### Management discussion and analysis (MD&A)

### Overview

The operating results of the SET group for the year ended December 31, 2020 were as follows:

|  | For the year ended December 31 |         |               |          |
|--|--------------------------------|---------|---------------|----------|
|  |                                |         | Increase / (D | ecrease) |
| (Unit: THB million)                        | 2020                           | 2019    | Amount        | %        |
| Operating revenues                         | 6,548                          | 5,890   | 658           | 11       |
| Other income                               | 163                            | 448     | (285)         | (64)     |
| Investment income (expense)                | (364)                          | 948     | (1,312)       | (138)    |
| Total revenues                             | 6,347                          | 7,286   | (939)         | (13)     |
| Operating expenses                         | (4,289)                        | (4,217) | 72            | 2        |
| Non-operating revenue (expense)            | 36                             | 60      | (24)          | (40)     |
| Reversal of contributions to The Stock     |                                |         |               |          |
| Exchange of Thailand Foundation (SET       |                                |         |               |          |
| Foundation)                                | -                              | 186     | (186)         | (100)    |
| Revenues over expenses before contribution | 2,094                          | 3,315   | (1,221)       | (37)     |
| to the Capital Market Development Fund     |                                |         |               |          |
| (CMDF) and income tax                      |                                |         |               |          |
| Income tax expense                         | (378)                          | (214)   | 164           | 77       |
| Revenues over expenses before contribution | 1,716                          | 3,101   | (1,385)       | (45)     |
| to CMDF                                    |                                |         |               |          |
| Contribution to CMDF                       | (362)                          | (5,700) | (5,338)       | (94)     |
| Revenues over (under) expenses             | 1,354                          | (2,599) | 3,953         | 152      |

In 2020, the SET Group had total revenues of THB 6,347 million, decreased by THB 939 million or 13% due to the net offset between an increase of operating revenues, net of discounts and price reduction on various fees as relief measures for stakeholders during the Covid-19 pandemic, by a net amount of THB 658 million, which was mainly from an increase in average daily trading volume of both equity and derivatives, especially from SET50 Index Futures and Gold Online, and decreases in investment income and other income by THB 1,312 million and THB 285 million, respectively, following the fluctuations in global financial and capital markets caused by the Covid-19 pandemic and by the absence of the one-time gain of insurance proceeds of THB 145 million recorded in 2019 for the arson attack on the SET old building. Operating expenses amounted to THB 4,289 million, a 2% increase from SEC fee in line with a rise in equity trading volume. In overview, the SET Group had revenues over expenses before contribution to CMDF and income tax of THB 2,094 million.

SET has an annual contribution amount to be transferred to CMDF stood at THB 362 million, accounting for 90% of the revenue after deduction of expense, tax and reserve based on the 2020 consolidated financial statements of the SET Group in conformity with the Securities and Exchange Act (No. 6) while SET transferred a sum of THB 5,700 as the first payment to the CMDF in 2019. As a result, the SET Group had revenues over expenses of THB 1,354 million in 2020.

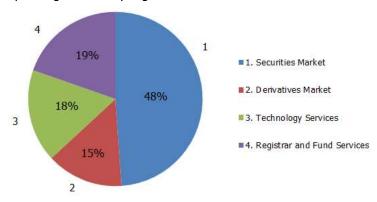
## 1. Analysis of operating results

## 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



| or the year ended December 31, 2020 | (Unit: THB million) |
|-------------------------------------|---------------------|
| Securities Market                   |                     |
| - Trading                           | 1,667               |
| - Clearing and settlement           | 450                 |
| - Listing                           | 682                 |
| - Depository                        | 296                 |
| - Membership                        | 32                  |
| Total                               | 3,127               |
| Derivatives Market                  |                     |
| - Trading                           | 677                 |
| - Clearing                          | 290                 |
| - Membership                        | 32                  |
| Total                               | 999                 |

| For the year ended December 31, 2020 | (Unit: THB million) |
|--------------------------------------|---------------------|
| Technology Services                  |                     |
| - Member services                    | 437                 |
| - Information services               | 378                 |
| - IT support                         | 345                 |
| Total                                | 1,160               |
| Registrar and Fund Services          |                     |
| - Securities registrar               | 1,229               |
| - Fund services                      | 24                  |
| - Payment services                   | 9                   |
| Total                                | 1,262               |
| Total operating revenue              | 6,548               |

### 1.1.1 Securities Market

|  |        |        | Increas | se / |
|--|--------|--------|---------|------|
| (Unit: THB million)                                | 2020   | 2019   | (Decrea | ase) |
|  |        |        | Amount  | %    |
| Revenue - Securities Market                        | 3,127  | 2,768  | 359     | 13   |
| Trading fees                                       | 1,667  | 1,298  | 369     | 28   |
| Clearing and settlement fees                       | 450    | 368    | 82      | 22   |
| Listing fees                                       | 682    | 723    | (41)    | (6)  |
| Depository fees                                    | 296    | 347    | (51)    | (15) |
| Membership fees                                    | 32     | 32     | -       | -    |
| Key market indicators                              |        |        |         |      |
| SET Index at the end of the year (points)          | 1,786  | 1,889  | (103)   | (5)  |
| Average daily trading value - Equity (THB million) | 68,607 | 53,192 | 15,415  | 29   |
| Average market capitalization (THB trillion)       | 14.72  | 17.17  | (2.45)  | (14) |
| No. of listed securities at the end of the year    | 2,853  | 3,022  | (169)   | (6)  |
| (securities)                                       |        |        |         |      |

Operating revenue from securities market, net of discounts on various fees as relief measures for stakeholders during the Covid-19 pandemic, increased by THB 359 million or 13%. The increase mainly resulted from the rise in average daily trading value, while the listing fees and depository fee decreased by THB 41 million and THB 51 million in accordance with the decrease in the number of listed securities and market capitalization, respectively.

### 1.1.2 Derivatives Market

|  |         |         | Increase / |      |
|--|---------|---------|------------|------|
| (Unit: THB million)                        | 2020    | 2019    | (Decrea    | ase) |
|  |         |         | Amount     | %    |
| Revenue - Derivatives Market               | 999     | 806     | 193        | 24   |
| Trading fees                               | 677     | 541     | 136        | 25   |
| Clearing fees                              | 290     | 233     | 57         | 24   |
| Membership fees                            | 32      | 32      | -          | -    |
| Key market indicators                      |         |         |            |      |
| Average daily trading volume - Derivatives |         |         |            |      |
| (contracts)                                | 494,624 | 428,368 | 66,256     | 15   |

Operating revenue from derivatives market, net of trading fees discounts to help stakeholders during the Covid-19 pandemic, increased by THB 193 million or 24%, mainly resulting from the rise in average daily trading volume of derivatives, especially from SET50 Index Futures and Gold Online.

# 1.1.3 Technology Services

|                                   |       |       |         | Increase / |  |
|-----------------------------------|-------|-------|---------|------------|--|
| (Unit: THB million)               | 2020  | 2019  | (Decrea | ise)       |  |
|                                   |       |       | Amount  | %          |  |
| Revenue - Technology services     | 1,160 | 1,064 | 96      | 9          |  |
| Member services fees              | 437   | 420   | 17      | 4          |  |
| Information service fees          | 378   | 367   | 11      | 3          |  |
| Customization and IT support fees | 345   | 277   | 68      | 25         |  |

Operating revenue from technology services increased by THB 96 million or 9%, driven mainly by the rise in technology support fees in line with the higher number of users.

# 1.1.4 Registrar and Fund Services

|                                       |       |       | Increase / |      |
|---------------------------------------|-------|-------|------------|------|
| (Unit: THB million)                   | 2020  | 2019  | (Decrea    | ise) |
|                                       |       |       | Amount     | %    |
| Revenue - Registrar and fund services | 1,262 | 1,252 | 10         | 1    |
| Securities registrar fees             | 1,229 | 1,226 | 3          | -    |
| Fund services                         | 24    | 20    | 4          | 20   |
| Payment service fees                  | 9     | 6     | 3          | 50   |

Operating revenue from registrar and services rose by THB 10 million or 1%, mainly due to the increase in corporate actions services, and discounts on annual registrar fees were offered to stakeholders as part of the Covid-19 relief measures during 2020.

### 1.2 Other income

|   |      |      | Increas | ease / |  |
|---|------|------|---------|--------|--|
| (Unit: THB million)                           | 2020 | 2019 | (Decrea | ase)   |  |
|   |      |      | Amount  | %      |  |
| Total other income                            | 163  | 448  | (285)   | (64)   |  |
| Revenue from fees and management funds        | 60   | 37   | 23      | 62     |  |
| Revenue from education activities             | 23   | 64   | (41)    | (64)   |  |
| Revenue from fines                            | 12   | 80   | (68)    | (85)   |  |
| Revenue from rental and utilities             | 12   | 15   | (3)     | (20)   |  |
| Revenue from securities borrowing and lending | 4    | 35   | (31)    | (89)   |  |
| Revenue from marketing events                 | 1    | 23   | (22)    | (96)   |  |
| Compensation income from insurance companies  | -    | 145  | (145)   | (100)  |  |
| Others  | 51   | 49   | 2       | 4      |  |

Other income decreased by THB 285 million or 64%, due mainly to the absence of the one-time gain of insurance proceeds of THB 145 million recorded in 2019 for the arson attack on the Stock Exchange of Thailand's old building. The decrease was also due to the decline in revenues from education activities, fines and securities borrowing and lending.

# 1.3 Investment income (expense)

|   |       |      | Increase /   |       |
|---|-------|------|--------------|-------|
| (Unit: THB million)                     | 2020  | 2019 | 19 (Decrease |       |
|   |       |      | Amount       | %     |
| Investment income (expense)             | (364) | 948  | (1,312)      | (138) |
| Interest income                         | 152   | 217  | (65)         | (30)  |
| Dividend income                         | 66    | 144  | (78)         | (54)  |
| Realized gain (loss) from investments   | (320) | 420  | (740)        | (176) |
| Unrealized gain (loss) from investments | (165) | 90   | (255)        | (283) |
| Gain (loss) on exchange rate and others | (78)  | 63   | (141)        | (224) |
| Unrealized gain (loss) on exchange rate | (15)  | 14   | (29)         | (207) |
| Allowance for expected credit loss      | (4)   | -    | (4)          | (100) |

In 2020, the SET Group had net investment loss of THB 364 million, due mainly to coronavirus pandemic (COVID-19), which driven any kind of asset prices, especially equity and property funds, decreased dramatically. On the other hand, the SET Group has closely monitored market situation which rise the significant fluctuation of asset prices. This led to a significant increase in the SET Group's investment risk. During the year, the SET Group adjusted investment strategies in response to the COVID-19 impact, resulting to a revision of the Group's Strategic Asset Allocation (SAA), which emphasized on appropriate investment risk level compared to the SET group's business onward.

#### 1.4 Operating expenses

|                                 |               |       |         | Increase / |  |
|---------------------------------|---------------|-------|---------|------------|--|
| (Unit: THB million)             | million) 2020 |       | (Decrea | ase)       |  |
|                                 |               |       | Amount  | %          |  |
| Operating expenses              | 4,289         | 4,217 | 72      | 2          |  |
| Employee benefit expenses       | 1,947         | 1,939 | 8       | -          |  |
| The SEC fees                    | 669           | 521   | 148     | 28         |  |
| Depreciation and amortization   | 529           | 525   | 4       | 1          |  |
| Direct service expenses         | 379           | 344   | 35      | 10         |  |
| Technology expenses             | 226           | 191   | 35      | 18         |  |
| Building and office expenses    | 180           | 193   | (13)    | (7)        |  |
| Marketing expenses              | 125           | 172   | (47)    | (27)       |  |
| Fees and compensation expenses  | 116           | 128   | (12)    | (9)        |  |
| Educational activities expenses | 29            | 65    | (36)    | (55)       |  |
| Others                          | 89            | 139   | (50)    | (36)       |  |

Operating expenses in 2020 amounted to THB 4,289 million, an increase of 2%. This mainly resulted from the increase of SEC fees in line with the rise in equity trading volume, including the increase of registrar service expenses in accordance with the increase of corporate action transactions. Most other operating expenses decreased from the previous year due to the adoptions of new way of working (new normal) as a result of Covid-19 pandemic.

## 2. Analysis of financial position

|                     | Dec 31, | Dec 31, | Increase / |    |
|---------------------|---------|---------|------------|----|
| (Unit: THB million) | 2020    | 2019    | (Decrease) |    |
|                     |         |         | Amount     | %  |
| Total assets        | 54,427  | 44,994  | 9,433      | 21 |
| Total liabilities   | 26,720  | 18,576  | 8,144      | 44 |
| Fund balances       | 27,707  | 26,418  | 1,289      | 5  |

Significant movements in assets, liabilities and funds of the SET group as at December 31, 2020 in comparison with the balance as at December 31, 2019, were as follows:

## 2.1 Analysis of assets

As at December 31, 2020, total assets of the SET group amounted to THB 54,427 million, an increase of THB 9,433 million or 21%, in comparison with the balance as at December 31, 2019. Significant details are as follows:

2.1.1 Cash and cash equivalents, cash at banks for financial benefits payable and financial assets were THB 17,324 million or 32% of total assets, a THB 1,622 million or 10% increases, categorized as follows:

|  | Dec 31, | Dec 31, | Increa   | se    |
|--|---------|---------|----------|-------|
| (Unit: THB million)                              | 2020    | 2019    | /(Decrea | ase)  |
|  |         |         | Amount   | %     |
| Cash and cash equivalents                        | 8,012   | 2,329   | 5,683    | 244   |
| Cash at banks for financial benefits payable     | 76      | 86      | (10)     | (12)  |
| Financial assets                                 | 9,236   | 13,288  | (4,052)  | (30)  |
| Investment in debt instruments measured at FVTPL | 7,087   | -       | 7,087    | 100   |
| Investment measured at amortized cost            | 2,095   | -       | 2,095    | 100   |
| Investment in equity instruments measured at     | 54      | -       | 54       | 100   |
| FVTOCI   |         |         |          |       |
| Investment in trading                            | -       | 3,408   | (3,408)  | (100) |
| Investment in available-for-sale                 | -       | 8,202   | (8,202)  | (100) |
| Investment in held-to-maturity                   | -       | 1,641   | (1,641)  | (100) |
| General investments                              | -       | 37      | (37)     | (100) |
| Total  | 17,324  | 15,702  | 1,622    | 10    |

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. Total cash and financial assets increased from yearly operating results. On the other hand, the total financial assets decreased due to the adjustment of the investment portfolio to suit the investment conditions and overall market volatility.

- 2.1.2 Assets for margin deposits and benefits, and assets for clearing system protection and benefits recorded at THB 22,543 million or 41% of total assets, an increase of THB 6,953 million or 45%. This resulted from the deposit of collaterals of Thailand Clearing House Co., Ltd. (TCH)'s members, in accordance with the increase 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 5,804 million or 11% of total assets, up by THB 214 million or 4%, 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 2020, SET transferred the additional reserve fund of THB 250 million to TCH.

#### 2.2 Analysis of liabilities

As at December 31, 2020, total liabilities of the SET group amounted to THB 26,720 million, increased by THB 8,144 million or 44%, in comparison with the balance as at December 31, 2019. Significant details are as follows:

2.2.1 <u>Margin deposits and assets for clearing system protection and benefits payable</u> amounted to THB 22,396 million or 84% of total liabilities, an increase of THB 6,954 million, or 45%. The increase in deposits at TCH resulted from the deposit of collaterals of TCH's members in accordance with the increase in trading volume of derivatives at the end of year.

#### 2.3 Analysis of funds

As at December 31, 2020 the total funds of the SET group amounted to THB 27,707 million, an increase of THB 1,289 million or 5%, in comparison with the balance as at December 31, 2019. The SET group's revenue over expenses for 2020 reached THB 1,354 million. In 2020, there was no other comprehensive revenue and expense following the adoption of new accounting policies according to the Thai Financial Reporting Standard, which recorded unrealized profit from the mark to market of the investment in statement of revenue and expense instead.

## 3. Analysis of liquidity

Cash flows of the SET group for the year ended December 31, 2020 and 2019 can be summarized as follows:

|  |       |         | Increase /(Decrease) |      |
|--|-------|---------|----------------------|------|
| (Unit: THB million)                            | 2020  | 2019    | Amount               | %    |
| Cash flows from (used in) operating activities | 2,247 | (2,680) | 4,927                | 184  |
| Cash flows from investing activities           | 3,442 | 3,907   | (465)                | (12) |
| Cash flow used in financing activities         | (14)  | -       | 14                   | 100  |
| Cash and cash equivalents at the end of year   | 8,088 | 2,415   | 5,673                | 235  |

Cash and cash equivalents as at December 31, 2020 amounted to THB 8,088 million, an increase of THB 5,673 million or 235%. The details of the inflows and outflow are as follows:

- Net cash used in operating activities totaled THB 2,247 million.
- Net cash receipt from investing activities totaled THB 3,442 million, mainly from sales of financial instruments of THB 3,497 million, investment income and dividend income of THB 176 million, investment in new assets amounted to THB 257 million.
- Net cash used in financing activities totaled THB 14 million, mainly from the payment of lease liability. The SET Group had applied a new lease accounting policy in accordance with the Thai Financial Reporting Standard.

## 4. Reserve and contribution to the Capital Market Development Fund ("CMDF")

The Securities and Exchange Act (No. 6), announced on April 16, 2019, requires the Stock Exchange of Thailand (SET) contribute 90% of the revenue after deduction of expense, tax and reserve. In this regard, the consolidated financial statements of SET shall be used to calculate the contribution amount. The provision of reserves shall be in accordance with the type and amount prescribed by the board of governor of SET. Details are as follows:

# Reserve

Type, allocation principles and reserve amount presented as follows:

| Type of reserve            | Reserve allocation principles to ensure        | Reserve amount |
|----------------------------|--|----------------|
|                            | adequacy of funding sources                    | (Million Baht) |
| 1. Reserves set aside      | 1.1 Legal reserve                              | 24             |
| according to law or        | 1.2 Reserves according to business             | (37)           |
| criteria in business       | operation such as EMIR (European Market        |                |
| operation specified,       | Infrastructure Regulation), PFMI (Principles   |                |
| including reserve amount   | for financial Market Infrastructures) to meet  |                |
| to accommodate special     | an increase (decrease) of business             |                |
| situations                 | operation during the year                      |                |
|                            | 1.3 Reserves allocated for specific funds      | 261            |
|                            | such as approval of additional capital in      |                |
|                            | specific funds during the year, benefit        |                |
|                            | sharing of SIPF, DIPF, CLF or other            |                |
|                            | similar funds                                  |                |
|                            | 1.4 Reserves allocated for accommodating       | 424            |
|                            | operations risks and emergency                 |                |
|                            | measures                                       |                |
| 2. Reserves set aside to   | According to unrealized gain/(loss) during the | (180)          |
| accommodate the            | year   |                |
| fluctuation of investments |  |                |
| 3. Reserves set aside for  | According to the investment amount in          | 822            |
| investment in business or  | businesses and fixed assets approved by the    |                |
| fixed assets               | Board of Governors                             |                |
|                            | Total reserves                                 | 1,314          |

# Contribution to CMDF

Annual contribution for 2020 calculated as follows:

|   | (Million Baht) |
|---|----------------|
| Revenue after deduction of expense (presented in the statement of | 2,094          |
| comprehensive revenues and expenses)                              |                |
| <u>Less</u> Income tax expense                                    | (378)          |
| Revenue after deduction of expense and tax before reserves        | 1,716          |
| <u>Less</u> Reserves  | (1,314)        |
| Revenue after deduction of expense, tax and reserves              | 402            |
| Annual contribution amount at rate 90%                            | 362            |

Accumulated contribution expenses to CMDF according to the financial statements as of December 31, 2020 can be presented as follows.

|   | (Million Baht) |
|---|----------------|
| Money transferred to CMDF in 2019       | 5,700          |
| Annual contribution amount for 2020     | 362            |
| Total accumulated contribution expenses | 6,062          |