

## Management discussion and analysis (MD&A)

### Overview

The operating results of the SET group for the year ended December 31, 2019 were as follows:

(Unit: THB million)	For the year ended December 31			
	2019	2018	Increase / (Decrease)	
			Amount	%
Operating revenue	5,884	5,722	162	3%
Other income	454	270	184	68%
Investment income	948	586	362	62%
Operating expenses	(4,217)	(3,978)	239	6%
Contributions to The Stock Exchange of Thailand Foundation (SET Foundation)	186	(186)	372	200%
Transfer for the Capital Market Development Fund (CMDf)	(5,700)	-	5,700	100%
Income tax expense	(214)	(479)	(265)	(55%)
Revenue over (under) expenses	(2,599)	1,955	(4,554)	(233%)

For the year ended December 31, 2019, revenue under expenses amounted to THB 2,599 million and decreased by THB 4,554 million, compared to 2018. The operating revenue increased by THB 162 million, resulting from an increase in a number of new listed companies and new securities. Other income increased by THB 184 million from the compensation from insurance companies regarding the fire damage at the previous office building of The Stock Exchange of Thailand (SET) of THB 145 million. Investment income increased by THB 362 million due to the realization of gain from sales and mark-to-market value of investments. Operating expenses increased by THB 239 million realized by the increase in employee benefit expenses according to the new Labor Act. In addition, during the year there was a reversal of outstanding donations to the SET Foundation from canceling the allocation of SET's annual revenues over expenses, effective from 2018 onwards. Furthermore, SET transferred the amount of THB 5,700 million to CMDf as specified in the Securities and Exchange Act (No. 6) dated on April 16, 2019, in order for the purpose of promoting the capital market development in various areas, such as organizational development and infrastructure related to the capital market, development of personnel capabilities related to the capital market or capital market governance and supervision, among others.

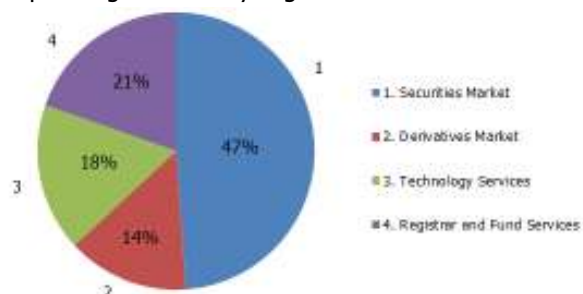
## 1. Analysis of operating results

### 1.1 Operating revenue

#### Operating revenue by segment

Operating revenue classified by key business segments consists of Securities Market, Derivatives Market, Technology Services, and Registrar and Fund Services.

#### Operating revenue by segment



For the year ended December 31, 2019

(Unit: THB million)

#### **Securities Market**

- Trading	1,298
- Clearing and settlement	368
- Listing	723
- Depository	347
- Membership	32

**Total** **2,768**

#### **Derivatives Market**

- Trading	541
- Clearing	233
- Membership	32

**Total** **806**

#### **Technology Services**

- Member services	420
- Information services	367
- IT support	277

**Total** **1,064**

#### **Registrar and Fund Services**

- Securities registrar	1,226
- Fund services	20

**Total** **1,246**

**Total operating revenue** **5,884**

### 1.1.1 Securities Market

(Unit: THB million)	2019	2018	Increase / (Decrease)	
			Amount	%
<b>Revenue - Securities Market</b>	<b>2,768</b>	<b>2,825</b>	<b>(57)</b>	<b>(2.02%)</b>
Trading fees	1,298	1,413	(115)	(8.14%)
Clearing and settlement fees	368	384	(16)	(4.17%)
Listing fees	723	643	80	12.44%
Depository fees	347	341	6	1.76%
Membership fees	32	44	(12)	(27.27%)
<b>Key market indicators</b>				
SET Index at the end of the year (points)	1,580	1,564	16	1.02%
Average daily trading value - Equity (THB million)	53,192	57,674	(4,482)	(7.77%)
Average market capitalization (THB trillion)	17.17	17.63	(0.46)	(2.61%)
No. of listed securities at the end of the year (securities)	3,022	2,499	523	20.93%

Operating revenue from securities market decreased by THB 57 million or 2.02%, compared to 2018. The increase mainly resulted from the drop in trading and clearing & settlement fee by THB 131 million in line with the drop in average daily trading value, while the listing fees increased by THB 80 million in accordance with the number of listed securities.

### 1.1.2 Derivatives Market

(Unit: THB million)	2019	2018	Increase / (Decrease)	
			Amount	%
<b>Revenue - Derivatives Market</b>	<b>806</b>	<b>765</b>	<b>41</b>	<b>5.36%</b>
Trading fees	541	509	32	6.29%
Clearing fees	233	220	13	5.91%
Membership fees	32	36	(4)	(11.11%)
<b>Key market indicators</b>				
Average daily trading volume - Derivatives (contracts)	428,368	426,212	2,156	0.51%

Operating revenue from derivatives market increased by THB 41 million or 5.36%, compared to 2018, mainly resulting from the rise in average daily trading volume of derivatives, especially Gold Online Futures.

### 1.1.3 Technology Services

(Unit: THB million)	2019	2018	Increase / (Decrease)	
			Amount	%
<b>Revenue - Technology services</b>	<b>1,064</b>	<b>997</b>	<b>67</b>	<b>6.72%</b>
Member services fees	420	451	(31)	(6.87%)
Information service fees	367	346	21	6.07%
Customization and IT support fees	277	200	77	38.50%

Operating revenue from technology services increased by THB 67 million or 6.72%, compared to 2018. This increase was mainly from the increase in data service fees and technology support revenue as the number of users was up.

### 1.1.4 Registrar and Fund Services

(Unit: THB million)	2019	2018	Increase / (Decrease)	
			Amount	%
<b>Revenue - Registrar and fund services</b>	<b>1,246</b>	<b>1,135</b>	<b>111</b>	<b>9.78%</b>
Securities registrar fees	1,226	1,121	105	9.37%
Fund services	20	14	6	42.86%

Operating revenue from registrar services rose by THB 111 million or 9.78%, compared to 2018. This was contributed by the rise in securities registrar services as number of listed securities increased, including the fee from fund services, Fund Connex, which started the services in 2018.

### 1.2 Other income

(Unit: THB million)	2019	2018	Increase / (Decrease)	
			Amount	%
<b>Total other income</b>	<b>454</b>	<b>270</b>	<b>184</b>	<b>68.15%</b>
Compensation income from insurance companies	145	-	145	100.00%
Revenue from fines	80	59	21	35.59%
Revenue from education activities	64	73	(9)	(12.33%)
Revenue from fees and management funds	37	42	(5)	(11.90%)
Revenue from securities borrowing and lending	34	14	20	142.86%
Revenue from marketing events	23	24	(1)	(4.17%)
Revenue from transfer of rights from securities companies	11	-	11	100.00%
Others	60	58	2	3.45%

Other income increased by THB 184 million or 68.15%, compared to 2018. In 2019 SET received compensation from the insurance company for the fire damage incident at the previous head office of The Stock Exchange of Thailand of THB 145 million, as well as from having members' fine income of THB 21 million and including income from the transfer of rights from securities member companies of THB11 million.

### 1.3 Investment income

(Unit: THB million)	2019	2018	Increase / (Decrease)	
			Amount	%
<b>Investment income</b>	<b>948</b>	<b>586</b>	<b>362</b>	<b>61.77%</b>
Interest income	217	206	11	5.34%
Dividend income	144	211	(67)	(31.75%)
Realized gain from investments	420	206	214	103.88%
Unrealized gain (loss) from investments	90	(31)	121	390.32%
Gain (loss) on exchange rate and others	77	(6)	83	1383.33%

Investment income increased by THB 362 million or 61.77%, compared to 2018. The increase mainly resulted from the realization of gain from sales of funds and mark-to-market value of investments, while dividends received from mutual funds decreased since most funds refrained from paying dividends in 2019.

### 1.4 Operating expenses

(Unit: THB million)	2019	2018	Increase / (Decrease)	
			Amount	%
<b>Operating expenses</b>	<b>4,217</b>	<b>3,978</b>	<b>239</b>	<b>6.01%</b>
Employee benefit expenses	1,939	1,688	251	14.87%
Depreciation and amortization	525	483	42	8.70%
The SEC fees	521	567	(46)	(8.11%)
Direct service expenses	344	292	52	17.81%
Building and office expenses	193	183	10	5.46%
Technology expenses	191	230	(39)	(16.96%)
Marketing expenses	172	161	11	6.83%
Fees and compensation expenses	128	99	29	29.29%
Educational activities expenses	65	164	(99)	(60.37%)
Others	139	111	28	25.23%

Operating expenses in 2019 were THB 4,217 million, an increase of 6.01% from 2018. This mainly resulted from the increase of employee benefit expenses in accordance with the new Labor Protection Act, including the increase of registrar service expenses in accordance with the increase of securities borrowing and lending transactions and corporate action. The SEC fee decreased due to a drop in equity trading volume. In addition, the educational activities expenses decreased as not having to pay to support one joint-venture business which liquidated the company in December 2018.

## 2. Analysis of financial position

(Unit: THB million)	Dec 31,	Dec 31,	Increase / (Decrease)	
	2019	2018	Amount	%
Total assets	44,994	48,771	(3,777)	(7.74%)
Total liabilities	18,576	20,105	(1,529)	(7.61%)
Fund balances	26,418	28,666	(2,248)	(7.84%)

Significant movements in assets, liabilities and funds of the SET group as at December 31, 2019 in comparison with the balance as at December 31, 2018, were as follows:

### 2.1 Analysis of assets

As at December 31, 2019, total assets of the SET group amounted to THB 44,994 million, a decrease of THB 3,777 million or 7.74%, in comparison with the balance as at December 31, 2018. Significant details are as follows:

2.1.1 Cash and cash equivalents, cash at banks for financial benefits payable and investments were THB 15,703 million or 34.90% of total assets, a THB 2,162 million or 12.11% decreases, categorized as follows:

(Unit: THB million)	Dec 31,	Dec 31,	Increase /(Decrease)	
	2019	2018	Amount	%
<b>Cash and cash equivalents</b>	<b>2,329</b>	<b>1,119</b>	<b>1,210</b>	<b>108.13%</b>
<b>Cash at banks for financial benefits payable</b>	<b>86</b>	<b>69</b>	<b>17</b>	<b>24.64%</b>
<b>Investment portfolio</b>	<b>13,288</b>	<b>16,677</b>	<b>(3,389)</b>	<b>(20.32%)</b>
Trading	3,408	3,751	(343)	(9.14%)
Available-for-sale	8,202	11,251	(3,049)	(27.10%)
Held-to-maturity	1,641	1,663	(22)	1.32%
General investments	37	12	25	208.33%
<b>Total</b>	<b>15,703</b>	<b>17,865</b>	<b>(2,162)</b>	<b>(12.11%)</b>

The SET group maintains a policy to invest in various types of investments such as fixed deposits, debt instruments (such as government bonds, corporate debentures, among others), mutual funds and other domestic and foreign financial instruments. In this regard, investments decreased from the transfer of funds to the Capital Market Development Fund (CMDF) for the amount of THB 5,700 million as specified in the Securities and Exchange Act (No. 6) dated on April 16, 2019 in order to promote the development of the capital market in various areas such as organizational development and infrastructure related to the capital market, the development of personnel capabilities related to the capital market or capital market governance & supervision, among others.

2.1.2 Assets for margin deposits and benefits, and assets for clearing system protection and benefits recorded at THB 15,590 million or 34.65% of total assets, a decrease of THB 1,903 million or 10.88% decrease. This resulted from the withdrawal of collaterals of Thailand Clearing House Co., Ltd. (TCH)'s members, in accordance with the decrease in trading volume of derivatives at the end of the year.

2.1.3 Reserve fund for TCH security on clearing and settlement amounted to THB 5,590 million or 12.42% of total assets, up by THB 261 million or 4.90%, supported by the reserve for TCH's clearing and settlement on SET's part which was established in 2017 as a source of funds for the clearing house. In 2019, SET transferred the additional reserve fund of THB 200 million to TCH.

## 2.2 Analysis of liabilities

As at December 31, 2019, total liabilities of the SET group amounted to THB 18,576 million, decreased by THB 1,529 million or 7.61%, in comparison with the balance as at December 31, 2018. Significant details are as follows:

2.2.1 Margin deposits and assets for clearing system protection and benefits payable amounted to THB 15,442 million or 83.13% of total liabilities, a decrease of THB 1,907 million, or 10.09%. The decrease in deposits at TCH resulted from the withdrawal of collaterals of TCH's members in accordance with the decrease in trading volume of derivatives at the end of year.

## 2.3 Analysis of funds

As at December 31, 2019 the total funds of the SET group amounted to THB 26,418 million, a decrease of THB 2,248 million or 7.84%, in comparison with the balance as at December 31, 2018. The SET group's revenue under expenses for 2019 reached THB 2,599 million. The gain incurred from an increase in the market value of investment in mutual funds and foreign fund, and the gain from exchange rate of investments in foreign funds totaling THB 351 million.

### 3. Analysis of liquidity

Cash flows of the SET group for the year ended December 31, 2019 and 2018 can be summarized as follows:

(Unit: THB million)	2019	2018	Increase /(Decrease)	
			Amount	%
Cash flows from (used in) operating activities	(2,680)	2,212	(4,892)	(221.16%)
Cash flows from (used in) investing activities	3,908	(2,353)	6,261	266.09%
Cash and cash equivalents at the end of year	2,415	1,188	1,227	103.28%

Cash and cash equivalents as at December 31, 2019 amounted to THB 2,415 million, an increase of THB 1,227 million or 103.28%, compared to 2018. The details of the inflows and outflow are as follows:

- Net cash used in operating activities totaled THB 2,680 million. This was mainly from transferring the sum of THB 5,700 million to the Capital Market Development Fund (CMDf).
- Net cash receipt from investing activities totaled THB 3,908 million. This was mainly from sales of financial instruments of THB 3,832 million, investment income and interest income of THB 704 million, and dividend income of THB 143 million, including investment in new assets of THB 528 million.