.	Ms. Ausana Mahagitsiri	Member	14 Feb 2012
3.	Mr. Mohammed Rashed Ahmad M. Al Nasser	Member	14 Feb 2013

Roles and responsibilities of NRC

1. Recruit, select, and nominate appropriate candidates for independent directors, Chairman of the Boards and Board members proposed for consideration of Board of Directors and/or further approval of the shareholders when those positions are vacant due to termination of terms or other reasons;
2. Recruit, select, and nominate appropriate candidates for members of the committee, CEO, top management and Company Secretary proposed for consideration of the Board of Directors when such position is vacant as well as propose criteria for selecting candidates for the succession plan;
3. Propose to the Board of Directors the guidelines and reasonable remuneration packages for all members of the Boards, committee, CEO and executives of which must be complimented to their duties, conform to Company's operating performance and market's atmosphere;
4. Evaluate Company's performance for consideration of the annual bonus and merit increase;
5. Review the Company's salary structure and any other remuneration;
6. In case the director who is retired on rotation is proposed to be re-elected to resume the position, his/her contribution and track record on attendance of the Board of Directors' meeting and the Shareholders' meeting must also be taken into consideration.

In 2019, the NRC convened two meetings. The details of NRC performance are illustrated in NRC report in Annual Report. Apart from mentioned above, the NRC also will also consider the remuneration of non-executive directors and propose it to the Board to recommend to the Company's shareholders for approval, which the criteria of consideration align with the Thai Institute of Directors Association guidelines regarding Director Compensation Best Practices.

(B.4) Corporate Governance Committee

The Board approved the appointment of the Corporate Governance Committee ("CGC") and the CGC's Charter. The CGC comprises a minimum of three directors.

Members of the CGC as of 31 December 2019

No.	Name	Position	First Appointment Date
1	Mr. Santi Bangor	Chairman	14 Feb 2012
2	Ms. Ausana Mahagitsiri	Member	14 Feb 2012
3	Mr. Jitender Pal Verma	Member	15 May 2017

Roles and responsibilities of CGC

The CGC has the duty to review the CG Policy and to monitor compliance of the policy and practices so that it remains within an ethical framework. The CGC has the following duties and responsibilities:

1. Consider and review whether the Company's CG policy and its Code of Business Conduct are appropriate and adequate and to regularly update the Corporate Governance policy.
2. Monitor and supervise directors and staffs' compliance with the CG Policy and the Code of Business Conduct of the Company and to monitor any grievance from stakeholders the Company may receive in order to comply with the CG and Code of Business Conduct of the Company.
3. Provide measure of performance evaluation of the Board of Directors as a group and individual director to the Board of Directors, as well as for Board Committees.
4. Review and recommend an amendment to scope of work, duties and responsibilities of the CGC to respond to changing circumstances.
5. Submit an operation report to the Board of Directors at least once a year.
6. Do any other tasks as designated by the Board of Directors.
7. To oversee the presence of appropriate and sufficient Anti-Corruption Policy for business operations.

In 2019, the CGC convened two meeting to acknowledge the CG assessment result by IOD, review CG policy of the Company, assign the Company Secretary to send both as a whole and an individual annual performance assessment form of the Board and Subcommittees to

each member, and consider the rights of shareholder policy and criteria for the shareholder to propose the agenda, candidate for the Company's directors as well as review and amend the Anti-Corruption Policy. The details of CGC performance are illustrated in CGC report in Annual Report.

The CGC's main tasks include reviewing the Corporate Governance Policy and the Code of Business Conduct and monitoring compliance with the policies and CG practices, so that the Company operates within an ethical framework and to monitor ongoing improvements.

(B.5) Risk Management Committee

The Board had approved the appointment for the Risk Management Committee ("RMC") and its Charter where the members comprise a minimum of four members from the Company's directors and executives.

Providing an independent oversight on the risk exposures faced by the Group, the Risk Management Committee assists the Board where the Committee oversees the implementation of the Group risk management, including establishing risk appetite, as well as senior management implementation of appropriate systems to ensure that risks are effectively identified, measured, monitored and controlled. These material risks are reviewed and discussed extensively at the Risk Management Committee quarterly meetings, where risks are prioritized and depending on the probability and severity of the risk, escalated as appropriate, and ensured that appropriate mitigation plans are in place and implemented.

Members of the RMC as of 31 December 2019

No.	Name	Position	First Appointment Date
1.	Mr. Cherdpong Siriwit	Chairman	15 May 2017
2.	Mr. Jean Paul Thevenin	Member	15 May 2017
3.	Mr. Jitender Pal Verma	Member	19 Oct 2015
4.	Mr. Ng Kit Wei, David	Member	19 Oct 2015

Roles and responsibilities of RMC

1. Review and approve risk management framework, policies, strategies and plans.
2. Improves and determines risk management governance and reporting.
3. Ensure appropriate risk management processes are in place, including the formulation and subsequent updating of appropriate group wide policies.
4. Review and monitor the Company's risk exposure.
5. Share quarterly risk information to the Audit Committee for audit planning purposes.

In 2019, there were three RMC meetings convened for the Group.

To facilitate risk governance support, the Company has established corporate functions at the Group level with assigned responsibilities to focus and contribute to the implementation and improvement of risk process. This includes Corporate Risk - responsible for overseeing and coordinating risk assessment and mitigation on an enterprise-wide basis where it would help identifying key business risk, provide for appropriate oversight of the businesses' management of these risks, and enforce

through policies and procedures; and respective Business Unit Risk Management Committee, which led by their executive officers and drive the implementation of risk program within its business unit, enables more early risk detection and more proactive risk management for the business unit to own and manage their business risk.

Besides, the Company also holds risk management workshops and training for each business. The training focuses on concepts and principles of practicing on risk management throughout the organization which would contribute ensuring the sustainable growth of the Group as well as create long-term value for stakeholders and shareholders.

(B.6) Investment Committee

The Company's Board of Directors appointed the Investment Committee ("IC") on 27 April 2015. There are four members in the Committee comprising of the President and Chief Executive Officer, two members from the Executive Committee, and two managements i.e. Chief Financial Officer and Director of Corporate Finance and Treasury as shown in table below.

Members of the IC as of 31 December 2019

No.	Name	Position	First Appointment Date
1.	Mr. Chalermchai Mahagitsiri	Chairman	27 Apr 2015
2.	Mr. Jean Paul Thevenin	Member	27 Apr 2015
3.	Mr. Jitender Pal Verma	Member	27 Apr 2015
4.	Mr. Ng Kit Wei, David	Member	15 May 2017

Roles and responsibilities of IC

1. Review, and evaluate, to the Board for approval of investment proposals.
2. Monitor all areas of the investment project as approved from the Board.
3. Provide guidance to management on analysing and structuring the proposed investment project prior the submission to the Board for approval.

(B.7) Sustainable Development Committee

The Board in its meeting on 7 March 2019 had approved the appointment for the Sustainable Development Committee ("SDC"). The SDC Charter had been also approved by the Board on 13 August 2019. The SDC comprises nine members where has Mr. Jitender Pal Verma being as the Chairman of the Committee and the Chief of Financial Officers from the business units.

Roles and responsibilities of SDC

1. To formulate the policies, strategies as well as driving forth sustainability plans to be aligned with the Company's business operation in terms of economy, social and environment in order to sustainably create value to all stakeholders;
2. To consider and approve any budget related to corporate sustainability activities at the amount of not exceeding Baht 2,000,000.00 (Baht Two Million); otherwise, the Board's approval is required;
3. To encourage and support the Company's initiatives and activities to achieve the policy of sustainable development;
4. To oversee, monitor and review sustainable development operation at least once a year as well as push the Company forward to the collaborative working on sustainable development framework with both in and outside the organization;
5. To advise, encourage and support in terms of people and resources to ensure the implementation of sustainable development throughout the organization and driving to the right direction; and
6. To report its operation to the Board of Directors.

In 2019, the Sustainable Development Committee ("SDC") had held four meetings and the details of their performance were presented in the section of Sustainable Development Committee Report in the Annual Report. The SDC had established the Sustainable Development Working Group which consisted of senior managers and managers of many business sectors. The members were responsible for employing the sustainable development strategies to ensure that sustainability practices were in conformity with business operation and also continuously developed and clearly communicated. Also, the members are assigned to monitor the SD performance and its outcomes to be in line with the sustainability development plan. Furthermore, the Sustainable Development Working Group had to prepare progress reports and present them to the SDC and the Board of Directors regularly.

The Company also hired a sustainable development consultant company to provide knowledge and promote comprehension for the Sustainable Development Working Group of the Company and the subsidiaries under the topics of information disclosure, aligning with Global Reporting Initiative ("GRI") standards and the Stock

Exchange of Thailand's Regulations for Sustainability Assessment, taking Environment, Social and Governance (ESG) issues into account.

(B.8) Company Secretary

In compliance with the Securities and Exchange Commission Act, Sections 89/15 and 89/16, the Board appointed Mrs. Vorapin Isaradharm as the Company Secretary on 15 August 2017 to take responsibility for matters connected with meetings of the Board and the shareholders and to contribute to good corporate governance practices. She also serves as the secretary of the Board and Corporate Governance Committee to coordinate subsequent actions under the Board's resolutions.

The Company Secretary's duties and responsibilities include:

- Provide advice pertaining to the Company's regulations and Articles of Association, to monitor new laws and regulations on a regular basis, and to report any significant changes to the Board;
- Arrange meetings of shareholders and the Board in accordance with applicable laws and regulations and the Company's Articles of Association;
- Prepare minutes of shareholders and Board meetings and to monitor execution of such resolutions on a regular basis;
- Ensure that all public information disclosure is in accordance with laws and the SET's and SEC's regulations;
- Facilitate the Board's activities, including director orientation; and
- File and keep records of the Company's key documents, such as directors' registration, notice of the Board meetings, minutes of the Board meetings, Annual Reports, notice to shareholders' meetings and the minutes of the meetings, and reports on directors' and management's interest.

Details of the Company Secretary

Details of the Company Secretary's functions are disclosed on the Company's website, the Annual Report, and the Company's Annual Information Disclosure Form (Form 56-1). The Company Secretary has management and legal background with experience benefit to the Company business. Moreover, she has been participated in many programs of Thai Institute of Directors

Association (“IOD”) which are related to the position as well as attended continuous trainings beneficial to her role from the SEC and the SET.

Training for the Company Secretary

The Board of Directors encourages the Company Secretary to receive continuous training that will benefit her role in assisting the Board of Directors. In 2019, the Company Secretary participated in the seminars and training as follows:

- Road to Join CAC 4/2019, CAC
- Road to Certify 6/2019, CAC
- Preliminary to Corporate Sustainability) by SET, Class 3/2018
- S01-03 Corporate Sustainability strategy by SET, class 2/2019
- S04 Sustainability Risk and Materiality Analysis by SET, Class 1/2019
- S05 Sustainability Evaluation and Data Management by SET, Class 2/2019
- S06 Sustainability Reporting by SET, Class 1/2019

The Company Secretary also attended other courses beneficial to her role during the year. The profile of the Company Secretary is provided in the section of Details of the Board of Directors and Executives.

(C) BOARD MEETINGS

Board meetings shall be held once at least every three months specified in the Articles of Association. Special meetings are convened as necessary to address specific needs. In 2019, there were eight Board meetings. Principal meeting agendas were: consideration of the Company’s strategic direction, annual business plan and budget, quarterly financial reports, and significant acquisition and disposal of assets.

The Board requires all members to devote sufficient time to the work of the Board, to perform the duties and responsibilities of Directors, and to use their best endeavours to attend meetings. All directors are encouraged to attend at least 75% of all Board meetings held during the year.

Moreover, in every Board of Directors’ Meeting, directors and management are required to report whether there is any change of their holding in TTA security from the latest report or not.



Attendance Record of the Board and Committees for Year 2019

Meeting Attendance for year 2019								
Name	Board of Directors (Total 8)	Audit Committee (Total 7)	Executive Committee (Total 8)	Nomination and Remuneration Committee (Total 2)	Corporate Governance Committee (Total 2)	Risk Management Committee (Total 3)	Sustainable Development Committee (Total 4)	Appointment during FY2019
1. Mr. Prasert Bunsumpun	8/8	-	8/8	-	-	-	-	He has been appointed as the Chairman of SDC since 7 March 2019.
2. Mr. Chalermchai Mahagitsiri	8/8	-	8/8	-	-	-	-	
3. Mr. Jean Paul Thevenin	8/8	-	8/8	-	-	3/3	-	
4. Mr. Jitender Pal Verma	8/8	-	8/8	-	2/2	2/3	4/4	
5. Ms. Ausana Mahagitsiri	8/8	-	-	2/2	2/2	-	-	-
6. Mr. Kamolsut Dabbaransi	8/8	-	-	-	-	-	-	-
7. Mr. Somboonkiat Kasemsuwan	8/8	7/7	-	-	-	-	-	-
8. Mr. Santi Bangor	8/8	7/7	-	2/2	2/2	-	-	-
9. Mr. Cherdpong Siriwit	8/8	7/7	-	-	-	3/3	-	-
10. Mr. Chitrapongse Kwangsukstith	8/8	-	-	-	-	-	-	-
11. Mr. Mohammed Rashed Ahmad M. Al Nasser	3/8	-	-	1/2	-	-	-	-

In 2019, a total of eight Board meetings were held consisting of six regular meetings and two special meeting.

Directors who could not attend the meeting due to urgent missions abroad or other missions informed in advance to the Company Secretary who will notify the Chairman afterward and attended the meeting via teleconference system instead. However, such attendance is not valid under the laws.

There were a foreign director attended the meeting less than 75% during the year 2019 since he is based in UAE; the Company considered that his business capability, experiences, and knowledge of investment and offshore business could highly contribute to the Company.

(D) BOARD AND SUBCOMMITTEES ASSESSMENT

(D.1) Self Assessment of Board members on both as a whole and an individual basis

The Company's self-assessment forms as a whole and individual basis for the Board and Board Committees apply the SET's evaluation guideline to suit the characteristics and structure of the Board.

For the evaluation process, the Chairman of the CGC assigned the Company Secretary to send a board assessment form to each Director. The responses to the form were collected and summarized by the Company Secretary prior to present to the Board for further consideration.

The percentage of each chapter in both types of assessment form is as follows:

1. "Excellent" has score range between 90 - 100
2. "Very Good" has score range between 80 - 89
3. "Good" has score range between 70 - 79
4. "Satisfactory" has score range below 69

There were six key components of evaluation of Self-Assessment of Board as a whole namely:

1. Structure and Qualifications of the Board
2. Roles and Responsibilities of the Board
3. Board of Directors Meetings
4. Board of Directors' Performance of Duties
5. Relationship with Management
6. Self-Development of Directors

There were three key components of evaluation of Self-Assessment of Board members on an individual basis as follows:

1. Structure and Qualifications of the Board
2. Board of Directors Meetings
3. Roles, Duties and Responsibilities of the Board

The Chairman of the CGC reported and discussed the assessment results with the Board of Directors. In 2019, the assessment results as a whole were “Excellent” with an average of 91.87%, and the assessment results on an individual basis were “Excellent” with an average of 94.77%. The Board discussed the results and possible improvements and asked different committees to propose measures to improve the efficiency of the Board.

(D.2) Self Assessment of Subcommittee members on an individual basis

In 2019, subcommittees namely, Audit Committee, Executive Directors, Corporate Governance Committee, Nomination and Remuneration Committee, and Risk Management Committee, conducted a formal evaluation of their own performance. For the evaluation process, the Chairman of the CGC assigned the Company Secretary to send a subcommittee assessment form to each member. The responses to the form were collected and summarized by the Company Secretary. The Chairman of the CGC would report the result to the Board of Directors in order to devise guidelines that would help concretely improve the efficiency of the Board and to be used for considering the appropriateness of the Board’s composition.

In 2019, the performance evaluation results of subcommittee members are as follows:

Subcommittee	Evaluation Result (as a whole)	Evaluation Result (as an individual)
Audit Committee (conducted by Internal Audit Dept.)	96.25% Excellent	98.41% Excellent
Executive Director	93.75% Excellent	97.50% Excellent
Nomination and Remuneration Committee	89.04% Very Good	98.33% Excellent
Corporate Governance Committee	88.43% Very good	97.50% Excellent
Risk Management Committee	95.83% Excellent	96.25% Excellent

(E) REMUNERATION POLICY

(E.1) Remuneration policy for Directors

The Company has set Remuneration Policy for directors which is composed of salary, meeting attendance fee, and bonus (grant upon the Company’s performance). The remuneration is considered from the Board of Directors’ duties and responsibilities which was in compliance with the Company’s strategy and long-term goals and has been designed to the Company’s directors at the similar level to the industry compensation of Thai listed companies. The additional remunerations from more work burden of being a member of the subcommittee is also included in the remuneration

policy. It is believed that such remuneration could attract, retain, and motivate the directors to perform their roles and carry out their responsibilities to accomplish the Company’s goals efficiently and transparently to assure the shareholders. The Nomination and Remuneration Committee will determine the fair and reasonable remuneration amount and propose this to the Board of Directors prior to obtain the shareholders’ approval.

(E.2) Remuneration Policy for the President & Chief of Executive Officer

Remuneration Policy for the President & Chief Executive Officer is considered from the self-

assessment (“MAX Performance Evaluation” developed by the Company) and the Company’s business operation results. The President & Chief Executive Officer’s self assessment results will be proposed for consideration and approval of the Nomination and Remuneration Committee prior to further consideration from the Board of Directors.

MAX Performance Evaluation for the President & Chief Executive Officer is categorized into three aspects includes:

1. Strategies and Business Goals: Development of mission statements, policies and strategic plans of the Company;
2. Financial: Financial planning and budget, administrative operations, and financial affairs and budget of the Company i.e.; and
3. Non-Financial: Leadership, relationship with the Board of Directors and external relationship.

(E.3) Remuneration policy for the Executives

Remuneration Policy for the Executives is considered from the individual performance appraisal scores as well as the overall performance of the Company. The self-assessment results and performance are reported to the President & Chief Executive Officer.

Remuneration Policy for the Executives is appropriately determined using transparent and fair criteria as well as considering of duties and responsibilities which is in accordance with the Company’s strategic planning, the overall performance of the Company, and the results are considered by the Nomination and Remuneration Committee to determine the remuneration to obtain the Board’s approval, respectively. The Remuneration Policy is set both in short-term and long-term. For short-term remuneration, it includes salary and bonus. Long-term remuneration is provident fund, welfare, other benefits; including retirement fund, life insurance, and personal health insurance.

(F) SUCCESSION PLAN FOR THE PRESIDENT & CHIEF EXECUTIVE OFFICE POSITION

The Company’s succession plan is under implementation. The Human Resource Department of the Company has started identifying a “successor in each department in the year 2018, and following by the subsidiaries in the year 2019.

(G) DIRECTOR ORIENTATION AND DEVELOPMENT

The Company prepares a handbook for directors, which includes a summary of the Company’s information, policies, charters, and structure and also the useful information for the assumed position, the Company’s objective, key goal, vision, mission, core value, business outlook, and code of business conduct for all directors as basic information. The Company established a Director Induction Program for new Board members to facilitate their prompt performance of duties, briefings on the Company’s policies and key business operations are given to the new Board members. Moreover, new Board members will also meet with executives in different business units to understand business of the Company in greater detail.

In addition, the Company encourages directors to attend courses and participate further learning. The Company Secretary has provided the directors, the President & Chief Executive Officer, and key executives the seminar and training courses regularly in order to promote the skill enhancement and encourage the widen perspective related to their roles. Details of trainings of the President & CEO and Executives can be found in the Details of the Board of Directors and Executives Officers in Annual Report. Currently, ten of the total eleven directors participated in the Thai Institute of Directors’ Association (“IOD”) director training programmes, including the Role of Chairman Program (“RCP”), the Director Accreditation Program (“DAP”), the Director Certification Program (“DCP”), the Finance for Non-Finance Director Program (“FND”), the Role of the Compensation Committee Program (“RCC”), the Audit Committee Program (“ACP”), 4M; Monitoring Fraud Risk Management (“MFM”), Monitoring the System of Internal Control and Risk Management (“MIR”), Monitoring the Internal Audit Function (“MIA”), Monitoring the Quality of Financial Reporting (“MFR”), the Board’s Role in Mergers and Acquisition (“M&A”) and Diploma Examination (“Diploma Exam”).

The Company encourages directors who have not participated in the above training programmes to participate at the Company’s expense.

Summary of IOD courses which the Company's directors attended

Director	IOD course attended
1. Mr. Prasert Bunsumpun	RCP 28/2012, DAP 26/2004
2. Mr. Chalermchai Mahagitsiri	DAP 30/2004, DCP 53/2005
3. Mr. Jean Paul Thevenin	DAP 74/2008
4. Mr. Jitender Pal Verma	DCP 78/2006, M&A 1/2011, Diploma Exam 49/2016
5. Ms. Ausana Mahagitsiri	DAP 30/2014
6. Mr. Kamolsut Dabbaransi	DCP 119/2009
7. Mr. Somboonkiat Kasemsuwan	DCP 96/2007
8. Mr. Santi Bangor	DCP 12/2011, RCC 16/2013, ACP 42/2013, 4M (MFM 9/2013, MIR 14/2013, MIA 14/2013, MFR 17/2013)
9. Mr. Cherdpong Siriwit	RCP 10/2004, DAP 8/2004, DCP 104/2008, FND 13/2004, ACP 27/2009
10. Mr. Chitrapongse Kwangsukstith	DCP 42/2004, FND 9/2004, RCC 10/2010
11. Mr. Mohammed Rashed Ahmad M. Al Nasser	-

In addition, in 2019, the Company encouraged directors Mr. Jitender attended Accounting for Financial Instruments, Class 3/2019 during 3-4 September 2019 organized by Federation of Accounting Professions.

(H) BUSINESS ETHICS AND CODE OF CONDUCT

The Company's Ethical and Operational Guidelines

The Company has the following ethical and operational guidelines:

(i) Fairness

We believe in being fair to all parties having a business relationship with us and conscientiously avoid favouritism or a conflict of interest situation.

(ii) Professionalism

We carry out our responsibilities in a professional manner and are determined to achieve excellence by continuously increasing performance levels through new methods and technologies.

(iii) Proactiveness

We are responsive to client needs and social, technical, and economic changes and adapt to the circumstances.

(iv) Discipline and Compliance

We pursue business affairs with discipline and ethical principles and ensure that our undertakings comply with laws, rules, and regulations.

CODE OF BUSINESS CONDUCT

The Board has approved Core Values, Mission and Vision ("VMV") framework to guide business operations. A Code of Business Conduct was approved by the Board on 12 February 2010 to implement the VMV framework, emphasising our four Core Values.

The Company's business ethics comprise of principles and guidelines for the moral business operation such as the diversity, equality, respectfulness to the workplace, environment, health and safety, financial integrity, conflict of interest, commitment to customer, competitor, and rule controller, computer system and telecommunication system's safety, responsibility to Company's asset, equitable treatment to stakeholder, communication with the public, whistleblower protection policy and the way to operate employee's behaviour to be in line with the business ethics handbook.

The Company has arranged Codes of Business Conduct training to all employees to ensure that they understand good practices and has included the Codes of Business Conduct training as part of the orientation for new employees who have acknowledged, well understood and retained as their working principles. The Company's Codes of Business Conduct is disclosed to shareholders, investors, and any related parties via the Company's website at www.thoresen.com under Corporate Governance Report.

The four Core Values comprise of:

- (i) **Integrity:** We are open, honest, and ethical, deliver on our promises, and build and nurture trust in our relationships.
- (ii) **Excellence:** We set high standards of quality, safety, environment, security, and service, are always prepared for challenges, and conduct our business professionally.
- (iii) **Team Spirit:** We care for our clients, employees, and suppliers and behave in ways that build a spirit of teamwork and collaboration and show deep respect for one another.
- (iv) **Commitment:** We are passionate about the future of this Company and feel accountable for business results and success.

The Board of Directors approved the Vision and Mission statements of the Company as follows:

- (a) The vision statement of the Company is “To be the most trusted Asian investment group, consistently delivering enhanced stakeholder experience”; and
- (b) The mission statement of the Company is:
 - 1. To maximize shareholders value
 - 2. To create and facilitate sustainable growth
 - 3. To identify, invest, govern and grow our group business portfolio
 - 4. To give back to the society

The Company reviews vision, mission, and corporate strategy annually, being accompanied by the directors and executive management. In 2019, the Management proposed vision, mission, corporate strategy, and also financial performance to the Executive Committee to review quarterly. Afterward, the report was acknowledged and reviewed by the Board of Directors in order to follow up and recheck that the overall operational result is in accordance with the Company’s investments and current economic condition which will lead to the efficiency business operation and goal’s achievement of the Company.

(I) INFORMATION TECHNOLOGY GOVERNANCE

To ensure the oversight of IT governance and enhance business opportunities, the Board of Directors in its meeting reviewed and amended its Charter to include the responsibilities of the Board related to IT governance, innovation and IT risk management, including monitoring the IT Governance to be aligned with the relevant law and standards, considering the policies and procedures relevant to cyber and IT risk management and risk mitigation and encouraging the use of innovation and technology in business strategy and operation to strengthen the business competitiveness of the Company. The current version of IT Policies has already included the part of cyber security control and monitoring on hardware and software. To prevent new threat and risk, IT department of the Company is keeping revising and updating the policy to protect the system as well as to encourage the use of innovation in business operation.

Audit Committee Report

To the Shareholders

The Audit Committee (“the Committee”) consists of three independent directors, Mr. Somboonkiat Kasemsuwan (the Chairman of the Audit Committee), Mr. Santi Bangor, and Mr. Cherdpong Siriwit who are independent Non-Executive Directors. All the Committee’s members have adequate qualifications and discharge the duties as set forth as specified by the Audit Committee Charter and in compliance with required regulations of the Securities and Exchange Commission and the Stock Exchange of Thailand.

In 2019, the Committee held 7 meetings. The key responsibilities of the Committee are to assist the Board of Directors in fulfilling its oversight responsibilities in relation to: preparation and disclosure of financial reporting; the effectiveness of the system of risk management and internal control; compliance with relevant legal and regulatory requirements along with driving the Three Lines of Defense concept to risk management and internal control system, which stressed the functions that own and manage risk, served as the first line of defense, to understand their role in compliance risks management and ensure the compliance of their function. The Risk Management, served as the second line to monitor and control in support of the first line including risk, and control functions. Additionally, the third line, Internal Audit provides the independent assurance as well as evaluates the effectiveness of risk management and control process. Besides, the Committee is responsible for monitoring the qualifications, expertise, resources and independence of both the internal and external auditors; and assessing the auditor’s performance and effectiveness. The Committee regularly reports the Committee’s activities and recommendations to the Board of Directors. Whenever the Committee has any questions or considers that there should be a corrective action or improvement required concerning any aspect of risk management and internal control, financial reporting, or audit-related activities, the Committee shall promptly reports these matters to the Board of Directors. The Committee’s significant activities have been summarized below.

1. Review of Financial Statements

The Committee reviewed TTA’s quarterly and annual financial statements and consolidated financial statements this year, including inter-company transactions and items with potential conflicts of interest with the senior management and the external auditor. The committee asked the external auditor about the accuracy and completeness of the financial statements, adjustment of key journal entries and account estimations affecting the

statements, adequacy and suitability of account recording, audit scope, information disclosure that was accurate, complete, and adequate, as well as the external auditor’s independence. All these ensured that the preparation of the financial statements followed legal requirements and accounting standards under generally accepted accounting principles that are credible and timely, and that adequate information was disclosed in such statements for the benefit of financial statement users.

The Committee discussed exclusively with the external auditors on one occasion without presence of the Company’s management about the external audit’s audit plans, independence to fulfill its responsibilities, and its opinion, with a focus on an additional in its report of KAMs (Key Audit Matters) under the new accounting standard including any suspicious information indicating potential fraud under Section 89/25 of the Securities and Exchange Act B.E.2535 as amended by the Securities and Exchange Act (No.4) B.E. 2551. In 2019, the external auditors did not make any significant observations and did not find any suspicious circumstances. Then, the Committee is of the opinion that the Company has a proper financial reporting process to disclose its financial information without information that is in conflict with the material facts and prepared in accordance with Thai Financial Reporting Standards.

2. Review of Internal Control

The Committee considered the adequacy and the effectiveness of internal control from internal audit reports presented by the Internal Audit Department and the external auditor’s opinion on a quarterly basis by reviewing operation, resource consumption, safeguarding of assets, preventive or reduction of errors or damage, losses, waste, or fraud, credibility of financial reports, compliance with law and relevant regulations as well as follow up the progress in corrective actions or improvement of internal control system. In addition, the external auditor has also reported that was no significant deficiency impacting to the Company’s financial statements identified. The Committee, therefore, is of the opinion that the Company has proper and adequate internal control systems and there are no significant deficiencies identified.

3. Review of Regulatory Compliance

This year the Committee focused on the management policy in support of systematic corporate good governance and supported the development of a compliance framework to

prevent any operation that not comply with applicable laws or regulations. The Internal Auditors have also reviewed the connected transactions or transactions that may lead to conflicts of interests ensuring that such transactions are transparency, reasonable, fair, without conflict of interest, in all material respects, and for the highest benefit of the Company as well as compliance with the Securities and Exchange Commission, the Stock Exchange of Thailand regulations requirements, and other regulatory bodies. The result of the review has been reported to the Committee and the Board of Directors respectively. The Committee is of the opinion that the Company has been in compliance with significant laws and regulations to which the operations of the Company are subjected.

4. Review of Good Corporate Governance (Whistleblowing Policy)

The Committee further enhanced good corporate governance practices and considered relations to fraud or corruption such as providing the channel for employees, shareholders and external parties to direct their complaints, reports on suspected violation of laws and Codes of Conduct and questions about the financial statements and internal control systems. Whistleblowing system was also set up to include the whistleblower's protection measures and to treat all complaints with to protect the appellant and confidentiality. No concern on misconduct or fraud was reported during this year.

In addition, the Committee considered and acknowledged the compliance statement on the Codes of Conduct, of which employees represented to his/her managers up to the Chief Executive Officer. The representation process and the content of the statement ensured that compliance with the Codes of conduct and relevant laws were well regarded.

5. Oversight of Internal Audit

The Committee reviewed the Internal Audit Department's annual internal audit plans, its performance and audit engagement reports. The Committee provided recommendations and monitored corrective actions for significant issues as well as the internal auditors of each subsidiary are also required to report the significant audit observations and progress of corrective actions to the Committee for enhancement good governance and adequate internal control of the entire group.

In addition, the Committee also reviewed the Audit Committee Charter and the Internal Audit Charter and the Internal Audit Department's annual budget, focused on the personnel development and training plans to possess of proper knowledge and professional skills. They also reviewed the independence of Internal Audit, adequacy and suitability of resource, and evaluated the performance of Head of the Internal Audit Department.

6. Appointment of the External Auditors

The Committee assessed the scope, objectivity and effectiveness of the audit process and also the appropriateness of the fees which included considering a number of areas such as the overall quality of services, timeliness of the resolution of issues, the quality of the audit resource including knowledge and experience in core businesses and whether the audit plan was followed.

After careful consideration, the Committee endorsed the appointment of Mr. Veerachai Ratanajaratkul, Certified Public Accountant Registration No. 4323; and/or Mrs. Siripen Sukcharoenyingyong, Certified Public Accountant Registration No. 3636; and/or Mr. Watchara Pattarapitak, Certified Public Accountant Registration No. 6669: all of KPMG Phoomchai Audit Ltd., as the external auditors of the Company for the year 2020 together with the audit fee amounting to Baht 3.92 million (equivalent to the audit fee for the year 2019) for the Board's concurrence and the shareholders' approval at the AGM 2020.

7. The Audit Committee Self-Assessments

The Committee carried out its own performance assessment for the Group Committee and individual, against the Audit Committee Charter approved by the Board of Directors, relevant laws and regulations and assignment from the Board of Directors. The self-assessment was due to be benchmarked against guidelines from the Securities and Exchange Commission and concluded that it was excellent.

In summary, the Committee carried out its duties and responsibilities stated in its Charter with competence, care, prudence, and adequate independence while providing creative views and recommendations for the equitable benefit of all stakeholders. The Committee is of the opinion that the Company's financial reports were accurate, credible, and in alignment with generally accepted accounting standards as well as in compliance with relevant laws and regulations, adequate risk management and a suitable, effective internal control and internal audit systems.

For and on behalf of the Audit Committee of



Somboonkiat Kasemsuwan
Chairman of the Audit Committee

Report of the Executive Committee

To The Shareholders

The Executive Committee (the “Committee”), which has been established by the approval of the Board of Directors of Thoresen Thai Agencies Public Company Limited, consists of 4 members of the Board of Directors, namely: Mr. Prasert Bunsumpun, as the Chairman of the Committee; Mr. Chalermchai Mahagitsiri, Mr. Jean Paul Thevenin and Mr. Jitender Pal Verma as members of the Committee, whereas Mrs. Vorapin Isaradharm, the Company Secretary, is the secretary of the Committee. The roles of the Committee are to support operations of the Board of Directors. The Committee has authorities and responsibilities as set forth in its Charter.

The Committee has duties to consider, monitor and screen material matters to ensure compliance with the Company’s relevant regulations, criteria and requirements, as well as transparency and accountability before proposal to the Company’s Board of Directors for consideration so that the Group can effectively operate businesses pursuant to the Board’s policies and resolutions. In 2019, the Committee held 8 meetings to consider the following matters:

- Consider and monitor performance of the Company and its subsidiaries including proposing solution guidelines and recommendations which conformed to the business plans and targets assigned by the Board.
- Consider the investment and financial business plans and strategies of the Company and its subsidiaries, and then propose to the Board for approval in principle, so that the Management can implement it accordingly and in conformity with the specified targets.
- Consider and screen important matters, such as assets acquisition and disposition, connected transactions and investments of the Company and its subsidiaries before Board’s approval.
- Consider and approve transactions pursuant to scope of authorities granted by the Board then report for the Board’s acknowledgement. Report meeting results including accurate and appropriate solution guidelines and recommendations for the Board’s consideration.
- Consider the annual budget plan of the Company and its subsidiaries before proposal for the Board’s consideration and approval.

- Conduct performance assessment of the whole Committee and individual members for 2019 and assessment results will be used as basis for improvement.

The Committee strongly performs duties with integrity, honesty, prudence and intends to develop the Group’s business for sustainable growth by taking into consideration the best interests of all shareholders and stakeholders. The Committee also oversees and monitors to ensure efficiency of the Company’s operations pursuant to the corporate strategic and business plans under the relevant regulations and laws, in line with the corporate governance principles and code of business conducts which are regarded as main cornerstone for management of the Committee in driving the organization forward steadily and sustainably.

On behalf of the Executive Committee



(Mr. Prasert Bunsumpun)

Chairman of the Executive Committee

Nomination and Remuneration Committee Report

To the Shareholders

The Nomination and Remuneration Committee currently consists of three Directors, most of whom are independent and none of whom is the Chairman of the Board or an Executive Director. The current NRC Chairman is leading by Mr.Santi Bangor (Independent Director) and the NRC members are consists of Mr.Mohammed Bin Rashed Bin Ahmad Bin Muftah Al Nasser (Independent Director) and Ms.Ausana Mahagitsiri (Director), with the Executive Vice President, Group Human Resources as the Committee's secretary. The Committee is in charge of nominating persons whose qualifications meet the relevant criteria and processes for the appointment of Directors, Chief Executive Officer and President (CEO/President), and Board Committee members. The Committee is also responsible for reviewing the forms and criteria for Directors' compensation for the Board of Directors' (the Board's) endorsement and the Annual General Meeting of Shareholders' (AGM) approval respectively.

The Committee performance is summarized as followed;

1. Considered and approved the bonus budget for employees for the year 2019 and salary increase budget for the year 2020 as an award for their effort and dedication in their performance in order to increase the morale and encourage employees, based on the financial results of the overall Company and performance of individual employees.
2. Considered and approved amount of bonus payment to the Company's Directors bonus for the year 2019 for their effort and dedication in their performance.
3. Reviewed the Committee's own performance which was later reported to the Board
4. Revised the compensation and the overall qualifications of the Board for better suitability and clarity.
5. Reviewed the Board's compensation for 2019 in line with their responsibilities and TTA Group overall performance. The compensation rates and criteria were to remain the same as proposed in the previous year for the Board's endorsement and the AGM's approval respectively.
6. Considered an appointment of directors replacing those who retire by rotation by proceeding with the Nomination and Remuneration Committee procedures and proposing

qualified persons to the TTA Board of Directors and the Annual General Shareholder's Meeting, respectively, for consideration and appointment as TTA Directors.

7. Nominated and selected members for Board Committees, namely the Nomination and Remuneration Committee, the Audit Committee, the Corporate Governance Committee, and the Risk Management Committee, and tabled lists for the Board's approval of the appointment to fill the vacancies upon Directors' resignation or term completion.
8. Nominated experts for Directors' appointment in accordance with the processes and criteria and tabled them for the Board's or the shareholders' approval as indicated by law. The qualifications included education, knowledge, expertise, skills, experience, specific competency related to TTA Group businesses, and independence as defined by corporate criteria.

The Nomination and Remuneration Committee has completely carried out its duties as assigned with due care, due diligence, transparency and independence and has provided straightforward comments for the maximum benefits of shareholders, investors and stakeholders. It is committed to performing its duties based on equality and fairness according to the good corporate governance principles so that TTA Group can be developed constantly and sustainably.

On behalf of the Nomination and Remuneration Committee



Mr. Santi Bangor

Chairman of the Nomination and Remuneration Committee

Report of the Corporate Governance Committee

To the Shareholders

The Corporate Governance Committee (the “Committee”), which has been established by the approval of the Board of Directors of Thoresen Thai Agencies Public Company Limited, consists of 3 members, namely: Mr. Santi Bangor, the Independent Director, as the Chairman of the Committee; Miss Ausana Mahagitsiri and Mr. Jitender Pal Verma as the members of the Committee, whereas Mrs. Vorapin Isaradharm, the Company Secretary, is the secretary of the Committee. The roles of the Committee are to support operations of the Board of Directors. The Committee has authority and responsibilities as set forth in its Charter which includes regularly formulating a policy, reviewing important criteria and practice guidelines of the Company related to good corporate governance, as well as business ethics, best practices for the Company’s directors, executives and employees to ensure compliance with the Company’s strategy, rules, regulations and relevant laws in order to enhance corporate governance pursuant to the international standards for sustainable growth of the organization.

In 2019, the Committee held 2 meetings to undertake duties within the scope stipulated in its Charter which could be summarized below:

1. Acknowledged the result of assessment project of the Corporate Governance Report of Thai Listed Companies (“CGR”) for 2019 developed by the Thai Institute of Directors (“IOD”). The Company also achieved an “Excellent” level of recognition (5 stars) in 2019. The CGR assessment report has been reported to the Board of Directors for acknowledgement as well as provides recommendations for improvement and development of policy and practice guidelines to be in line with ASEAN CG Scorecard criteria and recommendations of the assessment project.
2. Acknowledged the assessment results of the Annual General Meeting of Shareholders’ arrangement for the year 2019. The Company received TIA 4 level of recognition from the Thai Investors Association (“TIA”); therefore, recommendations regarding appropriate improvements for better practices were proposed to the Board of Directors to ensure compliance with the AGM Checklist and good Corporate Governance principles on a continuous basis.
3. Resolved to propose to the Board of Directors to consider and approve our intention to participate in Thailand’s Private Sector Collective Action Coalition against Corruption (“CAC”).
4. Proposed for the review and amendment of the Company’s Anti-Corruption policies and measures to ensure effective compliance with the guidelines from CAC in order to propose to the Board of Directors for its further consideration.
5. Resolved to propose to the Board of Directors to consider and approve policy and criteria for the shareholders to propose agendas, questions and qualified candidate(s) to be elected as the Company’s director in replaced of the director who retires by rotation in advance of the Annual General Meeting for the year 2020.
6. Reviewed the Company’s Corporate Governance Policy to be line with the Stock Exchange of Thailand Principles of good corporate governance, the CG Code issued by the Securities and Exchange Commission and the Company policies and regulations to fight against the corruption.
7. Assigned the Company Secretary to deliver each director the 2019 self-performance assessment form of the Board of Directors and its Committees, as a whole and individual basis, after that compile, summarize scores and report to the Board of Directors for acknowledgement and for each Committee’s reviewing of the past year’s performance.

The Committee determines to develop the efficiency of its corporate governance and social responsibility simultaneously with the supervision of the Company on compliance with the Company’s Corporate Governance Policy which conforms to the organization’s strategy to enhance the confidence of all shareholders, investors and stakeholders as they are crucial for the enhancement of the Company’s growth on a sustainable basis.

On behalf of the Corporate Governance Committee



(Mr. Santi Bangor)

Chairman of the Corporate Governance Committee

Risk Management Committee Report

To the Shareholders

Managing risks is an integral component of good corporate governance key to the success and sustainability of TTA business. To ensure effective and systematic management of risks and opportunities, TTA practices the TTA Enterprise Risk Management (“TTA ERM”) framework modeled after the globally recognized risk management industry framework under the Committee of Sponsoring Organizations of the Treadway Commission. Setting out the overall approach to governance and management of risks, TTA ERM helps ensure the Group is executing according to its strategic objectives and that any uncertainties or situation changes causing potential negative effects on the organization are prevented and handled in prompt and timely manners.

Providing an oversight on the Group risk management, TTA Board of Directors has appointed the Risk Management Committee. The Committee comprised four members, three of which are appointed among TTA Board of Directors, led by Mr. Cherdpong Siriwit as Chairman. Both TTA Board of Directors Mr. Jean Paul Thevenin and Mr. Jitender Verma served as Committee Members with the fourth member, Mr. Ng Kit Wei appointed from TTA senior executive team. The Committee is responsible to oversee TTA risk management implemented in line with TTA Board of Directors’ directions, which includes recommending the acceptable Group risk appetite, advising and ensuring appropriate, effective risk management actions to identify, measure, monitor and control risks, among others.

In 2019, the Committee held three meetings, in which in these meetings, TTA including the business units identified, reviewed and discussed material risks and risk mitigation plans extensively, and key matters summarized and reported to the Board of Directors regularly for further action.

Summary Risk Management Committee activities are as follows:

- Reviewed TTA and business units risk assessment report, in which risk factors are analyzed and evaluated based on the probability and severity of the risk covering strategic, operational, financial, and external and compliance risk
 - Reviewed and provided recommendations on risk mitigation plan to reduce likelihood and impact of potential risks to be at acceptable level
 - Monitored, and reviewed execution of risk mitigation plan
 - Developed and cultivated strong risk management culture within the organisation
 - Conducted annual self-assessment of the Risk Management Committee, by group and by individual, and evaluated the assessment results as basis for further improvement
- Conducted annual review and approval of TTA risk management framework, policies, strategies and plans
- Set and reviewed risk criteria for TTA and business units, both quantitative and qualitative impact, to align with TTA’s acceptable risk appetite

The Risk Management Committee is of view it has acted with care and prudence to carry out its duties in accordance with TTA ERM framework. The Committee is fully committed to ensure that TTA risk management governance are properly and effectively executed as part of the strategic and business plans, and with continuous reviews, the Committee can align TTA with current business scenarios to drive sustainable growth for the Group.

On behalf of the Risk Management Committee



(Mr. Cherdpong Siriwit)
Chairman of the Risk Management Committee

Report of the Sustainable Development Committee

To the Shareholders

The Sustainable Development Committee (the “SD Committee”) was established in 2019 on the basis of the vision of the Company. It considers sustainable business growth as a major consideration while placing importance on all groups of stakeholders at the same time. The SD Committee was established, with 9 senior executives of the Company and its subsidiaries as its members, to set forth sustainable business practices.

In 2019, the SD Committee held 4 meetings which could be summarized as follows:

1. A draft charter was introduced by the SD Committee to be approved by the Board of Directors.
2. The Committee sought to hire a consulting firm to be appointed by the Board of Directors for the sustainable development projects. Its consulting services include both sustainable practices and reporting requirements that are aligned with the Global Reporting Initiatives (“GRI”) and Thailand Sustainability Investment (“THSI”) Standards.
3. The Committee has created the “Sustainable Development Working Group” which comprised of delegates from subsidiary companies to study and take part in workshops with the project advisor. These workshops are intended to achieve sustainable development goals now that the Company seeks to become a sustainable business.
4. Regular follow-ups are made to ensure that the sustainable development projects are conducted according to plan.

The SD Committee is determined to improve business and continue to be responsible for all groups of stakeholders. Moreover, the Company will continue to contribute to sustainable economic growth, social development and environmental wellness to be a business that continues to grow stably and sustainably.

On behalf of the Sustainable Development Committee



(Jitender Pal Verma)

Chairman of the Sustainable Development Committee

Risk Factors

As in any business operating in a complex global environment, there are risks and uncertainties may impact the Group's ability to achieve its objectives. As the Group believes that knowing and effectively managing these risks is key to ensure it can achieve its objectives in the future, and that it is not exposed to excessive risks, the Group has instituted a risk framework approved by TTA Board of Directors, the TTA Enterprise Risk Management Framework ("TTA ERM"). Modeled after the industry standards set by globally recognized the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"), TTA ERM dictates the overall approach to governance and management of risks which ensures TTA stays competitive and enhance opportunities while reducing threats.

The Board of Directors has the ultimate responsibility for the overall risk management process and for determining what an appropriate and acceptable risk level should be with overall appetite set in line with the Group's objectives and goals. Significant risks facing the Group including strategic, operational, financial and legal and compliance risks are evaluated and monitored and where necessary, TTA respond to these risks with mitigation plan. Throughout the year, the Board and the Committees to which it has delegated responsibility dedicate attention and resources to ensure risk management program is properly implemented within the Group, and this includes reviewing and discussing specific risk issues in greater details.

While the Group can continuously seek to strengthen its risk practices, risk will never succeed as much if the organization does not practise and instill a strong corporate risk culture. To foster a strong risk aware corporate culture, TTA executives, starting from the top, communicate the significance of risk management, and make risk management the responsibility of every member of the organization. Such strong management commitment enables the Group to be better equipped in managing risks and contribute to a stronger risk culture which will ultimately help add value to the organisation.

1. Strategic

1.1 Strategy

While the Group conscientiously plans its strategy and business direction, the failure to identify and implement the appropriate strategies in particular as business environment changes may adversely impact the Group. TTA manages this risk by

regularly evaluating its strategy and business plans in particular for operating units. With the strong focus of preserving its competitiveness, and creating shareholder value, TTA engages both within and outside the Group (including consultants and experts) to continuously challenge and validate the Group strategic direction and position. For each business unit, TTA conducts regular engagement not only to discuss performance but also to exchange views and adjust business plans and short-term strategies to ensure confidence in reaching such goals for these business units.

1.2 Cyclical Market/Industry

The Group has significant exposure in industries which are highly vulnerable to global economic cycles. Any significant economic slowdown or market deterioration may significantly weigh on the business ability to generate cash or profit, and this could also impair TTA financial position as well as ability to access capital markets at reasonable cost. To mitigate the risk, the Group is proactively looking to diversify and reduce the cyclicity of the Group by focusing and developing more stable (and countercyclical) industry business.

1.3 New Investment

TTA is continuously seeking new business investments as a further means of business diversification and creating shareholder value. This may be difficult to source, and even if TTA is successfully in finding new business investment, the investment could be undermined by unfavorable factors arising from project funding, joint venture partners, project assumptions, business environment, regulations, markets and competition.

To ensure that necessary prudence is exercised in all investment decisions, the Group has in place an investment approval process whereby a disciplined approach is taken to evaluate the opportunities and key risks presented by potential investments. Requiring the approval of the Board, rigorous M&A guidelines, including due diligence procedures are applied to the evaluation and execution of all acquisitions.

1.4 Joint Venture/Strategic Partnership

To grow new businesses or markets, the Group selectively enters into joint ventures and strategic partnership arrangements. While the Group maintains a rigorous vetting process that ensures not only business interest alignment but also sharing of core corporate values, still, this could change over time, and partners could have economic or business interests or goals that are no longer aligned with the Group. Worst still, partners may take action contrary to the Group interest. To mitigate the risk, the Group proactively engages and maintains open dialogue with partners, and when necessary, to consider amicable partings.

It is nevertheless the Group policy that all agreements with these joint venture or strategic partners must be carefully reviewed and drafted to ensure the Group protects its interest.

1.5 Reputation

Based on TTA Core Values, TTA Business Codes of Conducts provides the primary standards of ethical conduct. TTA requires the Group, its individual companies and employees where everyone at TTA is expected to do the right thing, in the right way because only this approach would ensure the success of the Group strategic priorities and enhanced reputation even as the Group looks to sustainably grow business. While the Group aspires to have all fully complied, failure - real or perceived - to follow these principles, or other real or perceived failures of governance or regulatory compliance, could adversely impact the Group affecting reputation.

For this reason, TTA has put in place extensive processes and tools to address such risks including anti-corruption, transparency and fair business practice adherence. Employees are constantly reminded and made aware of TTA zero tolerance on non-compliance policy which all parties need to adhere and follow, and any non-compliance compromising the Group is severely dealt with.

2. Operational

2.1 Competition

Rising levels of competition in domestic and international markets could potentially put downward pressure on prices and gross margins and can adversely affect profitability and market share. To stay ahead of competition, TTA regularly

conducts competitive analysis to understand customers, competitors and market landscapes and develops/revises strategies to compete effectively in the market. Notwithstanding changing trends, TTA will continually seek to improve existing products and services, and develop and launch innovation. TTA aims to be able to meet fast evolving customers expectations and preferences.

2.2 Supply Chain

In many areas, TTA is dependent on suppliers and their ability to deliver products or services at the right time and of the right quality. For some of these inputs, the relatively stronger bargaining power or limited number of suppliers may pose some risk, though for most, the Group generally diversify and uses a wide range of suppliers and monitors them to avoid situations that might jeopardize the Group bargaining position, which may adversely impact input cost or availability altogether.

2.3 Counterparty Credit Obligation

Credit risk arises when counterparties fail to fulfill their credit obligations. The Group generally deals with counterparties with satisfactory creditworthiness and this is achieved by evaluating and monitoring default and credit risks of customers, suppliers, contractors, joint venture partners and financial institutions. Credit evaluations are performed on counterparties from time to time based on a systematic approach. On a case-by-case basis, additional securities and shorter payment terms will be required as mitigation measures when dealing with counterparties of weaker credit standing. The Group also reviews material concentration risk with individual counterparties or geographically.

2.4 Human Capital

Recruiting, retaining and developing a competent workforce and managing key talent throughout the Group are crucial to the success of the Group. Competition for personnel is intense, especially in particular markets, and the Group may not be successful in attracting or retaining qualified personnel. The loss of key employees, the Group's inability to attract new or adequately trained employees, or a delay in hiring key personnel could seriously harm the Group business and impede the Group and its business from reaching their strategic objectives and face material adverse effects on the business, financial conditions and profitability.

TTA manages the risks and loss of key talents through a combination of different actions. Some of the activities aim at providing a better overview of the whole workforce of the Group and making the TTA employees brand better known both internally and externally, as well as offering competitive remuneration packages and intensifying the efforts to identify and develop talents. The Group also actively focuses on talent and management assessments, including succession planning for key positions.

2.5 Occupational Health, Safety and Environment (“HSE”)

Failure to maintain high levels of safety management can result in harm to the Group employees or contractors, and also to communities near the Group operations and the environment. Impacts covering to physical injury, health effects environmental damage liability to employees could affect on the Group or third parties, impairment of the Group reputation, or inability to attract and retain skilled employees. Government authorities could additionally enforce the closure of business operations on temporary basis.

Because health and safety can never be compromised, TTA businesses are all required to strictly monitor, measure, and meet compliance with applicable HSE standards. TTA businesses measures its performance in health and safety through lag indicators on accidents and near-misses, and lead indicators on safety observations. The target of safety is zero accidents and demanding milestones have also been set for accident and incident rates. If certain business fails to comply with HSE standards, corrective and preventive measures would be undertaken to mitigate the risks.

2.6 Business Disruption

It is part of the Group’s risk management initiative to address and manage potential threats and disruptions to operations arising from events such as an epidemic outbreak, act of terrorism, natural calamities and damage to critical facilities. With the aim of resuming key business operations within a pre-established targeted timeframe, TTA is working towards each business unit establishing their specific business continuity and crisis response plans. This will limit business disruption and provide effective response to unforeseen events.

2.7 Technology (IT)

Like any other business today, TTA is increasing the use of technology in its business operations and activities not only as a business tool, but as a competitive edge key to its long term business success. While the rapid introduction of new technology globally could potentially disadvantage the Group, TTA strives to stay ahead by conscientiously anticipating these disruptive technology changes and making investments ahead to stay competitive. In fact, the Board of Directors has since revised its Charter to ensure the oversight of the Group’s strategies, policies, business plan to include the use of innovation and technology to support value creation, and where necessary, to implement the appropriate IT governance and risk management program.

With TTA businesses reliant on information technology systems, TTA is exposed to both internal and external threats such as technical/infrastructure failure, cyber security threat, and data breach. TTA devotes significant resources to protect its business data/information technology systems and business process, but still any shortfall can damage the Company goals, service continuity, security, reputation and bottom line. TTA regularly holds cyber security training for all employee, and communicate importance of information technology to the Group.

3. Financial

3.1 Financial Market

TTA is exposed to financial market risks, including those related to currency, commodity prices and interest rates which are inherently volatile and unpredictable. With the objective to have cost-effective funding and reduce earnings volatility, the Group manages these financial risks by using financial instruments, including foreign exchange forwards, interest rate swap, freight forward agreement (FFA), bunker swap contracts and purchase of options. The Group can naturally hedge its market risks, for example, matching foreign currency loans with foreign currency revenues, the Group will manage uncovered risk. The use of financial instruments is strictly controlled by policies and authority limits approved by the Board of Directors.

3.2 Liquidity/Funding

TTA manages this risk with the goal to meet working capital needs and to drive the Company's growth by business expansion or mergers and acquisitions. Apart from maintaining good relationship with financial institutions, TTA has established a well-functioning system for cash flow planning, budgeting, and forecasting to assess the short-term and medium to long-term liquidity needs. These measures include active Group cash management, and maintaining a reasonable level of funds and access to credit facilities, and constant monitoring and stress testing cash flows to ensure financial stability. The Group has secured committed credit lines with reputable local and international banks.

3.3 Dividends from Subsidiaries and Associated Companies

Being a Holding Company, TTA a holding Company, relies on dividend income from its subsidiary and associate companies. Both the timing and ability of TTA subsidiaries and associated companies to pay dividends may sometimes be limited by regulations, the terms of each subsidiary's or associated company's indebtedness, financial condition, results of operations, and future business prospects; which without such dividends, the Group may have difficulty servicing its debts.

While TTA manages the risk by diligently planning its liquidity/funding requirement at the holding company level, TTA have been working to balance the dividend risk with its deliberate diversification strategy focused on multiple industries that can offer different cash generation stream and resilient cashflow/payback.

4. Compliance and External

4.1 Global Market

With operations extending across the globe, TTA continuously assesses and monitor country- specific risks of the countries in which it operates, including considering potential changes in social-economic factors, legal and tax systems, to political climate and intra-country conflicts. These risk assessments are regularly conducted to enable the Group to identify potential and emerging risks and to respond and formulate appropriate risk management strategies.

4.2 Regulatory Change

The Group operates globally and can be subjected to regulatory changes in multiple jurisdictions. TTA strives to fully comply with all laws and regulations and compliance checklists are developed for each business unit to ensure they comply with relevant laws and regulations.

Even in instances where there are still uncertainty on the potential changes in regulations, TTA will take all possible measures to protect its own legal position and prevent the adverse development of legal/regulatory risk.

5. Social and Environmental

5.1 Natural Catastrophe

Earthquakes, floods, or storms could affect the Group operations and assets, and result in significant environmental incident, commercial loss or business interruption. To mitigate the risk, the Group has proactively put in place emergency and business continuity plans and where possible, take on adequate insurance cover to reduce or mitigate any losses.

5.2 Community Relation and Social Responsibility

Social risks may harm existing operations and the execution of new investments. Failure to successfully manage relationships with local communities and non-governmental organisations (NGOs) could disrupt TTA operations and adversely affect the Group - potential impacts include reputational impacts and negative media coverage, harm to communities, adverse disruption of operations even to the extent the business may lose the licence to operate.

TTA strives to identify and minimise such social risks. This includes implement of preventive measures to avoid any adverse social/environmental impact and ensure sustainable business growth. TTA also actively follows in the environmental and other legislation development to forward plan and minimise any adverse effects on its business.

Internal Control and Risk Management

“TTA consistently recognizes the importance of internal control. The Audit Committee assigns the Internal Audit Department to assess the adequacy and effectiveness of internal control, whereas the Board of Directors appoints the Audit Committee to provide oversight to ensure that the internal control supports the achievement of business operations, accurate and reliable financial reporting, and compliance according to laws and regulations”

The Company designed and followed the internal control and compliance system adequately in order to minimize key risks potentially harmful to the Company’s operations, and once control deficiencies are detected, they will continuously be improved to suit the current and future business risk and business environment as well as to comply with related laws and regulations.

The Board of Directors (“the Board”) is ultimately responsible for TTA’s effective system of internal controls and risk management to safeguard the Company’s assets and all stakeholders’ interests, and it discharges its duties in this area by:

- Determining the nature and extent of the significant risks it is willing to accept in achieving the Company’s strategic objectives (the Board’s risk appetite); and
- Ensuring that management implements effective systems of risk identification, assessment and mitigation.

The Audit Committee (“the AC”) has been delegated the responsibility for reviewing the effectiveness of the TTA’s internal controls and compliance with related laws and regulations. The AC uses information drawn from a number of different sources to carry out this responsibility including:

- Objective assurance provided by Internal Audit through its annual work plan, which is approved by the AC and focuses on the principal risks identified in the risk assessment and key internal controls for mitigation or prevention of risks;
- Regular reported on the quarterly basis on the internal audit and internal control results, compliance approaches and highlighted any significant issues;
- Continuously developed and obtained information from Whistleblower system for employees, shareholders or external parties as additional channel to report fraudulent acts, non-compliance with corporate governance, laws and regulations, code of conducts that directly reporting to Audit Committee.

- Further objective assurance is provided by external auditor.

The Internal Audit Department (“IAD”) is an independent department that functional reports directly to the AC and administratively reports to CEO. The IAD assists the AC and the Board by performing regular assessments and evaluations on TTA’s key internal control system.

IAD has adopted a risk-based approach in formulating the annual audit plan which focuses on key business risks that might have an impact on business goals and the accuracy of financial reports. This plan is reviewed and approved by the AC on the annual basis. The AC also reviews the audit results and progress reports on a quarterly basis.

Issues arising are considered to identify pervasive themes. Significant issues are reported to the AC and the Board. The AC monitors resolution of any identified control issues through to a satisfactory conclusion. In addition, regular reports are made to the AC and the Board by management, internal audit and compliance functions covering in particular business, financial, operational controls and compliance.

TTA’s internal control procedure is based on the principles and approach of The Committee of Sponsoring Organizations of the Treadway Commission (COSO), which is an international standard on risk management. The key control systems implemented by the Company are summarized below.

1. Control Environment

The control environment is the foundation of an effective internal control system, and provides discipline and structure for all the other components. The main elements of the Company’s control environment are as follows:

- TTA clearly defines, encourages and promotes a good working environment by setting policy and planning, executing, controlling and monitoring all business activities.

- TTA adheres to its business philosophies and ethics through the actions and behavior to support the functioning of the internal control system. The Codes of Conduct have also been developed as guidelines for directors, management and employees.
- The Board and management at all levels demonstrate through their directives, actions, and behavior the importance of integrity and ethical values. All stakeholders are treated with fairness and respect and in such a way that adheres to good corporate governance principles.
- There is an organizational chart that clearly defines the lines of management authority and responsibility according to a suitable organizational structure, business size and operations.
- The Board and management set up the Delegated of Authority Limit and Level for each type of business transactions as a key control over authorization.
- The Company has implemented a Whistleblower Policy for reporting fraud, errors and misrepresentation or false statements made by the executives. Whistleblower reports are periodically reviewed by the Audit Committee.

2. Risk Assessment

The Company recognizes the importance of risk management and preparation for potential risks under changes caused by both internal and external factors that threaten its business activities at department, business unit, and corporate levels. Risk assessment enables the Company to monitor critical risks in a fast-changing scenario in a systematic and timely manner in order to find right solutions to those risks. The management and staff of the Company all take part in assessing risk factors and monitoring risks by assessing the likelihood and the size of negative impact including risks of corruptions. Preventive measures and a recovery plan are identified to promptly respond to the risks. The Company also reinforces and communicates the importance of risk management continuously across its organization to prepare for uncertainty. The Company's risk management department is responsible for monitoring the progress made in implementing measures and a recovery plan, and preparing risk management reports reviewed by the Risk Management Committee which are submitted to the Board of Directors on a quarterly basis.

3. Control Activities

TTA focuses on efficient control activities that are in line with acceptable risks and appropriate for the business circumstances and activities of each department. These

control activities are implemented through regulation, policy and working procedures. They are also reviewed and improved continuously. The transactions amongst the Company and its related parties have been carefully controlled and conform to the Securities and Exchange Commission and the Stock Exchange of Thailand regulations requirements and other regulatory bodies. TTA employees are encouraged recognize the importance of strictly complying with the control activities as well as related laws and regulations. This is to reduce risks covering various aspects, especially fraud risk and preventing violation of the laws.

4. Information and Communication

Information technology has been considered and developed to enhance the effectiveness and efficiency of business operations. TTA recognizes the importance of accuracy, reliability, and prompt information for decision-making. It also has an effective information security system, including a contingency plan to protect the information system when there are serious incidents that may cause system failure. Furthermore, TTA deploys an audit trail system that can track back and review historical data. TTA also maintains an information system to analyze data and indicate any risk area, for which comprehensive records and reports are available. Besides, TTA has complied the Computer Offense Act and computer traffic data as requires by the Ministry of Information and Communications Technology. TTA also has invested in an effective communication system, including internal and external channels. The internal communication manages through various channels. Documents for the shareholders' meetings and the Board's meetings have been delivered ahead of the meetings and contain sufficient information for the shareholders or the Board to make decisions in appropriated time.

5. Monitoring

Since the existing systems provide prompt and reliable information on a regular basis, management and the Board can therefore achieve proper monitoring over relevant financial reports in an effective manner and support the business objectives and goal achievement. At the same time, they can also perform an accurate review and assessment, and suggest improvement over existing business plans, supported by effective internal supervision carried out by the IAD throughout the period.

The internal audit works according to audit plan that is approved and monitored by the AC. The plan is based on the risk assessment and encompasses prioritized companies, key business areas and processes. The results of the performed audits and following up observations are reported to the AC and the Board. No significant control deficiencies have been reported to date. However, recommendations regarding internal controls have been provided in some areas.

The Board formally reviews the effectiveness of the system of internal control at least annually. Processes are in place for identifying, evaluating and managing the significant risks facing the Company in accordance with the Internal Control Assessments Guidance published by the Securities and Exchange Commission.

In accordance with SET's notification: The Audit Committee's Qualifications and Scope of Works B.E. 2558, the Audit Committee Charter defined its responsible to evaluate the performance of senior executives of Internal Audit with Chief Executive Officer.

At Board Meeting No. 1/2020, held on 28 February 2020 with the Audit Committee present, the Board assessed the above five components of the Company's internal control systems. The Board concluded that the Company's internal control systems were found to be adequate and effective with sufficient of internal audit staffs to effectively conduct the audit tasks, with no material deficiency.

KPMG Phoomchai Audit Ltd., the Company's external auditor, who concluded the audit of the financial statements for year ended on 31 December 2019, concluded that there was no material deficiency in the Company's accounting and financial control system.

Financial Highlights

	For the Year Ended 31 December 2019	For the Year Ended 31 December 2018	For the Year Ended 31 December 2017
(Baht in millions, except share, per share data, and ratios)			
Income Statement Data:			
Voyage revenues	6,772.60	5,816.45	4,007.40
Voyage expenses ^{/1}	(4,212.37)	(3,174.44)	(1,874.30)
Vessel operating expenses - owner expenses ^{/1}	(1,048.71)	(1,026.72)	(1,044.96)
Offshore services revenues	3,286.04	3,071.87	4,886.71
Offshore services expenses	(2,983.36)	(2,926.24)	(3,636.83)
Sales	4,889.34	4,634.77	4,116.85
Cost of sales ^{/1}	(3,727.86)	(3,626.65)	(3,204.16)
Revenues from service companies and other sources ^{/1}	480.00	505.08	446.17
Depreciation and amortisation	(1,132.94)	(1,124.19)	(1,111.27)
General and administrative expenses ^{/1}	(1,494.94)	(1,672.11)	(1,510.04)
Interest expenses	(446.74)	(492.80)	(380.30)
Interest income	144.27	137.11	154.34
Equity income from associates and joint ventures ^{/1}	244.97	401.00	338.36
Foreign exchange gains (losses) ^{/1}	(139.34)	(25.90)	111.45
Net Income (losses)	562.60	210.02	588.35
Per Share Data:			
Net income (losses) - basic	0.31	0.12	0.32
Cash dividends declared ^{/2}	0.06	0.05	0.075
Net book value	9.98	10.73	10.83
Balance Sheet Data (at end of year):			
Cash and short-term investments	7,054.30	6,867.06	6,423.14
Vessels, rigs, machinery, and equipment - net of depreciation	11,956.77	13,775.32	13,668.80
Total assets	33,473.05	37,111.65	35,584.77
Total liabilities	10,874.49	12,524.66	10,530.79
Issued and paid-up share capital (Baht)	1,822,464,564	1,822,464,006	1,822,464,006
Total shareholders' equity	22,598.56	24,586.99	25,053.98
Other Financial Data:			
Net cash flows provided by operating activities	1,467.74	1,628.92	1,480.62
Net cash flows provided by (used in) investing activities	63.68	(2,483.08)	(497.88)
Net cash flows provided by (used in) financing activities	(1,472.54)	826.22	(3,194.35)
Capital expenditures :			
Property, plant and equipment, and intangible assets	639.98	1,651.58	2,003.62
Financial Ratios:			
Return on shareholders' equity (%) ^{/3}	2.98%	1.07%	2.90%
Return on total assets (%) ^{/3}	0.62%	-0.51%	1.79%
Net profit margin (%)	1.41%	-1.33%	5.17%
Total interest bearing debt to total capitalisation	0.27	0.29	0.24
Net interest bearing debt to net capitalisation	0.05	0.11	0.06

Note: ^{/1} Exclude one-off items

^{/2} The dividend payment for the year ended 31 December 2019 is subject to the shareholders' approval at the AGM 2020 to be held on 30 April 2020.

^{/3} Annualised

Income Structure

Group of Business	Generated by	% of Shareholding by TTA	Revenue (Baht)					
			For the year ended 31 December 2017	%	For the year ended 31 December 2018	%	For the year ended 31 December 2019	%
Group Shipping	Shipping	100	4,007,397,043	29	5,816,461,835	41	6,772,598,798	41
Group Offshore Service	Mermaid	58.2	4,918,923,124	35	3,071,867,557	22	3,286,039,877	20
Coal/Group Investment	UMS ^{/1}	92.9	448,118,629	3	249,143,366	2	125,593,756	1
Fertilizer/Group Agrochemical	Baconco ^{/2}	100	2,871,765,483	21	2,775,153,135	19	2,877,681,309	17
Others/Group Investment	GTL/CMSS	51/99.9	1,146,056,725	8	2,033,713,151	14	2,366,064,180	14
Other Revenues			487,453,403	4	285,609,634	2	1,094,103,079	7
Total			13,879,714,407	100	14,231,948,678	100	16,522,080,999	100

Note : ^{/1} indirectly held through Athene Holdings Ltd.

^{/2} indirectly held through PM Thoresen Asia Holdings Plc.

Management Discussion and Analysis for the Year 2019

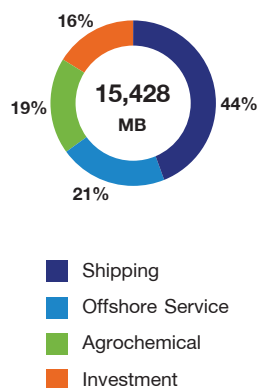
Performance Summary

in million Baht	4Q/18	3Q/19	4Q/19	%YoY	%QoQ	2018	2019	%YoY
Revenues	3,903.6	3,887.5	4,153.5	6%	7%	13,946.3	15,428.0	11%
Gross Profits / (Losses)	772.3	803.5	1,021.5	32%	27%	3,087.0	3,159.3	2%
Share of Profit of Associates and JVs	115.2	79.1	83.1	-28%	5%	401.0	245.0	-39%
EBITDA	306.3	752.0	674.5	120%	-10%	1,457.5	1,906.4	31%
Net Profits / (Losses)	(216.2)	599.9	83.0	138%	-85%	(185.6)	218.2	218%
Net Profits / (Losses) to TTA	(40.7)	652.8	176.0	533%	-73%	210.0	562.6	168%
Number of Shares (million Shares)	1,822.5	1,822.5	1,822.5	0%	0%	1,822.5	1,822.5	0%
Basic Earnings per Share (in Baht)	(0.02)	0.36	0.10	533%	-73%	0.12	0.31	168%
Normalized Net Profits / (Losses)	(205.2)	259.1	235.8	215%	-9%	(284.5)	106.3	137%
Normalized Net Profits / (Losses) to TTA	(29.7)	351.2	271.2	1013%	-23%	134.0	392.1	193%
Gross Margin (%)	20%	21%	25%			22%	20%	
EBITDA Margin (%)	8%	19%	16%			10%	12%	
Net Profit Margin (to TTA) (%)	-1%	17%	4%			2%	4%	
Net Profit Margin (%)	-6%	14%	2%			-1%	1%	

* Normalized Net Profits / (Losses) = Net Profits / (Losses) – Non-Recurring Items

Consolidated Performance Highlights

Revenue Structure 2019



In 2019, revenues increased 11%YoY to Baht 15,428.0 million. Shipping, Offshore Service, Agrochemical, and Investment Segments contributed 44%, 21%, 19% and 16% to the consolidated revenues, respectively. Gross profits amounted to Baht 3,159.3 million, increasing 2%YoY, and gross margin remained above 20% in 2019. There was also a gain on investment from the partial sale of interests in one subsidiary of Baht 283.7 million. SG&A was lower YoY. Share of profit of associates and JVs decreased YoY, primarily from the new internal bareboat charter rate of an associate under Offshore Service Segment. Therefore, EBITDA improved 31%YoY to Baht 1,906.4 million, mainly from significantly improved performance of Offshore Service Segment and gains on investment. However, strengthening Thai Baht resulted in a loss from foreign exchange of Baht 139.3 million in 2019, mostly considered unrealized, compared to a loss of Baht 25.9 million in 2018. Gains from non-recurring items in 2019 amounted to Baht 111.9 million, mainly from the net effect of gains resulting from changes in TTA's interests in subsidiaries, currently deemed as investments, allowance for bad debts, and impairment expenses on 2 subsea vessels. Meanwhile, Shipping Segment maintained its outstanding position; TCE rate outperformed net market TC rate by 16%, though slightly lowered YoY. Agrochemical Segment, despite facing many challenges this year from Chinese competition to low agricultural price, had continued to be profitable and maintained its market position; total fertilizer sales volume increased YoY. Under high competitive environment, Offshore Service Segment's normalized net loss to TTA was significantly improved by Baht 184.6 million or 34%YoY, and its order book at year-end reached US\$ 217 million for the first time since late 2016. In addition, Pizza Hut business has turned around after the acquisition in 2017. In summary, despite a YoY increase in the loss from foreign exchange, mostly considered unrealized as aforementioned, normalized net profits to TTA grew 193%YoY to Baht 392.1 million as most core businesses' performance improved YoY, and net profits to TTA grew 168%YoY to Baht 562.6 million in 2019.

In addition to financial performance, TTA gives priority to good corporate governance, transparency, and sustainable development as detailed below:

- Appointment of Corporate Governance Committee to review the CG policy and to monitor compliance of the policy and practices.
- Appointment of Sustainable Development Committee to ensure that sustainable development will be implemented throughout TTA.
- Grant of the opportunity to shareholders to propose the agenda and director candidates for AGM.
- The declaration of intent to join Thailand's Private Sector Collective Action Against Corruption (CAC).

Significant Events/ Changes in 2019

- TTA attained the CG Score of "Excellent" recognition level in 2019.
- Taco Bell, which is operated as a 70% owned subsidiary of TTA, launched its first outlet in January, 2019.
- TTA sold 40% effective interest for both shares and shareholder loan in a 99.99% owned subsidiary of TTA, to a real estate unit of one of Japan's largest power company in July, 2019. After the transaction, this company was determined to be a TTA's joint venture.
- TTA adopted new accounting standards (TFRS 9 and TFRS 15) in 2019.

Business Segment Summary

TCE rate was at US\$ 10,991 per day, outperforming net Supramax TC rate by 16% in 2019.

Shipping Segment's freight revenues in 2019 were reported at Baht 6,772.6 million, which increased 16%YoY, mainly due to increasing service days for chartered-in vessels resulting from more charter-in business. BDI averaged at 1,353 points and reached seven-year high at 2,518 points in September 2019, mainly due to the rebound in Brazilian and Australian iron ore exports after the severe disruption in 1H19 and limited supplies affected by IMO 2020 related factors. TCE rate was at US\$ 10,991 per day, outperforming net Supramax TC rate of US\$ 9,451 per day by 16% in 2019. Gross profits amounted to Baht 1,508.6 million. EBITDA was at Baht 1,326.5 million. In conclusion, Shipping Segment reported net profits to TTA of Baht 749.0 million in 2019.

Normalized net loss improved by 34%YoY and its order book reached a record high of US\$ 217 million at year-end 2019.

Offshore Service Segment's revenues in 2019 were recorded at Baht 3,286.0 million, which increased 7%YoY mainly due to higher vessel utilization. Performing vessel utilization rate increased YoY from 52% to 79% from higher vessel working days and improved operational efficiency. Gross profits increased 108%YoY to Baht 302.7 million. Accordingly, EBITDA improved by Baht 262.5 million or 80%YoY to Baht (66.2) million. There were losses from non-recurring items of Baht 134.7 million in 2019, mainly from the allowance for bad debts and impairment of 2 subsea vessels. Therefore, Offshore Service Segment reported normalized net loss to TTA of Baht 358.8 million, improving by Baht 184.6 million or 34%YoY, and an attributable loss to TTA of Baht 437.2 million, improving by 14%YoY, in 2019. Order book at year-end doubled from the last year-end to US\$ 217 million for the first time since late 2016.

Total fertilizer sales volume increased 3%YoY, to 189.8 Ktons in 2019.

Agrochemical Segment's sales revenue in 2019 amounted to Baht 2,820.5 million, which increased 4%YoY, mainly due to higher fertilizer sales volume and a growth in pesticide business. Despite many challenges this year from Chinese competition to low agricultural price, Agrochemical Segment maintained its market position; total fertilizer sales volume increased 3%YoY to 189.8 Ktons. Domestic fertilizer sales volume increased 22%YoY while export fertilizer sales volume decreased 30%YoY due to competition from Chinese fertilizer producers resulting from zero tariffs on Chinese fertilizer exports. Gross profits (spread) amounted to Baht 555.4 million. EBITDA increased 13%YoY to Baht 152.3 million. In conclusion, Agrochemical Segment registered net profits to TTA of Baht 30.0 million, improving 16%YoY in 2019.

Financial Position

	37,112		33,473		
Cash under Management ⁽¹⁾	6,867	2,700	7,085	2,593	Other Liabilities
Other Current Assets	4,832	9,825	5,229	8,281	Total Equity
Tangible Assets ⁽²⁾	17,628	24,587	13,946	22,599	Total Equity
Other Non-Current Assets	7,785		7,213		
	Assets	Liabilities + Equity	Assets	Liabilities + Equity	
	As at December 31, 2018		As at December 31, 2019		

⁽¹⁾ Cash, cash equivalents, and other current financial assets

⁽²⁾ Property, plant, equipment, and investment properties

Strong balance sheet with cash under management of Baht 7.1 billion.

Robust capital structure with low net IBD/E at 0.05 times.

As at December 31, 2019, TTA had total assets of Baht 33,473.1 million, decreasing by 10% or Baht 3,638.6 million from the end of 2018, mainly from a decrease in fixed assets caused by the foreign currency translation for foreign operations and a decrease in fair value of financial assets resulting from first-time adoption of new accounting standards. Cash under management, which combines cash, cash equivalents, and other current financial assets, remained high at Baht 7,085.1 million. Total liabilities decreased by 13% to Baht 10,874.5 million from the end of 2018, mainly from repayments of borrowings. Despite positive net profits for the year 2019, total equity decreased 8% to Baht 22,598.6 million from the end of 2018, primarily from the foreign currency translation for foreign operations, impact of first-time adoption of new accounting standards, and dividend payment. In May 2019, TTA paid a dividend of Baht 0.05 per share or Baht 91.1 million in total for 2018 performance. Capital structure remained strong and was reflected by low net interest bearing debt to total equity (IBD/E) of 0.05 times at the end of 2019.

Shipping Segment

Performance Summary

in million Baht	4Q/18	3Q/19	4Q/19	%YoY	%QoQ	2018	2019	% YoY
Freight Revenues	1,788.6	1,783.5	1,829.2	2%	3%	5,816.5	6,772.6	16%
Vessel Operating Expenses	1,295.9	1,376.1	1,321.6	2%	-4%	4,036.2	5,264.0	30%
Gross Profits/(Losses)	492.6	407.4	507.5	3%	25%	1,780.3	1,508.6	-15%
Other Income	8.8	11.2	8.5	-4%	-25%	21.3	43.1	102%
Gains/(Losses) on Investment	-	1.7	18.7	0%	971%	-	15.4	0%
SG&A	61.4	59.5	52.9	-14%	-11%	250.3	240.5	-4%
EBITDA	440.0	360.9	481.8	9%	34%	1,551.4	1,326.5	-14%
Depreciation & Amortization	108.6	104.1	103.2	-5%	-1%	414.1	414.9	0%
EBIT	331.5	256.8	378.6	14%	47%	1,137.3	911.7	-20%
Finance Costs	46.2	40.3	33.6	-27%	-17%	172.0	156.4	-9%
Gains/(Losses) from Foreign Exchange	(1.3)	(3.5)	(3.1)	-133%	13%	(3.5)	(14.3)	-315%
Gains/ (Losses) from Non-Recurring Items	(0.0)	22.8	-	100%	-100%	88.8	12.0	-86%
Profits/(Losses) before Income Tax	283.9	235.8	342.0	20%	45%	1,050.6	753.0	-28%
Income Tax Expenses	1.2	1.2	0.3	-79%	-80%	3.4	4.0	16%
Net Profits/(Losses)	282.7	234.5	341.7	21%	46%	1,047.2	749.0	-28%
Normalized Net Profits/(Losses)	282.7	211.7	341.7	21%	61%	958.4	737.0	-23%
Gross Margin (%)	28%	23%	28%			31%	22%	
EBITDA Margin (%)	25%	20%	26%			27%	20%	
Net Profit Margin (%)	16%	13%	19%			18%	11%	

*TTA held 100.00% of issued and paid up capital of TSG at the end of December 2019.

**As consolidated on TTA's P&L

***Normalized Net Profits/(Losses) = Net Profits/(Losses) - Non-Recurring Items

Fleet Data Summary	4Q/18	3Q/19	4Q/19	%YoY	%QoQ	2018	2019	%YoY
Calendar days for owned fleet ⁽¹⁾	1,932	1,932	1,932	0%	0%	7,688	7,665	0%
Available service days for owned fleet ⁽²⁾	1,851	1,882	1,876	1%	0%	7,486	7,453	0%
Operating days for owned fleet ⁽³⁾	1,844	1,882	1,876	2%	0%	7,453	7,430	0%
Owned fleet utilization ⁽⁴⁾	100%	100%	100%	0%	0%	99.6%	99.7%	0%
Voyage days for chartered-in fleet	1,168	1,417	1,177	1%	-17%	3,852	5,869	52%
TC (%)	57%	52%	46%			62%	53%	
VC/COA (%)	43%	48%	54%			38%	47%	
Average DWT (Tons)	55,285	55,285	55,285	0%	0%	55,285	55,285	0%
Number of vessels at the ending period	21	21	21	0%	0%	21	21	0%
Average number of vessels ⁽⁵⁾	32.7	35.9	33.2	1%	-7%	31.0	36.4	18%

Market Data	4Q/18	3Q/19	4Q/19	%YoY	%QoQ	2018	2019	%YoY
BDI Index	1,363	2,030	1,562	15%	-23%	1,353	1,353	0%
BSI Index	1,049	1,100	956	-9%	-13%	1,031	880	-15%
Net Supramax TC Rate** (USD/Day)	10,996	11,886	10,226	-7%	-14%	10,637	9,451	-11%

Average Daily Operating Results ⁽⁶⁾ (USD/Day)	4Q/18	3Q/19	4Q/19	%YoY	%QoQ	2018	2019	%YoY
Highest TCE Rate	24,277	27,531	24,189	0%	-12%	24,277	27,531	13%
Thorsen TCE Rate ⁽⁷⁾	12,535	12,118	13,471	7%	11%	11,591	10,991	-5%
TCE Rate of Owned Fleet	12,660	11,452	12,373	-2%	8%	11,620	10,268	-12%
Gain/(Loss) from Chartered-In Vessels	(125)	666	1,097	978%	65%	(29)	723	2557%
Expenses								
Vessel Operating Expenses (Owner's expenses)	3,755	3,866	4,025	7%	4%	3,723	3,869	4%
Dry-Docking Expenses	535	689	738	38%	7%	522	663	27%
General and Administrative Expenses	1,010	1,029	930	-8%	-10%	1,035	1,040	0%
Cash Costs	5,300	5,584	5,693	7%	2%	5,279	5,572	6%
Finance Costs, net	761	697	591	-22%	-15%	711	676	-5%
Depreciation	1,787	1,801	1,817	2%	1%	1,712	1,793	5%
Income Taxes	20	22	4	-78%	-79%	14	17	21%
Total Costs	7,868	8,104	8,106	3%	0%	7,716	8,058	4%
Operating Results	4,666	4,014	5,365	15%	34%	3,874	2,934	-24%
USD/THB Rate (Daily Average)	32.81	30.71	30.28	-8%	-1%	32.31	31.05	-4%
Equivalent Gross Margin Per Day (%)	70%	68%	70%			68%	65%	
Equivalent EBITDA Margin Per Day (%)	58%	54%	58%			54%	49%	
Equivalent Net Profit Margin Per Day (%)	37%	33%	40%			33%	27%	

*The per day basis is calculated based on available service days.

** Supramax TC Rate less commission

- Note :
- Calendar days are the total calendar days TTA owned the vessels in our fleet for the relevant period, including off hire days associated with major repairs, or special or intermediate surveys.
 - Available service days are calendar days (1) less planned off-hire days associated with major repairs, dry dockings, or special or intermediate surveys.
 - Operating days are the available days (2) less unplanned off-hire days, which occurred during the service voyage.
 - Feet utilization is the percentage of time that our vessels generated revenues and its determined by dividing operating days by available service days for the relevant period.
 - Average number of vessels is the number of vessels that constituted our fleet for the relevant period, as measured by the total operating days for owned fleet plus voyage days for chartered in fleet during the period divided by the number of calendar days in the relevant period.
 - Gross Supramax TC rate net of commission. Base on BSI-52 index up through 4Q/18, and BSI-58 index used as from 1Q/19.
 - The per day basis is calculated base on available service days for owned fleet
 - Thorsen TCE Rate comprises owned fleet TCE rate and gain (loss) from chartered-in vessels, excluding realized/unrealized gain (loss) on derivatives

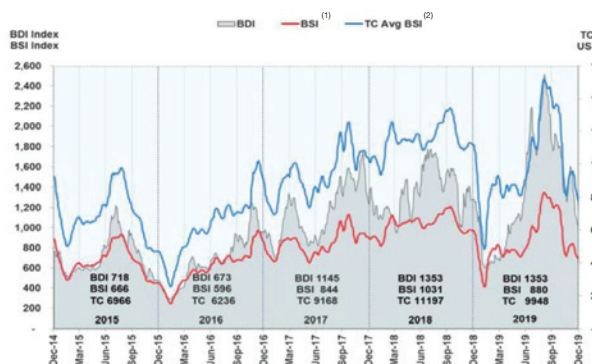
TCE Rate = Time-Charter Equivalent Rate

TC Rate = Time-Charter Rate

BDI = The Baltic Exchange Dry Index

BSI = The Baltic Exchange Supramax Index

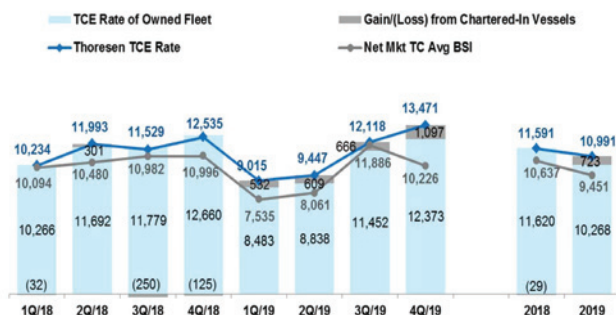
Dry Bulk Market Index



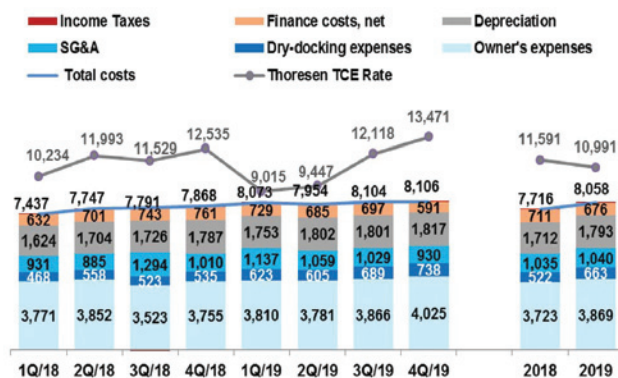
(1) BSI referred to 52,000 dwt bulk carrier basis for the period before 3 April 2017 and to 58,000 dwt bulk carrier basis for the period starting 3 April 2017.

(2) TC Avg BSI is based on BSI-52 index up through 4Q/18, and BSI-58 index used as from 1Q/19.

Net Supramax TC Rate VS Thoresen's TCE Rate



Revenue VS Cost Structure (US\$ per vessel day)



In 2019, Baltic Dry Index (BDI) rebounded from lowest 595 points in February to seven-year high 2,518 points in September, and ended the year at 1,090 points with an average of 1,353 points. In 1H19, besides typically low season in the first quarter, there were severe disruptions on the world's largest iron ore supplies caused by the Vale tailings dam collapse in Brazil and Cyclone Veronica hitting Australia. Later in 2H19, dry bulk trade grew at robust pace in 3Q/19 as Brazilian and Australian iron ore exports surged and dry bulkers were limited from higher off-hired time for scrubber retrofitting especially for Capes. Then, dry bulk trade ended the year with a slow pace during low season. Looking in 2020, the year has started on a difficult note, with seasonal demand weakness and further disruption from low output of Brazilian iron ore caused by severe flooding and from COVID-19 virus outbreak. However, analysts expect the outbreak would be near-term disruption and demand-supply within dry bulk shipping industry is projected to normalize from 2Q/20. In addition, there is positive momentum from US-China trade agreement, which will support grain and soybean trade in 2020. Supply growth is also expected to be limited by the positive impact of the IMO 2020 Global Sulphur Cap effective from January 1, 2020, including scrubber retrofit time, slower operating speeds and increased recycling.

For full year 2019, freight revenues increased 16%YoY to Baht 6,772.6 million, driven by increasing service days for chartered-in vessels resulting from more charter-in business. Chartered-in service days increased by 2,017 days or 52%YoY. To analyze performance for dry bulkers, per day performance such as TCE is the global norm. Thoresen's TCE rate in 2019 was at US\$ 10,991 per day, which outperformed net Supramax TC rate of US\$ 9,451 per day by 16%, but slightly decreased YoY. TCE rate comprised owned fleet TCE rate of US\$ 10,268 per day and gain from chartered-in vessels of US\$ 723 per day. The highest TCE rate was at US\$ 27,531 per day. OPEX remained low at US\$ 3,869 per day. Operating cash costs increased 6%YoY to US\$ 5,572 per day, mainly from an increase in other supplies for periodical usage and higher dry-docking

expenses as per dry-docking cycle of vessels. Gross profits decreased 15%YoY to Baht 1,508.6 million, and per day gross margin slightly decreased from 68% in 2018 to 65% in 2019 as TCE decreased YoY. EBITDA amounted to Baht 1,326.5 million. Meanwhile, Shipping Segment reported net profits to TTA of 749.0 million in 2019.

At year-end 2019, Shipping Segment owned 21 Supramax vessels with an average size of 55,285 DWT and an average age of 12.71 years. No vessel was acquired or sold in 2019 while 2 second-hand vessels were acquired, and 2 vessels were sold in 2018. Shipping Segment operated an average of 36.4 vessels, comprising 20.3 owned vessels and 16.1 chartered-in vessels in 2019, increasing from an aggregated average fleet in 2018 of 31.0 vessels, which comprised 20.4 owned vessels and 10.6 chartered-in vessels. The increase was mainly due to more charter-in business.

Offshore Service Segment

Performance Summary

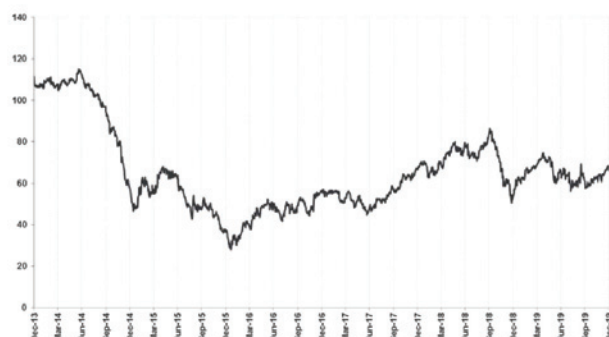
in million Baht	4Q/18	3Q/19	4Q/19	% YoY	% QoQ	2018	2019	% YoY
Revenues	847.3	825.9	860.7	2%	4%	3,071.9	3,286.0	7%
Total Costs	855.2	770.7	792.3	-7%	3%	2,926.2	2,983.4	2%
Gross Profits/(Losses)	(8.0)	55.2	68.4	960%	24%	145.6	302.7	108%
Other Income	4.9	6.1	4.8	-2%	-22%	33.9	26.2	-23%
Gains/(Losses) on Investment	3.1	(15.3)	9.3	195%	161%	7.7	(19.6)	-353%
SG&A	262.9	145.0	81.3	-69%	-44%	776.5	523.3	-33%
EBITDA from Operation	(262.9)	(99.0)	1.2	100%	101%	(589.2)	(213.9)	64%
Share of Profit of Associates and JVs	63.1	38.0	33.1	-47%	-13%	260.5	147.7	-43%
EBITDA	(199.8)	(60.9)	34.3	117%	156%	(328.7)	(66.2)	80%
Depreciation & Amortization	127.0	106.4	103.2	-19%	-3%	455.8	432.3	-5%
EBIT	(326.8)	(167.3)	(68.8)	79%	59%	(784.6)	(498.5)	36%
Finance Costs	32.1	24.6	22.0	-31%	-10%	125.9	105.7	-16%
Gains/(Losses) from Foreign Exchange	(5.9)	(0.3)	0.1	101%	125%	2.2	7.1	228%
Gains/ (Losses) from Non-Recurring Items	0.0	(2.0)	(132.7)	-1167%	-6581%	55.5	(134.7)	-343%
Profits/(Losses) before Income Tax	(364.8)	(194.2)	(223.5)	39%	-15%	(852.8)	(731.7)	14%
Income Tax Expenses	14.4	1.0	2.1	-85%	107%	28.4	18.0	-37%
Net Profits/(Losses)	(379.2)	(195.2)	(225.6)	41%	-16%	(881.3)	(749.7)	15%
Net Profits/(Losses) Attributable to Non-Controlling Interest	(161.1)	(80.5)	(94.3)	41%	-17%	(370.2)	(312.5)	16%
Net Profits/(Losses) to TTA	(218.0)	(114.7)	(131.3)	40%	-15%	(511.1)	(437.2)	14%
Normalized Net Profits/(Losses)	(379.2)	(193.2)	(92.9)	76%	52%	(936.8)	(615.0)	34%
Normalized Net Profits/(Losses) To TTA	(218.0)	(113.5)	(54.1)	75%	52%	(543.4)	(358.8)	34%
Gross Margin (%)	-1%	7%	8%			5%	9%	
EBITDA Margin (%)	-24%	-7%	4%			-11%	-2%	
Net Profit Margin (%)	-45%	-24%	-26%			-29%	-23%	

*TTA directly and indirectly held 58.22% of issued and paid up capital of MML at the end of December 2019.

**As consolidated on TTA's P&L

***Normalized Net Profits/(Losses) = Net Profits/(Losses) - Non-Recurring Items

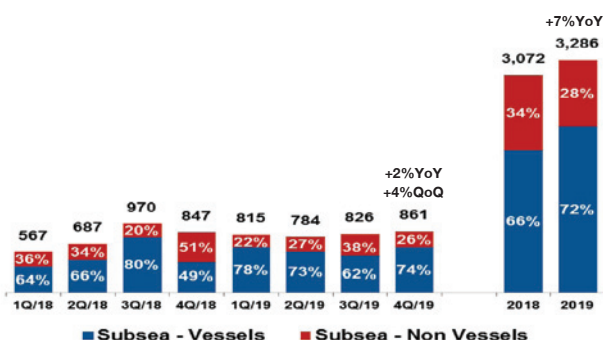
Brent Crude Oil (US\$/bbl)



Source: CO1: COM

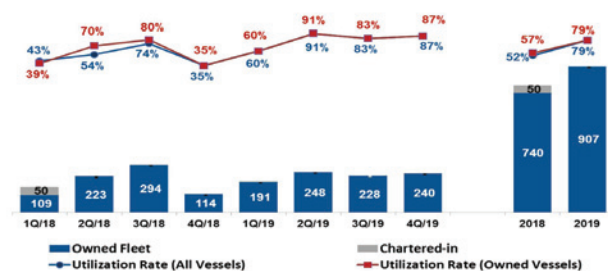
Brent crude oil averaged at US\$ 64/bbl in 2019. It has volatily traded in the range of US\$ 54-75/bbl in 2019. Looking forward, to stabilize the crude oil market, OPEC and its oil-producer allies led by Russia agreed to reduce oil production by 1.2 million barrels per day from January 2019 to March 2020 with a possibility to extend further. In addition, the Energy Information Administration (EIA) has forecasted that the Brent crude oil spot price will average US\$ 65/bbl in 2020 and US\$ 68/bbl in 2021.

Revenue Breakdown by Services (in million Baht)



For full year 2019, Offshore Service Segment's revenues increased 7%YoY to Baht 3,286.0 million, due to higher vessel utilization. Performing vessel utilization rate increased from 52% in 2018 to 79% in 2019 as vessel working days increased and operational efficiency has been improved by cold-stacking one vessel since 2Q/19. Vessel working days increased 23%YoY to 907 days, and there was no vessel off-hired for dry docking in 2019, compared to 4 vessels in 2018. Despite slight increase in revenues, gross profits doubled to Baht 302.7 million as vessel utilization increased and operation efficiency improved. Accordingly, gross margin improved YoY from 5% to 9% in 2019. SG&A lowered by 33%YoY, mainly from the rightsizing exercise and a decrease in periodic professional fees. Share of profit of

Vessel Working Days & Utilization Rate ^{(1), (2), (3)}



⁽¹⁾ Performing vessels only. Since 2Q/19, there have been 3 performing vessels, compared to 4 performing vessels in previous period.

⁽²⁾ Utilization rate is the percentage of time that our vessels generated revenues and is determined by dividing operating days by available service days ⁽³⁾

⁽³⁾ Available service days are calendar days less planned off hire days associated with major repairs, dry dockings, or special or intermediate surveys.

associates and JVs decreased to Baht 147.7 million, due to the new internal bareboat charter rate under the 3-year contract renewed in 2019. Meanwhile, EBITDA, though negative, improved 80%YoY to Baht (66.2) million. Income tax expenses decreased YoY because there was an adjustment of corporate income tax from prior year booked in 2018. In addition, there were losses from non-recurring items of Baht 134.7 million, mainly from the allowance for bad debts and impairment of 2 cold-stacked subsea vessels. **In conclusion, Offshore Service Segment reported a net loss of Baht 749.7 million, an attributable net loss to TTA of Baht 437.2 million, and a normalized net loss to TTA of Baht 358.8 million, improving by Baht**

184.6 million or 34%YoY in 2019. The order book at year-end 2019 doubled from last year-end and reached US\$ 217 million for the first time since late 2016, mainly due to the 3-year contract extension from the same reputable client in the Middle East for offshore services.

In drilling business under one of its associates, three high specification jack-up drilling rigs have performed strongly in the Middle East with 100% utilization in 2019. To date, all three contracts were extended for another 3 years with the same reputable client, and are scheduled to expire in June 2022, December 2022, and April 2023.

Agrochemical Segment

Performance Summary

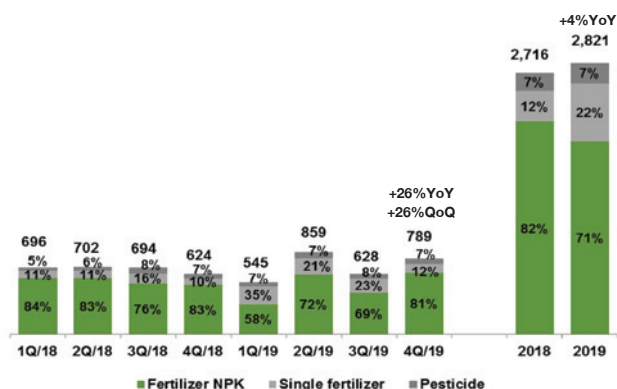
in million Baht	4Q/18	3Q/19	4Q/19	% YoY	% QoQ	2018	2019	% YoY
Sales Revenue	623.8	628.1	788.8	26%	26%	2,715.6	2,820.5	4%
Raw Material Costs	478.0	497.7	589.2	23%	18%	2,105.8	2,265.1	8%
Gross Profits/(Losses) (Spread)**	145.7	130.4	199.7	37%	53%	609.9	555.4	-9%
Service & Other Income	15.6	13.9	15.1	-3%	8%	67.6	64.5	-5%
Operating Cost	51.9	50.1	50.7	-2%	1%	231.5	197.2	-15%
Cost of Providing Services	7.8	6.9	5.6	-28%	-19%	31.9	27.2	-15%
SG&A	76.4	58.0	72.1	-6%	24%	279.1	243.3	-13%
EBITDA	25.3	29.4	86.4	241%	194%	135.0	152.3	13%
Depreciation & Amortization	16.9	15.8	15.5	-8%	-2%	67.3	64.1	-5%
EBIT	8.4	13.6	70.9	741%	421%	67.7	88.1	30%
Finance Costs	1.5	3.3	3.5	130%	8%	5.8	14.6	151%
Gains/(Losses) from Foreign Exchange	2.0	1.3	(0.3)	-115%	-123%	(9.0)	(11.4)	-27%
Profits/(Losses) before Income Tax	8.9	11.7	67.0	655%	471%	52.9	62.3	18%
Income Tax Expenses	3.3	3.2	12.6	277%	296%	15.0	18.4	23%
Net Profits/(Losses)	5.5	8.6	54.4	883%	536%	37.9	43.8	16%
Net Profits/(Losses) Attributable to Non-Controlling Interests	1.7	2.7	17.1	883%	536%	11.9	13.8	16%
Net Profits/(Losses) to TTA	3.8	5.9	37.3	883%	536%	26.0	30.0	16%
Gross (Spread) Margin (%)	23%	21%	25%			22%	20%	
EBITDA Margin (%)	4%	5%	11%			5%	5%	
Net Profit Margin (%)	1%	1%	7%			1%	2%	

*TTA held 68.52% of issued and paid up capital of PMTA at the end of December 2019.

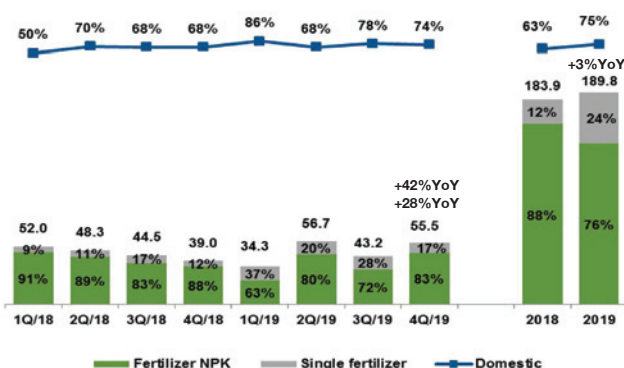
**As consolidated on TTA's P&L

***Gross Profits(Spread) = Sales Revenues - Raw Material Costs

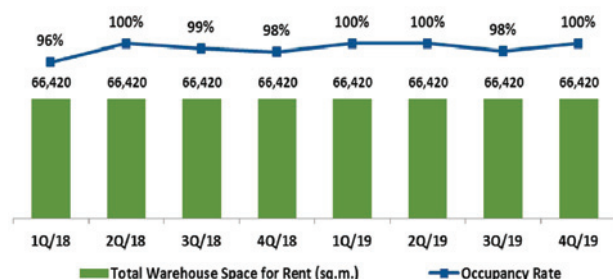
Sales Revenue Breakdown by Product (in million Baht)



Total Fertilizer Sales Volume Breakdown (KTons)



Factory Area for Leasing & Occupancy Rate



marketing expenses and lower transportation expenses, which was in line with lower export sales volume. As a result, EBITDA increased 13%YoY to Baht 152.3 million. In addition, there were realized/unrealized losses from foreign exchange of Baht 11.4 million as Thai Baht strengthened against US Dollar and Vietnamese Dong. **In conclusion, Agrochemical Segment reported net profits of Baht 43.8 million and attributable net profits to TTA of Baht 30.0 million, improving 16%YoY in 2019.**

Besides fertilizer, Agrochemical Segment also provides factory area management services with a total area of 66,420 sqm. Total income from factory area management services and other income increased in Vietnamese Dong, but decreased 5%YoY to Baht 64.5 million in 2019 from foreign currency translation.

Amid challenging market conditions in 2019, Agrochemical Segment maintained its market position.

Besides low agricultural price over major crops and fruit and high raw material cost, Agrochemical Segment has faced competition from Chinese fertilizer producers as a result of zero tariffs on Chinese fertilizer exports, effective early this year. However, total fertilizer sales volume increased 3%YoY to 189.8 KTons in 2019. Domestic fertilizer sales volume, which accounted for 75% of total fertilizer sales volume, increased 22%YoY to 142.9 KTons from an increase in products of single fertilizer and main NPK formulas such as 20-20-15 and 15-15-15. Export fertilizer sales volume decreased 30%YoY to 47.0 KTons, primarily due to Chinese competition, which mainly affected coastal countries market especially Philippines. So there was more focus on market in Africa. Regarding sales volume by product, as farmers opted for more single fertilizer due to low agricultural price, single fertilizer doubled YoY to 45.4 KTons and represented 24% of total fertilizer sales volume in 2019, compared to 12% in 2018. NPK fertilizer sales volume decreased 11%YoY to 144.5 KTons.

For full year 2019, Agrochemical Segment recorded sales revenue of Baht 2,820.5 million, which increased 4%YoY, mainly due to higher fertilizer sales volume and a growth in pesticide business. Continued focus on the expansion of pesticide business brought its sales revenue up 14%YoY to Baht 207.6 million. With an effort to increase key high-margin products in sales mix and lower raw materials cost in 2H19, gross margin (spread margin) improved from 16% in 1H19 to 23% in 2H19; however, gross profits (spread) decreased 9%YoY to Baht 555.4 million due to the high raw material cost in 1H19. Aggregated operating cost and cost of providing services decreased 15%YoY, mainly from more effective manpower management and lower electricity and fuel cost. SG&A also decreased 13%YoY, mainly from lower

Investment Segment

Investment Segment focuses on food & beverage (F&B), water, and logistics sectors.

- **Food & Beverage:**

No. of Outlets	4Q/18	3Q/19	4Q/19	YoY	QoQ	2018	2019	YoY
Pizza Hut	137	144	147	7%	2%	137	147	7%
Taco Bell	0	3	5	100%	67%	0	5	100%

Pizza Hut is operated as a 70% owned subsidiary of TTA. Its net profits finally turned positive for the first time as planned for full year 2019. As at 31 December 2019, there were 147 outlets nationwide. All new outlets were opened in the high traffic location in major provinces.

Taco Bell, the leading American restaurant chain serving a variety of Mexican inspired food, is operated as a 70% owned subsidiary of TTA. Its first outlet was launched in January, 2019 and received overwhelmed response. As at 31 December 2019, there were 5 outlets nationwide. All new outlets were opened in Bangkok Metropolitan Area.

- **Water:**

Asia Infrastructure Management (Thailand) Co., Ltd. ("AIM"), a 80.5% owned subsidiary of TTA, is the water contractor/service company. AIM also owns a concession to sell tap water in Luang Prabang, Laos, through a 66.7%-owned subsidiary. In 2019, AIM submitted bids on governmental projects with the aggregated project value over Baht 1 billion. Up to date, AIM secured one project worth more than Baht 250 million.



Statement of the Board of Directors

Responsibilities for the Financial Statements

28 February 2020

To: The Shareholders of Thoresen Thai Agencies Public Company Limited

The Board of Directors realizes the significance of its duties and responsibilities in supervising the Company's business to ensure good management with integrity and prudence in accordance with laws, detailed objectives, Articles of Association, and resolutions of the shareholders' meetings. The Board of Directors protects the benefits of the Company and its stakeholders by ensuring that the Company's financial report contains accurate and full accounting records that reflect its actual financial status and operational results.

The Board of Directors has established the Audit Committee comprising of independent directors who are fully meet the qualified requirements of the Stock Exchange of Thailand to review accuracy of the financial report, the internal control systems and business operation of the Company to be aligned with securities law, regulations of the Stock Exchange of Thailand or laws relating to the business of the Company. In this regard, the Audit Committee has already reported its performance to the Board of Directors.

The Board of Directors is of the opinion that the Company's internal control system has been proven to be satisfactory. The Board was able to obtain reasonable assurance on the credibility of the financial statements for the financial year 2019 ended 31 December 2019 (1 January - 31 December 2019) of the Company and its subsidiaries, which the Company's auditor has audited based on the generally-accepted accounting standards. The auditor has come to the conclusion that the financial statements present fairly the Company's financial position and the results of its operations in accordance with generally accepted accounting principles.



Mr. Prasert Bunsumpun
Chairman of the Board of Directors



Mr. Chalermchai Mahagitsiri
President and Chief Executive Officer

Independent Auditor's Report

To the Shareholders of Thoresen Thai Agencies Public Company Limited

Opinion

I have audited the consolidated and separate financial statements of Thoresen Thai Agencies Public Company Limited and its subsidiaries (the "Group") and of Thoresen Thai Agencies Public Company Limited (the "Company"), respectively, which comprise the consolidated and separate statements of financial position as at 31 December 2019, the consolidated and separate statements of income, 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.

In my opinion, the accompanying 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 2019 and their financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards ("TFRSs").

Basis for Opinion

I conducted my audit in accordance with Thai Standards on Auditing ("TSAs"). My responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements* section of my report. I am independent of the Group and the Company in accordance with the Code of Ethics for Professional Accountants issued by the Federation of Accounting Professions that is relevant to my audit of the consolidated and separate financial statements, and I have fulfilled my other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Key Audit Matters

Key audit matters are those matters that, in my professional judgment, were of most significance in my audit of the consolidated and separate financial statements of the current period. These matters were addressed in the context of my audit of the consolidated and separate financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on these matters.

Valuation of property, plant and equipment, investments in subsidiaries and associate, and loan to a subsidiary	
Refer to Notes 4(m), 5, 11, 12 and 16 to the consolidated and separate financial statements.	
The key audit matter	How the matter was addressed in the audit
<p>As the exploration and offshore businesses are in downturn and a subsidiary's prolonged loss from operations and decline in coal sales volume was observed, these were impairment indicators suggesting the carrying amounts of the related property, plant and equipment, the investments in certain subsidiaries and an associate, and loan to a subsidiary as of 31 December 2019 to exceed the recoverable amounts, which would result in impairment charges. The recoverable amounts are based on an assessment of the higher of fair value less cost to sell and value in use which is calculated based on net present value of estimated future cash flows. The calculation of value in use involves key assumptions including discount rate and revenue growth rate.</p> <p>As the calculation of value in use involves significant management judgment and the results might have had a significant impact to the consolidated and separate financial statements, this is a focus area in my audit.</p>	<p>My audit procedures included:</p> <ul style="list-style-type: none"> • making inquiries of management and obtaining related documents to understand the process by which management has derived its value in use estimates; • comparing forecast revenues to those achieved in prior periods; • evaluating the valuation methodology and key assumptions applied in estimating the discount rate, such as cost of debt; • performing sensitivity tests by varying key assumptions; and • considering the adequacy of the Group's disclosures in accordance with the relevant Thai Financial Reporting Standards.

Revenue from freight charges	
Refer to Notes 4(u) and 24 to the consolidated and separate financial statements.	
The key audit matter	How the matter was addressed in the audit
<p>The revenue from freight charges is one of the major source of income of the Group. The freight income of each voyage is generally recognized as revenue on the completion of the voyage. Where freight services rendered are provided through long-term contracts and these are not completed at the balance sheet date, then freight income is recognized as revenue in proportion to the lapsed time of the voyage whereby the expected time to be incurred on each voyage involves certain judgment and estimation made by the Group management.</p> <p>As the revenue from freight charges is significant to the consolidated financial statements, this is a focus area in my audit.</p>	<p>My audit procedures included:</p> <ul style="list-style-type: none"> • testing the design and implementation of the Group's controls over freight charges, as well as sampling testing for their operating effectiveness; • inspecting the significant terms of chartering agreements to assess whether they were consistent with the detailed calculations made by management; • assessing the stage of completion of each voyage by agreeing the amounts recognized to confirmatory evidence on a sample basis, which included agreeing the actual lapsed time of each voyage and considering the Group's historical experience of similar voyages to support the expected time remaining to be incurred; and • considering the adequacy of the Group's disclosures in accordance with the relevant Thai Financial Reporting Standards.

Valuation and classification of investment in PMT Property Co., Ltd. upon partial disposal	
Refer to Notes 11 and 12 to the consolidated and separate financial statements.	
The key audit matter	How the matter was addressed in the audit
<p>On 4 July 2019, the Company sold 40% of its interest in the issued and paid up capital of PMT Property Co., Ltd. ("PMTP"), a subsidiary, to Kanden Realty & Development Co., Ltd. ("KRD"), reducing the Company's total interest in PMTP to 60% as of 31 December 2019. The Company and KRD also entered into a Joint Venture Agreement ("JV Agreement") to jointly develop residential condominiums on the land owned by PMTP. The JV Agreement requires the relevant activities of PMTP to be unanimously agreed by both the Company and KRD. PMTP thereby ceased to be a subsidiary of the Group and determined as a joint venture of the Group. Upon the change in classification of the Company's investment in PMTP from subsidiary to joint venture, the Group derecognized the assets and liabilities of PMTP in the consolidated financial statements, and the Group's interest retained in PMTP was measured at fair value, which was performed by management with the assistance of third-party valuation experts.</p> <p>As the determination of the relevant activities of PMTP and measurement of fair value involves significant management judgment and the results might have had a significant impact to the consolidated and separate financial statements, this is a focus area in my audit.</p>	<p>My audit procedures included:</p> <ul style="list-style-type: none"> • making inquiries of management and obtaining the related documents to understand the key terms and conditions of the JV Agreement; • evaluating management's assessment of the Group's ability to control or jointly control PMTP; • assessing the independence and competency of the experts engaged by the Group; • involving with KPMG external expert to evaluate the valuation methodology and key assumptions applied; and • considering the adequacy of the Group's disclosures in accordance with the relevant Thai Financial Reporting Standards.

Early adoption of TFRS 9	
Refer to Note 3 to the consolidated and separate financial statements.	
The key audit matter	How the matter was addressed in the audit
<p>The Group has early adopted TFRS 9 <i>Financial Instruments</i> from 1 January 2019 under the modified retrospective approach.</p> <p>As the early adoption of TFRS 9 <i>Financial Instruments</i> affected the classification and measurement of financial assets and liabilities, the assessment of expected credit losses ("ECL"), which under the simplified approach involves significant management judgment, including the estimates of probability of default, loss given default, discount rate, and adjustments for forward-looking information, and the results might have had a significant impact to the consolidated and separate financial statements, this is a focus area in my audit.</p>	<p>My audit procedures included:</p> <ul style="list-style-type: none"> • assessing the design, implementation, and operating effectiveness of key internal controls related to the classification, measurement and impairment of financial instruments; • selecting samples to test the classification of financial instruments at the date of initial application by assessing their contractual cash flow characteristics through reading the relevant supporting documents in relation to the business models in which they are held; • selecting samples to test the basis of measurement of financial assets and liabilities, evaluating the accuracy of their balances, and assessing the appropriateness of the valuation methods and key parameters used to value financial assets and liabilities measured at fair value; • selecting samples to test the ECL estimated by management by testing the data inputs used and evaluating the forward-looking information applied; • testing the aging of trade accounts receivable, and considering any subsequent receipts; and • considering the adequacy of the Group's disclosures in accordance with the relevant Thai Financial Reporting Standards.

Other Information

Management is responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated and separate financial statements and my auditor's report thereon. The annual report is expected to be made available to me after the date of this auditor's report.

My opinion on the consolidated and separate financial statements does not cover the other information and I will not express any form of assurance conclusion thereon.

In connection with my audit of the consolidated and separate financial statements, my responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

When I read the annual report, if I conclude that there is a material misstatement therein, I am required to communicate the matter to those charged with governance and request that the correction be made.

Responsibilities of Management and Those Charged with Governance for the Consolidated and Separate Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated and separate financial statements in accordance with TFRSs, 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.

In preparing the consolidated and separate financial statements, management is responsible for assessing the Group's and the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group and the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's and the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements

My objectives are to obtain reasonable assurance about whether the consolidated and separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with TSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated and separate financial statements.

As part of an audit in accordance with TSAs, I exercise professional judgment and maintain professional skepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit 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 Group's and the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's and the Company's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the consolidated and separate financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group and the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated and separate financial statements, including the disclosures, and whether the consolidated and separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide those charged with governance with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, I determine those matters that were of most significance in the audit of the consolidated and separate financial statements of the current period and are therefore the key audit matters. I describe these matters in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.



(Banthit Tangpakorn)
Certified Public Accountant
Registration No. 8509

KPMG Phoomchai Audit Ltd.
Bangkok
28 February 2020

Thoresen Thai Agencies Public Company Limited and its Subsidiaries
Statement of financial position

Consolidated financial				Separate financial	
statements				statements	
31 December				31 December	
Assets	Note	2019	2018	2019	2018
(in thousand Baht)					
Current assets					
Cash and cash equivalents	6	4,338,908	4,428,575	874,559	470,892
Other current financial assets	7	2,746,163	2,438,480	1,812,755	1,087,523
Trade accounts receivable	5,8	2,137,474	2,056,679	-	-
Other accounts receivable		242,823	222,595	4,880	1,380
Receivables from related parties	5	100,601	104	122,325	128,773
Short-term loans to related parties	5	1,272,842	-	2,943,265	4,543,613
Current portion of long-term					
loans to related parties	5	-	-	127,500	90,000
Short-term loan to other company	7	84,431	648,996	-	-
Inventories	9	955,466	1,163,042	-	-
Vessel supplies and spare parts		235,698	368,771	-	-
Prepayments		74,541	106,687	4,660	4,321
Other current assets	10	124,998	265,635	26,668	14,966
Total current assets		12,313,945	11,699,564	5,916,612	6,341,468
Non-current assets					
Other non-current financial assets	7	254,684	471,500	-	-
Investments in associates	11	4,326,526	4,704,374	79,068	79,068
Investments in subsidiaries	12	-	-	23,501,181	23,565,779
Investments in joint ventures	11	1,506,560	1,179,973	438,916	21,004
Long-term loan to related parties	5	-	-	37,500	75,000
Investment properties	15	208,437	2,010,026	-	-
Property, plant, and equipment	16	13,737,258	15,617,495	141,467	129,814
Goodwill	14	64,362	67,672	-	-
Intangible assets	17	282,295	328,315	456	390
Deferred tax assets	18	225,598	290,940	-	85,472
Other non-current assets	19	553,386	741,794	1,374	13,105
Total non-current assets		21,159,106	25,412,089	24,199,962	23,969,632
Total assets		33,473,051	37,111,653	30,116,574	30,311,100

The accompanying notes form an integral part of the financial statements.

Thoresen Thai Agencies Public Company Limited and its Subsidiaries

Statement of financial position

Consolidated financial			Separate financial		
statements			statements		
31 December			31 December		
Liabilities and equity	Note	2019	2018	2019	2018
(in thousand Baht)					
Current liabilities					
Bank overdrafts and short-term borrowings					
from financial institutions	20	418,512	747,117	-	300,000
Trade accounts payable	5	848,787	859,467	-	-
Other accounts payable		174,399	180,332	4,527	5,952
Payables to related parties	5	31,993	17,843	6,619	6,906
Advances from customers		114,291	158,781	-	-
Short-term borrowings from related parties	5,20	-	-	740,857	796,959
Current portion of long-term borrowings	20	1,145,642	1,571,576	-	-
Current portion of finance lease liabilities	20	10,371	15,138	-	-
Current tax payable		58,429	28,362	-	-
Accrued expenses		948,197	1,091,764	35,583	35,496
Other current financial liabilities		28,473	-	-	-
Other current liabilities		128,441	116,371	6,408	6,060
Total current liabilities		3,907,535	4,786,751	793,994	1,151,373
Non-current liabilities					
Long-term borrowings	20	3,406,272	4,188,883	-	-
Bonds	20	3,289,882	3,280,046	3,289,882	3,280,046
Finance lease liabilities	20	10,395	22,071	-	-
Deferred tax liabilities	18	38,898	38,787	7,688	-
Non-current provisions for employee					
benefits	21	177,016	165,663	21,336	13,784
Other non-current liabilities		44,491	42,458	-	-
Total non-current liabilities		6,966,954	7,737,908	3,318,906	3,293,830
Total liabilities		10,874,489	12,524,659	4,112,900	4,445,203

The accompanying notes form an integral part of the financial statements.

Thoresen Thai Agencies Public Company Limited and its Subsidiaries

Statement of financial position

		Consolidated financial		Separate financial	
		statements		statements	
		31 December		31 December	
Liabilities and equity	Note	2019	2018	2019	2018
		(in thousand Baht)			
Equity					
Share capital	22				
Authorized share capital		1,998,447	1,998,447	1,998,447	1,998,447
Issued and paid-up share capital		1,822,465	1,822,464	1,822,465	1,822,464
Share premium on ordinary shares	22	16,060,017	16,060,007	16,060,017	16,060,007
Retained earnings					
Appropriated - legal reserves		142,250	122,220	142,250	122,220
Unappropriated		390,105	580,187	7,967,716	7,853,136
Other components of equity		(227,555)	957,482	11,226	8,070
Equity attributable to owners					
of the parent		18,187,282	19,542,360	26,003,674	25,865,897
Non-controlling interests		4,411,280	5,044,634	-	-
Total equity		22,598,562	24,586,994	26,003,674	25,865,897
Total liabilities and equity		33,473,051	37,111,653	30,116,574	30,311,100

The accompanying notes form an integral part of the financial statements.

Thoresen Thai Agencies Public Company Limited and its Subsidiaries

Statement of income

	Note	Consolidated financial statements		Separate financial statements	
		Year ended 31 December		Year ended 31 December	
		2019	2018	2019	2018
		<i>(in thousand Baht)</i>			
Revenues					
Revenues from services					
Freight charges		6,772,599	5,816,455	-	-
Offshore service income		3,286,040	3,071,868	-	-
Service and commission income		480,001	423,244	-	-
Revenues from sales		4,889,339	4,634,772	-	-
Total revenues	24	15,427,979	13,946,339	-	-
Costs					
Cost of providing services					
Vessel operating expenses		5,674,004	4,430,566	-	-
Offshore service expenses		3,382,170	3,358,726	-	-
Service and commission expenses		379,328	355,765	-	-
Cost of sales		3,856,594	3,747,351	-	-
Total costs		13,292,096	11,892,408	-	-
Gross profits		2,135,883	2,053,931	-	-
Other income	25	1,094,103	285,610	1,285,886	614,534
Profits before expenses		3,229,986	2,339,541	1,285,886	614,534
Selling expenses		639,136	617,333	-	-
Administrative expenses		1,962,535	1,716,960	625,285	308,313
Total expenses		2,601,671	2,334,293	625,285	308,313
Operating profits		628,315	5,248	660,601	306,221
Share of profit of associates and joint ventures	11	207,457	400,997	-	-
Profits before finance costs and income tax expenses		835,772	406,245	660,601	306,221
Finance costs		472,330	458,575	169,356	138,252
Profits (losses) before income tax expenses		363,442	(52,330)	491,245	167,969
Tax expense	27	145,264	133,277	90,686	58,813
Profits (losses) for the year		218,178	(185,607)	400,559	109,156
Profits (losses) attributable to:					
Owners of parent	28	562,594	210,016	400,559	109,156
Non-controlling interests	13	(344,416)	(395,623)	-	-
		218,178	(185,607)	400,559	109,156
Basic earnings per share (in Baht)	28				
Basic earnings per share		0.31	0.12	0.22	0.06

The accompanying notes form an integral part of the financial statements.

Thoresen Thai Agencies Public Company Limited and its Subsidiaries
Statement of comprehensive income

	Consolidated		Separate	
	financial statements		financial statements	
	Year ended 31 December		Year ended 31 December	
	2019	2018	2019	2018
<i>Note</i>	<i>(in thousand Baht)</i>			
Profits (losses) for the year	218,178	(185,607)	400,559	109,156
Other comprehensive income (expenses)				
Items that will be reclassified subsequently to profit or loss				
Exchange differences on translating foreign operations	(1,406,225)	(134,636)	-	-
Gains (losses) on remeasuring debt and equity securities	22,021	(170,497)	14,032	4,568
Share of comprehensive expense of joint venture	(147)	-	-	-
Income tax relating to items that will be reclassified subsequently to profit or loss	(4,019)	29,062	(2,806)	(914)
Total items that will be reclassified subsequently to profit or loss	(1,388,370)	(276,071)	11,226	3,654
Items that will not be reclassified to profit or loss				
Losses on remeasurements of defined benefit plans	21 (2,323)	(410)	(1,660)	(726)
Losses on remeasuring equity securities	(153,330)	-	-	-
Share of comprehensive income of joint venture	12,447	706	-	-
Income tax relating to items that will not be reclassified	31,527	158	332	145
Total items that will not be reclassified to profit or loss	(111,679)	454	(1,328)	(581)
Other comprehensive income (expenses) for the year, net of tax	(1,500,049)	(275,617)	9,898	3,073
Total comprehensive income (expenses) for the year	(1,281,871)	(461,224)	410,457	112,229
Total comprehensive income (expenses) attributable to:				
Owners of parent	(615,436)	(31,427)	410,457	112,229
Non-controlling interests	13 (666,435)	(429,797)	-	-
	(1,281,871)	(461,224)	410,457	112,229

The accompanying notes form an integral part of the financial statements.

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Separate financial statements

The accompanying notes form an integral part of the financial statements.

Thoresen Thai Agencies Public Company Limited and its Subsidiaries

Statement of cash flows

	Note	Consolidated		Separate	
		financial statements		financial statements	
		Year ended 31 December		Year ended 31 December	
		2019	2018	2019	2018
		(in thousand Baht)			
Cash flows from operating activities					
Profits (losses) for the year		218,178	(185,607)	400,559	109,156
<i>Adjustments to reconcile profits (losses) to cash receipts (payments)</i>					
Depreciation and amortisation of property, plant, and equipment,					
intangible assets and investment properties	15,16,17	1,450,899	1,388,007	10,059	9,165
(Reversal of) bad and doubtful debts expenses	30	(179)	37,605	-	-
Other amortisation and provisions		65,220	79,741	-	219
(Reversal of) provision for decline in value of inventories	9	771	(101,065)	-	-
Write-off on property, plant and equipment, and intangible assets		10,742	3,355	-	-
(Reversal of) impairment charge		221,848	(67,071)	259,592	45,000
Provision for employee benefit	21	44,527	23,139	5,980	3,284
Finance costs		472,330	458,575	169,356	138,252
Tax expenses	27	145,264	133,277	90,686	58,813
Net (gains) losses on disposals of property, plant, and equipment,					
and intangible assets	25	1,525	(47,876)	(17)	-
Dividend income from other investments	25	(28,705)	(35,020)	(8,544)	(4,251)
Dividend income from subsidiaries, associates and joint ventures	25	-	-	(380,074)	(450,942)
Gains on disposals of other current financial assets	25	-	(3,092)	(6,883)	(2,619)
Gain from change in fair value of derivative assets and liabilities		(2,300)	-	-	-
Net losses on disposals and liquidation of investments in subsidiaries		-	1,199	-	427
Gain on partial disposal of interest in a subsidiary with					
a change of control	12,25	(769,318)	-	(700,995)	-
Gain from loss of control in a subsidiary	12,25	(21,228)	-	-	-
Gains from change in fair value of financial assets	25	(9,500)	(18,623)	(11,065)	(10,892)
Share of profits of associates and joint ventures	11	(207,457)	(400,997)	-	-
Unrealised (gains) losses on exchange rates		14,906	(2,909)	16,789	27,037
Realised (gains) losses on exchange rates		1,553	1,919	85,388	(14,203)
		1,609,076	1,264,557	(69,169)	(91,554)
Changes in operating assets and liabilities					
Trade accounts receivable		(261,298)	704,606	-	-
Other accounts receivable		(31,389)	(69,438)	-	-
Receivables from related parties		(74,168)	2,754	(12,966)	(99,209)
Inventories		137,785	(212,055)	-	-
Vessel supplies and spare parts		123,260	(99,343)	-	-
Prepayments		10,137	13,981	(339)	109
Other current assets		43,422	209,131	(13,873)	606
Other non-current assets		(20,554)	(47,174)	11,731	(941)
Trade accounts payable		(661,921)	56,638	-	-
Other accounts payable		703,409	(15,871)	(1,362)	5,952
Payables to related parties		42,794	(8,712)	(286)	(5,088)
Advances from customers		(34,815)	60,487	-	-
Accrued expenses		(98,906)	(39,530)	2,750	(1,574)
Other current liabilities		45,478	(86,284)	348	157
Other non-current liabilities		2,032	7,307	-	-
Net cash generated from (used in) operating		1,534,342	1,741,054	(83,166)	(191,542)
Provision for employee benefits paid	21	(3,416)	(7,439)	(87)	(177)
Taxes paid		(63,186)	(104,691)	(1,870)	(1,029)
Net cash from (used in) operating activities		1,467,740	1,628,924	(85,123)	(192,748)

The accompanying notes form an integral part of the financial statements.

Thoresen Thai Agencies Public Company Limited and its Subsidiaries

Statement of cash flows

	Note	Consolidated		Separate	
		financial statements		financial statements	
		Year ended 31 December		Year ended 31 December	
		2019	2018	2019	2018
		(in thousand Baht)			
Cash flows from investing activities					
Net payments for other current financial assets		(414,139)	(1,044,024)	(772,773)	(827,519)
Dividends received from other current financial assets		28,705	35,020	8,544	4,251
Proceeds from (payment for) other non-current financial assets		(22,387)	(17,451)	-	-
Net proceed from short-term loans to related parties		630,517	-	1,329,560	57,486
Proceeds from disposals of investment in subsidiaries, net of cash disposed		270,092	-	290,333	32,583
Payments for investments in subsidiaries, associates and joint ventures		-	(173,055)	(156,200)	(369,250)
Dividends received from subsidiaries, associates and joint ventures		207,397	139,118	380,074	255,697
Acquisition of investment properties	15	(5,907)	(5,577)	-	-
Proceeds from sale of property, plant, and equipment					
and intangible assets		9,381	435,722	17	-
Acquisition of property, plant, and equipment					
and intangible assets		(639,978)	(1,651,582)	(21,840)	(9,328)
Payment for acquisition of business		-	(201,250)	-	-
Net cash from (used in) investing activities		63,681	(2,483,079)	1,057,715	(856,080)
Cash flows from financing activities					
Proceeds from increase of investment from					
non-controlling interests of subsidiaries		96,427	72,064	-	-
Net (increase) decrease in restricted cash at bank for long-term borrowings		133,773	(121,087)	-	-
Net repayment of short-term borrowings from related parties		-	-	(319)	(14,680)
Net proceeds (repayment) of short-term borrowings		(345,261)	517,417	(300,000)	300,000
Proceeds from long-term borrowings		215,083	835,226	-	-
Repayments of long-term borrowings and finance lease liabilities		(1,014,584)	(1,141,394)	-	-
Proceeds from issue of bonds	20	-	3,275,667	-	3,275,667
Repayment of bonds		-	(2,000,000)	-	(2,000,000)
Proceeds from increase of share capital		11	-	11	-
Dividends paid to owners of the Company	29	(91,121)	(136,685)	(91,121)	(136,685)
Dividends paid to non-controlling interests		(15,931)	(31,862)	-	-
Finance costs paid		(450,941)	(443,123)	(162,185)	(127,804)
Net cash from (used in) financing activities		(1,472,544)	826,223	(553,614)	1,296,498
Net increase (decrease) in cash and cash equivalents,					
before effect of exchange rates		58,877	(27,932)	418,978	247,670
Cash and cash equivalents held in the subsidiary at the acquisition date		-	105,326	-	-
Net cash effect from loss of control in a subsidiary	12	(33,218)	-	-	-
Foreign currency translation differences for foreign operations		(106,352)	6,584	-	-
Effect of exchange rate changes on balances held in					
foreign currencies		(8,974)	12,180	(15,311)	518
Net increase (decrease) in cash and cash equivalents		(89,667)	96,158	403,667	248,188
Cash and cash equivalents at beginning of year		4,428,575	4,332,417	470,892	222,704
Cash and cash equivalents at ending of year	6	4,338,908	4,428,575	874,559	470,892

The accompanying notes form an integral part of the financial statements.

Statement of cash flows

	Consolidated		Separate	
	financial statements		financial statements	
	Year ended 31 December		Year ended 31 December	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Non-cash transactions				
Unpaid liabilities from purchase of property, plant, and equipment and intangible assets	43,098	80,787	30	-
Unreceived other accounts receivable from disposal of property, plant, and equipment and intangible assets	-	782	-	-
Dividend payables	3,954	3,954	3,954	3,954
Decrease in investment in subsidiary against decrease in short-term borrowings, receivable from and payable to a related party	-	-	-	255,396
Transfer from receivable from related party to short-term loan to related party	-	-	19,412	-
Transfer from advance payment for investment to investment in associate	-	572,962	-	-

The accompanying notes form an integral part of the financial statements.

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These notes form an integral part of the financial statements.

The financial statements issued for Thai 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 28 February 2020.

1 General information

Thoresen Thai Agencies Public Company Limited (the “Company”) is incorporated in Thailand and was listed on the Stock Exchange of Thailand (the “SET”) on 25 September 1995. The Company’s registered office is at 26/26-27 Orakarn Building, 8th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330.

The principal business operations of the Company and its subsidiaries (the “Group”) involve the ownership of dry bulk vessels, certain shipping services, offshore services related to oil and gas, production and sales of fertilisers, coal trading, warehouse and logistics services, and food and beverage. The Group’s activities can be separated into four main categories, namely shipping, offshore service, agrochemical and investment.

Details of the Company’s subsidiaries, associates, and joint ventures as at 31 December 2019 and 2018 are given in notes 11 and 12.

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 and applicable rules and regulations of the Thai Securities and Exchange Commission.

New and revised TFRS are effective for annual accounting periods beginning on or after 1 January 2019. The initial application of these new and revised TFRS has resulted in changes in certain of the Group’s accounting policies. There is no material impact on the Group’s financial statements. The Group has initial applied TFRS 15 *Revenue from Contracts with Customers* which replaces TAS 18 *Revenue*, TAS 11 *Construction Contracts* and related interpretations. The details of accounting policies are disclosed in note 4(u).

The Group has early adopted TFRS – Financial Instruments standards with a date of initial application of 1 January 2019. The nature and effects of the key changes to the Group’s accounting policies resulting from its adoption of TFRS – Financial Instruments standards are disclosed in note 3.

In addition, the Group has not early adopted a number of other new and revised TFRS which are not yet effective for the current period in preparing these financial statements. The new TFRS relevant to the Group’s operations is disclosed in note 34.

(b) Functional and presentation currency

The financial statements are prepared and presented in Thai Baht, which is the Company’s functional currency. All financial information presented in Thai Baht has been rounded in the notes to the financial statements to the nearest thousand unless otherwise stated.

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(c) Use of judgment and estimates

The preparation of financial statements in conformity with TFRS requires management to make judgments, estimates and assumptions that affect the application of the Group's accounting policies. Actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized prospectively.

(i) Judgements

Information about judgements made in applying accounting policies that have the most significant effects on the amounts recognised in the financial statements is included in the following notes:

Note 4(u) and 24 Revenue recognition:

- whether performance obligations in a bundled sale of products and services are capable of being distinct;
- whether revenue from sales of product and service are recognised over time or at a point in time; and
- commission revenue: whether the Group acts as an agent in the transaction rather than as a principal.

Note 11 Equity-accounted investees: whether the Group has significant influence over an investee.

(ii) Assumptions and estimation uncertainties

Information about assumption and estimation uncertainties at 31 December 2019 that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities in the next financial year is included in the following notes:

Note 4(u) and 24 Revenue recognition: estimate of expected returns and estimate of stage of completion;

Note 18 Recognition of deferred tax assets: availability of future taxable profit against which deductible temporary differences and tax losses carried forward can be utilised; and

Note 21 Measurement of defined benefit obligations: key actuarial assumptions.

Note 30 Measurement of impairment loss of trade and other receivables and contract assets.

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3 Changes in accounting policies

The Group has early adopted the set of TFRS - Financial instruments standards which are the following:

TFRS	Topic
TFRS 7	Financial Instruments: Disclosures
TFRS 9	Financial Instruments
TAS 32	Financial Instruments: Presentation
TFRIC 16	Hedges of a Net Investment in a Foreign Operation
TFRIC 19	Extinguishing Financial Liabilities with Equity Instruments

The Group has adopted these accounting policies from 1 January 2019 under the modified retrospective approach and the comparative figures have not been restated.

These TFRS - Financial instruments standards establish requirements related to definition, recognition, measurement, impairment and derecognition of financial assets and financial liabilities, including accounting for derivatives and hedge accounting. The impact from adoption of TFRS – Financial instruments standards are as follows:

(i) Classification and measurement – Financial assets

TFRS 9 classifies financial assets into three categories: measured at amortised cost, fair value to other comprehensive income (FVOCI) and fair value to profit or loss (FVTPL). The classification under TFRS9 is based on the cash flow characteristics of the financial asset and the business model in which they are managed. The standard eliminates the previous classification of held-to-maturity debt securities, available-for-sale securities, trading securities and general investment as specified by TAS 105.

Under TFRS 9, interest income and interest expenses recognised from all financial assets and financial liabilities measured at amortised cost shall be calculated using effective interest rate method.

For an explanation of how the Group classifies and measures financial instruments and accounts for related gains and losses under TFRS 9, see Note 4(h).

The following table shows the original measurement categories under TAS 105 and the new measurement categories under the TFRS 9 for each class of the Group's financial assets and financial liabilities as at 1 January 2019.

			Consolidated financial statements		
		Original classification under TAS 105	New classification under TFRS 9	Original carrying amount under TAS 105	New carrying amount under TFRS 9
	Note				
Financial assets					
Cash and cash equivalents	6	-	Amortised cost	4,428,575	4,428,575
		Held-for-			
Equity securities	7	trading	FVTPL	266,624	266,624
		Available-for-			
Equity securities	7	sale	FVTPL	70,480	70,480
		Available-for-	FVOCI -		
Equity securities	7	sale	equity instrument	471,500	471,500
Debt securities	7	Held-for-	FVTPL		
		trading		580,728	580,728

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		Consolidated financial statements		
		Original	New	Original carrying
	Note	classification	classification	amount
		under TAS 105	under TFRS 9	under TAS 105
				under TFRS 9
<i>(in thousand baht)</i>				
Financial assets (continued)				
Debt securities	7	Available-for-sale	FVOCI - debt instrument	619,675
				619,675
Debt securities	7	Held to maturity	Amortised cost	428,951
				428,951
Trade and other receivables	-		Amortised cost	2,279,378
				2,231,907
Total financial assets				9,145,911
				9,098,440
Financial liabilities				
Derivatives	-		FVTPL	-
				18,138
Bank overdrafts and short-term borrowings from financial institutions	20	-	Amortised cost	747,117
				747,117
Trade and other accounts payable	-		Amortised cost	1,057,642
				1,057,642
Total financial liabilities				1,804,759
				1,822,897
Separate financial statements				
		Original	New	Original
	Note	classification	classification	carrying amount
		under TAS 105	under TFRS 9	under TAS 105
				under TFRS 9
<i>(in thousand baht)</i>				
Financial assets				
Cash and cash equivalents	6	-	Amortised cost	470,892
				470,892
Equity securities	7	Held-for-trading	FVTPL	64,272
				64,272
Equity securities	7	Available-for-sale	FVTPL	70,480
				70,480
Debt securities	7	Held-for-trading	FVTPL	580,728
				580,728
Debt securities	7	Held to maturity	Amortised cost	46,043
				46,043
Other receivables	-		Amortised cost	130,153
				130,153
Loans to related parties	-		FVTPL	1,353,940
				1,172,370
Total financial assets				2,716,508
				2,534,938
Financial liabilities				
Short-term borrowings from financial institutions	20	-	Amortised cost	300,000
				300,000
Other accounts payable	-		Amortised cost	12,858
				12,858
Total financial liabilities				312,858
				312,858

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(ii) Impairment – Financial assets and contract assets

TFRS 9 introduces the forward-looking ‘expected credit loss’ (ECL) model which requires considerable judgement about how changes in economic factors affect ECLs, which are determined on a probability-weighted basis.

This impairment model is applied to financial assets measured at amortised cost or FVOCI, except for investments in equity instruments.

Information on ECLs as at 1 January and 31 December 2019 is disclosed in note 30.

(iii) Classification – Financial liabilities

TFRS 9 introduces a new classification and measurement approach for financial liabilities consisting of two principal classification categories: amortised cost and FVTPL. A financial liability is classified as financial liabilities measured at FVTPL if it is held for trading, a derivative, or designated as such on initial recognition.

(iv) Derivatives

Under TFRS 9, derivatives are measured at FVTPL. Under TAS105, the measurement of derivatives are not mentioned, and the Group applied the accounting policies as disclosed in note 4(c).

(v) Transition

The Group has initially adopted TFRS 9 by adjusting the impact to retained earnings or other component of equity on 1 January 2019. Therefore, the Group will not apply the requirements of TFRS 9 to comparative information.

The impact of initially applying TFRS 9 on the financial statements is as follows:

Statement of financial position	Consolidated financial statements		
	As previously reported	Adjustments (in thousand Baht)	As adjusted
At 1 January 2019			
Assets			
Current assets			
Trade accounts receivable	2,056,679	(47,471)	2,009,208
Short-term loan to other company	648,996	(558,136)	90,860
Total current assets	2,705,675	(605,607)	2,100,068
Non-current assets			
Investment in associates	4,704,374	(76,642)	4,627,732
Total non-current assets	4,704,374	(76,642)	4,627,732
Total assets	7,410,049	(682,249)	6,727,800
Liabilities			
Other current financial liabilities	-	18,137	18,137
Total liabilities	-	18,137	18,137
Equity			
Retained earnings - Unappropriated	580,187	(640,462)	(60,275)
Other components of equity	974,036	(8,070)	965,966
Non-controlling interests	5,028,080	(51,854)	4,976,226
Total equity	6,582,303	(700,386)	5,881,917
Total liabilities and equity	6,582,303	(682,249)	5,900,054

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Statement of financial position	As previously reported	Separate financial statements Adjustments (in thousand Baht)	As adjusted
At 1 January 2019			
Assets			
Short-term loan to related parties	4,543,613	(181,570)	4,361,863
Total assets	4,543,613	(181,570)	4,361,863
Equity			
Retained earnings - Unappropriated	7,853,136	(173,500)	7,679,636
Other components of equity	8,070	(8,070)	-
Total equity	7,861,206	(181,570)	7,679,636

4 Significant accounting policies

The accounting policies set out below have been applied consistently to all periods presented in these financial statements unless stated otherwise.

(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 associates and joint ventures.

Business combinations

The Group applies the acquisition method for all business combinations when control is transferred to the Group, as describe in subsidiaries section, other than those with entities under common control.

The acquisition date is the date on which control is transferred to the acquirer. Judgement is applied in determining the acquisition date and determining whether control is transferred from one party to another.

Goodwill is measured as the fair value of the consideration transferred including the recognized amount of any non-controlling interest in the acquire, less the net recognized amount (generally fair value) of the identifiable assets acquired and liabilities assumed, all measured as of the acquisition date. Any gain on bargain purchase is recognized in profit or loss immediately.

Consideration transferred includes the fair values of the assets transferred, liabilities incurred by the Group to the previous owners of the acquiree, and equity interests issued by the Group. Consideration transferred also includes the fair value of any contingent consideration and share-based payment awards of the acquiree that are replaced mandatorily in the business combination. If a business combination results in the termination of pre-existing relationships between the Group and the acquiree, then the lower of the termination amount, as contained in the agreement, and the value of the off-market element is deducted from the consideration transferred and recognized in other expenses.

Any contingent consideration is measured at fair value at the date of acquisition, and remeasured at fair value at each reporting date. Subsequent changes in the fair value are recognized in profit or loss.

A contingent liability of the acquiree is assumed in a business combination only if such a liability represents a present obligation and arises from a past event, and its fair value can be measured reliably.

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Transaction costs that the Group incurs in connection with a business combination, such as legal fees, and other professional and consulting fees are expensed as incurred.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period, or additional assets or liabilities are recognized, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognized at that date.

Acquisitions from entities under common control

Business combination under common control are accounted for using a method similar to the pooling of interest method. Under that method the acquirer recognizes assets and liabilities of the acquired businesses at their carrying amounts in the consolidated financial statements of the ultimate parent company at the moment of the transaction. The difference between the carrying amount of the acquired net assets and the consideration transferred is recognized as surplus or discount from business combinations under common control in shareholder's equity. The surplus or discount will be transferred to retained earnings upon divestment of the businesses acquired.

The results from operations of the acquired businesses will be included in the consolidated financial statements of the acquirer from the beginning of the comparative period or the moment the businesses came under common control, whichever date is later, until control ceases.

Subsidiaries

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to, or 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.

Non-controlling interests

At the acquisition date, the Group measures any non-controlling interest at its proportionate interest in the identifiable net assets of the acquiree.

Changes in the Group's interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

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 recognized in profit or loss. Any interest retained in the former subsidiary is measured at fair value when control is lost.

Interests in equity-accounted investees

The Group's interests in equity-accounted investees comprise interests in associates and a joint venture.

Associates are those entities in which the Group has significant influence, but not control or joint control, over the financial and operating policies. 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.

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Interests in associates and joint ventures are accounted for using the equity method. They are initially recognized at cost, which includes transaction costs. 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 significant influence or joint control ceases.

Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealised income or expenses arising from intra-group transactions, are eliminated. Unrealised gains arising from transactions with equity-accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

(b) Foreign currencies

Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of the Group entities at exchange rates at the dates of the transactions.

Monetary assets and liabilities denominated in foreign currencies are translated to the functional currency at the exchange rate at the reporting date.

Non-monetary assets and liabilities measured at cost in foreign currencies are translated to the functional currency at the exchange rates at the dates of the transactions.

Non-monetary assets and liabilities measured at fair value in foreign currencies are translated to the functional currency at the exchange rates at the dates that fair value was determined.

Foreign currency differences are generally recognized in profit or loss. However, foreign currency differences arising from the translation of available-for-sale equity investments are recognized in other comprehensive income (except on impairment in which case foreign currency differences that have been recognized in other comprehensive income are reclassified to profit or loss).

Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to Thai Baht at the exchange rates at the reporting date.

Goodwill and fair value adjustments arising on the acquisition of foreign operations are stated at exchange rates at transaction dates.

The revenues and expenses of foreign operations are translated to Thai Baht at rates approximating the exchange rates at the dates of the transactions.

Foreign exchange differences are recognized in other comprehensive income and accumulated in the translation reserve, except to extent that the translation difference is allocated to non-controlling interest.

When a foreign operation is disposed of in its entirety or partially such that control, significant influence or joint control is lost, the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal. If the Group disposes of part of its interest in a subsidiary but retains control, then the relevant proportion of the cumulative amount is reattributed to non-controlling interests. When the Group disposes of only part of an associate or joint venture while retaining significant influence or joint control, the relevant proportion of the cumulative amount is reclassified to profit or loss.

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When the settlement of a monetary item receivable from or payable to a foreign operation is neither planned nor likely in the foreseeable future, exchange gains and losses arising from such a monetary item are considered to form part of a net investment in a foreign operation and are recognized in other comprehensive income, and presented in the foreign currency translation reserve in equity until disposal of the investment.

(c) Derivatives

Accounting policies for derivatives in 2019

Information about the Group's accounting policies relating to derivatives for 2019 is disclosed in note 4(h).

Accounting policies for derivatives in 2018

Future foreign currency transactions

Forward foreign exchange contracts protect the Group from fluctuations in exchange rates by establishing the rates at which foreign currency assets will be realised or foreign currency liabilities will be settled. Forward foreign exchange contracts are recognized in the financial statements on inception and revalued at the reporting date at the foreign exchange rate ruling on that date. The premium or discount on the establishment of each agreement is amortised over the contract period.

Cross currency and interest rate swap agreements

Cross currency and interest rate swap agreements are contracts between the Group and counterparties to exchange amounts of principal denominated in different currencies upon inception of the agreements, either over the term of the agreement or on maturity, depending on the terms of the agreements made with the counterparties. In addition, each counterparty receives or pays interest in amounts calculated on the basis of the pre-determined principal and interest rates throughout the term of the agreements.

With regard to amounts receivable or payable under cross currency and interest rate swap agreements which the Group use to manage foreign exchange and interest rate risk, receivables or payables under cross currency agreements are translated at the rate of exchange applying on the end of reporting period, with unrealised gains or losses on such translation included in profit or loss. The differential to be paid or received by the Group under interest rate swap agreements is recognized as an adjustment to interest income or interest expense over the term of the agreement. Gains or losses arising upon the termination of agreements or the early settlement of the underlying liabilities are recognized in profit or loss.

Bunker prices and freight rates

Differentials under bunker swap arrangements are accrued and recorded as adjustments to the cost of bunker relating to the hedged bunker. For forward freight agreements, the amounts received or paid on cash settlements, representing the gain or loss, are deferred and recognized over the life of the underlying monetary asset or liability as an adjustment to revenues from freight charges. For purchased freight rate options, the premiums paid are included in the statement of financial position under other non-current assets or other non-current liabilities. The premiums are amortised to interest income or expense over the life of the agreements.

(d) Cash and cash equivalents

Cash and cash equivalents in the statements of cash flows comprise cash balances, call deposits and highly liquid short-term investments. Bank overdrafts that are repayable on demand are a component of financing activities for the purpose of the statement of cash flows.

(e) Trade and other accounts receivable and contract assets

A receivable is recognised when the Group has an unconditional right to receive consideration. If revenue has been recognised before the Group has an unconditional right to receive consideration, the amount is presented as a contract asset.

A receivable is stated at invoice value less allowance for doubtful accounts which is determined based on an analysis of payment histories and future expectations of customer payments. Bad debts are written off when incurred.

Contract assets are measured at the amount of consideration that the Group is entitled to, less impairment losses.

(f) Inventories

Inventories are measured 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.

A right to recover returned products is recognised when the products are expected to be returned by customers and measured by reference to the former carrying amount of the sold inventories less any expected costs to recover those products.

(g) Vessel supplies and spare parts

Vessel supplies and spare parts mainly comprise bunker, vessel supplies, and spare parts. Bunker supplies are stated at cost, determined on the first-in, first-out basis. Vessel supplies and vessel spare parts are stated at cost, determined on the weighted average basis. Rig supplies and rig spare parts are stated at historical cost, determined on the specific identification basis. The vessel and rig supplies and spare parts purchased to replace those used during the year are reported as vessel operating expenses and offshore service expenses in profit or loss.

(h) Financial instruments

Accounting policies for financial instruments in 2019

(i) Recognition and initial measurement

Financial assets (other than trade and other accounts receivable and contract assets mentioned in note 4(e)) and financial liabilities are initially recognised when the Group becomes a party to the contractual provisions of the instrument.

Such a financial asset or financial liability is initially measured at fair value plus, for an item not at FVTPL, transaction costs that are directly attributable to its acquisition or issue.

(ii) Classification and subsequent measurement

Financial assets

On initial recognition, a financial asset is classified as subsequently measured at: amortised cost; FVOCI – debt investment; FVOCI – equity investment; or FVTPL.

Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets, in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

A financial asset is measured at amortised cost if it meets both of the following conditions and is not designated as at FVTPL:

- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding; and
- it is held within a business model whose objective is to hold assets to collect contractual cash flows.

A debt investment is measured at FVOCI if it meets both of the following conditions and is not designated as at FVTPL:

- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding; and
- it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets.

On initial recognition of an equity investment that is not held for trading, the Group may irrevocably elect to present subsequent changes in the investment's fair value in OCI. This election is made on an investment-by-investment basis.

All financial assets not classified as measured at amortised cost or FVOCI as described above are measured at FVTPL. This includes all derivative financial assets (see note 7). On initial recognition, the Group may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortised cost or at FVOCI as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

Assessment whether contractual cash flows are solely payments of principal and interest on the principle amount outstanding

In assessing whether the contractual cash flows are solely payments of principal and interest on the principle amount outstanding, the Group considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition.

Business model assessment

The Group makes an assessment of the objective of the business model in which a financial asset is held at a portfolio level because this best reflects the way the business is managed and information is provided to management.

Financial assets that are held for trading or are managed and whose performance is evaluated on a fair value basis are measured at FVTPL.

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Subsequent measurement and gains and losses

Financial assets at amortised cost

These assets are subsequently measured at amortised cost using the effective interest method. The amortised cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment are recognised in profit or loss. Any gain or loss on derecognition is recognised in profit or loss.

Financial assets at FVTPL

These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognised in profit or loss.

Debt investments at FVOCI

These assets are subsequently measured at fair value. Interest income calculated using the effective interest method, foreign exchange gains and losses and impairment are recognised in profit or loss. Other net gains and losses are recognised in OCI. On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss.

(iii) Derecognition

Financial assets

The Group derecognises a financial asset when the contractual rights to the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

Financial liabilities

The Group derecognises a financial liability when its contractual obligations are discharged or cancelled, or expire. The Group also derecognised a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognised at fair value.

On derecognition of a financial liability, the difference between the carrying amount extinguished and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognised in profit or loss.

(iv) Offsetting

Financial assets and financial liabilities are offset and the net amount presented in the statement of financial position when, and only when, the Group currently has a legally enforceable right to set off the amounts and it intends either to settle them on a net basis or to realise the asset and settle the liability simultaneously.

(v) Derivative financial instruments

The Group holds derivative financial assets to manage fluctuating bunker prices, freight rates and interest rates through bunker swap contracts, forward freight agreements and interest rate swaps, respectively.

Derivatives are initially measured at fair value. Any directly attributable transaction costs are recognised in profit or loss as incurred. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are generally recognised in profit or loss. The Group does not apply hedge accounting for its derivatives and all changes in fair value are recognised immediately at fair value to profit or loss.

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(i) Investments

Investments in subsidiaries, associates, and joint ventures

Investments in subsidiaries, associates, and joint ventures in the separate financial statements of the Company are accounted for using the cost method. Investments in associates and jointly ventures in the consolidated financial statements are accounted for using the equity method.

Investment in other debt and equity securities

Accounting policies for investment in other debt and equity securities in 2019

Information about the Group's accounting policies relating to investment in other debt and equity securities is disclosed in note 4(h).

Accounting policies for investment in other debt and equity securities in 2018

Debt securities and marketable equity securities held for trading are classified as current assets and are stated at fair value, with any resultant gain or loss recognized in profit or loss.

Debt securities that the Group has the positive intent and ability to hold to maturity are classified as held-to-maturity investments. Held-to-maturity investments are stated at amortised cost, less any impairment losses. The difference between the acquisition cost and redemption value of such debt securities is amortised using the effective interest rate method over the period to maturity.

Debt securities and marketable equity securities, other than those securities held for trading or intended to be held to maturity, are classified as available-for-sale investments. Available-for-sale investments are, subsequent to initial recognition, stated at fair value, and changes therein, other than impairment losses and foreign currency differences on available-for-sale monetary items, are recognized directly in equity. Impairment losses and foreign exchange differences are recognized in profit or loss. When these investments are derecognized, the cumulative gain or loss previously recognized directly in equity is recognized in profit or loss. Where these investments are interest-bearing, interest calculated using the effective interest method is recognized in profit or loss.

Equity securities which are not marketable are stated at cost less any impairment losses.

The fair value of financial instruments classified as held-for-trading and available-for-sale is determined as the quoted bid price on the reporting date.

Disposal of investments

On disposal of an investment, the difference between net disposal proceeds and the carrying amount together with the associated cumulative gain or loss that was reported in equity is recognized in profit or loss.

If the Group disposes of part of its holding of a particular investment, the deemed cost of the part sold is determined using the weighted average method applied to the carrying value of the total holding of the investment.

(j) Investment properties

Investment properties are properties which are held to earn rental income, for capital appreciation or for both, but not for sale in the ordinary course of business, use in the production or supply of goods or services or for administrative purposes.

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Investment properties are measured at cost less accumulated depreciation and impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the investment property. The cost of self-constructed investment property includes the cost of materials and direct labour, and other costs directly attributable to bringing the investment property to a working condition for its intended use and capitalised borrowing costs.

Depreciation is charged to profit or loss on a straight-line basis over the estimated useful lives of each property. The estimated useful lives are as follows:

Buildings and building improvement	10 and 20	years
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No depreciation is provided on freehold land.

(k) Property, plant and equipment

Recognition and measurement

Owned assets

Property, plant and equipment are measured at cost less accumulated depreciation and impairment losses (if any).

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. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

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.

Any gains or losses on disposal of items of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment, and are recognized in profit or loss.

Leased assets

Leases in terms of which the Group substantially assumes all the risk and rewards of ownership are classified as finance leases. Property, plant, and equipment acquired by way of finance leases is capitalised at the lower of its 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 recognized 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, and its cost can be measured reliably. The carrying amount of the replaced part is derecognized. The costs of the day-to-day servicing of property, plant, and equipment are recognized in profit or loss as incurred.

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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:

Buildings and factories	3 – 30	years
Building improvements	3 – 20	years
Offshore support vessels	5 – 30	years
Ocean vessels (second-hand and new)	4 – 25	years
Second-hand tender rigs	1 – 20	years
Dry-docking	2 – 5	years
Machinery and equipment	1 – 20	years
Machinery and equipment under service concession agreements		Units of production
Furniture, fixtures, and office equipment	2 – 10	years
Motor vehicles	3 – 10	years
Motor launches	10	years
Barges	15 – 29	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.

(l) Intangible assets

Goodwill

Goodwill that arises upon the acquisition of subsidiaries is included in intangible assets. The measurement of goodwill at initial recognition is described in note 4(a). Subsequent to initial recognition, goodwill is measured at cost less accumulated impairment losses. In respect of equity-accounted investees, the carrying amount of goodwill is included in the carrying amount of the investment, and an impairment loss on such an investment is not allocated to any asset, including goodwill, that forms part of the carrying amount of the equity-accounted investee.

Service concession arrangements

The Group recognises an intangible asset arising from a service concession arrangement when it has a right to charge for usage of the concession infrastructure. An intangible asset received as consideration for providing construction or upgrade services in a service concession arrangement is measured at fair value upon initial recognition. Subsequent to initial recognition the intangible asset is measured at cost, which includes capitalised borrowing costs, less accumulated amortisation and accumulated impairment losses (if any).

Computer software

Acquired computer software licenses are capitalised on the basis of the costs incurred to acquire and bring to use the specific software.

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Customer relationships

Customer relationships acquired in a business combination are recognized at fair value at the acquisition date. Customer relationships have a finite useful life and are carried at cost less accumulated amortization and impairment losses (if any).

Franchise license

Franchise license acquired in a business combination are recognized at fair value at the acquisition date. Franchise license have a finite useful life and are measured at cost less accumulated amortisation and impairment losses (if any).

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, is recognized in profit or loss as incurred.

Amortization

Amortization is based on the cost of the asset, or other amount substituted for cost, less its residual value.

Amortization is recognized 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:

Service concession arrangement	30	years
Trademarks	10	years
Computer software	1 – 10	years
Customer relationships	8.2 – 10	years
Franchise license	10	years

Amortization methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

(m) Impairment

(i) Non-financial assets

The carrying amounts of the Group'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, the recoverable amount is estimated each year at the same time.

An impairment loss is recognized if the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount. The impairment loss is recognized in profit or loss.

When a decline in the fair value of an available-for-sale investment has been recognized directly in equity and there is objective evidence that the value of the asset is impaired, the cumulative loss that had been recognized directly in equity is recognized in profit or loss even though the financial asset has not been derecognized. The amount of the cumulative loss that is recognized in profit or loss is the difference between the acquisition cost and current fair value, less any impairment loss on that financial asset previously recognized in profit or loss.

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Calculation of recoverable amount

The recoverable amount of held-to-maturity securities carried at amortised cost is calculated as the present value of the estimated future cash flows discounted at the original effective interest rate.

The recoverable amount of available-for-sale financial assets is calculated by reference to the fair value.

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.

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 recognized in profit or loss. For financial assets carried at amortised cost and available-for-sale financial assets that are debt securities, the reversal is recognized in profit or loss. For available-for-sale financial assets that are equity securities, the reversal is recognized in other comprehensive income.

An impairment loss in respect of goodwill is not reversed. Impairment losses recognized 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 amortization, if no impairment loss had been recognized.

(ii) Financial assets

Accounting policy for impairment of financial assets in 2019

Financial assets, trade and other accounts receivable, and contract assets

The Group recognizes loss allowances for ECLs on:

- financial assets measured at amortised cost;
- debt investments measured at FVOCI; and
- trade and other accounts receivable and contract assets (as defined in TFRS 15).

The Group measures loss allowances at an amount equal to lifetime ECLs, except for the following which are measured as 12-month ECLs:

- debt securities that are determined to have low credit risk at the reporting date; and
- other debt securities and bank balances for which credit risk (i.e. the risk of default occurring over the expected life of the financial instrument) has not increased significantly since initial recognition.

Loss allowances for trade receivables and contract assets are always measured using the simplified approach at an amount equal to lifetime ECL.

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When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, the Group considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Group's historical experience and informed credit assessment and includes forward-looking information.

The Group assumes that the credit risk on a financial asset has increased significantly if it is more than 30 days past due.

The Group considers a financial asset to be in default when the financial asset is more than 180 days past due or when the Group has taken legal action against the counterparty.

Lifetime ECLs are the ECLs that result from all possible default events over the expected life of a financial instrument.

12-month ECLs are the portion of ECLs that result from default events that are possible within the 12 months after the reporting date (or a shorter period if the expected life of the instrument is less than 12 months).

The maximum period considered when estimating ECLs is the maximum contractual period over which the Group is exposed to credit risk.

Measurement of ECLs

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the Group expects to receive).

ECLs are discounted at the effective interest rate of the financial asset.

Credit-impaired financial assets

At each reporting date, the Group assesses whether financial assets carried at amortised cost and debt securities at FVOCI are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Evidence that a financial asset is credit-impaired includes the following observable data:

- significant financial difficulty of the borrower or issuer;
- a breach of contract such as a default or being more than 180 days past due;
- the restructuring of a loan or advance by the Group on terms that the Group would not consider otherwise;
- it is probable that the borrower will enter bankruptcy or other financial recognition; or
- the disappearance of an active market for a security because of financial difficulties.

Presentation of allowance for ECLs in the statement of financial position

Loss allowances for financial assets measured at amortised cost are deducted from the gross carrying amount of the assets.

For debt securities at FVOCI, the loss allowance is charged to profit or loss and recognised in OCI.

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Write-off

The gross carrying amount of a financial asset, is written off (either partially or in full) to the extent that there is no realistic prospect of recovery. This is generally the case when the Group determines that the debtor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off. However, financial assets that are written off could still be subject to enforcement activities in order to comply with the Group's procedures for recovery of amounts due.

(n) Interest-bearing liabilities

Accounting policies for interest-bearing liabilities in 2019

Information about the Group's accounting policies relating to interest-bearing liabilities for 2019 is disclosed in note 4(h).

Accounting policies for interest-bearing liabilities in 2018

Interest-bearing liabilities are recognized 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 recognized in profit or loss over the period of the borrowings on an effective interest basis.

(o) Trade and other accounts payable

Accounting policies for trade and other accounts payable in 2019

Information about the Group's accounting policies relating to trade and other accounts payable for 2019 is disclosed in note 4(h).

Accounting policies for trade and other accounts payable in 2018

Trade and other accounts payable are stated at cost

(p) Contract liabilities

A contract liability is the obligation to transfer goods or services to the customer. A contract liability is recognised when the Group receives or has an unconditional right to receive non-refundable consideration from the customer before the Group recognises the related revenue.

(q) Employee benefits

Defined contribution plans

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions into a separate entity and will have no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution pension plans are recognized as an employee benefit expense in the periods during which services are rendered by employees.

Defined benefit plans

The Group'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.

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The calculation of defined benefit obligations is performed annually by a qualified actuary using the projected unit credit method. When the calculation results in a potential asset for the Group, the recognized asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. To calculate the present value of economic benefits, consideration is given to any application minimum funding requirements.

Remeasurements of the net defined benefit liability, actuarial gain or loss are recognized immediately in OCI. The Group 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, taking into account any changes in the net defined benefit liability during the period as a result of contributions and benefit payments. 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 recognized immediately in profit or loss. The Group recognises gains and losses on the settlement of a defined benefit plan when the settlement occurs.

Other long-term employee benefits

The Group'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 can no longer withdraw the offer of those benefits and when the Group recognises 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 benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided.

A liability is recognized for the amount expected to be paid under a short-term cash bonus plan, if the Group 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.

(r) Provisions

A provision is recognized if, as a result of a past event, the Group 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.

Onerous contracts

A provision for onerous contracts is recognized when the expected benefits to be derived by the Group from a contract are lower than the unavoidable cost of meeting the Group's obligations under the contract. The provision is measured at the present value of the lower of the expected net cost of terminating the contract and the expected net cost of continuing with the contract.

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(s) Measurement of fair values

The Group has an established control framework with respect to the measurement of fair values. This includes a valuation team that has overall responsibility for overseeing all significant fair value measurements, including Level 3 fair values, and reports directly to the Group Chief Financial Officer.

The valuation team regularly reviews significant unobservable inputs and valuation adjustments. If third party information, such as broker quotes or pricing services, is used to measure fair values, then the valuation team assesses the evidence obtained from the third parties to support the conclusion that these valuations meet the requirements of TFRS, including the level in the fair value hierarchy in which the valuations should be classified.

Significant valuation issues are reported to the Group's Audit Committee.

When measuring the fair value of an asset or a liability, the Group uses observable market data as far as possible. Fair values are categorised into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- Level 1 : quoted prices in active markets for identical assets or liabilities.
- Level 2 : inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3 : inputs for the asset or liability that are based on unobservable inputs.

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 recognized in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

The Group recognized transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

(t) Share capital

Ordinary shares

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of ordinary shares and share options are recognized as a deduction from equity, net of any tax effects.

(u) Revenue

Accounting policies for revenue in 2019

Revenue is recognised when a customer obtains control of the goods or services in an amount that reflects the consideration to which the Group expects to be entitled, excluding those amounts collected on behalf of third parties, value added tax and is after deduction of any trade discounts and volume rebates.

Sale of goods

Revenue from sales of goods is recognised when a customer obtains control of the goods, generally on delivery of the goods to the customers. For contracts that permit the customers to return the goods, revenue is recognised to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur. Therefore the amount of revenue recognised is adjusted for estimated returns, which are estimated based on the historical data.

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Revenue from rendering of services

Freight income is recognised over time based on the stage of completion. The stage of completion is estimated based on surveys of work performed.

Offshore service and other service income is recognised over time as the services are provided. The related costs are recognized in profit or loss when they are incurred.

Commission revenue

For the contracts that the Group is arranging for the provision of the goods or services on behalf of its customers and does not control the goods or services before the primary sellers or service providers will provide the goods or services to the customers. The Group acts in the capacity of an agent and recognises the net amount of consideration as commission revenue.

Accounting policies for revenue in 2018

Revenue excludes value added taxes and is arrived at after deduction of trade discounts and volume rebates.

Sale of goods

Revenue from sales of goods is recognized when the significant risks and rewards of ownership have been transferred to the buyer. No revenue is recognized 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.

Rendering of services

Freight charges of each voyage are generally recognized as revenues at the completion of the voyage. Where a voyage is incomplete as of the statements of financial position date, freight charges are recognized as revenue in proportion to the lapsed time of the voyage. Freight charges shown in profit or loss represent the net freight charges after deduction of related commissions.

Offshore service income is recognized as services are performed based upon (a) contracted day rates and the number of operating days during the year or (b) agreed service charges.

Mobilisation activities related to drilling rig activity to mobilise a rig from one geographic area to another are linked to the underlying contracts. Certain contracts include mobilisation fees paid at the start of the contracts. Where the mobilisation fee covers a general or specific upgrade of a rig or equipment, the fee is recognized as revenue over the contract period. In cases where the fee covers specific operating expenses at the start up of the contract, the fee is recognized in the same period as the expenses.

Commissions

When the Group acts in the capacity of an agent rather than as the principal in a transaction, the revenue recognized is the net amount of commission made by the Group.

(v) Rental income

Rental income from investment property is recognised in profit or loss on a straight-line basis over the term of the lease. Lease incentives granted are recognised as an integral part of the total rental income. Contingent rentals are recognised as income in the accounting period in which they are earned.

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(w) Investment income

Investment income comprises dividend and interest income from investments and bank deposits. Dividend income is recognised in profit or loss on the date the Group's right to receive payments is established. Interest income is recognised in profit or loss as it accrues.

(x) Finance costs

Finance costs comprise interest expense on borrowings, losses on disposal of financial assets, and fair value losses on financial assets measured at fair value through profit or loss.

Borrowing costs that are not directly attributable to the acquisition, construction, or production of a qualifying asset are recognized in profit or loss using the effective interest method.

(y) Lease payments

Payments made under operating leases are recognized in profit or loss on a straight line basis over the term of the lease.

(z) Income tax

Income tax expense for the year comprises current and deferred tax. Current and deferred tax are recognized in profit or loss except to the extent that they relate to a business combination, or items recognized directly in equity or in other comprehensive income.

Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognized in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognized for the following temporary differences: the initial recognition of goodwill; 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; and 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.

The measurement of deferred tax reflects the tax consequences that would follow the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, using tax rates enacted or substantively enacted at the reporting date.

In determining the amount of current and deferred tax, the Group takes into account the impact of uncertain tax positions and whether additional taxes and interest may be due. The Group 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 judgments about future events. New information may become available that causes the Group to change its judgment 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.

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Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realised simultaneously.

A deferred tax asset is recognized to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised. Future taxable profits are determined based on the reversal of relevant taxable temporary differences. If the amount of taxable temporary differences is insufficient to recognise a deferred tax asset in full, then future taxable profits, adjusted for reversals of existing temporary differences, are considered, based on the business plans for individual subsidiaries in the Group. 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.

(aa) Earnings per share

The Group presents basic and diluted 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. Diluted EPS is determined by adjusting the profit or loss attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding for the effects of all dilutive potential ordinary shares, which comprise warrants.

(ab) Related parties

A related party is a person or entity that has direct or indirect control or joint control, or has significant influence over the financial and managerial decision-making of the Group; a person or entity that are under common control or under the same significant influence as the Group; or the Group has direct or indirect control or joint control or has significant influence over the financial and managerial decision-making of a person or entity.

(ac) Segment reporting

Segment results that are reported to the Group's CEO (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 Related parties

Relationships with subsidiaries, associates and joint ventures are described in notes 11 and 12. Other related parties that the Group had significant transactions with during the year were as follows:

Name of entities/persons	Country of incorporation/ Nationality	Nature of relationships
Key management personnel	Multi-nationalities	Persons having authority and responsibility for planning, directing, and controlling the activities of the entity, directly or indirectly, including any director (whether executive or otherwise) of the Group.
PM Capital Co., Ltd.	Thai	One of the Company's directors is a major shareholder.
CM Corporate Co.,Ltd.	Thai	One of the Company's directors is a major shareholder.

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The pricing policies for particular types of transactions are explained further below:

Transactions	Pricing policies
IT service, office and office equipment rental income, accounting service income and other income	Prices normally charged to a third party/actual cost plus margin
Offshore service income	Prices normally charged to a third party
Service income	Prices normally charged to a third party
Management fee income	Actual cost plus margin
Interest income/interest expenses	Market linked rate/the borrowing costs of the lender
Management and administrative fees	Actual cost plus margin
IT service and service expenses	Prices normally charged by a third party
Vessel operating expenses, offshore service expenses, and cost of sales	Prices normally charged by a third party
Selling and administrative expense	Prices normally charged by a third party

Significant transactions for the years ended 31 December with related parties were as follows:

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Subsidiaries				
IT service and office and office equipment rental income, accounting service income and other income	-	-	60,660	69,349
Interest income	-	-	61,182	70,549
IT service and service expenses	-	-	-	1,732
Interest expenses	-	-	-	2,504
Joint ventures				
IT service and office and office equipment rental income and other income	58,254	59,524	1,104	-
Interest income	36,123	-	36,123	-
Offshore service income	1,930,494	1,829,140	-	-
Offshore service expenses	6,239	6,474	-	-
Cost of sales	56,804	87,234	-	-
Selling expenses	53,353	68,536	-	-
Administrative expenses	1,900	-	-	-
Associates				
Offshore service expenses	5,819	-	-	-
Cost of sales	8,448	10,926	-	-
Selling expenses	7,971	9,199	-	-
Key management personnel				
Key management personnel compensation				
Short-term employee benefits	196,410	184,188	67,059	59,781
Post-employment benefits	2,143	1,336	1,825	1,090
Total key management personnel compensation	198,553	185,524	68,884	60,871

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Key management personnel compensation comprises salaries, other benefits and remuneration and meeting fees.

Balances as at 31 December with related parties were as follows:

		Consolidated		Separate	
		financial statements		financial statements	
	Note	2019	2018	2019	2018
		(in thousand Baht)			
Trade accounts receivable					
Joint ventures	8	365,395	663,790	-	-
Total		365,395	663,790	-	-
Receivables from related parties					
Subsidiaries		-	-	122,738	129,252
Associates		370	39	-	-
Joint ventures		35,614	65	131	65
Other related party	12	227,426	-	-	-
		263,410	104	122,869	129,317
Less allowance for doubtful accounts	12	(162,809)	-	(544)	(544)
Net		100,601	104	122,325	128,773

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Short-term loans to related parties

Movements during the year ended 31 December 2019 of short-term loans to related parties were as follows:

	Interest rate		31 December 2018	31 December 2019	Consolidated financial statements		
	31 December 2018	31 December 2019			Effect from loss of control in a subsidiary (note12)	Change of control	31 December 2019
	(% per annum)				(in thousand Baht)		
Other related party	-	1.5	-	-	161,947	-	161,947
Joint venture	-	7.0	-	-	-	1,044,847	1,110,895
Total							1,272,842

	Interest rate		31 December 2018	31 December 2019	Separate financial statements		
	31 December 2018	31 December 2019			Unrealised loss on exchange rates	Realised loss on exchange rates	31 December 2019
	(% per annum)				(in thousand Baht)		
Subsidiaries	1.5 - 7.0	1.5 - 7.0	4,543,613	4,543,613	(181,570)	(85,388)	1,832,370
Joint venture	-	7.0	-	-	(23,242)	19,412	1,110,895
Total				4,543,613			2,943,265

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Long-term loans to related parties

Movements during the year ended 31 December 2019 of long-term loans to related parties were as follows:

	Interest rate		Separate financial statements			
	31 December 2018	31 December 2019	31 December 2018	Increase	Decrease	Current portion of long-term loans
	(% per annum)			(in thousand Baht)		31 December 2019
Subsidiaries	9.0, MOR plus margin	9.0, MOR plus margin	165,000	-	-	(127,500)
Total			165,000			37,500

	Note	Consolidated financial statements		Separate financial statements	
		31 December 2019	31 December 2018	31 December 2019	31 December 2018
		(in thousand Baht)			
Trade account payable					
Other related party	12	18,328	-	-	-
Total		18,328	-	-	-
Payables to related parties					
Subsidiaries		-	-	6,619	6,906
Joint ventures		30,509	14,982	-	-
Associates		1,484	2,861	-	-
Total		31,993	17,843	6,619	6,906

Short-term borrowings from related parties

Movements during the year ended 31 December 2019 of short-term borrowings from related parties were as follows:

	Interest rate		Separate financial statements			
	31 December 2018	31 December 2019	31 December 2018	Increase	Decrease	Unrealised gain on exchange rates
	(% per annum)			(in thousand Baht)		31 December 2019
Subsidiaries	1.5 - 2.2	-	796,959	-	(320)	(55,782)
Total			796,959			740,857

6 Cash and cash equivalents

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	(in thousand Baht)			
Cash on hand	35,739	27,536	50	50
Deposits at banks	4,303,169	4,401,039	874,509	470,842
Cash and cash equivalents	4,338,908	4,428,575	874,559	470,892

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As at 31 December 2019, deposits at banks bear interest at the rates between 0.1 % to 3.0 % per annum (31 December 2018: 0.1% to 2.7% per annum).

7 Other financial assets

	Consolidated		Separate	
	financial statements		financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Other current financial assets				
Equity securities valued at FVTPL	731,293	380,483	490,061	185,784
Debt securities valued at FVTPL	-	580,000	-	580,000
Debt securities valued at FVOCI	1,595,730	634,214	1,181,379	-
Other debt securities valued at amortized cost	211,659	473,951	91,043	91,043
Fixed term deposits	326,583	472,021	200,000	326,000
Derivative assets	30,768	-	-	-
	2,896,033	2,540,669	1,962,483	1,182,827
Accumulated changes in fair value	(58,827)	(57,189)	(58,685)	(50,304)
Allowance for impairment	(91,043)	(45,000)	(91,043)	(45,000)
Total	2,746,163	2,438,480	1,812,755	1,087,523
Short-term loan to other company	603,080	648,996	-	-
Allowance for impairment	(518,649)	-	-	-
Total	84,431	648,996	-	-
Other non-current financial assets				
Equity securities valued at FVOCI	849,042	917,898	-	-
Accumulated changes in fair value	(594,358)	(446,398)	-	-
Total	254,684	471,500	-	-
Total	3,085,278	3,558,976	1,812,755	1,087,523

Short-term loan to other company

The Group has a short-term loan to a company listed on the Singapore Stock Exchange (“the Other Company”). The loan was secured by certain shares of the Other Company, guaranteed by corporate guarantees of two subsidiaries of the Other Company, the personal guarantee of a director of the Other Company, bore interest at 12.0% per annum and was repayable on 17 May 2018.

On 20 July 2018, the Group signed an agreement to extend the maturity date of the loan principle to no later than 6 January 2019 with an interest rate of 15.0% commencing from 17 May 2018.

As at 31 December 2019, the Group had not received the principal repayment and interest since 15 August 2019 from the Other Company. The Group’s agreement to forbear from taking any action to claim or enforce the obligations of the Other Company and its subsidiaries to repay the amounts due to the Group expired on 31 December 2019, and negotiations for repayment are ongoing.

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Movements during the years ended 31 December of marketable equity and debt securities were as follows:

	Consolidated		Separate	
	financial statements		financial statements	
	2019	2018	2019	2018
	<i>(in million Baht)</i>			
Other current financial assets				
Equity securities valued at FVTPL				
At 1 January	337.1	134.8	134.8	134.8
Purchases during the year	546.1	227.7	378.9	28.7
Sales during the year	(180.8)	(43.8)	(74.6)	(43.8)
Unrealised losses on exchange rates	(11.2)	-	(11.2)	-
Valuation adjustment	10.2	22.8	11.8	15.1
Foreign currency translation differences	(14.3)	(4.4)	-	-
At 31 December	687.1	337.1	439.7	134.8
Debt securities valued at FVTPL				
At 1 January	580.8	61.1	580.8	61.1
Purchases during the year	659.1	2,107.6	659.1	2,107.6
Sales during the year	(1,239.2)	(1,588.3)	(1,239.2)	(1,588.3)
Valuation adjustment	(0.7)	0.4	(0.7)	0.4
At 31 December	-	580.8	-	580.8
Debt securities valued at FVOCI				
At 1 January	619.6	882.6	-	-
Purchases during the year	1,505.0	799.6	1,313.3	-
Sales during the year	(500.7)	(1,052.9)	(131.9)	-
Unrealised losses on exchange rates	(22.3)	-	(22.3)	-
Valuation adjustment	21.7	(12.2)	14.0	-
Foreign currency translation differences	(42.3)	2.5	-	-
At 31 December	1,581.0	619.6	1,173.1	-
Other non-current financial assets				
Equity securities valued at FVOCI				
At 1 January	274.1	455.2	-	-
Reclassification	197.4	-	-	-
Purchases during the year	12.1	-	-	-
Sales during the year	(27.8)	-	-	-
Unrealised gains (losses) on exchange rates	8.6	(13.9)	-	-
Valuation adjustment	(187.8)	(167.5)	-	-
Foreign currency translation differences	(22.0)	0.3	-	-
At 31 December	254.6	274.1	-	-

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The fair values of other current financial assets and other non-current financial assets together with the carrying amounts in the consolidated and separate statements of financial position were as follows:

	Carrying amount	Consolidated financial statements			
		Fair value			Total
		Level 1	Level 2	Level 3	
31 December 2019					
<i>Other current financial assets</i>					
Equity securities valued at FVTPL	687.1	294.4	392.7	-	687.1
Debt securities valued at FVOCI	1,581.0	-	1,581.0	-	1,581.0
Other debt securities valued at amortized cost	120.6	-	120.9	-	120.9
<i>Other non-current financial assets</i>					
Equity securities valued at FVOCI	254.6	83.9	-	170.7	254.6

		Consolidated financial statements			
	Carrying amount	Fair value			
		Level 1	Level 2	Level 3	Total
31 December 2018		(in million Baht)			
Other current financial assets					
Equity securities valued at FVTPL	337.1	247.4	89.7	-	337.1
Debt securities valued at FVTPL	580.8	-	580.8	-	580.8
Debt securities valued at FVOCI	619.6	-	619.6	-	619.6
Other debt securities valued at amortized cost	383.0	-	373.3	-	373.3
Other non-current financial assets					
Equity securities valued at FVOCI	274.1	274.1	-	-	274.1

	Carrying amount	Separate financial statements			
		Fair value			Total
		Level 1	Level 2	Level 3	
31 December 2019					
<i>(in million Baht)</i>					
Other current financial assets					
Equity securities valued at FVTPL	439.7	47.0	392.7	-	439.7
Debt securities valued at FVOCI	1,173.1	-	1,173.1	-	1,173.1

		Separate financial statements			
	Carrying	Fair value			
	amount	Level 1	Level 2	Level 3	Total
31 December 2018					
<i>Other current financial assets</i>					
Equity securities valued at FVTPL	134.8	45.0	89.8	-	134.8
Debt securities valued at FVTPL	580.8	-	580.8	-	580.8

The Company determines Level 2 fair values for equity/debt securities using a total net asset value of the Company's portfolio, which is in the daily/monthly report from asset management companies.

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The Company determines Level 3 fair values for equity securities using market multiples derived from quoted prices of companies comparable to the investee, and the expected revenue and EBITDA of the investee. The estimate is adjusted for the effect of the non-marketability of the equity securities.

8 Trade accounts receivable

	Note	Consolidated		Separate	
		financial statements		financial statements	
		2019	2018	2019	2018
		(in thousand Baht)			
Related parties					
Trade accounts receivable	5	365,395	663,790	-	-
Total		365,395	663,790	-	-
Other parties					
Trade accounts receivable		1,478,345	1,311,723	-	-
Retention receivable		229,337	101,085	-	-
Contract asset - accrued income		217,573	275,510	-	-
		1,925,255	1,688,318	-	-
Less allowance for doubtful accounts		(153,176)	(295,429)	-	-
Net		1,772,079	1,392,889	-	-
Total		2,137,474	2,056,679	-	-

Aging analysis for trade accounts receivable were as follows:

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
<i>(in thousand Baht)</i>				
Related parties				
Within credit terms	173,563	44,658	-	-
Overdue:				
Less than 3 months	77,753	347,660	-	-
3 - 6 months	-	48,788	-	-
6 - 12 months	-	222,684	-	-
Over 12 months	114,079	-	-	-
Total	365,395	663,790	-	-
Other parties				
Within credit terms	635,434	573,155	-	-
Overdue:				
Less than 3 months	501,658	329,813	-	-
3 - 6 months	186,841	40,855	-	-
6 - 12 months	8,697	59,789	-	-
Over 12 months	145,715	308,111	-	-
	1,478,345	1,311,723	-	-
Less allowance for doubtful accounts	(153,176)	(295,429)	-	-
Net	1,325,169	1,016,294	-	-
Total	1,690,564	1,680,084	-	-

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The normal credit term granted by the Group ranges from 1 to 120 days.

Information about the Group's exposure to credit and market risks, and impairment losses for trade accounts receivable and contract assets, is included in note 30.

9 Inventories

	Consolidated financial statements	
	2019	2018
	<i>(in thousand Baht)</i>	
Inventories	1,123,612	1,323,344
Tools and supplies	52,358	59,431
Total	1,175,970	1,382,775
Less allowance for decline in value of inventories	(220,504)	(219,733)
Net	955,466	1,163,042
Inventories recognized in cost of sales:		
- Cost	3,855,823	3,848,416
- (Reversal of) allowance for decline in value of inventories	771	(101,065)
Net	3,856,594	3,747,351

As at 31 December 2019, inventories with carrying amount of VND 206.7 billion, or equivalent to Baht 269.1 million (31 December 2018: VND 203.1 billion or equivalent to Baht 283.7 million), were pledged with a bank as security for the loan facility from a bank of VND 300.0 billion or equivalent to Baht 390.6 million (31 December 2018: VND 300.0 billion or equivalent to Baht 419.1 million).

10 Other current assets

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Prepaid tax and value added tax refundable, net	63,576	207,853	1,979	1,029
Insurance claim receivables	8,934	23,013	-	-
Others, net	52,488	34,769	24,689	13,937
Total	124,998	265,635	26,668	14,966

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11 Investments in associates and joint ventures

Investments in associates and joint ventures as at 31 December comprise investments in the following companies:

Name of associates / joint ventures	Nature of business	Country of incorporation	% Ownership interest	
			2019	2018
Name of associates				
The Company				
Shipping				
- Thoresen Shipping (Thailand) Co., Ltd.(“TST”)(1)	Commercial dry bulk shipping activities	Thailand	51.0	51.0
Investment				
- Fearnleys (Thailand) Ltd. (“FTL”) With a subsidiary as follows:	Ship brokerage	Thailand	49.0	49.0
- PT. Fearnleys Indonesia	”	Indonesia	95.0	95.0
Consolidated				
Offshore service				
- Asia Offshore Drilling Limited (invested by Mermaid International Ventures) With subsidiaries as follows:	Drilling services	Bermuda	33.8	33.8
- Asia Offshore Rig 1 Limited	”	Bermuda	100.0	100.0
- Asia Offshore Rig 2 Limited	”	Bermuda	100.0	100.0
- Asia Offshore Rig 3 Limited	”	Bermuda	100.0	100.0
Investment				
- Sharjah Ports Services LLC (invested by Thoresen Shipping FZE)	Port operations	UAE	49.0	49.0
- Baria Serace (invested by SOH)	”	Vietnam	28.0	28.0
- Laser Game Asia Company Limited (invested by ACS)	Lifestyle & Entertainment	Thailand	30.0	30.0
- PTGC Co., Ltd. (invested by MMPLC)	Real Estate	Cambodia	49.0	49.0

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Name of associates / joint ventures	Nature of business	Country of incorporation	% Ownership interest	
			2019	2018
Name of joint ventures				
The Company				
Investment				
- Thoresen (Indochina) S.A.	Ship agency	Panama	50.0	50.0
With a subsidiary as follows:				
- Thoresen-Vinama Agencies Co., Ltd.	Ship agency and related transportation services	Vietnam	49.0	49.0
With a subsidiary as follows:				
- Thoresen-Vinanma Logistics Co., Ltd.	Bonded warehouse and related transportation services	Vietnam	100.0	100.0
With a subsidiary as follows:				
- Thoresen Vinama Tug Co	Tug operations	Vietnam	100.0	-
- Gulf Agency Company (Thailand) Ltd. ("GAC")	Ship agency	Thailand	51.0	51.0
- TTA SUEZ Company Limited	Drinking water and waste water services	Thailand	51.0	51.0
- PMT Property Co., Ltd.	Property management	Thailand	60.0	-
Consolidated				
Offshore service				
- Zamil Mermaid Offshore Services Company LLC (invested by MMPLC)	Inspection, installation, repair and maintenance services for Offshore Oil and Gas industry	Saudi Arabia	40.0	40.0
Investment				
- Petrolift Inc. (invested by SOH)	Maritime transportation	Philippines	40.0	40.0

(1) TST is indirect subsidiary of the Group because it is held by TTA 51% and TSS 49%.

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Movements during the years ended 31 December of investments in associates and joint ventures were as follows:

	Consolidated		Separate	
	financial statements		financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Associates				
At 1 January	4,704,374	3,741,180	79,068	79,068
Impacting from adopting TFRS 9	(76,642)	-	-	-
Transfer from advance payment for investment	-	572,962	-	-
Acquisition	-	173,055	-	-
Dividend income	(181,286)	(79,431)	-	-
Share of profit of associates	210,420	328,830	-	-
Impairment	(25,684)	-	-	-
Foreign currency translation differences	(304,656)	(32,222)	-	-
At 31 December	4,326,526	4,704,374	79,068	79,068
Joint ventures				
At 1 January	1,179,973	1,174,921	21,004	21,004
Transfer from investment in subsidiary	417,912	-	417,912	-
Dividend income	(29,170)	(59,687)	-	-
Share of profit (loss) of joint ventures	(2,963)	72,167	-	-
Defined benefit plan actuarial gains (losses)	(290)	706	-	-
Fair value reserves	(147)	(421)	-	-
Revaluation of property, plant and equipment	12,737	-	-	-
Foreign currency translation differences	(71,492)	(7,713)	-	-
At 31 December	1,506,560	1,179,973	438,916	21,004
Total				
At 1 January	5,884,347	4,916,101	100,072	100,072
Impact from adopting TFRS 9	(76,642)	-	-	-
Transfer from advance payment for investment	-	572,962	-	-
Acquisition	-	173,055	-	-
Transfer from investment in subsidiary	417,912	-	417,912	-
Dividend income	(210,456)	(139,118)	-	-
Share of profit of associates and joint ventures	207,457	400,997	-	-
Defined benefit plan actuarial gains (losses)	(290)	706	-	-
Fair value reserves	(147)	(421)	-	-
Revaluation of property, plant and equipment	12,737	-	-	-
Impairment	(25,684)	-	-	-
Foreign currency translation differences	(376,148)	(39,935)	-	-
At 31 December	5,833,086	5,884,347	517,984	100,072

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	Separate financial statements					
	Paid-up capital		Cost		Impairment	
	2019	2018	2019	2018	2019	2018
	<i>(in million Baht)</i>					
Associates						
Thoresen Shipping (Thailand) Co., Ltd.	120	120	61	61	-	-
Fearnleys (Thailand) Ltd.	14	14	18	18	-	30
			79	79	-	30
Joint ventures						
Thoresen (Indochina) S.A.	9	9	9	9	-	32
Gulf Agency Company (Thailand) Ltd.	22	22	11	11	-	5
TTA SUEZ Company Limited	2	2	1	1	-	-
PMT Property Co., Ltd.	1	-	418	-	-	-
			439	21	-	37
Total			518	100	-	67

Transfer PMT Property Co., Ltd. ("PMTP") from investment in subsidiary

As described in note 12, on 4 July 2019, the Company sold 40% of its interest in the issued and paid up capital of PMTP, a subsidiary, to Kanden Realty & Development Co., Ltd. ("KRD"), reducing the Company's total interest in PMTP to 60% as at 31 December 2019. TTA and KRD also entered into a Joint Venture Agreement ("JV Agreement") to jointly develop residential condominiums on the land owned by PMTP. The JV Agreement requires relevant activities of PMTP to be unanimously agreed by both TTA and KRD. PMTP thereby ceased to be a subsidiary of the Company and determined as a joint venture of the Company.

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Associates and joint ventures

The following table summarises the financial information of the associates and joint ventures as included in their own financial statements, adjusted for fair value adjustments at acquisition and differences in accounting policies. The table also reconciles the summarized financial information to the carrying amount of the Group's interest in these companies.

	Asia Offshore Drilling Limited		Baria Serece		PTGC Co.,Ltd		Petrolift Inc.	
	2019	2018	2019	2018	2019	2018	2019	2018
				(in million Baht)				
Revenue	1,899	2,256	606	638	-	-	523	737
Profits (losses) from continuing operations	488	773	229	263	-	(6)	(1)	42
Other comprehensive income	-	-	-	-	-	-	30	1
Total comprehensive income (expenses) (100%)	488	773	229	263	-	(6)	29	43
Total comprehensive income (expenses) of the Group's interest	165	261	64	74	-	(3)	12	17
Foreign currency translation differences	(222)	(19)	(25)	(2)	(51)	(16)	(51)	(8)
Group's share of total comprehensive income (expenses)	(57)	242	39	72	(51)	(19)	(39)	9
Current assets	2,927	2,133	353	734	-	-	514	474
Non-current assets	12,338	13,902	873	916	524	628	1,663	1,947
Current liabilities	(360)	(500)	(181)	(125)	-	-	(280)	(377)
Non-current liabilities	(5,979)	(6,211)	(7)	(3)	-	-	(422)	(457)
Net assets (100%)	8,926	9,324	1,038	1,522	524	628	1,475	1,587
Group's share of net assets (% hold)	3,014	3,148	291	426	257	308	590	635
Goodwill	-	-	248	248	419	419	243	243
Carrying amount of interest in associate/joint venture	3,014	3,148	539	674	676	727	833	878

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	Asia Offshore Drilling Limited		Baria Serece		PTGC Co.,Ltd		Petrolift Inc.	
	2019	2018	2019	2018	2019	2018	2019	2018
	<i>(in million Baht)</i>							
Group's interest in net assets of investee at 1 January	3,148	2,906	426	403	308	-	635	648
Total comprehensive income (expenses) attributable to the Group	(57)	242	39	72	(51)	(19)	(39)	9
Acquisition during the year	-	-	-	-	-	327	-	-
Impact of first time adoption of TFRS 9	(77)	-	-	-	-	-	-	-
Dividend income during the year	-	-	(174)	(49)	-	-	(6)	(22)
Group's interest in net assets of investee at end of year	3,014	3,148	291	426	257	308	590	635
Goodwill	-	-	248	248	419	419	243	243
Carrying amount of interest in investee at 31 December	3,014	3,148	539	674	676	727	833	878

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Immaterial associates and joint ventures

The following is summarised financial information for the Group's interest in immaterial associates and joint ventures based on the amounts reported in the Group's consolidated financial statements:

	Immaterial Associates		Immaterial Joint ventures	
	2019	2018	2019	2018
	<i>(in million Baht)</i>			
Carrying amount of interests in immaterial associates and joint ventures	98	155	674	302
Group's share of:				
- Profit (loss) from continuing operations	(19)	2	(3)	55
- Other comprehensive income	-	-	-	-
Total comprehensive income (expenses)	(19)	2	(3)	55

12 Investments in subsidiaries

Investments in subsidiaries as at 31 December 2019 and 2018 comprise investments in the following companies:

Name of subsidiaries	Nature of business	Country of incorporation	% Ownership interest	
			2019	2018
Shipping				
- Premo Shipping Public Company Limited ("Premo")	Ship management	Thailand	99.9	99.9
- Thoresen Shipping Singapore Pte. Ltd. ("TSS")	International maritime transportation	Singapore	100.0	100.0
With subsidiaries as follows:				
- Thor Friendship Shipping Pte. Ltd.	"	Singapore	100.0	100.0
- Thor Fortune Shipping Pte. Ltd.	"	Singapore	100.0	100.0
- Thoresen Shipping Company Pte. Ltd.	"	Singapore	100.0	100.0
- Thoresen & Co., (Bangkok) Limited ("TCB")	Ship management	Thailand	99.9	99.9
- Thoresen Shipping (Thailand) Co., Ltd. ("TST") ⁽⁴⁾	Commercial dry bulk shipping activities	Thailand	99.9	99.9
With a joint venture as follows:				
- Thoresen Klong Padung Krungkasem Joint Venture ⁽⁵⁾	Ship management services	Thailand		
- Thoresen Chartering (HK) Ltd. ⁽¹⁾	International maritime transportation	Hong Kong	99.9	99.9
- Thoresen Shipping Germany GmbH	"	Germany	100.0	100.0
Offshore service				
- Mermaid Maritime Public Company Limited ("MMPLC")	Offshore services investments	Thailand	58.2	58.2
With subsidiaries as follows:				
- Mermaid Subsea Services (Thailand) Ltd. ("MSST")	Subsea service provider, diving, ROV services and subsea contractor to the offshore oil and gas industry	Thailand	100.0	100.0

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Name of subsidiaries	Nature of business	Country of incorporation	% Ownership interest	
			2019	2018
Offshore service (Continued)				
With subsidiaries as follows:				
- Seascope Surveys Pte. Ltd.	Subsea service provider, hydrographic survey and positioning to the offshore oil and gas industry	Singapore	100.0	100.0
With a subsidiary as follows:				
- PT Seascope Surveys Indonesia ⁽³⁾ ("PTSSI")	"	Indonesia	-	49.0
- Mermaid Offshore Services Pte. Ltd.	Subsea service provider, diving, ROV services and subsea contractor to the offshore oil and gas industry	Singapore	100.0	100.0
- Mermaid Subsea Services (Malaysia) Sdn. Bhd. ⁽²⁾	Offshore services for Offshore oil and gas industry	Malaysia	45.0	45.0
- Mermaid Drilling Ltd.	Production and exploration drilling services	Thailand	95.0	95.0
With subsidiaries as follows:				
- MTR-1 Ltd.	Drilling services	Thailand	100.0	100.0
- MTR-2 Ltd.	"	Thailand	100.0	100.0
- Mermaid Drilling (Malaysia) Sdn. Bhd. ⁽⁷⁾	"	Malaysia	100.0	100.0
- MTR-1 (Singapore) Pte. Ltd.	"	Singapore	100.0	100.0
- Mermaid Maritime Mauritius Ltd.	Investment holding	Mauritius	100.0	100.0
With a subsidiary as follows:				
- Mermaid International Ventures	"	Cayman	100.0	100.0
With a subsidiary as follows:				
- Mermaid Subsea Services (International) Ltd.	Subsea service provider, diving, ROV services and subsea contractor to the offshore oil and gas industry	Seychelles	100.0	100.0
With subsidiaries as follows:				
- Mermaid Subsea Services Saudi Arabia Co., Ltd.	"	Saudi Arabia	95.0	95.0
- Mermaid Subsea Services LLC ⁽²⁾	"	Qatar	49.0	49.0
With an associate as follows:				
- Asia Offshore Drilling Limited	Drilling services	Bermuda		
With subsidiaries as follows:				
- Asia Offshore Rig 1 Limited	"	Bermuda		
- Asia Offshore Rig 2 Limited	"	Bermuda		
- Asia Offshore Rig 3 Limited	"	Bermuda		
With a joint venture as follows:				
- Zamil Mermaid Offshore Services Co. (LLC)	Inspection, installation, repair and maintenance services for offshore oil and gas industry	Saudi Arabia		

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Name of subsidiaries	Nature of business	Country of incorporation	% Ownership interest	
			2019	2018
Agrochemical				
- PM Thoresen Asia Holdings Public Company Limited (“PMTA”) With subsidiaries as follows:	Holding company	Thailand	68.5	68.5
- PM Thoresen Asia (Singapore) Pte. Ltd.	General trading	Singapore	100.0	100.0
- Baconco Co., Ltd.	Fertiliser production	Vietnam	100.0	100.0
Investment				
- Soleado Holdings Pte. Ltd. (“SOH”) With an associate as follows:	Holding company	Singapore	100.0	100.0
- Baria Serece	Port operations	Vietnam		
With a joint venture as follows:				
- Petrolift Inc.	Maritime transportation services	Philippines		
- Athene Holdings Ltd. (“ATH”)	Holding company	Thailand	99.9	99.9
- Asia Coating Services Ltd. (“ACS”)	”	Thailand	99.9	99.9
With an associate as follows:				
- Laser Game Asia Company Limited	Lifestyle & Entertainment	Thailand		
- Chidlom Marine Services & Supplies Ltd. (“CMSS”)	Supply cargo lashing materials	Thailand	99.9	99.9
- GAC Thoresen Logistics Ltd. (“GTL”)	Warehousing	Thailand	51.0	51.0
- Unique Mining Services Public Company Limited (“UMS”) (invested by ATH) With subsidiaries as follows:	Sale of coal	Thailand	92.9	92.9
- UMS Distribution Co., Ltd.	Logistics management and trading of fertilizer	Thailand	99.9	99.9
- UMS Lighter Co., Ltd.	Boat conveyance	Thailand	99.9	99.9
- UMS Pellet Energy Co., Ltd.	Road transport and trading of wood pellet	Thailand	99.9	99.9
- UMS Port Services Co., Ltd.	Port service	Thailand	99.9	99.9
- Thoresen Shipping FZE With an associate as follows:	Ship agency	UAE	100.0	100.0
- Sharjah Ports Services LLC	Port operations	UAE		
- PMFB Ltd.	Food and beverage trading	Thailand	99.9	99.9
- PMT Property Co., Ltd. ⁽⁶⁾ (“PMTP”)	Property management	Thailand	-	99.9
- PH Capital Co., Ltd. (“PHC”)	Food and beverage	Thailand	70.0	70.0
- Siam Taco Co., Ltd. (“STC”)	”	Thailand	70.0	70.0
- Asia Infrastructure Management (Thailand) Co., Ltd.	Water management and pipeline installation and repairment	Thailand	80.5	80.5
With a subsidiary as follows:				
- Asia Nampapa Luang Prabang Co., Ltd.	Production and sale of treated water	Laos	66.7	66.7

(1) Operation ceased as of 31 December 2019 and 31 December 2018.

(2) Group interest is 100% after taking account of nominee holdings.

(3) On 31 December 2018, Group interest was 95% after taking account of nominee holdings. On 31 December 2019, control was lost, and the investment was classified as long-term investment.

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- (4) TST is held by TTA 51% and TSS 49%.
- (5) Thoresen Klong Padung Krungkasem Joint Venture is structured as a separate tax entity which invested by TST 95% and TCB 5%, respectively.
- (6) In July 2019, PMTP was transferred from investment in subsidiary to investment in joint venture of TTA.
- (7) Mermaid Drilling (Malaysia) Sdn. Bhd. has been registered for liquidation.

Movements during the years ended 31 December of investments in subsidiaries were as follows:

	Separate financial statements	
	2019	2018
	<i>(in thousand Baht)</i>	
At 1 January	23,565,779	23,484,936
Acquisitions	-	229,250
Increase in share capital of subsidiaries	156,200	140,000
Transfer to investment in joint venture	(600)	-
Decrease in share capital of a subsidiary	(6,649)	(260,000)
Liquidations	-	(28,407)
Impairment	(213,549)	-
At 31 December	23,501,181	23,565,779

During the year ended 31 December 2019, there were the following changes in investments in subsidiaries:

The Company

Increase in share capital of GTL

At the Extraordinary General Meeting of shareholders of GTL held on 23 January 2019, the shareholders approved to increase GTL's share capital by 1.09 million shares at Baht 100 per share, amounting to a total increase of Baht 108.6 million. GTL had registered to increase its share capital with the Department of Business Development ("DBD") on 7 February 2019. The Company subscribed in 51% of GTL's additional shares, amounting to Baht 55.4 million, which is the Company's proportion of shareholding in GTL prior to the increase in GTL's share capital.

Decrease in share capital of Premo

At the Annual General Meeting of shareholders of Premo held on 29 April 2019, the shareholders approved to decrease the share capital of Premo by Baht 6.3 million. Premo registered to decrease its share capital with the DBD on 26 July 2019.

Increase in share capital of STC

At the Extraordinary General Meeting of shareholders of STC held on 30 May 2019, the shareholders approved to increase STC's share capital by 8.0 million shares at Baht 10 per share, amounting to a total increase of Baht 80.0 million and has partially called up Baht 20.0 million for the first payment on 1 June 2019, Baht 10.0 million for the second payment on 6 September 2019 and Baht 14.0 million for the third payment on 4 October 2019, respectively. The additional shares were registered with the DBD on 24 June 2019. The Company subscribed in STC's capital increase in proportion of the Company's shareholding in STC prior to the increase in STC's share capital.

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Increase in share capital of PHC

At the Extraordinary General Meeting of shareholders of PHC held on 7 June 2019, the shareholders approved the increase of share capital in PHC by 12.0 million shares with a par value of Baht 10 per share, amounting to a total increase of Baht 120.0 million and has partially called up Baht 50.0 million for the first payment on 25 June 2019. The additional shares were registered with the DBD on 25 June 2019. The Company subscribed in PHC's capital increase in proportion of the Company's shareholding in PHC prior to the increase in PHC's share capital. PHC received an additional Baht 50.0 million from shareholders in the shareholders' proportion of shareholding in PHC prior to the increase in PHC's share capital as the second payment on 7 August 2019. The additional shares from the second payment were registered with the DBD on 25 November 2019.

Partial disposal of interest in PMTP with a change of control

On 4 July 2019, the Company sold 40% of its interest in the issued and paid up capital of PMTP, a subsidiary, to Kanden Realty & Development Co., Ltd. ("KRD") for Baht 284.1 million cash consideration, reducing the Company's total interest in PMTP to 60% as at 31 December 2019. TTA and KRD also entered into a Joint Venture Agreement ("JV Agreement") to jointly develop residential condominiums on the land owned by PMTP. The JV Agreement requires relevant activities of PMTP to be unanimously agreed by both TTA and KRD. PMTP thereby ceased to be a subsidiary of the Company and was determined to be a joint venture of the Company. The carrying amount of PMTP's net assets in the Group's financial statements on the date of the sale was a deficit of Baht 3.4 million. The fair value of the Group's retained interest in the joint venture at the date when control was lost was Baht 417.9 million, which became the carrying value of the Group's interest in the joint venture at that date. The Group recognised an increase in retained earnings of Baht 4.4 million, and a gain on partial disposal of interest in PMTP of Baht 769.3 million, which is included in other income in the consolidated statement of income. The Company recognised a gain on partial disposal of interest in PMTP of Baht 701.0 million, which is included in other income in the separate statement of income.

Impairment charge

During the year ended 31 December 2019, the Company recognised an impairment loss on its investment in ATH, who has a direct investment in UMS, totalling Baht 213.5 million in the separate financial statements as a result of the estimated recoverable amount of its investment in ATH was less than its carrying amount. The estimated recoverable amount of ATH was determined based on the estimated value of ATH's net assets, including ATH's direct investment in UMS. The recoverable amount of UMS was estimated using the income approach which applied a weighted average cost of capital ("WACC") of 6.4%.

Consolidation

Loss of control in PTSSI

The consolidated financial statements for the year ended 31 December 2019 have been prepared based on loss of control of PTSSI. The Group is currently taking legal action against the local management of PTSSI regarding the ownership of PTSSI. Management has been unable to obtain PTSSI's financial information for the year ended 31 December 2019, and therefore, assessed to have lost control over PTSSI on 31 December 2019. As a result, the Group derecognized the assets and liabilities of PTSSI from the consolidated financial statements, and recognized PTSSI as an other long-term investment measured at fair value in the consolidated financial statements as at 31 December 2019.

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The effect of loss of control of this subsidiary at the loss of control date were summarised as below

		Consolidated financial statements
	<i>Note</i>	<i>(in thousand Baht)</i>
<i>Derecognised in assets and liabilities</i>		
Cash and cash equivalents		(33,218)
Trade accounts receivable		(18,546)
Restricted deposit at financial institutions		(15,349)
Property, plant and equipment	16	(46,223)
Intangible assets	17	(34)
Deferred tax assets	18	(7,363)
Other non-current assets		(159,570)
Trade accounts payable		2,071
Accrued expenses		24,599
Other current liabilities		28,009
Non-current provision for employee benefits	21	32,081
Finance lease liabilities		2,825
		<hr/>
Carrying amounts of net assets and liabilities		(190,718)
Less non-controlling interests		(4,438)
		<hr/>
Carrying amounts of interest in subsidiary		(195,156)
		<hr/>
<i>Recognised in assets and liabilities</i>		
Other accounts receivable	5	64,617
Short-term loans to related party	5	161,947
Trade accounts payable	5	(18,328)
		<hr/>
		208,236
Foreign currency translation differences		8,148
		<hr/>
Gain from loss of control in a subsidiary		21,228
		<hr/>

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Investments in directly owned subsidiaries of the Company as at 31 December 2019 and 2018, and dividend income from those investments for the years then ended were as follows:

Name of subsidiaries	Paid-up capital		Cost		Impairment		At cost - net		Dividend income	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Direct subsidiaries										
Soleado Holdings Pte. Ltd.	3,071	3,071	3,092	3,092	(168)	(168)	2,924	2,924	-	-
Athene Holdings Ltd.	4,807	4,807	4,807	4,807	(4,448)	(4,234)	359	573	-	-
PM Thoresen Asia Holdings Public Company Limited	1,012	1,012	728	728	-	-	728	728	35	69
Premo Shipping Public Company Limited	3	9	3	9	-	-	3	9	2	9
Thoresen Shipping Singapore Pte. Ltd.	15,263	15,263	15,263	15,263	(2,709)	(2,709)	12,554	12,554	205	-
Thoresen Chartering (HK) Ltd.	3	3	3	3	-	-	3	3	103	195
Thoresen Shipping Germany GmbH	1	1	1	1	(1)	(1)	-	-	-	-
PMFB Ltd.	35	35	35	35	(35)	(35)	-	-	-	-
Asia Coating Services Ltd.	80	80	80	80	(1)	(1)	79	79	-	-
Thoresen Shipping FZE	7	7	7	7	-	-	7	7	-	110
Mermaid Maritime Public Company Limited	1,413	1,413	5,889	5,889	-	-	5,889	5,889	-	-
Chidlom Marine Services & Supplies Ltd.	70	70	70	70	-	-	70	70	5	-
GAC Thoresen Logistics Ltd.	184	75	93	38	-	-	93	38	-	-
PMT Property Co., Ltd.	-	1	-	1	-	-	-	1	-	-
PH Capital Co., Ltd.	760	660	532	462	-	-	532	462	-	-
Siam Taco Co., Ltd.	70	40	59	28	-	-	59	28	-	-
Asia Infrastructure Management (Thailand) Co., Ltd.	250	250	201	201	-	-	201	201	-	-
Total			30,863	30,714	(7,362)	(7,148)	23,501	23,566	350	383

(in million Baht)

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Almost all of the Company's directly and indirectly owned subsidiaries are not publicly listed and consequently do not have published price quotations, except Mermaid Maritime Public Company Limited, Unique Mining Services Public Company Limited and PM Thoresen Asia Holdings Public Company Limited which are listed on the Stock Exchange of Singapore, Thailand and Thailand, respectively. The fair value of the Company's direct and indirect investments in these subsidiaries based on the closing price as of 31 December 2019 and 2018 are as below:

	2019	2018
Mermaid Maritime Public Company Limited	SGD 111 million	SGD 72 million
Unique Mining Services Public Company Limited	Baht 177 million	Baht 313 million
PM Thoresen Asia Holdings Public Company Limited	Baht 551 million	Baht 756 million

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13 Non-controlling interests

The following table summarises the information including fair value adjustment on acquisition relating to each of the Group's subsidiaries that has a material non-controlling interest:

	31 December 2019			
	MMPLC	PMTA (in million Baht)	Other individually immaterial subsidiaries	Total
Non-controlling interest percentage	41.8%	31.5%		
Current assets	2,676	1,520	741	4,937
Non-current assets	8,603	536	1,981	11,120
Current liabilities	(1,241)	(599)	(1,369)	(3,209)
Non-current liabilities	(1,385)	(13)	(289)	(1,687)
	8,653	1,444	1,064	11,161
	16	-	(22)	(6)
	8,669	1,444	1,042	11,155
	3,606	455	350	4,411
Less: non-controlling interest in subsidiaries' financial statements				
Net assets				
Carrying amount of non-controlling interest				
Revenue	3,469	2,863	2,439	8,771
Profits (losses)	(751)	40	(172)	(883)
Other comprehensive expenses	(695)	(85)	-	(780)
Total comprehensive expenses	(1,446)	(45)	(172)	(1,663)
Profits (losses) allocated to non-controlling interest	(312)	6	(38)	(344)
Other comprehensive expenses allocated to non-controlling interest	(290)	(28)	(4)	(322)
Cash flows from (used in) operating activities	(153)	105	118	70
Cash flows from (used in) investing activities	100	(13)	(141)	(54)
Cash flows from (used in) financing activities	(459)	(8)	(106)	(573)
(Dividends to non-controlling interest amounted to Baht 15.9 million)				
Net increase (decrease) in cash and cash equivalents	(512)	84	(129)	(557)

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	31 December 2018			
	MMPLC	PMTA (in million Baht)	Other individually immaterial subsidiaries	Total
Non-controlling interest percentage	41.8%	31.5%		
Current assets	3,209	1,525	894	5,628
Non-current assets	10,082	634	2,088	12,804
Current liabilities	(1,308)	(603)	(1,435)	(3,346)
Non-current liabilities	(1,766)	(15)	(494)	(2,275)
	10,217	1,541	1,053	12,811
	22	-	(35)	(13)
	10,239	1,541	1,018	12,798
	4,256	476	296	5,028
Less: non-controlling interest in subsidiaries' financial statements				
Net assets				
Carrying amount of non-controlling interest				
Revenue	3,384	2,765	2,192	8,341
Profits (losses)	(878)	34	(121)	(965)
Other comprehensive income (expenses)	(84)	7	-	(77)
Total comprehensive income (expenses)	(962)	41	(121)	(1,042)
Profits (losses) allocated to non-controlling interest	(370)	12	(38)	(396)
Other comprehensive income (expenses) allocated to non-controlling interest	(35)	2	(1)	(34)
Cash flows from (used in) operating activities	337	(237)	(50)	50
Cash flows used in investing activities	(839)	(31)	(151)	(1,021)
Cash flows from (used in) financing activities	(513)	154	400	41
(Dividends to non-controlling interest amounted to Baht 31.8 million)				
Net increase (decrease) in cash and cash equivalents	(1,015)	(114)	199	(930)

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14 Goodwill

	Consolidated financial statements	
	2019	2018
	<i>(in thousand Baht)</i>	
Cost		
At 1 January	3,814,716	3,816,436
Acquired through business combinations	-	623
Foreign currency translation differences	(21,837)	(2,343)
At 31 December	3,792,879	3,814,716
Impairment losses		
At 1 January	3,747,044	3,748,909
Foreign currency translation differences	(18,527)	(1,865)
At 31 December	3,728,517	3,747,044
Net book value		
At 1 January	67,672	67,527
At 31 December	64,362	67,672

As at 31 December 2019 and 2018, all of the Group's goodwill had been fully impaired, with the exception of goodwill from the Mermaid Subsea Services (International) ("MSSI") cash-generating unit ("CGU") and goodwill from the AIM CGU which are unimpaired. As at 31 December 2019, the Group has goodwill amounting to Baht 64.4 million (*2018: Baht 67.7 million*) which represented goodwill from the MSSI CGU of Baht 62.3 million (*2018: Baht 67.0 million*) and goodwill from the AIM CGU of Baht 2.1 million (*2018: Baht 0.7 million*). The recoverable amount of the MSSI CGU estimated using the value in use method was greater than the total carrying amount of the MSSI CGU and the goodwill allocated to it. As a result, goodwill allocated to the MSSI CGU was not impaired as at 31 December 2019 and 2018. The cash flows were projected over a period of 5 years before a terminal growth rate was applied thereafter.

The key assumptions used in the estimation of the MSSI CGU's value in use as at 31 December 2019 and 2018 were as follows:

Key assumptions	Value	Approach used to determine the value
Discount rate	10.75%	External sources of information
Terminal value growth rate	0%	Constant inflation
EBITDA growth	Up to 10.0%	Past experience

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15 Investment properties

		Consolidated financial statements	
		Buildings and land improvements (in thousand Baht)	Total
	Note	Land	
Cost			
At 1 January 2018		1,783,692	270,919
Additions		5,577	-
Transfer from property, plant and equipment	16	106,901	-
Foreign currency translation differences		(57)	(293)
At 31 December 2018 and 1 January 2019		1,896,113	270,626
Additions		5,907	-
Effect from loss of control in a subsidiary		(1,687,777)	-
Transfer to property, plant and equipment	16	(106,461)	-
Foreign currency translation differences		(570)	(2,919)
At 31 December 2019		107,212	267,707
Depreciation			
At 1 January 2018		-	147,999
Depreciation charge for the year		-	8,950
Foreign currency translation differences		-	(236)
At 31 December 2018 and 1 January 2019		-	156,713
Depreciation charge for the year		-	11,880
Foreign currency translation differences		-	(2,111)
At 31 December 2019		-	166,482
Net book value			
At 1 January 2018		1,783,692	122,920
At 31 December 2018 and 1 January 2019		1,896,113	113,913
At 31 December 2019		107,212	101,225

The fair value of investment properties as at 31 December 2019 of Baht 381.8 million (31 December 2018: Baht 2,809.5 million) was determined by independent professional valuers. The fair value of investment properties have been categorised as a Level 3 fair values based on the inputs to the valuation techniques used.

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Measurement of fair value

Fair value hierarchy

The fair value of investment property was determined by external, independent property valuer, having appropriate recognized professional qualifications and recent experience in the location and category of the property being valued. The independent valuer provide the fair value of the Group's investment property portfolio on an annual basis.

The fair value measurement for investment property has been categorised as a Level 3 fair value based on the inputs to the valuation technique used.

Valuation technique

The fair value measurement of land was based on the market approach. This approach is a method of determining the appraisal value of an asset based on the selling price of similar items. These similar properties are adjusted for time, size, quantity, amenities, and quality as compared to the property that is being appraised.

The fair value measurement of leased out buildings was based on the cost approach. This approach is a method of determining the replacement cost of a property after adjustment for accumulated depreciation. Accumulated depreciation is the reduction in actual value of property over a period of time as a result of wear and tear or obsolescence.

The fair value measurement of land improvements and buildings was based on the forced sale value approach.

16 **Property, plant, and equipment**

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Consolidated financial statements												
	Note	Land	Buildings and factories	Building improvements	Ocean vessels, support vessels, supply vessels, and tender rigs	Dry-docking	Furniture, fixtures, machinery, and equipment	Motor vehicles	Motor launches	Barges	Assets under construction	Total
(in thousand Baht)												
Depreciation and impairment charges												
At 1 January 2018		-	687,878	195,198	17,404,555	1,813,682	4,396,883	116,806	41,420	60,368	59,783	24,776,573
Depreciation charge for the year		-	69,956	44,529	652,179	263,914	289,211	19,523	5,883	1,930	-	1,347,125
Acquisition through business combination		-	11,865	-	-	-	26,570	12,729	-	-	-	51,164
Disposals and write-offs		-	(357)	(8,439)	(1,946,241)	(960,988)	(1,015,753)	(11,341)	-	-	-	(3,943,119)
Reversal of impairment		-	-	-	-	-	-	-	-	(12,160)	-	(12,160)
Foreign currency translation differences		-	(8,256)	(4,248)	(707,617)	(206,362)	(324,337)	(2,582)	(3,336)	-	(5,118)	(1,261,856)
At 31 December 2018 and 1 January 2019		-	761,086	227,040	15,402,876	910,246	3,372,574	135,135	43,967	50,138	54,665	20,957,727
Depreciation charge for the year		-	74,629	53,276	645,374	319,741	281,621	20,330	4,998	2,532	-	1,402,501
Effect from loss of control in a subsidiary	12	-	-	(7,484)	(29,658)	(28,888)	(163,106)	(8,556)	-	-	(6,191)	(243,883)
Disposals and write-offs		-	(5,149)	-	-	(165,743)	(56,714)	(5,514)	-	-	-	(233,120)
Impairment		-	-	6,000	134,091	-	19,025	-	-	-	-	159,116
Foreign currency translation differences		-	(26,139)	(4,004)	(1,043,805)	462,761	(195,200)	(6,946)	(3,256)	-	(3,450)	(820,039)
At 31 December 2019		-	804,427	274,828	15,108,878	1,498,117	3,258,200	134,449	45,709	52,670	45,024	21,222,302
Net book value												
At 1 January 2018		500,178	958,172	188,862	12,107,498	316,494	1,244,809	64,066	55,615	77,040	68,730	15,561,464
At 31 December 2018 and 1 January 2019		399,827	941,741	246,307	12,109,483	417,334	1,248,499	66,850	56,456	87,319	43,679	15,617,495
At 31 December 2019		504,932	833,603	229,962	10,669,894	311,537	974,341	39,768	49,994	84,846	38,381	13,737,258

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Separate financial statements

	Land	Buildings	Building improvements	Furniture, fixtures, and equipment (in thousand Baht)	Motor vehicles	Assets under construction	Total
Cost							
At 1 January 2018	82,847	201,846	90,733	71,595	-	535	447,556
Additions	-	-	856	3,805	3,830	-	8,491
At 31 December 2018 and 1 January 2019	82,847	201,846	91,589	75,400	3,830	535	456,047
Additions	-	-	1,207	1,225	3,599	15,447	21,478
Disposals	-	-	-	(14)	-	-	(14)
At 31 December 2019	82,847	201,846	92,796	76,611	7,429	15,982	477,511
Depreciation							
At 1 January 2018	-	161,515	86,528	69,229	-	-	317,272
Depreciation charge for the year	-	5,325	1,850	1,627	159	-	8,961
At 31 December 2018 and 1 January 2019	-	166,840	88,378	70,856	159	-	326,233
Depreciation charge for the year	-	5,325	1,768	1,647	1,085	-	9,825
Disposals	-	-	-	(14)	-	-	(14)
At 31 December 2019	-	172,165	90,146	72,489	1,244	-	336,044
Net book value							
At 1 January 2018	82,847	40,331	4,205	2,366	-	535	130,284
At 31 December 2018 and 1 January 2019	82,847	35,006	3,211	4,544	3,671	535	129,814
At 31 December 2019	82,847	29,681	2,650	4,122	6,185	15,982	141,467

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Significant movements of property, plant and equipment of the Group during the year ended 31 December 2019 were as follows:

Significant additions, disposals and write-offs:

Significant changes were i) payments for vessel, vessels upgrade and dry-docking of vessels; ii) payments for warehouse constructions and restaurant outlet constructions; and iii) payments for support vessels equipment.

Mortgaged assets

Property, plant and equipment as of 31 December 2019 used as collateral for loan facilities are disclosed in note 20.

17 Intangible assets

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Consolidated financial statements						
	Customer relationships	Computer software	Franchise license	Trademarks (in thousand Baht)	Service concession arrangement	Others
						Total
Amortization						
At 1 January 2018	562,807	348,097	8,112	-	-	11,930
Amortization charge for the year	990	6,699	13,907	1,194	1,547	7,595
Acquisition through business combination	-	627	-	-	-	4,525
Disposals and write-offs	-	(29,329)	-	-	-	-
Foreign currency translation differences	(14,615)	(750)	-	-	-	(134)
At 31 December 2018 and 1 January 2019	549,182	325,344	22,019	1,194	1,547	923,202
Amortization charge for the year	2,600	5,241	13,907	-	-	14,770
Effect from loss of control in a subsidiary	-	(102)	-	-	-	-
Disposals and write-offs	-	(12,190)	-	-	-	(1,987)
Foreign currency translation differences	-	(4,496)	-	-	-	(1,532)
At 31 December 2019	551,782	313,797	35,926	1,194	1,547	939,413
Net book value						
At 1 January 2018	-	13,211	130,957	-	-	171,694
At 31 December 2018 and 1 January 2019	25,010	18,015	117,050	30,156	97,493	328,315
At 31 December 2019	22,410	17,894	103,143	30,156	97,493	282,295

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	Separate financial statements
	Computer software (in thousand Baht)
Cost	
At 1 January 2018	193,642
Additions	745
Disposals and write-offs	(2,610)
At 31 December 2018 and 1 January 2019	191,777
Additions	300
At 31 December 2019	192,077
Amortization and impairment charges	
At 1 January 2018	193,642
Amortization charge for the year	204
Disposals and write-offs	(2,459)
At 31 December 2018 and 1 January 2019	191,387
Amortization charge for the year	234
At 31 December 2019	191,621
Net book value	
At 1 January 2018	-
At 31 December 2018 and 1 January 2019	390
At 31 December 2019	456

18 Deferred tax

Deferred tax assets and liabilities as at 31 December were attributable to the following:

	Consolidated financial statements					
	Assets		Liabilities		Net	
	2019	2018	2019	2018	2019	2018
	<i>(in thousand Baht)</i>					
Other current financial assets	120,333	87,359	(6,780)	(2,018)	113,553	85,341
Trade accounts receivable	1,434	2,540	-	-	1,434	2,540
Other accounts receivable	2,753	-	-	-	2,753	-
Investment in joint ventures	-	-	(83,992)	-	(83,992)	-
Property, plant, and equipment	12,382	14,558	(7,500)	(44,299)	4,882	(29,741)
Intangible assets	1,790	2,032	(26,176)	-	(24,386)	2,032
Non-current provision for employee benefits	24,953	22,351	(1,373)	(257)	23,580	22,094
Loss carry forward	121,036	138,647	-	-	121,036	138,647
Others	27,968	31,351	(128)	(111)	27,840	31,240
Total	312,649	298,838	(125,949)	(46,685)	186,700	252,153
Set off of tax	(87,051)	(7,898)	87,051	7,898	-	-
Net deferred tax assets (liabilities)	225,598	290,940	(38,898)	(38,787)	186,700	252,153

Thoresen Thai Agencies Public Company Limited and its Subsidiaries

Notes to the financial statements

For the year ended 31 December 2019

	Separate financial statements					
	Assets		Liabilities		Net	
	2019	2018	2019	2018	2019	2018
	<i>(in thousand Baht)</i>					
Other current financial assets	18,209	9,000	(6,782)	(2,019)	11,427	6,981
Intangible assets	6,557	6,852	-	-	6,557	6,852
Investment in joint ventures	-	-	(83,462)	-	(83,462)	-
Non-current provision for employee benefits	4,266	2,756	-	-	4,266	2,756
Loss carry forward	51,240	66,869	-	-	51,240	66,869
Others	2,284	2,014	-	-	2,284	2,014
Total	82,556	87,491	(90,244)	(2,019)	(7,688)	85,472
Set off of tax	(82,556)	(2,019)	82,556	2,019	-	-
Net deferred tax assets (liabilities)	-	85,472	(7,688)	-	(7,688)	85,472

Thoresen Thai Agencies Public Company Limited and its Subsidiaries
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Movements in total deferred tax assets and liabilities during the years ended 31 December were as follows:

Consolidated financial statements						
Charged / (credited) to:						
	At 1 January 2019	Profit or loss	Other comprehensive income <i>(in thousand Baht)</i>	Exchange differences	Effect from loss of control in a subsidiary (note 12)	At 31 December 2019
Other current financial assets	85,341	7,252	26,503	(5,543)	-	113,553
Trade accounts receivable	2,540	(1,106)	-	-	-	1,434
Other accounts receivable	-	2,753	-	-	-	2,753
Investment in joint ventures	-	(83,992)	-	-	-	(83,992)
Property, plant, and equipment	(29,741)	34,284	-	997	(658)	4,882
Intangible assets	2,032	(26,418)	-	-	-	(24,386)
Non-current provision for employee benefits	22,094	7,186	1,005	-	(6,705)	23,580
Loss carry forward	138,647	(12,884)	-	(4,727)	-	121,036
Others	31,240	(3,032)	-	(368)	-	27,840
Total	252,153	(75,957)	27,508	(9,641)	(7,363)	186,700

Consolidated financial statements						
Charged / (credited) to:						
	At 1 January 2018	Profit or loss	Business combination <i>(in thousand Baht)</i>	Other comprehensive income	Exchange differences	At 31 December 2018
Other current financial assets	47,624	9,000	-	29,062	(345)	85,341
Trade accounts receivable	137	1,660	743	-	-	2,540
Property, plant, and equipment	(7,860)	(4,359)	(17,049)	-	(473)	(29,741)
Intangible assets	2,545	(513)	-	-	-	2,032
Non-current provision for employee benefits	21,231	(311)	1,016	158	-	22,094
Loss carry forward	198,663	(60,016)	-	-	-	138,647
Others	30,773	726	-	-	(259)	31,240
Total	293,113	(53,813)	(15,290)	29,220	(1,077)	252,153

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	At 1 January 2019	Separate financial statements Charged / (credited) to:		At 31 December 2019
		Profit or loss (in thousand Baht)	Other comprehensive income	
Other current financial assets	6,981	7,252	(2,806)	11,427
Property, plant and equipment	6,852	(295)	-	6,557
Investment in joint ventures	-	(83,462)	-	(83,462)
Non-current provision for employee benefits	2,756	1,178	332	4,266
Loss carry forward	66,869	(15,629)	-	51,240
Others	2,014	270	-	2,284
Total	85,472	(90,686)	(2,474)	(7,688)

	At 1 January 2018	Separate financial statements Charged / (credited) to:		At 31 December 2018
		Profit or loss (in thousand Baht)	Other comprehensive income	
Other current financial assets	(1,105)	9,000	(914)	6,981
Property, plant and equipment	7,764	(912)	-	6,852
Non-current provision for employee benefits	1,990	621	145	2,756
Loss carry forward	133,973	(67,104)	-	66,869
Others	2,432	(418)	-	2,014
Total	145,054	(58,813)	(769)	85,472

Deferred tax assets arising from temporary differences and unused tax losses that have not been recognized in the financial statements were as follows:

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	(in thousand Baht)			
Deductible temporary differences	586,616	419,156	-	-
Unused tax losses	615,015	588,402	-	-
Total	1,201,631	1,007,558	-	-

The majority tax losses will expire from 2020 to 2024. The deductible temporary differences do not expire under current tax legislation. Deferred tax assets have not been recognized in respect of these items because it is not probable that future taxable profit will be available against which the Group and the Company can utilise the benefits therefrom.

Thoresen Thai Agencies Public Company Limited and its Subsidiaries
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19 Other non-current assets

	Consolidated		Separate	
	financial statements		financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Restricted deposits at financial institutions over 1 year	435,621	648,378	-	-
Others	117,765	93,416	1,374	13,105
Total	553,386	741,794	1,374	13,105

Restricted deposits at financial institutions

The restricted deposits at financial institutions mainly comprises the following:

As at 31 December 2019, Baht 241.2 million (2018: Baht 269.3 million) restricted deposit at a financial institution was pledged against long-term loans with financial institutions by subsidiaries. The restricted deposit must be maintained at a minimum amount of the next two principal and interest payments.

As at 31 December 2019, Baht 81.3 million (2018: Baht 173.9 million) restricted deposit at a financial institution was pledged against long-term loans with financial institutions by subsidiaries. The restricted deposit must be maintained as a collateral for the long-term borrowings during the facility period.

As at 31 December 2019, Baht 99.5 million (2018: Baht 142.8 million) restricted deposit at a financial institution was deposited by a subsidiary to secure the certain performance guarantee of a subsidiary.

As at 31 December 2019, Baht 13.6 million (2018: Baht 62.4 million) restricted deposit at a financial institution was deposited by a subsidiary to secure the performance guarantee from the financial institution and bank overdraft.

20 Interest-bearing liabilities

	Consolidated		Separate	
	financial statements		financial statements	
Note	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Current				
Bank overdrafts and short-term borrowings	418,512	747,117	-	300,000
Short-term borrowings from related parties	5 -	-	740,857	796,959
Current portion of long-term borrowings	1,145,642	1,571,576	-	-
Current portion of finance lease liabilities	10,371	15,138	-	-
	1,574,525	2,333,831	740,857	1,096,959
Non-current				
Long-term borrowings	3,406,272	4,188,883	-	-
Bonds	3,289,882	3,280,046	3,289,882	3,280,046
Finance lease liabilities	10,395	22,071	-	-
	6,706,549	7,491,000	3,289,882	3,280,046
Total	8,281,074	9,824,831	4,030,739	4,377,005

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The periods to maturity of long-term borrowings as at 31 December were as follows:

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Within one year	1,145,642	1,571,576	-	-
After one year but within five years	3,169,309	3,627,667	-	-
After five years	236,963	561,216	-	-
Total	4,551,914	5,760,459	-	-

The Company

Bonds

In July 2010, the Company issued and sold two tranches of unsubordinated and unsecured Thai Baht bonds at face value worth Baht 4 billion. In July 2015, the Company repaid the 2010 Tranche 1 bond liabilities. In the same month, the Company issued and sold unsubordinated and unsecured Thai Baht bonds at face value worth Baht 2 billion and entered into cross currency and interest rate swap to be denominated. In June 2017, the Company repaid the 2010 bond tranche 2 bond liabilities in full and settled the related cross currency and interest rate swap contracts. In July 2018, the Company has fully repaid the 2015 bond liabilities both principal and interest to bondholders.

On 23 March 2018 and 16 October 2018, the Company issued and sold unsubordinated and unsecured Thai Baht bonds at face value worth Baht 1,805.2 million and Baht 1,500.0 million, respectively. As at 31 December 2019, the Company has an outstanding balance of unsecured Thai Baht bonds totaling of Baht 3,289.9 million (*31 December 2018: Baht 3,280.0 million*).

The details of the outstanding bonds as at 31 December 2019 are as follows:

Issued year	Number of units	Face value/ unit (Baht)	Interest rate (% per annum)	Maturity date
2018	1,805,200	1,000	4.50	23 March 2021
2018	1,500,000	1,000	5.00	19 January 2022

The interests on the bond liabilities are repayable every three months and the principal is repayable at respective maturity dates.

The movements of bonds during the years ended 31 December were as follows:

	Consolidated and separate financial statements	
	2019	2018
	<i>(in thousand Baht)</i>	
At 1 January	3,280,046	1,998,618
Proceeds from issue of bonds	-	3,275,667
Repayments	-	(2,000,000)
Amortization on deferred arrangement fee	9,836	5,761
At 31 December	3,289,882	3,280,046
Less current portion of bonds	-	-
Bonds - net of current portion	3,289,882	3,280,046
Consolidated		

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Consolidated

Bank overdraft

One barge with a net book value of Baht 13.0 million (31 December 2018: Baht 13.9 million) is mortgaged with a bank as collateral for its unused bank overdraft facility of Baht 10.0 million (31 December 2018: Baht 10.0 million).

Short-term borrowings

As at 31 December 2019, the Group has secured short-term borrowings from financial institutions in form of promissory notes, trust receipts and short-term borrowings amounting to Baht 363.5 million (31 December 2018: Baht 747.1 million) which are secured by subsidiaries' partial land and construction thereon, partial machinery, inventories and guaranteed by a subsidiary. The net book value of these collateral assets are Baht 219.9 million, USD 1.6 million and VND 292,221.4 million (31 December 2018: Baht 213.8 million, USD 1.8 million and VND 295,017.2 million). The loans bear interest at the rates between 3.8% to 7.0% per annum (31 December 2018: 3.2% to 5.8% per annum).

The Group's short-term borrowings from financial institutions bear effective interest rates at 3.8% to 7.0% per annum.

Long-term borrowings

Movements of long-term borrowings during the years ended 31 December were as follows:

	Consolidated		Separate	
	financial statements		financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
At 1 January	5,760,459	5,914,856	-	-
Additions	215,083	835,226	-	-
Increase through business acquisition	-	165,032	-	-
Repayments	(1,000,966)	(1,121,046)	-	-
Transfer to short-term borrowings	(42,000)	-	-	-
Reclassify deferred arrangement fee from other current assets	(22,471)	-	-	-
Realised losses on exchange rates	1,044	-	-	-
Unrealised gains on exchange rates	(18,717)	(2,925)	-	-
Amortization of deferred arrangement fee	8,193	3,554	-	-
Foreign currency translation differences	(348,711)	(34,238)	-	-
At 31 December	4,551,914	5,760,459	-	-
Less current portion of long-term borrowings	(1,145,642)	(1,571,576)	-	-
Long-term borrowings - net of current portion	3,406,272	4,188,883	-	-

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Loans for the purchases and constructions of ocean vessels, support vessels and equipment, and barges:

- Loans for the purchase and construction of ocean vessels are granted by foreign syndicated banks and are denominated in US Dollars with a total outstanding balance of USD 89.2 million as at 31 December 2019 (*31 December 2018: USD 100.0 million*) with repayment terms within 5 - 17 years from the vessel delivery date. As at 31 December 2019, interest rates and securities on the loans are as follows:
 - The loan balance of USD 9.6 million (*31 December 2018: USD 13.1 million*): fixed rate and LIBOR plus a certain margin and is secured by a mortgage of two vessels with a net book value of USD 24.3 million (*31 December 2018: USD 25.4 million*) and a corporate guarantee by the Company.
 - The loan balance of USD 79.6 million (*31 December 2018: USD 86.9 million*): LIBOR plus a certain margin and is secured by a mortgage of fourteen of the Group's ocean vessels with a net book value of USD 151.3 million (*31 December 2018: USD 159.1 million*), assignment of insurance for the collateral vessels, pledge or charge over bank accounts, and a corporate guarantee by the Company.
- Loans for the purchase of subsea vessels and equipment are granted by local commercial banks and are denominated in US Dollars, having a total outstanding balance of USD 56.0 million as at 31 December 2019 (*31 December 2018: USD 68.0 million*) with repayment terms within 5 years. As at 31 December 2019, the interest rate is *USD-LIBOR* plus a certain margin (*31 December 2018: USD-LIBOR plus a certain margin*). These loans are currently secured by mortgages of subsea vessels with a net book value of USD 108.4 million (*31 December 2018: USD 119.9 million*) and are guaranteed by a subsidiary.

According to a condition of several loan agreements, the Company and its subsidiaries are not allowed to create any encumbrance on the assets which are used as collateral, except obtaining prior consent of the banks and permitted liens. The Company and its subsidiaries must comply with other conditions and restrictions stated in the term loan agreements.

As at 31 December 2019, the Company as a guarantor for loans undertaken by subsidiaries, and subsidiaries as the borrowers had breached certain loan covenants. According to Thai Accounting Standard No. 1 (Revised 2018) - *Presentation of Financial Statements*, the entity has to present the liability as current if an entity has breached an undertaking under a long-term loan agreement on or before the reporting date, even if the lender has agreed, after the reporting date and before the authorisation of the financial statements for issue, not to demand payment as a consequence of the breach. As a result, the long-term portion of loans amounting to Baht 184.4 million (*31 December 2018: Baht 311.8 million*) according to repayment schedule of the loans was presented as current liabilities as of 31 December 2019.

Currently, management is discussing with the relevant banks and has the opinion that the outcome will not result in a material adverse effect.

The fair value of long-term borrowings carrying a floating rate, which is considered to be market rate, are taken to approximate their fair values.

The Group's long-term borrowings from financial institutions bear effective interest rate at 3.8% to 7.3% per annum.

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21 Non-current provisions for employee benefits

	Consolidated		Separate	
	financial statements		financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Statements of financial position				
Non-current provisions for:				
Defined benefit plan	167,750	156,619	19,741	12,697
Other long-term employee benefits	9,266	9,044	1,595	1,087
Total	177,016	165,663	21,336	13,784
Statement of comprehensive income:				
Recognized in profit or loss:				
Defined benefit plan	43,015	21,217	5,384	3,093
Other long-term employee benefits	1,512	1,922	596	191
Total	44,527	23,139	5,980	3,284
Recognized in other comprehensive income:				
Actuarial losses recognized in the year	2,323	410	1,660	726
Cumulative actuarial gains recognized	(8,072)	(10,395)	(5,401)	(7,061)

Defined benefit plan

The Company and subsidiaries in Thailand

The Company and subsidiaries in Thailand operate a defined benefit plan based on the requirement of Thai Labour Protection Act B.E 2541 (1998) to provide retirement benefits to employees based on pensionable remuneration and length of service.

The defined benefit plans expose the Group to actuarial risks, such as longevity risk, currency risk, interest rate risk and market risk.

Subsidiaries in Vietnam

Under the Vietnamese Labour Code, when employees who have worked for 12 months or more (“eligible employees”) voluntarily terminates his/her labour contract, the employer is required to pay the eligible employees severance allowance calculated based on years of service and employees’ compensation at termination. Provision for severance allowance has been provided based on employees’ years of service and their current salary level.

Pursuant to Law on Social Insurance, effective from 1 January 2009, subsidiaries in Vietnam and their employees are required to contribute to an unemployment insurance fund managed by the Vietnam Social Insurance Agency.

With the implementation of unemployment insurance scheme, subsidiaries in Vietnam are no longer required to provide severance allowance for the service period after 1 January 2009. However, severance allowance to be paid to the existing eligible employees as of reporting date was determined based on the eligible employees’ years of service as of 31 December 2008 and their average salary for the six-month period prior to the termination date.

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The movements in the defined benefit obligations during the years ended 31 December were as follows:

	Consolidated		Separate	
	financial statements		financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
At 1 January	165,663	147,209	13,783	9,950
Included in profit or loss:				
Current service costs	39,262	19,826	5,453	2,949
Past service costs	10,612	247	-	-
Interest on obligation	2,872	3,552	527	335
Loss on settlement	(3,110)	(258)	-	-
Remeasurement of other long-term benefit	(461)	(23)	-	-
Foreign currency translation differences	(4,648)	(205)	-	-
	44,527	23,139	5,980	3,284
Included in other comprehensive income:				
Actuarial loss	2,323	410	1,660	726
	2,323	410	1,660	726
Other				
Benefit paid by the plan	(3,416)	(7,439)	(87)	(177)
Business combination	-	2,344	-	-
Effect from loss of control in a subsidiary	(32,081)	-	-	-
	(35,497)	(5,095)	(87)	(177)
At 31 December	177,016	165,663	21,336	13,783

Actuarial gains and losses recognized in other comprehensive income arising from:

	Consolidated		Separate	
	financial statements		financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Demographic assumptions	3,773	(316)	1,218	-
Financial assumptions	(2,032)	-	(1,364)	-
Experience adjustment	582	726	1,806	726
Total	2,323	410	1,660	726

On 5 April 2019, the Labor Protection Act was amended to include a requirement that an employee, who is terminated after having been employed by the same employer for an uninterrupted period of twenty years or more, receives severance payment of 400 days of wages at the most recent rate. The Group has therefore amended its retirement plan in accordance with the changes in the Labor Protection Act in 2019. As a result of this change, the provision for retirement benefits as well as past service cost recognised increased.

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Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date (expressed as weighted averages).

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
Discount rate	1.9% - 7.7%	1.4% - 7.7%	2.9% - 3.2%	2.7% - 3.0%
Future salary increases	3.0% - 8.0%	2.0% - 8.0%	5.0%	6.0%
Resignation rate	0% - 34.4%	0% - 34.4%	1.7% - 22.9%	1.7% - 22.9%

Assumptions regarding future mortality have been based on published statistics and mortality tables.

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			
Effect to the defined benefit obligation At 31 December	1% increase in assumption		1% decrease in assumption	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Discount rate	(8,701)	(8,543)	7,871	9,319
Future salary growth	8,284	9,864	(8,647)	(8,060)
Employee turnover	(5,016)	(1,964)	6,244	2,638
Future mortality	(391)	44	397	(54)

	Separate financial statements			
Effect to the defined benefit obligation At 31 December	1% increase in assumption		1% decrease in assumption	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Discount rate	(338)	(1,346)	196	1,578
Future salary growth	586	1,531	(499)	(1,325)
Employee turnover	(508)	(75)	623	96
Future mortality	(62)	(8)	63	8

Although the analysis does not take account of the full distribution of cash flows expected under the plan, it does provide an approximation of the sensitivity of the assumptions shown.

22 Share capital and warrants

	Par value per share <i>(in Baht)</i>	2019		2018	
		Number	Amount	Number	Amount
		<i>(thousand shares / thousand Baht)</i>			
Authorized					
At 1 January					
- ordinary shares	1	1,998,447	1,998,447	1,998,447	1,998,447
At 31 December					
- ordinary shares	1	1,998,447	1,998,447	1,998,447	1,998,447

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	Par value per share (in Baht)	2019		2018	
		Number	Amount	Number	Amount
		(thousand shares / thousand Baht)			
Issued and paid-up					
At 1 January					
- ordinary shares	1	1,822,464	1,822,464	1,822,464	1,822,464
Exercise of warrants	1	1	1	-	-
At 31 December					
- ordinary shares	1	1,822,465	1,822,465	1,822,464	1,822,464

Exercise and expiration of warrants

During the year ended 31 December 2019, TTA-W5 was exercised and registered as paid-up share capital in the amount of Baht 558.0 (2018: no exercise of warrants), resulting in an increase of the Company's total paid-up share capital to Baht 1,822,465 thousand. The remaining of the Company's warrants was expired and delisted on 1 March 2019.

	Consolidated financial statements		Separate financial statements	
	Average exercise price per warrant (in Baht)	Number of units'000	Average exercise price per warrant (in Baht)	Number of units'000
At 1 January 2018	18.5	173,483	18.5	173,483
At 31 December 2018 and 1 January 2019	18.5	173,483	18.5	173,483
Exercise of warrants	18.5	(1)	18.5	(1)
Expiration of warrants	18.5	(173,482)	18.5	(173,482)
At 31 December 2019	-	-	-	-

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.

23 Reserves

Reserves comprise:

Appropriations of profit and/or retained earnings

Legal reserve

Under the Public Companies Act B.E. 2535 Section 116 requires that a public 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 authorized capital. The legal reserve is not available for dividend distribution.

Other components of equity

Foreign currency translation differences of foreign operations

Foreign currency translation differences of foreign operations account within equity comprises all foreign currency differences arising from the translation of the financial statements of foreign operations.

Fair value changes in equity and debt securities

The fair value changes in equity and debt securities account within equity comprise the cumulative net change in the fair value of equity and debt securities until the investments are derecognized or impaired.

Change in parent's ownership interest in subsidiaries

Change in parent's ownership interest in subsidiaries within equity comprises of effect from dilution of percentage of holding of the Company in a subsidiary and difference from changes in parent's ownership interest in subsidiaries that do not result in a loss of control.

24 Segment information and disaggregation of revenue

Management determined that the Group has four reportable segments, as described below, which are the Group's strategic divisions. The strategic divisions offer different products and services, and are managed separately because they require different technology and marketing strategies. The following summary describes the operations in each of the Group's reportable segments.

Segment 1	Shipping
Segment 2	Offshore service
Segment 3	Agrochemical
Segment 4	Investment

Each segment's performance is measured based on segment profit before tax, as included in the internal management reports that are reviewed by the Group's chief operating decision maker. Segment profit before tax is used to measure performance as management believes that such information is the most relevant in evaluating the results of certain segments relative to other entities that operate within these industries. Inter-segment pricing is determined on an arm's length basis.

Information about reportable segments and timing of revenue recognition

Revenue, results and timing of revenue recognition, based on business segments, in the consolidated financial statements for the years ended 31 December 2019 and 2018 were as follows:

Consolidated financial statements							
For the year ended 31 December 2019							
	Shipping	Offshore service	Agrochemical	Investment	Elimination of inter-segment transactions	Total	
			(in thousand Baht)				
Disaggregation of revenue							
	Primary geographical markets						
	Asia	2,266,498	3,286,040	2,376,124	2,495,803	(4,145)	10,420,320
	Africa	1,703,419	-	389,819	-	-	2,093,238
	America	1,462,893	-	-	-	-	1,462,893
	Europe	995,287	-	-	-	-	995,287
Others	344,502	-	111,739	-	-	456,241	
Total	6,772,599	3,286,040	2,877,682	2,495,803	(4,145)	15,427,979	
Timing of revenue recognition							
At a point in time	-	-	2,820,538	2,100,831	(42)	4,921,327	
Over time	6,772,599	3,286,040	57,144	394,972	(4,103)	10,506,652	
Total	6,772,599	3,286,040	2,877,682	2,495,803	(4,145)	15,427,979	
Information about reportable segments							
Revenues from operations	6,929,349	3,286,040	2,877,682	2,495,803	(160,895)	15,427,979	
Revenues from inter-segment	(156,750)	-	-	-	156,750	-	
From outside customers	6,772,599	3,286,040	2,877,682	2,495,803	(4,145)	15,427,979	
Depreciation and amortisation	568,326	566,921	64,149	222,879	-	1,422,275	
operating profits (losses)	915,047	(773,743)	76,858	741,654	(331,501)	628,315	
Share of profits from associates and joint ventures	-	147,735	-	59,722	-	207,457	
Finance costs	(156,354)	(105,660)	(14,579)	(244,273)	48,536	(472,330)	
Tax expenses	(9,691)	(18,049)	(18,430)	(98,564)	(530)	(145,264)	
Profits (losses) for the year	749,002	(749,717)	43,849	458,539	(283,495)	218,178	

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Consolidated financial statements					
As at 31 December 2019					
	Shipping	Offshore service	Agrochemical	Investment	Elimination of inter-segment transactions
			(in thousand Baht)		
					Total
Total assets	11,381,064	11,279,100	2,027,386	38,793,511	33,473,051
Total liabilities	(3,455,853)	(2,625,100)	(608,162)	(8,983,590)	(10,874,489)

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Consolidated financial statements					
For the year ended 31 December 2018					
	Shipping	Offshore service	Agrochemical	Investment	Elimination of inter-segment transactions
			(in thousand Baht)		
Disaggregation of revenue					
Primary geographical markets					
Asia	2,820,599	3,071,858	2,367,529	2,300,192	(17,335)
Africa	1,463,744	-	292,560	-	-
America	629,435	-	-	-	-
Europe	847,898	-	-	-	-
Others	54,785	10	115,064	-	-
Total	5,816,461	3,071,868	2,775,153	2,300,192	(17,335)
					13,946,339
Timing of revenue recognition					
At a point in time	-	-	2,715,629	1,919,602	(452)
Over time	5,816,461	3,071,868	59,524	380,590	(16,883)
Total	5,816,461	3,071,868	2,775,153	2,300,192	(17,335)
					13,946,339
Information about reportable segments					
Revenues from operations	5,979,807	3,071,868	2,775,153	2,300,192	(180,681)
Revenues from inter-segment	(163,346)	-	-	-	163,346
					13,946,339
From outside customers	5,816,461	3,071,868	2,775,153	2,300,192	(17,335)
					13,946,339
Depreciation and amortisation	540,249	591,723	67,314	188,721	-
					1,388,007
Operating profits (losses)	1,222,584	(987,334)	58,728	309,642	(598,372)
Share of profits from associates and joint ventures	-	260,457	-	140,540	-
Finance costs	(171,960)	(125,943)	(5,812)	(204,015)	49,155
Tax expenses	(3,442)	(28,448)	(14,995)	(86,392)	-
Profits (losses) for the year	1,047,182	(881,268)	37,921	159,775	(549,217)
					(185,607)

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	Consolidated financial statements As at 31 December 2018				
	Shipping	Offshore service	Agrochemical	Investment	Elimination of inter- segment transactions
			<i>(in thousand Baht)</i>		
					Total
Total assets	11,981,040	13,291,098	2,123,398	40,566,120	37,111,653
Total liabilities	(4,162,532)	(3,073,016)	(612,767)	(10,437,332)	(12,524,659)

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Geographical information

The Group has expanded its investment and operations in foreign countries. All significant non-current assets on the basis of geography is presented below. Segment non-current assets are based on the geographical location of the assets.

	Consolidated financial statement	
	Non-current assets	
	2019	2018
	<i>(in thousand Baht)</i>	
Asia	20,932,920	24,986,203
Africa	314,355	425,886
Total	21,247,275	25,412,089

Major customer

Revenues from the major customer of the Group's Offshore service segment for the year ended 31 December 2019 represents approximately Baht 1,930.5 million (31 December 2018: Baht 1,829.1 million) of the Group's total revenues.

25 Other income

	Consolidated		Separate	
	financial statements		financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Dividend income	28,705	35,020	388,618	455,193
Gains on disposals of property, plant and equipment and intangible assets	-	47,876	17	-
Gains on disposals of other current financial assets	-	3,092	6,883	2,619
Gains on partial disposal of interest in subsidiary with a change of control	769,318	-	700,995	-
Gain from loss of control in a subsidiary	21,228	-	-	-
Interest income	166,051	137,108	114,183	74,692
Gains from changes in fair values of financial assets	9,500	18,623	11,065	10,892
Gain on disposal of other non-current financial assets	10,864	-	-	-
Net gains on derivatives	15,380	-	-	-
Others	73,057	43,891	64,125	71,138
Total	1,094,103	285,610	1,285,886	614,534

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26 Expenses by nature

The statements of comprehensive 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	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Expenses included in vessel operating expenses				
Voyage expenses	2,037,376	1,329,890	-	-
Vessel supplies and spare parts expenses and repair and maintenance expenses	250,436	257,189	-	-
Crew and staff costs	532,634	519,634	-	-
Charter hire	2,174,990	1,662,174	-	-
Depreciation and amortization	566,382	539,161	-	-
Expenses included in offshore service expenses				
Vessel expenses and repair and maintenance expenses	827,337	1,040,646	-	-
Crew, staff costs, and subcontractor costs	1,482,851	1,448,212	-	-
Charter hire and equipment rental	169,296	90,523	-	-
Depreciation and amortization	536,475	568,380	-	-
Expenses included in costs of sales				
Cost of raw materials	2,895,862	2,812,810	-	-
Supplies and spare parts expenses and repair and maintenance expenses	54,399	56,139	-	-
Staff costs	472,800	477,548	-	-
Depreciation and amortization	128,735	120,699	-	-
Expenses included in service, selling, and administrative expenses				
Staff costs	1,043,497	1,106,012	189,257	176,723
Professional fees	108,390	169,861	14,360	14,820
Office and office equipment rental	48,182	65,246	7,792	8,409
Depreciation and amortization	190,680	159,767	10,058	8,596

27 Tax expense

Income taxes as shown in the consolidated and separate statements of income are calculated based on net taxable income from non-BOI activities using a principal tax rate for operations in Thailand and specific tax rates applicable to each respective country for overseas operations. Non-BOI activities comprise gains from disposals of assets, shipping related services including agency, drilling services outside Thailand, offshore related services, and production and trading of fertiliser and coal.

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Income tax recognized in profit or loss

		Consolidated		Separate	
		financial statements		financial statements	
	Note	2019	2018	2019	2018
		(in thousand Baht)			
Current tax expense					
Current year		71,075	58,186	-	-
Under (over) provided in prior years		(1,768)	21,278	-	-
		69,307	79,464	-	-
Deferred tax expense					
Movements in temporary differences	18	75,957	53,813	90,686	58,813
		75,957	53,813	90,686	58,813
Total income tax expense		145,264	133,277	90,686	58,813

Income tax recognized in other comprehensive income

	Consolidated financial statements					
	2019			2018		
	Before tax	Tax benefit	Net of tax	Before tax	Tax benefit	Net of tax
<i>(in thousand Baht)</i>						
Change in fair value of other current financial assets	(131,309)	26,503	(104,806)	(170,497)	29,062	(141,435)
Change in defined benefit plan actuarial gains	(2,323)	1,005	(1,318)	296	158	454
Total	(133,632)	27,508	(106,124)	(170,201)	29,220	(140,981)

	Separate financial statements					
	2019			2018		
	Before Tax	Tax (expense) benefit	Net of tax	Before tax	Tax (expense) benefit	Net of tax
<i>(in thousand Baht)</i>						
Change in fair value of other current financial assets	14,032	(2,806)	11,226	4,568	(914)	3,654
Change in defined benefit plan actuarial gains	(1,660)	332	(1,328)	(726)	145	(581)
Total	12,372	(2,474)	9,898	3,842	(769)	3,073

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Reconciliation of effective tax rate

Consolidated financial statements				
	2019		2018	
	<i>Rate</i>	<i>(in thousand</i>	<i>Rate</i>	<i>(in thousand</i>
	<i>(%)</i>	<i>Baht)</i>	<i>(%)</i>	<i>Baht)</i>
Profits (losses) before income tax expense		363,442		(52,330)
Income tax using the Thai corporation tax rate	20	72,688	20	(10,466)
Effect of different tax rates in foreign jurisdictions		41,672		47,967
Income not subject to tax		(257,298)		(204,278)
Expenses not deductible for tax purposes		241,032		118,944
Recognition of previously unrecognized tax losses		(20,505)		(25,383)
Current year losses and temporary differences for which no deferred tax asset was recognized		126,955		194,007
Under (over) provided in prior years		(1,768)		21,278
Effect of different functional currency of accounting and tax from subsidiaries		(57,512)		(8,792)
Total	40	145,264	(255)	133,277

Separate financial statements				
	2019		2018	
	<i>Rate</i>	<i>(in thousand</i>	<i>Rate</i>	<i>(in thousand</i>
	<i>(%)</i>	<i>Baht)</i>	<i>(%)</i>	<i>Baht)</i>
Profits before income tax expense		491,245		167,969
Income tax using the Thai corporation tax rate	20	98,249	20	33,594
Income not subject to tax		(51,174)		(28,127)
Expenses not deductible for tax purposes		43,611		53,346
Total	18	90,686	35	58,813

28 Earnings per share

Basic earnings per share

The calculation of basic earnings per share for the years ended 31 December was based on the profits for the year attributable to equity holders of the Company and the weighted average number of ordinary shares outstanding during the year as follows:

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht / thousand shares)</i>			
Profits for the year attributable to equity holders of the Company (basic)	562,594	210,016	400,559	109,156
Number of ordinary shares outstanding at 1 January	1,822,464	1,822,464	1,822,464	1,822,464
Effect of new shares issued during the year	1	-	1	-
Weighted average number of ordinary shares outstanding (basic)	1,822,465	1,822,464	1,822,465	1,822,464
Basic earnings per share (in Baht)	0.31	0.12	0.22	0.06

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29 Dividends

The dividends paid by the Company to the shareholders are as follows:

	Approval date	Payment schedule	Dividend rate per share (Baht)	Amount (in million Baht)
<i>2019</i>				
Annual dividend	24 April 2019	May 2019	<u>0.05</u>	<u>91.1</u>
<i>2018</i>				
Annual dividend	25 April 2018	May 2018	<u>0.075</u>	<u>136.7</u>

30 Financial instruments

Financial risk management policies

The principal financial risks faced by the Group are foreign exchange rate risk, interest rate risk, bunker prices, freight rates, and credit risk. The objective in using financial instruments is to reduce the uncertainty over future cash flows arising from movements in exchange rates, interest rates, bunker prices, and freight rates, and to manage the liquidity of the cash resources.

Capital management

The Board of Directors' policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. The Board monitors the return on capital, which the Group defines as result from operating activities divided by total shareholders' equity, excluding non-controlling interests and also monitors the level of dividends to ordinary shareholders.

Foreign exchange rate and interest rate risk

Interest rate risk is the risk that future movements in market interest rates will affect the results of the Group's operations and its cash flows because debt securities and loan interest rates are partly fixed. The Group is primarily exposed to interest rate risk from its borrowings (see note 20). The Company is primarily exposed to interest rate from its loans to subsidiaries (see note 5). The Group mitigates this risk by ensuring that the majority of its borrowings are at floating interest rates. The Group uses derivative financial instruments, principally interest rate swaps, to manage exposure to fluctuations in interest rates on specific borrowings with fixed interest rates.

The Group is exposed to foreign currency risk relating to various transactions which are denominated in foreign currencies. The Group primarily utilises forward exchange contracts with maturities of less than one year 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 revenue, denominated in foreign currencies, for the subsequent period.

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At 31 December, the Group and the Company were exposed to foreign currency risk in respect of financial assets and liabilities denominated in the following currencies:

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Thai Baht				
Cash and cash equivalents	23,537	229,109	-	-
Trade accounts receivable	-	6,108	-	-
Trade accounts payable	(8,839)	(10,345)	-	-
Other accounts payable	(6,388)	(45,526)	-	-
Payables to related parties	(6)	-	-	-
Net exposure	8,304	179,346	-	-
United States Dollar				
Cash and cash equivalents	400,342	180,368	374,889	141,582
Other current financial assets	503,713	16,630	487,813	-
Trade accounts receivable	105,478	104,367	-	-
Receivables from related parties	5,825	31,668	38,310	41,260
Short-term loans to related parties	-	-	702,792	1,298,972
Other non-current financial assets	153,043	179,700	-	-
Short-term borrowings from financial institutions	(248,607)	(366,001)	-	-
Short-term borrowing from related parties	-	-	(741,034)	(796,959)
Trade accounts payable	(79,937)	(27,961)	-	-
Payables to related parties	-	(308)	-	-
Advances from customers	(2,176)	(964)	-	-
Long-term borrowings	(195,937)	(282,666)	-	-
Net exposure	641,744	(165,167)	862,770	684,855
United Arab Emirates Dirham				
Cash and cash equivalents	1,936	-	-	-
Trade accounts payable	(2,642)	-	-	-
Other accounts payable	(1,140)	-	-	-
Net exposure	(1,846)	-	-	-
Singapore Dollar				
Cash and cash equivalents	19,422	26,980	233	5,811
Trade accounts receivable	63	63	-	-
Receivables from related parties	-	-	801	-
Short-term loans to related parties	-	-	575,082	645,241
Other financial assets	101,641	291,801	32,766	-
Trade accounts payable	(7,770)	(8,487)	-	-
Other accounts payable	(4,198)	(1,476)	-	-
Net exposure	109,158	308,881	608,882	651,052
British Pound				
Other financial assets	13,924	14,466	13,924	14,466
Net exposure	13,924	14,466	13,924	14,466

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	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Indonesian Rupiah				
Cash and cash equivalents	-	874	-	-
Trade accounts receivable	-	4,846	-	-
Trade accounts payable	-	(2,003)	-	-
Other accounts payable	-	(16,266)	-	-
Finance lease liabilities	-	(1,298)	-	-
Net exposure	-	(13,847)	-	-
Saudi Riyal				
Cash and cash equivalents	26,454	-	-	-
Trade accounts receivable	350,793	-	-	-
Trade accounts payable	(63,117)	-	-	-
Other accounts payable	(182,612)	-	-	-
Net exposure	131,518	-	-	-

The exchange rate risk is the principal risk faced by the Group as certain purchases and revenue are entered into foreign currencies and also interest rate risk, which is the risk that future movements in market interest rates will affect the results of the Group's operations and its cash flows.

Derivative financial instruments

The Group manages fluctuations in freight rate, bunker prices and interest rates using the following financial instruments:

a) Bunker swap contracts

During 2019, a subsidiary entered into bunker swap contracts with commercial banks for hedging bunker prices in connection with long-term cargo contract commitments. The subsidiary has locked in bunker price at the range of USD 73.6 - USD 581.0 (31 December 2018: USD 363.0 - USD 717.0). As at 31 December 2019, the outstanding bunker quantities were 25,500 metric tonnes (31 December 2018: 11,900 metric tonnes).

b) Forward freight agreements

A subsidiary entered into forward freight agreements with financial institutions and exchange traded derivatives for hedging freight rates in connection with chartered-in vessels. The subsidiary has locked in freight rates at a range of USD 8,400 - USD 10,600 per day (31 December 2018: USD 11,800 - USD 12,625 per day). As at 31 December 2019, the outstanding forward freight agreements to sell are 360 days (31 December 2018: 900 days).

c) Interest rate swap contracts

The Company entered into interest rate swap contracts with commercial banks against long-term loans with maturities during year 2021-2024. The Company swapped interest rates from 3-month LIBOR to fixed interest rates of 2.82 - 2.88 % per annum. As at 31 December 2019, the Company entered into interest rate swap contracts with commercial banks for outstanding long-term borrowing balances of USD 43 million or equivalent to Baht 1,297 million (31 December 2018: nil) and these long-term borrowings had notional amounts of USD 57 million or equivalent to Baht 1,719 million (31 December 2018: nil).

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Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Group's receivables from customers and investments in debt securities.

The carrying amounts of financial assets, trade accounts receivable and contract assets represent their maximum credit exposures.

Impairment losses on financial assets, trade accounts receivable and contract assets recognised in profit or loss during the years ended 31 December were as follows:

Consolidated financial statements		
	2019	2018
	<i>(in thousand Baht)</i>	
(Reversal of) impairment loss on financial assets, trade accounts receivable and contract assets arising from contracts with customers	(179)	37,605
	(179)	37,605

Trade accounts receivable and contract assets

The Group's exposure to credit risk is influenced mainly by the individual characteristics of each customer. However, management also considers the factors that may influence the credit risk of its customer base, including the default risk associated with the industry and country in which customers operate.

Management has established a credit policy under which each new customer is analysed individually for creditworthiness before the Group's standard payment and delivery of service terms and conditions are offered. The Group's review includes external ratings, if they are available, financial statements, credit agency information, industry information and in some cases bank references.

In monitoring customer credit risk, customers are grouped according to their credit characteristics, including day past due and existence of previous financial difficulties.

Expected credit loss assessment as at 1 January and 31 December 2019

Expected credit loss model is initially based on the Group's historical observed default rates. The Group will calibrate the model to adjust historical credit loss experience with forward-looking information. At each reporting period, historical default rates and forward-looking information are updated. The Group also evaluates expected credit loss on credit-impaired receivables separately at each reporting period.

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The following table provides information about the exposure to credit risk and ECLs for financial assets, trade accounts receivable and contract assets as at 31 December 2019:

	Consolidated financial statements		
	Estimated weighted-average loss rate (%)	Gross carrying amount (in thousand Baht)	Impairment loss allowance
Within credit terms	-	808,997	-
Overdue:			
Less than 3 months	1	548,578	3,807
3-6 months	5	210,580	9,792
6-12 months	39	11,257	4,353
Over 12 months	51	264,328	135,224
		1,843,740	153,176
Contract asset – accrued income		217,573	-
Retention receivables		229,337	-
Total		2,290,650	153,176

Trade accounts receivable that are individually determined to be credit-impaired at the reporting date relate to debtors that are in default on payments. The allowance for impairment recorded in relation to these receivables represents the net amount after deducting the payables due from the Group to the debtor, if any.

Movements in the allowance for impairment in respect of trade accounts receivable and contract assets

The movement in the allowance for impairment in respect of trade accounts receivable and contract assets during the year was as follows. Comparative amounts for 2019 represent the allowance account for impairment losses under TAS 101.

	Consolidated financial statements
	2019 (in thousand Baht)
Balance at 1 January per TAS 101	295,429
Adjustment on initial application of TFRS 9	47,471
Balance at 1 January per TFRS 9	342,900
Allowance for impairment utilized	(132,785)
Reversal of allowance for impairment	(179)
Foreign currency translation differences	(56,760)
Balance at 31 December	153,176

Trade accounts receivable with a contractual amount of Baht 189.5 million written off during 2019 are still subject to enforcement activity.

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Other accounts receivable and loan to related parties

The Group's exposure to credit risk is influenced mainly by the individual characteristics of each related party. However, management also considers the factors that may influence the credit risk, including the default risk associated with the industry and country in which they operate. The Group's policy is to provide other accounts receivable and loans to a related party only if the related party was judged by management to have low credit risk at initial recognition. Impairment on other accounts receivable and loan to related parties have been measured on the 12-month expected loss basis or the lifetime expected loss basis if the Group becomes aware of a significant increase in the related party's credit risk at the reporting date.

The exposure to credit risk for other accounts receivable and loan to related parties at amortised cost (*2018: held to maturity*) at the reporting date is presented in Note 5.

Cash and cash equivalents

Cash and cash equivalents have maturities of three months or less, and are placed with financial institutions which are regulated, so the amount of credit risk is considered to be negligible.

Short-term loan to other company

The Group's exposure to credit risk on the short-term loan to the Other Company and accrued interest represented the difference between the net book value of these balances against the value of the security used to secure these balances, being certain shares of the Other Company. The Group had set up an allowance for impairment on these balances representing this difference. The value of the certain shares of the Other Company as at 31 December 2019 was based on the published price quotations of those shares on the Singapore Stock Exchange as at 31 December 2019.

Liquidity risk

The Group monitors its liquidity risk and maintains a level of cash and cash equivalents deemed adequate by management to finance the Group's operations and to mitigate the effects of fluctuations in cash flows.

Fair values of other financial assets and liabilities

Apart from those mentioned below, the fair value of other financial assets and liabilities as of 31 December 2019 are taken to approximate the carrying values due to the relatively short-term maturity of these financial assets and liabilities.

The fair value of bunker swap contracts, forward freight agreements and interest rate swap were determined according to broker quotes assigned as level 2 fair value. 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 Company and counterparty when appropriate.

The fair values of loans to related parties were determined according to discounted expected future cash flows using market interest rate for a similar instruments 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 Company and counterparty when appropriate.

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31 Commitments and contingent liabilities

31.1 Capital commitments

The Group has significant capital commitments towards buildings, machinery, warehouse construction, dry-docking, vessel equipment and restaurant outlets contracts but not yet recognized as liabilities as at 31 December as follows:

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in million)</i>			
- USD	-	0.3	-	-
- VND	665.4	1,435.4	-	-
- THB	-	26.9	-	-

31.2 Other commitments

Operating lease commitments

The future aggregate minimum lease payments under non-cancellable operating leases of vessels, land and restaurant outlets are as follows:

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Not later than 1 year	84,837	112,277	-	-
Later than 1 year but not later than 5 years	104,941	185,661	-	-
Later than 5 years	211,728	252,031	-	-
Total	401,506	549,969	-	-

31.3 Contingent liabilities

Guarantees

The Company and the Group have given the following guarantees in the normal course of business:

	31 December 2019			
	Consolidated financial statements			
	Baht million	USD million	SAR million	QAR million
Letter of guarantees issued by bank on behalf of the Group	155.9	4.4	4.4	3.9
Guarantee given by the Group to financial institutions to guarantee credit facilities and purchases of raw materials	758.0	164.2	-	-

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31 December 2019	
Separate	
financial statements	
Baht	USD
million	million
Guarantee given by the Company to financial institutions to guarantee credit facilities	758.0 89.2
31 December 2018	
Consolidated	
financial statements	
Baht	USD
million	million
Letter of guarantees issued by bank on behalf of the Group	143.5 13.8
Guarantee given by the Group to financial institutions to guarantee credit facilities and purchases of raw materials	- 191.7
31 December 2018	
Separate	
financial statements	
Baht	USD
million	million
Guarantee given by the Company to financial institutions to guarantee credit facilities	- 105.7

32 Other events

Reference is made to note 12 regarding the loss of control in PTSSI. The Group, through its other indirect subsidiary Seascope Surveys Pte. Ltd. ("Seascope Surveys"), is a party to or involved in a number of legal proceedings in Indonesia related to the shareholdings and management affairs of PTSSI. A summary of the outstanding court cases as at 31 December 2019 are as follows:

- (a) A case was filed in the Bekasi District Court by the Criminal Investigation Department of the National Police alleging that Ms. Margaretta Retno Sundari and other co-defendants had engaged in the forgery of letters, providing false statements in an authentic deed, and fraud, all related to the transfer of ownership of 368 (46%) shares in PTSSI, with Seascope Surveys as the reporting party. The Bekasi District Court ruled that the charges against Ms. Margaretta Retno Sundari were proven but such acts were not criminal acts but relates to share ownership which shall actually be settled by civil law. Accordingly, the court directed that Seascope Surveys should instead file a civil lawsuit against such acts. The Public Prosecutor had filed an appeal to the Supreme Court and it was subsequently reported on the Supreme Court website that the appeal has been denied although a copy of that verdict has not yet been issued.

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- (b) A case was filed in the Central Jakarta District Court by Ms. Margaretta Retno Sundari against Seascope Surveys and other co-defendants to, among other things, annul the Shareholders Agreement made in 2013 between the plaintiff and Seascope Surveys in relation to 368 (46%) shares of PTSSI on allegation that it is a nominee agreement and against applicable Indonesian laws and regulations.
- (c) A case was filed in the South Jakarta District Court by PTSSI against Seascope Surveys and other co-defendants to, among other things, request the court to allow PTSSI to hold an extraordinary meeting of shareholders to approve an amendment to PTSSI's articles of association to change term of office of the directors from previously three (3) years to five (5) years, and to ratify the directors' actions to sell the vessel "SS Barakuda", such resolutions to be passed by fifty percent present and voting.
- (d) A case was filed in the South Jakarta District Court by Ms. Margaretta Retno Sundari against Seascope Surveys and another co-defendant to, among other things, challenge the validity of 198 (25%) shares held by Seascope Surveys through alleging that Seascope Surveys had declined or been unwilling to pay for its shares during an alleged capital increase in 2013. The plaintiff also claimed compensation for alleged material losses of IDR 30,810.7 million from payments made to Seascope Surveys during 2005 to 2011, IDR 694.6 million on allegation that the plaintiff never received payment for her transfer of shares to Seascope Surveys in 2007, and IDR 27,263.7 million for alleged dividends not received by the plaintiff.

The Group believes that it will be successfully able to defend the claims and accordingly the Group did not record any related provisions in its consolidated financial statements.

33 Events after the reporting period

Subsidiary – PHC

Increase in share capital

At the Extraordinary General Meeting of shareholders of PHC on 7 June 2019, the shareholders approved to increase PHC's share capital by 12.0 million shares with a par value of Baht 10 per share. PHC have partially called up Baht 20.0 million for the third payment on 14 February 2020.

Subsidiary – STC

Increase in share capital

At the Extraordinary General Meeting of shareholders of STC on 30 May 2019, the shareholders approved to increase STC's share capital by 8.0 million shares with a par value of Baht 10 per share. STC have partially called up Baht 16.0 million for the fourth payment on 31 January 2020 and registered to Department of Business Development ("DBD") on 4 February 2020.

Subsidiary – MMPLC

Incorporation of a subsidiary

At the Board of Directors' meeting of Mermaid Subsea Service (Thailand) Ltd. ("MSST"), held on 31 January 2020, MSST's Board of Directors approved to set up a new foreign subsidiary, Mermaid Subsea Services (UK) Limited ("MSS UK"), which is fully owned by MSST. The main business of this subsidiary is to provide subsea and related services. MSS UK was incorporated on 7 February 2020 with GBP 100 thousand authorized share capital.

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Increase in share capital of a subsidiary

On 7 February 2020, the shareholders of MSSM approved the increase in share capital of MSSM by MYR 200.0 thousand, from MYR 350.0 thousand to MYR 550.0 thousand. The additional shares were authorized and issued on 7 February 2020.

New borrowing facility agreement

On 28 January 2020, MSST entered into a new borrowing facility agreement with a financial institution to fund the maintenance and repairs of its vessels. The borrowing facility is for up to US Dollar 8.0 million. These borrowings will bear interest at the rate of USD-LIBOR plus a certain margin, will be secured by mortgages of the support vessels mentioned in note 20, and will be guaranteed by MMPLC.

Subsidiary - PMTA

Dividend declaration

At the Board of Directors' meeting of PMTA held on 24 February 2020, the Board of Directors approved to propose the appropriation of dividends for the year ended 31 December 2019 of Baht 0.5 per share, amounting to Baht 50.6 million, to the Annual General Meeting of PMTA which will be held in April 2020.

Associate – Baria Serece

Dividend declaration

In January 2020, the General Shareholders Meeting of Baria Serece approved to pay dividends of VND 151,125 million, or equivalent to THB 196.5 million, from retained earnings for the years before the year ended 31 December 2019. The dividends are expected to be paid in March 2020.

34 Thai Financial Reporting Standards (TFRS) not yet adopted

TFRS 16, which is relevant to the Group's operations, is expected to have a material impact on the consolidated and separate financial statements when initially adopted, and will become effective for the financial statements in annual reporting periods beginning on or after 1 January 2020.

TFRS 16 introduces a single lessee accounting model for lessees. A lessee recognises a right-of-use asset and a lease liability, with recognition exemptions for short-term leases and leases of low-value items. As a result, the Group will recognise new assets and liabilities for its operating leases. As at 31 December 2019, the Group's future minimum lease payments under non-cancellable operating leases amounted to Baht 401.5 million, on an undiscounted basis. When this TFRS is effective, some accounting standards and interpretations which are currently effective will be cancelled.

Management is presently considering the potential impact from TFRS16 on the consolidated and separate financial statements in the initial period adopted.

Related Party Transactions

For the year ended 31 December 2019

Related party transactions between TTA and its subsidiaries or between subsidiaries and subsidiaries are shown in the notes to the consolidated financial statements. Such related party transactions mostly occur in the normal course of business and the pricing is akin to market prices or at an arm's length basis. Major related party transactions between TTA and its subsidiaries with associates or joint ventures or a transaction with a company or persons that may have conflicts of interest are shown as follows:

Companies	Related Party Companies/Entities	Relationship	Description of Transactions	Transaction Amount (Baht)		Pricing Policy
				31 Dec. 2019	31 Dec. 2018	
1. Mermaid Subsea Services (International) Ltd. ("MSSI")	Zamil Mermaid Offshore Services Company (LLC) ("ZMOS")	TTA holds a 58.2% (31 December 2019 : 58.2%) stake in Mermaid Maritime Plc. ("Mermaid"), and Mermaid holds a 100% stake in MSSI and a 40% stake in ZMOS.	ZMOS engaged MSSI for offshore services to Saudi Aramco.	1,930,494,378 (Recorded as service income)	1,829,139,046 (Recorded as service income)	Same price as normally charged to a third party.
2. Mermaid Subsea Services (Thailand) Ltd. ("MSST")	Gulf Agency Company (Thailand) Ltd. ("GAC")	TTA holds a 58.2% (31 December 2019 : 58.2%) stake in Mermaid Maritime Plc. ("Mermaid") and a 51% stake in GAC. Mermaid holds a 100% stake in MSST.	MSST engaged GAC for customs clearance of goods and transportation.	5,958,459 (Recorded as cost of services)	6,473,961 (Recorded as cost of services)	Same price as normally charged to a third party.
3. Baconco Co., Ltd. ("Baconco")	Thoresen (Indochina) S.A. ("TI")	TTA holds a 68.5% (31 December 2019 : 68.5%) stake in PM Thoresen Asia Holdings Plc. ("PMTA") and PMTA holds a 100% stake in Baconco. TTA also holds a 50% stake in TI.	Baconco received maritime transportation service from TI.	54,105,615 (Recorded as transportation expense)	77,014,745 (Recorded as transportation expense)	Same price as normally charged to a third party.

Companies	Related Party Companies/Entities	Relationship	Description of Transactions	Transaction Amount (Baht)		Pricing Policy
				31 Dec. 2019	31 Dec. 2018	
4. Baconco Co., Ltd. ("Baconco")	Thoresen-Vinama Agencies Co., Ltd. ("TVA")	TTA holds a 68.5% (31 December 2019 : 68.5%) stake in PM Thoresen Asia Holdings Plc. ("PMTA") and PMTA holds a 100% stake in Baconco. TTA also holds a 50% stake in Thoresen (Indochina) S.A. ("TI") and TI holds a 49% stake in TVA.	Baconco rent out factory area to TVA.	57,143,697 (Recorded as rental income)	59,524,189 (Recorded as rental income)	Same price as normally charged to a third party.
5. Baconco Co., Ltd. ("Baconco")	Thoresen-Vinama Agencies Co., Ltd. ("TVA")	TTA holds a 68.5% (31 December 2019 : 68.5%) stake in PM Thoresen Asia Holdings Plc. ("PMTA") and PMTA holds a 100% stake in Baconco. TTA also holds a 50% stake in Thoresen (Indochina) S.A. ("TI") and TI holds a 49% stake in TVA.	Baconco received transportation service from TVA.	27,513,855 (Recorded as transportation expense)	35,124,601 (Recorded as transportation expense)	Same price as normally charged to a third party.
6. Baconco Co., Ltd. ("Baconco")	Thoresen-Vinama Logistic Co.,Ltd. ("TVL")	TTA holds a 68.5% (31 December 2019 : 68.5%) stake in PM Thoresen Asia Holdings Plc. ("PMTA") and PMTA holds a 100% stake in Baconco. TTA also holds a 50% stake in Thoresen (Indochina) S.A. ("TI") and TI holds a 49% stake in Thoresen- Vinama Agencies Co., Ltd. ("TVA") and TVA also holds a 100% stake in TVL.	Baconco received transportation service from TVL.	28,537,815 (Recorded as transportation expense)	43,754,550 (Recorded as transportation expense)	Same price as normally charged to a third party.
7. Baconco Co., Ltd. ("Baconco")	Baria Serece ("Baria")	TTA holds a 68.5% (31 December 2019 : 68.5%) stake in PMTA and PMTA holds a 100% stake in Baconco. TTA also holds a 100% stake in Soleado Holdings Pte.Ltd. ("Soleado") and Soleado holds a 28% stake in Baria.	Baconco received service related to port from Baria.	16,418,578 (Recorded as transportation expense)	20,124,942 (Recorded as transportation expense)	Same price as normally charged to a third party.

Transactions with Persons who may have Conflicts of Interest

Companies	Related Party Companies/Entities	Relationship	Description of Transactions	Transaction Amount (Baht)		Pricing Policy
				31 Dec. 2019	31 Dec. 2018	
1. Thoresen Thai Agencies Plc. ("TTA")	Mermaid Maritime Plc. ("Mermaid")	TTA holds a 58.2% stake in Mermaid Maritime Plc. ("Mermaid") and Mr. Chalermchai Mahagitsiri is director and shareholder of both TTA and Mermaid.	TTA rent office space from Mermaid.	- (Recorded as rental-office expenses)	1,731,840 (Recorded as rental-office expenses)	In line with market.
2. Thoresen Thai Agencies Plc. ("TTA")	Mermaid Maritime Plc. ("Mermaid")	TTA holds a 58.2% stake in Mermaid Maritime Plc. ("Mermaid") and Mr. Chalermchai Mahagitsiri is director and shareholder of both TTA and Mermaid.	TTA leased office space to Mermaid.	2,251,800 (Recorded as rental and facilities income)	2,690,830 (Recorded as rental and facilities income)	In line with market.
3. Thoresen Thai Agencies Plc. ("TTA")	Mermaid Maritime Plc. ("Mermaid")	TTA holds a 58.2% stake in Mermaid Maritime Plc. ("Mermaid") and Mr. Chalermchai Mahagitsiri is director and shareholder of both TTA and Mermaid.	TTA provided Co-location service charge to MML.	240,000 (Recorded as IT support income)	- (Recorded as IT support income)	In line with market.
4. Thoresen Thai Agencies Plc. ("TTA")	PM Thoresen Asia Holdings Plc. ("PMTA")	TTA holds a 68.5% stake in PM Thoresen Asia Holdings Plc. ("PMTA") and Mr. Chalermchai Mahagitsiri is director and shareholder of both TTA and PMTA.	TTA leased office space to PMTA.	984,150 (Recorded as rental and facilities income)	984,150 (Recorded as rental and facilities income)	In line with market.
5. Thoresen Thai Agencies Plc. ("TTA")	PM Thoresen Asia Holdings Plc. ("PMTA")	TTA holds a 68.5% stake in PM Thoresen Asia Holdings Plc. ("PMTA") and Mr. Chalermchai Mahagitsiri is director and shareholder of both TTA and PMTA.	TTA provided IT service to PMTA.	65,520 (Recorded as IT support income)	65,520 (Recorded as IT support income)	In line with market.
6. Thoresen Thai Agencies Plc. ("TTA")	PM Thoresen Asia Holdings Plc. ("PMTA")	TTA holds a 68.5% stake in PM Thoresen Asia Holdings Plc. ("PMTA") and Mr. Chalermchai Mahagitsiri is director and shareholder of both TTA and PMTA.	TTA provided other service to PMTA.	249,507 (Recorded as other income)	245,282 (Recorded as other income)	In line with market.

Companies	Related Party Companies/Entities	Relationship	Description of Transactions	Transaction Amount (Baht)		Pricing Policy
				31 Dec. 2019	31 Dec. 2018	
7. Thoresen Thai Agencies Plc. ("TTA")	PH Capital Co., Ltd ("PHC")	PHC has stakeholder from TTA and PM Capital Co., Ltd. ("PMC") which hold 70% and 30% respectively. Ms. Ausana Mahagitsiri is shareholder of both TTA and PMC.	TTA leased office space to PHC.	4,120,200 (Recorded as rental and facilities income)	4,120,200 (Recorded as rental and facilities income)	In line with market.
8. Thoresen Thai Agencies Plc. ("TTA")	PH Capital Co., Ltd ("PHC")	PHC has stakeholder from TTA and PM Capital Co., Ltd. ("PMC") which hold 70% and 30% respectively. Ms. Ausana Mahagitsiri is shareholder of both TTA and PMC.	TTA provided Co-location service charge to PHC.	300,000.00 (Recorded as IT support income)	- (Recorded as IT support income)	In line with market.
9. Thoresen Thai Agencies Plc. ("TTA")	Siam Taco Co., Ltd ("STC")	STC has stakeholder from TTA and CM Corporate Co., Ltd. ("CMC") which hold 70% and 30% respectively. Mr. Chalermchai Mahagitsiri is shareholder of both TTA and CMC.	TTA leased office space to STC.	507,600 (Recorded as rental and facilities income)	123,750 (Recorded as rental and facilities income)	In line with market.
10. Thoresen Thai Agencies Plc. ("TTA")	Siam Taco Co., Ltd ("STC")	STC has stakeholder from TTA and CM Corporate Co., Ltd. ("CMC") which hold 70% and 30% respectively. Mr. Chalermchai Mahagitsiri is shareholder of both TTA and CMC.	TTA provided service fee for room utilization.	426,306 (Recorded as Admin & facilities income)	5,000 (Recorded as Admin & facilities income)	In line with market.
11. Thoresen Thai Agencies Plc. ("TTA")	PMT Property Co.,Ltd ("PMTP")	PMTP has stakeholder from TTA and Kanden Realty & Development Co., Ltd. ("KRD"), which hold 60% and 40%.	TTA leased office space to PMTP.	291,600 (Recorded as rental and facilities income)	- (Recorded as rental and facilities income)	In line with market.
12. Thoresen Thai Agencies Plc. ("TTA")	PMT Property Co.,Ltd ("PMTP")	PMTP has stakeholder from TTA and Kanden Realty & Development Co., Ltd. ("KRD"), which hold 60% and 40%.	TTA provided co-location service charge to PMTP.	180,000 (Recorded as IT support income)	- (Recorded as IT support income)	In line with market.
13. Thoresen Thai Agencies Plc. ("TTA")	PMT Property Co.,Ltd ("PMTP")	PMTP has stakeholder from TTA and Kanden Realty & Development Co., Ltd. ("KRD"), which hold 60% and 40%.	TTA provided accounting/HR/ admin service fee to PMTP.	631,698 (Recorded as Admin & facilities income)	- (Recorded as Admin & facilities income)	In line with market.
14. Thoresen Thai Agencies Plc. ("TTA")	PH Macaron (Thailand) Co., Ltd.	TTA and PH Macaron Co., Ltd. have common directors being Mr. Chalermchai Mahagitsiri and Ms. Ausana Mahagitsiri.	TTA purchased goods as gifts for new year from PH Macaron Co., Ltd.	2,925 (Recorded as Gift/New Year gift)	67,278 (Recorded as Gift/New Year gift)	Same price as normally charged to a third party.

Companies	Related Party Companies/Entities	Relationship	Description of Transactions	Transaction Amount (Baht)		Pricing Policy
				31 Dec. 2019	31 Dec. 2018	
15. Thoresen Thai Agencies Plc. ("TTA")	Mugendai Bangkok Co., Ltd.	TTA and Mugendai Bangkok Co., Ltd. have common directors being Ms. Ausana Mahagitsiri and Mr. Kamolsut Dabbaransi.	TTA provided entertainment to partnership.	171,822 (Recorded as Entertainment)	197,342 (Recorded as Entertainment)	Same price as normally charged to a third party.
16. Thoresen Thai Agencies Plc. ("TTA")	Mugendai Penthouse Co., Ltd.	TTA and Mugendai Penthouse Co., Ltd. have common directors being Ms. Ausana Mahagitsiri and Mr. Kamolsut Dabbaransi.	TTA provided entertainment to partnership.	47,072 (Recorded as Entertainment)	89,416 (Recorded as Entertainment)	Same price as normally charged to a third party.
17. Thoresen Thai Agencies Plc. ("TTA")	House of Truffle Co., Ltd.	TTA and House of Truffle Co., Ltd. have common directors being Ms. Ausana Mahagitsiri and Mr. Kamolsut Dabbaransi.	TTA provided entertainment to partnership.	- (Recorded as Entertainment)	129,230 (Recorded as Entertainment)	Same price as normally charged to a third party.
18. Thoresen Thai Agencies Plc. ("TTA")	Four One One Entertainment Co., Ltd.	TTA and Four One One Entertainment Co., Ltd. have common directors being Mr. Chalermchai Mahagitsiri and Ms. Ausana Mahagitsiri.	TTA engaged organizer service from Four One One Entertainment Co., Ltd. for Team Building and New Year Party for staffs.	1,010,251 (Recorded as other staff benefit)	3,424,000 (Recorded as other staff benefit)	Same price as normally charged to a third party.
19. Thoresen Thai Agencies Plc. ("TTA")	Four One One Entertainment Co., Ltd.	TTA and Four One One Entertainment Co., Ltd. have common directors being Mr. Chalermchai Mahagitsiri and Ms. Ausana Mahagitsiri.	TTA rent space on Ground Floor, Orakam Building from Four One One Entertainment Co., Ltd.	1,478,624 (Recorded as rental -office expenses and utilities expenses)	1,145,411 (Recorded as rental -office expenses and utilities expenses)	In line with market.
20. Thoresen Thai Agencies Plc. ("TTA")	Natural Bev. Co., Ltd.	TTA and Natural Bev. Co., Ltd. have common directors being Mr. Chalermchai Mahagitsiri and Ms. Ausana Mahagitsiri.	TTA purchased goods as gifts for new year from Natural Bev. Co., Ltd.	418,453 (Recorded as Gift / New year gift)	228,880 (Recorded as Gift / New year gift)	Same price as normally charged to a third party.
21. Thoresen Thai Agencies Plc. ("TTA")	Four One One Ecommerce Co., Ltd.	TTA and Four One One Ecommerce Co., Ltd. have common directors being Mr. Chalermchai Mahagitsiri, Ms. Ausana Mahagitsiri and Mr. Kamolsut Dabbaransi	TTA leased office space to Four One One Ecommerce Co., Ltd.	700,650 (Recorded as rental and facilities income)	328,920 (Recorded as rental and facilities income)	Same price as normally charged to a third party.
22. Thoresen Thai Agencies Plc. ("TTA")	PSM Land Co., Ltd	TTA and PSM Land Co., Ltd. have common directors being Ms. Ausana Mahagitsiri.	TTA rent office space from PSM Land.	1,776,120 (Recorded as rental and facilities income)	- (Recorded as rental and facilities income)	In line with market

Necessity and Rationale of Related Party Transactions

In case the Company or its subsidiary signs an agreement or conducts a related party transaction with a subsidiary company, affiliated company and/or third party, the Company or a subsidiary will consider the necessity and rationale of such agreement based mainly on the Company's interests.

Approval Measures or Procedures of Related Party Transactions

If the Company or its subsidiary is to execute an agreement or if there is any related party transaction between the Company and its subsidiary, affiliated company, related company, third party and/or anyone with possible conflict of interests, the Board of Directors requires the Company or a subsidiary, for the purpose of its benefits, to comply with the rules and regulations of the SET and the SEC regarding disclosure of information of listed companies concerning connected transactions. Prices and other conditions shall be on an arm's length basis and are conducted in the best interests of the Company and all shareholders. Directors, executives, or employees having an interest in such transaction are not allowed to participate in the decision-making process and in any approval process.

Policy for Future Related Party Transactions

The Audit Committee and the Company will jointly consider and review any related party transactions that may arise in the future to ensure their necessity and fair price basis.

Dividend Policy

Thoresen Thai Agencies Public Company Limited

TTA has established a policy to distribute dividends of at least 25% of the consolidated net profit after tax but excluding unrealised foreign exchange gains or losses, subject to the Company's investment plans and other relevant factors. The Board may review and revise the dividend policy from time to time to reflect the Company's future business plans, the needs for investment, and other factors, as the Board deems appropriate. However, dividend distributions may not exceed the retained earnings reported in the Company's separate financial statements.

Subsidiary Companies

Most of our subsidiaries have adhered to a policy to pay dividends to TTA at not less than 70% of their net profit, except for the smaller shipping services companies, Mermaid, UMS, and PMTA. As listed companies on the SGX-ST, MAI and SET respectively, their Board of Directors must apply the same level of care and judgement when recommending dividends as the TTA Board. Mermaid's, UMS's and PMTA's possible dividend payments will depend on various factors, including return on equity and retained earnings, expected financial performances, projected level of capital expenditures and other investment plans, and restrictions on payment of dividends that may be imposed by its financing arrangements.

The Company's dividend payment record for the past five financial years is as follows:

Financial Year	For the year ended 31 December				
	2019	2018	2017	2016	2015
Earnings per share (Baht)	0.31	0.12	0.32	(0.23)	(6.61)
Dividend per share (Baht)	0.06 ^{/2}	0.05 ^{/2}	0.075	0.05 ^{/1}	0.05 ^{/1}

Note : ^{/1} The Company paid dividend from the retained earnings.

^{/2} The dividend payment for FY 2019 is subject to the shareholders' approval at AGM 2020 to be held on 30 April 2020.

Remuneration of Auditors

Audit Fee

For the financial year 2019 ended 31 December 2019 (1 January - 31 December 2019)

Unit: Thai Baht

Company	Audit Fee for KPMG	Audit Fee for other auditing firms	Total Fee (by company)
TTA	3,924,000	-	3,294,000
TTA's Subsidiaries	17,141,198	2,067,864	19,289,061
Total Audit Fee (by auditing firm)	21,065,198	2,064,864	23,133,061

Non-Audit Service Fees

For the financial year 2019 ended 31 December 2019 (1 January - 31 December 2019)

Unit: Thai Baht

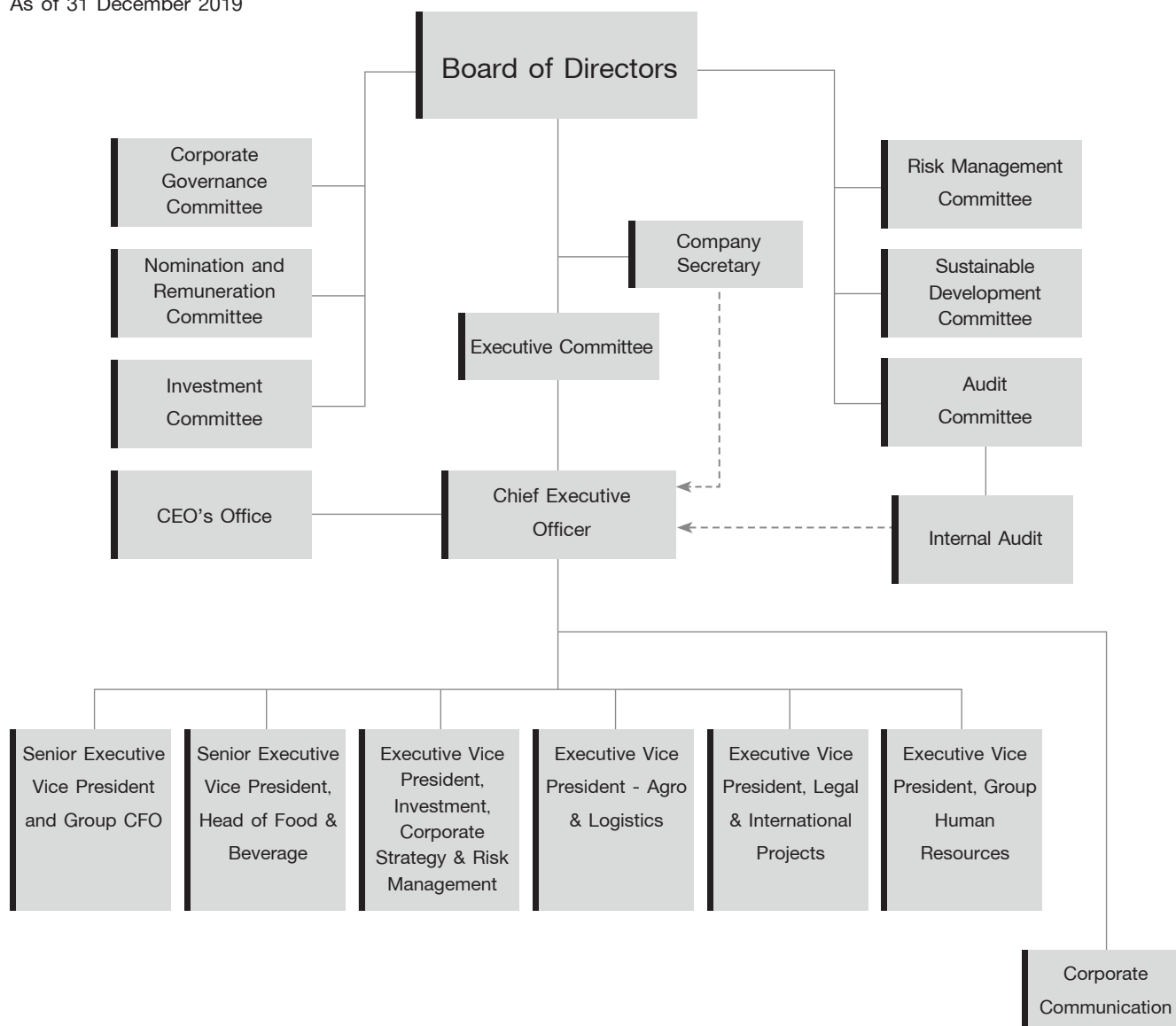
Company	Non-Audit Fee for KPMG	Non-Audit Fee for other auditing firms	Total Fee (by company)
TTA	118,110	-	118,110
TTA's Subsidiaries	2,256,580	1,940,253	4,196,833
Total Non-Audit Service Fees (by auditing firm)	2,374,690	1,940,253	4,314,943

Note : Non-audit service fees for the financial year 2019 ended 31 December 2019 (1 January - 31 December 2019) were primarily relating to the tax advice and laws.

Management Structure

Organization Chart of Thoresen Thai Agencies Public Company Limited

As of 31 December 2019



Board of Directors of Thoresen Thai Agencies Public Company Limited

As of 31 December 2019

No.	Name Position	First Appointment Date
1.	Mr. Prasert Bunsumpun	Chairman of the Board/Chairman of Executive Committee
2.	Mr. Chalermchai Mahagitsiri	Director/President and Chief Executive Officer/ Member of Executive Committee/ Chairman of Investment Committee
3.	Mr. Jean Paul Thevenin	Director/Member of Executive Committee/ Member of Risk Management Committee/ Member of Investment Committee
4.	Mr. Jitender Pal Verma	Director/Senior Executive Vice President and Group CFO/ Member of Executive Committee/ Member of Corporate Governance Committee/ Member of Risk Management Committee/ Member of Investment Committee/ Chairman of the Sustainable Development Committee
5.	Ms. Ausana Mahagitsiri	Director/Member of Nomination and Remuneration Committee/ Member of Corporate Governance Committee
6.	Mr. Kamolsut Dabbaransi	Director/Senior Executive Vice President, Head of Food & Beverage
7.	Mr. Somboonkiat Kasemsuwan	Independent Director/Chairman of Audit Committee
8.	Mr. Santi Bangor	Independent Director/Chairman of Nomination and Remuneration Committee/ Chairman of Corporate Governance Committee/ Member of Audit Committee
9.	Mr. Cherdpong Siriwit	Independent Director/Chairman of Risk Management Committee/ Member of Audit Committee
10.	Mr. Chitrapongse Kwangsukstith	Independent Director
11.	Mr. Mohammed Rashed Ahmad M. Al Nasser	Independent Director/Member of Nomination and Remuneration Committee

Authorized Directors

The directors who are authorized to sign on behalf of the Company are: Mr. Jean Paul Thevenin or Mr. Jitender Pal Verma to jointly sign with Mr. Chalermchai Mahagitsiri or Ms. Ausana Mahagitsiri, totaling two persons, with the Company seal affixed.

Roles, Duties and Responsibilities of the Board

Please see the details under the topic of “Corporate Governance Report”.

Subcommittee Thoresen Thai Agencies Public Company Limited consists of 7 subcommittees, namely 1) the Executive Committee, 2) the Audit Committee, 3) the Nomination and Remuneration Committee, 4) the Risk Management Committee, 5) the Corporate Governance Committee, 6) the Investment Committee, and 7) the Sustainable Development Committee.

The roles, duties and responsibilities of each subcommittee are provided under the topic of “Corporate Governance Report”.

Meeting of the Board and Subcommittees

Attendance Record of the Board and Committees for Year 2019

Name	Meeting Attendance for Year 2019						
	Board of Directors (Total 8)	Audit Committee (Total 7)	Executive Committee (Total 8)	Nomination and Remuneration Committee (Total 2)	Corporate Governance Committee (Total 2)	Risk Management Committee (Total 3)	Sustainable Development Committee (Total 4)
1. Mr. Prasert Bunsumpun	8/8	-	8/8	-	-	-	-
2. Mr. Chalermchai Mahagitsiri	8/8	-	8/8	-	-	-	-
3. Mr. Jean Paul Thevenin	8/8	-	8/8	-	-	3/3	-
4. Mr. Jitender Pal Verma	8/8	-	8/8	-	2/2	3/3	4/4
5. Ms. Ausana Mahagitsiri	8/8	-	-	2/2	2/2	-	-
6. Mr. Kamolsut Dabbaransi	8/8	-	-	-	-	-	-
7. Mr. Somboonkiat Kasemsuwan	8/8	7/7	-	-	-	-	-
8. Mr. Santi Bangor	8/8	7/7	-	2/2	2/2	-	-
9. Mr. Cherdpong Siriwit	8/8	7/7	-	-	-	3/3	-
10. Mr. Chitrapongse Kwangstith	8/8	-	-	-	-	-	-
11. Mr. Mohammed Rashed Ahmad M.Al Nasser	3/8	-	-	1/2	-	-	-

Remark : Directors who could not attend the meeting due to urgent missions abroad or other missions informed in advance to the Company Secretary who will notify the Chairman afterward and attended the meeting via teleconference system instead. However, such attendance is not valid under the laws.

There was one foreign director attended the meeting less than 75% during the year 2019 as he based in UAE. However, the Company considered that his business capability, experiences, and knowledge of investment and offshore business could highly contribute to the Company.

Executives

Executives of Thoresen Thai Agencies Public Company Limited as of 31 December 2019

No.	Name	Position
1.	Mr. Chalermchai Mahagitsiri	President and Chief Executive Officer
2.	Mr. Jitender Pal Verma	Senior Executive Vice President and Group CFO
3.	Mr. Kamolsut Dabbaransi	Senior Executive Vice President, Head of Food & Beverage
4.	Mr. Sigmund Stromme	Executive Vice President - Agro & Logistics
5.	Mr. Vincent Siaw	Executive Vice President, Legal & International Projects
6.	Mr. Ng Kit Wei, David	Executive Vice President, Investment, Corporate Strategy & Risk Management
7.	Mr. Somchai Apinyanukul	Executive Vice President, Group Human Resources

Company Secretary

The Board of Directors appointed Mrs. Vorapin Isaradharm as the Company Secretary on 15 August 2017. The roles and responsibilities, qualification, and profession experiences of the Company Secretary are disclosed on the Company's website, the Annual Report, and the Company's Annual Information Disclosure Form (Form 56-1) under the topic of the Board Committees and Company Secretary of the Corporate Governance Report.

Remuneration of the Directors and Executives

The remuneration structure for the Board consists of:

- The non-executive director(s) shall receive a monthly fee and an attendance fee for each meeting.
- An incentive in the form of annual reward (bonus) shall be paid to directors, corresponded to the Company's goal achievement in compliance with the Director Bonus Policy approved by the Company's shareholders.

The senior executives' remuneration consists of cash compensation (salary), bonus and other benefits which are long-term incentives, provident fund, and social security contributions.

Details of remuneration of directors and members of subcommittee for year 2019 are as follows:

Committees	Type of Remuneration	Rate
Board of Directors (Non-executive directors)	Standard monthly fee Attendance fee per meeting Bonus	Baht 150,000 - Chairperson Baht 24,500 per non-executive director Baht 54,000 - Chairperson Baht 31,500 per non-executive director A bonus for all non-executive directors shall be paid at a rate of not exceeding 1% of the consolidated net profit of the Company (after deducting unrealized gains/losses). The board of directors will fix the appropriate amount of the bonus to be payable to the directors (in compliance with the above director bonus policy).
Audit Committee	Attendance fee per meeting	Baht 33,600 - Chairperson Baht 28,000 per member
Nomination and Remuneration Committee	Attendance fee per meeting	Baht 25,200 - Chairperson Baht 21,000 per member
Risk Management Committee	Attendance fee per meeting	Baht 15,120 - Chairperson Baht 12,600 per member
Corporate Governance Committee	Attendance fee per meeting	Baht 15,120 - Chairperson Baht 12,600 per member

Note : The director(s) who take the executive position will not receive the remuneration as director and subcommittee member.

For year 2019, the remuneration in the form of monthly standard fee and meeting allowance paid to directors and members of subcommittees was Baht 7.80 million and the remuneration in the form of bonus paid to non-executive directors was Baht 2.194 million of which the amount is in line with the director bonus policy as described in the table above, which is not exceeding the remuneration budget of Baht 10 million as approved by the shareholders at the 1/2019 AGM on 24 April 2019. The Company did not pay any other forms of remuneration or benefit to directors apart from the remuneration as detailed above. The details of remuneration and bonus paid to directors and subcommittees in 2019 are shown in the table below.

Remuneration in Cash

Remuneration of the Board and Subcommittees

The shareholders at the 1/2019 AGM on 24 April 2019 approved the remunerations in the form of monthly standard fee, meeting allowance for directors and members of subcommittees and bonus for the year 2019 at the total amount of not exceeding Baht 10 million and authorized the Board of Directors to allocate the remunerations to directors and members of subcommittee as deemed appropriate.

Remuneration and Bonus for the Board of Directors and Subcommittees of TTA for Year 2019

Name	Board of Directors		Attendance Fee for Year 2019							Total (Baht)
	Standard Monthly Fee	Bonus	Board of Directors	Audit Committee	Executive Committee	Nomination and Remuneration Committee	Corporate Governance Committee	Risk Management Committee	Sustainable Development Committee	
1. Mr. Prasert Bunsumpun	1,800,000	430,000	432,000	0	800,000	0	0	0	0	3,032,000.00
2. Mr. Chalermchai Mahagitsiri	0	0	0	0	0	0	0	0	0	0.00
3. Mr. Jean Paul Thevenin	294,000	252,000	252,000	0	224,000	0	0	37,800	0	807,800.00
4. Mr. Jitender Pal Verma	0	0	0	0	0	0	0	0	0	0.00
5. Ms. Ausana Mahagitsiri	294,000	252,000	252,000	0	0	42,000	25,200	0	0	613,200.00
6. Mr. Kamolsut Dabbaransi	0	0	0	0	0	0	0	0	0	0.00
7. Mr. Somboonkiat Kasemsuwan	294,000	252,000	252,000	235,200	0	0	0	0	0	781,200.00
8. Mr. Santi Bangor	294,000	252,000	252,000	196,000	0	50,400	30,240	0	0	822,640.00
9. Mr. Cherdpong Siriwit	294,000	252,000	252,000	196,000	0	0	0	45,360	0	787,360.00
10. Mr. Chitrapongse Kwangsukstith	294,000	252,000	252,000	0	0	0	0	0	0	546,000.00
11. Mr. Mohammed Rashed Ahmad M. Al Nasser	294,000	252,000	94,500	0	0	21,000	0	0	0	409,500.00
Total	3,858,000	2,194,000	2,038,500	627,200	1,024,000	113,400	55,440	83,160	0	7,799,700

Remuneration of Executives

Remuneration of executives of TTA in the form of salary and bonus and other benefits are as follows:

Remuneration	For the Year Ended 31 Dec 2019		For the Year Ended 31 Dec 2018	
	Total number of executives during the year	Amount (million Baht)	Total number of executives during the year	Amount (million Baht)
Total salary and bonus	4	40.12	5	46.02
Other benefits (which include social security and provident fund contributions by TTA)	4	2.55	5	2.93

Personnel

As of 31 December 2019, TTA has a total direct workforce of 104, consisting of one President and Chief Executive Officer, 5 Executive Vice Presidents, and 99 employees as detailed below.

Main Business Units	Number of Employees (Only TTA)
1. Corporate Finance and Accounting, Investor Relations and Legal	23
2. Corporate Human Resource	5
3. Group Supports and CEO's office	66
4. Group Business Development	4
5. Corporate Risk Management and Internal Audit	6
Total	104

Group of Business	Number of Employees
1. Shipping	85
2. Offshore Service	119
3. Agrochemical	469
4. Investment	2,882

- Total number of employees of TTA and its subsidiaries was 3,659 (excluding the crew on-board).
- Total remuneration of employees of TTA and its subsidiaries, excluding management and executive directors of TTA, such as salary, wage, and bonus (excluding the crew on-board) for the fiscal year 2019 ended 31 December 2019 was Baht 730,563,327.40 (For the fiscal year 2018 ended 31 December 2018: Baht 784,822,342).
- TTA contributed the provident funds and social security funds to its employees (excluding the crew on-board) for the fiscal year 2019 ended 31 December 2019 at the total amount of Baht 38,943,003.69 (For the fiscal year 2018 ended 31 December 2018: Baht 43,626,805).
- Individual Development Plan is provided under the topic of "Corporate Governance Report".

Details of the Board of Directors' and Executives

Directors' Profile



Mr. Prasert Bunsumpun

(Age 67)

Chairman of the Board of Directors/
Chairman of Executive Committee

Date of first appointment:

- 31 January 2012

(%) of shareholding as of 31 December 2019:

- 0.01

Relation among family with other directors and executives :

- None

Educations

- Honorary Doctoral of Arts in Social Innovation Management, Faculty of Humanities and Sciences, Suan Sunandha Rajabhat University, 2012
- Honorary Doctoral in Management, Mahasarakarm University, 2011
- Honorary Doctoral in Management Science, Petchaburi Rajabhat University, 2008
- Honorary Doctoral in Management, National Institute of Development Administration (NIDA), 2008
- Honorary Doctoral in Engineering, Chulalongkorn University, 2007
- M.B.A., Utah State University, USA, 1977
- B.Eng. in Civil Engineering, Chulalongkorn University, 1975

Trainings/Certifications

- Rule of Law for Democracy, Class 7 by The College of the Constitutional Court
- Business Revolution and Innovation Network, Class 1, The Federal of Thai Industries (BRAIN 1), 2018
- Cryptoasset Revolution, Class 1, Thai Fintech Association and Icora Co. (CAR 1), 2018
- Certificate in Energy Literacy for a Sustainable Future Program, Thailand Energy Academy (TEA), Class 3, 2013
- Role of the Chairman Program (RCP), Thai Institute of Directors Association (IOD), Class 28/2012
- Director Accreditation Program (DAP), Thai Institute of Directors Association (IOD), Class 26/2004
- Certificate in Capital Market Academy Leadership Program, Capital Market Academy (CMA), Class 3, 2006
- Certificate in Politics and Governance in Democratic System for Executives, King Prajadhipok's Institute, Class 6, 2003
- Certificate in Advanced Management Program (AMP), Harvard Business School, USA, Class 155, 1998
- Diploma, National Defense Course for the Joint State-Private Sector, the National Defense College (NDC), Class 10, 1998

Working experiences

Positions in Listed Companies in SET

- 2019 - Present : Independent Director, T.K.S. Technologies Pcl.
- 2018 - Present : Independent Director/Chairman of Risk Management Committee, PTT Global Chemical Plc.
- 2018 - Present : Independent Director/Chairman of the Board/Chairman of Executive, Nok Airlines Pcl.
- 2016 - Present : Independent Director/Chairman of the Board of Directors, SVI Plc.
- 2015 - Present : Independent Director/Chairman of Executive Committee, Thaicom Plc.
- 2012 - Present : Director/Chairman of the Board of Directors, Thoresen Thai Agencies Plc.
- 2011 - Present : 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 Plc.
- 2013 - 2017 : Director/Member of the Enterprise Risk Management Committee, PTT Plc.
- 2011 - 2018 : Independent Director/Chairman, PTT Global Chemical Plc.
- 2011 - 2015 : Independent Director/Chairman of the Board of Executive Directors, Krung Thai Bank Plc.
- 2007 - 2011 : Director, PTT Aromatics and Refining Plc.
- 2006 - 2013 : Director/Chairman/Chairman of the Executive Board of Directors, IRPC Plc.
- 2005 - 2011 : Director/Chairman, PTT Chemical Plc.
- 2003 - 2011 : Director/President and Chief Executive Officer, PTT Plc.
- 2000 - 2011 : Director/Chairman, PTT Exploration and Production Plc.

Positions in Listed Companies in Other Countries

- 2012 - Present : Chairman of the Board of Directors/Chairman of Executive Committee, Mermaid Maritime Plc.

Positions in Other Companies/Organizations

- 2019 - Present : Chairman, Yuanta Securities (Thailand) Company Limited
- 2019 - Present : Chairman, AIRA Property Public Company Limited
- 2011 - Present : Chairman, Thailand Business Council for Sustainable Development (TBCSD)
- 2014 - 2019 : Member of the National Legislative Assembly, Thailand
- 2014 - 2019 : First Vice-President of the Committee on Energy, the National Legislative Assembly, Thailand
- 2006 - 2008 : Member of the National Legislative Assembly, Thailand



Mr. Chalermchai Mahagitsiri

(Age 41)

Director/President and Chief Executive Officer/Member of Executive Committee/Chairman of Investment Committee

Date of first appointment:

- 31 January 2012

(%) of shareholding as of 31 December 2019:

- 22.05 (included his shares held under custodian account)

Relation among family with other directors and executives :

- Ms. Ausana Mahagitsiri's brother

Educations

- M.S. in Finance, Boston University, United States of America, 2004
- B.S. in Finance, Suffolk University, United States of America, 2001

Trainings/Certifications

- Digital Edge Fusion (DEF), Sripatum University, Class 1, 2017
- Ultra Wealth - Investment Like A Master, Class 2, 2016
- Academy of Business Creativity (ABC), Sripatum University, Class 4, 2016
- Capital Market Academy Leadership Program, Capital Market Academy (CMA), Class 17, 2013
- Director Certification Program (DCP), Thai Institute of Directors Association (IOD), Class 53/2005
- Director Accreditation Program (DAP), Thai Institute of Directors Association (IOD), Class 30/2004

Working experiences

Positions in Listed Companies in SET

- 2018 - Present : Chairman of the Board of Directors, Unique Mining Services Plc.
- 2018 - Present : Director, Seven Utilities and Power Plc.
- 2013 - Present : Chairman of the Board of Directors, PM Thoresen Asia Holdings Plc.
- 2012 - Present : Director/President and Chief Executive Officer, Thoresen Thai Agencies Plc.
- 2011 - Present : Director, Posco-Thainox Plc.
- 2011 - Present : Vice Chairman, Thai Film Industries Plc.
- 2012 - 2018 : Vice Chairman, Unique Mining Services Plc.
- 2009 - 2011 : Director and Vice Chairman, Posco-Thainox Plc.

Positions in Listed Companies in Other Countries

- 2012 - Present : Chief Executive Officer/Executive Vice Chairman, Mermaid Maritime Plc.
- 2015 - 2019 : Director, Sino Grandness Food Industry Group Ltd.

Positions in Other Companies/Organizations

- 2019 - Present : Director, Natural Aura Co., Ltd.
- 2019 - Present : Director, Natural Drink Co., Ltd.
- 2018 - Present : Director, Asia Infrastructure Management (Thailand) Co., Ltd.
- 2018 - Present : Director, CM Corporate Co., Ltd.
- 2018 - Present : Director, Siam Taco Co., Ltd.

- 2018 - Present : Director, Four One One Ecommerce Co., Ltd.
- 2018 - Present : Director, PTGC Co., Ltd.
- 2017 - Present : Director, Thoresen Shipping (Thailand) Co., Ltd.
- 2016 - Present : Director, Mermaid Subsea Services Saudi Arabia Co., Ltd.
- 2016 - Present : Director, PMT Property Co., Ltd.
- 2016 - Present : Director, Laser Game Asia Ltd.
- 2016 - Present : Director, TTA Suez Co., Ltd.
- 2016 - Present : Director, Natural Bev. Co., Ltd.
- 2014 - Present : Director, Mermaid Subsea Services LLC
- 2014 - Present : Director, Mermaid International Ventures
- 2014 - Present : Director, Premo Shipping Plc.
- 2014 - Present : Director, Thoresen Shipping FZE
- 2014 - Present : Director, Mermaid Maritime Mauritius Ltd.
- 2014 - Present : Director, Chidlom Marine Services & Supplies Ltd.
- 2014 - Present : Director, Gulf Agency Company (Thailand) Ltd.
- 2014 - Present : Director, GAC Thoresen Logistics Ltd.
- 2014 - Present : Director, PH Macaron Co., Ltd.
- 2014 - Present : Director, Athene Holdings Ltd.
- 2014 - Present : Director, Thoresen & Company (Bangkok) Ltd.
- 2014 - Present : Director, Fearnleys (Thailand) Ltd.
- 2014 - Present : Director, Asia Coating Services Ltd.
- 2014 - Present : Director, PMFB Ltd.
- 2014 - Present : Director, Thor Fortune Shipping Pte. Ltd.
- 2014 - Present : Director, Thor Friendship Shipping Pte. Ltd.
- 2014 - Present : Director, Thoresen Shipping Company Pte. Ltd.
- 2013 - Present : Director, PM Thoresen Asia (Singapore) Pte. Ltd.
- 2013 - Present : Director, Baconco Co., Ltd.
- 2013 - Present : Director, Thoresen (Indochina) S.A.
- 2013 - Present : Director, MTR-1 Ltd.
- 2013 - Present : Director, PM Quality Food and Beverage Co., Ltd.
- 2013 - Present : Director, Thoresen Shipping Singapore Pte. Ltd.
- 2013 - Present : Director, Mermaid Drilling Ltd.
- 2013 - Present : Director, Asia Offshore Drilling Ltd.
- 2013 - Present : Director, Asia Offshore Rig 1 Ltd.
- 2013 - Present : Director, Asia Offshore Rig 2 Ltd.
- 2013 - Present : Director, Asia Offshore Rig 3 Ltd.
- 2013 - Present : Director, Mermaid Subsea Services (Thailand) Ltd.
- 2013 - Present : Director, Four One One (411) FUN Co., Ltd.
- 2012 - Present : Director, MTR-2 Ltd.
- 2012 - Present : Director, Mermaid Subsea Services (International) Ltd.
- 2012 - Present : Director, Coffee Gallery Co., Ltd.
- 2012 - Present : Director, Soleado Holdings Pte. Ltd.
- 2011 - Present : Director, Phaholyothin Garden Co., Ltd.
- 2011 - Present : Director, Mountain Creek Development Co. Ltd.
- 2011 - Present : Director, M Creek Land Co., Ltd.
- 2010 - Present : Executive Director, Sak Chaisidhi Co., Ltd.
- 2008 - Present : Chief Executive Officer, Four One One Entertainment Co., Ltd.
- 2005 - Present : Chief Executive Officer, PM Group Co., Ltd.
- 2005 - Present : Director, PM Corp Co., Ltd.
- 2002 - Present : Director, Lakewood Kitchen Co., Ltd.
- 2002 - Present : Director, ACME Camps Co., Ltd.
- 1998 - Present : Managing Director, Lakewood Country Club Co., Ltd.
- 1998 - Present : Director, Lakewood Land Co., Ltd.
- Present : Director, Quality Coffee Products Co., Ltd.
- 2010 - 2014 : Executive Director, LYNN Phillips Asset Co., Ltd.



Mr. Jean Paul Thevenin
(Age 79)
Director/Member of Executive Committee/Member of Risk Management Committee/Member of Investment Committee

Date of first appointment:

- 30 January 2014

(%) of shareholding as of 31 December 2019:

- None

Relation among family with other directors and executives :

- None

Educations

- Ph.D. in Metallurgy, Orsay University, France
- Honorary Ph.D., King Mongkut Institute of Technology, Thailand

Trainings/Certifications

- Director Accreditation Program (DAP), Thai Institute of Directors Association (IOD), Class 74/2008

Working experiences

Positions in Listed Companies in SET

2019 - Present : Director, PM Thoresen Asia Holdings Plc.

2014 - Present : Director, Thoresen Thai Agencies Plc.

2005 - 2010 : Managing Director, Thainox Stainless Plc.

Positions in Listed Companies in Other Countries

2013 - Present : Non-Executive Director, Mermaid Maritime Plc.

Positions in Other Companies/Organizations

2018 - Present : Director, Asia Infrastructure Management (Thailand) Co., Ltd.

2018 - Present : Director, PTGC Co., Ltd.

2017 - Present : Director, PT Mermaid Subsea Services Indonesia

2017 - Present : Director, Mermaid Subsea Services Saudi Arabia Co., Ltd.

2017 - Present : Director, Petrolift Inc.

2016 - Present : Director, TTA Suez Co., Ltd.

2016 - Present : Director, Thoresen & Company (Bangkok) Ltd.

2015 - Present : Director, Mermaid Subsea Services (International) Ltd.

2015 - Present : Director, Thoresen Shipping Singapore Pte. Ltd.

2015 - Present : Director, Mermaid Offshore Services Pte. Ltd.

2015 - Present : Director, Mermaid Subsea Services (Thailand) Ltd.

2014 - Present : Director, Mermaid Drilling Ltd.

2014 - Present : Director, MTR-1 Ltd.

2014 - Present : Director, MTR-2 Ltd.

2016 - 2019 : Director, PMT Property Co., Ltd.

1998 - 2004 : President, Franco - Thai Chamber of Commerce



Mr. Jitender Pal Verma
(Age 55)
Director/Senior Executive Vice President and Group CFO/Member of Executive Committee/Member of Corporate Governance Committee/Member of Risk Management Committee/Member of Investment Committee/Chairman of Sustainable Development Committee

Date of first appointment:

- 26 April 2017 (Date of joining TTA: 22 April 2015)

(%) of shareholding as of 31 December 2019:

- 0.003 (shares held under Thai NVDR)

Relation among family with other directors and executives :

- None

Educations

- Bachelor of Commerce (Honors), University of Delhi, India
- Fellow Chartered Accountant (FCA)

Trainings/Certifications

- TLCA CFO Professional Development Program, 2019
- Accounting for Financial Instruments, Federation of Accounting Professions under the Royal Patronage, Class 3/19
- Diploma Examination, Thai Institute of Directors Association (IOD), Class 49/2016
- The Board's Role in Mergers and Acquisition (M&A), Thai Institute of Directors Association (IOD), Class 1/2011
- Director Certification Program (DCP), Thai Institute of Directors Association (IOD), Class 78/2006

Working experiences

Positions in Listed Companies in SET

2017 - Present : Director, PM Thoresen Asia Holdings Plc.

2017 - Present : Director/Senior Executive Vice President and Group CFO, Thoresen Thai Agencies Plc.

2005 - 2011 : CFO and Acting Managing Director, Thainox Stainless Plc.

Positions in Listed Companies in Other Countries

2016 - Present : Non-Executive Director, Mermaid Maritime Plc.

2011 - 2015 : Board's Member, Executive Director & CFO, Jindal Stainless Ltd.

Positions in Other Companies/Organizations

2018 - Present : Director, PTGC Co., Ltd.

2017 - Present : Director, Zamil Mermaid Offshore Services Company LLC.

2017 - Present : Director, Thoresen Indochina S.A.

2017 - Present : Director, Thoresen Shipping (Thailand) Co., Ltd.

2017 - Present : Director, Baconco Co., Ltd.

2017 - Present : Director, PH Capital Co., Ltd.

2017 - Present : Director, MTR-1 Ltd.

2017 - Present : Director, MTR-2 Ltd.
 2017 - Present : Director, Seascope Surveys Pte. Ltd.
 2017 - Present : Director, Mermaid Subsea Services LLC.
 2016 - Present : Director, Mermaid Subsea Services Saudi Arabia Co., Ltd.
 2016 - Present : Director, Mermaid Subsea Services (Thailand) Ltd.
 2016 - Present : Director, Mermaid Subsea Services (International) Ltd.
 2016 - Present : Director, Petrolift Inc.
 2016 - Present : Director, Thoresen & Company (Bangkok) Limited
 2016 - Present : Director, Chidlom Marine Services & Supplies Ltd.
 2016 - Present : Director, Gulf Agency Company (Thailand) Ltd.
 2016 - Present : Director, GAC Thoresen Logistics Ltd.
 2016 - Present : Director, Fearnleys (Thailand) Ltd.
 2015 - Present : Director, Mermaid Drilling Ltd.
 2015 - Present : Board's Member, Soleado Holdings Pte. Ltd., Singapore
 2015 - Present : Board's Member, Thoresen Shipping FZE, U.A.E
 2016 - 2019 : Director, PMT Property Co., Ltd.
 2015 - 2016 : Board's Member, Thoresen Shipping Singapore Pte. Ltd., Singapore
 2003 - 2005 : Finance Director Asia, Dole Asia, Philippines
 2002 - 2003 : Asia Regional Treasurer, Dole Food Company, Hong Kong
 1998 - 2002 : Finance Director and Controller, Dole Thailand Ltd., Thailand
 1996 - 1998 : Finance Director, Seagate Technology Ltd., Thailand
 1988 - 1996 : Various other positions in Thailand and overseas at progressive levels



Ms. Ausana Mahagitsiri

(Age 39)

Director/Member of Nomination and Remuneration Committee/
Member of Corporate Governance Committee

Date of first appointment:

- 31 January 2012

(%) of shareholding as of 31 December 2019:

- 4.38

Relation among family with other directors and executives :

- Mr. Chalermchai Mahagitsiri' s sister and Mr. Kamolsut Dabbaransi' s spouse.

Educations

- M.B.A., Sasin Graduate Institute of Business Administration of Chulalongkorn University in a joint program with Kellogg Graduate School of Management of Northwestern University, USA, 2005
- B.S. in Business Administration, Boston University School of Management, USA, 2002

Trainings/Certifications

- Director Accreditation Program (DAP), Thai Institute of Directors Association (IOD), Class 30/2004

Working experiences

Positions in Listed Companies in SET

2013 - Present : Director, Thai Film Industries Plc.
 2012 - Present : Director, Thoresen Thai Agencies Plc.

Positions in Listed Companies in Other Countries

- None -

Positions in Other Companies/Organizations

2017 - Present : Director, PH Capital Co., Ltd.
 2017 - Present : Director, PM Capital Co., Ltd.
 2016 - Present : Director, PMT Property Co., Ltd.
 2016 - Present : Director, Natural Bev. Co., Ltd.
 2016 - Present : Director, Premo Shipping Plc.
 2014 - Present : Director, Chidlom Marine Services & Supplies Ltd.
 2014 - Present : Director, GAC Thoresen Logistics Ltd.
 2014 - Present : Director, Athene Holdings Ltd.
 2014 - Present : Director, Soleado Holdings Pte. Ltd.
 2014 - Present : Director, Thoresen Shipping Singapore Pte. Ltd.
 2014 - Present : Director, PMFB Ltd.
 2014 - Present : Director, Asia Coating Services Ltd.
 2014 - Present : Director, PH Macaron (Thailand) Co., Ltd.
 2013 - Present : Director, PM Quality Food and Beverage Co., Ltd.

2013 - Present : Director, Four One One (411) FUN Co., Ltd.
 2011 - Present : Director, M Creek Land Co., Ltd.
 2011 - Present : Chief Operating Officer, PM Group Co., Ltd.
 2010 - Present : Managing Director, The Nest Property Co., Ltd.
 2010 - Present : Director, Quality Coffee Products Co., Ltd.
 2009 - Present : Director and Managing Director, Coffee Gallery Co., Ltd.
 2008 - Present : Director, Four One One Entertainment Co., Ltd.
 2008 - Present : Director, Phaholyothin Garden Co., Ltd.
 2006 - Present : Managing Director, Mountain Creek Development Co., Ltd.
 2005 - Present : Director, PM Corp Co., Ltd.
 2002 - Present : Director, ACME Camps Co., Ltd.
 2002 - Present : Director, Lakewood Kitchen Co., Ltd.
 1998 - Present : Director, Lakewood Country Club Co., Ltd.
 1998 - Present : Director, Lakewood Land Co., Ltd.



Mr. Kamolsut Dabbaransi

(Age 42)

Director/ Senior Executive Vice President,
Head of Food & Beverage

Date of first appointment:

- 27 April 2016

(%) of shareholding as of 31 December 2019:

- Own : None
- Spouse : 4.38
- Total : 4.38

Relation among family with other directors and executives :

- Ms. Ausana Mahagitsiri's spouse.

Educations

- Master of Science in Actuarial Science, Boston University, USA
- Bachelor of Science in Industrial Engineering and Operation Research, University of Massachusetts, USA

Trainings/Certifications

- Director Certification Program (DCP), Thai Institute of Directors Association (IOD), Class 119/2009
- Pacific Basin Economic Council Thailand (PBEC) - Director General 2002 - 2004

Working experiences

Positions in Listed Companies in SET

2016 - Present : Director, Thoresen Thai Agencies Plc.

Positions in Listed Companies in Other Countries

- None -

Positions in Other Companies/Organizations

2016 - Present : Director, Asia Coating Services Ltd.
 2016 - Present : Director, PMT Property Co., Ltd.
 2016 - Present : Director, Laser Game Asia Ltd.
 2016 - Present : Director, House of Truffle Co., Ltd.
 2016 - Present : Director, PMFB Ltd.
 2014 - Present : Director, PH Macaron (Thailand) Co., Ltd.
 2013 - Present : Director, PM Quality Food and Beverage Co., Ltd.
 2013 - Present : Director, Four One One (411) FUN Co., Ltd.
 2013 - Present : Chief Business Development Officer, PM Group Co., Ltd.
 2010 - Present : CEO/Founder, Mugendai Co., Ltd.
 2016 - 2019 : Director, The Royal Ceramic Industry Plc.
 2007 - 2013 : Vice President, Business Development, SCB Securities Co., Ltd.
 2001 - 2004 : Marketing Analyst, Green Spot Co., Ltd.



Mr. Somboonkiat Kasemsuwan

(Age 74)
Independent Director/
Chairman of Audit Committee



Mr. Santi Bangor

(Age 74)
Independent Director/Chairman of
Nomination and Remuneration Committee/
Chairman of Corporate Governance
Committee/Member of Audit Committee

Date of first appointment:

- 14 November 2016

(%) of shareholding as of 31 December 2019:

- None

Relation among family with other directors and executives :

- None

Educations

- Professional Degree in Electrical Engineering, North Carolina State University USA 1976
- B.S. Degree in Electrical Engineering, North Carolina State University USA 1964

Trainings/Certifications

- Capital Market Academy Leadership Program, Capital Market Academy (CMA), Class 6/2008
- Director Certification Program (DCP), Thai Institute of Directors Association (IOD), Class 96/2007
- Diploma, National Defense College (NDC), Class 377/1994

Working experiences

Positions in Listed Companies in SET

- 2016 - Present : Independent Director, Thoresen Thai Agencies Plc.
- 2014 - 2016 : Chairman of Audit Committee, and Member of Nomination and Remuneration Committee, PM Thoresen Asia Holdings Plc.
- 2004 - 2015 : Chairman, Advance Finance Plc.
- 1989 - 1994 : Executive Director, The Bangkok Bank of Commerce Plc.
- 1987 - 1989 : Director and Senior Executive Vice President, The Bangkok Bank of Commerce Plc.

Positions in Listed Companies in Other Countries

- None -

Positions in Other Companies/Organizations

- 2013 - 2014 : Chairman of Audit Committee, PM Thoresen Asia Holdings Ltd.
- 2005 - 2011 : Vice Chairman of the Board of Directors, the Transport Company
- 1999 - 2011 : Chairman of the Board of Directors, Moh Mee Company
- 1994 - 1997 : Director, the Transport Company (Government Enterprise)
- 1970 - 1987 : Assistant Director of the System Operation, Electricity Generating Authority of Thailand (EGAT)

Date of first appointment:

- 31 January 2012

(%) of shareholding as of 31 December 2019:

- None

Relation among family with other directors and executives :

- None

Educations

- M.A. in Agricultural Economics, Texas Tech University, USA, 1980
- B.A. in Political Science (Fiscal), Chulalongkorn University, 1968

Trainings/Certifications

- Audit Committee Seminar - Get Ready for the Year End, Federation of Accounting Profession of Thailand under the Royal Patronage of His Majesty the King, 2015
- Audit Committee Program (ACP), Thai Institute of Directors Association (IOD), Class 42/2013
- Monitoring Fraud Risk Management (MFM), Thai Institute of Directors Association (IOD), Class 9/2013
- Monitoring the System of Internal Control and Risk Management (MIR), Thai Institute of Directors Association (IOD), Class 14/2013
- Monitoring the Internal Audit Function (MIA), Thai Institute of Directors Association (IOD), Class 14/2013
- Monitoring the Quality of Financial Reporting (MFR), Thai Institute of Directors Association (IOD), Class 17/2013
- Role of the Compensation Committee Program (RCC), Thai Institute of Directors Association (IOD), Class 16/2013
- Director Certification Program (DCP), Thai Institute of Directors Association (IOD), Class 12/2001
- Diploma, National Defense College (NDC), Class 38, 1995
- Development Certificate, Cambridge University, England, 1975

Working experiences

Positions in Listed Companies in SET

- 2013 - Present : Independent Director/Chairman of the Corporate Governance Committee, People's Garment Plc.
- 2012 - Present : Independent Director, Thoresen Thai Agencies Plc.
- 2010 - Present : Member of the Audit Committee, People's Garment Plc.

Positions in Listed Companies in Other Countries

- None -

Positions in Other Companies/Organizations

- 2016 - Present : Member of State Enterprise Performance Agreement and Performance Appraisal Sub-Committee on Infrastructure sector, Industry and Commerce
- 2012 - 2016 : Member of State Enterprise Performance Agreement and Performance Appraisal Sub-Committee on Communication and Energy Sector, Performance Appraisal Committee, Ministry of Finance
- 2006 - 2009 : President, Yonok University (Nation University)
- 2001 - 2002 : Director, State Railway Authority
- 1999 - 2001 : Director, Metropolitan Electricity Authority
- 1997 - 2006 : Deputy Secretary General to the National Economic and Social Development Board, Office of the Prime Minister
- 1996 - 1999 : Director, Government Pension Board



Mr. Cherdpong Siriwit

(Age 73)

Independent Director/Chairman of Risk Management Committee/
Member of Audit Committee

Date of first appointment:

- 30 January 2013

(%) of shareholding as of 31 December 2019:

- None

Relation among family with other directors and executives :

- None

Educations

- M.A. Economics, Georgetown University, USA
- B.A. Economics (Honor), Thammasat University

Trainings/Certifications

- Audit Committee Program (ACP), Thai Institute of Directors Association (IOD), Class 27/2009
- Director Certification Program (DCP), Thai Institute of Directors Association (IOD), Class 104/2008
- Finance of Non-Finance Directors (FND), Thai Institute of Directors Association (IOD), Class 13/2004
- Role of Chairman Program (RCP), Thai Institute of Directors Association (IOD), Class 10/2004
- Director Accreditation Program (DAP), Thai Institute of Directors Association (IOD), Class 8/2004
- Diploma, The Joint State-Private Sector Course, National Defense College, Class 40
- Advanced Certificate Course in Politics and Governance in Democratic System for Executives, King Prajadhipok's Institute, Class 5
- The Civil Service Executive Development Program I, The Civil Service Training Institute, Class 13/1993
- Capital Market Academy Leadership Program, Capital Market Academy (CMA), Class 5

Working experiences

Positions in Listed Companies in SET

- 2013 - Present : Independent Director, Thoresen Thai Agencies Plc.
- 2010 - Present : Chairman, Solartron Plc.
- 2009 - 2019 : Chairman, Advance Finance Plc.
- 2011 - 2014 : Chairman of Corporate Governance Committee, IRPC Plc.
- 2009 - 2016 : Chairman of Audit Committee, IRPC Plc.
- 2009 - 2016 : Independent Director, IRPC Plc.

2006 - 2009 : Independent Director/Audit Committee/
Remuneration Director, PTT Chemical Plc.

2005 - 2007 : Chairman, Rayong Refinery Plc.

2004 - 2008 : Chairman, PTT Exploration and Production Plc.

2004 - 2008 : Chairman, Thai Oil Plc.

2003 - 2007 : Chairman, PTT Plc.

2003 - 2007 : Chairman, Ratchaburi Electricity Generating
Holding Plc.

Positions in Listed Companies in Other Countries

- None -

Positions in Other Companies/Organizations

2012 - 2018 : Chairman, Thai Sugar Millers Corporation Ltd.

2003 - 2004 : Chairman, Electricity Generating Authority of
Thailand (EGAT)

2002 - 2006 : Permanent Secretary, Ministry of Energy



Mr. Chitrapongse Kwangsukstith

(Age 70)

Independent Director

Date of first appointment:

- 13 May 2015

(%) of shareholding as of 31 December 2019:

- None

Relation among family with other directors and executives :

- None

Educations

- Doctor of Engineering (Industrial Engineering),
Lamar University, USA, 1979
- Master of Engineering (Industrial Engineering),
Lamar University, USA, 1974
- Bachelor of Engineering (Mechanical Engineering),
Chulalongkorn University, 1970

Trainings/Certifications

- Role of the Compensation Committee Program (RCC), Thai
Institute of Directors Association (IOD), Class 10/2010
- Directors Certification Program (DCP), Thai Institute of Directors
Association (IOD), Class 42/2004
- Finance for Non-Finance Director Program (FND), Thai Institute of
Directors Association (IOD), Class 9/2004
- National Corporate Governance Committee (NCGC), Thai Institute
of Directors Association (IOD)
- Diploma in National Defense Course for the Joint State-Private
Sector, the National Defense College (NDC/4212), Class 12
- Stanford Executive Program, Stanford University, USA

Working experiences

Positions in Listed Companies in SET

2015 - Present : Independent Director, Thoresen Thai Agencies Plc.

2014 - Present : Director, Member and Alternate Chairman of Board
Risk Committee, CIMB Thai Bank Plc.

2008 - 2009 : Chief Operating Officer, Upstream Petroleum and
Gas Business Group, PTT Plc.

2003 - 2007 : Senior Executive Vice President, Exploration &
Production and Gas Business Unit, PTT Plc.

2000 - 2003 : Senior Executive Vice President, PTT Plc., working
as President, PTT Exploration & Production Plc.

Positions in Listed Companies in Other Countries

- None -

Positions in Other Companies/Organizations

2012 - 2014 : Chairman of the Board, PTT Energy Resources Ltd.

2009 - 2012 : Chairman and Acting President of PTT Energy
Resources Ltd.



**Mr. Mohammed Bin Rashed
Bin Ahmad Bin Muftah Al
Nasser**
(Age 49)
Independent Director/Member of
Nomination and Remuneration Committee

Date of first appointment:

- 30 January 2013

(%) of shareholding as of 31 December 2019:

- None

Relation among family with other directors and executives :

- None

Educations

- License of Law, Emirates University

Trainings/Certifications

- None -

Working experiences

Positions in Listed Companies in SET

2013 - Present : Independent Director, Thoresen Thai Agencies Plc.

Positions in Listed Companies in Other Countries

- None -

Positions in Other Companies/Organizations

Present	: Member of the National Consulting Council, UAE
Present	: Assistant-Undersecretary in the Financial Department of Abu Dhabi, UAE
Present	: Director General of Pvt. & Official office of H.H Sheikh Mohammed Bin Khalifa Bin Zayed Al Nahyan, UAE
Present	: Vice President of Youth Hostel Society, UAE
Present	: Board's Member of The Emirates Insurance Company, UAE
Present	: Board's Member of The National Investor Company, UAE
Present	: Board's Member of Alwifaq Finance Company, UAE
Present	: General Manager of Al Ain Equestrian, Shooting & Golf Club, UAE
Present	: Chairman of Gulf Islamic Investment Company, UAE

Mrs. Vorapin Isaradharm

(Age 62)
Company Secretary

Date of first appointment:

- 15 August 2017

(%) of shareholding as of 31 December 2019:

- None

Relation among family with other directors and executives :

- None

Educations

- Master Degree in Economic Laws, Chulalongkorn University
- Mini MBA, Thammasart University
- Bachelor Degree in Economics, Chulalongkorn University

Trainings/Certifications

- Anti-Corruption Working Paper Course, the Thailand's Private Sector Collective Action Against Corruption ("CAC") in cooperation with the Federation of Accounting Professions under the Royal Patronage, Class 3/19
- Road to Join CAC 4/2019, CAC
- Road to Certify 6/2019, CAC
- P01: Preliminary to Corporate Sustainability, Class 3, 2018
- S01-03: Corporate Sustainability Strategy, the Stock Exchange of Thailand, Class 2, 2019
- S04: Sustainability Risk and Materiality Analysis, the Stock Exchange of Thailand, Class 1, 2019
- S05: Sustainability Evaluation and data management, the Stock Exchange of Thailand, Class 2, 2019
- S06: Sustainability Reporting, the Stock Exchange of Thailand, Class 1, 2019
- Presentation Skill, Thailand Management Association
- Internal Auditing Certificate Program (IACP), Federation of Accounting Professions
- Company Secretary Program (CSP), Thai Institute of Directors Association (IOD)
- Director Certification Program (DCP), Thai Institute of Directors Association (IOD)

Working experiences

Positions in Listed Companies in SET

2017 - Present	: Director, Corporate Affairs Department, Thoresen Thai Agencies Plc.
1998 - 2014	: Company Secretary and Head of Internal Audit, Samart Corporation Plc.
1990 - 1997	: Company Secretary, the Cogeneration Public Company Limited

Positions in Other Companies/Organizations

1989 - 1990	: Secretary to President, Dow Chemical Co., Ltd.
1980 - 1989	: Secretary to Management Director, Custom Pac Co., Ltd.

Executive's Profile



Mr. Chalermchai Mahagitsiri

(Age 41)

President and Chief Executive Officer/
Member of Executive Committee/
Chairman of Investment Committee

Date of appointment as Executive:

- 31 January 2012

(%) of shareholding as of 31 December 2019 :

- 22.05 (included his shares held under custodian account)

Relation among family with other directors and executives :

- Ms. Ausana Mahagitsiri's brother

His biography appears in the section "Biography of the Board of Directors and Executives"



Mr. Jitender Pal Verma

(Age 55)

Director/Senior Executive Vice President and
Group CFO/Member of Executive Committee/
Member of Corporate Governance Committee/
Member of Risk Management Committee/
Member of Investment Committee

Date of appointment as Executive:

- 13 May 2015 (Date of joining TTA : 22 April 2015)

(%) of shareholding as of 31 December 2019 :

- 0.003 (shares held under Thai NVDR)

Relation among family with other directors and executives :

- None

His biography appears in the section "Biography of the Board of Directors and Executives"



Mr. Kamolsut Dabbaransi

(Age 42)

Director/ Senior Executive Vice
President, Head of Food & Beverage

Date of appointment as Executive:

- 1 August 2015

(%) of shareholding as of 31 December 2019 :

- Own : ๓.๓๓
- Spouse : 4.38
- Total : 4.38

Relation among family with other directors and executives :

- Ms. Ausana Mahagitsiri's spouse

His biography appears in the section "Biography of the Board of Directors and Executives"



Mr. Sigmund Stromme

(Age 63)

Executive Vice President - Agro &
Logistics

Date of first appointment:

- 6 May 2015

(%) of shareholding as of 31 December 2019:

- 0.008

Relation among family with other directors and executives :

- None

Educations

- Master in Computer Science Finance/Administration,
EDB Høyskolen, Norway

Trainings/Certifications

- Director Certification Program (DCP), Thai Institute of Directors
Association (IOD), Class 182/2013

Working experiences

Positions in Listed Companies in SET

2015 - Present : Executive Vice President - Agro & Logistics,
Thoresen Thai Agencies Plc.

2015 - Present : Director/ Managing Director/Executive Committee/
Nomination and Remuneration Committee,
PM Thoresen Asia Holdings Plc.

Positions in Listed Companies in Other Countries

- None -

Positions in Other Companies/Organizations

2016 - Present : Director, Thoresen & Company (Bangkok) Limited

2016 - Present : Director, Chidlom Marine Services & Supplies Ltd.

2015 - Present : Director, Thoresen Shipping Singapore Pte. Ltd.

2015 - Present : Director, Fearnleys (Thailand) Ltd.

2015 - Present : Director, Gulf Agency Company (Thailand) Co., Ltd.

2015 - Present : Director, GAC Thoresen Logistics Ltd.

2015 - Present : Director, Petrolift Inc.

2014 - Present : Chairman, Thoresen-Vinama Agencies Co., Ltd.

2013 - Present : Director, Sharjah Ports Services LLC.

2013 - Present : Director, PM Thoresen Asia (Singapore) Pte. Ltd.

2013 - Present : Director, Thoresen Shipping FZE

2012 - Present : Chairman, Thoresen-Vinama Logistics Co., Ltd.

2010 - Present : Director, Baria Joint Stock Company of Services
for Import Export of Agro-Forestry Products and
Fertilizers ("Baria Serece")

2009 - Present : Chairman, Baconco Co., Ltd.

2003 - Present : Director, Thoresen (Indochina) S.A.

2000 - Present : Chairman, The NORDIC Chamber of Commerce in
HCMC, Vietnam

2015 - 2016 : Director, Thoresen Shipping and Logistics Ltd.

2013 - 2014 : Director, PM Thoresen Asia Holdings Ltd.



Mr. Vincent Siaw

(Age 45)
Executive Vice President,
Legal & International Projects

Date of first appointment:

- 19 September 2018

(%) of shareholding as of 31 December 2019:

- None

Relation among family with other directors and executives :

- None

Educations

- Doctor of Business Administration (Corporate Law & Governance), University of South Australia
- Global Executive Master of Business Administration, INSEAD
- Master of Business Administration (Oil & Gas), Curtin University
- Bachelor of Laws (Honours), Australian National University
- Bachelor of Commerce (Accounting), Australian National University

Trainings/Certifications

- Director Certification Program (DCP), Thai Institute of Directors Association (IOD), Class 175/2013
- Diploma, Director Examination Program, Thai Institute of Directors Association (IOD), Class 38/2013
- Solicitor, Supreme Court of England & Wales
- Barrister-at-Law & Solicitor, High Court of Australia
- Barrister-at-Law & Solicitor, Supreme Court of the Australian Capital Territory

Working experiences

Positions in Listed Companies in SET

2018 - Present : Executive Vice President, Legal & International Projects, Thoresen Thai Agencies Plc.

Positions in Listed Companies in Other Countries

2016 - Present : Executive Vice President and Chief Operating Officer, Mermaid Maritime Plc.

2014 - 2015 : Senior Vice President, Legal & Corporate Affairs and Business Development Director (Offshore Drilling), Mermaid Maritime Plc.

2011 - 2013 : Corporate Strategy Director, Company Secretary & Head of Investor Relations, Mermaid Maritime Plc.

2008 - 2010 : General Counsel, Company Secretary & Head of Investor Relations, Mermaid Maritime Plc.

2005 - 2007 : General Counsel & Company Secretary, Mermaid Maritime Plc.

Positions in Other Companies/Organizations

2018 - Present : Director, Mermaid Subsea Services (Malaysia) Sdn. Bhd.

2017 - Present : Director, Mermaid Subsea Services LLC

2017 - Present : Director, Mermaid Offshore Services Pte. Ltd.

2017 - Present : Director, Mermaid Subsea Services Saudi Arabia Co., Ltd.

2017 - Present : Director, PT Mermaid Subsea Services Indonesia

2016 - Present : Director, Mermaid Subsea Services (International) Ltd.

2016 - Present : Director, Mermaid Maritime Mauritius Ltd.

2016 - Present : Director, Mermaid International Ventures

2015 - Present : Director, Mermaid Drilling (Malaysia) Sdn. Bhd.

2015 - Present : Director, Mermaid Subsea Services (Thailand) Ltd.

2015 - Present : Director, Seascope Surveys Pte. Ltd.

2015 - Present : Director, Mermaid Drilling Ltd.

2015 - Present : Director, MTR-1 Ltd.

2015 - Present : Director, MTR-2 Ltd.

2003 - 2004 : Senior Manager (Thailand Counsel), General Motors (Thailand) Co., Ltd. & Chevrolet Sales (Thailand) Co., Ltd.

2001 - 2002 : Senior Manager (Legal), Ferrier Hodgson Co., Ltd. & Effective Planners Co., Ltd. as Plan Administrator to Thai Petrochemical Industry Plc.

1999 - 2000 : Lawyer, Corporate & Government Division, Deacons Graham & James, Australia



Mr. Ng Kit Wei, David

(Age 42)
Executive Vice President, Corporate
Strategy & Development/Member of
Risk Management Committee/
Member of Investment Committee

Date of first appointment:

- 20 January 2015

(%) of shareholding as of 31 December 2019:

- None

Relation among family with other directors and executives :

- None

Educations

- Bachelor of Commerce & Management, Lincoln University, New Zealand

Trainings/Certifications

- Chartered Financial Analyst (CFA), CFA Institute
- CPA Australia

Working experiences

Positions in Listed Companies in SET

2015 - Present : Executive Vice President, Corporate Strategy & Development, Thoresen Thai Agencies Plc.

Positions in Listed Companies in Other Countries

- None -

Positions in Other Companies/Organizations

2018 - Present : Director, Asia Infrastructure Management (Thailand) Co., Ltd.
2018 - Present : Director, Siam Taco Co., Ltd.
2017 - Present : Director, PH Capital Co., Ltd.
2016 - Present : Director, TTA Suez Co., Ltd.
2013 - 2014 : Senior Vice President, Maybank Kim Eng, Singapore
2005 - 2012 : Executive Director, Goldman Sachs, Singapore
2004 - 2005 : Vice President, ECM Libra, Malaysia
2000 - 2004 : Analyst, HSBC Securities, Malaysia
1998 - 2000 : Auditor, Ernst & Young, Malaysia



Mr. Somchai Apinyanukul

(Age 49)
Executive Vice President,
Group Human Resources

Date of first appointment:

- 1 January 2019

(%) of shareholding as of 31 December 2019:

- None

Relation among family with other directors and executives :

- None

Educations

- Master of International Business, Swinburne University of Technology, Melbourne, Australia
- Bachelor of Political Science, Chiangmai University

Trainings/Certifications

- The 7 Habits of Highly Effective People, Signature Edition 4.0, FranklinCovey in Thailand, 2019
- Director Accreditation Program (DAP), Thai Institute of Directors Association (IOD), Class 160/2019
- The Predictive Index System, PI Management, Singapore
- HRMS Seminar, Washington DC, USA
- PMAT, Thailand

Working experiences

Positions in Listed Companies in SET

2019 - Present : Executive Vice President, Group Human Resources, Thoresen Thai Agencies Plc.
2016 - 2018 : Director, Corporate Human Resources, Thoresen Thai Agencies Plc.
2012 - 2013 : Head of Business Partner - Saraburi Operation, Siam City Cement, Plc.

Positions in Listed Companies in Other Countries

2006 - 2012 : Director, Human Resources, Fabrinet Co., Ltd., NYSE FN, USA

Positions in Other Companies/Organizations

2018 - Present : Director, Siam Taco Co., Ltd.
2017 - Present : Director, Thoresen Shipping (Thailand) Co., Ltd.
2013 - 2016 : Director, Human Resources, ECCO (Thailand) Co., Ltd.

Report on the Securities Holding of the Directors and Executives

Securities Holding by TTA Directors as of 31 December 2019

Name	No. of Shares			No. of Warrants # TTA-W5 *		
	As of 31 Dec 2019	As of 31 Dec 2018	Changes During the Year	As of 31 Dec 2019	As of 31 Dec 2018	Changes During the Year
1. Mr. Prasert Bunsumpun	182,000	182,000	-	-	-	-
Spouse and Minor Child	-	-	-	-	-	-
2. Mr. Chalermchai Mahagitsiri	401,876,559	401,348,382	528,177	-	7,581,756	(7,581,756)
3. Mr. Jean Paul Thevenin	-	-	-	-	-	-
Spouse and Minor Child	-	11,200	(11,200)	-	1,066	(1,066)
4. Mr. Jitender Pal Verma	55,000	55,000	-	-	33	(33)
Spouse and Minor Child	-	-	-	-	-	-
5. Ms. Ausana Mahagitsiri	79,879,037	75,495,737	4,383,300	-	-	-
Spouse and Minor Child	-	-	-	-	-	-
6. Mr. Kamolsut Dabbaransi	-	-	-	-	-	-
Spouse and Minor Child	79,879,037	75,495,737	4,383,300	-	-	-
7. Mr. Somboonkiat Kasemsuwan	-	-	-	-	-	-
Spouse and Minor Child	-	-	-	-	-	-
8. Mr. Santi Bangor	-	-	-	-	-	-
Spouse and Minor Child	-	-	-	-	-	-
9. Mr. Cherdpong Siriwit	-	-	-	-	-	-
Spouse and Minor Child	-	-	-	-	-	-
10. Mr. Chitrapongse Kwangsukstith	-	-	-	-	-	-
Spouse and Minor Child	-	-	-	-	-	-
11. Mr. Mohammed Rashed Ahmad M. Al Nasser	-	-	-	-	-	-
Spouse and Minor Child	-	-	-	-	-	-

Remark : * TTA-W5 warrants was expired and delisted from listed securities in the Stock Exchange of Thailand since 1 March 2019.

Securities Holding by TTA Executives as of 31 December 2019

Name	No. of Shares			No. of Warrants # TTA-W5 *		
	As of 31 Dec 2019	As of 31 Dec 2018	Changes During the Year	As of 31 Dec 2019	As of 31 Dec 2018	Changes During the Year
1. Mr. Chalermchai Mahagitsiri	401,876,559	401,348,382	528,177	-	7,581,756	(7,581,756)
2. Mr. Jitender Pal Verma	55,000	55,000	-	-	33	(33)
Spouse and Minor Child	-	-	-	-	-	-
3. Mr. Kamolsut Dabbaransi	-	-	-	-	-	-
Spouse and Minor Child	79,879,037	75,495,737	4,383,300	-	-	-
4. Mr. Sigmund Stromme	143,200	143,200	-	-	-	-
5. Mr. Vincent Siaw	-	-	-	-	-	-
Spouse and Minor Child	-	-	-	-	-	-
6. Mr. Kit Wei Ng, David	-	-	-	-	-	-
Spouse and Minor Child	-	-	-	-	-	-
7. Mr. Somchai Apinyanukul	-	-	-	-	-	-
Spouse and Minor Child	-	-	-	-	-	-

Remark : * TTA-W5 warrants was expired and delisted from listed securities in the Stock Exchange of Thailand from 1 March 2019 onwards.

Shareholding Structure

TTA's Top 10 Shareholders

The top ten shareholders of TTA as of 30 December 2019, the latest share register book closing date for the names of shareholders, were as follows:

No.	Shareholders	Number of Shares	% of Total Number of Shares
1.	Mr. Chalermchai Mahagitsiri *	251,876,559	13.82
2.	Credit Suisse AG, Singapore Branch	150,000,000	8.23
3.	Ms. Ausana Mahagitsiri	79,879,037	4.38
4.	Mr. Prateep Tangmatitham	76,335,007	4.19
5.	Thai NVDR Co., Ltd.	61,161,397	3.36
6.	SOUTH EAST ASIA UK (TYPE C) NOMINEES LIMITED	42,827,378	2.35
7.	Mr. Pipat Tiathawat	40,000,000	2.19
8.	Mr. Tossapol Waewmaneeewan	30,530,000	1.68
9.	DBS Bank Ltd.	22,689,600	1.24
10.	Mrs. Somsong Laphananrat	20,190,300	1.11
	Total	775,489,278	42.55
	Other shareholders	1,046,975,286	57.45
	Grand Total	1,822,464,564	100.00

Note : * He has another 150,000,000 shares held under a custodian account, representing 8.23% of total number of shares.

The authorized and paid-up capital of TTA as of 30 December 2019 were Baht 1,998,446,888 and Baht 1,822,464,564 respectively, having a par value of Baht 1 per share.

TTA's Share Distribution

The share distribution by nationality of TTA as of 30 December 2019, the latest share register book closing date for the names of shareholders, was as follows:

Share Distribution by Nationality	Number of Shareholders	Number of Shares	% of Total Number of Shares
Thai	20,502	1,546,153,869	84.84
Foreign	100	276,310,695	15.16
Total	20,602	1,822,464,564	100.00

Company Investments

Investments in other companies exceeding 10% of other companies' shares as of 31 December 2019 are as follows:

No.	Name of Company	Type of Shares	No. of Issued Shares	No. of Invested Shares	% of Holding
Shipping					
Type of Business : Ship Management					
1	Thoresen & Company (Bangkok) Ltd. 26/32-34 Orakarn Building, 10 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2250-8437 Fax : +66 (0) 2655-5631	Ordinary	9,470,000	9,470,000	} 99.99 ^{/1}
		Preference			
		Group A	1,530,000	1,529,944	
		Group B	1,500,000	1,500,000	
2	Premo Shipping Plc. 26/32-34 Orakarn Building, 10 th Floor Soi Chidlom, Ploenchit Road, Lumpinee Pathumwan, Bangkok 10330 Tel. : +66 (0) 2250-0569 Fax : +66 (0) 2655-5631	Ordinary	87,500	87,494	99.99
Type of Business : International Maritime Transportation					
3	Thoresen Chartering (HK) Ltd. Suite B, 12 th Floor, Two Chinachem Plaza 135 Des Voeux Road Central, Hong Kong	Ordinary	500,000	499,999	99.99
4	Thoresen Shipping Singapore Pte. Ltd. 3 Church Street, #22-06 Samsung Hub, Singapore 049483 Tel. : +65 6578-7000 Fax : +65 6578-7007	Ordinary	614,909,306	614,909,306	100.00
5	Thor Fortune Shipping Pte. Ltd. 3 Church Street, #22-06 Samsung Hub, Singapore 049483 Tel. : +65 6578-7000 Fax : +65 6578-7007	Ordinary	33,516,824	33,516,824	100.00 ^{/1}
6	Thor Friendship Shipping Pte. Ltd. 3 Church Street, #22-06 Samsung Hub, Singapore 049483 Tel. : +65 6578-7000 Fax : +65 6578-7007	Ordinary	28,142,405	28,142,405	100.00 ^{/1}
7	Thoresen Shipping Company Pte. Ltd. 3 Church Street, #22-06 Samsung Hub, Singapore 049483 Tel. : +65 6578-7000 Fax : +65 6578-7007	Ordinary	15,500,000	15,500,000	100.00 ^{/1}
8	Thoresen Shipping Germany GmbH Stavendamm 4a, 28195 Bremen, Germany Tel. : +49 (0) 421 336 52 22	Ordinary	25,000	25,000	100.00
Type of Business : Commercial Dry Bulk Shipping Activities					
9	Thoresen Shipping (Thailand) Co., Ltd. 26/26-27 Orakarn Building, 8 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2250-0569 Fax : +66 (0) 2655-5631	Ordinary	12,000,000	6,120,000 5,879,990 ^{/1}	99.99

No.	Name of Company	Type of Shares	No. of Issued Shares	No. of Invested Shares	% of Holding
Offshore Service					
Type of Business : Offshore Services					
10	Mermaid Maritime Plc. 26/28-29 Orakarn Building, 9 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2255-3115-6 Fax : +66 (0) 2255-1079	Ordinary	1,413,328,857	700,000,000 20,398,420 ^{/4} 102,509,593 ^{/3}	58.22
11	Mermaid Drilling Ltd. 26/28-29 Orakarn Building, 9 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2255-3115-6	Ordinary	41,000,000	38,950,000	95.00
12	MTR-1 Ltd. 26/28-29 Orakarn Building, 9 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2255-3115-6	Ordinary	24,000,000	24,000,000	100.00
13	MTR-2 Ltd. 26/28-29 Orakarn Building, 9 th Floor Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2255-3115-6	Ordinary	35,000,000	35,000,000	100.00
14	Mermaid Drilling (Malaysia) Sdn. Bhd. Level 8 Symphony House Pusat Dagangan Dana 1 Jalan PJU1A/46 47301 Petaling Jaya Selangor Darul Ehsan, Malaysia	Ordinary	500,000	500,000	100.00
15	Mermaid Subsea Services (Thailand) Ltd. 26/28-29 Orakarn Building, 9 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2255-3115-6	Ordinary	538,000,000	538,000,000	100.00
16	Seascope Surveys Pte. Ltd. 8 Loyang Drive, Loyang Industrial Estate Singapore (508939)	Ordinary	100	100	100.00
17	PT Seascope Surveys Indonesia JL T.B. Simatupang, Kav. 1 S, Cilandak, Timur Jakarta, 12560, Indonesia	Ordinary	800	392	49.00
18	Mermaid Offshore Services Pte. Ltd. 80 Robinson Road #02-00, Singapore 068898	Ordinary	20,400,100	20,400,100	100.00
19	Mermaid Subsea Services (Malaysia) Sdn. Bhd. Level 22, Axiata Tower, No. 9, Jalan Stesen Sentral 5 Kuala Lumpur Sentral, Kuala Lumpur, Malaysia, 50470 Tel. : +603-2273-1919	Ordinary	350,000	157,500	45.00
20	Mermaid Maritime Mauritius Ltd. C/O Abax Corporate Services Ltd. 6 th Floor, Tower A, 1 CyberCity, Ebene, Mauritius	Ordinary	1	1	100.00

No.	Name of Company	Type of Shares	No. of Issued Shares	No. of Invested Shares	% of Holding
21	Mermaid International Ventures Clifton House, 75 Fort Street, PO Box 1350, Grand Cayman KY1-1108, Cayman Islands	Ordinary	100	100	100.00
22	Mermaid Subsea Services (International) Ltd. Suite 15, 1 st Floor Oliaji Trade Centre Fransis Rachel Street, Box 1004, Victoria, Mahe Seychelles	Ordinary	1	1	100.00
23	Mermaid Subsea Services Saudi Arabia Co., Ltd. Al Khobar, Al Shoaiby Building Al Hizam and Al Akhzar Area Prince Hamoud Road, PO Box 1280, 31952 Kingdom of Saudi Arabia	Ordinary	5,000	4,750	95.00
24	Mermaid Subsea Services LLC 3 rd Floor, Sh. Jassim Bin Jaber Al-Thani Building Abdullah Bin Jassim Street, Doha, Qatar	Ordinary	200	98	49.00
25	Asia Offshore Drilling Ltd. Canon's Court, 22 Victoria Street Hamilton HM 12, Bermuda	Ordinary	600,000,100	20,256,425	33.76
26	Asia Offshore Rig 1 Ltd. Canon's Court, 22 Victoria Street Hamilton HM 12, Bermuda	Ordinary	36,000,000	36,000,000	100.00
27	Asia Offshore Rig 2 Ltd. Canon's Court, 22 Victoria Street Hamilton HM 12, Bermuda	Ordinary	36,000,000	36,000,000	100.00
28	Asia Offshore Rig 3 Ltd. Canon's Court, 22 Victoria Street Hamilton HM 12, Bermuda	Ordinary	36,000,000	36,000,000	100.00
29	Zamil Mermaid Offshore Services Company LLC Khobar, P.O. Box 1922 Kingdon of Saudi Arabia ZIP Code 31952	Ordinary	2,000	800	40.00
30	PTGC Co., Ltd. J41, Street 99R, Toul Sakae Village, Sangkat Toul Sanglke, Khan Russey Keo Phnom Penh, Kingdom of Cambodia Tel : +855 087336668	Ordinary	1,200,000	588,000	49.00
Agrochemical					
31	PM Thoresen Asia Holdings Plc. 26/26-27 Orakarn Building, 8 th Floor Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2254-8437 Fax : +66 (0) 2655-5631	Ordinary	101,200,000	69,338,498	68.52
32	PM Thoresen Asia (Singapore) Pte. Ltd. 3 Church Street, #22-06 Samsung Hub, Singapore, 049483 Tel : +65 6578-7000 Fax : +65 6578-7007	Ordinary	40,000	40,000	100.00 ^{/2}
33	Baconco Co., Ltd. Petroland Tower (17 th Floor), 12 Tan Trao Street, Tan Phu Ward, District 7, Ho Chi Minh City, Vietnam Tel. : +84 64 3893 400 Fax: +84 64 3876 030	Charter capital is VND 377,072,638,790			100.00 ^{/2}

No.	Name of Company	Type of Shares	No. of Issued Shares	No. of Invested Shares	% of Holding
Investment					
Type of Business : Logistics					
34	Baria Serece Phu My Borough, Tan Thanh District, Ba Ria Vung Tau Province, Vietnam Tel. : +84 64 3876 603 Fax : +84 64 3876 600	Ordinary	2,039,080	570,942	28.00 ^{/3}
35	Petrolift Inc. 7F, Mapfre Insular Corporate Center, Madrigal Business Park I, 1220, Acacia Avenue Ayala Alabang, Muntinlupa City, 1780 Philippines	Ordinary	1,259,350,452	503,740,176	40.00 ^{/3}
36	Unique Mining Services Plc. 26/23 Orakarn Building, 7 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2655-7501-2 Fax : +66 (0) 2655-7503-5	Ordinary	704,738,212	654,878,013	92.93 ^{/4}
37	UMS Distribution Co., Ltd. 26/23 Orakarn Building, 7 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2655-7501-2 Fax : +66 (0) 2655-7503-5	Ordinary	2,000,000	1,999,993	99.99
38	UMS Lighter Co., Ltd. 26/23 Orakarn Building, 7 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2655-7501-2 Fax : +66 (0) 2655-7503-5	Ordinary	11,000,000	10,999,994	99.99
39	UMS Pellet Energy Co., Ltd. 26/23 Orakarn Building, 7 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2655-7501-2 Fax : +66 (0) 2655-7503-5	Ordinary	1,800,000	1,799,994	99.99
40	UMS Port Services Co., Ltd. 108/2 Moo 2, Tumbol Khlong Sakae, Amphoe Nakhon Luang, Province Ayutthaya 13260 Tel. : +66 (0) 3572-4210, +66 (0) 3572-4204 Fax : +66 035-724-281	Ordinary	1,800,000	1,799,993	99.99
41	Thoresen (Indochina) S.A. 17 th Floor, Petroland Tower, 12 Tan Trao Street, Tan Phu Ward, District 7, Ho Chi Min City, Vietnam Tel. : +84 8 5411 1919 Fax : +84 8 5417 1919	Ordinary	2,500	1,250	50.00
42	Thoresen-Vinama Agencies Co., Ltd. 19-25 Nguyen Hue, Ben Nghe Ward, District 1, Ho Chiminh City, Vietnam	Charter capital is VND 8,412,697,789			49.00 ^{/5}
43	Fearnleys (Thailand) Ltd. 26/55 Orakarn Building, 15 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2253-6160 Fax : +66 (0) 2655-2716	Ordinary	135,000	66,144	49.00

No.	Name of Company	Type of Shares	No. of Issued Shares	No. of Invested Shares	% of Holding
44	Gulf Agency Company (Thailand) Ltd. 26/30-31 Orakarn Building, 9 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2650-7400 Fax : +66 (0) 2650-7401	Ordinary	22,000	11,215	51.00
45	GAC Thoresen Logistics Ltd. 26/30-31 Orakarn Building, 9 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2650-7400 Fax : +66 (0) 2650-7401	Ordinary	750,000	382,496	51.00
46	Chidlom Marine Services & Supplies Ltd. 26/22-23 Orakarn Building, 7 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2250-0569 Fax : +66 (0) 2655-5631	Ordinary	700,000	699,993	99.99
47	Thoresen Shipping FZE 1901-19 th Floor, Golden Tower, Opp. Marbella Resort, Al Buhairah Corniche Road, Sharjah, UAE Tel. : 971-6-574 2244 Fax : 971-6-574 4244	Ordinary	1	1	100.00
48	Sharjah Ports Services LLC P.O.Box 510, Port Khalid Sharjah, United Arab Emirates Tel. : 971-6-528 1327	Ordinary	150,000	73,500	49.00 ^{/6}
Type of Business : Food and Beverage					
49	PMFB Ltd. 26/22-23 Orakarn Building, 7 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2254-8437 Fax : +66 (0) 2655-5631	Ordinary	600,000	599,993	99.99
50	PH Capital Co., Ltd. 26/24-25 Orakarn Building, 8 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2254-8437 Fax : +66 (0) 2655-5631	Ordinary	78,000,000	54,599,999	70.00
51	Siam Taco Co., Ltd. 26/22-23 Orakarn Building, 7 th Floor Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2254-8437 Fax : +66 (0) 2655-5631	Ordinary	12,000,000	8,399,999	70.00
Type of Business : Water Management					
52	TTA Suez Co., Ltd. 26/22-23 Orakarn Building, 7 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2250-0569 Fax : +66 (0) 2655-5631	Ordinary	200,000	101,997	51.00
53	Asia Infrastructure Management (Thailand) Co., Ltd. 807/26 Bhumarin Village, Moo 8, Khu Khot Lum Look Ka, Pathumthani 12150 Tel. : +66 (0) 2531-8141-4	Ordinary	2,500,000	2,012,500	80.50

No.	Name of Company	Type of Shares	No. of Issued Shares	No. of Invested Shares	% of Holding
Type of Business : Other					
54	Asia Coating Services Ltd. 26/22-23 Orakarn Building, 7 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2250-0569 Fax : +66 (0) 2655-5631	Ordinary	800,000	799,993	99.99
55	Laser Game Asia Ltd. 1 Room No. 7, Soi Sukhumvit 22, Sukhumvit Road Klongton, Klongtoey, Bangkok, 10110 Tel. : +66 (0) 2663-7703	Ordinary Preference	19,600 20,400	5,880 6,120	} 30.00 ^{/7}
56	PMT Property Co., Ltd. 26/22-23 Orakarn Building, 7 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2250-0569 Fax : +66 (0) 2655-5631	Ordinary	100,000	59,997	
57	Athene Holdings Ltd. 26/32 Orakarn Building, 10 th Floor, Soi Chidlom, Ploenchit Road, Lumpinee, Pathumwan, Bangkok 10330 Tel. : +66 (0) 2254-8437 Fax : +66 (0) 2655-5631	Ordinary	48,070,000	48,069,993	99.99
58	Soleado Holdings Pte. Ltd. 3 Church Street, #22-06 Samsung Hub, Singapore, 049483 Tel. : +65 6578-7000 Fax : +65 6578-7007	Ordinary	130,000,000	130,000,000	100.00

- Note :**
- ^{/1} indirectly held through Thoresen Shipping Singapore Pte. Ltd.
 - ^{/2} indirectly held through PM Thoresen Asia Holdings Plc.
 - ^{/3} indirectly held through Soleado Holdings Pte. Ltd.
 - ^{/4} indirectly held through Athene Holdings Ltd.
 - ^{/5} indirectly held through Thoresen (Indochina) S.A.
 - ^{/6} indirectly held through Thoresen Shipping FZE
 - ^{/7} indirectly held through Asia Coating Services Ltd.

Corporate Information

As of 31 December 2019

Name of Company	:	Thoresen Thai Agencies Public Company Limited
Initial	:	TTA
Registration No.	:	0107537002737
Date of Establishment	:	16 August 1983
Date of Conversion to Public Company Limited	:	15 December 1994
Date of Listing Ordinary Shares in SET	:	25 September 1995
Type of Business	:	Investment Holding with 4 core business groups: Shipping, Offshore Service, Agrochemical, and Investment
Office Address	:	26/26-27 Orakarn Building, 8 th Floor, Chidlom Alley Ploenchit Road, Lumpinee Sub-District, Pathumwan District Bangkok 10330, Thailand Telephone: +66 (0) 2254-8437 Facsimile: +66 (0) 2655-5631 Email: Investors@thoresen.com Website: http://www.thoresen.com
Investor Relations Department	:	Telephone: + 66 (0) 2254-8437 ext 292 Facsimile: +66 (0) 2655-5631 Email: Investors@thoresen.com
Company Secretary Office	:	Telephone: + 66 (0) 2254-8437 ext 144 Facsimile: +66 (0) 2655-5631 Email: COR@thoresen.com
Internal Audit Department	:	Telephone: + 66 (0) 2254-8437 ext 156 Facsimile: + 66 (0) 2655-5635
<hr/>		
Ordinary Shares		
Registered Capital	:	Baht 1,998,446,888
Paid up Capital	:	Baht 1,822,464,564
No. of Issued Shares	:	1,822,464,564 ordinary shares
Par Value	:	Baht 1 per share
<hr/>		
Reference Persons		
Securities Registrar	:	Thailand Securities Depository Co., Ltd. ("TSD") 93, 14 th Floor, Ratchadaphisek Road, Dindaeng Bangkok 10400, Thailand Telephone: +66 (0) 2009-9000 Facsimile: +66 (0) 2009-9991 SET Contact Center: +66 (0) 2009-9999 Email: SETContactCenter@set.or.th Website: http://www.set.or.th/tsd
Debenture Registrar	:	Siam Commercial Bank Plc. 9 Ratchadaphisek Road, Jatujak, Bangkok 10900, Thailand Telephone: +66 (0) 2544-1000 Facsimile: +66 (0) 2544-2658
Auditor	:	KPMG Phoomchai Audit Ltd. 48 th - 51 st Floors, Empire Tower 195 South Sathorn Road, Yannawa, Sathorn, Bangkok 10120, Thailand Telephone: +66 (0) 2677-2000 Facsimile: +66 (0) 2677-2222

Remark : Investors can study additional details of the issuer from the Company's Annual Information Disclosure Form (Form 56-1) on the SEC's website at <http://www.sec.or.th>. or on the Company's website at <http://www.thoresen.com>.

GRI Content Index⁽¹⁰²⁻⁵⁵⁾

Global Reporting Initiative: Core Option

GRI 101: Foundation 2016

GRI 102: General Disclosures 2016

Disclosure	SDG Goal	Page Number	Detail/Omission
1. Organizational Profile			
102-1: Name of the organization	-	17	
102-2: Activities, brands, products, and services	-	14-18	
102-3: Location of headquarters	-	45	
102-4: Location of operations	-	13	
102-5: Ownership and legal form	-	17	
102-6: Markets served	-	13, 19, 24, 33, 37	
102-7: Scale of the organization	-	245	
102-8: Information on employees and other workers	8. Decent Work and Economic Growth	245	Information partially available: TTA plans to improve the data collection and reporting for the next reporting period, providing the total number of employees with permanent and temporary contracts with country-level breakdown.
102-9: Supply chain	-	14-18	
102-10: Significant changes to the organization and its supply chain	-	5-7	
102-11: Precautionary Principle or approach	-	106	
102-12: External initiatives	-	19	
102-13: Membership of associations	-	-	TTA had no membership associations during the reporting period.
2. Strategy			
102-14: Statement from senior decision-maker	-	5-7	
3. Ethics and Integrity			
102-16: Values, principles, standards, and norms of behavior	16. Peace, Justice, and Strong Institutions	1, 17, 51, 70, website	<ul style="list-style-type: none"> - http://www.thoresen.com/misc/cg/2019/1105-tta-anti-corruption-policy-en.pdf - http://www.thoresen.com/misc/cg/2014/107-tta-code-conduct-en.pdf#page=6 - http://www.thoresen.com/business_vision.html

Disclosure	SDG Goal	Page Number	Detail/Omission
4. Governance			
102-18: Governance structure	-	8-10, 240	
102-24: Nominating and selecting the highest governance body	5. Gender Equality 16. Peace, Justice, and Strong Institutions	86	
102-28: Evaluating the highest governance body's performance	-	94-95	
102-30: Effectiveness of risk management processes	-	86-88, 90-91	
102-35: Remuneration policies	-	95	
5. Stakeholder Engagement			
102-40: List of stakeholder groups	-	42	
102-41: Collective bargaining agreements	8. Decent Work and Economic Growth	-	TTA did not have trade unions during the reporting period.
102-42: Identifying and selecting stakeholders	-	43	
102-43: Approach to stakeholder engagement	-	43-44	
102-44: Key topics and concerns raised	-	43-44	
6. Reporting Practice			
102-45: Entities included in the consolidated financial statements	-	2-3, 131-239	Entities included in the consolidated financial statements are TTA and its subsidiaries.
102-46: Defining report content and topic boundaries	-	41-45	The Reporting Principles that define the report content (i.e. stakeholder inclusiveness, sustainability context, materiality, and completeness) were applied.
102-47: List of material topics	-	45	
102-48: Restatements of information	-	-	There were no restatements in this report.
102-49: Changes in reporting	-	-	This is not applicable, as it is TTA's first sustainability report.
102-50: Reporting period	-	42	
102-51: Date of most recent report	-	-	This is not applicable, as it is TTA's first sustainability report.
102-52: Reporting cycle	-	45	
102-53: Contact point for questions regarding the report	-	45	
102-54: Claims of reporting in accordance with the GRI Standards	-	45	
102-55: GRI content index	-	267	
102-56: External Assurance	-	-	None

Material Topics

Disclosure	Global Reporting Initiative	SDG Goal	Page	Detail/Omission
Supply Chain Management				
GRI 103: Management Approaches 2016	103-1: Explanation of the material topic and its boundary	16. Peace, Justice, and Strong Institutions	46	
	103-2: The management approach and its boundary	5. Gender Equality 8. Decent Work and 16. Peace, Justice, and Strong Institutions	46-47	
	103-3: Evaluation of the management approach	16. Peace, Justice, and Strong Institutions	46-47	TTA plans to improve the data collection and reporting for the next reporting period.
GRI 308: Supplier Environmental Assessment 2016	308-1: New suppliers that were screened using environmental criteria	-	46	Information unavailable: TTA plans to improve the data collection and reporting for the next reporting period.
GRI 414: Supplier Social Assessment 2016	414-1: New suppliers that were screened using social criteria	5. Gender Equality 8. Decent Work and Economic Growth 16. Peace, Justice, and Strong Institutions	46	Information unavailable: TTA plans to improve the data collection and reporting for the next reporting period.
Material Sourcing				
GRI 103: Management Approaches 2016	103-1: Explanation of the material topic and its boundary	-	47	
	103-2: The management approach and its boundary	-	47	
	103-3: Evaluation of the management approach	-	47	TTA plans to improve the data collection and reporting for the next reporting period.
G4 Sector Disclosure: Food Processing	FP1: Percentage of purchased volume from suppliers compliant with company's sourcing policy	-	47	Information unavailable: TTA plans to collect data of the purchased volume from suppliers who are compliant with the company's sourcing policy - TTA will report this data in the next reporting period
Product & Service Quality and Safety				
GRI 103: Management Approaches 2016	103-1: Explanation of the material topic and its boundary	-	48	
	103-2: The management approach and its boundary	-	48-49	
	103-3: Evaluation of the management approach	-	48-49	
GRI 416: Customer Health and Safety 2016	416-2: Incidents of non-compliance concerning the health and safety impacts of products and services	-	49	Information unavailable: TTA plans to improve the data collection and reporting for the next reporting period.

Material Topics

Disclosure	Global Reporting Initiative	SDG Goal	Page	Detail/Omission
Customer Relationship Management				
GRI 103: Management Approaches 2016	103-1: Explanation of the material topic and its boundary	-	49	
	103-2: The management approach and its boundary	-	49-50	
	103-3: Evaluation of the management approach	-	49-50	
GRI 416: Customer Health and Safety 2016	416-2: Incidents of non-compliance concerning the health and safety impacts of products and services	-	50	Information unavailable: TTA plans to improve the data collection and reporting for the next reporting period.
Technology, Innovation and R&D				
GRI 103: Management Approaches 2016	103-1: Explanation of the material topic and its boundary	-	50	
	103-2: The management approach and its boundary	5. Gender Equality	50-51	
	103-3: Evaluation of the management approach	-	50-51	TTA plans to improve the data collection and reporting for the next reporting period.
GRI 203: Indirect Economic Impacts 2016	203-1: Infrastructure investments and services supported	2. Zero Hunger 5. Gender Equality 7. Affordable and Clean Energy 9. Industry, Innovation, and Infrastructure 11. Sustainable Cities and Communities	50	Information unavailable: TTA plans to improve the data collection and reporting for the next reporting period.
Anti-Corruption				
GRI 103: Management Approaches 2016	103-1: Explanation of the material topic and its boundary	16. Peace, Justice, and Strong Institutions	51	
	103-2: The management approach and its boundary	16. Peace, Justice, and Strong Institutions	51-52	
	103-3: Evaluation of the management approach	16. Peace, Justice, and Strong Institutions	51-52	
GRI 205: Anti-Corruption 2016	205-3: Confirmed incidents of corruption and actions taken	16. Peace, Justice, and Strong Institutions	52	

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Energy Management				
GRI 103: Management Approaches 2016	103-1: Explanation of the material topic and its boundary	12. Responsible Consumption and Production 13. Climate Action 16. Peace, Justice, and Strong Institutions	53	
	103-2: The management approach and its boundary	8. Decent Work and Economic Growth 12. Responsible Consumption and Production 13. Climate Action 16. Peace, Justice, and Strong Institutions	53-54	
	103-3: Evaluation of the management approach	12. Responsible Consumption and Production 13. Climate Action 16. Peace, Justice, and Strong Institutions	53-54	TTA plans to improve the data collection and reporting for the next reporting period.
GRI 302: Energy 2016	302-1: Energy consumption within the organization	7. Affordable and Clean Energy 8. Decent Work and Economic Growth 12. Responsible Consumption and Production 13. Climate Action	53-54	Information unavailable: TTA plans to improve the data collection and reporting for the next reporting period.
GRI 307: Environmental Compliance 2016	307-1: Non-compliance with environmental laws and regulations	16. Peace, Justice, and Strong Institutions	53	TTA plans to improve the data collection and reporting for the next reporting period.
Greenhouse Gas Emissions				
GRI 103: Management Approaches 2016	103-1: Explanation of the material topic and its boundary	12. Responsible Consumption and Production 13. Climate Action	54	
	103-2: The management approach and its boundary	12. Responsible Consumption and Production 13. Climate Action	54-56	
	103-3: Evaluation of the management approach	12. Responsible Consumption and Production 13. Climate Action	55	TTA plans to improve the data collection and reporting for the next reporting period.
GRI 305: Emissions 2016	305-1: Direct (Scope 1) GHG emissions	12. Responsible Consumption and Production 13. Climate Action	55	Information unavailable: TTA plans to improve the data collection and reporting for the next reporting period.
	305-2: Energy Indirect (Scope 2) GHG emissions		55	Information unavailable: TTA plans to improve the data collection and reporting for the next reporting period.

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Water & Wastewater Management				
GRI 103: Management Approaches 2016	103-1: Explanation of the material topic and its boundary	12. Responsible Consumption and Production 14. Life Below Water	56	
GRI 103: Management Approaches 2016	103-2: The management approach and its boundary	8. Decent Work and Economic Growth 12. Responsible Consumption and Production 14. Life Below Water	56	
	103-3: Evaluation of the management approach	12. Responsible Consumption and Production 14. Life Below Water	56	TTA plans to improve the data collection and reporting for the next reporting period.
GRI 303: Water and Effluents 2018	303-1: Interactions with water as a shared resource	3. Good Health and Well-being 6. Clean Water and Sanitation	56	Information unavailable: TTA plans to improve the data collection and reporting for the next reporting period.
	303-2: Management of water discharge-related impacts	8. Decent Work and Economic Growth 12. Responsible Consumption and Production	56	Information unavailable: TTA plans to improve the data collection and reporting for the next reporting period.
	303-3: Water withdrawal	14. Life Below Water	56	Information unavailable: TTA plans to improve the data collection and reporting for the next reporting period.
	303-4: Water discharge		56	Information unavailable: TTA plans to improve the data collection and reporting for the next reporting period.
Waste & Lifecycle Management				
GRI 103: Management Approaches 2016	103-1: Explanation of the material topic and its boundary	12. Responsible Consumption and Production	56-57	
	103-2: The management approach and its boundary	12. Responsible Consumption and Production	56-57	
	103-3: Evaluation of the management approach	12. Responsible Consumption and Production	56-57	TTA plans to improve the data collection and reporting for the next reporting period.
GRI 306: Effluents and Waste 2016	306-2: Waste by type and disposal methods	3. Good Health and Well-being 6. Clean Water and Sanitation 12. Responsible Consumption and Production	57	Information unavailable: TTA plans to improve the data collection and reporting for the next reporting period.

Material Topics

Disclosure	Global Reporting Initiative	SDG Goal	Page	Detail/Omission
Human Rights and Labor Practices				
GRI 103: Management Approaches 2016	103-1: Explanation of the material topic and its boundary	-	58	
	103-2: The management approach and its boundary	-	58-60	
	103-3: Evaluation of the management approach	-	58-60	TTA plans to evaluate human rights training for all employees, and plans to improve the data collection and reporting for the next reporting period.
GRI 412: Human Rights Assessment 2016	412-2: Employee training on human rights policies or procedures	-	58-60	Information partially available: TTA plans to improve the data collection and reporting for the next reporting period.
Human Resource Management				
GRI 103: Management Approaches 2016	103-1: Explanation of the material topic and its boundary	-	60	
	103-2: The management approach and its boundary	5. Gender Equality 8. Decent Work and Economic Growth	60-62	
GRI 103: Management Approaches 2016	103-3: Evaluation of the management approach	-	61	
GRI 401: Employment 2016	401-1: New employee hires and employee turnover	5. Gender Equality 8. Decent Work and Economic Growth	61	Information partially available: TTA plans to improve the data collection and reporting for the next reporting period.
Occupational Health and Safety				
GRI 103: Management Approaches 2016	103-1: Explanation of the material topic and its boundary	-	63	
	103-2: The management approach and its boundary	8. Decent Work and Economic Growth	63-67	
	103-3: Evaluation of the management approach	-	65	TTA plans to improve the data collection and reporting for the next reporting period.
GRI 403: Occupational Health and Safety 2018	403-1: Occupational health and safety management system	3. Good Health and Well-being 8. Decent Work and Economic Growth	64	
	403-2: Hazard identification, risk assessment, and incident investigation		64	TTA plans to develop the hierarchy of controls and report the topic in the next reporting period.

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Disclosure	Global Reporting Initiative	SDG Goal	Page	Detail/Omission
	403-3: Occupational health services		64-65	
	403-4: Worker participation, consultation, and communication on occupational health and safety		64	TTA plans to develop the process for worker participation and consultation related to occupational health and safety and report the topic in the next reporting period.
	403-5: Worker training on occupational health and safety		64-65	
	403-6: Promotion of worker health		65	
	403-7: Prevention and mitigation of occupational health and safety impacts directly linked by business relationships		65	TTA plans to improve the prevention and mitigation of occupational health & safety impacts that are directly linked by business relationships.
	403-9: Work-related injuries		65	Information partially available: TTA plans to improve the data collection and reporting for the next reporting period.
Community Development & Involvement				
GRI 103: Management Approaches 2016	103-1: Explanation of the material topic and its boundary	-	67	
	103-2: The management approach and its boundary	-	67	
	103-3: Evaluation of the management approach	-	67	
GRI 413: Local Communities 2016	Operations with local community engagement, impact assessments, and development programs	-	67	Information unavailable: TTA will improve the data collection and reporting in the next reporting period.

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