

Management's Discussion and Analysis for the year ended December 31, 2019 for Thai Airways International Public Company Limited and Its Subsidiaries

1. Executive summary

The global economy in 2019 was likely to continue to slow down due to the impact of the trade war between U.S. and China affecting global investment trends and confidence in the manufacturing and export sectors. Besides widespread of economic and politics uncertainty throughout the world such as government instability in the Eurozone, conflict between India and Pakistan, protest in Hong Kong, these upstretched concerns about the global economy and finances. However, crude oil prices, whose movements were around the average of 63.5 USD per barrel, which is 8.5% lower than the previous year were still a positive factor.

Thai economy in 2019 indicated significant emblems of a slowdown in the export sector due to the instability of the global economy along with the impact of the trade war between the U.S. and China. In addition, the appreciation of Thai Baht compared with major trading partners affected both the export and tourism sectors in Thailand. Nonetheless, there were still supporting factors from the tourism sector that continued to expand as the government continues to use aggressive tourism stimulation measures by exempting Visa on Arrival fees for 21 foreign tourists resulting the number of foreign tourists entering Thailand in the year 2019 is 39.8 million, an increase of 4.2% from the previous year. Top 5 with the most growth of international tourists in 2019 were India, Philippines, Taiwan, Laos, and Indonesia respectively. However, Chinese tourists which accounting for 27.6 % of all tourists that started to expand from July to November 2019, an average of 20.5 %, but in December 2019 only grew 1.5 % due to the outbreak of the COVID-19 virus, which is expected to have a continuous impact until the first quarter of 2020.

According to the data from International Air Transport Association-IATA indicated traffic production and traffic demand in 2019 increased by 3.4% and 4.2%, respectively. These data showed a strong signal of slowdown condition from last year. It was the first year since the global financial crisis that traffic demand was lower than the long-term growth trend of 5.5% due to the impact of the global economic downturn which condensed business confidence amid international trade tensions. However, the increased traffic production was lower than the traffic demand resulting in an average cabin factor of 82.6%, which set a new record high. For the freight in general, it definitely decreased from the previous year. The freight traffic was 3.3% lower than the previous year and was probably the lowest decline for the first year since 2012 due to the impact of the international trade war resulting in cargo being reduced while freight production was 2.1% higher than the previous year. Freight load factor was 46.7%. IATA also estimated that in 2019, airline business would still ensure a profit; however lower than the previous year. Moreover, airlines still confronted high cost conditions, both fuel and personnel, while the average rounded-trip fare decreased. In addition, there were abundant low-cost airlines in the market creating excess supply resulting in intense price competition.

The aviation industry in Thailand in 2019 grew but at a slower pace which was in line with the global and Thai economic conditions. Along with the appreciation of Thai Baht affected the cost of traveling to Thailand increased, it triggered some tourists to change their travel plan to other destinations while the traffic production expanded resulting in intensifying price competition. It has been estimated that extreme fare competition will continue throughout year 2020 causing trend of average passenger yield will be declined.

In 2019, THAI has continued to implement its transformation plan whose objectives to ensure continuous and sustainable profit performance and to increase efficiency and service quality comparable to world-class standards with guidelines for the implementation of the 5 main strategies including 1) aggressive revenue and compatible cost structure, 2) efficiency development and seeking out for new opportunity, 3) building pleasure experience for customer, 4) working with innovation and digital applications, and 5) effective human resource management.

Due to the negative matters affecting the aviation industry in the world and Thailand, resulting in performance of the first half of the year did not reach the target, THAI had therefore

prepared an urgent transformation plan until the end of 2019 consisting of 3 operational guidelines: increasing revenue and cost management program aimed to reduce and rigidly control costs as well as improving operation efficiency by taking action in parallel with the implementation of the operational plan in accordance with the above main strategies.

In 2019, there were other significant implications. Details as follows:

- Review of 38 aircraft acquisition plan in the 2019-2026 aircraft acquisition program, in which the Board of Directors agreed to replace the 17 aircraft that were retired in accordance with the changing financial structure and current environment. At this time, the Management was in the process of reviewing aircraft acquisition plan with careful consideration for the ability to grow sustainably without a long-term financial burden.

- Implementation of the U-Tapao maintenance and overhaul (MRO) Project, THAI, as the project owner, had already submitted the selection documents to private investors wishing to invest in December 2019, by submitting the proposal to Joint venture by March 6, 2020 and will enter the process of document review and evaluation by the selection committee.

- Integration of THAI and ThaiSmile by using management principles “Brother-Sister” with the merger of plans in all sectors, especially in the sales and flight planning, which focuses on THAI as more sales expertise step into and with more supports. THAI changed its role as the policy maker in both direction and selling strategy on all flights of THAISmile which began in March 2019 onward under “Block space concept” for enhancing overall performance.

- Revenue management, sales, and marketing management by implementing personalized customer strategy, focusing on generating ancillary revenue such as revenue from preferred seat and increasing revenue in non-aviation businesses such as catering. Simultaneously, THAI accelerated digital marketing by using big Data and data analytic tools for market analysis to increase online sales including selling products online by additional collaborating with strategic partners who are in the markets.

- Program changes in mileage accrual in order for Royal Orchid Plus card members to be able to accumulate miles to redeem rewards easily and quickly including changing the big prize redemption schedule in 25 years in order to comply with the leading airline mileage programs. The new prize table were started from October 1, 2019 onwards.

- In January 2019, Nok Airlines PCL. offered 908.80 million ordinary shares with a par value of 1 Baht each at a price of 2.75 Baht per share and registered the capital increase on February 13, 2019. However, THAI did not exercise the right to purchase such shares because considering that the future business plan is not clear enough and not in accordance with the objectives of THAI causing the shareholding proportion of the company In Nok Airlines PCL., decreasing from 21.80 % to 15.94 % and recognizing gain on change in ownership interest amount of THB 273 million.

- Continuously sell decommissioned aircraft, in 2019 there were transfer of ownership of 6 aircraft, including 5 Airbus A330-300 and 1 Boeing B747-400.

- Controlling and reducing costs by cutting unnecessary expenses and reduce the remuneration of Executives and the Board of Directors voluntarily, and so forth.

- On April 26, 2019, the 2019 Annual General Meeting of Shareholders had a resolution to approve transferring of legal reserve, amount of THB 2,691million and premium on ordinary shares, amount of THB 25,546 million which calculated these items in the total amount of THB 28,237 million for compensating the deficits as of December 31, 2018, the amount of THB 28,533 million. Consequently, the remained deficits totaled THB 296 million.

As of January 1, 2019, THAI had a loss carried forward of THB 28,533 million after the adjustment of the effect of the adoption of Thai Financial Reporting Standard No. 15 in the amount of THB 2,159 million. The remaining accumulated loss amounted to THB 26,374 million. THAI also transferred its THB 2,691 million of legal amount and THB 23,683 million of premium on ordinary shares to compensate the accumulated loss causing deficits brought forward as at January 1, 2019, remaining to 0 and the remaining premium on ordinary shares was THB 1,863 million. Such actions was not affecting total amount of the shareholders’ equity whatsoever, whereby THAI

also recorded the said transfer items in the first quarter of 2019. The details indicated in Note 8.23 to the Financial Statement.

- Improved the quality of service by renovating and expanding the Royal Orchid Prestige Lounge at Suvarnabhumi airport under the Ecology Green Mood Concept which aside from being outstanding in convenience and unique Thai. Passengers can feel like resting in the midst of nature which will be able to support the needs and the volume of passengers coming to use the service more with complete facilities for passengers to receive maximum satisfaction before traveling which opened for service on October 21, 2019

As a result of the success of continuous service improvement causing THAI to continue to receive two Skytrax Awards for the World's Best Airline Lounge Spa for five consecutive years and the Best Airline Staff in Asia that recognizes the combined customer experience of airline staff service on ground at airports and on board flights. THAI was also honored the TTG Travel Hall of Fame for the 4 consecutive times after winning the Best South East Asian Airline Award at the TTG Travel Award for 10 consecutive years. THAI also received Asia Pacific Most Outstanding Airline 2019-2020 from Now Travel Asia. In addition, THAISmile won the Best Boutique Airline award. Thai Smile Airlines also received the grand prize from Trip Advisor for 3 consecutive years, including Best Airline in Thailand and Travelers' Choice Regional Airlines in Asia.

In 2019, THAI and its subsidiaries had total 103 active aircrafts, unchanged from last year. There were 90 serviceable aircraft excluding the grounding of the aircraft for maintenance according to the normal maintenance schedule, lower than last year's 92 aircraft partly due to the impact of the Rolls-Royce Trent 1000 engine from the previous year although the last B787-8 aircraft, which has been repaired due to the engine problem, has returned to normal operation since August 2019. Aircraft utilization was 11.9 hours, which was lower than 12.0 hours of last year. Production traffic (ASK) decreased by 2.7% due to the flight reduction in Australia route: Bangkok – Sydney and Bangkok- Brisbane in November 2018 and flight termination: Bangkok – Tehran since March 1, 2018 but unable to increase flight due to engine problems. Moreover, on February 27, 2019, THAI must have been temporary canceled its round-trip flight from Bangkok - Lahore and Bangkok-Islamabad due to the Islamic Republic of Pakistan announced the closure of the airspace and resumed to normal operation from August 1, 2019 onwards. Passenger traffic (RPK) decreased by 0.9%. Average cabin factor was 79.1% higher than last year's 77.6% with 24.51 million passengers carried representing a 0.8% higher than last year. Available Dead Load Ton-Kilometers (ADTK) and Revenue Freight Ton-Kilometers (RFTK) were 2.6% and 13.7% lower than last year, respectively due slowdown of export sector and trade war between U.S. and China resulting average freight load factor was 53.8%, lower than last year's 60.8%.

In 2019, THAI was affected by various negative factors, including the impacts from the global economic slowdown, trade war between the U.S. and China, natural disaster, the strongest Baht appreciation in the last 6 years, strong fare competition, and the recognition of compensation according to the State Enterprise Labor Relations Committee announcement increased from 300 days to 400 days. Total revenue of THB 184,046 million, lower than the previous year THB 15,454 million or 7.7%. Also, these complications and violent competition were hurt both passenger and freight traffic. As a result, revenue from passenger and freight decreased by THB 15,767 million (8.6%). Total expenses were THB 196,470 million, lower than the previous year by THB 12,088 million (5.8%). The main reason was due to the reduced fuel cost by THB 5,421 million (9.0%) due to 8.2% decrease in average jet fuel prices. Non-fuel operating expense decreased from the previous year by THB 6,580 million (4.6%). The main reason was due to the adjustment of vacation compensation expenses, annual holidays which were not used within 3 years as stipulated by the company regulations, which were recognized as expenses in the financial statements for the year 2015-2018 for a total of approximately THB 1,261 million, changing in the estimate residual value of aircraft and spare engines from 10% to 6% resulting increase of depreciation by recording the impact of aircraft that have been fully depreciated for 20 years in the year 2018 in the amount of

THB 1,279 million while other operating expenses declined due to the reduction of traffic production resulted in THAI and its subsidiaries reported operating losses of THB 12,424 million, more loss than last year by THB 3,366 million (37.2%).

This year, THAI and its subsidiaries had one-time expenses consisted of

- Estimated service compensation in the amount of THB 2,689 million. THAI recognized additional compensation according to State Enterprise Labor Relations Committee announcement regarding minimum standards of employment conditions in a state enterprise (No.4) announced to set the maximum severance pay rate at 400 days of the employee's latest wage rate for an employee who has worked for 20 consecutive years or more, effective on September 30, 2019.

- Gain on change in ownership interest in NOK Airlines PCL., amount to THB 273 million resulting from the dilution of THAI's shareholding in Nok Airlines PCL. from 21.80 % to 15.94% in the first quarter of 2019.

- Impairment loss of assets and aircraft, amount of THB 634 million and

- Gain on foreign currency exchange was THB 4,439 million consisted of THB 2,243 million unrealized gain and realized gain of THB 2,196 million.

Consequently, THAI and its subsidiaries reported the net loss of THB 12,017 million which was higher loss than last year of THB 448 million (3.9%). Loss attributable to owners of the parent amounted to THB 12,042 million. Loss per share was THB 5.52 per share, THB 0.19 or 3.6% more loss than last year.

EBITDA was THB 8,804 million, which decreased by THB 5,690 million (39.3%) over last year. EBITDA margin was 4.8%, as compared to last year's reported 7.3%.

2. Summary of Operating Results for Thai Airways International PCL. and its subsidiaries Financial Performance

- Adoption of new Thai Financial Reporting Standard

According to the announcement of the Thai Financial Reporting Standard No. 15, subject to revenue from contracts with customers effective for the financial statements that have a reporting period beginning on or after January 1, 2019 onwards, resulting in revenue recognition in passenger patents and mileage rights which must be measured and recognized, changes in the probability that passengers who do not exercise rights and estimate fair value valuation of individual sale affecting the recognition of items in the past until December 31, 2018 affected the recognition of the past transactions which THAI adjusted these obligations indicated in current liability as unearned transportation revenue in the total amount of THB 2,159 million matched with recognition of the beginning retained earnings and the impact in the third quarter and the nine months of 2019. The details indicated in Note 6 to the Financial Statement.

The consolidated financial statements for 2019 consists of THAI's financial statement and 5 subsidiary companies which are 1) THAI-Amadeus Southeast Asia Co.,Ltd., 2)Wingspan Services Co., Ltd., 3) THAI Flight Training Co., Ltd, 4) Tour Eurng Luang Co., Ltd., and 5) ThaiSmile Airways Co., Ltd.

Financial Performance: THAI and its subsidiaries

Unit : Million Baht	Jan - Dec			
	2019	2018	Variance	
			MTHB	%
Total operating revenues	184,046	199,500	-15,454	-7.7
- Passenger and excess baggage revenue	149,044	160,255	-11,211	-7.0
- Freight and mail revenue	17,784	22,340	-4,556	-20.4
- Revenue from other activities	13,452	13,370	+82	+0.6
- Other income	3,766	3,535	+231	+6.5
Total operating expenses	196,470	208,558	-12,088	-5.8
- Fuel and oil	54,675	60,096	-5,421	-9.0
- Non-fuel operating expenses	137,550	144,130	-6,580	-4.6
- Net finance cost	4,245	4,332	-87	-2.0
Operating loss	(12,424)	(9,058)	-3,366	-37.2
<u>Less</u> Estimate service compensation (400 days)	2,689	-	+2,689	-
<u>Add</u> Gain on change in ownership interest	273	-	+273	-
<u>Less</u> Impairment loss of assets and aircraft	634	3,459	-2,825	-81.7
<u>Add</u> Gain on foreign currency exchange	4,439	911	+3,528	+387.3
Loss before income tax	(11,035)	(11,606)	+571	+4.9
Net Loss	(12,017)	(11,569)	-448	-3.9
Loss attribute to owners of the parent	(12,042)	(11,625)	-417	-3.6
Net Loss per share (THB)	(5.52)	(5.33)	-0.19	-3.6
<u>Significant operating data</u>				
EBITDA (MTHB)	8,840	14,494	-5,690	-39.3
Number of passengers (Million)	24.51	24.32	+0.19	+0.8
Available Seat-Kilometers (Million)	90,622	93,131	-2,509	-2.7
Revenue Passenger-Kilometers (Million)	71,695	72,315	-620	-0.9
Cabin factor (%)	79.1	77.6		+1.5
Passenger yield (THB/RPK)	2.04	2.19	-0.15	-6.8
Available Dead Load Ton-Kilometers (Million)	3,950	4,054	-104	-2.6
Revenue Freight Ton-Kilometers (Million)	2,127	2,465	-338	-13.7
Freight load factor (%)	53.8	60.8		-7.0
Freight carried (Ton)	587,953	685,244	-97,291	-14.2
Freight Yield (THB/RFTK)	7.84	8.51	-0.67	-7.9
Number of aircraft (As of December 31) (Aircraft)	103	103	-	-
Flight hours (Hours)	420,723	423,209	-2,486	-0.6
Aircraft utilization (Hours/Aircraft/Day)	11.9	12.0	-0.1	-0.8
Average foreign currency exchange rate				
1 USD : THB	31.0476	32.3107	-1.2631	-3.9
1 EUR : THB	34.7548	38.1513	-3.3965	-8.9
100 JPY : THB	28.4806	29.2571	-0.7765	-2.7
Average jet fuel price (USD/BBL)	84.04	91.56	-7.52	-8.2

Note : 1) EBITDA = Total Revenue (Exclude gain/loss on foreign currency and gain on change in ownership interest) - Total Expenses (exclude finance cost, tax, depreciation and amortization, , estimate service compensation, and impairment loss of assets and aircraft)

Revenues of Thai Airways International PCL. and its subsidiaries

For the year 2019, total revenues decreased by THB 15,454 million (7.7%) from the same period last year with details as follows:

- **Passenger and excess baggage revenue**

Passenger and excess baggage revenue were THB 149,044 million, decreased by THB 11,211 million (7.0%) since

- Passenger traffic (Revenue Passenger-Kilometers - RPK) decreased by 0.9% or approximately THB 1,360 million in almost all routes. The traffic decreased especially in Australia, Europe, and domestic routes but increased in Northern, Southern including routes operated by ThaiSmile. Production traffic (Available Seat-Kilometers:ASK) decreased by 2.7% resulting average cabin factor was 79.1% compared to last year's 77.6%.

- Average passenger yield (including fuel and insurance surcharge) was 2.04 THB/RPK, decreased by 0.15 THB/RPK(6.8%) or roughly THB 10,754 million resulting from the appreciation of Thai Baht against the major revenue currencies: Japanese Yen, Euro Dollar, Australian Dollar, and US Dollar partially affected less revenue by 0.09 THB/RPK (4.1%) or THB 6,693 million. When excluding such effect, the approximate passenger yield decreased by 2.7% or approximately THB 4,302 million.

Passenger operation performance classified by region: THAI and its subsidiaries

	Variance (%)		Cabin Factor (%)	
	ASK	RPK	2019	2018
Regional	-0.2	+2.1	76.9	75.2
Intercontinental	-4.7	-3.5	81.7	80.6
Domestic	-6.3	-2.3	78.5	75.3

Passenger and excess baggage revenue classified by region: THAI and its subsidiaries

Unit : Million Baht	2019	2018	Variance	
			MTHB	%
Passenger and excess baggage revenue				
Regional	82,484	87,053	-4,569	-5.2
Intercontinental	55,666	61,221	-5,555	-9.1
Domestic	10,507	11,231	-724	-6.4
Non-schedule flight	387	750	-363	-48.4
Total Passenger and excess baggage revenue	149,044	160,255	-11,211	-7.0

- Regional passenger and excess baggage revenue amounted to THB 82,484 million, a decrease of THB 4,569 million (5.2%) since THAI decreased traffic production by 0.2% due to cancellation its flights flying in the round-trip route Bangkok - Lahore and Bangkok-Islamabad from the closure of the Pakistan airspace. Passenger traffic increased by 2.1% resulting from the severe recession in Chinese tourists during the first half of 2019 though the situation was relieved during July – November, 2019. However, in December the tourism condition was going worse since the outbreak of the COVID-19 virus as well as the protest in Hong Kong and other negative issues which apparently affected the traffic demand. Moreover, the intense competition in Regional route from low cost carriers in terms of more flight frequencies and destinations caused lower average passenger yield by 7.5%. Cabin factor increased from 75.2% last year to 76.9% this year. This year THAI had added a new destination to Sendai, Japan since October 29, 2019 while ThaiSmile had stopped its route to Guangzhou since February 19, 2019.

- Intercontinental passenger and excess baggage revenue amounted to THB 55,666 million, a decrease of THB 5,555 million (9.1%) since THAI decreased traffic production by 4.7% due to the frequency adjustment in Australia routes. Passenger traffic decreased by 3.5% resulting cabin factor improved from 80.6% in 2018 to 81.7% this year while average yield reduced by 6.5% from last year due to the appreciation of Thai Baht against Euro Dollar and Australian Dollar and the harsh competition from Middle-East airlines which ruthlessly impacted the industry.

- Domestic passenger and excess baggage revenue amounted to THB 10,507 million, a decrease of THB 724 million (6.4%) since production traffic decreased by 6.3% resulting partially from cancellation its operation in Bangkok - Samui route since September 3, 2018. By the way, THAI continued to serve the demand of this route by signing the code share agreement with Bangkok Airways on all flights of this route. Passenger traffic decreased by 2.3% while yield decreased by 4.8% resulting from high market penetration from Low Cost Carriers using the discount fare as the strategy to expand their market shares. As a result, cabin factor was 78.5% higher than last year's 75.3 %.

- **Freight and mail revenue**

- Freight and mail revenue were THB 17,784 million, decreased by THB 4,556 million (20.4%) because freight traffic (Revenue Freight Ton-Kilometers: RFTK) decreased by 13.7% or around THB 2,876 million from the dwindling export sector resulting from global economic recession, US-China trade war, the protest in Hong Kong, and the closure of the Pakistan airspace which forced THAI to divest its regular course resulting THAI had to reserve more fuel for each operate flight to Europe. For this difficulty caused less cargo payload. Average freight yield (including fuel and insurance surcharge) was 7.84 THB/RFTK, a decrease of 0.67 THB/RFTK (7.9 %) or around THB 1,425 million. Such reduction was partly from the appreciation of Thai Baht. When exclude foreign exchange impact, the average yield decreased approximately by 0.44 THB/RFTK (5.2%) or THB 941 million. Average freight yield was lower than last year by 2.7% or around THB 490 million resulting from price competition to compete with limited markets. As the result, average freight load factor was 53.8% fell from 60.8% of the previous year, but higher than the industry average of 46.7%.

- **Other income**

Other income was THB 3,766 million, increased by THB 231 million (6.5%) mainly due to the adjustment item: passenger airport tax liability which is a part of ticket fare collected from passenger before 2016 was adjusted to be other revenue since no obligation for refunding to the airports in each country based on assumptions from past data that have not been charged for more than 3 years since the day had recorded this liability. The details indicated in Note 4.1 to the Financial Statement.

Expenses for Thai Airways International PCL. and its subsidiaries

Total expenses for 2019 was THB 196,470 million, decreased by THB 12,088 million (5.8%) from the same period last year. A summary of operating expenses is as follows:

- Fuel and oil expense, amount of THB 54,675 million or represented 27.8% of total expenses, decreased by THB 5,421 million (9.0%) due to 8.2% decreasing of average jet fuel price compared to the same period last year. Moreover, the appreciation of Thai Baht against US dollars to somewhat caused the lower expense in Baht term. In 2019, THAI had fuel hedging loss THB 981 million while last year THAI gained THB 1,899 million

• **Non-fuel operating expense** was THB 137,550 million, decreased by THB 6,580 million (4.6%) as the following details:

Unit : Million Baht	Jan - Dec					
	2019	% of Total Expense	2018	% of Total Expense	Variance	
					MTHB	%
Expense						
Employee benefit expenses	28,483	20.7	30,875	21.4	-2,392	-7.7
Flight service expenses	21,058	15.3	22,165	15.4	-1,107	-5.0
Crew expenses	6,242	4.6	5,630	3.9	+612	+10.9
Aircraft maintenance and overhaul costs	19,322	14.0	20,088	14.0	-766	-3.8
Depreciation and amortization expenses	16,787	12.2	19,045	13.2	-2,258	-11.9
Lease of aircraft and spare parts	15,029	10.9	15,017	10.4	+12	+0.1
Inventories and supplies	9,101	6.6	9,111	6.3	-10	-0.1
Selling and advertising expenses	10,637	7.7	10,843	7.5	-206	-1.9
Insurance expense	628	0.5	590	0.4	+38	+6.4
Other expenses	10,040	7.3	10,243	7.1	-203	-2.0
Share of losses of associates	223	0.2	523	0.4	-300	-57.4
Non-fuel Expense	137,550	100.0	144,130	100.0	-6,580	-4.6

Summary of significant changes in expense. Details as follows:

- Employee benefits expenses consisting of personnel expense, employee benefits, management benefits and board of directors' benefits totaled THB 28,483 million decreased by THB 2,392 million (7.7%) since the adjustment of the annual vacation compensation expenses that were not used within 3 years as stipulated by the company regulations which was recognized as an expense together with accrued expenses in the financial statements for the year 2015-2018, totaling approximately THB 1,261 million. The details indicated in Note 4.2 to the Financial Statement. When excluded the above items, personnel expenses would be lower than the previous year by THB 1,131 million because there was not recording accrued compensation for annual vacation this year and reserved for employee benefit expenses which decreased. In addition, flight pay expenses decreased resulting from the change in pilot's per diem calculation which reduced the pilot's overtime.

- Flight related expenses consisted of flight service expenses and inventories and supplies totaled THB 30,159 million, decreased by THB 1,117 million (3.6%) due to the appreciation of Thai Baht against the major currencies of expenses benefited the lower expenses around THB 1,183 million. When excluded such F/X effect, flight related expenses increased by THB 66 million though traffic production decreased. The incrementing expensed were from the rise of navigation fee due to the closure of the Pakistan airspace and consumable spare part due to schedule overhaul.

- Crew expenses totaled THB 6,242 million, increased by THB 612 million (10.9%) due to the change of pilot's per diem calculation effective since January 1, 2019 aimed to solve the problem of resigning pilots by improving the pilot compensation system to equal the industry and to allow the pilots to arrange the flight schedule and to manage the pilots effectively which resulted in an increase in pilots' per diem of THB 840 million, but reduced the pilot's overtime.

- Aircraft maintenance and overhaul costs totaled THB 19,322 million, decreased by THB 766 million (3.8%) mainly from the lower overhaul cost in Life Limited Part of TRENT800 engines. However, the appreciation of Thai Baht against US Dollar benefited the lower such costs.

- Lease of aircraft and spare parts and depreciation and amortization expenses totaled THB 31,816 million, decreased by THB 2,246 million (6.6%). Details as follow

- Lease of aircraft and spare parts increased by THB 12 million (0.1%) mainly from the delivery of 3 operating lease aircraft: Airbus A350-900 in January, February and March of 2018 respectively. and lease of 5 spare engines: 2 TRENT800 and 3 TRENT XWB which increased from last year. However, the appreciation of Thai Baht against US Dollar benefited the partially lower cost by THB 419 million.

- Depreciation and amortization decreased by THB 2,258 million (11.9%) due to the change in residual value of aircraft and spare engine by recognizing depreciation of 20 years old aircraft which accumulated in the year 2018 by THB 1,279 million. When excludes those items, depreciation and amortization would decrease by THB 979 million resulting from the fully depreciated aircraft, aircraft seat and other assets.

- **Share of loss of associates** were THB 223 million decreased by THB 300 million (57.4%) from last year. The details as follow:

- Nok Airlines PCL.'s amount of THB 496 million losses, less loss from last year's by THB 372 million.

- Bangkok Aviation Fuel Services PCL's amount of THB 218 million profits, less profit from last year's by THB 32 million.

- Suvarnabhumi Airport Hotel Co. Ltd.'s amount of THB 29 million profits, less profit from last year's by THB 9 million.

- Donmuang International Airport Hotel Co. Ltd.'s amount of THB 15 million profit, less profit from last year's by THB 9 million.

- Phuket Air Catering Co. Ltd.'s amount of THB 11 million profits, less profit from last year's by THB 9 million.

- Royal Orchid Hotel (Thailand) PCL's amount of THB 13 million less profit than last year's since the sale of the whole amount of shares and transferred the ownership's rights to buyer on April 23, 2018.

- **Net finance cost** amounted to THB 4,245 million, a decrease of THB 87 million (2.0%) mainly due to the baht appreciation against the major currencies of long-term debt, including Euro Dollar, Japanese yen and US dollar. When excluded such F/X effect, interest expenses when translate to Baht term causing less payment by THB 102 million. Finance costs would increase slightly, mainly due to increased interest expenses for short-term loans during the period. However, interest expenses for long-term loans decreased from the declining interest rates throughout the year 2019.

Estimated service compensation for employees

On September 26, 2019, State Enterprise Labor Relations Committee announcement regarding minimum standards of employment conditions in a state enterprise (No.4) announced in the Royal Thai Government Gazette that "the maximum severance pay rate is set at 400 days of the employee's latest wage rate for an employee who has worked for 20 consecutive years or more. The employee is entitled to receive compensation of not less than 400 days at the employee's last wage rate and effective on September 27, 2019. Hence, it is effective to retire employee since September 30, 2019. This change is considered a post-employment benefits plan amendment, and results in an increase of THB 2,689 million in employee benefits. The Company has recorded the effect by recognizing as expenses in the statement of comprehensive income. The details indicated in Note 8.19 to the Financial Statement.

Impairment loss of assets and aircraft was THB 634 million, a decrease of THB 2,825 million (81.7%) with the following details:

- Impairment loss of aircraft totaled THB 456 million, THB 2,694 million lower than last year. This year impairment loss comprised of 15 aircraft which were of 1 Airbus A300-600, 4 Airbus A330-300, 3 Airbus A340-500, 2 Airbus A340-600, 3 Boeing B737-400, and 2 Boeing B747-400 aircraft, totaled THB 381 million and the provision for impairment loss for 10 engines totaled THB 75 million. It should be noted that last year's impairment loss of aircraft were 19 aircraft with the amount of THB 3,064 million which should be noted that the reference price from the standard appraiser of Airbus A340-500 and A340-600 aircraft had been greatly reduced causing higher impairment setting and the provision for impairment loss for 10 engines totaled THB 86 million.
- Impairment loss of assets totaled THB 178 million, decreased by THB 131 million due to lower reserve for damaged rotatable spare parts which were unrepairable from last year.

Gain on foreign currency exchange was THB 4,439 million consisted of THB 2,243 million unrealized gain resulting from revaluation foreign currency loans, assets and liabilities especially the appreciation of Thai Baht against the US Dollar and Euro dollar and Japanese Yen, as of December 31, 2019 when compared to the end of year 2018 and realized gain of THB 2,196 million.

In 2019, EBITDA was THB 8,804 million, decreased by THB 5,690 million (39.3%) from last year. EBITDA margin was 4.8% which decreased from last year's where reported 7.3%.

3. Financial Position and Liquidity

Capital Expenditures

Unit: Million Baht	Jan - Dec	
	2019	2018
Aircraft and aircraft spare parts	2,410	9,213
Non-Aircraft	1,062	908
Total	3,472	10,121

Capital expenditures for 2019 was THB 3,472 million, a decrease of THB 6,649 million from last year. Capital expenditures in this year were

- Investment in aircraft and aircraft spare parts totaled THB 2,410 million, a decrease of THB 6,803 million from last year which mainly from last year there were the delivery of 2 Airbus A350-900 aircraft under finance lease and 3 engines which were 2 TRENT XWB-84 spare engines used for Airbus A350-900 aircraft and 1 GE90-115B engine used for Boeing B777-300ER aircraft. Most of the investments in this year were used for rotatable spare parts and prepayment of spare engines for a GE90-115B.

- Investments in other fixed assets amounted to THB 1,062 million mainly from the investment in equipment for ground service, technical department, and catering.

Financing

In 2019, THAI financed in the total amount of THB 45,288 million as the following details:

1) Drawing down of its promissory notes from domestic financial institution for repaying both short-term loans and the maturing debentures as well as use as working capital, amount of THB 21,500 million.

2) Issuing 2 series of new debentures, a total amount of THB 18,788 million in May, 2019, amount of THB 10,000 million their maturity between 1-15 years and in November, 2019, amount of THB 8,788 million their maturity between 1-15 years. The main purposes were to repay the maturing debentures, repay loan with higher financial costs and/or invest in assets as well as use as working capital.

3) Acquiring long-term financing from domestic financial institute of THB 5,000 million to use as working capital.

Summary of cash from and used in each activity are as follows:

Unit : Million Baht	Jan – Dec	
	2019	2018
Net cash from operating activities	14,818	17,400
Net cash used in investing activities	(2,970)	(2,099)
Net cash used in financing activities	(3,726)	(16,846)
Effect from changing in exchange rate on cash and cash equivalents increase (decrease)	(151)	7
Increase (decreases) in cash and cash equivalents	7,971	(1,538)

In 2019, THAI had net cash from operating activities, the amount of THB 14,818 million, THB 2,582 million lower than last year due to the greater negative performance. Net cash used in financing activities was THB 3,726 million, THB 13,120 million lower than last year due to higher net cash from the issuance of debentures and short-term loans. Despite, net cash used in investing activities was THB 2,970 million, THB 871 million higher than last year since last year THAI sold all shares of Royal Orchid Hotel (Thailand) PCL., As a result, cash and cash equivalents as of December 31, 2019 was THB 21,663 million increased from December 31, 2018 of THB 7,971 million.

Fleet

The total active aircraft was 103 aircrafts as of December 31, 2019 (including 20 Airbus A320-200 under ThaiSmile's operations) which equaled to numbers of aircraft as of December 31, 2018. As of December 31, 2019, THAI had the aircraft held for sale total 15 aircraft comprised of 3 Airbus A340-500, 6 Airbus A340-600, 1 Airbus A300-600, 4 Boeing B737-400, and 1 Boeing B747-400.

Assets of Thai Airways International PCL. and its subsidiaries

As of December 31, 2019, total assets totaled THB 256,665 million, a decrease of THB 12,056 million (4.5%) from December 31, 2018.

	Consolidated					
	Dec 31, 2019		Dec 31, 2018		Variance	
	MTHB	% of Total Assets	MTHB	% of Total Assets	MTHB	%
Current assets						
Cash and cash equivalents	21,663	8.4	13,692	5.1	+7,971	+58.2
Non-current assets held for sale	23	-	490	0.2	-467	-95.3
Other current assets	27,848	10.9	29,946	11.1	-2,098	-7.0
Current Assets	49,534	19.3	44,128	16.4	+5,406	+12.3
Property, plant and equipment						
Aircraft and prepaid aircraft and spare engine	40,470	15.8	45,946	17.1	-5,476	-11.9
Aircraft under finance leases	98,791	38.5	105,600	39.3	-6,809	-6.4
Aircraft spare parts	11,578	4.5	11,708	4.4	-130	-1.1
Work in process	333	0.1	341	0.1	-8	-2.3
Land, building and improvements	13,092	5.1	13,311	5.0	-219	-1.6
Other plant and equipment	2,854	1.1	2,692	1.0	+162	+6.0
Property, plant and equipment-net	167,118	65.1	179,598	66.9	-12,480	-6.9
Other non-current assets	40,013	15.6	44,995	16.7	-4,982	-11.1
Total Assets	256,665	100.0	268,721	100.0	-12,056	-4.5

Current assets were THB 49,534 million or accounted for 19.3% of total assets, an increase of THB 5,406 million (12.3%) from as of December 31, 2018. The significant items consisted of

- Cash and cash equivalents increased by THB 7,971 million (58.2%), mainly from debentures issued in November 2019, THB 8,788 million while net cash from operating activities was higher than net cash used in financial and investing activities.

- Other current assets decreased by THB 2,098 million (7.0%) mainly from trade receivables decreased by THB 1,212 million (11.7%) due to the less amount of sell volume in December 2019 which was lower than the same period last year. It should be noted that this year THAI has been able to manage collection period which was 22 days which was the same as last year and lower than THAI's normal collecting period.

- Non-current assets held for sale decreased by THB 467 million (95.3%) from transferring 6 aircraft comprised of 5 Airbus A330-300 aircraft and 1 B747-400 to purchaser. As of December 31, 2019, non-current assets held for sale comprised of 1 Boeing B747-400 aircraft amount of THB 23 million.

Property, plant and equipment-net totaled THB 167,118 million or represented 65.1% of total assets, which saw a decrease of THB 12,480 million (6.9%) from December 31, 2018 resulting from the normal calculation of aircraft depreciation.

Other non-current assets totaled THB 40,013 million or represented 15.6% of total assets, which decreased by THB 4,982 million (11.1%) from as of December 31, 2018 resulting from

- Non-performing assets decreased by THB 1,241 (25.4%) million due to the increasing provision impairment loss of aircraft and transferring 4 Airbus A330-300 aircraft to non-current assets held for sale

- Deferred refurbishment of operating lease aircraft decreased THB 540 million (11.9%) from amortizing both buyer-furnished equipment for operating lease aircraft and crew rest and in-flight connectivity for 6 Boeing B787-8 aircraft.

- Deferred tax assets decreased by THB 1,108 million (10.4%), which was mainly from the decreasing in deferred tax for provision of impairment of aircraft,

- Maintenance Reserve, the deposit of aircraft maintenance according to the lease agreement that the lessor charges as guarantee for the maintenance of aircraft engines according to the flying conditions and the engine maintenance conditions according to the maintenance schedule, decreased by THB 534 million (3.9%) due to returning Maintenance Reserve for 4 B777-300ER operating leased aircraft. For seven GE90 engines from lessor, the total amount was THB 2,267 million.

- Deposit for operating lease aircraft decreased by THB 627 million (11.6%), mainly due to the appreciation of Thai Baht against US dollar resulting decrease of assets after Baht translation. This transaction has been reclassified from previous year which presented in prepayment and deposits to the prepaid expenses and deposits only for the amount within 1 year while the amount more than 1 year was displayed in other non-current assets. For benefit of whom to use the statement of financial position, THAI reclassified the items of the year 2018 to be comparable with the current year. Details as in Note 8.37 to the financial statements.

Return on assets of 2019 was -2.5 % compared to last year's -2.6%.

Liabilities of Thai Airways International PCL. and its subsidiaries

Total liabilities as of December 31, 2019 were THB 244,899 million decreased by THB 3,366 million (1.4%) from December 31, 2018. These comprised of:

	Consolidated					
	Dec 31, 2019		Dec 31, 2018		Variance	
	MTHB	% of Total Liabilities	MTHB	% of Total Liabilities	MTHB	%
Current liabilities (excluding current portion of long-term liabilities)	62,636	25.6	66,046	26.6	-3,410	-5.2
Long-term liabilities						
Debentures	74,108	30.2	64,850	26.1	+9,258	+14.3
Liabilities under financial leases	46,456	19.0	58,982	23.8	-12,526	-21.2
Long term borrowings	23,288	9.5	24,444	9.8	-1,156	-4.7
Total long-term liabilities	143,852	58.7	148,276	59.7	-4,424	-3.0
Other non-current liabilities	38,411	15.7	33,943	13.7	+4,468	+13.2
Total Liabilities	244,899	100.0	248,265	100.0	-3,366	-1.4

Current liabilities (excluding current portion of long term liabilities' amount of THB 21,731 million) represented 25.6% of total liabilities were THB 62,636 million, a decrease of THB 3,410 million (5.2%) from December 31, 2018 since

- Accrued expenses a decrease of THB 1,780 million (9.8%) due to mainly from decrease in maintenance fees for Total Care maintenance program and transferring such accrued expense to trade payables since there was a charge for last year's expenses for which the accrued expenses had already been set up including reduced in accrued expense for fuel costs.

- Trade payables decreased by THB 657 million (12.7%) mainly from the decreased in account payables for Total Care maintenance program.

- Unearned transportation revenue decreased by THB 935 million (3.1%) in line of reducing sale volume.

- Short-term loan increased by THB 500 million (16.7%) mainly from short-term loan from the drawdown of promissory notes with domestic financial institutions to repay short-term loans and maturity debentures.

Long-term liabilities as of December 31, 2019 (including current portion of long term liabilities' totaled THB 21,731 million) were THB 143,852 million or represented 58.7% of total liabilities, which was a decrease of THB 4,424 million (3.0%) partially resulting from long-term loans repayment, debentures issuance, and liabilities under financial leases totaling THB 24,019 million. However, THAI issued debentures totaling THB 18,788 million, maturity between 1-15 years, and acquired long-term loans of THB 5,000 million. The appreciation of Thai Baht against Euro Dollar, Japanese Yen, and US Dollars caused the decrease in the long-term liabilities when translated to Thai Baht by THB 4,193 million.

Other non-current liabilities as of December 31, 2019 totaled THB 38,411 million or represented 15.7% of total liabilities which increased by THB 4,468 million (13.2%) mainly due to employee benefit obligations increases by THB 3,204 million as a result of estimate service compensation for employees as mentioned earlier. Moreover, long-term provision increased by THB 1,257 million resulting from the maintenance provision for operating lease aircraft based on actual conditions of aircraft and maintenance contractual obligations.

At the end of 2019, interest bearing debt to equity was 12.5 times was higher than last year's 7.4. Debt to equity ratio was 20.8 times, higher than last year's 12.1 times.

Shareholders' Equity of Thai Airways International PCL. and its subsidiaries

As of December 31, 2019, shareholders' equity totaled THB 11,766 million, a decrease of THB 8,690 million (42.5%) from December 31, 2018 due to the negative results of THAI and its subsidiaries. It should be noted that the impact of the adoption of Thai Financial Reporting Standard No. 15 on Revenue from contracts with customers causing the retained earnings as of January 1, 2019 to increase by THB 2,159 million. Consequently, THAI's return on equity of 2019 decreased from -44.1% at the same period last year to -74.6% this year.

Liquidity

As of December 31, 2019, THAI and its subsidiaries had cash and cash equivalents amounted to THB 21,663 million or represented 8.4% of total assets, increased from December 31, 2018. In 2019, THAI financed short-term and long-term loans from the financial institution and issued 2 series of debentures in May and November 2019. Moreover, THAI received the refund of maintenance reserve deposit for maintenance of operating lease aircraft: Boeing B777-300ER amount of THB 2,267 million. THAI also prepared cash flow projections for the year 2020 which measured under cautious circumstances indicated that the THAI still had sufficient cash on hand and able to operate normally, provided that the Company is not affected by outside uncontrollable factors. In addition, there was a credit line for Committed Credit Line as of December 31, 2019, amount THB 13,500 million.

4. Factors affecting future operations

The aviation industry in 2020 will still face challenges, both from the COVID-19 virus which become widespread continuously in many countries causing Thailand and the governments of various countries to prohibit or advise their citizens to refrain from traveling to countries that are spread which inevitably affects the aviation and tourism industry. As a result, THAI has to diminish its flights and traffic production in accordance with the number of passengers that have significantly decreased. However, THAI is in the process of implementing measures to effectively manage the impacts by establishing a working group for problem resolution to supervise and monitor closely to handle current situations which still no sign of relief but even more violence and metastasis in Europe and many other countries now.

In addition, it seems the impact of trade war between the US and China still continues although negotiations have reached a preliminary agreement. However, it is expected to continue to lead to further negotiations. Furthermore, political uncertainty after Brexit, the conflict between the US and Iran including the situation of oil prices in the world market and fluctuate exchange rates are questionable for the future.

From various negative factors and the intense competition situation affecting the overall performance of THAI. THAI, therefore, reviewed both the external environment of the aviation industry, market conditions, and competition, and internal environment by creating a second phase of the transformation plan by proceeding in parallel with the implementation of the master plan, consisting of 3 approaches which are

- Increasing revenue by implementing personalized customer strategy aims to focus on creating ancillary revenue as well as accelerating digital marketing operations by using big Data and data analytic tools for market analysis to increase more Online channels.
- Costs control and reduction focus on unnecessary expense, voluntarily reduction of the remuneration of Executives and the Board of Directors, and so forth.
- Improving operational efficiency, such as effective fleet management by expediting the conclusion of aircraft acquisition plans that are appropriate for business operations including controlling and tracking the plan for selling grounded aircraft and assets in accordance with the aircraft selling plan. THAI also prepares for a long-term plan to reduce debt aims to decrease debt to equity ratio in order to reduce the risk of the financial status. THAI is also going to improve its organizational structure to be more efficient and suitable for business operations and completely fill personnel in significant positions to ensure that all operations are closely supervised.

In addition, in January and February 2020, there are significant matters as follows:

- Federation of Accounting Professions announced the adoption of the Financial Reporting Standard No. 16: Lease, and No. 9: Financial Instruments which is effective on January 1, 2020, THAI has studied and prepared to support in accordance with the financial reporting standards, THAI has assessed the impact of the said financial reporting standards use and disclosed in the notes 3 to the financial statements.
- In February 2020, Nok Airlines PCL. offered 888 million ordinary shares with a par value of 1 Baht each at a price of 2.50 Baht per share. However, THAI does not exercise the right to purchase such shares causing the shareholding proportion of the company In Nok Airlines PCL., decreasing from 15.94 % to 13.28 %. Details as in Note 8.38.2 to the financial statements.

5. Financial Ratios

		Jan - Dec	
		2019	2018
Liquidity Ratio			
Current Ratio	(times)	0.91	0.75
Current Ratio (Included Committed Credit Line)	(times)	1.15	0.89
Profitability Ratio			
Operating profit (Loss) Margin	%	(6.74)	(4.54)
Net Profit (Loss) Margin	%	(6.52)	(5.79)
Return on Equity	%	(74.59)	(44.10)
Efficiency Ratio			
Return on Total Assets	%	(2.51)	(2.58)
Financial Policy Ratio			
Interest Bearing Debt to Equity	(times)	12.52	7.40
Total Debt to Equity	(times)	20.81	12.14
Interest Coverage Ratio	(times)	1.98	3.22
Net Debt to EBITDA	(times)	25.36	16.18
Debt Service Coverage Ratio	(times)	0.70	0.85

GLOSSARY

Current Ratio = Current Assets (Excluding Non-Current Assets held for sale / Current Liabilities (Excluding Unearned Transportation Revenues)

Current Ratio (Included Committed Credit Line) = Current Assets (Excluding Non-Current Assets classified as held for sale) + committed credit line) / Current Liabilities (Excluding Unearned Transportation Revenues)

Operating Profit (Loss) Margin = Operating Profit (loss) / Total Revenue (excluded gain on foreign currency exchange, and gain on change in ownership interest)

Net Profit (Loss) Margin = Net Profit (Loss) / Total Revenue (excluded gain on foreign currency exchange and Gain on change in ownership interest)

Return on Equity = Net Profit (Loss) / Average Shareholders' Equity

Return on Total Assets = Profit (Loss) before interest and tax/ Average total assets

Interest Bearing Debt to Equity = (Short-term Loan + Long-term Loan including current portion of Long-term Loan within 1 year) / Shareholders' Equity

Total Debt to Equity Ratio = Total liabilities/Shareholders' Equity

Interest Coverage Ratio = EBITDA/interest

Net Debt to EBITDA = (Total liabilities – Cash and cash equivalents) / EBITDA

Debt Service Coverage Ratio = EBITDAR/ (Long-term Loan repayment + Interest payment + Lease of aircraft And spare part)