

SET...

Make it **Work**
for **Everyone**



Vision

The capital market is an integral tool for economic growth, and should not be privileged to only some.

Hence we work hard to ensure the capital market benefits all stakeholders both directly and indirectly.

We believe that good business growth will lead to national strength and this in turn leads to the betterment of society.

This is what we envision and are committed to.

To Make the Capital Market “Work” for Everyone



Mission

- To “plant” state-of-the-art financial
Platform Development
that is both innovative and accessible
to our customers locally, regionally and globally
- To innovatively “grow”
Product Development
that is not only caters to market
needs but also resonates the
sustainable growth
- To “foster” **People Development**
to ensure that our people will be best
equipped with business competencies
and professional integrity
- To “implant” an
Inclusive Growth Approach
that will enable us to perform as the best
business partners and social supporters
- To continuously “cultivate” ourselves
and our stakeholders by investing in
Knowledge Management creating,
sharing and generating knowledge
as part of an intangible asset



Content

2 Vision & Mission	6 Message from the Chairman	8 Message from the President
10 Board of Governors	16 Organization Chart	18 SET Executives
24 SET Market Movement 2018	26 SET Group Financial Highlights	27 Thai Bourse's 2018 Performance
34 Business Operation of the SET Group	40 Major Developments in 2018	50 The SET Group's Strategic Plan for 2019 - 2021
53 Corporate Governance Report	81 Audit Committee Report	83 Nomination and Remuneration Committee Report

84

Risk Management
Committee Report

86

Corporate Governance
and Social Responsibility
Committee Report

88

Enterprise Risk
Management

94

Management
Discussion and Analysis

101

Report of the Board of
Governors Relating
to Responsibility for
Financial Reporting

102

Report of
the Independent
Certified Public
Accountants

106

Statements of
Financial Position

108

Statement of
Comprehensive
Revenues and Expenses

111

Statement of Changes
in Fund Balances

112

Statements of
Cash Flows

114

Notes to the Consolidated
and Separate Financial
Statements


186

Shareholding
Structure

187

Subsidiaries

Message from the Chairman



“Moving forward with our missions to benefit all sectors, enhancing efficiency, and strengthening the industry and all stakeholders”

In 2018, The Stock Exchange of Thailand kept moving forward on developing the Thai capital market to benefit all sectors of the economy, the society, and the country, being a key mechanism to propel the country's economy towards sustainable growth in line with the vision "To Make the Capital Market 'Work' for Everyone."

In the rapidly changing environment where technology plays significant role in every industry and in people's lifestyle, the capital market landscape has been transforming into new context. To grow continuously and sustainably, SET sets high priority on keeping the capital market in a right direction, increasing efficiencies, and enhancing competitiveness.

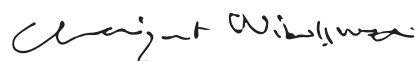
Innovation has become a competitive edge for companies. For SET, we believe that success starts from cultivating innovation mindset in the organization. We internally started an innovation journey with "SET Innovation Awards" project, a campaign to encourage employees to show their innovative ideas for performance improvement. The campaign later has been expanded across the capital market through the "Capital Market Innovation Awards 2018", marking the start of the momentum to motivate more innovations and creativity in the industry. The event has been well-received with 60 qualified submissions from the representatives in capital market sector, universities, FinTechs and the general public.

Recognizing the importance of startups and SMEs as the foundation of economic development, SET is determined to promote startup ecosystem, by sharing knowledge on innovative entrepreneurship and how to operate startup

businesses among entrepreneurs interested in investing in startups as well as students nationwide. In addition, SET coordinates with our alliances to educate vocational teachers about business startups so they can transfer the knowledge to their students, while working with government agencies to support entrepreneurs in accessing sources of funding.

As for the three-year strategic direction, SET is committed to moving forward with the mission to enhance operational efficiency to boost "Efficiency" of Thai capital market and to expand the role of being an "Enabler" to support the industry and stakeholders' competitiveness. The integrated efforts will be geared up for SET to continuously and strongly support the capital market.

On behalf of The Stock Exchange of Thailand, I would like to express special thanks to our stakeholders, as well as the social sector, investors, the public, including the SET management and employees in being the coalition force behind the growth, stability and strength of the Thai capital market. The synergy of all groups will propel and enhance the economy and society in accordance with the vision "To Make the Capital Market 'Work' for Everyone."



Dr. Chaiyawat Wibulswasdi

Chairman

Message from the President



“SET promotes partnership among all stakeholders, while developing the capital market infrastructure to enhance potential in the digital age.”

For the Thai capital market, 2018 was another year full of challenges and opportunities. Amidst external pitfalls affecting the investment climate, SET managed to perform in both quality and quantity through a diverse and balanced investor base, the strength of our listed companies, and the capital market player's competitiveness, creating synergy for all stakeholders.

On the market liquidity aspect, the Thai capital market has been ranking number one in the region since 2012 with average daily trading value of THB 57.67 billion (approx. USD 1.80 billion) in 2018. Moreover, the number of Thai listed companies being selected for inclusion in the MSCI Standard Index has continued to be the highest in ASEAN. To-date, 35 Thai listed companies have been listed in the MSCI Standard Index. Connecting foreign market and broadening investment opportunities have also put in place for investors interested in portfolio diversification overseas. In 2018, SET launched the first Depositary Receipt (DR) in Thailand, with an underlying asset as an Exchange-Traded Fund (ETF) that invests in VN30 index, which tracks performance of the top 30 large-cap Vietnamese stocks.

Strength and business diversity are key components of Thailand's listed companies that are registering consistently upbeat performance with high growth potential—particularly businesses relating to tourism, medical services, food, infrastructure, and logistics, which are key contributors of the Thai economic growth and well-being for the Thai people.

To respond to disruptive technology, SET has enhanced the existing infrastructure that is the backbone of the current capital market ecosystem by digitizing processes to better serve listed companies, intermediaries, and investors and

cope with continuous change in the business landscape. Thus, the digital infrastructure has continuously been developed to enhance identification verification by connecting the capital market with the National Digital ID system to make it convenient for customers and to strengthen competitiveness of the Thai capital market. Furthermore, SET is expanding the business scope to drive future growth by developing a digital asset platform.

SET's successes and developments serve as important foundations that propel the robust growth of the Thai capital market industry. Our strengths are based on the collaboration of the SET management, employees, and stakeholders. In years to come, SET will focus more on working with both public and private partners along the “Creating Partnership Platform to Drive Inclusive Growth” strategic direction.

All these mechanisms, when geared up with the continued implementation of the United Nations Sustainable Development Goals (SDGs), we believe that the Thai capital market will continue to grow sustainably together in accordance with the SET vision to inclusively benefit all sectors of the society: locally and internationally.



Dr. Pakorn Peetathawatchai
President

Board of Governors



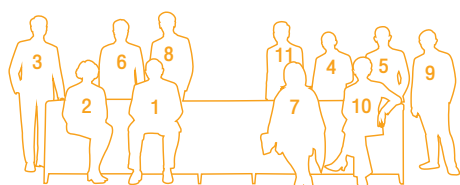
1 Dr. Chaipayat Wibulswasdi
Chairman

2 Pattera Dilokrunthirapop
Vice Chairman

3 Charamporn Jotikasthira
Governor

4 Chaipatr Srivisarvacha
Governor

5 Norachet Sangruji
Governor





6 Prinn Panitchpakdi
Governor

9 Dr. Anuchit Anuchitanukul
Governor

7 Voravan Tarapoom
Governor

10 Oranuch Apisaksirikul
Governor

8 Dr. Seree Nonthasoot
Governor

11 Dr. Pakorn Peetathawatchai
President

Board of Governors

Dr. Chaipayat Wibulswasdi

Chairman

Education

- Ph.D., Massachusetts Institute of Technology, USA
- B.A., Williams College, USA

Executive Education

- National Defence Course for the Joint State Private Sector, The National Defence College of Thailand
- Certificates: 1. Director Certification Program; and 2. Director Accreditation Program, Thai Institute of Directors Association
- Certificate, Capital Market Academy Leadership Program, The Stock Exchange of Thailand

Other current positions

- | | |
|------------|---|
| Since 2016 | Independent Director and Chairman of the Audit Committee, Charoen Pokphand Foods Public Company Limited |
| Since 2015 | Chairman, Thailand Futures Exchange Public Company Limited |
| Since 2015 | Advisor to Deputy Prime Minister on Economy |
| Since 2015 | Member, Puey Ungphakorn Institute for Economic Research |
| Since 2013 | Independent Director and Member of the Audit Committee, Siam Makro Public Company Limited |

Past experience

- | | |
|-----------|--|
| 2013-2015 | Chairman, Executive Board, Corporate Social Responsibility Institute (CSRI) |
| 2007-2008 | Vice Chairman, The Securities and Exchange Commission, Thailand |
| 2004-2010 | Chairman of the Board of Executive Directors, Krung Thai Bank Public Company Limited |
| 2001-2006 | Advisor to Deputy Prime Minister and Minister of Finance |
| 1997-1998 | Governor, Bank of Thailand (Worked at Bank of Thailand for 25 years.) |
| 1996 | Deputy Finance Minister and Acting Finance Minister |

Pattera Dilokrunthirapop

Vice Chairman

Education

- Master Degree of Engineering Science, University of Queensland, Brisbane, Australia
- Bachelor Degree of Engineering, Monash University, Melbourne, Australia

Executive Education

- Certificates: 1. Director Certification Program; 2. Director Accreditation Program; 3. The Role of The Chairman Program; 4. Role of the Compensation Committee, and 5. Corporate Governance for Capital Market Intermediaries, Thai Institute of Directors Association
- Certificate, Capital Market Academy Leadership Program, The Stock Exchange of Thailand

Other current positions

- | | |
|------------|---|
| Since 2018 | Member, Audit Committee, The Stock Exchange of Thailand |
| Since 2017 | Chairman, Nomination and Remuneration Committee, The Stock Exchange of Thailand |
| Since 2017 | Director, The Thai Bond Market Association |
| Since 2015 | Director, TSFC Securities Public Company Limited |
| Since 2010 | Director, Thailand Futures Exchange Public Company Limited |
| Since 2010 | Chairperson, Association of Securities Companies (ASCO) |
| Since 2010 | Vice Chairman, Federation of Thailand Capital Market |
| Since 2001 | Chief Executive Officer, DBS Vickers Securities (Thailand) Co., Ltd. |

Past experience

- | | |
|-----------|---|
| 2016-2018 | Chairman, Disciplinary Committee, The Stock Exchange of Thailand |
| 2016-2018 | Chairman, Risk Management Committee, The Stock Exchange of Thailand |
| 2015-2018 | Chairman, Disciplinary Sub-Committee, Thailand Clearing House Co., Ltd.; and Member, Disciplinary Sub-committee, Thailand Futures Exchange Public Company Limited |
| 2014-2015 | Chairman, Nomination and Corporate Governance Committee, The Stock Exchange of Thailand |
| 2013-2015 | Director, TRIS Rating Co., Ltd. and TRIS Corporation Limited |
| 2011-2015 | Vice Chairman, The Stock Exchange of Thailand |
| 2007-2011 | Director, Securities Analysts Association |
| 2005-2008 | Director, Thailand Securities Depository Co., Ltd. |
| 2005-2008 | Director, Settrade.com Co., Ltd. |
| 1998-2001 | Managing Director, SG Asia Credit Securities Co., Ltd. |
| 1998-2001 | Director, Asia Credit Finance Public Company Limited |

Dr. Anuchit Anuchitanukul

Governor

Education

- Ph.D. (Computer Science), Stanford University, USA
- MSCS (Computer Science), Stanford University, USA
- MBA, Chulalongkorn University
- B.Eng (1st Class Hons), Chulalongkorn University

Executive Education

- Strategy and Innovation for Business in Asia (SIBA), College of Management Mahidol University
- Certificate, Top Executive Program in Commerce and Trade (TEPCoT), University of the Thai Chamber of Commerce
- Certificate, Director Certification Program, Thai Institute of Directors Association
- Advanced Insurance Institute Program, Office of Insurance Commission
- Executive Development Program, Thai Listed Companies Association

Other current positions

- | | |
|------------|---|
| Since 2018 | Committee For The Protection Of Credit Information |
| Since 2018 | Audit Committee, The Stock Exchange of Thailand |
| Since 2018 | Board of Directors, Bangchak Corporation Public Company Limited |
| Since 2017 | Public Private Partnership (PPP) Policy Committee |
| Since 2017 | National Digital ID Committee |
| Since 2016 | National e-Payment Committee |
| Since 2015 | Board of Directors, Aksorn Education Public Company Limited |
| Since 2013 | First Executive Vice President, Kiatnakin Bank Public Company Limited |

Past experience

- | | |
|------|---|
| 2007 | Board of Directors, Krung Thai Computer Services Co., Ltd. |
| 2007 | Board of Directors, KTB Securities Co., Ltd. |
| 2009 | Board of Directors, Krung Thai Panich Insurance Co., Ltd. |
| 2009 | Board of Directors, National ITMX Co., Ltd. |
| 2010 | Senior Executive Vice President & Managing Director, Krung Thai Bank Public Company Limited |

Chaipatr Srivisarvacha

Governor

Education

- MBA (Finance), Illinois Benedictine College, USA
- Bachelor of Science (Metallurgy), Lehigh University, USA
- Geelong Grammar School, Australia

Executive Education

- Certificates: 1. Advanced Audit Committee Program; 2. Directors Certification Program; 3. The Role of The Chairman Program; and 4. Corporate Governance for Capital Market Intermediaries, Thai Institute of Directors Association
- Certificates: 1. CMA-GMS, Capital Market Academy Executive Education; and 2. Capital Market Academy Leadership Program, The Stock Exchange of Thailand

Other current positions

Since 2018	Chairman, Audit Committee, The Stock Exchange of Thailand
Since 2016	Director, TSFC Securities Public Company Limited
Since 2015	Chairman of the Board of Directors, Thai Foods Group Public Company Limited
Since 2015	Member, Nomination and Remuneration Committee, The Stock Exchange of Thailand
Since 2011	Independent Director, Precious Shipping Public Company Limited
Since 2009	Chief Executive Officer, KT ZMICO Securities Co., Ltd.
Since 2007	Chief Executive Officer, Seamico Securities Public Company Limited

Past experience

2013	Chairman, Securities Investor Protection Fund Committee, The Stock Exchange of Thailand
2012-2013	Director, Thailand Futures Exchange Public Company Limited
2010-2011	Board of Director and Chairman of the Audit Committee, Dhanarak Asset Development Co., Ltd.
2003-2008	President of the Board, New International School of Thailand (NIST-affiliated with the United Nations)
2001-2007	Independent Director, Audit Committee, Thanachart Bank Public Company Limited
1999	Director & Executive Director, Krungthai Bank Public Company Limited
1995-1999	Director, Head of Thailand Investment Banking, Salomon Smith Barney
1991-1995	Director, Head of Thailand Investment Banking, Swiss Bank/ SBC Warburg

Charamporn Jotikasthira

Governor

Education

- MBA, Harvard University, USA
- BS (Electrical Engineering and Computer Science), Massachusetts Institute of Technology, USA

Executive Education

- National Defence Course for the Joint State Private Sector, The National Defence College of Thailand
- Certificate, The Executive Program of Energy Literacy for a Sustainable Future, Thailand Energy Academy
- Certificate, Director Certification Program, Thai Institute of Directors Association
- Certificate, Capital Market Academy Leadership Program, The Stock Exchange of Thailand

Other current positions

Since 2017	Executive Director, Bangkok Bank Public Company Limited
Since 2017	Independent Director, Minor International Public Company Limited
Since 2017	Independent Director, Singha Estate Public Company Limited
Since 2017	Member of the Chulabhorn Royal Academy Council
Since 2017	Director, The National Strategic Committee
Since 2017	Director, The Thai Silk Company (Jim Thompson)
Since 2017	Director, Thai Institute of Directors Association

Past experience

2014	President, Thai Airways International Public Company Limited
2011-2014	Chairman, Electronic Transactions Development Agency (Public Organization)
2011-2014	The Financial Institutions Policy Committee (FIPC), Bank of Thailand
2010-2014	President, The Stock Exchange of Thailand
2008-2010	Chief Information Officer, Siam Commercial Bank Public Company Limited

Norachet Sangruji

Governor

Education

- MBA in Finance & Marketing, Syracuse University, USA
- MS in Electrical Engineering (Telecommunication), Syracuse University, USA
- BSc in Electrical Engineering, Chulalongkorn University

Executive Education

- Certificates: 1. Directors Accreditation Program; and 2. Corporate Governance for Capital Market Intermediaries, Thai Institute of Directors Association
- Advanced Certificate Course in Politics and Governance in Democratic Systems for Executives, King Prajadhipok's Institute
- Certificate, Capital Market Academy Leadership Program, The Stock Exchange of Thailand

Other current positions

Since 2018	Member, Risk Management Committee, The Stock Exchange of Thailand
Since 2018	Member, Corporate Governance and Social Responsibilities Committee, The Stock Exchange of Thailand
Since 2018	Chairman of the Advisory Board, Association of Securities Companies / Investment Banking Club
Since 2017	Director, Association of Thai Securities Companies
Since 2013	Director, Phatra Capital Public Company Limited
Since 2004	Director, Phatra Securities Public Company Limited

Past experience

2015-2018	First Executive Vice President and Head of Corporate Banking Group, Kiatnakin Bank Public Company Limited
2009-2018	Chairman of Investment Banking Club, Association of Securities Companies/ Investment Banking Club
2007-2012	Executive Director, Phatra Securities Public Company Limited
2005-2007	Managing Director/ Head of Investment Banking, Phatra Securities Public Company Limited
2004-2005	Managing Director, Phatra Securities Public Company Limited

Oranuch Apisaksirikul

Governor

Education

- Honorary of Doctor of Philosophy in Business Administration, Western University, Bangkok
- MBA (Finance), Thammasat University, Bangkok
- LLB (Laws), Thammasat University, Bangkok
- BA (Accounting & Commerce), Thammasat University, Bangkok

Executive Education

- TLCA Leadership Development Program, class 5, Organized by Thai Listed Companies Association and IMD, Switzerland
- Certificate, The Executive Program of Energy Literacy for a Sustainably Future, Thailand Energy Academy
- Certificate, Top Executive Program in Commerce and Trade (TEPCoT), University of the Thai Chamber of Commerce
- Certificates: 1. Anti-Corruption Training Program for Corporate Directors and Executives; 2. Director Certification Program; and 3. Advanced Audit Committee Program, Thai Institute of Directors Association
- Certificate, Capital Market Academy Leadership Program, The Stock Exchange of Thailand

Other current positions

Since 2018	Member, Audit Committee, and Corporate Governance and Social Responsibilities Committee, The Stock Exchange of Thailand
Since 2018	Director and Chairman of the Audit Committee, Amata VN Public Company Limited
Since 2017	Chairwoman, Thai Listed Companies Association
Since 2017	Director, Collective Action Coalition against corruption
Since 2015	Honorable Chairperson of SHIFT Challenge Fund Investment Committee, The United Nations Capital Development Fund: UNCDF (non-profit organization, regional office based in Thailand)
Since 2011	Director, TISCO Foundation
Since 2010	Chairperson of the Executive Board, TISCO Financial Group Public Company Limited and TISCO Bank Public Company Limited

Past experience

2010-2016	Group Chief Executive, TISCO Financial Group Public Company Limited
2014-2018	Chairperson of the Board of Directors and member of the Audit Committee, TISCO Securities Co., Ltd.
2014-2017	Chairperson of the Board of Directors and member of the Audit Committee, TISCO Asset Management Co., Ltd.
2012-2013	Member of Risk Management Sub-Committee, Government Pension Fund
2006-2008	Advisor and Member of Risk Management Committee, Small Industry Credit Guarantee Corporation
2001-2008	Member of Risk Management Sub-Committee, The Stock Exchange of Thailand

Prinn Panitchpakdi

Governor

Education

- Bachelor's degree in economics and Finance, The London School of Economics and Political Science (LSE)

Executive Education

- Certificate, Corporate Governance for Capital Market Intermediaries, Thai Institute of Directors Association
- Certificate, Institute of Business and Industrial Development Director Certification Program
- Certificate, Business Revolution and Innovation Network (BRAIN), The Federation of Thai Industries
- Certificate, Top Executive Program in Commerce and Trade (TEPCoT), University of the Thai Chamber of Commerce
- Certificate, Rule of Law and Development (RoLD) from Thailand Institute of Justice (TIJ)
- Certificate, Leadership Development Programme, NUS Business School, Executive Education from National University of Singapore
- Certificate, Course in Good Governance for Medical Executives, King Prajadhipok's Institute and the Medical Council of Thailand
- Certificates: 1. CMA-GMS 1, Capital Market Academy Executive Education; and 2. Capital Market Academy Leadership Program, The Stock Exchange of Thailand

Other current positions

Since 2018	Member of the National Innovation Board (NIA)
Since 2018	Member, Risk Management Committee, The Stock Exchange of Thailand
Since 2018	Director, Electronic Transactions Development Agency (Public Organization)
Since 2017	Director, New Economy Academy (NEA)
Since 2017	Director, Sinwattana Phoenix Crowdfunding
Since 2017	Director, Foundation for a Clean and Transparent Thailand (FaCT)
Since 2016	Member, Corporate Governance and Social Responsibilities Committee, The Stock Exchange of Thailand
Since 2016	Member, Securities Investor Protection Fund Committee, The Stock Exchange of Thailand
Since 2015	Director, Association of Thai Securities Companies
Since 2012	Country Head, CLSA Securities (Thailand) Limited
Since 2011	Director, Four Seasons Restaurant Co., Ltd.

Past experience

2008	Marketing of Investors, CLSA Co., Ltd., at Headquarters in Hong Kong
2007	Head of Marketing Institutional Investors, CLSA Securities (Thailand) Limited
2005	Vice President, TISCO Bank Public Company Limited
2001-2005	Vice Chairman, ASEAN-UK Business Forum
1999	Investment Banking, ABN AMRO, London, The United Kingdom

Dr. Seree Nonthasoot

Governor

Education

- Doctor of Philosophy, University of Oxford, England, United Kingdom
- Master of Philosophy, University of Oxford, England, United Kingdom
- Magister Juris (European And Comparative Law), University of Oxford (Chevening Scholarship)
- LL.M. (International Law), Columbia University School of Law, (Fulbright Scholarship), USA
- Barrister-At-Law, Bar Association of Thailand
- LL.B., Thammasat University, Bangkok, Thailand

Executive Education

- Certificate Programme in Good Governance for Medical Executives, King Prajadhipok Institute
- Ministry of Foreign Affairs, Civil Servant Commission, Sasin Management Institute
- Certificate: Directors Certification Program, Thai Institute of Directors Association
- Certificates: 1. Infrastructure in a Market Economy: Public-Private Partnerships in a Changing World; and 2. The Practice of Trade Policy: Economics, Negotiations, and Rules, Harvard Kennedy School of Government, Cambridge, Massachusetts, USA
- Asia-Europe Programme, Institut D'etudes Politiques (Sciences Po)
- Certificates: 1. CMA-GMS 1, Capital Market Academy Executive Education; and 2. Capital Market Academy Leadership Program, The Stock Exchange of Thailand

Other current positions

2019	Chairman, Legal Committee, The Stock Exchange of Thailand
Since 2018	Chairman, Securities Investor Protection Fund Committee, The Stock Exchange of Thailand
Since 2018	Member, Derivatives Investor Protection Fund Committee, Thailand Futures Exchange Public Company Limited
Since 2018	Director, Thailand Post Co., Ltd.
Since 2018	Board Member and Member of Corporate Governance Committee, Government Pension Fund
Since 2016	Member, Law Reform Committee (set up by the Prime Minister)
Since 2015	Director and Chairman of Audit Committee, Small and Medium Enterprise Development Bank of Thailand (SME Bank)
Since 2012	Director and Chairman of Audit Committee, KTB Law Co., Ltd.
Since 2012	Senior Executive Vice President, Institute of Research and Development for Public Enterprises

Past experience

2015-2018	Director, KTB Computer Services Co., Ltd.
2013-2018	The Representative of Thailand to the ASEAN Intergovernmental Commission on Human Rights (AICHR)
2012-2014	Director, General Hospital Products Public Company Limited (GHP)
2011-2013	Expert member in the Occupational Safety and Health Committee, Ministry of Labour
2010-2012	Legal Counsel, Treasury Department, Ministry of Finance
2008-2012	Legal Counsel, Food and Drug Administration
2005-2007	Member, Law Reform Committee, Chairing the Sub-Committee on Integration of Public Agency Works (set up by the Prime Minister)
	Legal Advisor, Office of the Council of State
2003-2012	Legal Counsel, State Enterprise Policy Office, Ministry of Finance (Drafted the bills on public, private partnerships and state enterprise reform.)
1995-2000	Advised the government and public agencies on privatization and corporatization

Voravan Tarapoom

Governor

Education

- MBA, University of North Texas, Denton, Texas, USA
- Bachelor of Architecture, Silpakorn University

Executive Education

- Certificates: 1. Corporate Governance for Capital Market Intermediaries; 2. Role of the Compensation Committee; 3. Director Certification Program; 4. Audit Committee Program; 5. Role of the Chairman Program; and 6. Risk Management Committee Program, Thai Institute of Directors Association
- Certificate, Capital Market Academy Leadership Program, The Stock Exchange of Thailand

Other current positions

2019	Advisor, Tax Research and Development Foundation
2019	Vice Chairman, An Nimmanahaeminda Foundation
Since 2018	Chairman, Risk Management Committee, The Stock Exchange of Thailand
Since 2018	Honorary Chairman, Association of Investment Management Companies
Since 2017	Chairman of Executive Board and Director, BBL Asset Management Co., Ltd.
Since 2016	Member, Nomination and Remuneration Committee, The Stock Exchange of Thailand
Since 2013	Director, Bangkok Mass Transit System Public Company Limited

Past experience

2014-2018	Chairman, Federation of Thai Capital Market Organizations
2010-2016	Chief Executive Officer, BBL Asset Management Co., Ltd.
2002-2009	Managing Director, BBL Asset Management Co., Ltd.
2000-2002	Deputy Managing Director, MFC Asset Management Public Company Limited
1995-1999	Managing Director, Thai Asia Asset Management Co., Ltd. (currently UOB Asset Management Co., Ltd.)
1992-1994	Senior Vice President, Thana One Finance & Securities Co., Ltd.
1985-1992	Vice President, Bank of Asia Public Company Limited
1982-1985	Account Executive, Datamat Co., Ltd.

Dr. Pakorn Peetathawatchai

President

Education

- Doctoral of Business Administration in Finance and Economics, Boston University, USA
- Master of Business Administration, Finance Major, University of Wisconsin, USA
- Bachelor of Engineering in Electronics, King Mongkut's Institute of Technology Ladkrabang

Executive Education

- Columbia Senior Executive Program, Columbia University, USA
- Certificate, Director Certification Program, Thai Institute of Directors Association
- Certificate, Thailand Energy Academy Leadership Program
- Certificate, Capital Market Academy Leadership Program, The Stock Exchange of Thailand

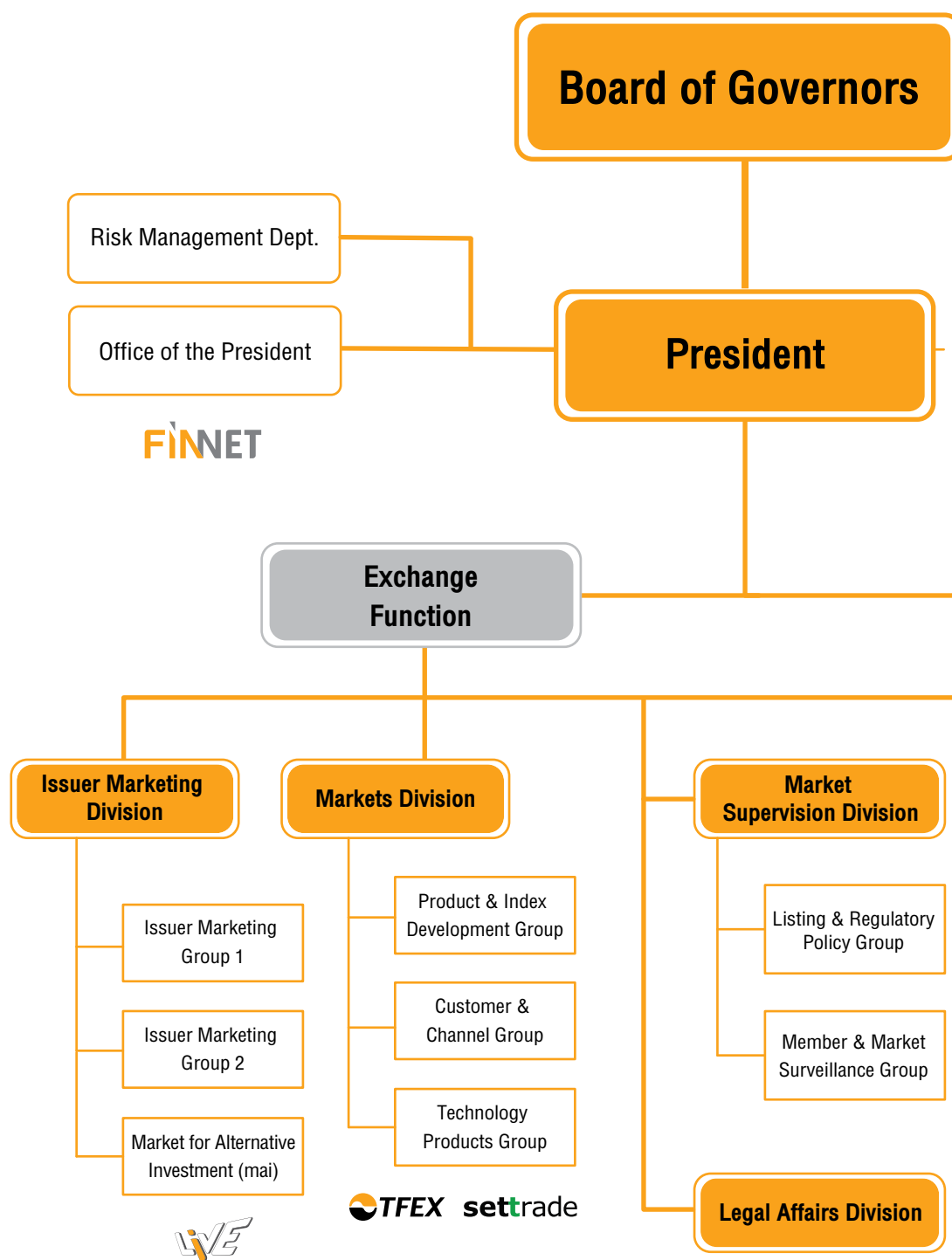
Other current positions

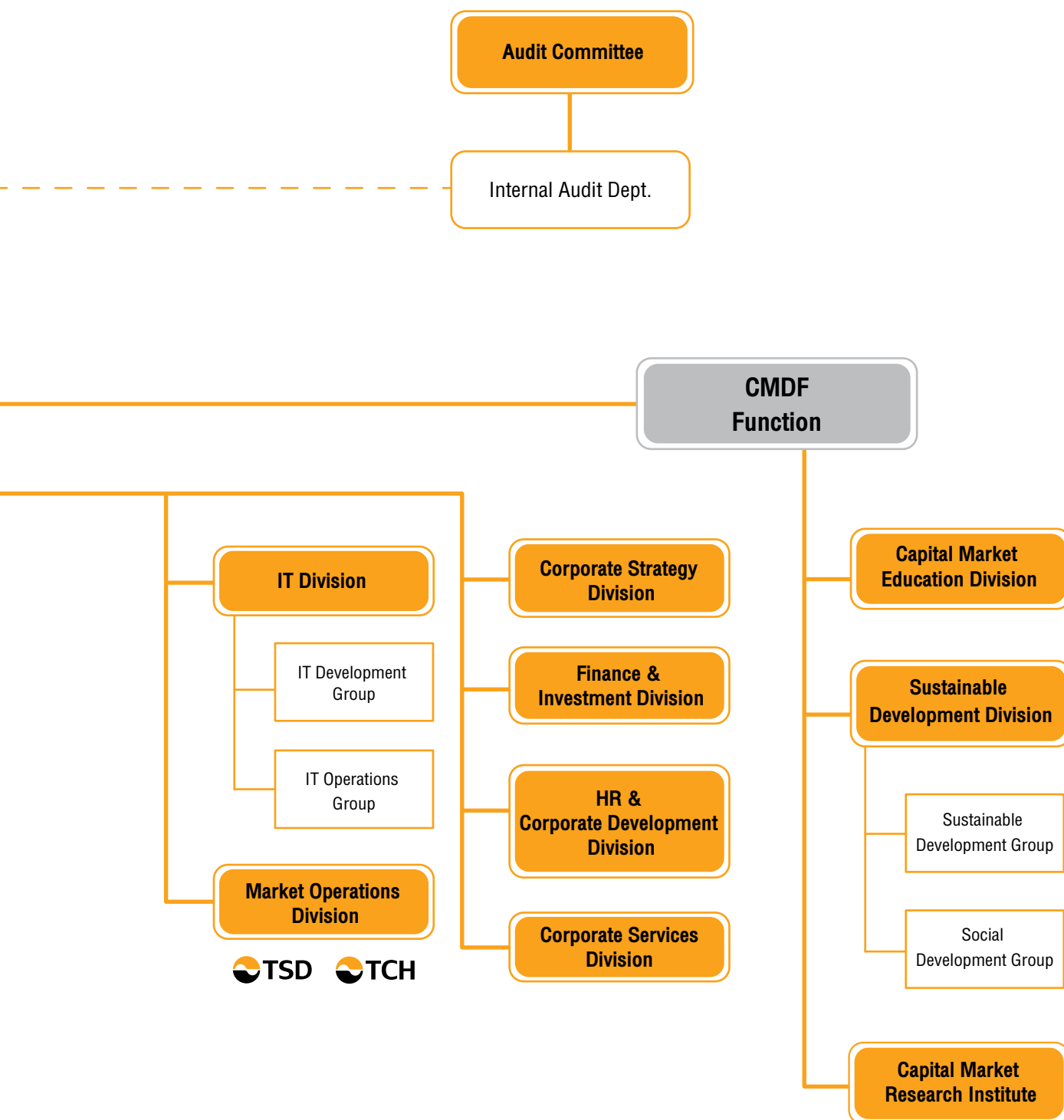
Since 2018	Vice Chairman of the Emerging Markets Working Group and Director of World of Federation of Exchanges
Since 2018	Member and Secretariat, Capital Market Development Committee
Since 2018	Secretariat, Sub-committee of Capital Market Development Plan, Ministry of Finance
Since 2018	Member, Corporate Bond Market Development Subcommittee, The Thai Bond Market Association
Since 2018	Vice Chairman, Thailand Futures Exchange Public Company Limited
Since 2018	Chairman, Thailand Clearing House Co., Ltd.
Since 2018	Chairman, Thailand Securities Depository Co., Ltd.
Since 2018	Chairman, Settrade.com Co., Ltd.
Since 2018	Chairman, Thai NVDR Co., Ltd.
Since 2018	Chairman, Finnet Innovation Network Co., Ltd.
Since 2018	Chairman, LIVE Fin Corp Co. Ltd.

Past experience

2017-2018	Director, Chairman of The Risk Management Committee and Chairman of The Nomination, Compensation and Corporate Governance Subcommittee, Secondary Mortgage Corporation
2014-2018	Director and Chairman of Business Supervisory Committee, TSFC Securities Public Company Limited
2013-2017	Senior Executive Vice President, Head of Corporate Strategy Division and Head of Finance & Investment Division, The Stock Exchange of Thailand
2010-2012	Senior Executive Vice President, Chief Marketing Officer, The Stock Exchange of Thailand
2010-2012	Advisor to Investment Committee, Government Pension Fund
2010	Senior Executive Vice President, Finance, Mitr Phol Sugar Corporation Limited
2008-2012	Member of Capital Market Development Sub-Committee, Ministry of Finance
2006-2017	Member of Asian Bond Fund-Thailand Monitoring Committee, Bank of Thailand
2006-2009	Executive Vice President, Group Head, Treasury Group, Siam Commercial Bank Public Company Limited
2006-2008	President of ACI Thailand, a chapter of the global association of wholesale financial market professionals
2005-2009	Director and Chairman of the Investment Committee, Siam Commercial New York Life Insurance Public Company Limited
2005-2009	Director, Thai Bond Market Association

Organization Chart





SET Executives



Thirapun Sanpakit
Senior Executive
Vice President,
Head of Information
Technology Division

Aphisak Kiewkarnkha
Senior Executive
Vice President,
Head of Finance &
Investment Division

Dr. Rinjai Chakornpipat
Senior Executive
Vice President,
Head of Markets Division
and Managing Director-
Thailand Futures Exchange
Public Company Limited

Dr. Soraphol Tulayasathien
Senior Executive
Vice President,
Head of Corporate Strategy
Division



Dr. Pakorn Peetathawatchai
President

Manpong Senanarong
Senior Executive
Vice President,
Head of Issuer Marketing
Division

Dr. Krisada Sektrakul
Senior Executive
Vice President,
Head of Capital Market
Education Division
and Head of
Sustainable
Development Division

Pataravasee Suvarnsorn
Senior Executive
Vice President,
Head of Market Operations
Division and Managing
Director-Thailand Clearing
House Co., Ltd.

SET Executives



- 1 **Chirathep Senivongs**
Executive Vice President, Corporate Strategy Division
- 2 **Duangrat Samudavanija**
Executive Vice President
Head of Listing & Regulatory Policy Group
- 3 **Kirati Kosicharoen**
Executive Vice President, Head of Technology Products
Group and Head of Customer & Channel Group

- 4 **Kitti Sutthiatthasil**
Executive Vice President, Head of Office of the President
and Managing Director-Finnet Innovation Network
Co., Ltd.
- 5 **Paveena Sriphothong**
Executive Vice President, Head of Market Supervision Division
- 6 **Paythai Petcharat**
Executive Vice President, Special Projects Manager
Office of the President
- 7 **Prapan Charoenprawatt**
Executive Vice President and President-Market for
Alternative Investment (mai)
- 8 **Rungtip Charoenvisuthiwong**
Executive Vice President, Head of Issuer Marketing Group 2





9 Amnouy Jiramahapoka
Executive Vice President, Head of Issuer Marketing Group 1

10 Kingpetch Ngenpoolsub
Executive Vice President,
Head of Member & Market Surveillance Group

11 Noppakao Sucharitakul
Executive Vice President, Head of Social Development Group and Corporate Communications

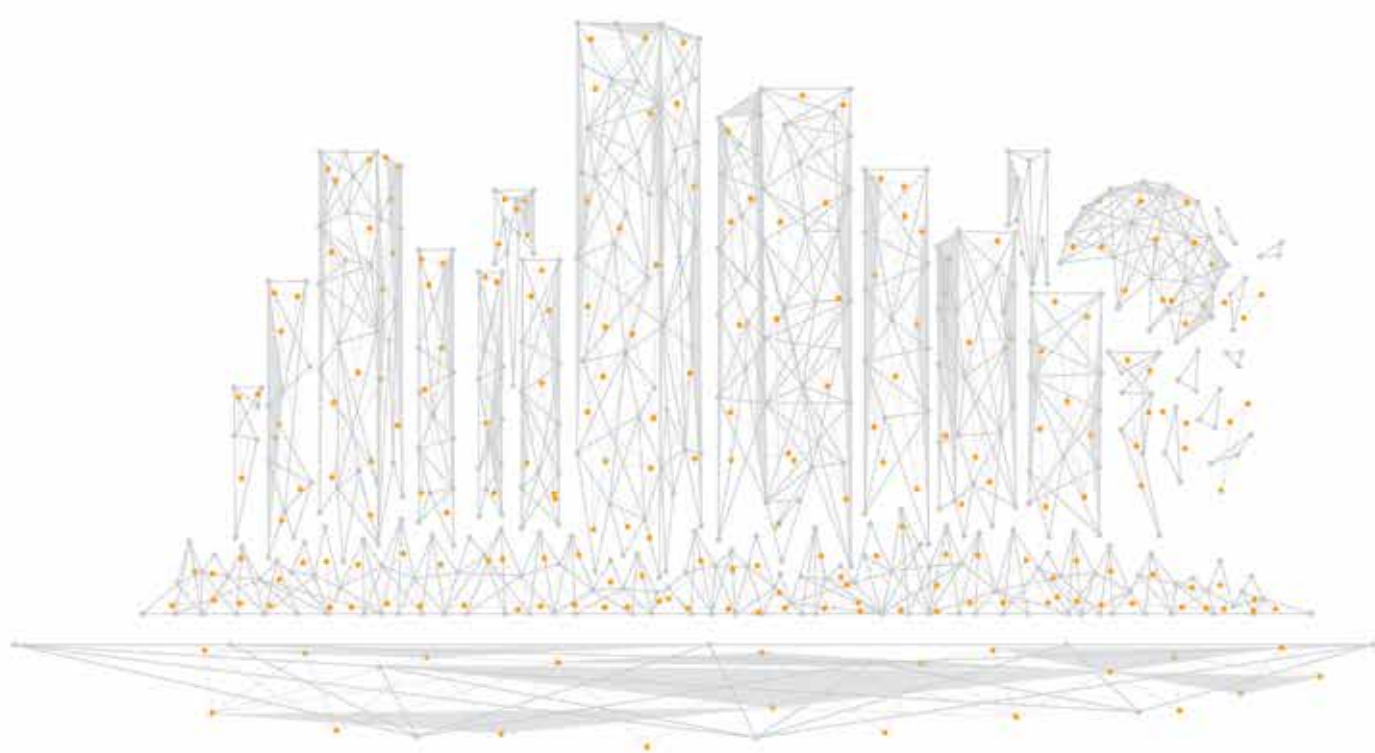
12 Pannavadee Ladavalaya Na Ayudhya
Executive Vice President, Head of Corporate Services Division and Head of Human Resources & Corporate Development Division

13 Piyaporn Krongchan
Executive Vice President, Capital Market Education Division

14 Rongrak Phanapavudhikul
Executive Vice President, Head of Legal Affairs Division

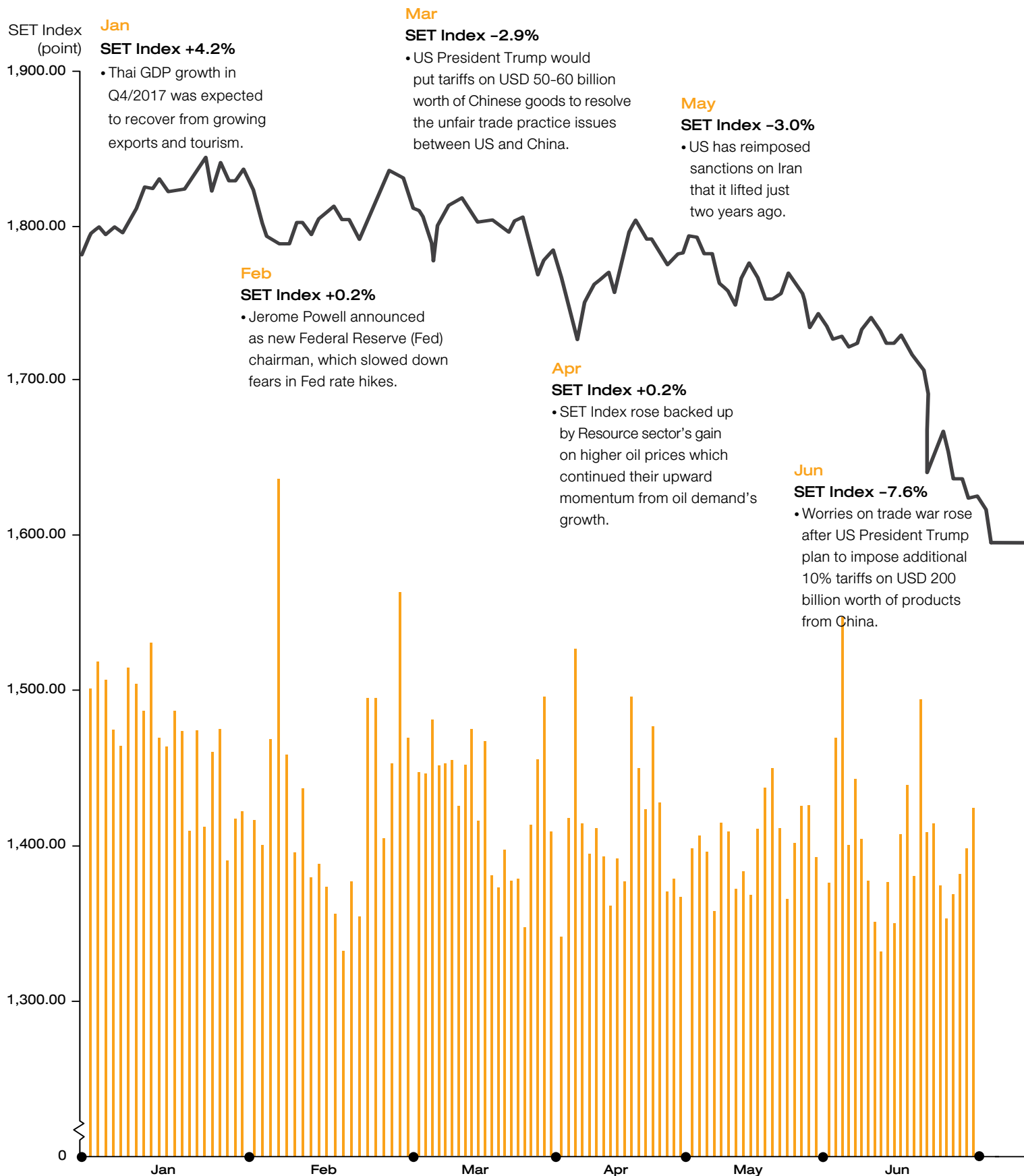
15 Yupawan Sirichainarumitr
Executive Vice President, Market Operations Division and Managing Director-Thailand Securities Depository Co., Ltd.



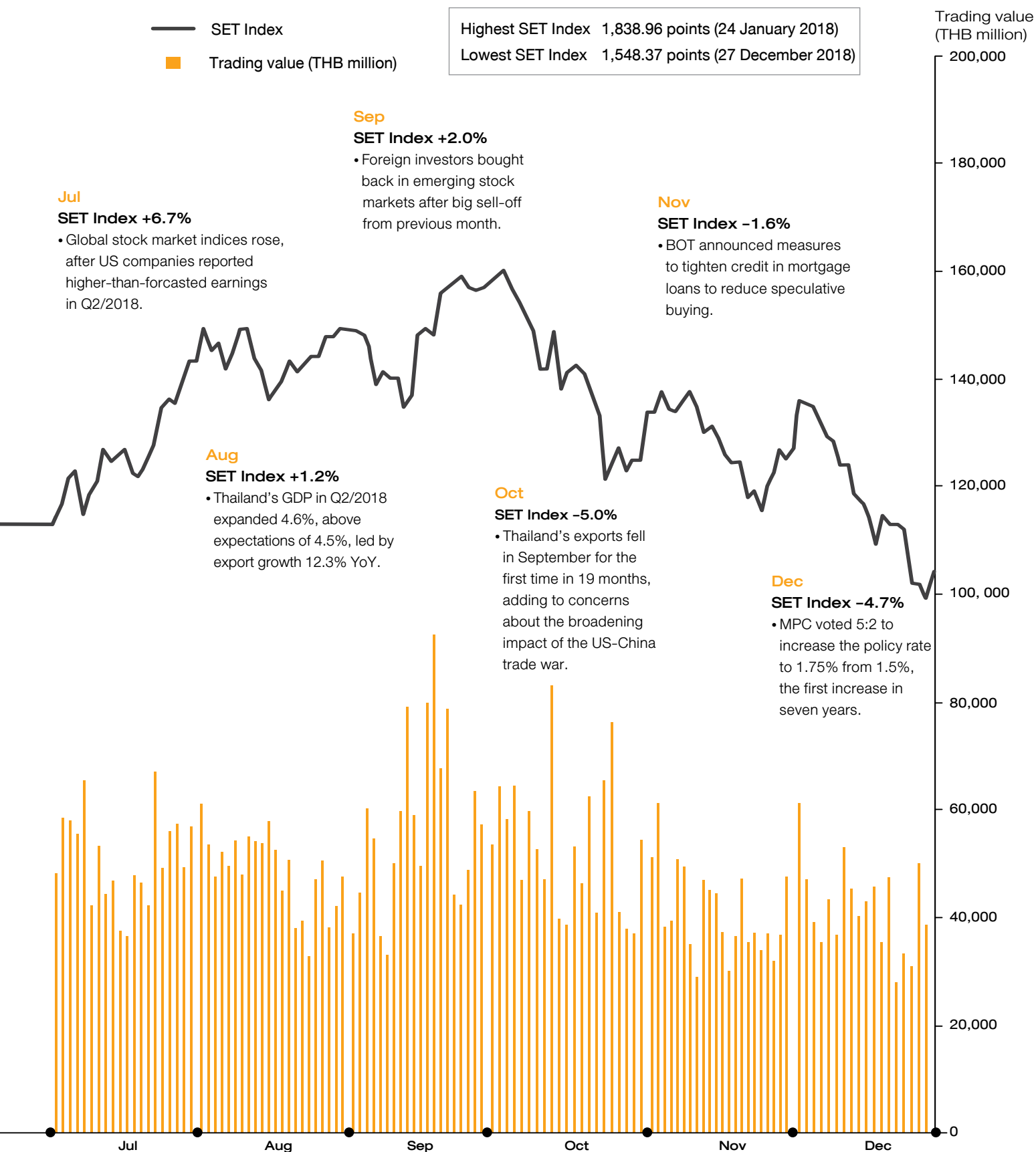


**Make it Work by
Enabling the Country's Growth**

SET Market Movement 2018



note: m-o-m: percentage change compared to previous month



SET Group Financial Highlights

(THB million)

	2018	2017	2016	2015	2014
Consolidated statements of revenues and expenses					
Total revenues	6,578	6,331	6,047	5,215	5,237
Operating revenues	5,722	5,007	5,099	4,518	4,201
Investment income, net	586	1,045	767	492	871
Other income ¹	270	280	181	205	165
Operating expenses	3,978	3,818	3,694	3,335	3,082
Revenues over expenses, net	1,955	1,833	1,759	1,382	1,535
Consolidated statements of cashflows					
Net cash provided by operating activities	2,212	763	1,217	636	1,051
Net cash provided by (used in) investing activities	(2,353)	(217)	(2,157)	(332)	(1,503)
Consolidated statements of financial position					
Total current assets ²	25,251	22,265	21,709	17,324	18,012
Long-term investments	8,838	8,478	8,312	9,263	8,690
Total assets	48,771	45,196	39,539	36,136	34,452
Total current liabilities ²	17,451	15,215	11,947	10,759	10,346
Total liabilities	20,106	17,821	14,141	12,747	12,213
Fund balances	28,665	27,375	25,398	23,389	22,239
Key financial ratios					
Revenue growth (%)	3.90	4.70	15.95	(0.42)	(1.23)
Operating revenue growth (%)	14.28	(1.80)	12.86	7.55	(2.51)
Operating expenses to revenues ratio (%)	69.52	76.25	72.45	73.82	73.36
Net profit margin ³ (%)	29.72	28.95	29.09	26.50	29.31
Return on fund balance (%)	6.82	6.70	6.93	5.91	6.90
Current ratio (Times)	1.45	1.46	1.82	1.61	1.74
Debt to fund ratio (Times)	0.70	0.65	0.56	0.54	0.55
Assets/payables of margin deposits and benefits ²	15,510	13,398	10,160	8,830	8,054

¹ Other income consist of educational activities income, revenues from marketing event, revenues from fees and management funds etc.

² Other current assets and other current liabilities included margin deposits and benefits at the same amount.
(as the guarantee for derivative contracts of the clearing house)

³ Net profit margin calculated by revenues over expenses, net/total revenues

Thai Bourse's 2018 Performance

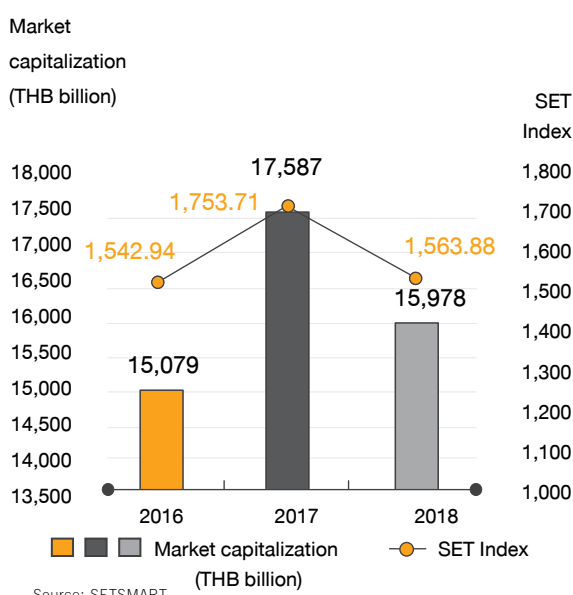
2018 Overview of Exchange Activities

The Thai stock market continues to perform well under high global volatility such as trade war tension between the U.S. and China, contractual monetary policy from major central banks and fluctuation in global oil price. At the end of 2018, SET Index closed at 1,563.88 point, dropped by 10.8 percent, from the end of 2017. The market capitalization of the Stock Exchange of Thailand (SET) and Market of Alternative Investment (mai) decreased to THB 16.22 trillion (USD 500.3 billion), dropped by 9.52 percent from the end of 2017. The average trading value peaked in the second quarter, and then continued to drop in the last quarter of 2018. Foreign investors were the net sellers with the record high at THB 287 billion (USD 8.9 billion), while retail investors and local institutions bought net THB 302 billion (USD 9.3 billion). Although, SET Index closed decreasingly at the end of 2018, its performance was practically the same level as its peers. More importantly, SET index performance was better than other stock indices in MSCI Emerging Market which showed 16.6 percent decreasing YTD. In addition, SET index performed well compare to some developed markets in Asia such as China, South Korea and Hong Kong in

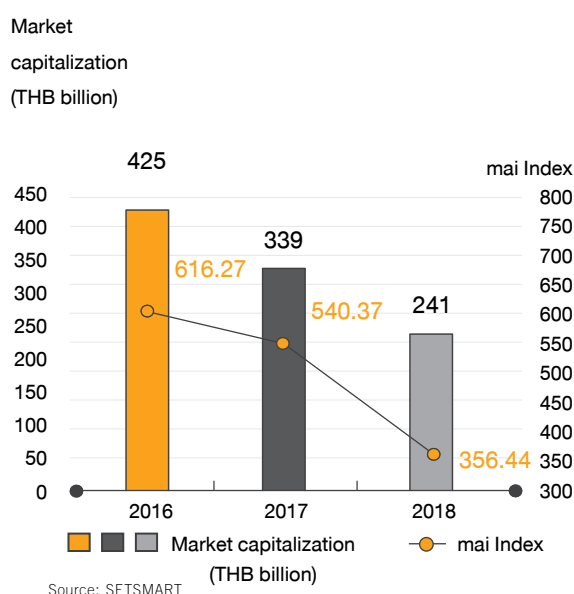
2018, mainly due to financial stability, strong domestic economy and listed firms' profitability. Moreover, after the Thai government announced firm date for general election, the investor's sentiment has been soaring resulting in the raising value of newly listed companies on SET and mai totaled THB 183 billion (USD 5.6 billion) in terms of market capitalization, the highest value in ASEAN-5. Furthermore, the daily trading value of SET and mai averaged at THB 57.67 billion (USD 1.78 billion), up 15 percent highest in ASEAN in terms of trading liquidity since 2012.

Thai listed companies have improved in their quality continuously, and increasingly gained global recognition. 35 Thai listed companies were added to MSCI Standard Index, a leading global index, while 19 Thai listed companies were added to Down Jones Sustainability Index (DJSI). Moreover, the dividend yields and forward P/E ratio of SET and mai at the end of 2018 remained attractive. The dividend yields of SET and mai were 3.35 percent and 2.12 percent respectively. At the same time, forward P/E ratio was at 14.60 times for SET and 23.51 times for mai.

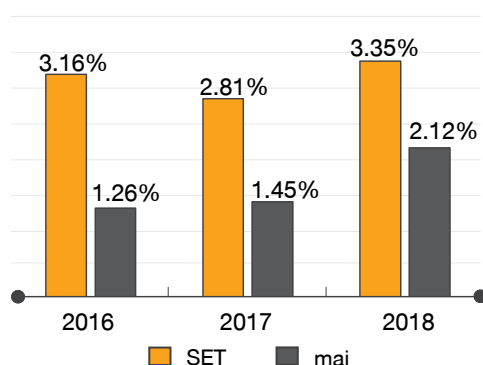
The Stock Exchange of Thailand (SET)



Market for Alternative Investment (mai)

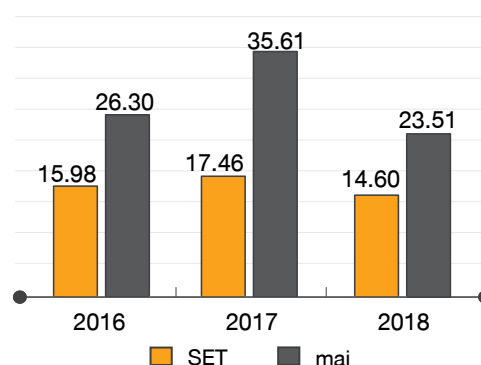


Dividend yield (%)



Source: Bloomberg

Forward P/E (times)



Stock Market Trading Activities

The Thai stock market has become the most liquid market in ASEAN since 2012. In 2018, the daily trading value of SET and mai averaged at THB 57.67 billion (USD 1.78 billion), up by 15.09 percent from 2017.

In 2018, the total trading of SET and mai, categorized by investor types, consisting of: 1) Retail investors, the most active segment in 2018 with a daily average trading value at THB 23.5 billion (USD 726 million), about 40.82 percent of total trading value, lower from 48.31 percent

in 2017; 2) Foreign investors, daily average trading value at THB 21.0 billion (USD 647 million), 36.39 percent of total trading value, higher than 30.23 percent from the previous year; 3) Local institution's daily average trading value was THB 6.1 billion (USD 187 million), 10.52 percent of total trading value, down from 11.01 percent in the previous year; 4) Proprietary trader's daily average trading value at THB 7.1 billion (USD 218 million), or 12.28 percent of total trading value, up from 10.45 percent in 2017.

Trading value of SET and mai in 2016-2018

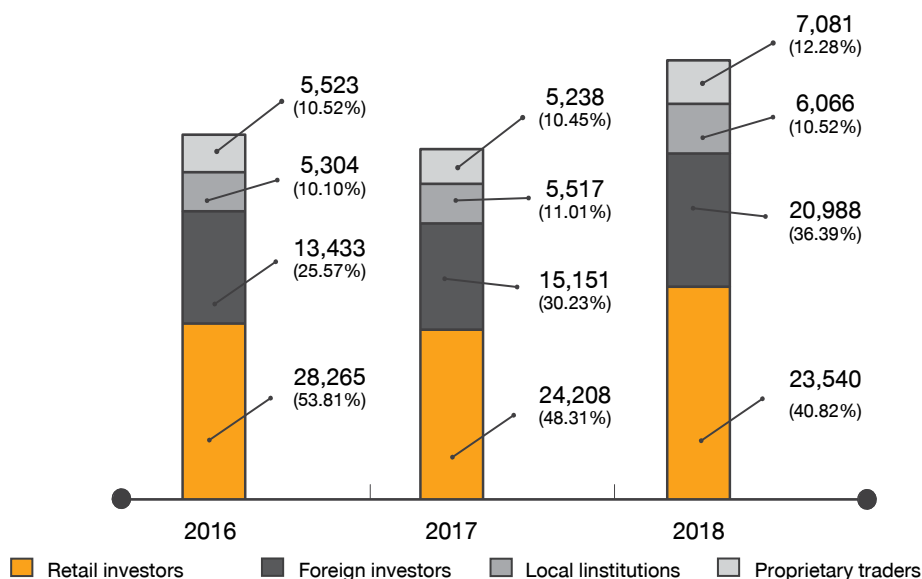
Trading Value (THB million)	2016	2017	2018
Trading value of SET	12,259,772	11,652,312	13,820,220
Trading value of mai	556,487	575,437	309,858
Trading value of SET and mai	12,816,259	12,227,749	14,130,078
Average daily trading value of SET and mai	52,526	50,114	57,674
Trading value change (y-o-y percent)	18.56	-4.59	15.09

Source: SETSMART

Local institutions and retail investors were the major net buyers of the Thai stock market in 2018. Local institutions bought net THB 181.6 billion (USD 5.6 billion), followed by retail investors who bought THB 120.8

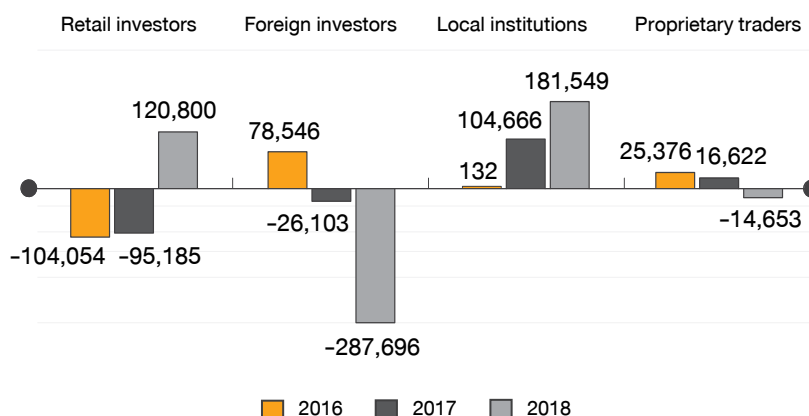
billion (USD 3.7 billion). Foreign investors sold net THB 287.7 billion (USD 8.9 billion), and proprietary traders sold net THB 14.7 billion (USD 0.5 billion).

Trading value combined SET and mai by investor type (THB million per day, %)



Source: SETSMART

Net position of SET and mai by investors' type (THB million)



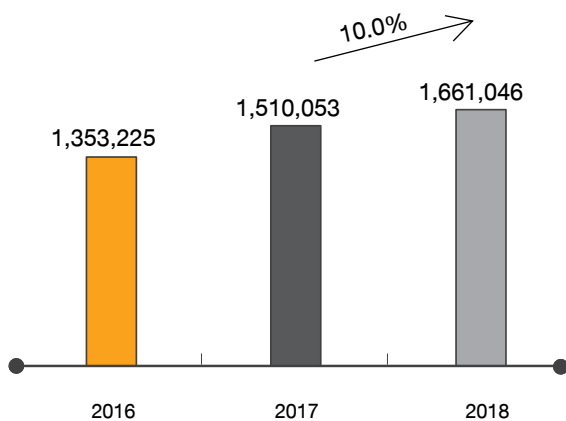
Source: SETSMART

The number of trading accounts reached record high. The number of trading accounts at the end of 2018 amounted to 1,661,046 accounts, up by 10 percent from the end of 2017. The number of active accounts¹ was to around 18.88 percent of total trading accounts of total trading accounts. In addition, trading value per account in 2018 was THB 3.24 million (USD 0.1 million), up by 15.6 percent from the previous year.

During 2018, internet trading activity continued to grow. The number of internet trading accounts at the end of 2018 amounted to 1,516,253 accounts, up by 1.24 percent from the end of 2017. The number of active internet trading accounts in 2018 reached 217,227 accounts. Internet trading value accounted for 24.94 percent of total trading value.

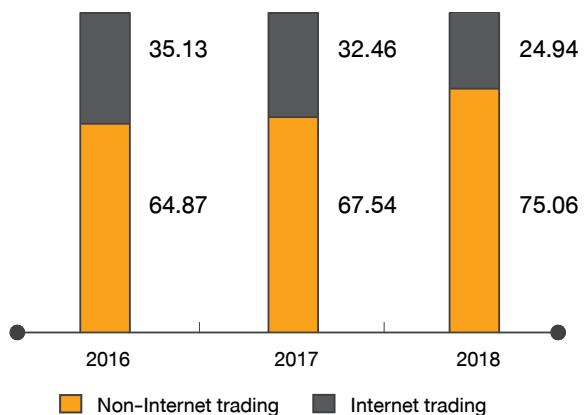
In 2018, the daily average trading composition of stocks was as follows: 1) Daily average trading value of SET 1-10 was THB 19.1 billion, representing to 33 percent of the total, up from 25 percent in 2017. 2) Daily average trading value of SET 11-30 was THB 13.8 billion, or 24 percent, up from 18 percent in 2017. 3) Daily average trading value of SET 31-50 was THB 5.8 billion, or 10 percent, down from 11 percent in 2017. 4) Daily average trading value of SET 51-100 was THB 6.9 billion, or 12 percent, down from 14 percent in 2017. 5) Daily average trading value of Non-SET 100 and mai was THB 12.1 billion, or 21 percent, down from 32 percent in 2017.

Trading accounts of SET and mai (accounts)



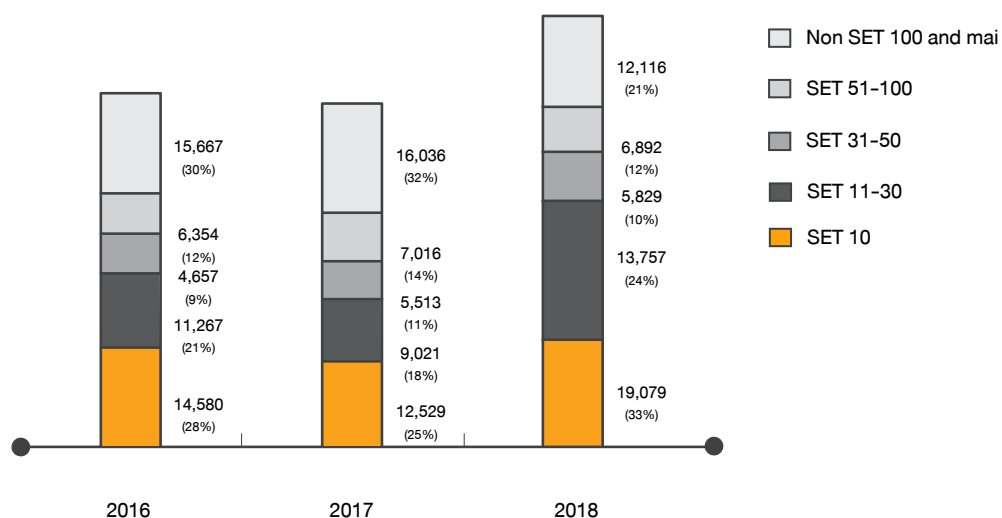
Source: SET

Trading value combined SET and mai by channel (%)



¹ Active account is an account which has trading activity at least once a month.

Trading value combined SET and mai by market capitalization size (THB million, %)



Source: SETSMART

Derivatives Market Trading Activities

The derivatives market activity also rose significantly. In 2018, the daily average trading volume on Thailand Futures Exchange (TFEX) surged to 426,213 contracts per day, up by 31.46 percent from 2017. The significant increase in trading volume was from 1) SET 50 Index Futures 2) Single Stocks Futures and 3) 10 Baht Gold Futures, that have their trading volume increase by 61.0, 16.1 and 16.7 percent from 2017 respectively.

In addition, the number of trading accounts in the derivatives market at the end of 2018 also grew significantly to 168,506 accounts up from 146,559 accounts, an increase of 15 percent from end of 2017.

Average daily trading volume of TFEX (contracts)

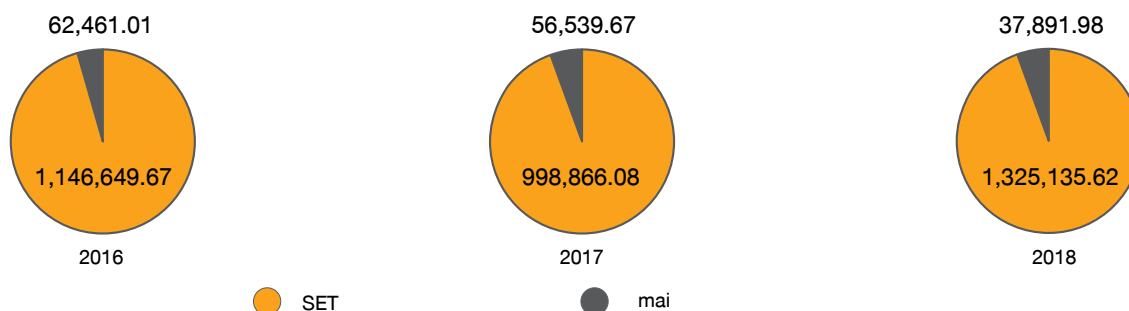
Products	2016	2017	2018
SET50 Index Futures	131,938	107,873	173,649
SET50 Index Options	1,757	4,433	5,561
Single Stock Futures	138,634	194,593	225,846
50 Baht Gold Futures	747	783	675
10 Baht Gold Futures	11,154	14,347	16,475
Oil Futures	119	-	-
USD Futures	838	1,422	2,799
Agriculture Futures	1	44	141
Gold Deferred	-	722	434
Gold Online Futures	-	-	2,326
Total	285,188	324,217	427,906
Change (y-o-y percent)	42.77	13.68	31.46

Source: SETSMART

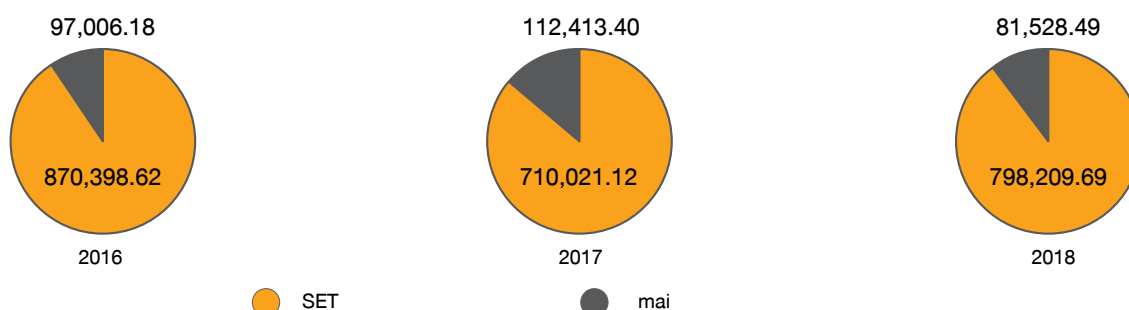
Post-Trade Operational Review 2016-2018

	2016	2017	2018
Securities Depository			
Number of Depository Participants (participants)	108	110	110
Brokers	39	40	40
Banks	34	35	35
Others	35	35	35
Number of Securities Deposited in the Securities Depository System (securities)			
Equity (Include Warrant & Derivatives Warrant)	3,561	3,851	4,138
Government Bond	394	362	323
Corporate Bond	1,241	1,327	1,444
Unit Trust	119	116	128
Securities Clearing and Settlement			
Number of Participants in the Clearing House (participants)			
Equity & Debt	39	40	39
Derivatives	44	40	40
Securities Registration			
Number of Companies in the Securities Registration System	714	747	770
The Stock Exchange of Thailand (SET)	544	567	577
Market for Alternative Investment (mai)	134	150	162
Thailand Bond Exchange (TBX)	-	-	-
Others	36	30	31
Number of Securities in the Securities Registration System	2,345	2,599	2,879
The Stock Exchange of Thailand (SET)	1,914	2,187	2,410
Market for Alternative Investment (mai)	188	214	210
Thailand Bond Exchange (TBX)	9	9	8
Others	234	189	251
Number of Shareholders in the Securities Registration System (citizen ID.)	1,375,332	1,455,618	1,568,499
Scripless	1,067,483	1,284,146	1,292,914
Scrip	307,849	171,472	275,585

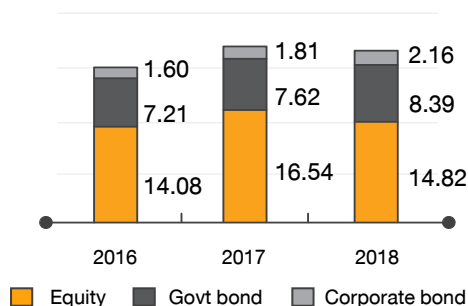
Total Value of Securities Clearing and Settlement (THB million)



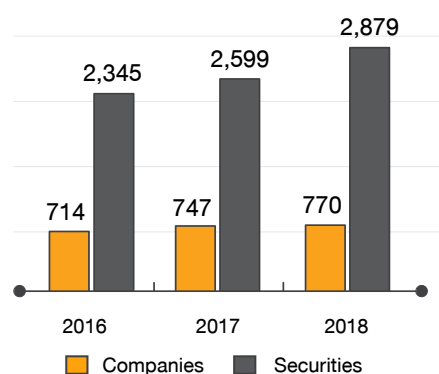
Total Volume of Securities Clearing and Settlement (million shares)



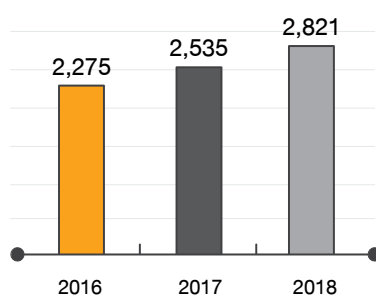
Value of Securities in the Securities Depository (THB trillion)



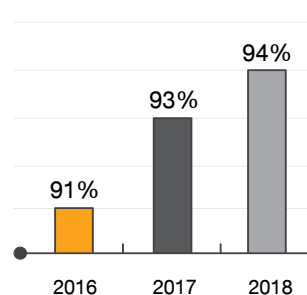
Number of Companies/ Securities in Securities Registrar System



Number of Securities under e-Dividend Service



Number of investors under e-Dividend Service



Business Operation of The SET Group

Vision and Mission

The Stock Exchange of Thailand (SET) and its subsidiaries or the SET group has a vision **“To Make the Capital Market ‘Work’ for Everyone.”** Our objective is to make the Thai capital market benefit all stakeholders both directly and indirectly. We believe that a suitable business growth will lead to national strength, and this in turn will lead to the betterment of society.

The SET group operates under five missions: (1) To “plant” state-of-the-art financial **Platform Development** that is both innovative and accessible to our stakeholders locally, regionally, and globally; (2) To innovatively “grow” **Product Development** that is not only relevant to market needs but also resonate with the sustainability of future growth; (3) To “foster” **People Development** to ensure that our people will be best equipped with business competencies and professional integrity; (4) To “implant” an **Inclusive Growth Approach** that will enable us to perform as the best business partners and social supporters, and (5) To continuously “cultivate” ourselves and our stakeholders by investing in **Knowledge Management** – creating, sharing, and generating knowledge as part of an intangible asset.

Business Overview

The SET group operates the only stock exchange in Thailand, providing end-to-end exchange services consisting of the following core businesses:

Exchange Business

1. Securities and bond markets

Listing and trading: The SET group provides securities listing and trading services for equity instruments through The Stock Exchange of Thailand (SET) and Market for Alternative Investment (mai) while providing services for bond instruments through Thailand Bond Exchange (TBX). As of December 31, 2018, there were 545 companies listed on SET and 159 on mai along with 325 bond products listed on TBX. The SET group also lists other types of securities, e.g., warrant, derivative warrant (DW), depositary receipt (DR), exchange-traded fund (ETF), real estate investment trust (REIT), and infrastructure fund (IFF).

Clearing and settlement: The exchange is a clearinghouse for transactions taking place on SET, mai, and TBX, while serving as the central counterparty (CCP) for all trading activities on those exchanges. In addition to serving as CCP for trading on the exchanges, the SET group also provides clearing and settlement services for over-the-counter bond trading.

Depository: The SET group acts as a central securities depository for stocks and bonds, using a secure and efficient scripless system. Inclusively, it provides services for securities deposit, withdrawal, transfer, pledge and revocation. Investors can conduct these transactions through our depository members.

Market supervision: The SET group supervises trading activities of all market participants to ensure that the market is fair, orderly, and transparent. and requires listed companies to disclose accurate, transparent, and timely information to investors and the public.

2. Derivatives market

The SET group operates a derivatives market that trades derivatives products of which underlyings include securities, commodities, government bond, short-term interest rate and foreign exchange. The SET group also performs a clearing and settlement function for transactions in the derivatives market, and supervises all market participants' activities to ensure a well-functioning market operation.

3. Technology services and infrastructure development

The SET group provides both front and back office services for members, e.g. Front-office Service Bureau (FSB) system, Internet trading system, and Back-office Service Bureau (BSB) system. These centralized services support market participants to utilize the benefit of economy scale to expand their business and to shorten their development time for new products and services development.

In addition, the SET group also provides market data services that develop and disseminate stock indices and provides trading market data and listed companies' information to data vendors and investors.

Moreover, it also provides the FundConnex business service as a centralized mutual fund platform to connect among asset management companies and selling agents. The platform helps to broaden mutual fund access and improve market efficiency. On top of that, the SET group also provides the payment system infrastructure called FinNet, which centralizes payment process and sets connecting standards between intermediaries in the capital market and commercial banks, with the aim to enhance the efficiency of payment process in the capital market.

4. Registrar services

The SET group acts as a registrar for equity products and maintain the register book that contains accurate and complete shareholder information. Our services also cover information of shareholder benefits and connect registrar services with a direct linkage to the securities depository center for the benefits of listed companies and investors.

Furthermore, the SET group has secured data storage and processing system with the corresponding back-ups ready to ensure the continuity of our services. Our vault and data management systems have been in place to secure the rights of the securities holders and for verification purposes.

Capital Market Development

The SET group is committed to promoting a long-term development of the Thai capital market to become a sustainable capital market that will improve competitiveness of the Thai economy and support the quality growth of the capital market's stakeholders and the Thai society. The SET group has set three major capital market development strategies as follows:

1. Capital market education

The SET group organizes the educational development into five aspects according to the target groups that are (1) Professional Education, (2) Enterprise Education, (3) Investor Education, (4) General Public Education, focusing on financial literacy for the Thai people and the use of education centers, e.g. Maruey Knowledge & Resource Center, INVESTORY investment discovery museum and SET Investment Center, and (5) Executive Education, focusing on educating the public sector and business leaders about capital market and building a network among capital market leaders not only in Thailand but also in CLMV region.

2. Sustainable development

The SET group promotes Corporate Governance (CG) and Sustainable Development (SD) to be integrated in business model and operation and to build the ecosystem that will support SD in the Thai capital market, such as encouraging local institutional investors to invest responsibly and motivating listed companies to invest and collaborate with Social Enterprises (SE). The SET group also encourages listed companies to conform to criteria defined by global players in sustainability field such as Dow Jones Sustainability Indices (DJSI), among others.

3. Capital market research

The SET group conducts and disseminates relevant capital market research and leading indicators of the Thai capital market to benefit stakeholders and Thai investors. It will continue to establish a platform where market practitioners and academic researchers can contribute the knowledge for long-term development of the Thai capital market. In addition, the SET group also promotes the capital market research to be more accessible by Thai general public, as well as organizing international capital market conferences.

Revenue structure

The SET group's revenue structure during the past 3 years (2016–2018) is as follows:

(THB million)						
Products and services	2018		2017		2016	
	Revenue	Common size (%)	Revenue	Common size (%)	Revenue	Common size (%)
Securities Market						
– Trading fees	1,413	24.69	1,223	24.42	1,282	25.14
– Listing fees	643	11.24	576	11.50	539	10.57
– Clearing and settlement fees	384	6.71	337	6.73	339	6.65
– Depository fees	341	5.96	322	6.43	290	5.69
– Membership fees	44	0.77	44	0.88	76	1.49
Total	2,825	49.37	2,502	49.96	2,526	49.54
Derivatives Market						
– Trading fees	509	8.90	332	6.63	368	7.22
– Clearing fees	220	3.84	144	2.88	159	3.12
– Membership fees	36	0.63	43	0.86	57	1.12
Total	765	13.37	519	10.37	584	11.46
Technology Services						
– Member services fees	451	7.88	426	8.51	509	9.98
– Information services fees	346	6.05	343	6.85	340	6.67
– IT support fees	200	3.50	150	3.00	122	2.39
Total	997	17.42	919	18.36	971	19.04
Registrar and Fund Services						
– Securities registrar fees	1,121	19.59	1,065	21.27	1,018	19.96
– Fund services fees	14	0.24	2	0.04	–	–
Total	1,135	19.84	1,067	21.31	1,018	19.96
Total operating revenues	5,722	100.00	5,007	100.00	5,099	100.00

Business Competition

The financial liberalization and capital markets linkage around the world can bring huge benefits, but at the same time can also create competition. The SET group has therefore been operating under highly competitive environment. Locally, although the SET group operates is the only stock exchange operator in Thailand, local companies can also find their funding sources through exchanges abroad or other alternative funding venues, e.g. Initial Coin Offering (ICO), etc. Investors can choose to invest in other exchanges freely to suit their preference. On top of that, foreign exchanges can also develop similar investment products or substitutes to attract both Thai and international investors.

Furthermore, new types of trading used in other countries may enter Thailand in the near future, such as the alternative trading system (ATS) and the order internalization process within the securities firms' own inventory, could be the SET group's competitors.

In addition, the new wave of financial technology (FinTech) revolution has been increasingly and significantly popular over the past few years to serve a variety of needs in financial industry. FinTech could be an opportunity for the SET group as business partners (FinTech firms), and could also be a threat as competitors (financial services) in the future. With the digital technology, new economic landscape and economy of speed, the SET group has been well-equipped and well-prepared especially in the area of innovations enterprise-wide.



**Make it Work by
Enhancing Operational Efficiency**

Major Developments in 2018

The Stock Exchange of Thailand (SET) is committed to developing the Thai capital market that benefits all stakeholders towards sustainable growth. In 2018, SET carried out major operations based on four key strategic plans as follows:

1. Fundraising Platform

SET continues to serve as a fundraising channel for the business sector, including industries which showcase the country's potential. At the same time, SET has also attracted foreign assets to be listed on the Thai capital market and improved the quality of listed companies, while continuously developing skills and knowledge of listed companies' personnel.

1.1 Attracting new high quality listed securities and enhancing quality of listed companies across value chain

22 newly-listed securities on SET and Market for Alternative Investment (mai) raised capital totaling THB 81.57 billion (approx. USD 2.55 billion) or total market capitalization of THB 183.14 billion (approx. USD 5.72 billion) in 2018. Of the total, THB 45.70 billion was from Thailand Future Fund (TFFIF), an opportunity for the general public to take part in quality transport infrastructure development of the government and state enterprise to foster the country's competitiveness.

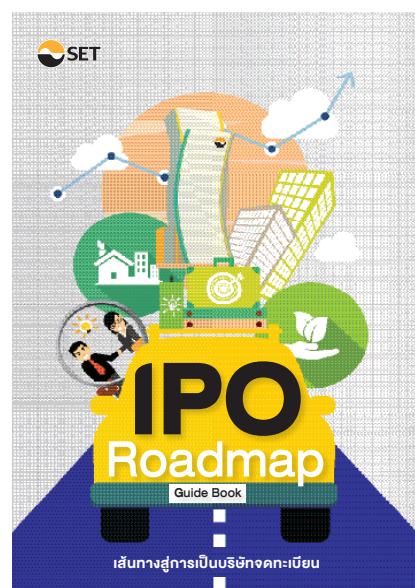
Fundraising Value and Market Capitalization at IPO of Newly Listed Companies in 2018

Type of securities	No. of securities	Issued value (THB mln)	Market cap at IPO (THB mln)
Common stock	18	26,481	127,050
REIT	3	10,391	10,391
IFF	1	44,700	45,700
Total	22	81,573	183,141

Source: SETSMART

Strengthening quality of listed companies

SET assists prospect companies to be listed in the capital market by working with the Securities and Exchange Commission (SEC) to streamline the work process into one-stop services, to facilitate the listing procedure and enhance supervisory services. In addition, SET has also organized training courses to strengthen companies preparing their IPOs, e.g. "IPO Focus", "IPO Roadmap" and "Internal Control for IPO", etc. SET also developed handbook "IPO Roadmap Guide Book: Roadmap to Becoming Listed Company" containing essential information for companies to prepare them for listing and disseminated this information via www.set.or.th/enterprise. Furthermore, to promote the listing of foreign companies, SET is reviewing related regulations to support fundraising activities of countries in ASEAN.





SET has constantly overseen the quality of listed companies while protecting investors' interests. On July 2, 2018, SET introduced the "C" (Caution) sign to protect investors and urged listed companies to resolve the issues arising from deteriorating financial status, financial statement and business operation. Investors are notified one day prior to the posting and required to purchase such securities through cash balance account in order to alert them to be more prudent. In addition, such company has to provide information and plan to resolve the issue within 15 days after the "C" sign has been posted and every quarter until the company can completely rectify their issues.

Enhancing potential of listed companies' personnel

Over the past year, SET implemented a series of training programs to enhance the capabilities of listed companies' personnel through various specialized courses, including courses on Strategic CFO in Capital Markets, accounting standards applicable to financial instruments, revenue recognition and lease agreement standards, financial projection techniques, corporate venture capital (CVC) investment strategy and the basic knowledge for investor relations. There were 1,207 staff members of listed companies attending these programs.

Refining surveillance

SET has ensured effective supervision of listed companies, member companies as well as trading transactions by enforcing disciplinary actions against companies which violated SET regulations to ensure that products traded on the Thai bourse have the qualities and key information disclosure up to required standards.

In 2018, there were 42 companies under market surveillance's cash balance accounts criteria, while there were 25 cases of possible violation under the Securities and Exchange Act B.E. 2535 which have already been reported to the SEC for further consideration. Moreover, the SEC took disciplinary actions by imposing fines on four member companies. In addition, the Robo Surveillance System has been developed using the Artificial Intelligence (AI) technology to enhance efficiency of trading supervision and surveillance.

Furthermore, SET initiated Regulatory Reform to reduce duplication while aligning with the Securities and Exchange Commission (SEC)'s regulations. The two-year project started in 2018 and is expected to be completed by 2019.

1.2 Supporting fundraising opportunities for startups and SMEs

Startups and SMEs are the foundation of Thailand's long-term economic development. SET has therefore created a new access to capital for startups and SMEs through the LiVE platform, which is a market platform for investors with risk-tolerance prospects. More than 150 business operators have expressed their interest and registered on this digital platform. Additionally, SET has joined hands with Government Savings Bank and Krungthai Bank pcl to set up a fund to invest in potential startups and SMEs. This joint-investment fund with the two banks totaled THB 600 million (approx. USD 19 million) is aimed at nurturing growth of entrepreneurs in Thailand.



To promote knowledge among students who aspire to become entrepreneurs with innovation, SET collaborated with a network of universities to establish “Innovative Startup @ University” a startup training project for universities nationwide. A total of 1,109 students participated in the program in 2018. SET also cooperated with the National Innovation Agency, a public organization, to organize “Innovative Startup @ Vocational” to promote the knowledge of vocational teachers. Additionally, SET worked with LiVE platform to host “Angel Investing Day” to create investment strategies for those interested in investing in startups. The activities were carried throughout 2018, disseminating essential information to more than 3,000 persons among target groups.

2. Investment Expansion

Throughout 2018, SET focused on expanding quality investor base by collaborating with partners through projects and activities continuously as follows:

2.1 Expanding investor base and developing quality of retail investors

Promoting knowledge and skills in financial planning

SET is committed to promoting savings and



investment culture in the Thai society so that the Thai people can achieve financial security and get ready for aging society. SET has expanded the retail investor base covering those engaging in direct investment in the stock market and investment through financial institutions. As of the end of 2018, there were 1,131,041 retail investors who directly invested in the stock market, rising by 127,374 from 2017. A total of 63,500 retail accounts signed up for dollar-cost averaging (DCA) investment as this technique has become more popular especially among the first jobbers. Moreover, investors have become more interested in equity mutual funds. The Association of Investment Management Companies reported that as of the end of June 2018, there were 868,660 accounts of equity mutual fund holders, up 16.54 percent from 2017, and there were 460,521 accounts of retirement mutual fund-equity holders, up 12.25 percent. Furthermore, SET also promoted investment in provident fund with over 9,300 employers having Employee's Choice program, including encouraging investors to invest in mutual funds through new channels such as securities companies and selling agents. SET also collaborated with the SEC to provide comprehensive investment plan promoting through “Wealth Advice” project.





In addition, SET and partners in the capital market have continuously cooperated to promote investment in provident fund (PVD) or retirement mutual fund (RMF) through the “Happy Money, Happy Retirement” project under the slogan “Happy retirement can be a reality” for six consecutive years. The project aims at making Thais realize the importance of financial and retirement planning. SET has worked with partners including Government Pension Fund, National Savings Fund, Student Loan Fund, Federation of Business and Professional Women’s Associations of Thailand under the Royal Patronage of H.M. The Queen, Ministry of Social Development and Human Security, Thai Chamber of Commerce, Thai Bankers’ Association, and National Council for Child and Youth Development under the Royal Patronage of HRH Princess Mahachakri Sirindhorn to educate people in the working age in both formal and informal systems as well as the elderly about financial planning. SET has teamed up with 327 organizations to create 1,723 financial trainers by educating them about financial planning so that they can be well-equipped to pass on the knowledge to a total of 831,567 employees in these organizations. On top of this, SET has publicized financial and investment information to reach 3.7 million people through general public through digital media, social media and mass media.

Throughout 2018, SET promoted financial literacy continuously via online and offline channels under the “Investor Classroom” project. More than 33 training courses, including basic knowledge courses for new comers and “Turn Pro” courses for professionals were organized in Bangkok and various provinces at seven SET

Investment Centers (SET IC) nationwide, embracing 13,213 participants. SET also opened a special exhibition to promote regular investment savings by dollar-cost averaging (DCA) technique at its INVESTORY investment discovery museum to inform the general public members about financial planning and inspire them to begin using DCA technique to instill financial discipline. In the past year, SET’s INVESTORY welcomed 48,850 visitors. In addition, SET also reached out to educational institutions through “INVESTORY Mobile Exhibition on School” at 15 schools attended by 44,860 students to learn about savings and personal finance. Moreover, Maruey Knowledge & Resource Center has upgraded the services moving toward a digital library via “Maruey eLibrary” application which was launched to provide access on investment knowledge anywhere and anytime. A total of 896,484 visitors have used the library facilities and digital library services. In addition, 42,598 investors and general public have studied about savings and investment via SET e-Learning with over 17 million views via SET website to learn about investment. Meanwhile, the Thai bourse has developed learning medium through “SET e-Book” application, reaching over 500,000 investors, as of end-2018.



SET Social & Digital Media

SET has added digital channel to increase access to investment information through SET Chatbot to answer questions about investment around the clock through Messenger program of SET Facebook. Only three months after its launch, over 20,000 people have used the service. In addition, SET also launched a new version of SET Application which was upgraded to enable investors to get information and investment knowledge conveniently with speed at investors' fingertips, attracting over 572,230 downloads as of the end of 2018.



774,641 LIKES

SET ตลาดหลักทรัพย์แห่งประเทศไทย



40,457 FRIENDS

@SETThailand



22,406 FOLLOWERS

@SET_Thailand



84,483 SUBSCRIBERS

SETGroupOfficial



572,230 DOWNLOAD

SET Application

Data as of end of December 2018

2.2 Promoting Thai capital market and expand foreign investor base

SET's effort to encourage listed companies to run their businesses by taking into consideration the environmental, social and governance (ESG) aspects

has resulted in the Thai capital market being outstanding and recognized by international organizations. Last year, 19 Thai listed companies were selected as Dow Jones Sustainability Indices (DJSI) constituents, representing the highest number in ASEAN for five consecutive years while ranking No. 1 in ASEAN CG Scorecard and No. 5 in Asia. Moreover, SET has been granted the United Nations Sustainable Stock Exchanges Market Transparency Award, ranking the top among emerging and Asian countries.



In 2018, SET received the Best Stock Exchange in Advanced Emerging Market 2018, the first time ever; and the Best Sustainable Securities Exchange – Southeast Asia Emerging Markets 2018 for the second consecutive year from the UK-based Capital Finance International journal, reaffirming SET leadership among emerging markets and determination to promote sustainability of the Thai capital market. Moreover, Thailand Securities Depository Co., Ltd. (TSD) has also won “Best Central Securities Depository in Southeast Asia 2017” award organized by Alpha Southeast Asia, a leading international media, affirming the success in developing the operation and raising the post-trade service at international standards.

2.3 Supporting business of intermediaries

To enhance professionals, SET is developing Professional Link Digital Platform (Prof. Link), an innovative platform to



enhance training for investment analysts and investment advisors, by adjusting the process to renew certifications in digital format on mobile and web applications.

The platform will streamline the process to be more convenient and cost-saving. Moreover, SET has joined forces with related professional associations such as the Association of Thai Securities Companies (ASCO), the Association of Investment Management Companies (AIMC) and Investment Analysts Association (IAA) to tailor courses for investment consulting services. In addition, SET also organized courses for investment consultants such as “Head IC @ Brokers”, “The Team Leader @Asset Management Companies”, “Equity Product Specialist” and “TFEX Specialist” projects. Conducted all year round in 2018, these courses were attended by 2,917 staff of intermediaries.

3. Product & Service Roadmap

SET developed two new indices named “SET CLMV Exposure Index (SETCLMV)” which comprises of stocks of Thai companies which generate revenues from Cambodia, Laos, Myanmar and Vietnam (CLMV). The SETCLMV index enables investors to get benefit from these growing economies. Another initiative is “SET THSI Index (SETTHSI)”, consisting of stocks selected from Thailand Sustainability Investment List which is updated every year. The two indices were launched on July 2, 2018.

SET also introduced the first Depositary Receipt (DR) representing exchange traded fund (ETF), under the ticker symbol “E1VFN30”, to invest in VN30 index on the Hochiminh Stock Exchange. The trading commenced on December 18, 2018, marking a milestone in developing products to connect with international markets, enabling investors to diversify their investments overseas.



4. Infrastructure & Capability

4.1 Developing capital market infrastructure suitable for future business landscape

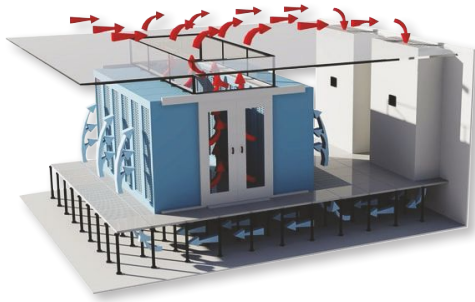
Introducing Two-Day (T+2) Settlement Cycle

SET, the SEC and Bank of Thailand, securities firms, custodians, asset management firms and commercial banks have worked together to reduce the settlement cycle to two days (T+2), effective March 2, 2018. The transition was smooth and effective. Thailand is among the first ASEAN countries that use T+2 settlement cycle. This change keeps SET aligned with the leading settlement practices in markets around the world, while enhancing the Thai capital market's competitive edge.

Technological standard

SET has maintained the cyber security standards in accordance with ISO27001 international standard. In the past year, SET developed information technology (IT) and introduced new technologies to boost efficiency, including incorporating Big Data to ensure accurate, precise analyses to promote better understanding about investor behavior, and enable early detection of any irregularity in transactions. This helps SET to improve the services to match investors' needs to benefit the Thai capital market.

In addition, SET has also developed Data Analytics Services for analysis to gain business insights to ensure business decisions are made accurately, thoroughly and timely. New Data Center has also been developed to serve Co-Location Services. This saves energy consumption in line with the green policy.



Moreover, devices have been designed and used to enhance physical and network security to reduce cyber security risks. At the same time, SET has enhanced knowledge on IT among personnel in the industry to catch up with technological changes, enabling them to apply the knowledge to boost operational efficiency to serve the benefits of the industry as a whole.

Non-cash collateral for Thailand Futures Exchange (TFEX)

In 2018, Thailand Clearing House Co., Ltd., (TCH) started an initiative by allowing members to pledge both cash and non-cash collaterals for margin requirement for the futures exchange starting from April 23, 2018 to enhance efficiency and save costs related to collateral management. The move came after the preparation process with industry participants inclusive of system, procedures and related regulations.

Preparation for Financial Sector Assessment Program (FSAP)

In November 2018, Thailand Securities Depository Co., Ltd. was evaluated based on the Principle for Financial Market Infrastructure (PFMI) under the Financial Sector Assessment Program (FSAP), which is a joint program of the International Monetary Fund and the World Bank. It is considered an upgrade of the services at international level, enhancing confidence of international investors. At the same time, in 2018 SET and the SEC were preparing for the FSAP assessment in 2019. The FSAP assessment will promote the country's image as a provider of world-class services, whereas SET has improved rules and regulations to reach the standards of International Organization of Securities Commissions Principles (IOSCO).

Supporting the use of electronic documents

Thailand Securities Depository Co., Ltd. (TSD), in its capacity as securities registrar, supports and advocates for a drafted law allowing public companies to submit their information such as annual reports, etc. in electronic format. In November 2018, the Department of Business Development made an announcement that public companies can submit annual reports and shareholders' list in electronic format via QR Code and URL. TSD started this service in February 2019.

Mutual fund settlement

SET has developed FundConnex mutual fund platform which is connected with asset management firms and selling agents as a standard platform to support various types of investment in the future, in addition to the current mutual fund trading. In 2018, SET expanded the services covering both real-time and batch payment & settlement services. As of the end of the year, 16 asset management companies and 19 mutual fund brokerage firms have implemented the service.



The Stock Exchange of Thailand and Clearstream Banking S.A., one of the world's leading international securities depositories, signed a memorandum of understanding to strengthen the joint-investment funds' business through the online linkage between FundConnex platform and Vestima Global Fund Processing platform. This marks the first time that Thai mutual fund industry will be seamlessly connected with the investment funds in 56 countries. The systems are scheduled to be linked in 2019.

4.2 Becoming a role model in sustainability

SET has placed importance on developing the quality of the capital market by supporting and encouraging listed companies and investors to take into consideration ESG aspects through seminars, advisory services and documents, both online and offline. The effort is consistent with the United Nations Sustainable Development Goals (SDGs). Moreover, SET serves as a focal point to gather essential knowledge, industry standards and sustainable guidelines for the Thai capital market, which has thus earned international recognition. In addition, the assessment of overall sustainability performance has shown better results when compared to those of the previous year.

Details and performance results are available in Sustainability Report.



**Make it Work by
Driving Inclusive Growth**

The SET Group's Strategic Plan for 2019-2021

To cope with the increasingly rapid change in the dynamic environment with digital technology challenges, The Stock Exchange of Thailand (SET) aims at propelling the Thai capital market by enhancing competitive capabilities and bringing benefits to all sectors in a sustainable manner. With the strategic direction **'Creating Partnership Platform to Drive Inclusive Growth'**, SET has set two key goals: **1) To enhance internal operating efficiency and pass on to stakeholders;** and **2) To enable stakeholders to achieve long-term sustainable growth.**

To achieve the above mentioned goals, **SET has set a 3-year (2019-2021) strategic plan** consisting of 4 strategies: Expand, Explore, Reform and Restructure.



1. Expand: Increase Business Boundaries

1.1 Investor expansion and new product and service development to cater to market participants' needs

SET is committed to expanding investor base continuously, especially in urban areas of primary and secondary provinces with potential in driving economic growth. SET will also build regular investment savings culture via dollar-cost averaging (DCA) investment in stock and mutual fund. SET will also encourage career people to realize the importance of savings via provident fund, while educating them about the investment plans for happy retirement.

In addition, SET will further develop new products and services that can answer the needs of market participants such as new indices and improvement of product issuing time for derivatives warrant, exchange traded fund (ETF) and depositary receipt (DR). Furthermore, SET will also support securities companies to utilize digital technology to facilitate their business activities via new tools and channels to match investors' lifestyle and preference in online channels such as online account opening for stock and mutual fund.

1.2 Capital market infrastructure development to reduce industry costs

SET has continued developing IT infrastructure to maintain stability of the trading system. During the next three years, SET will accelerate the infrastructure development in 3 areas: 1) centralized IT system for member companies covering trading system, risk management system, after-sales service system (including front, middle and back office systems); 2) open application programming interface (API) for equal opportunity in capital market business via major projects such as the Financial and Economic Data Bureau, etc.; and 3) cybersecurity program for the intermediary institutions in order to reduce costs and promote business for the industry as a whole.

1.3 Knowledge platform set-up

SET focuses on developing a comprehensive education platform to provide online financial knowledge to investors and general public. In addition, SET will also collaborate with partners including media, and public and private sectors in expanding channels with new presentation formats to reach wider audience, while using Big Data to analyze the learning journey and assess the performance effectiveness of various activities in terms of contents and presentations that can meet the needs of each target groups.

2. Explore: Create New Business Opportunities via Technology and International Connectivity

2.1 Developing digital platform to create new business

SET aims to develop an open utility platform to support the digitization of capital market. Key focuses will be on: 1) expanding FundConnex service for cross-border fund distribution; 2) developing digital payment gateway to support payment service between securities companies and investors (Interbank Settlement); 3) Developing fully-digitized account service; and 4) strengthening LiVE platform positioning to support startups' activities such as standardized and shared services relating to accounting, legal matters, etc.

Furthermore, SET is also planning to create a digital asset platform by adapting new technologies and opening up new opportunities for the Thai capital market.

2.2 Establishing partnership to connect globally

SET aims to be an exchange that connects for fund-raising and investment in Cambodia, Laos, Myanmar, and Vietnam or CLMV countries. SET will further partner with regional exchanges to develop new products such as unsponsored depositary receipts (DRs). In addition, SET has also planned to conduct

feasibility studies in partnering with leading exchanges globally to interconnect products.

3. Reform: Reforming Regulations, Revising Processes and Developing Sustainably

3.1 Revision of regulatory framework and process

SET has collaborated with relevant regulators and supervisory agencies to reform and revise regulations that are outdated, unclear, inconsistent or redundant to gain flexibility and reduce costs of the whole capital market industry. In addition, SET will initiate a 'one-stop' service for listed companies, inclusive of listing, customer service, and sustainability development in order to internationalize these services, catering to all customer segments, while overseeing quality of listed companies. SET will also expand these efforts to other participants.

In addition, SET will also develop a one-stop service IT system (Listed Company Solutions) to facilitate listed companies such as corporate secretary, information disclosure and report submission to various units, etc.

3.2 Becoming a role model in sustainability

SET has been operating by taking into consideration the environmental, social and governance (ESG) aspects aiming at being a role model of a sustainable organization. SET will move forward to implement major activities such as 1) enhancing listed companies' quality by integrating ESG into business process

and encouraging transparent ESG disclosure and corporate governance or CG reporting among small and medium-sized listed companies; 2) promoting investment for retirement via Happy Money Happy Retirement project; 3) reducing the global warming effects via "Care the Bear" project; and 4) becoming a zero carbon organization, etc.

4. Restructure: Reorganize SET Business Portfolio

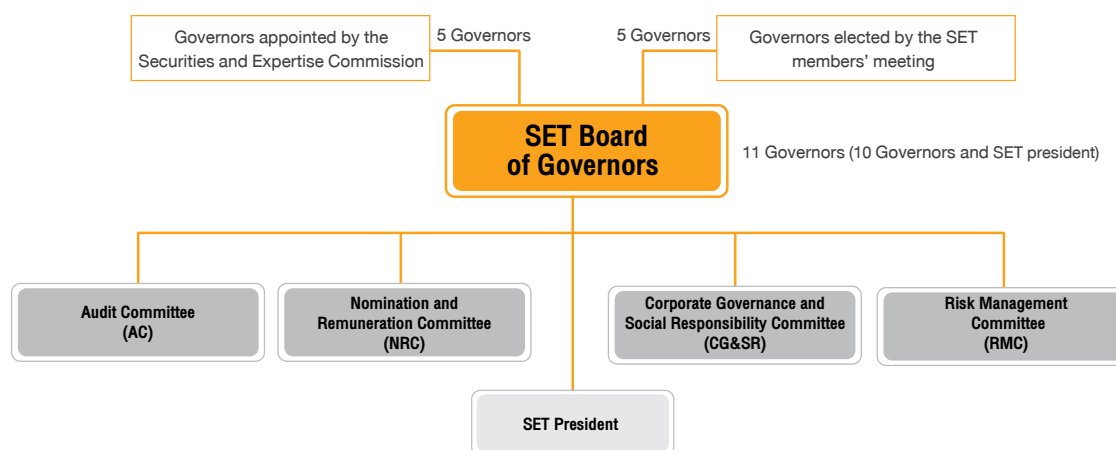
SET has restructured the business portfolio into 3 key groups in line with the current and future missions: 1) core exchange function; 2) new business and infrastructure development; and 3) long-term capital market development. SET aims to increase efficiency and potential in developing the capital market's competitiveness, catering to the stakeholders with fair and equal treatment, a true stakeholder-centric organization, while embracing and enhancing human resource for the rapidly changing economic and social landscape.

Corporate Governance Report

Part 1 Corporate Governance Structure and SET Board of Governors

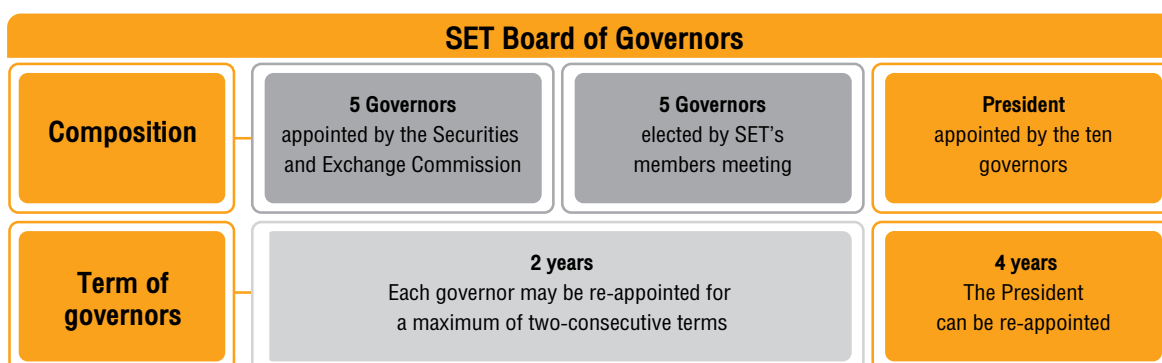
1. Corporate Governance Structure

The SET Board of Governors (BoG) oversees the operations of the SET group, under the leadership of the SET president who is accountable to the BoG. The president’s duty is to run SET operations according to the policies prescribed by the BoG. The BoG has appointed various committees to screen important works that require expertise and specialization. Corporate governance structure is outlined as follows:



2. The Board of Governors

The structure of the SET Board of Governors adheres to the Securities and Exchange Act, consisting of the followings:



(Name and profile of SET Board of Governors are under the topic of “Board of Governors”)

The BoG has elected one governor, excluding the SET president, as chairman. The chairman is an independent non-executive director, not the same person as the president and has no relationship with management. The roles of chairman and the president are separated. As a leader, the chairman plays a key role in policy decision-making, with supports and suggestions to the management, not intervening in any routine activity under the president's responsibilities. In addition, the chairman should not be either a chairman or a member of any committee, to ensure independence of the committees.

The SET's BoG has appointed Mr. Rongrak Phanapavudhikul as BoG Secretary. The Corporate Secretary Department supports the Board by providing legal advice, keeping informed of key regulations, good corporate governance practices, as well as systematically organizing meetings and meeting documentation, and taking care of the BoG's other activities while monitoring matters in compliance with the resolutions.

The Chairman's duty

1. Convene the meetings of the Board and act as chairman of the meeting. In an event a final decision by the meeting is required and there is an equality of votes, the chairman shall have a casting vote.
2. Determine the agenda of the meetings of the BoG by consulting with the president to ensure that important matters are listed in the agenda.
3. Process the meetings of the BoG according to the agenda, relevant laws and good corporate governance. Allocate sufficient time and encourage all governors to participate in the discussion. Exercise prudent discretion and freely express opinion.
4. Oversee and follow up the performance of the duty by the BoG to ensure efficiency and achievement in accordance with the corporate goals.
5. Build good relationship between the Board and the management team.

The Board of Governors' duty

1. Specify vision, mission, goal and strategy in operating the business of SET and revise in accordance with the changing circumstances.
2. Oversee and follow up to ensure the report is prepared on the progress of the operation pursuant to the goal, indicator and strategic plan under the budget approved by the Board, including formulating policy for the improvement and development of competitive capability at international level.
3. Determine policy on good corporate governance and code of conduct of the SET group such as treatment of stakeholders, anti-corruption, anti-money laundering, prevention and management of conflict of interest, use of internal information and safeguarding of confidential information, including receipt of evidence or complaints (Whistleblower). On this basis, the policy on good corporate governance and code of conduct shall be revised annually.
4. Ensure that there is in place effective and adequate internal control system and follow up on the efficiency of the internal control system so as to comply with the accepted standard such as the Committee of Sponsoring Organization (COSO) by disclosing the adequacy of the internal control system and having it reported in the annual report.
5. Specify appropriate policy and scope of risk management, as well as following up on the efficiency of the risk management on a regular basis by disclosing the adequacy of the risk management system in the annual report.
6. Determine the policy framework on the management of information and technology (IT) including security and safety measures for the IT system so that it complies with the standard acceptable in the industry, as well as following up and improving consistently and appropriately with the risk associated with IT.
7. Promote the creation and appropriate use of technology to ensure efficient operation and use of resources for mutual benefits among SET's business, trading partners, relevant parties and society.

8. Supervise the operation of SET to ensure financial stability so that it can operate the business on a continuous basis.
9. Ensure the preparation and disclosure of financial information that is correct, complete, timely, and reflecting the operating results and financial position in accordance with the accounting standard prescribed by the law on accounting, as well as disclosing material information of the organization correctly and completely in compliance with the relevant regulations and procedures.
10. Determine the framework and mechanism in supervising the subsidiaries or affiliates by considering the appropriateness of the person who will act as SET's representatives as directors in the subsidiaries or affiliates in order to oversee and supervise the operation of the subsidiaries or affiliates appropriately according to each business.
11. Specify the criteria and process for recruiting the president and executives which are transparent and clear, as well as determining remuneration

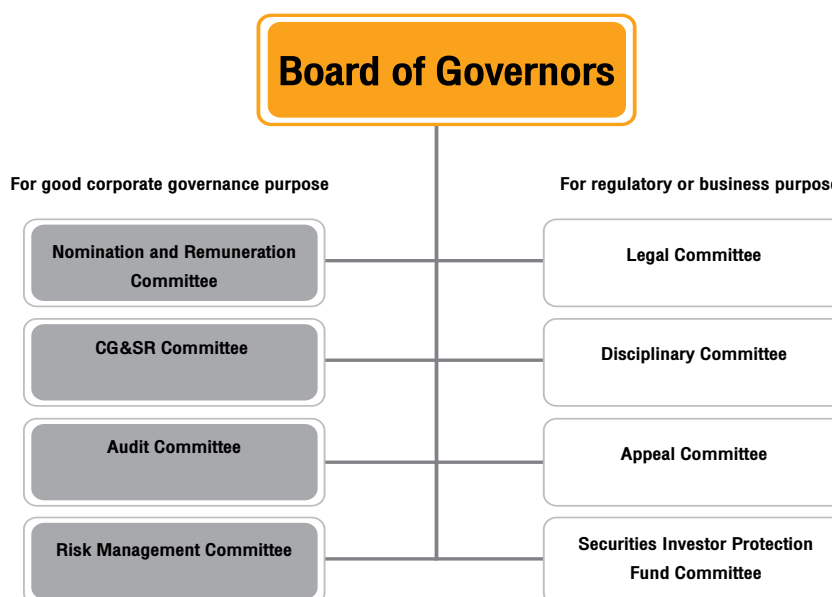
and assessment of performance on an annual basis, including following up and ensuring the process for the replacement or succession of the president and executives (Succession Planning) on an annual basis.

The Board has delegated authority to the management team to manage certain functions such as:

- For fixed assets and operating expenditures within the budget approved by the Board: Expenditure over THB 2 million must be submitted to the BoG for approval.
- The purchase or procurement of products or services, within the budget approved by the Board must not exceed THB 10 million. If over THB 10 million, must be submitted to the BoG for approval.
- The increase of manpower or the increase of employees' salary base must be within 10 percent. If over 10 percent, must be submitted to the BoG for approval.

Committee assignments

For the purpose of good corporate governance and so that the Board performs their duty effectively and efficiently and so as to be consistent with the relevant rules, the Board has appointed the following committees:



Moreover, the Board may appoint other committees, experts or advisors as necessary and appropriate to the changing circumstances.

(More details are available under the topic "Committees of The Stock Exchange of Thailand")

The Board of Governors and Committees' meeting

The BoG will set the meeting schedule for the BoG and committees in advance throughout the year to ensure that members of the BoG and committees can allocate time to attend the meeting. In addition, additional meetings may be held if necessary and governors can propose additional agenda items.

For the meetings of the BoG and committees, at least half of the total members must be present to constitute a quorum. If any member of the BoG or any committee has any interest in the issue to be considered,

the member must notify the meeting of such interest. The minutes must record all declarations of possible conflict of interest and such member shall leave the meeting and refrain from voting on the issue.

The Chairman of the Board encourages non-executive directors to hold meetings among themselves to debate various issues without participation of the management. In 2018, the BoG held three meetings without participation of the management (February 8, May 18 and November 14, 2018).

In 2018, SET convened the board meetings and committees meetings. The details are as follows:

Name		BoG (11 persons)	AC (4 persons)	NRC (5 persons)	CG&SR (5 persons)	RMC (6 persons)
Number of meetings		17	13	10	4	8
Non-executive directors						
Chaiyawat	Wibulswasdi (Chairman)	17 / 17				
Pattera	Dilokrunthirapop (Vice Chairman)	17 / 17	4 / 5	10 / 10		
Charamporn	Jotikasthira ¹	6 / 6		1 / 1	1 / 1	
Chaipatr	Srivisarvacha	17 / 17	13 / 13	10 / 10		
Norachet	Sangruji ²	9 / 10			1 / 2	3 / 3
Prinn	Panitchpakdi	16 / 17			3 / 4	5 / 6
Voravan	Tarapoom	15 / 17		10 / 10		6 / 8
Seree	Nonthasoot ¹	6 / 6				
Oranuch	Apisaksirikul ¹	4 / 6	5 / 5		1 / 1	
Anuchit	Anuchitanukul ²	9 / 10	6 / 7			
Executive director						
Pakorn	Peetathawatchai ³ (President)	9 / 10 ⁷		5 / 5	2 / 2	6 / 6
Governors whose terms ended during 2018						
Professor Kittipong	Urapeepatanapong ⁴	6 / 7				
Jotika	Savanananda ⁵	11 / 11	8 / 8	9 / 9		
Pichet	Sithi-Amnuai ⁴	6 / 7			2 / 2	2 / 2
Subhak	Siwaraksa ⁵	8 / 11 ⁹	8 / 8		3 / 3	
Somchai	Thaisa-Nguanvorakul ⁵	8 / 11			3 / 3	
Kesara	Manchusree ⁶	5 / 7 ⁷		4 / 5 ⁷	1 / 2	1 / 2
Experts/ external Specialist						
Vachira	Arromdee					8/8
Somkiat	Sirichatchai ⁸					2/2
Professor Anya	Khanthavit					8/8
Attendance rate		91%	94%	97%	86%	90%

¹ Appointed, by the Securities and Exchange Commission, September 2, 2018

² Elected, by the SET members' meeting, May 28, 2018

³ Appointed, by the SET BoG, June 1, 2018

⁴ Term ended May 27, 2018

⁵ Term ended September 1, 2018

⁶ Term ended May 31, 2018

⁷ Non-executive directors' meeting

⁸ Resigned, effective June 21, 2018

⁹ Requested to be absent from the meeting twice because of the engagement at the Bank of Thailand's Monetary Policy Committee.

Board remuneration

Subject to the provisions of the Securities and Exchange Act, the BoG Chairman and other BoG members will receive remuneration as determined by a meeting of member companies. This ensures that all payments are decided transparently and without the BoG's involvement.

The Nomination and Remuneration Committee examined the compensation policy and criteria for the BoG prior to proposing to the member companies' meeting for approval, in accordance with the provisions of the Securities and Exchange Act.

Monthly fees (THB)	BoG	AC	NRC	CG&SR	RMC
Chairman	135,000	75,000	52,500	52,500	52,500
Members	90,000	50,000	35,000	35,000	35,000

As for committees in charge of legal or regulatory requirements, their members receive meeting allowance. The chairman of the committee receives the allowance of THB 15,000 per meeting and the committee member receives the allowance of THB 10,000 per meeting.

Total remuneration in 2018 (THB) (excluding the president)		BoG	AC	NRC	CG&SR	RMC**
Chaiyawat	Wibulswasdi	6,060,000*				
Pattera	Dilokrunghthirapop	1,080,000	170,000	630,000		451,500
Charamporn	Jotikasthira	357,000		119,000	178,500	
Chaipatr	Srivisarvacha	1,080,000	685,000	420,000		
Norachet	Sangruji	641,612.90			222,833.33	119,000
Prinn	Panitchpakdi	1,080,000			420,000	222,833.33
Voravan	Tarapoom	1,080,000		420,000		479,500
Seree	Nonthasoot	357,000				
Oranuch	Apisaksirikul	357,000	170,000		119,000	
Anuchit	Anuchitanukul	641,612.90	318,333.33			

NOTE

* The chairman's remuneration included THB 370,000 per month, as approved by the annual general meeting of member companies in accordance with the additional roles and responsibilities designated by the BoG.

** Excluding the Risk Management Committee's remuneration for three members who are experts /advisors.

3. Executives

SET senior executives consist of the president, seven senior executive vice presidents and 16 executive vice presidents, totaling 24 members. The president is the top executive, responsible for running SET operations in accordance with SET policies, strategic goals, laws and others as specified by the BoG. They will also report the progress of the implementation of strategic plans and SET performance, including key operating results of the SET group and member companies to the BoG on a quarterly basis. On issues relating to the external parties, the president will represent SET and may assign other persons to carry out certain functions, but such delegation of power must not violate SET rules and regulations.

In 2018, the BoG considered and approved the appointment of Mr. Pakorn Peetathawatchai as the 13th President, effective June 1, 2018, succeeding Ms. Kesara Manchusree who finished her term on May 31, 2018. Every step of the selection process has been carried out according to the required procedure with transparency.

In considering remuneration for the president, and senior executives, the BoG assigns the Nomination and Remuneration Committee to consider the remuneration policies and criteria for the committee members, president and senior executives and make recommendations for the BoG's approval. The criteria to assess the performance of governors, president and senior executives have been clearly prescribed and linked with the payment rate per specified criteria. The remuneration will be considered based on the organization's performance and the execution of policies assigned by the BoG together with other external factors such as the overall socio-economic conditions.

As of December 31, 2018, SET senior executives receive remuneration including salaries, allowances, special gratuities, bonuses and contributions to the provident fund from SET for 2018 worth a total amount of THB 220,933,118.15.

(Name and profile of senior executives are under the topic of "SET Executives")

4. Human Resources

SET recognizes that employees are the integral part of the organization's success and growth. Therefore, SET has focused on recruitment and compensation in terms of welfare and benefits as well as staff development by adhering to the principles of equality, transparency, fairness, non-violation of human rights and enhancing the working atmosphere to create unity and employee engagement in the long run.

As of December 31, 2018, there were 744 employees working for SET and subsidiaries, consisting 231 male and 513 female staff. In 2018, SET paid a total of THB 1,466,818,513.38 worth of compensation to employees consisting of salary, bonus and provident fund.

In addition, SET has enhanced the knowledge and understanding and provided training on environmental responsibility, safety, occupational health and environment for executives and employees. The activities carried out in 2018 are as follows:

Welfare benefits

SET provided life and health insurance, an in-house clinic with medical staff, financial welfare and emergency loans, provident fund scheme, savings co-operative unit, including scholarships for master's degrees both in Thailand and abroad for knowledge enhancement. In addition, SET has designed and arranged the workplace by applying ergonomic theory, and encourage work-life balance among employees.

Remuneration and career advancement opportunities

SET uses Balance Scorecard as a benchmarking tool, using KPIs to assess performance at corporate and individual levels, combined with employees' competency to consider remuneration and promotion for the management and employees. SET has a remuneration system competitive to leading corporations, corresponding with the economic situation and SET's long-term achievements. As a tradition, SET holds an annual ceremony to honor employees who have continuously worked in the organization for long periods, with token of appreciation at every five years of service, starting from year 10 onwards.

Employee training and development

As employees are valuable resources and key success factor of the organization, SET recognizes the importance of developing its human resources by providing career development programs both internal and external training as well as providing scholarships to employees to study for a master's degree to enhance employee competency and career advancement opportunities.

Employees training and development in 2018

Focused on the development of leadership skills e.g. Strategy and Innovation for Businesses in Asia (SIBA), TLCA Leadership Development Program, TLCA Executive Development Program, Thailand Insurance Leadership Program, Capital Market Academy Leadership Program, Thailand Energy Program, etc.

**Executives
Training Courses
(average 18.71
days/person)**

**In-house Training
(average 5.5
days/person)**

**External Training
(average
1.1 days/person)**

Organized a total of 82 courses focusing on leadership and management enhancement, including monthly knowledge-sharing sessions (semi-casual luncheon talks or seminars to update employees on health, languages, and information technology issues)

Encouraged employees to attend various courses organized by leading institutions or organizations to further cultivate working skills and increase work efficiency, including technical skills.

In addition, SET has enhanced the knowledge and understanding and provided training on environmental responsibility, safety, occupational health and environment for executives and employees. The activities carried out in 2018 are as follows:

Social responsibility	Safety, occupational health and environment
<ul style="list-style-type: none"> • “Zero Foam...No Plastic” campaign was organized to encourage SET’s staff to stop using polystyrene foam and plastic containers and use eco-friendly containers and cloth bags instead. • SET established “Segregation for our Well-Being and Waste Reduction for the Planet” project to educate employees about garbage classification and recycling to save the environment. • SET initiated various environmental protection campaigns to become “Green Office” such as Green Week to show green power, no plastic bags at Green Canteen, discount for using staff’s food container and minimal desk arrangement in green office style, among others. 	<ul style="list-style-type: none"> • The Safety, Occupational Health and Environment Committee—set up to oversee safety in the workplace—held 12 meetings/year. • Arranged 19 training courses for a total of 662 employees or 89 percent of all employees, consisting of safety training for employees per the manual for fire prevention and response drill, the cardio pulmonary resuscitation (CPR) procedure, and how to use the life-saving automated external defibrillator (AED) device to restore heart’s normal rhythm. The annual fire drill was practiced in March, 2018. • According to the provision of the law, SET held safety officer training and registered safety officers with Department of Labor Protection and Welfare consisting of 61 Safety Officers in Management level, and 137 Safety Officers in Supervisory level for a total of 464 persons.

Number of sick leave days and accident or sickness rate

In 2018, the amount of employees’ sick leaves are approximately 2.6 man days/year and no incidents that risked disruption to work, or contraction of diseases arising from work.

Employee engagement survey

SET has continuously surveyed employee engagement to the organization. In 2018, the survey showed that the performing employee’s engagement was in the 74 percent. SET will continue to do this survey to develop work environment in the organization because SET believes the higher employee’s engagement rate, the better teamwork and more success.

Part 2 Corporate Governance

1. Corporate Governance Policy and Code of Conduct for the SET Group

The Board of Governors reviews the Corporate Governance Policy and Code of Conduct of the SET group every year by assigning the Corporate Governance and Social Responsibility Committee to consider and screen the contents before proposing to the BoG for approval. In 2018, the BoG, during the meeting on February 21, 2018, agreed to maintain the latest version of Corporate Governance Policy and Code of Conduct which was reviewed in 2017 as it is considered appropriate to serve as the operation guidelines for governors, committee members, experts, consultants as well as employees of SET. Additionally, it is in compliance with the SEC Corporate Governance Code for listed companies 2017, as SET management has presented the reviewed CG Code and has improved the Corporate Governance Policy and Code of Conduct.

This version of the Corporate Governance Policy and Code of Conduct comprises two parts. The first part: the Corporate Governance Policy indicates the Organization for Economic Co-operation and Development (OECD) Principles of Corporate Governance that SET has incorporated in three areas, namely 1. Roles and treatment of stakeholders 2. Disclosure and transparency and 3. Responsibilities of the Board. The second part: the Code of Conduct for the SET Group indicates ethical code in business operations, ethical code for the BoG, committee members, experts, and consultants. More information is available in the SET's website.

The Board of Governors carrying out duties in supporting good corporate governance

The Board of Governors adheres to SET's good corporate governance principles, which is an important foundation for SET's operations in order to earn confidence of stakeholders in the Thai capital market. In 2018, the BoG approved the Corporate Governance Development Plan of the SET group to encourage

SET employees at all levels to apply CG practices in their work correctly. Moreover, SET also arranged the enterprise-wide test for employees to evaluate their knowledge about CG principles. The activities can be summarized as follows:

1) Enhance knowledge and understanding about CG practices for employees:

- Create the enterprise-wide CG training courses for employees with senior executives and external experts as speakers to share their insights on CG Code for employees and CG in practices. In addition, CG online courses are available on the intranet to increase learning channels for employees.
- Prepare CG test and arrange for all employees to take the test to evaluate their knowledge and understanding and bring the results to improve communications to ensure that employees understand the CG principles thoroughly. Employees failing to meet the test standard are required to study further via CG online courses and do the test until they can pass the specified criteria. All employees (100%) have passed the tests according to the specified criteria.

2) Determine and review CG practices for governors and employees:

- Criteria for preventing and managing conflict of interest
 - Approve the criteria used for related party transactions (RPT) of the SET group by comparing the criteria used for listed companies.
 - Approve the improvement of guidelines for addressing conflict of interest for employees in order to bring more clarity in the operations.
- Practices for trading of listed securities and reporting of possible conflict of interest
 - Approve the revised criteria for declaring the directors' interests by reviewing the

guidelines for reporting the interests to make them clear and consistent with the SEC's guidelines.

- Approve the revised criteria for trading of listed securities for employees to provide clarity in implementation and in line with the current investment transaction.

3) Apply CG principles to improve internal operations:

- Procurement Process: CG risk evaluation is incorporated in every step of procurement process. The evaluation results are used to improve the criteria and set the guidelines to prevent corruptions, conflict of interest or a lack of transparency in the process.
- Reviewing the compliance with anti-corruption guidelines: SET has carried out self-assessment for compliance with the guidelines of Private Sector Collective Action Coalition Against Corruption Council (CAC) to ensure that SET has applied the anti-corruption guidelines to thoroughly oversee important matters to prevent corruption risks. The self-assessment results are approved by the Audit Committee.

In addition, SET also encourages listed companies to operate business with corporate governance, social, and environmental responsibility to strengthen and expand their business in a sustainable manner. Moreover, SET supports the capabilities building for personnel of listed companies and member companies as well as the professional development for intermediaries in the capital market. Consequently, listed companies have continuously improved their CG standards and placed greater importance on sustainable business growth. The success of operations in 2018 is summarized below:

- The 2018 Corporate Governance Report (CGR) survey conducted by Thai Institute of Directors Association (IOD), sponsored by SET, among 657 listed companies showed excellent result with the score of 81 percent, the highest ever

since the evaluation survey began in 2001.

- SET received the United Nations Sustainable Stock Exchanges Market Transparency Award at the SSE Global Dialogue during the World Investment Forum (WIF) 2018 in Geneva, Switzerland. The UN SSE Market Transparency Award acknowledges markets where sustainability has been integrated into corporate behavior through reporting practices. SET was ranked the seventh place among 35 global stock exchanges, being the only Asian exchange to reach the top ten.

At the same time, SET has carried out activities to promote and raise awareness and understanding of the staff in the compliance of CG principles and code of conduct for the SET group regularly and continuously, including the following activities:

- Orientation for new governors and employees under the topic of corporate governance policy and code of conduct for the SET group by summarizing the essence of the code of conduct including important rules, such as regulations relating to the acquisition or disposal of securities, anti-corruption policy and policy to prevent and eliminate conflict of interest, etc.
- Publication of electronic articles to create understanding of the essence of corporate governance principles, employee ethics and rules and regulations related to employees regularly.
- Promoting staff participation in training and seminars related to corporate governance to enhance knowledge and understanding continuously regardless of whether the activity is organized by SET or external organizations.

The Compliance Department under the Legal Affairs Division performs its duty with independence in presenting to the Corporate Governance and Social

Responsibility Committee the revision of the corporate governance policy and code of conduct for the SET group as well as related CG guidelines. After the Committee has considered and provided opinions, the revised document will be submitted to the BoG for approval. These include recommendations and follow-ups on the implementation in accordance with the policy and regulations specified by SET. All these operations shall be reported to the Audit Committee and Corporate Governance and Social Responsibility Committee on a regular basis.

In 2018, SET governors and employees strictly complied with the Corporate Governance Policy and Code of Conduct of the SET group. There were no complaints involving wrongdoing or business malpractice by SET governors, management or staff that went against the Corporate Governance Policy and Code of Conduct of the SET group. In 2018, there was no case involving a Board member or SET employee for violation of SET rules and regulations or using insider information or misusing authority in securities trading.

SET's key activities to enhance corporate governance are summarized as follows:

Principle 1 Roles and treatment of stakeholders

SET plays a vital role in developing the capital market and the Thai economy. We treat all groups of stakeholders with transparency and fairness. We also place importance on sustainable development for the capital market and all stakeholders. The key points are as shown below:

Capital market stakeholders e.g. member companies, listed companies, asset management companies, etc.	<ul style="list-style-type: none"> • Listening to stakeholders and related parties' views, both on regulatory adjustments and new regulations issuance, including creating a clear understanding in compliance with the SET regulations and standards • Organizing extensive public relations activities to promote company profiles, including facts and figures of listed firms, securities and asset management companies, for the benefit of investors and the public
Investors and the public	<ul style="list-style-type: none"> • Developing a variety of financial instruments, products and services with service excellence and providing accurate and adequate information accordingly • Providing complete, accurate and updated information • Providing effective two-way communication channels for investors and the public to access business information as well as to report complaints. Customer information must be kept confidential and not used for the benefit of one's own or other persons'
Employees	<ul style="list-style-type: none"> • Providing development programs to enhance employee competency and career advancement opportunities • Managing remuneration and other benefits for employees and management, taking into account the economic situation and SET's long-term achievement, competitively to other leading organizations • Protecting the safety and welfare benefits of employees with equal treatment and Non-Violation of Human Rights • Setting up effective communication channels between management and staff and implementing activities regularly and consistently, covering strategic objectives and directions for the capital market. In addition, all employee opinions and suggestions must be fairly and equally treated.

Business partners	<ul style="list-style-type: none"> • Treating suppliers and business partners with fairness and transparency, based on mutual benefit • Avoiding dishonest conduct purposely carried out to benefit suppliers / business partners. All parties must strictly comply with contractual agreements, obligations and conditions • Encouraging partners on the importance and respect of human rights, and consideration of social and environmental aspects • Monitoring and evaluating the business partners to develop business transactions in a sustainable manner
Creditors	<ul style="list-style-type: none"> • Complying with contracts or agreements transparently • Managing effectively to ensure that creditors have trust in SET's financial status and debt repayment ability (solvency)
Competitors	<ul style="list-style-type: none"> • Competing fairly, not seeking to obtain competitive intelligence dishonestly and not being involved in illegal actions to gain competitive information or beat competitors
Government sector	<ul style="list-style-type: none"> • Competing fairly, not seeking to obtain competitive intelligence dishonestly and not being involved in illegal actions to gain competitive information or beat competitors
Society, community and the environment	<ul style="list-style-type: none"> • Keeping in mind the responsibilities to the society, community and environment, ensuring the employees are knowledgeable about CSR and strongly encouraging employees' participation in CSR activities.

(Please find more details in SET's Sustainability Report 2018.)

- Customer satisfaction survey:

The results of a survey measuring satisfaction in the SET group's services in 2018 among customers and concerned parties consisting of listed companies, member companies, asset management companies, etc. found that the overall satisfaction score was 82 percent.

- Compliance with laws, rules and regulations:

The SET Board of Governors realizes the importance of and strictly complies with the provision of Securities and Exchange Act B.E. 2535 and all related laws regarding money laundering, labor, and intellectual property. In 2018, SET had no case that violated the

laws relating to labor, employment, consumer protection, trade competition and environment.

- Whistle-blowing policy:

SET has set a policy for all stakeholders to report or notify directly to the chairman of the Audit Committee about wrongdoings, violations of rights, violations of Code of Conduct, incorrect financial reports or internal control systems of the SET group. Investigations will be conducted and the findings will be reported to the SET BoG for decision of next steps. However, no significant complaint on ethical issue was made in 2018.

Channels for Whistleblower

All stakeholders can communicate report on illegal acts to the Chairman of the Audit Committee by

1. e-mail: ChairmanofTheAuditCommittee@set.or.th
2. Postal mail : Chairman of the Audit Committee
Internal Audit Department
The Stock Exchange of Thailand
93 Ratchadaphisek Road, Dindaeng
Bangkok 10400

SET has specified the Compliance Department to be responsible for receiving report or complaint from employees about wrongdoings or events that could violate the SET Code of Conduct.

Principle 2 Disclosure and transparency

SET plays a vital role in encouraging listed companies to disclose their information accurately and transparently. The BoG oversees to ensure that important information is disseminated sufficiently, accurately, timely and transparently. The information is available in both Thai and English through easily accessible channels with fairness and credibility.

The information disclosed through the SET website includes the business operations, both financial and non-financial information, of the SET group, information for listed companies and securities companies and information for investors or interested persons, etc.

SET financial reports : SET's annual financial report, including audited financial statements and Management Discussion and Analysis will be available on website no later than 60 days after year-end, (same criteria as listed companies). The 2018 SET financial report was published on February 20, 2019. The BoG provides a statement of its responsibilities related to the SET financial reports alongside the auditor's report in the SET's annual report. SET's annual report is also available on its website no later than 120 days after year-end, (same criteria as listed companies). SET's 2018 annual report was circulated to the members' meeting.

SET provides various communication channels for all stakeholders for information, enquiry, including advice on the SET group's services, via SET Contact Center, as follows:

	+(66) 2009-9999		SETContactCenter@set.or.th
	www.set.or.th		Customer Contact Department
	www.set.or.th/contactcenter		The Stock Exchange of Thailand
	www.facebook.com/set.or.th		93 Ratchadaphisek Road, Dindaeng Bangkok 10400

Enquiries on SET services via SET Call Center are handled accordingly and appropriately.

Principle 3 Responsibilities of the Board

SET's operations strictly comply with the provision of Securities and Exchange Act B.E.2535 and all related laws. The Board of Governors also has the authority and duty to formulate policies, govern and oversee the SET group's operations and other operations in compliance with the Act. SET President is responsible for managing SET's business in compliance with the policies, strategic goals, rules and regulations, as well as the Board's decisions.

The details of the scope of duties and responsibilities of the SET governors are included in the SET's Board Charter, with the content as follows:

- Composition of the Board	- The Board's Meeting
- The Board's Responsibility	- Self-Assessment
- The Board's Duty	- Remuneration of Governors, Executives and Personnel
- The Chairman's Duty	- Development of Governors, Executives and Personnel

It is publicized on the SET website. However, to ensure that SET governors can efficiently dedicate time and effort to perform their duties, a governor should not hold directorship at more than three listed companies (The information as of December 31, 2018 shows that every governor holds directorship at no more than three listed companies).

Vision, mission, goals and strategic plan

The BoG has established the SET's vision, missions, long term strategic framework under the theme of "Towards Sustainable Growth" and continuously monitored and assessed the changing landscape so that it can be used to adjust the framework accordingly. The Board has placed importance on applying innovations to business operations.

In 2018, the BoG reviewed and approved SET's vision and missions and three-year strategic plan (2019–2021) under the vision of "Make the capital market Work for everyone". The strategy is based on the theme "Creating Partnership Platform to Drive Inclusive Growth" to efficiently promote the capital market and become an enabler to enhance the potential of the capital market. SET strives to be the comprehensive capital market platform via four major strategies, namely 1) Expand the business operation, 2) Explore opportunities through new technology, 3) Reform the process and regulations and 4) Restructure business model. In addition, SET also pursues the United Nations' Sustainable Development Goals (SDGs) to develop the capital market in a sustainable manner to serve the overall socio-economic interest. Moreover, the BoG has approved the Corporate Key Performance Indicators or KPIs (both short-term and long-term), the budget, manpower plan and Corporate KPI for 2019 together with overseeing the operations in line with the strategic plan efficiently and effectively. The management team reports the status of Corporate KPI, the progress on operations and SET's performance to the BoG regularly every quarter.

Board assessment

The SET's Board of Governors approved the performance evaluation to assess the Board of Governors at least once a year to review the performance, including problems and difficulties to enhance working efficiency, and in accordance with the principles of good corporate governance. In 2016, the SET Board of Governors considered five types of evaluation: (1) Performance evaluation of the board as a whole (2) Individual self-evaluation (Self-assessment) (3) Individual assessment by other board members (Cross-assessment) (4) Evaluation of the Chairman's performance and (5) Assessment of the skills, knowledge and abilities of the Board members.

This task was assigned to the Corporate Governance and Social Responsibility Committee to advise the SET Board of Governors on the performance evaluation process, including presenting a summary of the assessment with recommendations to the Board of Governors for further improvement and development.

For the evaluation of the Chairman's performance, the Chairman of the Corporate Governance and Social Responsibility Committee reported the result directly to the Chairman.

The assessment of the skills, knowledge and abilities of the board members will be separated from the BoG's performance evaluation and these scores will not be calculated.

- Assessment of the Board as a whole: The assessment covers performance and responsibility, Board meetings, corporate governance and social responsibility, human resource management and succession planning for executives.

- Assessment of Individual Directors: Two types of performance evaluation have been used: Individual self-evaluation (Self-assessment) and Individual assessment by other board members (Cross-assessment), consisting of four areas: 1) Duties and responsibilities of the Board 2) Board meetings 3) Independence and 4) Self-development of governor

Performance evaluation of committees

Every committee involved in corporate governance has the duty to assess its own performance and report to the Board of Governors annually. In 2018, the Audit Committee, the Nomination and Remuneration Committee, the Corporate Governance and Social Responsibility Committee and the Risk Management Committee each evaluated their performance and submitted the report to the SET Board of Governors.

Performance evaluation for the President

The Nomination and Remuneration Committee examines the compensation policy and criteria for the President based on the compensation rate per specified criteria by considering business performance and policy execution as assigned by the BoG together with other external factors such as the overall socio-economic environment.

Succession planning

SET places importance on succession planning to ensure the work progress and continuity of top executive positions. The Nomination and Remuneration Committee will review and present recommendations to the Board for consideration and approval. The successor recruitment and development process is jointly planned with experienced consultants using criteria on knowledge, experience, capability, attitude and ethics. The committee will regularly report to the Board meetings.

Enhancement plan for the Board of Governors

SET gives utmost importance to the continuous and consistent enhancement plan for the governors. SET governors participate in educational courses and observe business activities of various stock exchanges both in Thailand and abroad in order to enhance their knowledge and broaden their perspectives. For a new governor, SET will provide an orientation about SET operations, strategic plan, business plan and the overall operations of the subsidiaries. New governors will also receive a Board of Governors manual which contains key facts and other useful information which are essential for performing their duty.

In 2018, SET governors attended training and seminars to continuously enhance their understanding of the roles, duties, responsibilities and skills to further benefit the organization, as follows:

- The BoG's financial trip for 2018 to Israel from March 23-31, 2018 under the topic about of importance trend of financial product and innovation, was attended by Professor Kittipong Urapeepatanapong, Chaipatr Srivisarvacha, Jotika Savanananda, Pichet Sithi-Amnuai, Prinn Panitchpakdi, Voravan Tarapoom, Subhak Siwaraksa, and Kesara Manchusree.
- IT Governance and Cyber Resilience Program (ITG) course organized by Thai Institute of Directors Association (IOD) was attended by Charamporn Jotikasthira and Advanced Audit Committee Program (AACP) course was attended by Oranuch Apisaksirikul.
- The BoG participated in Capital Market Research Forum under the topic "Observations on Digital Revolution: Opportunities and Challenges" organized by Capital Market Research Institute of SET. The governors attending the forum included Pichet Sithi-Amnuai, Anuchit Anuchitanukul, Chaipatr Srivisarvacha, and Prinn Panitchpakdi.

- The BoG participated in the “Thailand SEC Policy Dialogue 2018: Regulating by Market Forces” seminar to exchange views on the capital market governance and development by applying various tools and mechanisms. The effort does not require only regulatory discipline, but also self-discipline and market discipline. The governors attending the seminar included Norachet Sangruji, Chaipatr Srivisarvacha, Anuchit Anuchitanukul, and Prinn Panitchpakdi.
- “Cyber Threats: Challenges for Board of Directors” seminar was organized to enhance knowledge on corporate strategies and policies planning as well as enhance governing and supervising, the importance of cyberthreats and how to oversee cybersecurity. The speakers were experts from leading organizations in Thailand. The seminar was attended by Anuchit Anuchitanukul, Charamporn Jotikasthira, and Oranuch Apisaksirikul.

Training at the Thai Institute of Directors Association (IOD)

Current governors/ Courses	Director Certification Program (DCP)	Director Accreditation Program (DAP)	The Role of the Chairman Program (RCP)	Advance Audit Committee Program (AACP)	Audit Committee Program (ACP)	Risk Management Committee Program (RMP)	Role of the Compensation Committee (RCC)	Corporate Governance for Capital Market Intermediaries (CGI)	others
1. Chaipayat Wibulswasdi	✓	✓							
2. Pattera Dilokrunthirapop	✓	✓	✓				✓	✓	
3. Charamporn Jotikasthira	✓	✓							ITG*
4. Chaipatr Srivisarvacha	✓		✓	✓				✓	EXAM
5. Norachet Sangruji	✓	✓						✓	
6. Prinn Panitchpakdi								✓	
7. Voravan Tarapoom	✓		✓		✓	✓	✓	✓	MFR, MIR, ELP, SFE
8. Seree Nonthasoot	✓								
9. Anuchit Anuchitanukul	✓								
10. Oranuch Apisaksirikul	✓			✓ *					ACEP
11. Pakorn Peetathawatchai	✓	✓						✓	

✓ * seminar course which governors attended in 2018

2. Internal Control and Risk Management

Internal control and risk Management

Realizing the importance of efficient internal control at all levels, the BoG has strongly supported management in setting up transparent working processes, restructuring and segregating duties with checks and balances, clearly specifying authority and putting things in writing. Monitoring system has also been set up. The BoG has appointed an Audit Committee to supervise and review SET's internal control system to ensure conformity with international standards, and the Internal Audit Department to review internal control in various systems such as operation process, financial reporting and compliance with rules and regulations of the regulator. These are to ensure that SET operations are based on the internal control guidelines and framework of The Committee of Sponsoring Organization of Tradeway Commission (COSO).

The Internal Audit Department is an independent function that reports directly to the Audit Committee on audit matters. Administrative matters have to be reported directly to the SET president. Audit Committee members consider the appointment, transfer or removal, and evaluate the Head of the Internal Audit Department. In 2018, Chanapai Supphasuk was Head of the Internal Audit Department.

The Internal Audit Department is independent in the access of necessary information for auditing. The Internal Audit Department audits and evaluates the adequacy, suitability and efficiency of the internal control system of various procedures and systems according to SET's annual audit plan, developed by using a risk-based approach which is reviewed annually to match with change of risks, to be approved by the Audit Committee. The audit findings and follow-up

results on the management's operation have been directly reported to the Audit Committee continuously.

In 2018, SET organized activities/projects to enhance the effectiveness of SET's internal control system with the highlights summarized below:

- SET has placed importance on complying with the regulatory requirements of supervisory agencies and related international standards. The Internal Audit Department has examined the readiness in complying with the SEC criteria before the enforcement and examined the readiness for the assessment under the Financial Sector Assessment Program (FSAP) program.
- SET designed the computer system to prepare for new transactions such as Payment System for Capital Market and T+2 by focusing on system development to ensure effective control and system testing. The Internal Audit Department was assigned to conduct a pre-implementation review of the new system before the launch. SET also ensures the system readiness before re-certification. SET was certified by ISO 27001 in 2018.
- The Internal Audit Department has continuously improved the quality of internal audit through training to enhance general audit skills and specialized skills such as the trip to study risk management at Tel-Aviv Stock Exchange (TASE) in Israel. They also attended the ASIA CACS 2018 seminar to exchange work experiences, participated in training and received professional certificates including CISA, CSX, CPIAT and others. In 2018, the training involved 82 man-days.

- SET carries out a Quality Assessment Review (QAR) to assess the effectiveness of internal audit activities based on the International Professional Practices Framework. The Internal Audit Department conducts “peer review” assessment every year and hires external independent appraisers every five years for efficiency in line with international standards. The last assessment by external independent appraisers was in 2016.

Risk management

The BoG emphasizes the importance of systematic risk management. The BoG is responsible for designating risk management policies and framework for the organization and appointing the Risk Management Committee (RMC). The RMC, consisting of experts in risk management, advises and makes recommendations to the BoG and the management to ensure that SET’s risk management process is in line with specified policies, scopes and enterprise-wide risk management. The RMC has to report significant risks of the SET group to the BoG regularly while the Risk Management Department has been assigned to coordinate and support the implementation of risk management and report the operating results to Risk Management Committee regularly. Moreover, it has the duty to coordinate risk management operations at the level of the SET group, as well as supporting and providing guidelines for managing risks per specified scope and risk management procedure for subsidiaries.

Please find more details under the topic “Enterprise risk management”

3. Principles to Support Honest and Transparent Business Operation

Anti-corruption

SET’s BoG realizes the importance of conducting business with integrity and transparency. The BoG approved the “SET’s Anti-Corruption Guidelines”, indicating best practices for governors, committee members, advisors/experts and employees. The guidelines specify the principles in line with best practice to combat corruption as regulated by the Private Sector Collective Action Coalition Against Corruption Council (CAC) and adheres to the principle of No Gift Policy to establish a good governance and best practice for employees to follow with transparency, without conflict of interest. The policy has been communicated to listed companies, member companies and related agencies in the Thai capital market. SET is a member of the Anti-Corruption Organization of Thailand.

For more details of SET’s Anti-Corruption Guidelines, please visit SET website

Key supporting activities to implement the Anti-misconduct and Anti-corruption policies in 2018

<p>Communicating the Anti-Corruption policy</p>	<p><u>Internal</u></p> <ul style="list-style-type: none"> - Disseminated “SET’s Anti-Corruption Guidelines” and “No Gift Policy” via internal site - Provided an orientation of SET’s Anti-Corruption Guidelines to new employees <p><u>Suppliers, listed companies, other stakeholders etc.</u></p> <ul style="list-style-type: none"> - Circulate letters and newsletters to requested suppliers, listed companies and security companies to cooperate in refraining from giving gifts to SET staff in order to create standard for best practice - Posted “SET’s Anti-Corruption Guidelines” and “No Gift Policy” on the SET website
<p>Risk assessment</p>	<p>Fraud and corruption are considered key risks facing the organization. Every year, each department must evaluate and identify the measures required to manage such risks. Each department has to continuously monitor and report risk status to ensure that SET can handle risks in a timely manner and manage risks efficiently, keeping them at an acceptable level. The Risk Management Department regularly tracks and reports risk status to senior management, the Risk Management Committee and the SET Board of Governors, keeping them constantly informed. The Internal Audit Department verifies the effectiveness of internal control measures related to the prevention of fraud and corruption.</p>
<p>Monitoring</p>	<p>The Compliance Department is directly responsible for consulting with and providing suggestions to staff, as well as ensuring that SET operations comply with SET anti-corruption policy and guidelines. In addition, this unit manages whistle-blowing from staff who has found actions likely to lead to corruption, coordinating with the internal audit unit for investigation, for transparency and fair treatment with all parties and then report to the SET President and the Audit Committee.</p>
<p>Creating awareness among governors, executives and staff</p>	<ul style="list-style-type: none"> - SET has continuously encouraged our governors, executives and employees to participate in various activities to support anti-corruption efforts, - SET governors, executives and employees joined the Anti-Corruption Day 2018 under the concept “Zero Tolerance with Corruption” organized by Anti-Corruption Organizations of Thailand jointly with both public and private sectors on December 7, 2018.

Acquisition or disposition of listed securities by governors and employees

To foster public trust in The Stock Exchange of Thailand, the SET Board of Governors has stipulated the securities trading practices that governors and staff are required to follow. These practices require that subscription to and trading of securities must be done honestly, without exploitation of confidential information or misuse of authority or position. SET governors and employees are required to follow specified procedures in the acquisition or disposition of listed securities. Governors must report on their securities holdings or those of their spouses, cohabiting couple or minor children; such reports shall remain confidential. All employees are required to seek prior written approval from their supervisor before performing any securities transaction.

Please find more details on "Acquisition or disposition of listed securities by governors and employees" on SET website

Guidelines for Preventing and Addressing Conflict of Interest

In order to prevent employees from engaging in any act that may lead to conflict of interest, SET establishes the guidelines for matters including:

- Not allowed to serve as the boards or consultants of listed companies or member firms.
- If serving as a board member of other companies or organizations, must seek prior approval from the President. If the President is the person in question, must seek prior approval from the Chairman.
- If involving in transactions with SET, must disclose in writing any relationship, both direct and indirect, with related person engaged in those transactions, and must abstain from participating in the procurement process.

As of December 31, 2018, SET senior executives do not serve as a director, sub-committee member and consultant in a listed company and a member company, except for companies under the SET group and organizations or agencies related to the development of the Thai capital market.

Policies on confidentiality and data usage

To protect and safeguard SET confidential information and prevent information leak, SET has created the Data Classification Policy. Written procedures and guidelines for data classification have defined categories and criteria,

to be used by SET to classify data and specify the roles and responsibilities of employees within the organization. Compliance Department will instruct the business functions to follow this policy and will also provide appropriate tools for data disclosure in the most effective and efficient manner, as well as preventing data leak.

4. Information and Communications Technology

The BoG emphasizes the importance of security management of the information technology (IT) system. The BoG approved the Information Technology Management and Information Security Management Policy framework in line with international standards and related rules and criteria as appropriate. All employees have to make use of IT carefully for utmost benefit to the organization with no negative impact on SET or stakeholders.

Today the SET group manages state-of-the-art technology that is efficient and world-class in line with ISO27001 (Information Security Management System) , ISO 20000 (Information Technology Service Management System), etc. The IT Management and Information Security Management Policy and measures are based on the principle of Confidential, Integrity, Availability (CIA), in compliance with ISO27001.

5. Compensation for External Auditors

- **Audit Fee:** In 2018, The Stock Exchange of Thailand and its subsidiaries paid the audit fee of THB 3,835,000 to the audit firm.
- **Non-Audit Service Fee:** The Stock Exchange of Thailand paid the other service fees of THB 1,284,700 to the audit firm for the cost of a Black Box Penetration Testing, speakers of the seminar course under the topic of "Disruptive Technologies" and other topics relating to accounting principles. The management considered that using the audit firm's other services apart from an audit work is not regarded as conflict of interest and not self-examined. This did not result in the lack of independence nor impartial in auditing, and has been approved by the Audit Committee.

As of December 31, 2018

Committees of The Stock Exchange of Thailand (SET) 2018

1. Appeals Committee
2. Audit Committee
3. Corporate Governance and Social Responsibilities Committee
4. Disciplinary Committee
5. Legal Affairs Committee
6. Nomination and Remuneration Committee
7. Risk Management Committee
8. Securities Investor Protection Fund Committee

1. Appeals Committee

Support unit: Enforcement Department

Structure: The committee consists of three to five members, appointed by the SET BoG with the approval of the SEC. Each member must be expert in at least one of the following fields: law, finance and accounting, or the brokerage business.

Term: July 1, 2017 to June 30, 2019

Name		Position
1. Pakhawat	Kovithvatanaphong	Chairman
2. Chao	Arunyawat	Member
3. Chokechai	Tanpoonsinthana	Member
4. Wanchart	Santikunchorn	Member
5. Somjin	Sornpaisarn	Member

Responsibilities of the Appeals Committee are:

1. To review any appeal made against any punishment or orders issued by the SET BoG, Disciplinary Committee or President, and to determine the innocence or guilt of appellants
2. To review any request for suspension of execution of punishment or orders in which any condition or collateral is specified or required
3. To advise the SET BoG regarding punishments, reductions in punishments, orders not to punish, confirming punishment orders being appealed, or any other matter raised by appellants
4. To order the termination of any appeal withdrawn prior to or during consideration by the Appeals Committee

2. Audit Committee

Support unit: Internal Audit Department

Structure: Members consist of four SET governors. One member must be from among the governors appointed by the Securities and Exchange Commission, the second from among the governors who are executives of member companies and also elected by SET members, while the third may be any of the remaining governors who must be knowledgeable in accounting, finance or auditing.

Term: Until the end of each given person's tenure as governor

Name		Position
1. Chaipatr	Srivisarvacha ¹	Chairman
2. Anuchit	Anuchitanukul ²	Member
3. Pattera	Dilokrunthirapop ³	Member
4. Oranuch	Apisaksirikul ³	Member

¹ was appointed as chairman on September 19, 2018

² was appointed on June 20, 2018

³ was appointed on September 19, 2018

Responsibilities of the Audit Committee are stipulated in the Audit Committee charter:

1. To review SET's financial reports before forwarding them to the BoG
2. To advise management on the appointment of SET's auditor and determine the auditor's remuneration; coordinate with the auditor on auditing objectives, coverage, guidelines, planning and problems found during the audit, and any issue the auditors deem significant
3. To coordinate with SET's Internal Audit Department on audit objectives, planning, reports and evaluations of the efficiency of SET's internal control system and of the adequacy of resources used for internal control, including any problem found during an audit
4. To consult and review results and recommendations of the auditors and the Internal Audit and Risk Management Department, and follow up any operational management matters consequent to those recommendations
5. To monitor compliance with the laws, rules and regulations issued by SET's regulators
6. To monitor the management of SET's principal risks
7. To report all operations of the Audit Committee to the BoG at least four times a year
8. To be responsible for any duty related to the Audit Committee as assigned by the BoG

3. Corporate Governance and Social Responsibilities Committee

Support unit: Corporate Governance Development Department

Structure: Five members. Members consist of four SET governors and the SET president

Term: Until the end of each given person's tenure as governor

Name		Position
1. Charamporn	Jotikasthira ¹	Chairman
2. Norachet	Sangruji ²	Member
3. Oranuch	Apisaksirikul ¹	Member
4. Prinn	Panitchpakdi	Member
5. SET President		Member

¹ were appointed on September 19, 2018

² was appointed on June 20, 2018

Responsibilities of the Corporate Governance and Social Responsibilities Committee are:

1. Corporate governance and social responsibility of the listed companies

- (1) To review the Corporate Governance (CG) and Social Responsibility (SR) policies and framework to enhance listed companies, enterprises and related entities in the capital market, including developing guidelines to implement CG and SR in the companies and thus achieving the sustainable growth and creating value in the Thai capital market, the society and the nation
- (2) To advise the SET BoG, and the SET management on CG and SR matters affecting the Thai capital market

2. SET's corporate governance and social responsibility

2.1 SET's Corporate Governance (CG)

Review and advise the SET BoG, as follows:

- (1) To review the SET's CG framework, CG policy, and Code of Conduct suitable for the SET operational structure and comparable to international standard on CG practices or principles

- (2) To examine the compliance with SET CG policy and publicly disclose in the annual report

- (3) To review the procedure of SET BoG annual assessment, and report the assessment summary to the SET BoG

- (4) To advise the SET BoG on the determination of the SET CG development plan in line with the SET CG principles

- (5) To advise the SET BoG and management on the development of SET's corporate governance

- (6) To undertake any other responsibilities assigned by the SET BoG

2.2 SET's Social Responsibility (SR)

- (1) To review the SET SR framework and sustainable development guidelines in line with international standard on SR practices or principles

- (2) To advise the SET BoG on SR development plan according to the SET SR framework

- (3) To provide the SET BoG and the SET management with advice, opinion and recommendation regarding SET's SR development

4. Disciplinary Committee

Support unit: Enforcement Department

Structure: Five members. At least one member must be a SET governor. One person must have expertise and experience in the businesses of SET, brokerage or financial firms. One person must be a legal expert. It has to include the SET president or an executive at senior vice president level or above as delegated by the SET president.

Term: January 1, 2017 to December 31, 2018

Name	Position
1. Professor Kitipong Uraepatanapong*	Chairman
2. Charnchai Kongthongluck	Member
3. Pattera Dilokrunghthirapop	Member
4. Sutthi Sookying	Member
5. The SET executive at senior vice president level or above, as delegated by the SET president	Member

* Pattera Dilokrunghthirapop resigned as Chairman on November 26, 2018 and was replaced by Professor Kitipong Uraepatanapong

Responsibilities of the Disciplinary Committee are:

1. To examine any alleged wrongdoing and punish any individual or juristic person who violates or associates with others in violating SET's rules and regulations, and report the punishment to the SET BoG, except in cases concerning:
 - (a) securities delisting
 - (b) temporary trading suspension of a member company
 - (c) membership revocation
 - (d) other cases as specified by the SET BoG
2. To examine and give explicit instructions according to SET's rules and regulations, including taking any other action necessary for the disciplinary process

In the exceptions above, the Disciplinary Committee will examine facts and evidence, then report the findings with recommendations to the BoG for action.

5. Legal Affairs Committee

Support unit: Legal Department

Structure: Six members, consisting of one SET governor and four other members who must be experts in law and/ or capital market

Term: January 1, 2018 to December 31, 2018

Name		Position
1. Professor Kitipong Urapeepatanapong		Chairman
2. Seree	Nonthasoot ¹	Member
3. Surasak	Vajasit	Member
4. Somkiet	Kuwawattananont	Member
5. Tithiphan	Chuerboonchai	Member
6. Wichien	Harnpraween	Member

¹ was appointed on September 19, 2018

The responsibility of the Legal Affairs Committee is to provide the SET BoG, SET and SET subsidiaries with advice, opinions and recommendations regarding Securities and Exchange ACT, the Derivatives ACT, including the SET group's rules and regulations.

6. Nomination and Remuneration Committee

Support unit: Human Resources Department

Structure: Five members, consisting of the SET vice chairman, chairman of SET's Audit Committee and two members from the remaining governors, including the SET president

Term: Until the end of each given person's tenure as governor

Name		Position
1. Pattera	Dilokrunthirapop	Chairman
2. Charamporn	Jotikasthira ¹	Member
3. Chaipatr	Srvisarvacha	Member
4. Voravan	Tarapoom	Member
5. SET President		Member

¹ was appointed on September 19, 2018

Responsibilities of the Nomination and Remuneration Committee are:

consider and provide the SET BoG with the following matters for approval:

1. Nomination

- | | |
|---|---|
| (1) To review the nomination of the SET senior executives who are qualified for positions at SET and its subsidiaries | (2) To review the annual Succession Plan for the SET president and SET senior executive positions |
|---|---|

- (3) To consider the process of orientation for the new governor and enhancement plan of continuing education for the SET BoG
- (4) To undertake any other responsibilities assigned by The SET BoG

2. Remuneration

- (1) To review the policies and regulations regarding the remuneration of the SET BoG, committees, advisors and SET subsidiaries' board of directors nominated by the SET BoG, including the working groups
- (2) To review the SET's employment remuneration structure

- (3) To review the budgets for annual remuneration adjustment and other annual rewards for the SET employees
- (4) To propose criteria concerning remuneration, salary adjustments including remuneration for the SET president
- (5) To propose criteria concerning remuneration, salary adjustments including remuneration for SET's top executives
- (6) To undertake any other responsibilities assigned by the SET BoG

7. Risk Management Committee

Support unit: Risk Management Department

Structure: Six members, consisting of one or two from the SET governors, the SET president, including one or more experts in risk management

Term: January 1, 2018 to December 31, 2018

Name		Position
1. Voravan	Tarapoom ¹	Chairman
2. Anya	Khanthavit, Ph.D.	Member
3. Norachet	Sangruji ²	Member
4. Prinn	Panitchpakdi ³	Member
5. Vachira	Arromdee	Member
6. SET President		Member

¹ was appointed as chairman on September 19, 2018

² was appointed on September 19, 2018

³ was appointed on June 20, 2018

Responsibilities of the Risk Management Committee are:

1. To consider and provide opinions on Risk Management Policy and Framework to be presented to the Board for consideration and approval
2. To consider and provide opinions on Risk Appetite and Risk Tolerance to be presented to SET's BoG for consideration and approval
3. To acknowledge, consider and provide opinions on risk assessment, guidelines, and risk measurement, including action plans to manage risks at the acceptable level
4. To monitor and follow up the action plan in order to continuously manage risks

5. To provide suggestions on risk management at the corporate level as well as continuously encouraging and supporting improvements, including the development of risk management system within the organization
6. To report the status of key corporate risks, including the risk management implementation to the Board on a regular basis
7. To provide opinions and recommendations on hiring independent external party to provide consultation and advice on risk management to risk management department or other related units
8. To preliminarily screen and consider the appointment of risk management specialist before proposing to the Nomination and Remuneration Committee (NRC) for consideration

8. Securities Investor Protection Fund Committee

Support unit: Member Supervision Department

Support unit: Six members, consisting of one governor appointed by the SEC, one governor elected by SET members, one person elected by Securities Investor Protection Fund members, the Thai Investor Association president, the SET president or an executive delegated by the SET president, and the executive vice president – Market Supervision Division, who also serves as secretary.

Term: In accordance with the rules of membership of the Fund to protect investors in securities

Name		Position
1. Seree	Nonthasoot ¹	Chairman
2. Prinn	Panitchpakdi	Member
3. Pithayain	Assavanig	Member
4. Vachira	Na Ranong	Member
5.	SET President or the executive delegated by the SET President	Member
6.	The Executive Vice President level responsible for Market Supervision Division	Member and Secretary

¹ was appointed on September 19, 2018

No. 1 and 2 term: 1 year, No. 3: 2 years, and No. 4 to No. 6 term: ex officio

Responsibilities of the Securities Investor Protection Funds Committee are:

1. To determine fund management policies in securities or other assets, with possibilities of alternative investments to make profits
2. To examine all relevant facts and evidence concerning investor protection and report its findings to the SET BoG
3. To boost investor confidence in buying or selling securities traded on SET
4. To undertake any other responsibilities and activities assigned by the SET BoG

Audit Committee Report

The Stock Exchange of Thailand (SET)'s Audit Committee consists of four independent non-executive directors with expertise and experience in various fields inclusive of accounting, finance, management, capital market, and information technology. It is chaired by Chaipatr Srivisarvacha, with Pattera Dilokrunghthirapop, Dr. Anuchit Anuchitanukul and Oranuch Apisaksirikul as committee members.

The Board of Governors (BoG) appointed Dr. Anuchit Anuchitanukul to the Committee, effective June 20, 2018. The board also appointed Pattera Dilokrunghthirapop and Oranuch Apisaksirikul as committee members, effective September 19, 2018, to succeed Jotika Savanananda and Dr. Subhak Siwaraksa whose term expired respectively.

In 2018, the Committee held 13 meetings, including one with the executive management team and without the presence of the internal auditor. There were three meetings with SET's external auditor to provide opinions on the auditing plan and review the audit results. One of these meetings was without the presence of the management team to ensure the auditor's independence. The attendance record of the Audit Committee's members is shown in the Corporate Governance Report. (page 53)

The Committee has performed its duties and expressed viewpoints independently under the scope of authority, duty and responsibilities assigned by the BoG, as shown on page 75. The Committee reports the operating results to the BOG on a quarterly basis. A summary of key activities in 2018 is as follows:

- **Financial statements:** The Committee reviewed quarterly financial statements by meeting with the management team and reviewed the 2018 annual financial statements by meetings with the external auditor to examine the accuracy of the financial statements, the appropriateness in financial policy and the sufficient information disclosure. This also included internal control

related to the preparation of the financial statements.

- **Risk management:** The Committee has overseen the key risk management implementation. Quarterly meetings with SET's risk management team were held. In 2018, the Committee held one meeting with the Risk Management Committee to ensure that the internal audit and the risk management operations were moving in the same direction which assisted the internal audit service to align with the risks and aimed at utmost benefit to the organization. In addition, the members of the Audit Committee and the Risk Management Committee also visited the Tel Aviv Stock Exchange in Israel to exchange views and experience as well as to enhance the corporate governance, risk management and internal audit practice.

The Committee has placed importance on risk management related to technology by assigning the internal auditor to conduct the pre-implementation review of new key systems before the launch as well as post-implementation review at a certain period of time after the launch.

- **Internal control:** In 2018, the Committee reviewed the adequacy, efficiency and effectiveness of SET's internal control system. This was carried out by reviewing the audit report presented by Internal Audit Department combined with the external auditor's views. The Committee also followed up on internal control system enhancement, and invited the management team of key business units to provide information and viewpoints on their implementations.
- **Internal audit:** In 2018, the Committee approved the annual internal audit plan and budget, as well as the adequacy and suitability of the resources and the independence of the Internal Audit Department's operation. The Committee has also

continuously provided recommendations on audit quality improvement for more efficiency.

The Committee has continuously encouraged the internal auditor's professional enhancement activities. In 2018, the Committee supported staffs in the Internal Audit Department together with the Risk Management Department and the Compliance Department to exchange information and experience with the Tel Aviv Stock Exchange during a business trip. The Committee also supported the staff in sharing experience among various departments internally, attending training courses, and taking professional certificate examinations to gain CISA, CSX and CPIAT certifications.

- **Corporate governance (CG):** In 2018, the Committee held quarterly meetings with the Compliance Department's management team to review SET's CG practice to ensure compliance with SET CG policy and Code of Ethics. The Committee supported other areas of good CG practices, such as providing a channel for employees and other stakeholders to direct their complaints on the SET group's wrongdoings to the Committee's chairperson, via SET's website under "Whistleblowing policy" topic.
- **Related party transaction:** The Committee has a duty to quarterly review related party transactions. In 2018, there was no such transaction that was subject to the Audit Committee consideration.
- **Regulatory compliance:** The Committee met with the management teams responsible for regulatory compliance and the Internal Audit Department to discuss and exchange views to ensure that the operations of SET complied with related laws and regulations as well as international standards.
- **Performance self-assessment:** The Committee assessed itself and reported the results to the BoG on an annual basis. The results indicated that the

Committee's tasks have completely been fulfilled according to the Audit Committee charter. The charter has been reviewed and presented to the BoG for approval annually.

• **Appointment of 2019 external auditors:**

The Committee has the role and duty to recommend to the BoG the appointment and removal of the external auditor. In 2018, the Committee reviewed the performances, and the independence, including the non-audit services of the external auditor, and considered Deloitte Touche Tohmatsu Jaiyos Audit Co., Ltd. as having suitable experience, expertise and professionalism with independence. The Committee then proposed that the auditor from Deloitte Touche Tohmatsu Jaiyos Audit Co., Ltd. (the main auditor) be the auditor of the SET and its subsidiaries for the 2019 financial statement, for the BoG's consideration. The BoG will further seek approval and appointment from the meeting of SET member companies.

In summary, the Committee viewed that SET's financial statements were prepared in accordance with Generally Accepted Accounting Principles and were accurate in essence, with sufficient information disclosure. The Committee also viewed that the internal control system and the risk management were sufficient and appropriate for the business and did not find practices that were non-compliant with relevant laws and regulations.



Chaipatr Srivisarvacha
Chairperson, Audit Committee

February 11, 2019

Nomination and Remuneration Committee Report

In 2018, The Stock Exchange of Thailand (SET)'s Board of Governors (BoG) appointed the Nomination and Remuneration Committee (NRC) consisting of five committee members as follows:

1. Pattera Dilokrunthirapop (Chairperson)
2. Charamporn Jotikasthira
3. Chaipatr Srivisarvacha
4. Voravan Tarapoom
5. Dr. Pakorn Peetathawatchai

The BoG appointed Dr. Pakorn Peetathawatchai as a committee member, effective June 1, 2018, to replace Kesara Manchusree whose term expired and appointed Charamporn Jotikasthira as a committee member, effective September 19, 2018, to replace Jotika Savanananda whose term expired.

During 2018, the Committee has completely performed its duties under the scope of responsibilities specified in the Charter. The committee held 10 meetings. The attendance record of the Committee members is shown in the Corporate Governance Report. A summary of key activities in 2018 is as follows:

Nomination

- (1) Recruited and screened qualified persons for the SET senior executives and its subsidiaries. Screened and reviewed the specialist list, for the case not under any particular Committee, for the BoG's approval. Expressed views concerning the appointment of permanent and temporary experts.
- (2) Reviewed the Succession Plan for top executives.
- (3) Ascertained that the orientation session for the new governors, and the knowledge enhancement for the current governors be arranged continuously.

Remuneration

Considered and provided the BoG with the following matters for approval:

- (1) The policies and regulations regarding the remuneration of the BoG, committee members and SET subsidiaries' board of directors appointed by the BoG, including experts / specialists and the SET working groups
- (2) The criteria concerning remuneration for the SET executives and employees
- (3) The review of salary structure for SET's employees
- (4) The criteria guidelines regarding performance evaluation for the SET president

Performance self-assessment:

The committee assessed itself and presented the results to the BoG on an annual basis. The 2018 results indicated that the committee's task has completely been fulfilled according to its Charter.

In summary, the Committee viewed that the practice of the Committee was in line with the missions, duties, experiences and responsibilities assigned to each member, in accordance with the SET's corporate governance and best practice guidelines.



Pattera Dilokrunthirapop

Chairperson

Nomination and Remuneration Committee

January 14, 2019

Risk Management Committee Report

The Stock Exchange of Thailand (SET)'s Board of Governors (BoG) appointed the Risk Management Committee (RMC) consisting of six committee members: three Board members, the SET President, and two non-executive experts in the fields of finance, accounting or risk management, as follows:

- | | |
|-----------------------|------------------------|
| 1. Voravan | Tarapoom (Chairperson) |
| 2. Norachet | Sangruji |
| 3. Prinn | Panitchpakdi |
| 4. Dr. Pakorn | Peetathawatchai |
| 5. Vachira | Arromdee (expert) |
| 6. Professor Dr. Anya | Khanthavit (expert) |

During 2018, the BoG appointed its members to replace those whose terms expired / resigned from RMC as follows:

- Prinn Panitchpakdi as member, effective May 27, 2018, to replace Pichet Sithi-Amnuai whose term expired
- Voravan Tarapoom as Chairperson, effective September 19, 2018 to replace Pattera Dilokrunthirapop who resigned from RMC
- Norachet Sangruji as member, effective September 19, 2018

RMC has governed and considered risk management process to ensure that it was in line with the corporate risk management policy and framework. RMC has regularly reported key risk status of the SET group to the BoG under the scope of responsibilities specified in the Charter.

During 2018, RMC held eight meetings, consisting of seven RMC meetings and one joint meeting with the Audit Committee. The attendance record of the committee members is shown in the Corporate Governance Report. A summary of key activities and performance in 2018 is as follows:

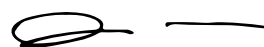
- **Enterprise Risk Management:** RMC reviewed and provided suggestions and recommendations on corporate risk appetite and risk tolerance, corporate risk profile, key risk indicators (KRIs), as well as reviewing the risk management policy and framework to ensure that risk management implementation was in line with the company's set policy and international standard for utmost

benefit to the organization. In addition, RMC monitored the progress of the 2018 strategic plan on a quarterly basis and had followed up the implementation according to the key objectives of each strategy. These helped strengthen the link between risk management and corporate strategic planning.

- **Risk management of new business and projects:** RMC reviewed and provided suggestions and recommendations on the risks related to SET's various projects, for example: 1) Developing proxy for the capital market to link with National Digital ID to reduce investment cost on hardware; 2) Extending payment and settlement service of the FundConnex platform to enable investors to invest in a variety of mutual funds conveniently and fast; 3) Shortening settlement cycle (T+2 project) from three to two business days from the transaction date, making it aligned with international exchanges which was effective from March 2, 2018 onwards; and 4) Developing platform named LiVE to facilitate small and medium-sized enterprises (SMEs) and startups to access funding on SET and market for alternative investment (mai) with roles in screening companies, being advertising channel and advisor inclusive of supporting system for fundraising.
- **Risk management of key operations:** RMC reviewed and provided recommendations on the risk management of various key operations such as the risk assessment of procurement process, the review of new product approval process, and the overall insurance framework of the SET group in order to review the principle of insurance policy more appropriately.
- **Risk management of SET's subsidiaries:** RMC has continuously and regularly reviewed and provided recommendations on the risk management of SET's subsidiaries to ensure that the risk management of the subsidiaries were executed in line with the SET group and international standard.

- **Risk monitoring:** RMC has regularly monitored the status of key risks of the SET group to ensure continuous and efficient risk monitoring and overseeing. Similar to the previous years, in 2018 RMC also reported its activities to the BoG on a quarterly basis.
- **Risk management and internal audit:** RMC has communicated, exchanged information and coordinated with related parties regarding risk management and internal audit. In 2018, RMC held a joint meeting with the Audit Committee (AC) to follow up the post implementation of 3 key systems: Payment, FundConnex and LiVE Platform. In addition, the members of the RMC and the AC also visited Tel Aviv Stock Exchange in Israel to exchange views and experience as well as enhancing knowledge on technology, corporate governance, risk management and internal audit. The lessons learned and applications will further boost the organizational operations and will benefit the organization as a whole.
- **Personnel development:** RMC has continuously encouraged the risk management team on knowledge and skills enhancement. In 2018, the risk management team joined the business trip to Tel Aviv Stock Exchange in Israel. The team also attended several training and seminars such as the academic conference on the topic of “Value Creation and Enhancement for Listed Companies with the New COSO 2017 Enterprise Risk Management (ERM)” co-hosted by Faculty of Commerce and Accountancy, Thammasat University and SET to learn the latest enterprise risk management framework with an aim to adapt for SET’s risk management, etc.
- **Performance self-assessment:** RMC regularly conducts performance self-assessment and presents the result to the BoG on an annual basis. The 2018 result indicated that the RMC’s tasks have completely been fulfilled according to its Charter. The Charter has been reviewed by RMC, as has been carried out annually, and has also been approved by the BoG.

In summary, RMC viewed that the SET group has developed and enhanced enterprise risk management to cover all key aspects continuously, in line with the ever-changing environment. All the regular RMC meetings as well as the meeting with AC have enhanced efficiency and appropriateness of SET’s risk management operations to control and minimize risks at acceptable level.



Voravan Tarapoom

Chairperson

Risk Management Committee

March 5, 2019

Corporate Governance and Social Responsibility Committee Report

The Corporate Governance and Social Responsibility Committee (“the Committee”) is comprised of five directors from the SET Board of Governors, four of whom are independent directors. The Committee consists of:

1. Mr. Charnporn Jotikasthira, Chairman of the Committee (succeeding Mr. Pichet Sithi-Amnuai, who completed his term on 19 September 2018)
2. Mrs. Oranuch Apisaksirikul, Member (succeeding Dr. Somchai Thaisa-Nyuavorakul, who completed his term on 19 September 2018)
3. Mr. Norachet Sangruji, Member (succeeding Dr. Subhak Siwaraksa, who completed his term on 20 June 2018)
4. Mr. Prinn Panitchpakdi, Member
5. Dr. Pakorn Peetathawatchai, Member (succeeding Mrs. Kesara Manchusre, who completed her term on 31 May 2018)

The Corporate Governance and Social Responsibility Committee carried out their duties independently within the scope of their responsibilities outlined in the Committee charter; expressing their opinions and providing beneficial recommendations for the development of corporate governance and social responsibility. In 2018, the Committee held a total of four meetings (meeting details are available in the “SET Corporate Governance Report”) and performance results were reported to the SET Board of Governors on a quarterly basis. Key matters addressed by the Committee in 2018 can be summarized as follows:

Corporate Governance and Social Responsibility for the SET group

1. Revised the SET governance structure to more accurately reflect the roles and responsibilities of SET and ensure that it aligned with international principles for good governance and is comparable with those of leading organizations. The Committee provided its opinions to the SET Board of Governors on the following matters:

- SET Corporate Governance Policy and Code of Conduct
- Committees Policy such as structure, composition, nomination processes, roles and responsibilities, in order to maintain their independence and prevent conflicts of interest
- The charters of the SET Board of Governors and the charters of the Corporate Governance and Social Responsibility Committee

2. Promoted a CG & Compliance Culture The Committee provided its opinions on encouraging employees to learn about and develop an understanding of the SET group Corporate Governance Policy and Code of Conduct, so that they can apply it accurately in their own work, and held an organization-wide evaluation to assess employee knowledge and understanding on the subject, where 100% of employees passed the threshold required. The Committee also revised and improved upon various regulations, rules, and control processes, so that they reflected honesty, integrity, and transparency in business operations. These included the SET group’s rules on connected transactions; rules on the acquisition or disposition of listed securities by SET governors and employees; the procurement process; the approval process and compliance with the Anti-Corruption Policy.

Corporate Governance and Social Responsibility for listed companies and other related organizations in the capital market

The Committee provided its opinions and recommendations on SET's approach to promoting sustainable business practices for listed companies, encouraged high-potential listed companies to adopt international standards on sustainability indicators, and to maintain their sustainability leadership within the ASEAN region. Furthermore, the Committee promoted the use of innovations in small and medium-sized listed companies in order for them to develop their efficiencies and build up their competitive advantage; and the Committee also recommended that information be disclosed in accordance with good governance principles.

Performance Assessment of the Corporate Governance and Social Responsibility Committee

The Corporate Governance and Social Responsibility Committee conducts a self-assessment and reports the results to the SET Board of Directors on an annual basis. For 2018, the assessment revealed that the Committee completely fulfilled its responsibilities as specified in the Charter.

In conclusion, in 2018, it is of the Committee's view that SET demonstrated efficient and appropriate performance on corporate governance and social responsibility in regard to the SET group, listed companies, and stakeholders. Performance was achieved in line with set targets on promoting and developing sustainability in the Thai capital market; and information disclosure in the Corporate Governance Report was suitable and in line with international standards.



Charnporn Jotikasthira
Chairman, Corporate Governance and Social
Responsibility Committee

February 18, 2019

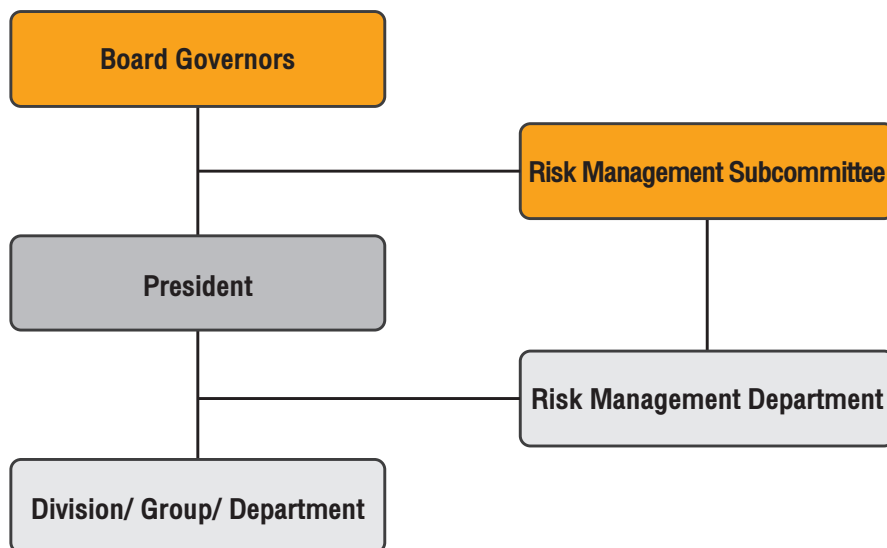
Enterprise Risk Management (ERM)

1. Overview of risk management

The Stock Exchange of Thailand (SET) recognizes the importance of enterprise-wide risk that supports the organization to achieve business objectives, strengthen business, value-added and sustainability of all stakeholders including investors, regulatory

organizations, member companies, employees and related parties. SET manages risks in line with the corporate policy and international standards covering the operations in the SET group. The governance structure of SET's risk management is illustrated below:

Governance structure of SET's risk management



The Board of Governors (BoG) has clearly specified governance structure of risk management. The BoG is responsible for governing the executives to implement appropriate and effective enterprise risk management process. The BoG has appointed the Risk Management Committee (RMC) to oversee and consider risk management process to ensure that the process is in line with the enterprise risk management policy, framework and process. RMC also regularly reports the status of the SET group's key risks to the BoG. The implementation of enterprise risk management has been cascaded to all subsidiaries. Risk representatives of all risk owners

in the SET group have coordinated and applied risk management process according to the guidelines. All executives and staff have responsibilities to assess and manage their related risks based on the set policy, guideline and process. The risk management department supports RMC operations and provides the risk management report to RMC. In addition, the risk management department also coordinates and implements the risk management process for the SET group as a whole, as well as supporting and providing the guidelines for the subsidiaries to perform in line with the risk management framework and process specified by SET.

2. Risk management in various aspects

SET recognizes the importance of overseeing and managing all key risks which may affect SET's business operation. The risk management is in line with COSO¹ Enterprise Risk Management Framework and those of leading exchanges. The risk assessment analyzes potential causes and sources of risks, current controls and risk mitigation, as well as the effectiveness of such mitigation plans, in order to consider inherent risk and residual risk compared with risk appetite. Key risk indicators (KRIs) of all key risks are set for monitoring the trend of risk and used as early warning if the risk level increases or decreases. This can assist SET to prevent or reduce the magnitude of its impact in time. All these risks cover strategic, financial, operational and compliance aspects, as follows:

Strategic risk

New business and projects risk

Risk management of new business and projects is important and essential for business operation. SET focuses on risk assessment and management of such new projects. RMC reviews and provides viewpoints on risk issues and management prior to the BoG's consideration. The new business and projects in 2018 included (1) Developing FinNet, the payment system infrastructure in order to enhance efficiency of the capital market's payment process, in line with the government's National e-Payment Roadmap (2) Developing LiVE platform to facilitate startups and small and medium-sized enterprises (SMEs) to be well-known among wider groups of investors and (3) Promoting depositary receipt (DR), an investment instrument that represents foreign company's securities to be listed on SET, among other projects.

Risk arises from Disruption of Innovation/Technologies

Digital technology currently plays an important role in the financial sector. SET realizes that it will affect business operation currently and in the long run. Therefore, SET has to adapt to this dynamic change to maintain competitiveness and seek potential business opportunities to enhance value-added to related parties in the industry. SET utilize technologies and innovations to optimize and improve end-to-end services by building open platforms to promote business opportunities and focus on cooperation with stakeholders in the capital market. These open architectural infrastructure platforms will set the standard for the industry such as FundConnex centralized system, payment system and will enable SET to cope with the technology disruption via new innovations and business models to serve the changing customer demands.

Financial risk

Credit risk (Counterparty or clearing and settlement-related risk):

Thailand Clearing House Co., Ltd. (TCH), as central counterparty (CCP) for SET and Thailand Futures Exchange PCL (TFEX), has been continuously committed to enhancing risk management in line with international standards and best practice. In 2018, TCH shortened settlement cycle from three to two business days from the transaction date, minimizing risk in the industry and making it aligned with international exchanges. Moreover, TCH had started to accept several types of collateral specifically the common stocks which are underlying assets of single stock futures, government bonds or Bank of Thailand (BOT) bonds in derivatives market. Therefore, TCH has set up concentration limit on securities collateral for risk management purpose. The haircut category and methodology were reviewed by the risk perspective to better reflect the risk of the securities and to be in line with international standard.

¹ The Committee of Sponsoring Organizations of the Treadway Commission (COSO)

In addition, TCH conducted a study to improve the margin rate calculation methodology for the derivatives market by specifying the minimum volatility level to assist the stability of margin and better respond to the risk from various possible events. This new calculation methodology is expected to be effective by 2019.

Investment risk:

SET's investment portfolio, managed by the Investment Committee (IC), operates under investment and strategic asset allocation policies as approved by the BoG. In addition, SET monitors the investment risk status and reports to the IC, RMC, Audit Committee (AC) and BoG regularly to ensure that risks are within the acceptable level.

SET manages risk by investing in various securities and sets the investment limit in each financial institution or issuer in order to diversify the investment suitably and to ensure the limited loss. In addition, SET also uses the Value at Risk (VAR) technique to ensure that the aggregate portfolio risk is within a specified scope. SET invests in instruments such as government bonds, bank deposits, money market funds and corporate funds with at least "A" credit rating.

Operational risk

Risk from critical system failure and business interruption:

SET assesses, monitors and manages risks that may affect critical systems. This includes standard procedures of incident reports, root cause analysis and solution findings in order to provide continuous services.

SET establishes Business Continuity Management (BCM) covering emergency response and crisis management plan, business continuity plan and IT

disaster and recovery plan. SET also reviews, exercises and tests business continuity plan with related participants in the capital market to cope with crisis or disaster every year. SET emphasizes the preparedness of its staff, systems of both its main and alternate sites, while testing alternate system with members to ensure that trading can continue without disruption if disasters occur.

Cyberattack risk:

Cyberattack risk is on the rise and can devastatingly affect service level and confidence of related parties, especially financial institutions. Therefore, SET has implemented the followings to cover four key areas: (1) setting up information security management systems including information security policy and practice in line with ISO27001 and rules and regulations of related parties. These involve reviewing, setting priority for the strategic plan and objectives, assessment for appropriateness, inclusive of the test of efficiency and effectiveness of IT security policy regularly every year; (2) setting up measures and procedures to cope with situations that may affect IT security, as well as testing those procedures to assess the preparedness every year; (3) communicating and sharing knowledge on IT security to staff regularly; and (4) implementing tools for monitoring and preventing cyberattack risk such as Antivirus and AntiMalware, Firewall, DDoS Protection Service, etc.

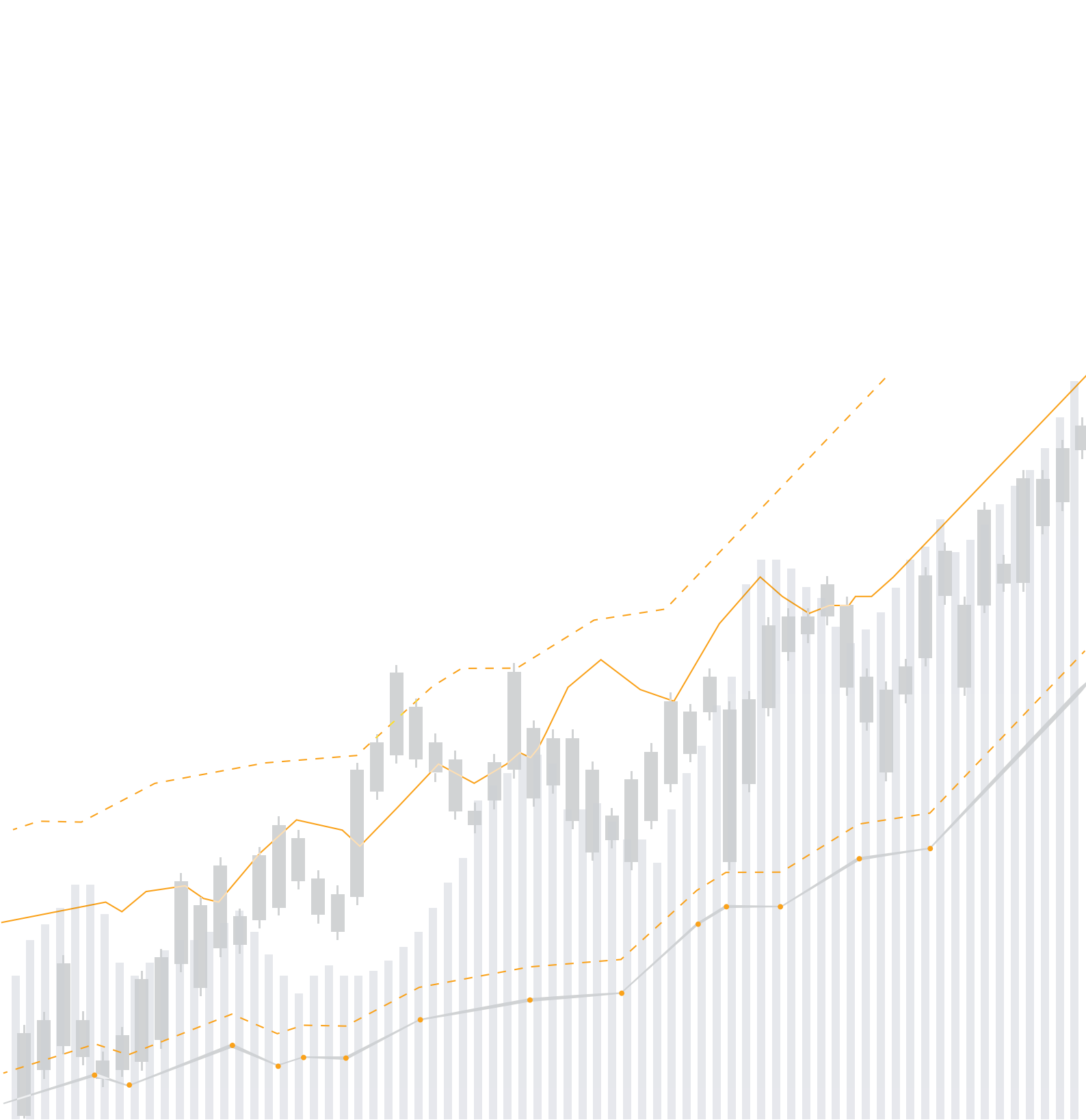


Fraud and corruption risk:

Fraud and corruption risk is one of SET's key risks. Every unit assesses and identifies measure to manage such risk annually. This includes monitoring and reporting risk status continuously to make certain that SET can manage such risk promptly within the acceptable level. Risk management department monitors and reports the risk status to the BoG, RMC and executives regularly, while the internal audit department reviews the effectiveness of internal control related to anti-corruption.

Compliance risk

SET assesses, monitors and manages compliance risk, covering those of violating rules and regulations of regulatory bodies and risk from the fact that board members, executives and staff are not in compliance with policy and practice of the SET group. This is to ensure that SET strictly complies with all related laws and regulations. The risk management department and compliance department support the executives' operation by monitoring and reporting risk status to the BoG, RMC and executives regularly.



**Make it Work by
Ensuring Transparency**

Management Discussion and Analysis

Overview

The operating results of the SET group for the year ended December 31, 2018 were as follows:

(Unit: THB million)	For the year ended December 31			
	2018	2017	Increase / (Decrease)	
			Amount	%
Operating revenue	5,722	5,007	715	14.28%
Other income	270	280	(10)	(3.57%)
Investment income	586	1,045	(459)	(43.92%)
Operating expenses	(3,978)	(3,818)	160	4.19%
Contributions to The Stock Exchange of Thailand Foundation (Foundation)	(186)	(221)	(35)	(15.84%)
Income tax expense	(479)	(504)	(25)	(4.96%)
Revenue over expenses	1,955	1,833	122	6.66%

For the year ended December 31, 2018, revenue over expenses amounted to THB 1,955 million and increased by THB 122 million, compared to 2017. The operating revenue increased by THB 715 million which was mainly resulted from a rise in average daily trading volume of both equity and derivatives, especially for the SET50 Index Futures. Investment income decreased by THB 459 million due to the realization of gain from sales of investments at the end of 2017. This was due to the restructuring of the portfolios to reduce the concentration risk of Thai equity instruments, and the sales of some foreign investment fund (FIF) switching to investing in foreign exchange traded fund (ETF). Operating expenses increased by THB 160 million as a result of the increase in employee expenses, and contributions to the SEC in accordance with equity trading volume.

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, 2018

(Unit: THB million)

Securities Market

- Trading fees	1,413
- Listing fees	643
- Clearing and settlement fees	384
- Depository fees	341
- Membership fees	44

Total	2,825
--------------	--------------

Derivatives Market

- Trading fees	509
- Clearing fees	220
- Membership fees	36

Total	765
--------------	------------

Technology Services

- Member services fees	451
- Information services fees	346
- IT support fees	200

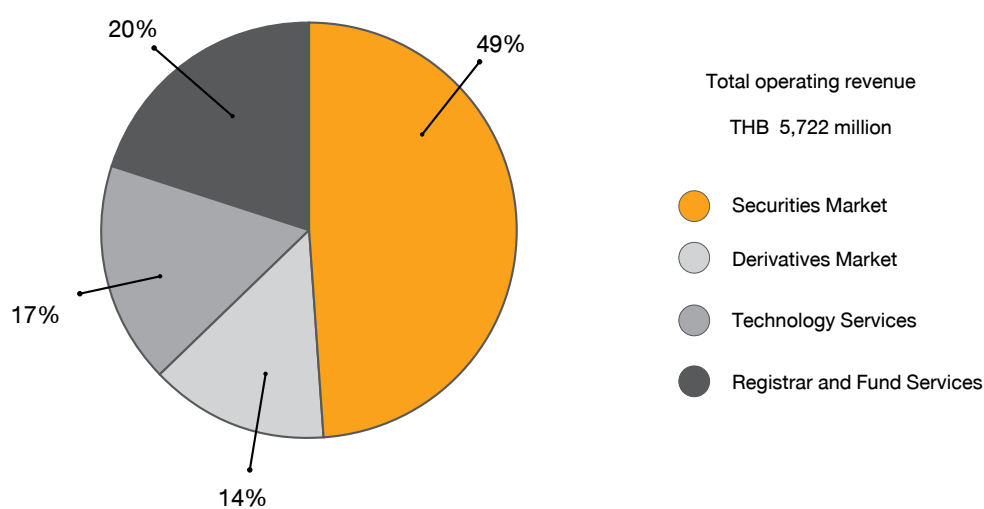
Total	997
--------------	------------

Registrar and Fund Services

- Securities registrar fees	1,121
- Fund services fees	14

Total	1,135
--------------	--------------

Total operating revenue	5,722
--------------------------------	--------------



1.1.1 Securities Market

(Unit: THB million)	2018	2017	Increase / (Decrease)	
			Amount	%
Revenue – Securities Market	2,825	2,502	323	12.91%
Trading fees	1,413	1,223	190	15.54%
Listing fees	643	576	67	11.63%
Clearing and settlement fees	384	337	47	13.95%
Depository fees	341	322	19	5.90%
Membership fees	44	44	–	–
Key market indicators				
SET Index at the end of the year (point)	1,564	1,754	(190)	(10.83%)
Average daily trading value – Equity (THB million)	57,674	50,114	7,560	15.09%
Average market capitalization (THB trillion)	17.63	16.36	1.27	7.76%
No. of listed securities at the end of the year (securities)	2,499	2,286	213	9.32%

Operating revenue from securities market rose by THB 323 million or 12.91%, compared to 2017. This increase mainly resulted from the rise in trading fee as increased in the average daily trading value. In addition, listing fees and depository fees increased by THB 67 million and THB 19 million, respectively, reasonable with the increase of the number of listed securities and increase of average market capitalization.

1.1.2 Derivatives Market

(Unit: THB million)	2018	2017	Increase / (Decrease)	
			Amount	%
Revenue – Derivatives Market	765	519	246	47.40%
Trading fees	509	332	177	53.31%
Clearing fees	220	144	76	52.78%
Membership fees	36	43	(7)	(16.28%)
Key market indicators				
Average daily trading volume – Derivatives (contracts)	426,212	324,216	101,996	31.46%

Operating revenue from derivatives market rose by THB 246 million or 47.40%, compared to 2017, mainly resulting from the rise in average daily trading volume of key derivatives, SET50 Index Futures.

1.1.3 Technology Services

(Unit: THB million)	2018	2017	Increase / (Decrease)	
			Amount	%
Revenue – Technology services	997	919	78	8.49%
Member services fees	451	426	25	5.87%
Information service fees	346	343	3	0.87%
Customization and IT support fees	200	150	50	33.33%

Operating revenue from technology services increased by THB 78 million or 8.49%, compared to 2017. This increase was mainly from member services fees, which were up in accordance with the increase in the average daily trading volume of both equity and key derivative instruments, especially SET50 Index Futures. Customization and IT support fees rose as the number of users increased.

1.1.4 Registrar and Fund Services

(Unit: THB million)	2018	2017	Increase / (Decrease)	
			Amount	%
Revenue – Registrar and fund services	1,135	1,067	68	6.37%
Securities registrar fees	1,121	1,065	56	5.26%
Fund services	14	2	12	600.00%

Operating revenue from registrar and fund services rose by THB 68 million or 6.37%, compared to 2017. 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 services in 2018.

1.2 Other income

(Unit: THB million)	2018	2017	Increase / (Decrease)	
			Amount	%
Other income	270	280	(10)	(3.57%)
Educational activities income	73	75	(2)	(2.67%)
Revenue from fines	59	14	45	321.43%
Revenue from fees and management funds	42	28	14	50.00%
Revenue from marketing events	24	53	(29)	(54.72%)
Revenue from rental and utilities	16	17	(1)	(5.88%)
Revenue from transfer of rights for building utilization	-	33	(33)	(100.00%)
Revenue from transfer of rights of membership	-	10	(10)	(100.00%)
Others	56	50	6	12.00%

Other income decreased by THB 10 million or 3.57%, compared to 2017 because, in 2017, revenue from marketing events additionally increased from the rescheduling of marketing activities in 2016, such as the SET in the City event and SET Awards events. In addition, there was a certain amount of income from the transfer of rights for building utilization of THB 33 million, and income from the transfer of rights of membership of THB 10 million. In 2018, revenue from fines increased by THB 45 million, and revenues from fees and management funds increased by THB 14 million.

1.3 Investment income

(Unit: THB million)	2018	2017	Increase / (Decrease)	
			Amount	%
Investment income	586	1,045	(459)	(43.92%)
Interest income	206	200	6	3.00%
Dividend income	211	216	(5)	(2.31%)
Realized gain from investments	206	596	(390)	(65.44%)
Unrealized gain (loss) from investments	(31)	13	(44)	(338.46%)
Gain (loss) on exchange rate and others	(6)	20	(26)	(130.00%)

Investment income dropped by THB 459 million or 43.92%, compared to 2017 due to the realization of gain from sales of investments at the end of 2017. This was due to the restructuring of portfolios to reduce the concentration risk of Thai equity instruments, and the sales of FIF funds switching to investing in foreign ETF. In addition, in the fourth quarter of 2017, the price of Thai and global equity securities were at a high level, resulting in a gain from sales of investments higher than the gain in 2018.

1.4 Operating expenses

(Unit: THB million)	2018	2017	Increase / (Decrease)	
			Amount	%
Operating expenses	3,978	3,818	160	4.19%
Employee benefit expenses	1,688	1,569	119	7.58%
The SEC fees	567	491	76	15.48%
Depreciation and amortization	483	463	20	4.32%
Direct service expenses	292	292	-	-
Technology expenses	230	213	17	7.98%
Building and office expenses	183	200	(17)	(8.50%)
Educational activities expenses	164	162	2	1.23%
Marketing expenses	161	222	(61)	(27.48%)
Fees and compensation expenses	99	88	11	12.50%
Others	111	118	(7)	(5.93%)

In 2018, the operating expenses amounted to THB 3,978 million, 4.19% increased from 2017. This increase was mainly from employee benefit expenses, and the SEC fees corresponding to the increase in equity trading volume.

2. Analysis of financial position

(Unit: THB million)	Dec 31, 2018	Dec 31, 2017	Increase / (Decrease)	
			Amount	%
Total assets	48,771	45,196	3,575	7.91%
Total liabilities	20,105	17,821	2,284	12.82%
Fund balances	28,666	27,375	1,291	4.72%

Significant movements in assets, liabilities and funds of the SET group as at December 31, 2018 in comparison with the balance as at December 31, 2017, were as follows:

2.1 Analysis of assets

As at December 31, 2018, total assets of the SET group amounted to THB 48,771 million, an increase of THB 3,575 million or 7.91%, in comparison with the balance as at December 31, 2017. Significant details are as follows:

2.1.1 Cash and cash equivalents, cash at banks for financial benefits payable and investments were THB 17,865 million or 36.63% of total assets, a THB 1,408 million or 8.56% increases, categorized as follows:

(Unit: THB million)	Dec 31, 2018	Dec 31, 2017	Increase / (Decrease)	
			Amount	%
Cash and cash equivalents	1,119	1,261	(142)	(11.26%)
Cash at banks for financial benefits payable	69	68	1	1.47%
Investment portfolio	16,677	15,128	1,549	10.24%
Trading	3,449	3,351	98	2.92%
Available-for-sale	11,251	9,965	1,286	12.91%
Held-to-maturity	1,965	1,792	173	9.65%
General investments	12	20	(8)	(40.00%)
Total	17,865	16,457	1,408	8.56%

The SET group maintains a policy to invest in various types of investments such as fixed deposits, debt instruments (government bonds, corporate debentures, etc.), foreign funds and other financial instruments through mutual fund. The investment amount increased from the annual operation results will be allocated to enlarge investment proportion of available-for-sale in order to enhance return as expected.

2.1.2 Assets for margin deposits and benefits, and assets for clearing system protection and benefits recorded at THB 17,493 million or 35.87% of total assets, up by THB 2,193 million or 14.33%. This margin deposits and benefits of Thailand Clearing House Co., Ltd. (TCH) increased in accordance with the increase in trading volume of derivatives. TCH members are obliged to place the required margin deposits as a future trading guarantee according to

the specified rate, and also as a guarantee to cover the damage from default or other damage caused by members in the clearing and settlement transactions with TCH.

2.1.3 Reserve fund for TCH security on clearing and settlement amounted to THB 5,329 million or 10.92% of total assets, up by THB 204 million or 3.98%. Reserve for TCH's clearing and settlement on SET's part was established in 2017 as a source of funds for the clearing house. In 2018, SET transferred the additional reserve fund of THB 200 million.

2.2 Analysis of liabilities

As at December 31, 2018, total liabilities of the SET group amounted to THB 20,105 million, up by THB 2,284 million or 12.82%, in comparison with the balance as at December 31, 2017. Significant details are as follows:

2.2.1 Margin deposits and assets for clearing system protection and benefits payable amounted to THB 17,349 million or 86.29% of total liabilities, an increase of THB 2,191 million, or 14.45%. The increase in deposits at TCH was in accordance with the increase in trading volume of derivatives.

2.3 Analysis of funds

As at December 31, 2018 total funds of the SET group amounted to THB 28,666 million, up by THB 1,291 million or 4.72%, in comparison with the balance as at December 31, 2017. The SET group's revenue over expenses for 2018 reached THB 1,955 million. The loss incurred from a decrease in the market value of investment in mutual funds, equity securities and foreign fund, and loss from exchange rate of investments in foreign funds totaling THB 664 million.

3. Analysis of liquidity

Cash flows of the SET group for the year ended December 31, 2018 and 2017 can be summarized as follows:

(Unit: THB million)	2018	2017	Increase / (Decrease)	
			Amount	%
Cash flows from operating activities	2,212	763	1,449	189.91%
Cash flows from investing activities	(2,353)	(217)	2,136	984.33%
Cash and cash equivalents at the end of year	1,188	1,329	(141)	(10.61%)

Cash and cash equivalents as at December 31, 2018 amounted to THB 1,188 million, a decrease of THB 141 million or 10.61%, compared to 2017. The details of the sources and uses of funds are as follows:

- Net cash receipts from operating activities totaled THB 2,212 million.
- Net cash used in investing activities totaled THB 2,353 million. This was mainly from an investment in financial instruments of THB 2,579 million and investment in new assets of THB 383 million. The interest income and the gain on sales of investments totaled THB 376 million and the dividend income totaled THB 212 million.

Report of the Board of Governors Relating to Responsibility for Financial Reporting

The Board of Governors is responsible for the consolidated financial statements of The Stock Exchange of Thailand (SET) and its subsidiaries, and the separate financial statements of The Stock Exchange of Thailand, including the financial information presented in this annual report. The financial statements for the year ended December 31, 2018 have been prepared in accordance with Thai Financial Reporting Standards. In preparing the financial statements, appropriate accounting policies have been adopted and regularly adhered to, using careful discretion and reasonable estimates. Important information has also been adequately disclosed in the notes to financial statements, so as to reflect the financial status, performance and cash flows in transparent manner, providing benefits to the public.

The Board of Governors has provided and maintained the risk management system, internal control system, and internal audit system including effective corporate governance to ensure that accounting records are accurate, complete and adequate to secure its assets and prevent risks, while preventing fraud or irregular operations in essence as well.

To accomplish this task, the Board of Governors has appointed an Audit Committee, consisting of independent non-executive directors, to be responsible

for the quality of financial reports, the review of internal control system, internal audit system and risk management system. The opinions of the Audit Committee are included in the Audit Committee Report section of this annual report.

The consolidated financial statements of The Stock Exchange of Thailand (SET) and its subsidiaries, and the separate financial statements of The Stock Exchange of Thailand have been examined by an external auditor, Deloitte Touche Tohmatsu Jaiyos Audit Co., Ltd. In conducting the audit, SET has provided supporting information and documents so that the auditor could examine and express opinions in accordance with generally accepted auditing standards. The auditor's opinion is presented in the auditor's report as part of this annual report.

The Board of Governors is of the opinion that the SET's overall internal control system is adequate and appropriate, and can create confidence that the consolidated financial statements of The Stock Exchange of Thailand (SET) and its subsidiaries, and the separate financial statements of The Stock Exchange of Thailand for the year ended December 31, 2018 are reliable and in compliance with Thai Financial Reporting Standards and related regulations.



Mr. Chaipayat Wibulswasdi
Chairman



Mr. Pakorn Peetathawatchai
President

Report of the Independent Certified Public Accountants

To the members of The Stock Exchange of Thailand and The Stock Exchange of Thailand

Opinion

We have audited the consolidated financial statements of The Stock Exchange of Thailand and its subsidiaries (the Group) and the separate financial statements of The Stock Exchange of Thailand (the “SET”), which comprise the consolidated and separate statements of financial position as at December 31, 2018, and the related consolidated and separate statements of comprehensive revenues and expenses, changes in fund balances and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated and separate financial statements present fairly, in all material respects, the financial position of The Stock Exchange of Thailand and its subsidiaries and of The Stock Exchange of Thailand as at December 31, 2018, and financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards (“TFRSs”).

Basis for Opinion

We conducted our audit in accordance with Thai Standards on Auditing (“TSAs”). Our responsibilities under those standards are further described in the Auditor’s Responsibilities for the Audit of the Consolidated and Separate Financial Statements section of our report. We are independent of the Group in accordance with the Federation of Accounting Professions’ Code of

Ethics for Professional Accountants together with the ethical requirements that are relevant to the audit of the consolidated and separate financial statements, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matter is the matter that, in our professional judgment, was of most significance in our audit of the consolidated and separate financial statements of the current period. This matter was addressed in the context of our audit of the consolidated and separate financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on this matter.

Key Audit Matter	Audit Response
<p>Revenue recognition – Trading fees</p> <p>Trading fees have terms and conditions to charge the fees based on trading volume. The Group makes use of information and technology system in storing of trading volume and calculating trading fees.</p> <p>We focused our and if on the following are as of trading fees specifically relating of:</p> <ul style="list-style-type: none"> • Storing of securities trading data and processing of the information and technology system, • Accuracy and completeness of information used to revenue recognition. <p>The accounting policies of revenue recognition, the details of trading fees and operating segment information were disclosed in Note 2.18, Note 6 and Note 26 to the financial statements respectively.</p>	<p>Our key audit procedures were as follows:</p> <ul style="list-style-type: none"> • Understand the revenue recognition–trading fees process and related internal control procedures. • Review the design and implementation of the internal control procedures. • Perform the operating effectiveness testing over the internal control procedures around revenue recognition process including related information and technology system. • Perform substantive testing as follows: <ul style="list-style-type: none"> – Examine the trading volume information of the customers and trading fees rates, recalculate the trading fees and examine the related supporting documents of those revenues whether the trading fees have been completely and accurately recognized. – Perform substantive analytical procedures relating to the trading fees.

Other Matter

The consolidated statement of financial position of The Stock Exchange of Thailand and its subsidiaries and the separate financial statements of The Stock Exchange of Thailand as at December 31, 2017 and the related consolidated and separate statements of comprehensive revenues and expenses, changes in fund balances and cash flows for the year then ended presented herein as comparative information, were audited by another auditor, whose report thereon dated February 21, 2018 expressed an unmodified opinion on those statements.

Other Information

Management is responsible for the other information. The other information comprises information in the annual report, which is expected to be made available to us after the date of this auditor's report.

Our opinion on the consolidated and separate financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated and separate financial statements, our 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 financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

When we read the annual report, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance and the management of the SET.

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 SET'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 or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements

Our 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 our 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, we exercise professional judgment and maintain professional skepticism throughout the audit. We 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 our 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 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 SET's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group and the SET to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated and the 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. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We 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 we identify during our audit.

We also provide those charged with governance with a statement that we 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 our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we 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. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.



Dr. Suphamit Techamontrikul

Certified Public Accountant (Thailand)

Registration No. 3356

DELOITTE TOUCHE TOHMATSU JAIYOS AUDIT CO., LTD.

BANGKOK

February 20, 2019

Statements of Financial Position

The Stock Exchange of Thailand and its Subsidiaries

As at December 31, 2018

(Unit : Thousand Baht)

	Notes	Consolidated Financial Statements		Separate Financial Statements	
		2018	2017	2018	2017
Assets					
Current assets					
Cash and cash equivalents	8	1,118,595	1,261,212	948,769	854,342
Cash at banks for financial benefits payable		69,086	67,683	-	-
Assets for margin deposits and benefits	17	15,510,404	13,397,885	-	-
Short-term investments, net	9	7,838,876	6,649,894	7,838,876	6,649,894
Accounts receivable and accrued income, net	10	327,281	662,941	288,909	678,875
Short-term loans to a joint venture entity	7	7,500	-	7,500	-
Accrued interest receivable		21,177	25,692	106,121	121,569
Other current assets	11	357,783	199,805	241,092	97,012
Total current assets		25,250,702	22,265,112	9,431,267	8,401,692
Non-current assets					
Investments in subsidiaries	12	-	-	1,697,291	1,697,291
Investments in associates and joint venture entity, net	13	968,228	973,019	800,620	800,620
Long-term investments, net	14	8,837,845	8,478,268	8,837,845	8,478,268
Assets for clearing system protection and benefits	18	1,982,549	1,902,397	144,156	142,510
Securities Investor Protection Fund	25	798,473	789,710	798,473	789,710
Derivatives Investor Protection Fund	25	104,150	91,486	-	-
Long-term loans to a subsidiary	7	-	-	5,240,834	5,046,791
Reserve Fund for clearing and settlement	19	5,328,576	5,124,320	-	-
Property, plant and equipment, net	15	4,979,082	5,137,395	4,978,197	5,136,505
Intangible assets, net	16	375,757	426,858	372,279	425,940
Deferred tax assets	20	139,821	2,356	137,655	-
Refundable deposits		5,485	4,985	5,485	4,985
Total non-current assets		23,519,966	22,930,794	23,012,835	22,522,620
Total assets		48,770,668	45,195,906	32,444,102	30,924,312

Notes to the financial statements form an integral part of these financial statements

Statements of Financial Position (Cont'd)

The Stock Exchange of Thailand and its Subsidiaries

As at December 31, 2018

(Unit : Thousand Baht)

		Consolidated		Separate	
		Financial Statements		Financial Statements	
		2018	2017	2018	2017
Notes					
Liabilities and fund balances					
Current liabilities					
Margin deposits and benefits payable	17	15,510,404	13,397,885	-	-
Accounts payable and accrued expenses	21	1,139,822	1,027,613	1,100,082	1,014,128
Fees received in advance		335,255	313,867	298,559	273,530
Income tax payable		151,593	174,364	49,194	115,330
Short-term borrowings from subsidiaries	7	-	-	3,783,500	2,921,500
Other current liabilities	22	314,255	301,125	130,556	124,600
Total current liabilities		17,451,329	15,214,854	5,361,891	4,449,088
Non-current liabilities					
Assets for clearing system protection and benefits payable	18	1,838,393	1,759,887	-	-
Contributions and benefits to Securities Investor Protection Fund	25	322,847	313,375	322,847	313,375
Contributions and benefits to Derivatives Investor Protection Fund	25	48,802	36,824	-	-
Employee benefits obligation	23	436,321	401,318	436,321	401,318
Deferred tax liabilities	20	-	85,135	-	83,807
Other non-current liabilities		7,712	9,666	7,712	8,769
Total non-current liabilities		2,654,075	2,606,205	766,880	807,269
Total liabilities		20,105,404	17,821,059	6,128,771	5,256,357
Fund balances					
Funds	24	28,679,406	26,724,008	26,321,432	25,008,151
Other components of fund balances		(14,143)	650,837	(6,101)	659,804
Non-controlling interests		1	2	-	-
Total fund balances		28,665,264	27,374,847	26,315,331	25,667,955
Total liabilities and fund balances		48,770,668	45,195,906	32,444,102	30,924,312

Statements of Comprehensive Revenues and Expenses

The Stock Exchange of Thailand and its Subsidiaries

For the year ended December 31, 2018

(Unit : Thousand Baht)

		Consolidated		Separate	
		Financial Statements		Financial Statements	
Notes		2018	2017	2018	2017
Revenues					
Operating revenues	26	5,722,355	5,006,640	2,601,316	2,281,975
Investment income, net	27	586,185	1,045,019	862,130	1,308,635
Other income	28	269,999	279,603	1,901,827	1,864,394
Total revenues		6,578,539	6,331,262	5,365,273	5,455,004
Expenses					
Employee benefit expenses	29	1,687,752	1,569,086	1,687,555	1,527,637
Directors’ remuneration	7	27,252	26,323	23,692	22,761
Marketing expenses		160,839	221,930	139,939	208,861
Educational activity expenses		164,079	161,731	164,134	161,826
Direct service expenses		292,846	292,393	-	-
Building and office expenses		183,063	199,715	182,654	199,476
Technology expenses		230,164	212,787	230,036	212,511
SEC fees	30	567,203	491,110	565,203	489,110
Depreciation and amortisation	15and 16	482,615	463,433	482,052	462,867
Other expenses	31	182,272	179,348	164,246	199,534
Total expenses		3,978,085	3,817,856	3,639,511	3,484,583
Share of profit of investments in associates					
and joint venture entity, net of tax	13	8,630	34,150	-	-
Revenues over expenses		2,609,084	2,547,556	1,725,762	1,970,421

Notes to the financial statements form an integral part of these financial statements

Statements of Comprehensive Revenues and Expenses (Cont'd)

The Stock Exchange of Thailand and its Subsidiaries

For the year ended December 31, 2018

(Unit : Thousand Baht)

	Notes	Consolidated Financial Statements		Separate Financial Statements	
		2018	2017	2018	2017
Non-operating items					
Income derived from Securities Investor					
Protection Fund, net	25	9,937	9,215	9,937	9,215
Income derived from Derivatives Investor					
Protection Fund, net	25	686	622	-	-
Contributions to the Stock Exchange					
of Thailand Foundation	7	(186,132)	(221,075)	(186,132)	(221,075)
Revenues over expenses before					
income tax expense		2,433,575	2,336,318	1,549,567	1,758,561
Income tax expense	32	(478,662)	(503,729)	(236,286)	(335,024)
Revenues over expenses					
Revenues over expenses for the years					
attributable to:					
Owners of the parent		1,954,913	1,832,589	1,313,281	1,423,537
Non-controlling interests		-	-	-	-

Notes to the financial statements form an integral part of these financial statements

Statements of Comprehensive Revenues and Expenses (Cont'd)

The Stock Exchange of Thailand and its Subsidiaries

For the year ended December 31, 2018

(Unit : Thousand Baht)

	Notes	Consolidated Financial Statements		Separate Financial Statements	
		2018	2017	2018	2017
Revenues over expenses		1,954,913	1,832,589	1,313,281	1,423,537
Other comprehensive revenues and expenses:					
Items that will be reclassified subsequently to revenues and expenses					
Share of profit of investments in associates	13	(103)	53	-	-
Change in value of available-for-sale investments managed by SET	25	(825,957)	322,123	(825,957)	322,123
Change in value of available-for-sale investments from Securities Investor Protection Fund	25	(10,646)	9,462	(10,646)	9,462
Income tax relating to items that will be reclassified subsequently to revenues and expenses	25	171,725	(68,564)	170,698	(67,536)
Total items that will be reclassified subsequently to revenues and expenses		<u>(664,981)</u>	<u>263,074</u>	<u>(665,905)</u>	<u>264,049</u>
Items that will not be reclassified subsequently to revenues and expenses					
Remeasurements of post-employment benefits obligations	25	606	(147,924)	-	(147,227)
Income tax relating to items that will not be reclassified subsequently to revenues and expenses	25	(121)	29,445	-	29,445
Total items that will not be reclassified subsequently to revenues and expenses		<u>485</u>	<u>(118,479)</u>	<u>-</u>	<u>(117,782)</u>
Other comprehensive revenues and expenses, net of tax		<u>(664,496)</u>	<u>144,595</u>	<u>(665,905)</u>	<u>146,267</u>
Total comprehensive revenues and expenses		<u>1,290,417</u>	<u>1,977,184</u>	<u>647,376</u>	<u>1,569,804</u>
Total comprehensive revenues and expenses for the years attributable to:					
Owners of the parent		1,290,418	1,977,184	647,376	1,569,804
Non-controlling interests		(1)	-	-	-
		<u>1,290,417</u>	<u>1,977,184</u>	<u>647,376</u>	<u>1,569,804</u>

Notes to the financial statements form an integral part of these financial statements

Statement of Changes in Fund Balances

The Stock Exchange of Thailand and its Subsidiaries

For the year ended December 31, 2018

(Unit : Thousand Baht)

		Consolidated Financial Statements							
		Fund balances 							

(Unit : Thousand Baht)

Separate Financial Statements					
Note	Fund balances (See Note 24)	Other components of fund balances			Total fund balances
		Change in value of available-for-sale investments managed by SET (net of tax)	Change in value of available-for-sale investments from Securities Investor Protection Fund (net of tax)	Total other components of fund balances	
Opening balance as at January 1, 2017	23,702,396	390,882	4,873	395,755	24,098,151
Other comprehensive revenues and expenses, net of tax	25	(117,782)	257,699	6,350	146,267
Revenues over expenses	25	1,423,537	-	-	1,423,537
Closing balance as at December 31, 2017		25,008,151	648,581	11,223	25,667,955
Opening balance as at January 1, 2018	25,008,151	648,581	11,223	659,804	25,667,955
Other comprehensive revenues and expenses, net of tax	25	-	(660,763)	(5,142)	(665,905)
Revenues over expenses	25	1,313,281	-	-	1,313,281
Closing balance as at December 31, 2018		26,321,432	(12,182)	6,081	26,315,331

Notes to the financial statements form an integral part of these financial statements

Statement of Cash Flows

The Stock Exchange of Thailand and its Subsidiaries

For the year ended December 31, 2018

(Unit : Thousand Baht)

	Notes	Consolidated Financial Statements		Separate Financial Statements	
		2018	2017	2018	2017
Cash flows from operating activities					
Revenues over expenses before income tax expense		2,433,575	2,336,318	1,549,567	1,758,561
Adjustments for					
Depreciation and amortisation	15 and 16	482,615	463,433	482,052	462,867
Investment income, net		(593,398)	(1,021,190)	(861,978)	(1,292,825)
Income derived from Securities Investor					
Protection Fund, net	25	(9,937)	(9,215)	(9,937)	(9,215)
Income derived from Derivatives Investor					
Protection Fund, net	25	(686)	(622)	-	-
Reversal of allowance for impairment of investments	9	-	(10,918)	-	(10,918)
Provision for employee benefits	23	51,008	25,222	51,008	23,290
Gains on disposals of assets	28	-	(32,971)	-	(32,938)
Loss from write-off of assets		507	-	507	-
Share of profit of investments in associates and joint venture entity, net of tax	13	(8,630)	(34,150)	-	-
		2,355,054	1,715,907	1,211,219	898,822
Changes in operating assets and liabilities					
(Increase) decrease in operating assets					
Assets for margin deposits and benefits		(2,112,519)	(3,237,917)	-	-
Accounts receivable and accrued income		335,660	(320,198)	389,966	(343,115)
Other current assets		(158,782)	11,758	(145,080)	13,478
Assets for clearing system protection and benefits		(80,152)	(181,037)	(1,646)	(2,467)
Securities Investor Protection Fund		(11,750)	(41,552)	(11,750)	(41,552)
Derivatives Investor Protection Fund		(13,007)	(8,833)	-	-
Refundable deposits		(500)	(2,371)	(500)	(2,371)
Increase (decrease) in operating liabilities					
Margin deposits and benefits payables		2,112,519	3,237,917	-	-
Accounts payable and accrued expenses		222,166	(140,328)	195,426	(137,118)
Fees received in advance		21,388	(5,762)	25,029	(4,154)
Other current liabilities		15,791	(22,556)	7,166	(31,138)
Assets for clearing system protection and benefits payable		78,506	178,570	-	-
Contributions and benefits to Securities Investor					
Protection Fund		9,472	19,501	9,472	19,501
Contributions and benefits to Derivative Investor					
Protection Fund		11,978	7,989	-	-
Employee benefits paid	23	(18,666)	(3,034)	(18,568)	(2,554)
Transfer of employees from a subsidiary	23	-	-	1,354	-
Other non-current liabilities		(1,942)	2,270	(1,045)	1,373
Cash flows generated from operations		2,765,216	1,210,324	1,661,043	368,705
Less Income tax paid		(553,532)	(447,789)	(353,187)	(293,619)
Net cash generated from operating activities		2,211,684	762,535	1,307,856	75,086

Statement of Cash Flows (Cont'd)

The Stock Exchange of Thailand and its Subsidiaries

For the year ended December 31, 2018

(Unit : Thousand Baht)

	Notes	Consolidated		Separate	
		Financial Statements		Financial Statements	
		2018	2017	2018	2017
Cash flows from investing activities					
Investment income received		375,973	826,669	386,611	749,471
Dividend received		211,998	214,644	532,529	506,931
Purchase of short-term investments	9	(3,018,708)	(3,607,599)	(3,018,708)	(3,607,599)
Proceeds from disposals of short-term investments	9	2,044,831	7,160,566	2,044,831	7,160,566
Proceeds from disposals of investment in subsidiaries		-	-	-	10,000
Purchase of investment in subsidiaries		-	-	-	(210,000)
Short-term loans to joint venture entity	7	(7,500)	-	(7,500)	-
Purchase of long-term investments	14	(3,703,981)	(3,535,643)	(3,703,981)	(3,535,643)
Proceeds from disposals of long-term investments	14	2,303,330	3,676,658	2,303,330	3,676,658
Proceeds from long-term loans to a subsidiary	7	-	-	5,957	
Payment for long-term loans to a subsidiary	7	-	-	(200,000)	(5,046,791)
Reserve fund for clearing and settlement		(204,256)	(5,124,320)	-	-
Purchase of property, plant and equipment		(298,163)	(189,693)	(297,941)	(189,693)
Proceeds from disposals of property, plant and equipment		-	411,887	-	411,563
Purchase of intangible assets		(85,017)	(77,202)	(82,121)	(77,202)
Proceeds from share of profit of investments in joint venture entity		2,047	4,555	-	-
Proceeds from share of profit of investments in associates		12,595	9,446	-	-
Benefits received from Securities Investor Protection Fund		12,924	12,589	12,924	12,589
Benefits received from Derivatives Investor Protection Fund		1,029	844	-	-
Net cash used in investing activities		(2,352,898)	(216,599)	(2,024,069)	(139,150)
Cash flows from financing activities					
Cash inflow on short-term borrowings from subsidiaries	7	-	-	1,226,000	457,000
Repayment of short-term borrowings from subsidiaries	7	-	-	(364,000)	(110,000)
Interest paid		-	-	(51,360)	(40,957)
Net cash generated from financing activities		-	-	810,640	306,043
Net increase (decrease) in cash and cash equivalents		(141,214)	545,936	94,427	241,979
Opening balances		1,328,895	782,959	854,342	612,363
Closing balances		1,187,681	1,328,895	948,769	854,342
Supplemental disclosures of cash flows information					
Cash and cash equivalents are as follows:					
Cash and cash equivalents	8	1,118,595	1,261,212	948,769	854,342
Cash at a banks for financial benefits payable		69,086	67,683	-	-
		1,187,681	1,328,895	948,769	854,342
Significant non-cash transactions					
Unrealised gain (loss) on available-for-sale securities		(826,060)	322,176	(825,957)	322,123
Unrealised gain (loss) on available-for-sale securities from Securities Investor Protection Fund	25.2	(10,646)	9,462	(10,646)	9,462
Other payables from purchase of assets		26,269	135,741	26,269	135,741

Notes to the Consolidated and Separate Financial Statements

The Stock Exchange of Thailand and its Subsidiaries

For the year ended December 31, 2018

1. General information

The Stock Exchange of Thailand (SET) is a juristic entity incorporated in Thailand under the Securities Exchange of Thailand Act B.E. 2517 (1974). The principal business activities of SET are serving as the market or the centre for trading of securities and providing related services without the objective of distribution of profit to members. SET commenced its trading of securities on April 30, 1975 and operates under the framework of the Securities Exchange of Thailand Act B.E. 2535 (1992). Its registered office is located at 93 Floor 17 Ratchadapisek Road, Kwaeng Din Daeng, Khet Din Daeng, Bangkok 10400, Thailand.

For reporting purposes, SET and its subsidiaries are referred to as the Group.

The principal activities of SET and its subsidiaries are summarised as follows:

- 1) Securities markets comprise the operation of securities listing, trading system, clearing and settlement, depository, including market surveillance and supervision of listed companies and member companies.
- 2) Derivatives markets comprise the operation of trading and clearing of futures contracts and financial securities, providing other services related to futures trading transactions.
- 3) Technology services comprise the operation of internet trading platform for securities and derivatives, information services and other member services.
- 4) Registrar services and fund services comprise the operation of securities registrar and fund services.

Details of SET's subsidiaries, associates and joint venture entity as at December 31, 2018 and 2017 are as follows:

Name of entity	Type of business	Country of incorporation	Ownership interest %	
			2018	2017
Direct subsidiaries				
Thailand Securities Depository Co., Ltd.	Securities depository and registrar services	Thailand	100.00	100.00
Thai Trust Fund Management Co., Ltd.	Mutual fund management	Thailand	100.00	100.00
Thai NVDR Co., Ltd.	Investment management in Non-Voting Depository Receipts	Thailand	100.00	100.00
SETTRADE.COM Co., Ltd.	Computer system services	Thailand	100.00	100.00
Siam DR Co., Ltd. (the liquidation was completely on July 26, 2018)	Investment management in Depository Receipts	Thailand	-	-
Thailand Futures Exchange Public Company Limited	Derivatives exchange	Thailand	100.00	100.00
Thailand Clearing House Co., Ltd.	Clearing house and related back-office services for securities and derivatives contracts	Thailand	100.00	100.00
Finnet Innovation Network Co., Ltd.	Rendering payment service for the capital market	Thailand	100.00	100.00
Live Fin Corp Co., Ltd.	Provider of electronic network system for investment	Thailand	100.00	100.00
Joint venture entity				
Family Know-how Co., Ltd. ⁽¹⁾ (the dissolution was registered on December 26, 2018)	Media business specialising in financial and investment information	Thailand	-	50.00
Associates				
Clearing Fund ⁽²⁾	Fund	Thailand	9.42	10.41
TSFC Securities Public Company Limited ⁽³⁾	Securities financing services and securities borrowing and lending	Thailand	40.65	40.65

(1) Family Know-how Co., Ltd.

Family Know-how Co., Ltd. is a media company that broadcasts information about economics and investment for the benefits of investor. The business of Family Know-how is supported to the objectives of SET group in promoting an investment culture. SET has performed joint arrangement with a company which have rights to the net assets of the arrangement. Therefore, the investment in Family Know-how is classified as investment in joint venture entity.

Family Know-how Co., Ltd. is a private limited company and its stock is not traded in the market price.

A Company has registered the dissolution with the Ministry of Commerce on December 26, 2018, and is currently in the process of liquidation.

(2) Clearing Fund

The Clearing Fund operates under the Regulations of the Clearing Fund (No.1) B.E. 2541 (1998), which require that a one-time payment of Baht 100 million be made as an initial contribution by SET. The ownership interest percentage will be reduced based on further contributions made by other members of the Clearing Fund in the future. SET has no control over the Clearing Fund's operations, but has influences in policy and operation. Therefore, the investment in the Clearing Fund is classified as investment in an associate.

(3) TSFC Securities Public Company Limited (TSFC)

TSFC Securities Public Company Limited has been established to provide liquidity for securities companies and to support to the further development of securities market. SET has appointed 4 representatives to be member of the 12-member Board of Directors of TSFC. The Board of Directors will participate in the decision-making on monetary policies and operations of the company. Therefore, the investment in TSFC is classified as investment in an associate.

TSFC Securities Public Company Limited is a public company and its stock is not traded in the market price.

2. Accounting policies

2.1 Basis of preparation

The consolidated and separate financial statements have been prepared in accordance with Thai Financial Reporting Standards under the Accounting Act B.E. 2543 (2000), being those Thai Financial Reporting Standards issued under the Accounting Profession Act B.E. 2547 (2004).

The consolidated and separate financial statements have been prepared under the historical cost convention except as disclosed in the accounting policy for investments below.

The preparation of financial statements in conformity with Thai Financial Reporting Standards requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated and separate financial statements are disclosed in Note 4.

An English version of the consolidated and separate financial statements has been prepared from the statutory financial statements that are in the Thai language. In the event of a conflict or a difference in interpretation between the two languages, the Thai language statutory financial statements shall prevail.

2.2 Revised financial reporting standards, and related interpretations

2.2.1 Thai Financial Reporting Standards affecting the presentation and disclosure in the current period financial statements

During the period, the Group has adopted the revised and new financial reporting standards and guidelines on accounting issued by the Federation of Accounting Professions which become effective for fiscal years beginning on or after January 1, 2018. These financial reporting standards were aimed at alignment with the corresponding International Financial Reporting Standards, with most of the changes directed towards revision of wording and terminology, and provision of interpretations and accounting guidance to users of standards. The adoption of these financial reporting standards does not have any significant impact on the Group's financial statements.

2.2.2 Thai Financial Reporting Standards announced in the Royal Gazette but not yet effective

- 1) Thai Financial Reporting Standards which will be effective for the financial statements with fiscal years beginning on or after January 1, 2019

New Thai Financial Reporting Standards and Thai Financial Reporting Standard Interpretation

The Federation of Accounting Professions has issued the Notification regarding Thai Financial Reporting Standards and Thai Financial Reporting Standard Interpretation which have been announced in the Royal Gazette and will be effective for the financial statements for the period beginning on or after January 1, 2019 onwards.

Thai Financial Reporting Standards ("TFRS")

- TFRS 1 First-time Adoption of International Financial Reporting Standards
- TFRS 15 Revenue from Contracts with Customers

Thai Financial Reporting Standard Interpretation ("TFRIC")

- TFRS 22 Foreign Currency Transactions and Advance Consideration

There is the key change to the core principle of TFRS 15, which introduces a 5-step approach to revenue recognition, as follows:

- Step 1: Identify the contract(s) with a customer
- Step 2: Identify the performance obligations in the contract
- Step 3: Determine the transaction price
- Step 4: Allocate the transaction price to the performance obligations in the contract
- Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation

Under TFRS 15, an entity recognizes revenue when (or as) a performance obligation is satisfied. TFRS 15 will supersede the Standards and Interpretations relating to revenue upon its effective date.

Thai Financial Reporting Standards (TFRSs) Revised 2018

The Federation of Accounting Professions has issued the Notification regarding Thai Financial Reporting Standards (TFRSs) Revised 2018 which have been announced in the Royal Gazette and will be effective for the financial statements for the period beginning on or after January 1, 2019 onwards. These financial reporting standards were aimed at alignment with the corresponding International Financial Reporting Standards, with most of the changes directed towards revision of wording and terminology and reference to other TFRSs except following TFRSs, which there are revision or additional paragraph and accounting guidance.

Thai Accounting Standards (“TAS”)

TAS 28 (Revised 2018)

Investment in Associates and Joint Ventures

TAS 40 (Revised 2018)

Investment Property

Thai Financial Reporting Standards (“TFRS”)

TFRS 2 (Revised 2018)

Share-based Payment

TFRS 4 (Revised 2018)

Insurance Contracts

- 2) Thai Financial Reporting Standards which will be effective for the financial statements with fiscal years beginning on or after January 1, 2020

The Federation of Accounting Professions has issued the Notification regarding Thai Financial Reporting Standard Group of Financial Instruments which have been announced in the Royal Gazette and will be effective for the financial statements for the period beginning on or after January 1, 2020 onwards, as follows:

Thai Accounting Standards (“TAS”)

TAS 32

Financial Instruments: Presentation

Thai Financial Reporting Standards (“TFRS”)

TFRS 7

Financial Instruments: Disclosures

TFRS 9

Financial Instruments

Thai Financial Reporting Standard Interpretations (“TFRIC”)

TFRIC 16

Hedges of a Net Investment in a Foreign Operation

TFRIC 19

Extinguishing Financial Liabilities with Equity Instruments

These TFRSs make stipulations relating to the classification of financial instruments and their measurement at fair value or amortized cost; taking into account the type of instrument, the characteristics of the contractual cash flows and the Company’s business model, the calculation of impairment using the expected credit loss method, and the concept of hedge accounting. These include stipulations regarding the presentation and disclosure of financial instruments. These TFRSs will supersede the Standards and Interpretations relating to the financial instruments upon its effective date.

The Group’s management will adopt such TFRSs in the preparation of the Group’s financial statements when it becomes effective. The Group’s management is in the process to assess the impact of these TFRSs on the financial statements of the Group in the period of initial application.

2.3 Group Accounting - Investments in subsidiaries, associates and joint ventures entity

1) Subsidiaries

Subsidiaries are all entities (including structured entities) over which the Group has control. The Group controls an entity when the Group 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. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

Intercompany transactions, balances and unrealised gains or loss on transactions between the Group are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the transferred asset. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

In the separate financial statements, investments in subsidiaries are accounted for at cost less impairment. Cost is adjusted to reflect changes in consideration arising from contingent consideration amendments. Cost also includes direct attributable costs of investment.

2) Transactions and non-controlling interests

The Group treats transactions with non-controlling interests as transactions with the Fund. For purchases from non-controlling interests, the difference between any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in the Fund. Gains or losses on disposals to non-controlling interests are also recorded in the Fund.

3) Disposal of subsidiaries

When the Group ceases to have control, any retained interest in the entity is re-measured to its fair value, with the change in carrying amount recognised in revenues and expenses. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognised in other comprehensive revenues and expenses in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities.

4) Associates

Associates are all entities over which the Group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting. Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognise the investor's share of the profit or loss of the investee after the date of acquisition. The Group's investment in associates includes goodwill identified on acquisition.

If the ownership interest in an associate is reduced but significant influence is retained, only a proportionate share of the amounts previously recognised in other comprehensive revenues and expenses is reclassified to revenues and expenses where appropriate.

The Group's share of its associates' post-acquisition profits or losses is recognised in the revenues and expenses, and its share of post-acquisition movements in other comprehensive revenues and expenses is recognised in other comprehensive revenues and expenses. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment. When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

The Group determines at each reporting date whether there is any objective evidence that the investment in the associate is impaired. If this the case, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value and recognises the amount adjacent to share of profit/(loss) of associates in the statement of comprehensive revenues and expenses.

Unrealised gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred.

Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Group. Dilution gains and losses arising in investments in associates are recognised in the revenues and expenses.

In the separate financial statements, investments in associates are accounted for at cost less impairment. Cost is adjusted to reflect changes in consideration arising from contingent consideration amendments. Cost also includes direct attributable costs of investment.

5) Joint venture entity

Under the equity method of accounting, interests in joint ventures are initially recognised at cost and adjusted thereafter to recognise the Group's share of the post-acquisition profits or losses and movements in other comprehensive revenues and expenses. When the Group's share of losses in a joint venture equals or exceeds its interests in the joint ventures (which includes any long-term interests that, in substance, form part of the Group's net investment in the joint ventures), the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the joint ventures.

Unrealised gains on transactions between the Group and its joint ventures are eliminated to the extent of the Group's interest in the joint ventures. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of the joint ventures have been changed where necessary to ensure consistency with the policies adopted by the Group.

2.4 Foreign currencies

a) Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ('the functional currency'). The consolidated financial statements are presented in Thai Baht, which is the Group's functional and the Group's presentation currency.

b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the revenues or expenses.

When a gain or loss on a non-monetary item is recognised in other comprehensive revenues and expenses, any exchange component of that gain or loss is recognised in other comprehensive revenues and expenses. Conversely, when a gain or loss on a non-monetary item is recognised in revenues or expenses, any exchange component of that gain or loss is recognised in revenues or expenses.

2.5 Underlying assets

Underlying assets are the financial assets carried by Thai NVDR Co., Ltd. (the subsidiary). The financial liabilities are the Non-Voting Depository Receipts (NVDRs). The subsidiary will offset the financial assets and financial liabilities, and show the net amount in the financial statements. According to the regulations and conditions in the prospectus, the subsidiary are responsible for issuing and selling NVDRs and making investments in listed companies in the Stock Exchange of Thailand at the same amount and in the same period (back to back). In addition to the entitlement of financial benefits of those underlying securities as the registered holder, the subsidiaries have an obligation to repay those financial benefits to the investors in the NVDRs as mentioned in the prospectus. Those benefits are not recognised as revenues or expenses of the subsidiary.

2.6 Cash and cash equivalents

Cash and cash equivalents comprise cash on hand, call deposits (excluding deposits held to maturities), other short-term highly liquid investments held for working capital and short-term commitment payment purposes with maturities from acquisition date of three months or less.

2.7 Investments

Investments other than investments in subsidiaries, associates and joint ventures are classified into the following four categories: 1) trading investments; 2) held-to-maturity investments; 3) available-for-sale investments; and 4) general investments. The classification is dependent on the purpose for which the investments were acquired. Management determines the appropriate classification of its investments at the time of the purchase and re-evaluates such designation on a regular basis.

- 1) Investments that are acquired principally for the purpose of generating a profit from short-term fluctuations in price are classified as trading investments and included in current assets.
- 2) Investments with fixed maturity that the management has the intent and ability to hold to maturity are classified as held-to-maturity and are included in non-current assets, except for maturities within 12 months from the statement of financial position date which are classified as current assets.
- 3) Investments intended to be held for an indefinite period of time, which may be sold in response to liquidity needs or changes in interest rates, are classified as available-for-sale; and are included in non-current assets unless management has expressed the intention of holding the investment for less than 12 months from the statement of financial position date or unless they will need to be sold to raise operating capital, in which case they are included in current assets.
- 4) General investments are investments in non-marketable equity.

All categories of investments are initially recognised at cost, which is equal to the fair value of consideration paid plus transaction cost.

Trading investments and available-for-sale investments are subsequently measured at fair value. The fair value of investments is based on quoted bid price at the close of business on the statement of financial position date by reference to the Stock Exchange of Thailand and the Thai Bond Dealing Centre. The unrealised gains and losses of trading investments are recognised in statement of comprehensive revenues and expenses. The unrealised gains and losses of available-for-sale in investments are recognised in other comprehensive revenues and expenses in statements of comprehensive revenues and expenses in the statements of comprehensive revenue and expenses.

Held-to-maturity investments are carried at amortised cost using the effective yield method less impairment loss.

General investments are carried at cost less impairment loss.

A test for impairment is carried out when there is a factor indicating that an investment might be impaired. If the carrying value of the investment is higher than its recoverable amount, impairment loss is charged to the statement of comprehensive revenues and expenses.

On disposal of an investment, the difference between the net disposal proceeds and the carrying amount is charged or credited to the revenues and expenses. When disposing part of the holding of a particular investment in debt or equity securities, the carrying amount of the disposed part is determined by the weighted average carrying amount of the total holding of the investment.

2.8 Accounts receivable and accrued income

Accounts receivable and accrued income are carried at original invoice amount less allowance for doubtful accounts (if any).

The allowance for doubtful accounts is assessed primarily on analysis of payment histories and future expectations of customer payments, assessment of the future cash flows, known and identified instances of default and consideration of market trends. Bad debts are written off when incurred and recognised as part of other expenses in the statement of comprehensive revenues and expenses.

2.9 Property, plant and equipment

Land is stated at cost less impairment losses. Property and equipment are stated at cost less accumulated depreciation and impairment losses (if any).

Depreciation is charged to the statement of comprehensive revenues and expenses on a straight-line basis over the estimated useful lives of each part of an item of property, plant and equipment, except for land which is considered to have an unlimited useful life. The estimated useful lives are as follows:

Buildings	10 – 50 years
Building improvements	5 – 30 years
Furniture and fixtures	5 – 20 years
Office equipment	5 – 20 years
Vehicles	5 years

Management determines the estimated useful lives and residual values for the Group's property and equipment. Management will appropriately revise the residual values and useful lives of assets when the residual values and useful lives differ from previous estimations, or it will write-off technically obsolete assets or assets which have been sold or abandoned.

Where the carrying amount of an asset is greater than its estimated recoverable amount, it is written down immediately to its recoverable amount.

Repair and maintenance expenses are charged to the statement of comprehensive revenues and expenses during the financial period in which they are incurred. The cost of major renovation is included in the carrying amount of the asset when it is probable that future economic benefits in excess of the originally assessed standard of performance of the existing asset will flow to the Group. Major renovations are depreciated over the remaining useful lives of the related assets.

Gains and losses on disposal are determined by comparing the proceeds with the carrying amount and are included in the statement of comprehensive revenues and expenses.

2.10 Borrowings

Borrowings are recognised initially at fair value, net of transaction cost incurred. Borrowings are subsequently stated at amortised cost; any difference between proceeds (net of transaction costs) and the redemption value is recognised in revenues or expenses over the period of the borrowings using the effective yield method.

2.11 Intangible assets

Intangible assets, computer software, patent and right in operation, that are acquired by the Group, which have finite useful lives, are recognised at cost less accumulated amortisation and impairment losses. Intangible assets are amortised in the statement of comprehensive revenues and expenses on a straight-line basis over their estimated useful lives from the date that they are available for use. The estimated useful lives are 2 – 10 years.

Costs associated with developing or maintaining computer software are recognised as expenses as incurred in the statement of comprehensive revenues and expenses. Costs that are directly associated with identifiable and unique software products controlled by the Group and have probable economic benefits exceeding the cost beyond one year are recognised as intangible assets. Direct costs include the purchase price and an appropriate portion of relevant overheads to allow such asset to be ready for its intended use. Expenditure which is incurred to enhance or extend the performance of computer software beyond its original specifications is recognised as an intangible asset.

Management determines the estimated useful lives of intangible assets. Management will revise the amortisation charge where useful lives differ from the previous estimations or it will write-off technically obsolete assets or assets which have been sold or abandoned.

2.12 Impairment

Assets that have an indefinite useful life are not subject to amortisation and are tested annually for impairment. Assets that are subject to amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the carrying amount of the assets exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest level for which there are separately identifiable cash flows. Non-financial assets that suffered an impairment are reviewed for possible reversal of the impairment at each reporting date.

2.13 Interest-bearing liabilities

Interest-bearing liabilities are recognised 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 recognised in the statement of comprehensive revenues and expenses over the period of the borrowings on an effective interest basis.

2.14 Trade and other accounts payable

Trade and other accounts payable are stated at cost.

2.15 Employee benefits obligation

1) Short-term benefits

The Group recognises salaries, wages, bonuses, contributions to the social security fund and cumulative annual leave as expenses when incurred.

2) Contributions to provident fund

The Group operates a provident fund, being a defined contribution plan. The assets of which are held in a separate trustee-administered fund. The provident fund is funded by payments from employees and by the Group. The Group's contributions to provident fund are charged to expenses in the statement of comprehensive revenues and expenses in the period to which the contributions relate.

3) Retirement benefits and other benefits

Employee benefits that will be paid upon retirement usually depends on one or more factors such as age of employees, years of service and compensation. In addition, the Group provides other long-term employee benefit plans, namely long service awards.

The liability recognised in the statement of financial position in respect of defined benefit retirement plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using market yield of government bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related retirement liability. The Group reviews the assumptions used annually.

Remeasurement gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to the Fund in other comprehensive revenues and expenses in the period in which they arise.

Past service cost are recognised immediately in revenues and expenses.

Past service cost related to the plan amendment is recognised as an expense in the statement of comprehensive revenues and expenses when the plan amendment is effective.

4) Termination benefits

Termination benefits are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognises termination benefits when it is demonstrably committed to either: terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal; or providing termination benefits as a result of an offer made to encourage voluntary redundancy. Benefits falling due more than 12 months after the end of the reporting period are discounted to their present value.

2.16 Provisions

Provisions for environmental restoration, restructuring costs and legal claims are recognised when: the Group has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and the amount has been reliably estimated. Restructuring provisions comprise lease termination penalties and employee termination payments. Provisions are not recognised for future operating losses.

Where there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. A provision is recognised even if the likelihood of an outflow with respect to any one item included in the same class of obligations may be small.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to passage of time is recognised as interest expense.

2.17 Lease-where a Group is the lessee

Leases of assets under which all the risks and benefits of ownership are effectively retained by the lessor are classified as operating leases.

Payments made under operating leases are recognised in the statement of comprehensive revenues and expenses on a straight-line basis over the term of the lease. Lease incentives granted are recognised in the statement of comprehensive revenues and expenses as an integral part of the total rental income. Contingent rentals are charged to the statement of comprehensive revenues and expenses for the accounting period in which they are incurred.

When an operating lease is terminated before the lease period has expired, any payment required to be made to the lessor by way of penalty is recognised as an expense in the period in which termination takes place.

2.18 Revenue

Revenue excludes value added taxes.

Service income is recognised upon performance of services.

Where there are long-outstanding receivables from listing fee and registrar fee collection over three months, the Group considers the collectability of the receivables as doubtful and ceases revenue recognition on fees of related companies immediately.

Membership fees comprise initial and annual fees. The initial fees are recognised as revenue in the commencing day on which the service is rendered. Annual fees are recognised on a time proportion basis.

Interest income is recognised on a time proportion basis, taking into account the principal outstanding and the effective rate over the period to maturity, when it is determined that such income will accrue to the Group.

Dividend income is recognised in the statement of comprehensive revenues and expenses when the Group's right to receive payment is established.

Other income is recognised when the right to receive cash is established.

2.19 Expense

Expense is recognised in the statement of comprehensive revenues and expenses on an accrual basis.

2.20 Directors' remuneration

Directors' remuneration comprises the benefits paid to the Board of Governors of SET and the Board of Directors of subsidiaries including benefits received by the members of sub-committees (excluding salaries, bonus and related benefits payable to management).

2.21 Current and deferred income taxes

The tax expense for the period comprises current and deferred tax. Tax is recognised in revenue or expense, except to the extent that it relates to items recognised in other comprehensive revenues and expenses or directly in fund balance. In this case the tax is also recognised in other comprehensive revenues and expenses or directly in fund balance, respectively.

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the end of reporting period. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred income tax is recognised, using the liability method, on temporary differences arising from differences between the tax base of assets and liabilities and their carrying amounts in the financial statements. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the end of the reporting period and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

Deferred income tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

2.22 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the Group's senior management.

3. Financial risk management

Financial risk factors

The Group's activities expose it to a variety of financial risks: currency risk, fair value interest rate risk and cash flow interest rate risk, credit risk, liquidity risk and risk from investments and deposits. The Group's financial risk management programme focuses on investment management under investment policies and strategic asset allocation which is approved by SET's Board of Governors and subsidiaries' Board of Director. The investment committees are strictly established to oversee the investment in compliance with the policies and strategic asset allocation defined. The investment policy aims on maintaining stability of the principal, liquidity and return on the appropriate level of risk.

3.1 Foreign exchange risk

The Group has no significant exposure to foreign currency risk relates due to its accounts receivable and accounts payable are mainly made in Thai Baht, except for investments in some foreign mutual funds which is in foreign currency. The Group has appropriately applied forward exchange contracts to hedge foreign exchange risk of such investments.

Accounting for derivative financial instruments and hedging activities

Foreign currency forward contracts protect the Group from movements in exchange rates. The Group enters into contract establishing the rate at which a foreign currency asset will be realised or a foreign currency liability will be settled in the future. The Group recognise foreign currency forward contracts transaction in the financial statements in fair value measurement. The unrealised gain (loss) from fair value measurement of foreign currency forward contracts will be included in unrealised gain (loss) on exchange rate in statements of comprehensive revenues and expenses.

Disclosures about derivative financial instruments to which the Group is a party are provided in Note 36.

3.2 Interest rate risk

Interest rate risk arises from fluctuations in market interest rates which may affect the Group's operating results and cash flow. The Group does not have interest rate derivative in order to manage fluctuation of the interest rate.

3.3 Credit risk

The Group has no significant concentrations of credit risk. The Group has appropriate policies in place to ensure that the Group provides services to customers who have appropriate credit history.

3.4 Liquidity risk

The Group has no significant exposure to liquidity risk as the Group has sufficient cash to support its operations. The Group aims on maintaining flexibility of funding by using internal capital of the Group.

3.5 Risk from investments and deposits

The Group is exposed to market risks as the investor of financial instruments, and credit risk from the issuer of financial instruments. The Group, therefore, has a policy of diversifying its investments and deposits to high credit financial institutions according to the investment policy prescribed by the resolution of the investment committee.

The investment policies framework regarding types and proportion of investments are as follows:

Type of investment	Proportion of investment
1) Investments in debt securities	
Government securities, debentures or bonds of state enterprises or entities incorporated by specific laws and guaranteed by the Ministry of Finance	Unlimited
Fixed deposits or NCDs at commercial banks and promissory notes of finance companies or financial institutions incorporated by specific laws	Not to exceed 15% of total debt investment per institution
Debentures or warrants of debentures and bills of exchange	Not to exceed 5% of total debt investment per issuer
Investment units or warrants of investment units in mutual funds invested in debt securities	Not to exceed 10% of total debt investment per mutual fund
2) Investments in equity securities	
Investment units or warrants of investment units in mutual funds invested in equity securities	Not to exceed 10% of total equity investment per each Fund, and not to exceed 10% of fund size.
3) Investments in property funds	
Property funds	Not to exceed 10% of fund size per each Fund, except for Fund of Property Funds, not to exceed 20% of fund size.
4) Investments in foreign investment funds	
Foreign investment funds	Foreign direct investment: not to exceed 20% – 30% of fund size per each Fund. Direct investment in Mutual Fund and Exchange Traded Fund “ETF”: not to exceed 10% of foreign equity value per each fund. (2017: Direct investment in Exchange Traded Fund “ETF”. Not to exceed 10% of foreign equity value per each fund.)
5) Investments in gold funds	
Gold funds	Not to exceed 10% of fund size per mutual fund.

Investments in each asset management company should not exceed 40% of total investments.

4. Critical accounting estimates, assumptions and judgements

Use of management's judgements and key sources of estimation uncertainty

4.1 Management's judgements in applying accounting policies

The preparation of financial statements in conformity with Thai Financial Reporting Standards requires the Group's management to exercise various judgements in applying accounting policies that can significantly affect the recognition and disclosures in the financial statements. Significant judgements in applying accounting policies are as follows:

Allowance for doubtful accounts

Detail of the allowance for doubtful is set out in Note 2.8

Impairment

Detail of the impairment of asset is set out in Note 2.12

Employee benefits obligation

Details of the employee benefits obligation are set out in Notes 2.15 and 23

Provisions

Detail of the provisions is set out in Note 2.16

Deferred tax

Details of the deferred tax are set out in Notes 2.21 and 20

4.2 Key sources of estimation uncertainty

The Company has estimates with the assumptions concerning the future. Although these estimates are based on management's reasonable consideration of current events, actual results may differ from these estimates. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are outlined below.

Fair value measurements and valuation processes

Fair value measurements are for information disclosure purposes.

The Group regularly review significant unobservable inputs and valuation adjustments. If third party information is used to measure fair values, then the Group assess the evidence obtained from the third parties to support the conclusion that such valuations meet the requirements of TFRS 13, including the level in the fair value hierarchy.

When measuring the fair value of an asset or a liability, the Group use market observable data as the first priority. Fair values are categorized into different levels in a fair value hierarchy based on the inputs used in the valuation techniques for fair value measurement as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.
- Level 2 inputs are inputs, other than quoted prices included within Level 1, which are observable for the asset or liability, either directly or indirectly.
- Level 3 inputs are unobservable inputs for the asset or liability.

5. Capital risk management

The Group's objectives when managing capital are to safeguard the subsidiaries in the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to increase investor and stakeholder confidence.

In order to maintain or adjust the capital structure, the subsidiaries in the Group may adjust the amount of dividends paid to shareholders depending on their operating performance.

6. Segment information

Segment information is presented in respect of the Group's business segments. The primary format, business segments, is based on the Group's management and internal reporting structure.

The Group comprises the following 5 main business segments:

- 1) Securities Markets (including securities trading, clearing and settlement, listing, depository and membership fees)
- 2) Derivatives Markets (including trading and clearing of future contracts and membership fees)
- 3) Technology Services (including member services, information services and technology support)
- 4) Registrar Services (including securities registrar)
- 5) Capital Market Development and others, i.e., expenses for Capital Market Development Fund (CMDf), rental income and other miscellaneous income. CMDf focuses on long-term development of capital market including improving financial and investment capabilities of Thai people and executives, promoting sustainable development of capital market industry, conducting of capital market research, and promoting leadership management.

Financial information presented in the consolidated financial statements as at December 31, 2018 and 2017 and for the years ended December 31, 2018 and 2017 are as follows:

(Unit : Thousand Baht)

	Consolidated Financial Statements						
	Securities Markets	Derivatives Markets	Technology Services	Registrar Services	Capital Market Development and others	Elimination	Total
For the year ended December 31, 2018							
Revenues from operation	3,107,109	957,548	592,399	1,120,937	214,361	-	5,992,354
Revenue from inter-segment	810,061	426,274	92,044	500,202	27,006	(1,855,587)	-
Total revenue	3,917,170	1,383,822	684,443	1,621,139	241,367	(1,855,587)	5,992,354
Segment revenues over expenses	<u>1,240,378</u>	<u>578,592</u>	<u>196,337</u>	<u>341,708</u>	<u>(342,746)</u>	<u>-</u>	<u>2,014,269</u>
Investment income, net							586,185
Share of loss of investments in joint venture entity, net of tax							(30,933)
Share of profit of investments in associates, net of tax							39,563
Revenues over expenses in operations							<u>2,609,084</u>
Non-operating items:							
Income derived from Securities Investor Protection Fund, net							9,937
Income derived from Derivatives Investor Protection Fund, net							686
Contributions to the Stock Exchange of Thailand Foundation							(186,132)
Revenues over expenses before income tax expenses							<u>2,433,575</u>
Income tax expense							(478,662)
Revenues over expenses							<u><u>1,954,913</u></u>
As at December 31, 2018							
Segment assets	4,008,194	29,027,065	921,289	743,866	460,892	(5,656,956)	29,504,350
Other assets	-	-	-	-	24,579,501	(5,313,183)	19,266,318
Total assets	<u>4,008,194</u>	<u>29,027,065</u>	<u>921,289</u>	<u>743,866</u>	<u>25,040,393</u>	<u>(10,970,139)</u>	<u>48,770,668</u>
Segment liabilities	1,503,384	23,093,450	226,649	443,766	495,111	(5,656,956)	20,105,404
Other liabilities	-	-	-	-	3,783,500	(3,783,500)	-
Total liabilities	<u>1,503,384</u>	<u>23,093,450</u>	<u>226,649</u>	<u>443,766</u>	<u>4,278,611</u>	<u>(9,440,456)</u>	<u>20,105,404</u>

(Unit : Thousand Baht)

	Consolidated Financial Statements						
	Securities Markets	Derivatives Markets	Technology Services	Registrar Services	Capital Market Development and others	Elimination	Total
For the year ended December 31, 2017							
Revenues from operation	2,780,527	669,208	540,706	1,064,660	231,142	-	5,286,243
Revenue from inter-segment	702,270	488,977	107,194	514,020	7,588	(1,820,049)	-
Total revenue	3,482,797	1,158,185	647,900	1,578,680	238,730	(1,820,049)	5,286,243
Segment revenues over expenses	<u>1,010,780</u>	<u>227,427</u>	<u>169,863</u>	<u>332,881</u>	<u>(272,564)</u>	<u>-</u>	<u>1,468,387</u>
Investment income, net							1,045,019
Share of profit of investments in joint venture entity, net of tax							1,481
Share of profit of investments in associates, net of tax							32,669
Revenues over expenses in operations							<u>2,547,556</u>
Non-operating items:							
Income derived from Securities Investor Protection Fund, net							9,215
Income derived from Derivatives Investor Protection Fund, net							622
Contributions to the Stock Exchange of Thailand Foundation							(221,075)
Revenues over expenses before income tax expenses							<u>2,336,318</u>
Income tax expense							(503,729)
Revenues over expenses							<u><u>1,832,589</u></u>
As at December 31, 2017							
Segment assets	4,307,978	26,622,029	951,291	763,121	358,909	(5,525,054)	27,478,274
Other assets	-	-	-	-	22,164,025	(4,446,393)	17,717,632
Total assets	<u>4,307,978</u>	<u>26,622,029</u>	<u>951,291</u>	<u>763,121</u>	<u>22,522,934</u>	<u>(9,971,447)</u>	<u>45,195,906</u>
Segment liabilities	1,499,238	20,664,034	209,357	441,524	531,960	(5,525,054)	17,821,059
Other liabilities	-	-	-	-	2,921,500	(2,921,500)	-
Total liabilities	<u>1,499,238</u>	<u>20,664,034</u>	<u>209,357</u>	<u>441,524</u>	<u>3,453,460</u>	<u>(8,446,554)</u>	<u>17,821,059</u>

Reconciliation of reportable segment assets/liabilities were as follows:

(Unit : Thousand Baht)		
	Consolidated Financial Statements	
	2018	2017
Assets		
Assets for reportable segments	29,504,350	27,478,274
Unallocated amounts:		
– Cash and investments	17,234,806	15,537,537
– Short-term loans to a joint venture entity	7,500	–
– Investments in related parties	968,228	973,019
– Accrued interest receivables	21,177	25,692
– Land and building under construction	1,034,607	1,181,384
Total assets	<u>48,770,668</u>	<u>45,195,906</u>
Liabilities		
Liabilities for reportable segments	<u>20,105,404</u>	<u>17,821,059</u>
Total liabilities	<u>20,105,404</u>	<u>17,821,059</u>

7. Transactions with related parties

Enterprises and individuals that directly, or indirectly through one or more intermediaries, control, or are controlled by, or are under common control with, the entity, including holding companies, subsidiaries and fellow subsidiaries are related parties of the entity. Associates and individuals owning, directly or indirectly, an interest in the voting power of the entity that gives them significant influence over the enterprise, key management personnel, including directors and officers of the company and close members of the family of these individuals and companies associated with these individuals also constitute related parties.

In considering each possible related party relationship, attention is directed to the substance of the relationship, and not merely the legal form.

Transactions with related parties are conducted at prices based on market prices or at contractually agreed prices where no market price exists.

The pricing policies for particular types of transactions are explained below:

Transaction	Pricing policy
Service income	Cost plus margin
Purchase of services	Cost plus margin
Interest income	With reference to the return of bank deposit and debt securities
Interest expense	The interest rate on the loan is based on the floating market interest rate which is referred to the higher interest rate for one-year government bond or one-year fixed deposit on average of 4 banks for corporate credit line of Baht 10 million

Related party transactions for the years ended December 31, 2018 and 2017 were as follows:

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Service income				
Subsidiaries	-	-	1,711,474	1,639,405
Joint venture entity	15,807	16,195	14,607	14,995
Associates	1,680	1,680	-	-
	<u>17,487</u>	<u>17,875</u>	<u>1,726,081</u>	<u>1,654,400</u>
Purchase of services				
Subsidiaries	-	-	1,993	44,629
Joint venture entity	94,320	95,319	93,120	94,119
	<u>94,320</u>	<u>95,319</u>	<u>95,113</u>	<u>138,748</u>
Interest income				
Subsidiaries	-	-	90,437	100,710
Joint venture entity	8	-	8	-
	<u>8</u>	<u>-</u>	<u>90,445</u>	<u>100,710</u>
Interest expense				
Subsidiaries	-	-	51,360	40,957

Related party balances as at December 31, 2018 and 2017 were as follows:

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Accounts receivable				
Subsidiaries	-	-	-	749
Joint venture entity	598	304	598	304
	<u>598</u>	<u>304</u>	<u>598</u>	<u>1,053</u>
Accrued income				
Subsidiaries	-	-	172,801	204,750
Joint venture entity	443	460	443	460
Associates	140	140	-	-
	<u>583</u>	<u>600</u>	<u>173,244</u>	<u>205,210</u>
Accrued interest receivable				
Subsidiaries	-	-	86,323	97,878
Joint venture entity	8	-	8	-
	<u>8</u>	<u>-</u>	<u>86,331</u>	<u>97,878</u>
Other current assets				
Subsidiaries	-	-	-	124
Joint venture entity	441	16	441	16
	<u>441</u>	<u>16</u>	<u>441</u>	<u>140</u>
Accounts payable				
Subsidiaries	-	-	124	755
Joint venture entity	6,746	32	6,746	32
	<u>6,746</u>	<u>32</u>	<u>6,870</u>	<u>787</u>
Accrued expenses				
Subsidiaries	-	-	184	17,669
Joint venture entity	-	16,450	-	16,450
	<u>-</u>	<u>16,450</u>	<u>184</u>	<u>34,119</u>
Fees received in advance				
Subsidiaries	-	-	3,165	3,085
Joint venture entity	-	1,759	-	1,759
	<u>-</u>	<u>1,759</u>	<u>3,165</u>	<u>4,844</u>
Other current liabilities				
Subsidiaries	-	-	-	49
Joint venture entity	1,339	150	1,339	150
	<u>1,339</u>	<u>150</u>	<u>1,339</u>	<u>199</u>

Short-term loans to a joint venture entity

(Unit : Thousand Baht)				
	Interest rate (% per annum)		Consolidated and Separate Financial Statements	
	2018	2017	2018	2017
Short-term loans to a joint venture entity	5.75	-	7,500	-

SET (the parent) lent to a joint venture entity to enhance the liquidity during the dissolution of the joint venture. The loan is in the form of non-convertible promissory notes, which the redemption is on demand.

Movements of short-term loans to joint venture entity for the years ended December 31, 2018 and 2017 were as follows:

(Unit : Thousand Baht)		
	Consolidated and Separate Financial Statements	
	2018	2017
A joint venture entity		
Opening balance	-	-
Additions	7,500	-
Repayments	-	-
Closing balance	7,500	-

Long-term loans to a subsidiary

(Unit : Thousand Baht)		
	Separate Financial Statements	
	2018	2017
Long-term loans to a subsidiary	5,240,834	5,046,791

SET (the parent) lent to a subsidiary to use as a reserve fund to enhance the competitiveness and support the future business expansion. The rate of return on loan is referred to the net return of a private fund plus 0.30% – 0.50% per annum of principle balance. The rate of return will be reviewed on an annual basis (see Note 19).

Movements of long-term loans to a subsidiary for the years ended December 31, 2018 and 2017 were as follows:

(Unit : Thousand Baht)		
	Separate Financial Statements	
	2018	2017
A subsidiary		
Opening balance	5,046,791	-
Additions	200,000	5,046,791
Repayments	(5,957)	-
Closing balance	5,240,834	5,046,791

Short-term borrowings from subsidiaries

(Unit : Thousand Baht)

	Interest rate (% per annum)		Separate Financial Statements	
	2018	2017	2018	2017
Short-term borrowings from subsidiaries	1.33 – 1.80	1.36 – 1.56	3,783,500	2,921,500

The Group has a policy of centralising the investments and managed by SET in order to maximize its efficiency and overall returns. The parent will borrow from its subsidiaries in the form of one-year promissory notes. The interest rate on the loan is based on the floating market interest rate which is referred to the higher interest rate for one-year government bond or one-year fixed deposit on average of 4 banks for corporate credit line of up to Baht 10 million (interest rate may be revised as appropriate).

Movements of short-term borrowings from subsidiaries for the years ended December 31, 2018 and 2017 were as follows:

(Unit : Thousand Baht)

	Separate Financial Statements	
	2018	2017
Subsidiaries		
Opening balance	2,921,500	2,574,500
Additions	1,226,000	457,000
Repayments	(364,000)	(110,000)
Closing balance	3,783,500	2,921,500

Sponsorship for joint venture entity

Under the shareholder agreement between SET and a Company, SET will be a principal sponsor of a joint venture's program of Baht 90 million in 2018 (2017: Baht 90 million).

Contributions to the Stock Exchange of Thailand Foundation (Foundation)

SET realizes the importance of corporate social responsibility (CSR) alongside the core business. To grow the business sustainably, the corporation must be CSR-minded and must put into practice basis, SET has established the Foundation to support outstanding CSR projects that greatly benefit the society and the country as a whole.

The Foundation was established on August 9, 2006. SET's Board of Governors are also the committee members of the foundation, by position. The Foundation supports two key CSR areas; 1) Increasing the potential in human 2) Increasing the potential of organizations and communities.

SET allocated its annual revenues over expenses to support the implementation of the Foundation. Since 2006, SET appropriated one-third of revenues over expenses. On August 9, 2016, an adjustment was made to allocate 13% of revenues over expenses before income tax.

For the year ended December 31, 2018, SET appropriated its annual revenues over expenses of Baht 186.13 million (2017: Baht 221.08 million) to the Foundation.

Directors' remuneration

The directors' remuneration represents director fees and compensation fees for the Group's board of directors and other sub-committees.

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Directors' remuneration	27,252	26,323	23,692	22,761
	<u>27,252</u>	<u>26,323</u>	<u>23,692</u>	<u>22,761</u>

8. Cash and cash equivalents

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Cash on hand	330	350	327	332
Savings and current accounts	1,118,265	1,260,862	948,442	854,010
	<u>1,118,595</u>	<u>1,261,212</u>	<u>948,769</u>	<u>854,342</u>

For the year ended December 31, 2018, savings accounts carried the interest at rates ranging from 0.10% – 1.10% per annum (2017: from 0.10% – 1.20% per annum).

9. Short-term investments, net

(Unit : Thousand Baht)

	Consolidated and Separate Financial Statements	
	2018	2017
Investments managed by SET		
Available-for-sales	3,190,697	2,925,952
Held-to-maturity debt securities (See Note 14)	897,540	-
General investments	-	7,394
	<u>4,088,237</u>	<u>2,933,346</u>
Investments managed by private funds		
Trading securities	3,448,908	3,351,602
Held-to-maturity debt securities	301,731	364,946
	<u>3,750,639</u>	<u>3,716,548</u>
	<u>7,838,876</u>	<u>6,649,894</u>

Investments managed by SET

Available-for-sales:

As at December 31, 2018, investments in money market funds of Baht 3,190.70 million represented investments in 11 open-ended funds (2017: 8 open-ended fund of Baht 2,229.51 million). The investment policy emphasises investments in short-term debt securities.

As at December 31, 2017, investments in foreign investment funds totalling 82,669 units, of Baht 696.44 million represented investments in a direct investment through Siam Commercial Bank (SCB), which is a custodian to SET. Euroclear is a custodian bank in foreign countries to invest in US dollars in 3 foreign funds which commenced on October 2017.

Held-to-maturity debt securities:

As at December 31, 2018, fixed deposits at banks which had maturities within one year of Baht 887.54 million carried interest at rates 4.00% per annum (2017: None). Debenture which had maturities within one year of Baht 10.00 million, carried coupon rate at 4.95% per annum and market yields at 3.53% per annum (2017: None).

General investments:

As at December 31, 2017, investments in specific-purpose funds of Baht 7.39 million represented investments in 1 open-ended venture capital funds. It primarily invests directly in businesses and industries which have potential growth, and the majority of which was long-term investment. The fund has an automatic redemption from the fourth year (2012). On May 23, 2018, the fund has redeemed all investments (2018: None).

Investments managed by private funds

The Group's investments in private funds are managed by 2 asset management companies (2017 : 2 asset management companies). The investment policy for private funds is subject to SET's regulations on deposits at financial institutions and investment policies as disclosed in Note 3. The Group presented investments managed by private funds as short-term investments.

For the year ended December 31, 2018, the return rates for investments managed by private funds ranged from 1.35% - 1.37% per annum (2017 : from 2.35% - 2.53% per annum).

Trading securities:

As at December 31, 2018 bond, debenture, negotiable certificate of deposit (NCD) and equity securities was Baht 3,448.91 million (2017: Baht 3,351.60 million).

Held-to-maturity debt securities:

As at December 31, 2018 savings account was Baht 1.73 million (2017: Baht 0.95 million) and fixed deposit accounts which had maturities within one year was Baht 300.00 million (2017: Baht 364.00 million).

Movements of short-term investments for the years ended December 31, 2018 and 2017 were as follows:

(Unit : Thousand Baht)

	Consolidated and Separate Financial Statements	
	2018	2017
Opening balance	6,649,894	10,177,043
Purchases	3,018,708	3,607,599
Disposals	(2,044,831)	(7,160,566)
Current portion of long-term investments	897,540	-
Classification of investments* (see Note14)	(696,445)	-
Unrealised gain on available-for-sale securities	14,010	14,900
Reversal of allowance for impairment	-	10,918
Closing balance	7,838,876	6,649,894

* As of December 31, 2017, SET has classified investment in foreign mutual funds to short-term investments at the end of 2017 as it is the first direct investment in foreign funds. Initially there is an opportunity to sell funds within 1 year as the volatility in the money market. After managing such investments, SET has considered to apply the investment's policy framework of foreign mutual funds as well as other mutual funds in Thailand, therefore, such investments are classified as long-term investments as at December 31, 2018.

10. Accounts receivable and accrued income, net

(Unit : Thousand Baht)

		Consolidated Financial Statements		Separate Financial Statements	
		2018	2017	2018	2017
Note					
Accounts receivable					
Related parties	7	598	304	598	1,053
Other parties		66,756	401,189	30,224	364,299
		67,354	401,493	30,822	365,352
Less Allowance for doubtful accounts		(15,128)	(15,128)	(5,024)	(5,024)
		52,226	386,365	25,798	360,328
Accrued income					
Related parties	7	583	600	173,244	205,210
Other parties		274,472	275,976	89,867	113,337
		275,055	276,576	263,111	318,547
		327,281	662,941	288,909	678,875

Aging analysis for accounts receivable are as follows:

		(Unit : Thousand Baht)			
	Note	Consolidated Financial Statements		Separate Financial Statements	
		2018	2017	2018	2017
Related parties	7				
Within credit terms		174	304	174	1,053
Overdue:					
Less than 3 months		424	-	424	-
		598	304	598	1,053
Other parties					
Within credit terms		36,475	366,368	11,154	341,437
Overdue:					
Less than 3 months		12,614	19,693	11,822	17,838
3 - 6 months		2,073	-	1,923	-
6 - 12 months		153	-	149	-
Over 12 months		15,441	15,128	5,176	5,024
		66,756	401,189	30,224	364,299
<u>Less Allowance for doubtful accounts</u>		(15,128)	(15,128)	(5,024)	(5,024)
		51,628	386,061	25,200	359,275
		52,226	386,365	25,798	360,328

The normal credit terms granted by the Group range from 15 days to 30 days.

11. Other current assets

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Other receivables from sale				
of investments	150,000	-	150,000	-
Cash at banks for dividend accounts				
of investors (see Note 22)	84,042	78,151	-	-
Loans to employees	27,114	26,949	27,114	26,949
Prepaid expenses	26,104	29,894	26,104	29,969
Withholding tax receivable	23,592	21,803	-	-
Accounts receivable from net fair values				
of forward exchange contracts	22,709	9,106	22,709	9,106
Value added tax receivable	7,997	2,204	-	-
Inventory-publication	5,107	6,032	5,107	6,032
Pending input tax	4,619	5,726	4,405	5,772
Receivables from transferring of rights				
for building utilisation	-	13,066	-	13,066
Others	6,499	6,874	5,653	6,118
	<u>357,783</u>	<u>199,805</u>	<u>241,092</u>	<u>97,012</u>

12. Investments in subsidiaries

Investments in subsidiaries as at December 31, 2018 and 2017, and dividend income for the years then ended were as follows:

(Unit : Thousand Baht)

	Separate Financial Statements							
	Ownership interest (%)		Paid-up capital		Cost method		Dividend income	
	2018	2017	2018	2017	2018	2017	2018	2017
Subsidiaries								
Thailand Securities Depository Co., Ltd.	100.00	100.00	200,000	200,000	200,000	200,000	223,556	184,014
Thai Trust Fund Management Co., Ltd.	100.00	100.00	100,000	100,000	100,000	100,000	332	180
Thai NVDR Co., Ltd.	100.00	100.00	10,000	10,000	10,000	10,000	494	1,050
SETTRADE.COM Co., Ltd.	100.00	100.00	80,000	80,000	74,591	74,591	-	-
Siam DR Co., Ltd. ⁽¹⁾	-	-	-	-	-	-	-	70
Thailand Futures Exchange Public Company Limited	100.00	100.00	500,000	500,000	500,000	500,000	51,015	40,300
Thailand Clearing House Co., Ltd.	100.00	100.00	600,000	600,000	602,700	602,700	30,504	52,680
Live Fin Corp Co., Ltd. ⁽²⁾	100.00	100.00	10,000	10,000	10,000	10,000	-	-
Finnnet Innovation Network Co., Ltd. ⁽³⁾	100.00	100.00	200,000	200,000	200,000	200,000	-	-
			<u>1,700,000</u>	<u>1,700,000</u>	<u>1,697,291</u>	<u>1,697,291</u>	<u>305,901</u>	<u>278,294</u>

The business place of all subsidiaries is in Thailand and the nature of business of each subsidiary has already been disclosed in Note 1.

⁽¹⁾ At the Extraordinary Shareholder's meeting no. 1/2017 held on July 21, 2017, the shareholders resolved to dissolve the Company. The dissolution was registered with the Ministry of Commerce on July 31, 2017, and the liquidation was registered on July 26, 2018. The Company has already made repayment on paid-up share capital totaling Baht 10,000,000 to SET.

⁽²⁾ The total number of authorized ordinary shares is 1,000,000 shares with a par value of Baht 10 per share. All issued shares were fully paid. On June 23, 2017, subsidiary received subscription of 1,000,000 shares at Baht 10 par value which were priced at Baht 10 per share. The paid-up share capital totaling Baht 10,000,000. Subsidiary registered the capital with the Ministry of Commerce on June 26, 2017.

⁽³⁾ The total number of authorized ordinary shares is 20,000,000 shares with a par value of Baht 10 per share. All issued shares were fully paid. On August 23, 2017, subsidiary received subscription of 20,000,000 shares at Baht 10 par value which were priced at Baht 10 per share. The paid-up share capital totaling Baht 200,000,000. Subsidiary registered the capital with the Ministry of Commerce on August 25, 2017.

13. Investments in associates and joint venture entity, net

The amounts recognised in the statement of financial position are as follows:

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	Equity method		Cost method	
	2018	2017	2018	2017
Associates	940,930	914,065	775,620	775,620
Joint venture entity	27,298	58,954	25,000	25,000
As at December 31,	968,228	973,019	800,620	800,620

The amounts recognised in the statement of comprehensive revenues and expenses are share of profit (loss) of investments in associates and joint venture entity, net of tax. Details are as follows:

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	Equity method		Cost method	
	2018	2017	2018	2017
Associates	39,563	32,669	-	-
Joint venture entity	(30,933)	1,481	-	-
For the years ended December 31,	8,630	34,150	-	-

a) Investment in associates

Set out below are the associates of the Group as at December 31, 2018 and 2017, which are not material to the Group. The associates as listed below have share capital consisting solely of ordinary shares, which are held directly by the Group.

(Unit : Thousand Baht)

	Ownership interest		Consolidated Financial Statements							
	(%)		Paid-up capital		Cost method		Equity method		Dividend income	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Associates										
Clearing Fund ("CLF")	9.42	10.41	2,140,622	1,916,453	100,000	100,000	201,559	199,530	-	-
TSFC Securities Public Company Limited ("TSFC")	40.65	40.65	1,549,126	1,549,126	675,620	675,620	739,371	714,535	-	-
					775,620	775,620	940,930	940,930	-	-

(Unit : Thousand Baht)

	Ownership interest (%)		Separate Financial Statements									
			Paid-up capital		Cost method		Impairment		At cost, net		Dividend income	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Associates												
Clearing Fund ("CLF")	9.42	10.41	2,140,622	1,916,453	100,000	100,000	-	-	100,000	100,000	-	-
TSFC Securities Public Company Limited ("TSFC")	40.65	40.65	1,549,126	1,549,126	679,015	679,015	(3,395)	(3,395)	675,620	675,620	12,595	9,446
					779,015	779,015	(3,395)	(3,395)	775,620	775,620	12,595	9,446

The business place of all associates is in Thailand and the nature of business of each associate has already been disclosed in Note 1.

The Group also has interests in a number of individual associates that are accounted for using the equity method in the consolidated financial statements.

(Unit : Thousand Baht)

	2018			2017		
	CLF	TSFC	Total	CLF	TSFC	Total
Aggregate carrying amount of individually immaterial associates	201,559	739,371	940,930	199,530	714,535	914,065
Aggregate amounts of the reporting entity's share of:						
Revenues over expenses from continuing activities, net of tax	2,030	37,533	39,563	2,767	29,902	32,669
Other comprehensive revenues and expenses, net of tax	-	(103)	(103)	-	53	53
Total comprehensive revenues and expenses, net of tax	2,030	37,430	39,460	2,767	29,955	32,722

The Group has no contingent liabilities relating to associates.

b) Investment in joint venture entity

Set out below is the joint venture entity of the Group as at December 31, 2018 and 2017, which are not material to the Group. The joint venture listed below has share capital consisting solely of preferred shares, which is held directly by the Group.

(Unit : Thousand Baht)

	Ownership interest (%)		Consolidated Financial Statements					
			Paid-up capital		Equity method		Dividend income	
	2018	2017	2018	2017	2018	2017	2018	2017
Joint venture entity								
Family Know-how Co., Ltd. ⁽¹⁾	50.00	50.00	50,000	50,000	27,298	58,954	-	-

(Unit : Thousand Baht)

	Ownership interest (%)		Separate Financial Statements					
			Paid-up capital		Equity method		Dividend income	
	2018	2017	2018	2017	2018	2017	2018	2017
Joint venture entity								
Family Know-how Co., Ltd. ⁽¹⁾	50.00	50.00	50,000	50,000	25,000	25,000	2,047	4,555

The business place of joint venture entity is in Thailand and the nature of business of each entity has already been disclosed in Note 1.

⁽¹⁾ At the Extraordinary Shareholder's meeting no. 1/2018 held on December 14, 2018, the shareholders resolved to dissolve the company. The dissolution was registered with the Ministry of Commerce on December 26, 2018 which is currently in the process of liquidation.

The Group also has interests in a joint venture entity that is accounted for using the equity method.

(Unit : Thousand Baht)

	Consolidated Financial Statements	
	2018	2017
Aggregate carrying amount of joint venture entity	27,298	58,954
Aggregate amounts of the reporting entity's share of:		
Revenues over expenses from continuing activities, net of tax	(30,933)	1,481
Other comprehensive revenues and expenses, net of tax	(758)	697
Total comprehensive revenue and expenses, net of tax	(31,691)	2,178

The Group has no contingent liabilities related to joint venture entity.

14. Long-term investments, net

(Unit : Thousand Baht)

	Consolidated and Separate Financial Statements	
	2018	2017
Available-for-sale investments	8,059,738	7,039,098
Held-to-maturity debt securities	765,746	1,426,809
General investments	12,361	12,361
	8,837,845	8,478,268

Available-for-sale investments :

As at December 31, 2018, investments in general mutual funds and private equity trust fund of Baht 3,629.19 million (2017: Baht 4,007.55 million) represented investments in 35 open-ended funds (2017: 28 funds), which have a policy of emphasising investment in equity securities of listed companies and investment in a fund established to help small and medium enterprises (SMEs), including investment in funds established to invest in start-up businesses in 5 funds (2017: 5 Funds). There is no investment in gold funds (2017: 1 fund of Baht 27.95 million).

As at December 31, 2018, investments in property funds of Baht 1,455.01 million (2017: Baht 1,159.52 million) represented 6 closed-end non-redeemable mutual funds (2017: 5 funds). These funds were established for acquiring, leasing and transferring properties and/or their leasehold rights and providing for income-generating properties. All these property funds are listed and traded on the Stock Exchange of Thailand.

As at December 31, 2018, investments in foreign investment funds of Baht 2,975.54 million (2017: Baht 1,844.08 million) represented 26 open-ended funds (2017: 20 funds). The Feeder Fund policy is to emphasise investment in foreign fund securities.

Held-to-maturity debt securities:

As at December 31, 2017, fixed deposits at banks which had maturities over one year of Baht 887.54 million carried interest at rates 4.00% per annum (2018: None).

As at December 31, 2018, cash at banks under a Memorandum of Understanding (M.O.U.) used as security for housing loans provided to employees of the Group is Baht 523.74 million (2017: Baht 529.27 million).

As at December 31, 2018, Government bonds which had maturities over one year of Baht 242.00 million carried coupon rate ranging from 2.035% – 2.07% per annum and market yields ranging from 2.08% – 2.11% per annum (2017: Debentures of Baht 10.00 million carried coupon rate at 4.95% per annum and market yields at 3.52% per annum).

General investments:

As at December 31, 2018, investments in TRIS Corporation Co., Ltd. and Innoconnect Social Enterprise Co., Ltd. was Baht 12.36 million (2017: Baht 12.36 million).

Movements of long-term investments for the years ended December 31, 2018 and 2017 were as follows:

	(Unit : Thousand Baht)	
	Consolidated and Separate Financial Statements	
	2018	2017
Opening balance	8,478,268	8,312,060
Purchases	3,703,981	3,535,643
Disposals	(2,303,330)	(3,676,658)
Classification of investments* (see Note 9)	696,445	-
Unrealised gain/(loss) on available-for-sale securities	(839,979)	307,223
	9,735,385	8,478,268
<u>Less</u> Current portion within 1 year (see Note 9)	(897,540)	-
Closing balance	8,837,845	8,478,268

* As of December 31, 2017, SET had classified investment in foreign mutual funds to short-term investments at the end of 2017 as it is the first direct investment in foreign funds. Initially, there is an opportunity to sell funds within 1 year as the volatility in the money market. After managing such investments, SET has considered to apply the investment's policy framework of foreign mutual funds as well as other mutual funds in Thailand; therefore, such investments are classified as long-term investments as at December 31, 2018.

As at December 31, 2018 and 2017, held-to-maturity debt securities which were classified by maturity were as follows:

(Unit : Thousand Baht)

	Consolidated and Separate Financial Statements			
	Within 1 year (See Note 9)	1 to 5 years	Over 5 years	Total
As at December 31, 2018				
Held-to-maturity debt securities				
Deposits at banks	887,540	-	523,742	1,411,282
Government bonds	-	242,004	-	242,004
Debentures	10,000	-	-	10,000
	<u>897,540</u>	<u>242,004</u>	<u>523,742</u>	<u>1,663,286</u>
As at December 31, 2017				
Held-to-maturity debt securities				
Deposits at banks	-	887,540	529,269	1,416,809
Debentures	-	10,000	-	10,000
	<u>-</u>	<u>897,540</u>	<u>529,269</u>	<u>1,426,809</u>

As at December 31, 2018 and 2017, the fair value of held-to-maturity debt securities were as follows:

(Unit : Thousand Baht)

	Consolidated and Separate Financial Statements			
	Amortised cost, net		Fair value	
	2018	2017	2018	2017
Deposits at banks	1,411,282	1,416,809	1,308,358	1,353,692
Government bonds	242,004	-	241,379	-
Debentures	10,000	10,000	10,131	10,266
	<u>1,663,286</u>	<u>1,426,809</u>	<u>1,559,868</u>	<u>1,363,958</u>
<u>Less</u> Current portion within 1 year (see Note 9)	<u>(897,540)</u>	<u>-</u>	<u>(897,671)</u>	<u>-</u>
	<u>765,746</u>	<u>1,426,809</u>	<u>662,197</u>	<u>1,363,958</u>

15. Property, plant and equipment, net

(Unit : Thousand Baht)

	Consolidated Financial Statements					
	Land and land improvements	Buildings and building improvements	Furniture, fixtures and office equipment	Motor vehicles	Work in process/ building under construction	Total
As at January 1, 2017						
Cost	1,014,097	4,955,022	1,474,651	3,538	13,869	7,461,177
<u>Less</u> Accumulated depreciation	-	(1,055,286)	(866,890)	(1,708)	-	(1,923,884)
Net book amount	1,014,097	3,899,736	607,761	1,830	13,869	5,537,293
For the year ended						
December 31, 2017						
Opening net book amount	1,014,097	3,899,736	607,761	1,830	13,869	5,537,293
Additions	-	3,700	36,511	615	281,384	322,210
Disposals/write-off	-	(371,540)	(5,185)	(2,185)	-	(378,910)
Depreciation charge	-	(220,396)	(122,742)	(60)	-	(343,198)
Transfer	-	2,660	36,443	-	(39,103)	-
Closing net book amount	1,014,097	3,314,160	552,788	200	256,150	5,137,395
As at December 31, 2017						
Cost	1,014,097	3,990,700	1,321,750	388	256,150	6,583,085
<u>Less</u> Accumulated depreciation	-	(676,540)	(768,962)	(188)	-	(1,445,690)
Net book amount	1,014,097	3,314,160	552,788	200	256,150	5,137,395
For the year ended						
December 31, 2018						
Opening net book amount	1,014,097	3,314,160	552,788	200	256,150	5,137,395
Additions	-	7,747	30,217	-	152,363	190,327
Disposals/write-off	-	(288)	(439)	-	-	(727)
Depreciation charge	-	(205,587)	(138,912)	(60)	-	(344,559)
Transfer	-	254,167	107,189	-	(361,356)	-
Adjustments	-	-	-	-	(3,354)	(3,354)
Closing net book amount	1,014,097	3,370,199	550,843	140	43,803	4,979,082
As at December 31, 2018						
Cost	1,014,097	4,252,326	1,458,070	388	43,803	6,768,684
<u>Less</u> Accumulated depreciation	-	(882,127)	(907,227)	(248)	-	(1,789,602)
Net book amount	1,014,097	3,370,199	550,843	140	43,803	4,979,082

(Unit : Thousand Baht)

	Separate Financial Statements					
	Land and land improvements	Buildings and building improvements	Furniture, fixtures and office equipment	Motor vehicles	Work in process/ building under construction	Total
As at January 1, 2017						
Cost	1,014,097	4,953,305	1,402,212	3,538	13,869	7,387,021
Less Accumulated depreciation	-	(1,053,885)	(795,568)	(1,708)	-	(1,851,161)
Net book amount	1,014,097	3,899,420	606,644	1,830	13,869	5,535,860
For the year ended						
December 31, 2017						
Opening net book amount	1,014,097	3,899,420	606,644	1,830	13,869	5,535,860
Additions	-	3,700	36,511	615	281,384	322,210
Disposals/write-off	-	(371,252)	(5,182)	(2,185)	-	(378,619)
Depreciation charge	-	(220,368)	(122,518)	(60)	-	(342,946)
Transfer	-	2,660	36,443	-	(39,103)	-
Closing net book amount	1,014,097	3,314,160	551,898	200	256,150	5,136,505
As at December 31, 2017						
Cost	1,014,097	3,990,700	1,278,358	388	256,150	6,539,693
Less Accumulated depreciation	-	(676,540)	(726,460)	(188)	-	(1,403,188)
Net book amount	1,014,097	3,314,160	551,898	200	256,150	5,136,505
For the year ended						
December 31, 2018						
Opening net book amount	1,014,097	3,314,160	551,898	200	256,150	5,136,505
Additions	-	7,747	29,995	-	152,363	190,105
Disposals/write-off	-	(288)	(439)	-	-	(727)
Depreciation charge	-	(205,587)	(138,685)	(60)	-	(344,332)
Transfer	-	254,167	107,189	-	(361,356)	-
Adjustments	-	-	-	-	(3,354)	(3,354)
Closing net book amount	1,014,097	3,370,199	549,958	140	43,803	4,978,197
As at December 31, 2018						
Cost	1,014,097	4,252,326	1,414,454	388	43,803	6,725,068
Less Accumulated depreciation	-	(882,127)	(864,496)	(248)	-	(1,746,871)
Net book amount	1,014,097	3,370,199	549,958	140	43,803	4,978,197

16. Intangible assets, net

(Unit : Thousand Baht)

	Consolidated Financial Statements			
	Computer software	Patent	Work in progress	Total
As at January 1, 2017				
Cost	1,467,625	2,867	15,701	1,486,193
<u>Less</u> Accumulated amortisation	(1,018,617)	(903)	-	(1,019,520)
Net book amount	449,008	1,964	15,701	466,673
For the year ended December 31, 2017				
Opening net book amount	449,008	1,964	15,701	466,673
Additions	28,374	-	52,052	80,426
Disposals	(6)	-	-	(6)
Amortisation charge	(119,850)	(385)	-	(120,235)
Transfer	33,746	-	(33,746)	-
Closing net book amount	391,272	1,579	34,007	426,858
As at December 31, 2017				
Cost	1,519,025	2,867	34,007	1,555,899
<u>Less</u> Accumulated amortisation	(1,127,753)	(1,288)	-	(1,129,041)
Net book amount	391,272	1,579	34,007	426,858
For the year ended December 31, 2018				
Opening net book amount	391,272	1,579	34,007	426,858
Additions	21,286	-	62,095	83,381
Amortisation charge	(137,669)	(387)	-	(138,056)
Transfer	51,922	-	(51,922)	-
Adjustments	7,894	-	(4,320)	3,574
Closing net book amount	334,705	1,192	39,860	375,757
As at December 31, 2018				
Cost	1,600,127	2,867	39,860	1,642,854
<u>Less</u> Accumulated amortisation	(1,265,422)	(1,675)	-	(1,267,097)
Net book amount	334,705	1,192	39,860	375,757

(Unit : Thousand Baht)

	Separate Financial Statements			
	Computer software	Patent	Work in progress	Total
As at January 1, 2017				
Cost	1,386,117	2,006	15,701	1,403,824
<u>Less</u> Accumulated amortisation	(937,855)	(528)	-	(938,383)
Net book amount	448,262	1,478	15,701	465,441
For the year ended December 31, 2017				
Opening net book amount	448,262	1,478	15,701	465,441
Additions	28,374	-	52,052	80,426
Disposals	(6)	-	-	(6)
Amortisation charge	(119,659)	(262)	-	(119,921)
Transfer	33,746	-	(33,746)	-
Closing net book amount	390,717	1,216	34,007	425,940
As at December 31, 2017				
Cost	1,440,305	2,006	34,007	1,476,318
<u>Less</u> Accumulated amortisation	(1,049,588)	(790)	-	(1,050,378)
Net book amount	390,717	1,216	34,007	425,940
For the year ended December 31, 2018				
Opening net book amount	390,717	1,216	34,007	425,940
Additions	18,390	-	62,095	80,485
Amortisation charge	(137,456)	(264)	-	(137,720)
Transfer	51,922	-	(51,922)	-
Adjustments	7,894	-	(4,320)	3,574
Closing net book amount	331,467	952	39,860	372,279
As at December 31, 2018				
Cost	1,518,511	2,006	39,860	1,560,377
<u>Less</u> Accumulated amortisation	(1,187,044)	(1,054)	-	(1,188,098)
Net book amount	331,467	952	39,860	372,279

17. Assets for margin deposits and benefits

Thailand Clearing House Co., Ltd. (TCH) is the clearing house for derivatives market. Members of TCH who have outstanding positions are obliged to place the required margin deposits as a guarantee according to the rate or amount called by TCH. TCH may invest the margin proceeds according to specified terms and conditions. The benefits, after deducting management fees, shall be distributed to members at the announced rates and procedures.

As at December 31, 2018 and 2017, the details of investments for which margin deposits were placed by members consist of:

(Unit : Thousand Baht)		
	Consolidated Financial Statements	
	2018	2017
Savings and fixed deposit accounts	12,670,196	12,853,973
Savings account in foreign currency	378,758	488,319
Held-to-maturity debt securities	1,604,529	-
Securities collateral	796,926	-
Accrued benefits	59,995	55,593
	<u>15,510,404</u>	<u>13,397,885</u>

As at December 31, 2018, savings account in foreign currency of USD 11.73 million (2017: USD 15.02 million) was translated into Thai Baht using the average transfer buying rate announced by the Bank of Thailand at the end of the accounting period.

The Group presented margin deposits placed by members separately in the account “Assets for margin deposits and benefits” in current assets in the statement of financial position and presented liabilities in the same amount in the account “Margin deposits and benefits payable” in current liabilities in the statement of financial position.

18. Assets for clearing system protection and benefits

The assets for clearing system protection are established to secure the clearing system of Thailand Clearing House Co., Ltd. (TCH) against any damage caused by defaults by members or other incidents.

Assets for clearing system protection comprise of 2 categories as the following:

18.1 Securities Deposit

Members of TCH are required to place a Securities Deposit according to the announcement made by TCH (the current Securities Deposit for members, who are allowed to clear all types of derivatives, is not less than Baht 5 million and for only one type of derivatives is not less than Baht 4 million).

18.2 Clearing fund contributions comprising contributions from:

(1) SET amounting to Baht 100 million

(2) Members of TCH:

- Initial contributions according to the announced rates (currently the initial contribution members, who are allowed to clear all types of derivatives, are not less than Baht 6 million and for only one type of derivatives is not less than Baht 1 million).
- Monthly contributions at a value of not less than Baht 1,000.

TCH manages the assets for clearing system protection and there are benefits incurred thereon, if such benefits are derived from the assets for clearing system protection of members, TCH shall return them to members after deduction of a management fees in accordance with the procedures and within the period prescribed by TCH.

When TCH has a resolution to terminate the membership of any members, TCH shall return the assets which such members has provided for the Clearing of TCH, including the remaining benefits therefore after deduction of debts as well as damages and penalty that the member owes to TCH, within the period prescribed by TCH.

As at December 31, 2018 and 2017, assets for clearing system protection and benefits consist of:

(Unit : Thousand Baht)

	Consolidated Financial Statements					
	Securities Deposit and benefits		Clearing fund and benefits		Total	
	2018	2017	2018	2017	2018	2017
Investments managed by TCH	673,494	753,295	-	-	673,494	753,295
Investments managed by private fund						
Savings accounts	486	698	2,535	846	3,021	1,544
Trading securities	200,975	200,595	1,092,175	926,700	1,293,150	1,127,295
	874,955	954,588	1,094,710	927,546	1,969,665	1,882,134
Accrued interest receivable	352	639	1,773	2,259	2,125	2,898
Other assets	59	74	10,700	17,291	10,759	17,365
	875,366	955,301	1,107,183	947,096	1,982,549	1,902,397

(Unit : Thousand Baht)

	Separate Financial Statements	
	2018	2017
Clearing fund and benefits		
Contributions	100,000	100,000
Accumulated benefits	44,156	42,510
	144,156	142,510

Investments managed by TCH

For the year ended December 31, 2018, savings accounts carried interest rates at rates ranging from 0.375% - 1.00% per annum (2017: from 0.375% - 1.00% per annum).

Investments managed by private fund

Investments in private fund are managed by 1 asset management company (2017: 1 asset management company).

The investments policy of private fund is reference to the TCH's regulations in relation to deposits with financial institution and company's investment policies. For the year ended December 31, 2018, the investment in private fund have return rates ranging from 1.42% – 1.43% per annum (2017: from 2.02% – 2.04% per annum).

As at December 31, 2018 and 2017, assets for clearing system protection and benefits payable consist of:

(Unit : Thousand Baht)		
	Consolidated Financial Statements	
	2018	2017
Securities Deposit and benefits		
Contributions	871,528	951,220
Benefits (semi-annually distribute to members)	3,838	4,081
	<u>875,366</u>	<u>955,301</u>
Clearing fund and benefits		
Contributions	847,572	699,554
Accumulated benefits	115,455	105,032
	<u>963,027</u>	<u>804,586</u>
	<u><u>1,838,393</u></u>	<u><u>1,759,887</u></u>

19. Reserve fund for clearing and settlement

Reserve Fund for clearing and settlement from SET established as a source of funds for clearing house to compensate for any damage that may result from default or damages that may be caused by the actions of members in the business relating to the settlement and delivery of securities of the clearing house.

On January 14, 2015 and April 27, 2016, SET's Board of Governors approved an appropriation of reserve fund for clearing and settlement in the approximately Baht 5,690 million during 2016-2020 for compliance with the standard of clearing house set by the Overseas Securities Regulator and for enhance competitiveness and support future business expansion. As at December 31, 2018, the reserve fund for clearing and settlement was Baht 5,328.58 million (2017 : Baht 5,124.32 million).

As at December 31, 2018 and 2017, reserve fund for clearing and settlement consist of:

(Unit : Thousand Baht)		
	Consolidated Financial Statements	
	2018	2017
Investments managed by private fund		
Savings accounts	10,633	1,165
Trading securities	5,293,794	5,110,622
	5,304,427	5,111,787
Accrued interest receivable	10,401	11,710
Other assets	13,748	823
	5,328,576	5,124,320

Investments in private fund are managed by 2 asset management companies (2017: 2 asset management companies)

The investment policy of private fund is reference to the TCH's regulations in relation to deposits with financial institution and company's investment policies. For the year ended December 31, 2018, the investments in private fund have return rates ranging from 1.39% - 1.40% per annum (2017: from 1.53% - 1.68% per annum).

20. Deferred income taxes

Statement of financial position shows the balance as follows:

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
As at December 31,				
Deferred tax assets	139,821	2,356	137,655	-
Deferred tax liabilities	-	(85,135)	-	(83,807)
Deferred tax, net	<u>139,821</u>	<u>(82,779)</u>	<u>137,655</u>	<u>(83,807)</u>

The gross movement of the deferred income tax account is as follows:

Deferred tax assets:

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Opening balance	89,789	55,527	87,433	53,481
Tax charged to revenues over expenses	46,508	4,817	46,695	4,507
Tax charged relation to components of other comprehensive revenues and expenses	13,387	29,445	13,387	29,445
Closing balance	<u>149,684</u>	<u>89,789</u>	<u>147,515</u>	<u>87,433</u>

Deferred tax liabilities:

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Opening balance	172,568	97,889	171,240	98,165
Tax charged/ (credited) to revenues over expenses	(5,395)	7,143	(4,070)	5,539
Tax charged/ (credited) relation to components of other comprehensive revenues and expenses	(151,806)	67,536	(151,806)	67,536
Adjustments in SIPF's fund balances	(5,504)	-	(5,504)	-
Closing balance	<u>9,863</u>	<u>172,568</u>	<u>9,860</u>	<u>171,240</u>
Deferred tax assets (liabilities), net	<u>139,821</u>	<u>(82,779)</u>	<u>137,655</u>	<u>(83,807)</u>

The movement in deferred tax assets and deferred tax liabilities during the years is as follows:

(Unit : Thousand Baht)

	Consolidated Financial Statements					
	Allowance for doubtful accounts	Unrealised gain on revaluation of investments	Difference on useful life of assets	Employee benefits obligation from accumulated annual leave	Employee benefits obligation	Total
Deferred tax assets						
As at January 1, 2017	3,031	-	-	4,844	47,652	55,527
Tax charged/ (credited) to revenues over expenses	(5)	-	-	383	4,439	4,817
Tax charged relation to components of other comprehensive revenue and expenses	-	-	-	-	29,445	29,445
As at December 31, 2017	3,026	-	-	5,227	81,536	89,789
Tax charged/ (credited) to revenues over expenses	-	789	39,316	(66)	6,469	46,508
Tax charged to components of other comprehensive revenues and expenses	-	13,387	-	-	-	13,387
As at December 31, 2018	3,026	14,176	39,316	5,161	88,005	149,684

(Unit : Thousand Baht)

	Consolidated Financial Statements			
	Unrealised gain on revaluation of available-for-sale securities	Unrealised gain on revaluation of trading securities	Adjustments in SIPF's fund balances	Total
Deferred tax liabilities				
As at January 1, 2017	97,382	507	-	97,889
Tax charged to revenues over expenses	-	7,143	-	7,143
Tax charged to components of other comprehensive revenues over expenses	67,536	-	-	67,536
As at December 31, 2017	164,918	7,650	-	172,568
Tax (credited) to revenues over expenses	-	(5,395)	-	(5,395)
Tax (credited) to components of other comprehensive revenues over expenses	(151,806)	-	(5,504)	(157,310)
As at December 31, 2018	13,112	2,255	(5,504)	9,863

(Unit : Thousand Baht)

	Separate Financial Statements					
	Allowance for doubtful accounts	Unrealised gain on revaluation of investments	Difference on useful life of assets	Employee benefits obligation from accumulated annual leave	Employee benefits obligation	Total
Deferred tax assets						
As at January 1, 2017	1,005	-	-	4,824	47,652	53,481
Tax charged to to revenues over expenses	-	-	-	359	4,148	4,507
Tax charged relation to components of other comprehensive revenue and expenses	-	-	-	-	29,445	29,445
As at December 31, 2017	1,005	-	-	5,183	81,245	87,433
Tax charged/ (credited) to revenues over expenses	-	641	39,316	(21)	6,759	46,695
Tax charged to components of other comprehensive revenues and expenses	-	13,387	-	-	-	13,387
As at December 31, 2018	1,005	14,028	39,316	5,162	88,004	147,515

(Unit : Thousand Baht)

	Separate Financial Statements			
	Unrealised gain on revaluation of available-for-sale securities	Unrealised gain on revaluation of trading securities	Adjustments in SIPF's fund balances	Total
Deferred tax liabilities				
As at January 1, 2017	97,382	783	-	98,165
Tax charged to revenues over expenses	-	5,539	-	5,539
Tax charged to components of other comprehensive revenues over expenses	67,536	-	-	67,536
As at December 31, 2017	164,918	6,322	-	171,240
Tax (credited) to revenues over expenses	-	(4,070)	-	(4,070)
Tax (credited) to components of other comprehensive revenues over expenses	(151,806)	-	(5,504)	(157,310)
As at December 31, 2018	13,112	2,252	(5,504)	9,860

21. Accounts payable and accrued expenses

(Unit : Thousand Baht)

		Consolidated Financial Statements		Separate Financial Statements	
		2018	2017	2018	2017
Note					
Accounts payable					
Subsidiaries	7	-	-	124	755
Joint venture entity	7	6,746	32	6,746	32
Other parties		62,809	103,739	59,470	103,239
		69,555	103,771	66,340	104,026
Accrued expenses					
Subsidiaries	7	-	-	184	17,669
Joint venture entity	7	-	16,450	-	16,450
Other parties		1,070,267	907,392	1,033,558	875,983
		1,070,267	923,842	1,033,742	910,102
		1,139,822	1,027,613	1,100,082	1,014,128

22. Other current liabilities

(Unit : Thousand Baht)

	Note	Consolidated Financial Statements		Separate Financial Statements	
		2018	2017	2018	2017
Dividend payable from registrar services to investors (see Note 11)		84,042	78,151	-	-
Financial benefits payable		69,086	67,683	-	-
Other retention payables		36,854	32,931	36,850	32,928
Withholding tax payable		34,417	25,703	10,624	9,638
Employee benefits obligation from accumulated annual leave		25,810	26,139	25,810	25,917
Value added tax payable		21,652	14,256	21,652	5,967
Ngoen-Thong-khong-Mee-Kha Fund		11,576	11,576	11,576	11,576
Current portion of employee benefits obligation (see Note 23)		3,699	6,360	3,699	4,908
Other payable from purchase of investments		-	20,088	-	20,088
Others		27,119	18,238	20,345	13,578
		<u>314,255</u>	<u>301,125</u>	<u>130,556</u>	<u>124,600</u>

23. Expenses benefits obligation

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Statement of financial position				
Provision to be settled within 1 year				
Retirement benefits (see Note 22)	3,699	6,360	3,699	4,908
	<u>3,699</u>	<u>6,360</u>	<u>3,699</u>	<u>4,908</u>
Provision to be settled after 1 year				
Retirement benefits	407,020	372,705	407,020	372,705
Other benefits	29,301	28,613	29,301	28,613
	<u>436,321</u>	<u>401,318</u>	<u>436,321</u>	<u>401,318</u>
	<u>440,020</u>	<u>407,678</u>	<u>440,020</u>	<u>406,226</u>
Expenses charge included in the statement of revenues and expenses				
Retirement benefits	48,390	24,965	48,390	23,033
Other benefits	2,618	257	2,618	257
	<u>51,008</u>	<u>25,222</u>	<u>51,008</u>	<u>23,290</u>

The amounts recognised in the statement of financial position are determined as follows:ˆ

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Present value of obligations				
Retirement benefits	410,719	379,065	410,719	377,613
Other benefits	29,301	28,613	29,301	28,613
Liabilities in the statement of financial position	<u>440,020</u>	<u>407,678</u>	<u>440,020</u>	<u>406,226</u>

The movement in the defined benefit obligation during the years is as follows:

(Unit : Thousand Baht)				
	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
As at January 1,	407,678	238,263	406,226	238,263
Current service costs	40,029	19,659	40,029	17,734
Interest costs	10,979	8,498	10,979	8,491
Gain from remeasurements of other benefits	-	(2,935)	-	(2,935)
Remeasurements:				
Loss from change in demographic assumptions	-	9,559	-	9,559
Loss from change in financial assumptions	-	93,582	-	93,582
Loss from experience	-	44,086	-	44,086
	458,686	410,712	457,234	408,780
<u>Less</u> Benefits paid	(18,666)	(3,034)	(18,568)	(2,554)
<u>Add</u> Transfer of employees from a subsidiary	-	-	1,354	-
As at December 31,	440,020	407,678	440,020	406,226
<u>Less</u> Current portion within 1 year (see Note 22)	(3,699)	(6,360)	(3,699)	(4,908)
Total non-current portion	436,321	401,318	436,321	401,318

For the years ended December 31, 2018 and 2017, the amounts recognised in the statement of comprehensive revenues and expense are as follows:

(Unit : Thousand Baht)				
	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Current service costs	40,029	19,659	40,029	17,734
Interest costs	10,979	8,498	10,979	8,491
Gain from remeasurements of other benefits	-	(2,935)	-	(2,935)
	51,008	25,222	51,008	23,290

For the years ended December 31, 2018 and 2017, the principal actuarial assumptions used were as follows:

	2018	2017
Discount rate as of December 31,	2.75%	2.75%
Salary increase rate – permanent employees	6.50%	6.50%
Salary increase rate – contract employees	6.50%	6.50%
Average turnover rate	0.00% – 13.00%	0.00% – 13.00%
Pre-retirement mortality rate	75% of TMO2017	75% of TMO2017
Retirement age	60 years old	60 years old

	Impact on defined benefit obligation					
	Change in assumption		Increase in assumption		Decrease in assumption	
	2018	2017	2018	2017	2018	2017
Discount rate	1 %	1 %	Decrease by 12%	Decrease by 12%	Increase by 12%	Increase by 13%
Salary growth rate	1 %	1 %	Increase by 14%	Increase by 14%	Decrease by 12%	Decrease by 12%
Turnover growth rate	20 %	20 %	Decrease by 6%	Decrease by 5%	Increase by 6%	Increase by 6%

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the pension liability recognised within the statement of financial position.

The methods and types of assumptions used in preparing the sensitivity analysis did not change compared to the previous period.

The weighted average duration of the defined benefit obligation is 20 years (2017: 20 years).

Expected maturity analysis of undiscounted retirement and other benefits:

(Unit : Thousand Baht)

	Consolidated Financial Statements			
	Within 1 year	1–5 years	Over 5 years	Total
As at December 31, 2018				
Retirement benefits	82	34,167	508,512	542,761
Other benefits	3,628	7,660	20,038	31,326
Total	3,710	41,827	528,550	574,087

(Unit : Thousand Baht)

	Consolidated Financial Statements			
	Within 1 year	1-5 years	Over 5 years	Total
As at December 31, 2017				
Retirement benefits	5,970	34,249	508,512	548,731
Other benefits	2,484	11,288	20,038	33,810
Total	8,454	45,537	528,550	582,541

(Unit : Thousand Baht)

	Separate Financial Statements			
	Within 1 year	1-5 years	Over 5 years	Total
As at December 31, 2018				
Retirement benefits	82	34,167	508,512	542,761
Other benefits	3,628	7,660	20,038	31,326
Total	3,710	41,827	528,550	574,087

(Unit : Thousand Baht)

	Separate Financial Statements			
	Within 1 year	1-5 years	Over 5 years	Total
As at December 31, 2017				
Retirement benefits	5,970	34,167	506,414	546,551
Other benefits	2,484	11,288	20,038	33,810
Total	8,454	45,455	526,452	580,361

On December 13, 2018, the National Legislative Assembly passed a resolution approving the draft of a new Labor Protection Act, which is in the process of being announced in the Royal Gazette. The new Labor Protection Act stipulates additional legal severance pay rates for employees who have worked for an uninterrupted period of twenty years or more. Such employees are entitled to receive compensation of not less than that of the last 400 days, based on the final wage rate. This change is considered an amendment to post-employment benefits plan. The Group will reflect the effect of such change by recognizing past service cost as an expense in the statement of comprehensive revenues and expenses of the period in which the law is effective.

24. Fund balances

The statement of change in the fund for the years ended December 31, 2018 and 2017 presented as part of the consolidated and separate financial statements as follows:

(Unit : Thousand Baht)

		Consolidated Financial Statements								
		Fund balances								
		Securities Clearing Reserve Fund	Derivatives Clearing Reserve Fund	Indemnity Fund	Staff Welfare Fund	Securities Investor Protection Fund	Derivatives Investor Protection Fund	General Fund	Total	
Notes										
Opening balance as at January 1, 2017			4,540,000	300,000	100,000	109,540	450,393	54,040	19,455,925	25,009,898
Appropriation of general fund		24.1	200,000	-	-	-	-	-	(200,000)	-
Other comprehensive revenues and expenses, net of tax		25	-	-	-	-	-	-	(118,479)	(118,479)
Revenues over expenses		25	-	-	-	1,130	9,215	622	1,821,622	1,832,589
Closing balance as at										
December 31, 2017			4,740,000	300,000	100,000	110,670	459,608	54,662	20,959,068	26,724,008
Opening balance as at January 1, 2018			4,740,000	300,000	100,000	110,670	459,608	54,662	20,959,068	26,724,008
Appropriation of general fund		24.1	200,000	-	-	-	-	-	(200,000)	-
Appropriation of Securities Clearing Reserve Fund		24.1 and 24.2	(700,000)	700,000	-	-	-	-	-	-
Other comprehensive revenues and expenses, net of tax		25	-	-	-	-	-	-	485	485
Revenues over expenses		25	-	-	-	1,404	9,937	686	1,942,886	1,954,913
Closing balance as at										
December 31, 2018			4,240,000	1,000,000	100,000	112,074	469,545	55,348	22,702,439	28,679,406

(Unit : Thousand Baht)

		Separate Financial Statements						
		Fund balances						
		Securities Clearing Reserve Fund	Derivatives Clearing Reserve Fund	Indemnity Fund	Staff Welfare Fund	Securities Investor Protection Fund	General Fund	Total
	Notes							
Opening balance as at January 1, 2017		4,540,000	300,000	100,000	109,540	450,393	18,202,463	23,702,396
Appropriation of general fund	24.1	200,000	-	-	-	-	(200,000)	-
Other comprehensive revenues and expenses, net of tax	25	-	-	-	-	-	(117,782)	(117,782)
Revenues over expenses	25	-	-	-	1,130	9,215	1,413,192	1,423,537
Closing balance as at December 31, 2017		<u>4,740,000</u>	<u>300,000</u>	<u>100,000</u>	<u>110,670</u>	<u>459,608</u>	<u>19,297,873</u>	<u>25,008,151</u>
Opening balance as at January 1, 2018		4,740,000	300,000	100,000	110,670	459,608	19,297,873	25,008,151
Appropriation of general fund	24.1	200,000	-	-	-	-	(200,000)	-
Appropriation of Securities Clearing Reserve Fund	24.1 and 24.2	(700,000)	700,000	-	-	-	-	-
Revenues over expenses	25	-	-	-	1,404	9,937	1,301,940	1,313,281
Closing balance as at December 31, 2018		<u>4,240,000</u>	<u>1,000,000</u>	<u>100,000</u>	<u>112,074</u>	<u>469,545</u>	<u>20,399,813</u>	<u>26,321,432</u>

Details of fund balances are as follows:

24.1 Securities Clearing Reserve Fund

In 1997 and 2013, the Board of Governors of SET approved an appropriation of general funds of Baht 2,000 million and Baht 500 million, respectively, totalling Baht 2,500 million to the Securities Clearing Reserve Fund, which is operated by a subsidiary of SET, in order to resolve liquidity risk in the event of default on clearing and settlement from securities trading on SET.

In 2015, the Board of Governors of SET approved an appropriation of general funds to the Securities Clearing Reserve Fund from 2015 – 2019, totalling Baht 2,640 million, starting from 2015 of Baht 1,840 million and in the following years of Baht 200 million per year.

In 2018, the Board of Governors of SET approved an appropriation of the Securities Clearing Reserve Fund to Derivatives Clearing Reserve Fund of Baht 700 million, in order for the clearing house to have sufficient funds in both markets.

24.2 Derivatives Clearing Reserve Fund

In 2004, the Board of Governors of SET approved an appropriation of general funds of Baht 300 million to the Derivatives Clearing Reserve Fund in order to assure contingent losses from the clearing system of futures contracts at Thailand Clearing House Co., Ltd.

In 2018, Derivatives Clearing Reserve Fund has been allocated from Securities Clearing Reserve Fund of Baht 700 million according to the resolution of the Board of Governors of SET, in order for the clearing house to have sufficient funds in both markets.

24.3 Indemnity Fund

In 1993 and 2002, the Board of Governors of SET approved appropriations of general funds totalling Baht 100 million to the Indemnity Fund in order to assist and assure the Board of Governors of SET and those appointed assignees on matters requiring consideration and decisions which may affect or cause damages to other parties.

24.4 Staff Welfare Fund

In 1997 and 2004, the Board of Governors of SET approved appropriations of general funds was Baht 75 million to the Staff Welfare Fund. All benefits earned from this fund are retained in the fund.

24.5 Securities Investor Protection Fund

In 2004, the Board of Governors of SET approved an appropriation of Baht 300 million from broker seat admission fees as an initial fund for the establishment of the Securities Investor Protection Fund (SIPF).

The SIPF was formally established under SIPF regulations on October 1, 2004. The objective of the fund is to protect and build investor confidence in trading listed securities on SET through the members of the SIPF. As at December 31, 2018, there were 34 SIPF members from securities companies (2017: 34 SIPF members).

The assets of SIPF consist of:

- 1) the initial fund from SET of Baht 300 million;
- 2) the cumulative membership entrance fees and monthly fees collected from the members; and
- 3) the future benefits generated from investments in the SIPF.

SIPF will protect the investors' assets which are in the custody of the securities brokers who are members of the SIPF. In the event that the members of the SIPF fail to return the assets to investors, each investor shall be compensated by the SIPF for the related damages at the actual cost, but not exceeding Baht 1 million per SIPF member, in the following cases:

- 1) if any SIPF member is in receivership under the Bankruptcy Act or
- 2) if there are disputes concerning the purchase or sale of securities listed on SET between investors and any SIPF member, and the arbitrator's award is that the SIPF member shall return the assets to investors, but the SIPF member violates the award.

The protection will not include any losses from securities trading regardless of who makes the investment decision.

24.6 Derivatives Investor Protection Fund

In 2012, the board of directors of Thailand Futures Exchange Public Company Limited (TFEX), a subsidiary, has a resolution to establish the Derivatives Investor Protection Fund (DIPF) and approved an appropriation of Baht 50 million as an initial fund.

The DIPF was established on November 15, 2012. The objective of the DIPF is to provide protection for derivatives contracts investors in accordance with the rules prescribed by TFEX. Investors need to be protected must become customers of DIPF members and is a Thai natural person, a juristic person incorporated in Thailand who is not an institutional investor under the Derivatives Act B.E. 2546 (2003). As at December 31, 2018, there were 37 DIPF members from security companies (2017: 37 DIPF members).

Assets of the DIPF consist of the Company's initial capital, admission fees and contributions collected from members of the DIPF, and yields or benefits obtained from the proceeds and assets of the DIPF after the deduction of expenses for the operation of the DIPF. At the time of its establishment, the DIPF will have assets worth no less than Baht 100 million, which consists of initial capital of Baht 50 million from the Company and admission fees and contributions from DIPF members in the rest to make the total of Baht 100 million. The Company may collect additional sums of money as it deems necessary and appropriate.

DIPF will protect the investors' assets which are in the custody of the securities brokers who are members of the DIPF. In the event that the members of the DIPF fail to return the assets to investors, each investor shall be compensated by the DIPF for the related damages at the actual cost, but not exceeding Baht 1 million per DIPF member, in the following cases:

- 1) if any DIPF member is in receivership under the Bankruptcy Act or
- 2) if there are disputes concerning the purchase or sale of securities listed on SET between investors and any DIPF member, and the arbitrator's award is that the DIPF member shall return the assets to investors, but the DIPF member violates the award.

The protection will not include any losses from derivatives trading regardless of who makes the investment decision.

25. Financial position and results of fund operations

25.1 Financial position of fund

The SIPP's financial statements included as part of the consolidated and separate's financial statements are as follows:

(Unit : Thousand Baht)		
	Consolidated and Separate Financial Statements	
	2018	2017
Assets		
Current assets		
Cash deposits and short-term investments	325,128	390,411
Accrued interest receivable	3,530	4,257
Other current asset	389	412
Total current assets	329,047	395,080
Non-current assets		
Long-term investments	469,426	394,630
Total non-current assets	469,426	394,630
Total assets	798,473	789,710
Liabilities and fund balances		
Liabilities of members portion		
Contributions from members	226,628	218,926
Benefits on contributions from members	96,219	94,449
Total liabilities of members portion	322,847	313,375
Fund balances		
Initial fund	300,000	300,000
Benefits on contributions from SET	169,545	159,608
	469,545	459,608
Other components	6,081	16,727
Total fund balances	475,626	476,335
Total liabilities and fund balances	798,473	789,710

The DIPF's financial statement included as part of the consolidated financial statements are as follows:

(Unit : Thousand Baht)		
	Consolidated Financial Statements	
	2018	2017
Assets		
Current assets		
Cash deposits and short-term investments	54,587	74,039
Contributions from members	851	599
Accrued interest receivable	485	629
Total current assets	55,923	75,267
Non-current assets		
Long-term investments	48,227	16,219
Total non-current assets	48,227	16,219
Total assets	104,150	91,486
Liabilities and fund balances		
Current liabilities		
Income tax payable	293	234
Total current liabilities	293	234
Non-current liabilities		
Contributions from members	46,634	35,243
Benefits on contributions from members	1,875	1,347
Total non-current liabilities	48,509	36,590
Total liabilities	48,802	36,824
Fund balances		
Initial fund	50,000	50,000
Benefits on contributions from TFEX	5,348	4,662
Total fund balances	55,348	54,662
Total liabilities and fund balances	104,150	91,486

25.2 Results of fund operations

Details of the results of fund operations which are included as part of the consolidated and the entity's statement of comprehensive revenues and expenses are as follows:

(Unit : Thousand Baht)

	Consolidated Financial Statements				
	Staff Welfare Fund	Securities Investor Protection Fund (SET's portion)	Derivatives Investor Protection Fund (TFEX's portion)	General Fund	Total
For the year ended December 31, 2018					
Revenues					
Operating revenues	-	-	-	5,722,355	5,722,355
Investment income, net	1,404	12,487	952	584,781	599,624
Other income	-	-	-	278,629	278,629
Total revenues	1,404	12,487	952	6,585,765	6,600,608
Expenses					
Operating expenses	-	117	89	3,978,085	3,978,291
Contributions to the Stock Exchange of Thailand Foundation	-	-	-	186,132	186,132
Income tax expense	-	2,433	177	478,662	481,272
Total expenses	-	2,550	266	4,642,879	4,645,695
Revenues over expenses	1,404	9,937	686	1,942,886	1,954,913
Other comprehensive revenues and expense					
Items that will be reclassified subsequently to revenues and expenses					
Share of profit of investments in associates	-	-	-	(103)	(103)
Change in value of available-for-sale investments managed by SET	-	-	-	(825,957)	(825,957)
Change in value of available-for-sale investments from Securities Investor Protection Fund	-	(10,646)	-	-	(10,646)
Income tax relating to items that will be reclassified subsequently to revenues and expenses	-	5,504	-	166,221	171,725
Total items that will be reclassified subsequently to revenues and expenses	-	(5,142)	-	(659,839)	(664,981)
Items that will not be reclassified subsequently to revenues and expenses					
Remeasurements of post-employment benefits obligations	-	-	-	606	606
Income tax relating to items that will not be reclassified subsequently to revenues and expenses	-	-	-	(121)	(121)
Total items that will not be reclassified to revenues and expenses	-	-	-	485	485
Total comprehensive revenues and expenses	1,404	4,795	686	1,283,532	1,290,417
Total comprehensive revenues and expenses for the years attributable to:					
Owners of the parents	1,404	4,795	686	1,283,533	1,290,418
Non - controlling interests	-	-	-	(1)	(1)
	1,404	4,795	686	1,283,532	1,290,417

(Unit : Thousand Baht)

	Consolidated Financial Statements				
	Staff Welfare Fund	Securities Investor Protection Fund (SET's portion)	Derivatives Investor Protection Fund (TFEX's portion)	General Fund	Total
For the year ended December 31, 2017					
Revenues					
Operating revenues	-	-	-	5,006,640	5,006,640
Investment income, net	1,130	11,657	888	1,043,889	1,057,564
Other income	-	-	-	313,753	313,753
Total revenues	1,130	11,657	888	6,364,282	6,377,957
Expenses					
Operating expenses	-	138	111	3,817,856	3,818,105
Contributions to the Stock Exchange of Thailand Foundation	-	-	-	221,075	221,075
Income tax expense	-	2,304	155	503,729	506,188
Total expenses	-	2,442	266	4,542,660	4,545,368
Revenues over expenses	1,130	9,215	622	1,821,622	1,832,589
Other comprehensive revenues and expense					
Items that will be reclassified					
subsequently to revenues and expenses					
Share of profit of investments in associates	-	-	-	53	53
Change in value of available-for-sale investments managed by SET	-	-	-	322,123	322,123
Change in value of available-for-sale investments from Securities Investor Protection Fund	-	9,462	-	-	9,462
Income tax relating to items that will be reclassified subsequently to revenues and expenses	-	(3,112)	-	(65,452)	(68,564)
Total items that will be reclassified subsequently to revenues and expenses	-	6,350	-	256,724	263,074
Items that will not be reclassified subsequently to revenues and expenses					
Remeasurements of post-employment benefits obligations	-	-	-	(147,924)	(147,924)
Income tax relating to items that will not be reclassified subsequently to revenues and expenses	-	-	-	29,445	29,445
Total items that will not be reclassified to revenues and expenses	-	-	-	(118,479)	(118,479)
Total comprehensive revenues and expenses	1,130	15,565	622	1,959,867	1,977,184
Total comprehensive revenues and expenses for the years attributable to:					
Owners of the parents	1,130	15,565	622	1,959,867	1,977,184
Non - controlling interests	-	-	-	-	-
	1,130	15,565	622	1,959,867	1,977,184

(Unit : Thousand Baht)

	Separate Financial Statements				
	Staff Welfare Fund	Securities Investor Protection Fund (SET's portion)	Derivatives Investor Protection Fund (TFEX's portion)	General Fund	Total
For the year ended December 31, 2018					
Revenues					
Operating revenues	-	-	-	2,601,316	2,601,316
Investment income, net	1,404	12,487	-	860,726	874,617
Other income	-	-	-	1,901,827	1,901,827
Total revenues	1,404	12,487	-	5,363,869	5,377,760
Expenses					
Operating expenses	-	117	-	3,639,511	3,639,628
Contributions to the Stock Exchange of Thailand Foundation	-	-	-	186,132	186,132
Income tax expense	-	2,433	-	236,286	238,719
Total expenses	-	2,550	-	4,061,929	4,064,479
Revenues over expenses	1,404	9,937	-	1,301,940	1,313,281
Other comprehensive revenues and expense					
Items that will be reclassified subsequently to revenues and expenses					
Change in value of available-for-sale investments managed by SET	-	-	-	(825,957)	(825,957)
Change in value of available-for-sale investments from Securities Investor Protection Fund	-	(10,646)	-	-	(10,646)
Income tax relating to items that will be reclassified subsequently to revenues and expenses	-	5,504	-	165,194	170,698
Total items that will be reclassified subsequently to revenues and expenses	-	(5,142)	-	(660,763)	(665,905)
Items that will not be reclassified subsequently to revenues and expenses					
Remeasurements of post-employment benefits obligations	-	-	-	-	-
Income tax relating to items that will not be reclassified subsequently to revenues and expenses	-	-	-	-	-
Total items that will not be reclassified to revenues and expenses	-	-	-	-	-
Total comprehensive revenues and expenses	1,404	4,795	-	641,177	647,376
Total comprehensive revenues and expenses for the years attributable to:					
Owners of the parents	1,404	4,795	-	641,177	647,376
Non - controlling interests	-	-	-	-	-
	1,404	4,795	-	641,177	647,376

(Unit : Thousand Baht)

	Separate Financial Statements				
	Staff Welfare Fund	Securities Investor Protection Fund (SET's portion)	Derivatives Investor Protection Fund (TFEX's portion)	General Fund	Total
For the year ended December 31, 2017					
Revenues					
Operating revenues	-	-	-	2,281,975	2,281,975
Investment income, net	1,130	11,657	-	1,307,505	1,320,292
Other income	-	-	-	1,864,394	1,864,394
Total revenues	1,130	11,657	-	5,453,874	5,466,661
Expenses					
Operating expenses	-	138	-	3,484,583	3,484,721
Contributions to the Stock Exchange of Thailand Foundation	-	-	-	221,075	221,075
Income tax expense	-	2,304	-	335,024	337,328
Total expenses	-	2,442	-	4,040,682	4,043,124
Revenues over expenses	1,130	9,215	-	1,413,192	1,423,537
Other comprehensive revenues and expense					
Items that will be reclassified subsequently to revenues and expenses					
Change in value of available-for-sale investments managed by SET	-	-	-	322,123	322,123
Change in value of available-for-sale investments from Securities Investor Protection Fund	-	9,462	-	-	9,462
Income tax relating to items that will be reclassified subsequently to revenues and expenses	-	(3,112)	-	(64,424)	(67,536)
Total items that will be reclassified subsequently to revenues and expenses	-	6,350	-	257,699	264,049
Items that will not be reclassified subsequently to revenues and expenses					
Remeasurements of post-employment benefits obligations	-	-	-	(147,227)	(147,227)
Income tax relating to items that will not be reclassified subsequently to revenues and expenses	-	-	-	29,445	29,445
Total items that will not be reclassified to revenues and expenses	-	-	-	(117,782)	(117,782)
Total comprehensive revenues and expenses	1,130	15,565	-	1,553,109	1,569,804
Total comprehensive revenues and expenses for the years attributable to:					
Owners of the parents	1,130	15,565	-	1,553,109	1,569,804
Non - controlling interests	-	-	-	-	-
	1,130	15,565	-	1,553,109	1,569,804

26. Operating revenues

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Trading fees	1,922,481	1,554,446	1,413,007	1,222,775
Stock registrar fees	1,120,937	1,064,660	-	-
Listing fees	642,945	576,285	642,945	576,285
Clearing fees	603,948	480,707	-	-
Member services fees	450,959	426,339	-	-
Information service fees	345,656	342,501	310,101	297,635
Depository fees	341,204	321,834	-	-
Customisation and IT support fees	199,656	149,942	199,005	149,510
Membership fees	79,940	87,676	36,258	35,770
Fund services fees	14,629	2,250	-	-
	<u>5,722,355</u>	<u>5,006,640</u>	<u>2,601,316</u>	<u>2,281,975</u>

27. Investment income, net

(Unit : Thousand Baht)

	Notes	Consolidated Financial Statements		Separate Financial Statements	
		2018	2017	2018	2017
Interest income		417,033	360,879	208,939	230,486
<u>Less</u> Interest expense					
Short-term borrowings					
from subsidiaries	7	-	-	(51,360)	(40,957)
Assets for clearing system					
protection-members' portion		(211,527)	(161,289)	-	-
Interest income, net		205,506	199,590	157,579	189,529
Dividend income from					
Mutual funds		208,304	207,821	208,304	207,821
Subsidiaries	12	-	-	305,901	278,294
Associates	13	-	-	12,595	9,446
Joint venture entity	13	-	-	2,047	4,555
Private fund		25	18	14	10
Other entities		2,668	7,805	2,668	7,805
Realised gain from investments		206,316	595,693	202,290	585,103
Unrealised gain (loss) from					
trading investments		(30,918)	12,912	(23,552)	4,892
Gain (loss) on exchange rate from					
foreign investments		(5,527)	10,262	(5,527)	10,262
Others		(189)	10,918	(189)	10,918
		<u>586,185</u>	<u>1,045,019</u>	<u>862,130</u>	<u>1,308,635</u>

28. Other income

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Educational activities income	72,604	75,001	72,604	75,001
Fines	58,647	14,126	52,743	10,929
Revenues from fees and management funds	41,821	28,368	770	-
Revenues from marketing event	24,266	53,313	24,266	53,313
Service income from related parties (see Note 7)	17,487	17,875	1,726,081	1,654,400
Rental & utilities revenue	16,403	16,692	16,403	16,692
Gain on sales of assets	-	32,971	-	32,938
Transfer rights of membership	-	10,000	-	10,000
Other income	38,771	31,257	8,960	11,121
	<u>269,999</u>	<u>279,603</u>	<u>1,901,827</u>	<u>1,864,394</u>

29. Employee benefit expenses

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Management				
Salaries and other benefits	211,189	137,695	211,189	137,695
Contributions to provident fund	9,744	9,635	9,744	9,635
	<u>220,933</u>	<u>147,330</u>	<u>220,933</u>	<u>147,330</u>
Other employees				
Salaries and other benefits	1,397,436	1,355,769	1,397,256	1,316,637
Contributions to provident fund	69,383	65,987	69,366	63,670
	<u>1,466,819</u>	<u>1,421,756</u>	<u>1,466,622</u>	<u>1,380,307</u>
	<u>1,687,752</u>	<u>1,569,086</u>	<u>1,687,555</u>	<u>1,527,637</u>

The defined contribution plans comprise provident funds established by the Group for its employees. Contributions are made monthly by the employees at rates ranging from 3.00% to 15.00% of their basic salaries and by the Group at the rate of 10.00% of the employees' basic salaries. The provident funds are registered with the Ministry of Finance as juristic entities and are managed by a licensed Fund Manager.

30. SEC fees

The Securities and Exchange Act B.E. 2535 (1992) requires SET to pay to the SEC at a rate as determined by the Board of the SEC.

In 2016, the Board of the SEC has approved to charge SET for the year 2017 – 2019 (for the period of 3 years) as follows:

1. Charge at the rate of 0.002% of trading value of the year.
2. Charge on total equity of listing companies who have never issued securities for sale under the approval of the SEC, at the same rate that the SEC charge from listed companies who issued securities and submit report to the SEC according to clause 56 of the SEC Act.

In 2017, Board of Governors of SET was resolved to cancel the additional fees as prescribed by the Office of the Securities and Exchange Commission in order to comply with the Securities and Exchange Act (No. 5) B.E. 2559 (2016), effective from December 12, 2016.

However, if there is an event changes or problems of implementation during the period, terms and conditions may be revised.

The Board of the SEC also required Thailand Future Exchange Public Company Limited (subsidiary) to pay the fee of derivatives trading exchange. The rate for year 2017 – 2019 is Baht 2 million per annum.

31. Other expenses

	(Unit : Thousand Baht)			
	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Fees and compensation expenses	99,166	86,757	84,100	116,276
Travelling and vehicle expenses	36,524	38,562	35,331	36,650
Contributions for capital market expenses	23,969	28,913	23,941	28,913
Institution membership fees	5,160	4,948	3,898	3,864
Entertainment expenses	2,850	1,896	2,799	1,895
Meeting expenses	2,755	3,664	2,586	3,586
Other expenses	11,848	14,608	11,591	8,350
	<u>182,272</u>	<u>179,348</u>	<u>164,246</u>	<u>199,534</u>

32. Income tax expense

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Current income tax				
Current income tax	530,565	501,403	287,051	333,992
Total current income tax	530,565	501,403	287,051	333,992
Deferred income tax				
Origination and reversal of temporary differences	(51,903)	2,326	(50,765)	1,032
Total deferred income tax	(51,903)	2,326	(50,765)	1,032
Total income tax	478,662	503,729	236,286	335,024

The tax on the Group's revenues over expenses before income tax differs from the theoretical amount that would arise using the Thailand basic tax rate as follows:

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Revenues over expenses before income tax expense	2,433,575	2,336,318	1,549,567	1,758,561
Tax calculated at a tax rate of 20%(2017: 20%)	486,715	467,264	309,913	351,712
Income tax from the previous year	(1,542)	-	(1,720)	-
Assessed income under Revenue Code	1,941	-	-	-
Income not subject to tax	(77,905)	(74,260)	(77,318)	(74,260)
Expenses additional deductible for tax purposes	(2,656)	(2,995)	(2,656)	(2,995)
Expenses not deductible for tax purposes	44,672	64,058	42,874	62,410
Eliminated transaction between related party, net of income tax	62,382	51,629	-	-
Revenues over expenses-Securities/ Derivatives Investor Protection Fund, net of income tax	(3,364)	(1,967)	(3,226)	(1,843)
Tax credit recognized during the year	(31,581)	-	(31,581)	-
Income tax	478,662	503,729	236,286	335,024
The weight average applicable tax rate (%)	19.67	21.56	15.25	19.05

33. Commitments with non-related parties

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Capital commitments				
Software	4,736	-	4,736	-
Buildings and other constructions	1,081	103,866	1,081	103,866
Computer	-	50,931	-	50,931
	<u>5,817</u>	<u>154,797</u>	<u>5,817</u>	<u>154,797</u>
Non-cancellable operating lease commitments				
Within one year	17,502	14,515	17,502	14,515
After one year but within five years	35,757	26,908	35,757	26,908
	<u>53,259</u>	<u>41,423</u>	<u>53,259</u>	<u>41,423</u>
System and building maintenance commitments				
Within one year	139,603	222,347	139,603	222,347
After one year but within five years	56,373	95,760	56,373	95,760
	<u>195,976</u>	<u>318,107</u>	<u>195,976</u>	<u>318,107</u>

34. Fair value

34.1 Fair value estimation

The fair value of the financial instruments are defined into the following three different levels by valuation method as follows:

- Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, market prices) or indirectly (that is, derived from market prices).
- Level 3: Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs).

The following table presents the Group's financial assets and liabilities that are measured at fair value at December 31, 2018 and 2017.

(Unit : Thousand Baht)

	Consolidated Financial Statements			
	2018			
	Level 1	Level 2	Level 3	Total
Trading securities	-	10,035,852	-	10,035,852
Available-for-sales	666,596	10,798,050	-	11,464,646
Total	666,596	20,833,902	-	21,500,498

(Unit : Thousand Baht)

	Consolidated Financial Statements			
	2017			
	Level 1	Level 2	Level 3	Total
Trading securities	-	9,589,519	-	9,589,519
Available-for-sales	1,190,134	6,742,158	-	7,932,292
Total	1,190,134	16,331,677	-	17,521,811

(Unit : Thousand Baht)

	Separate Financial Statements			
	2018			
	Level 1	Level 2	Level 3	Total
Trading securities	-	3,448,908	-	3,448,908
Available-for-sales	666,596	10,798,050	-	11,464,646
Total	666,596	14,246,958	-	14,913,554

(Unit : Thousand Baht)

	Separate Financial Statements			
	2017			
	Level 1	Level 2	Level 3	Total
Trading securities	-	3,351,602	-	3,351,602
Available-for-sales	1,190,134	6,742,158	-	7,932,292
Total	1,190,134	10,093,760	-	11,283,894

The following table present the Group's financial assets and liabilities that are not measured at fair value as at December 31, 2018 and 2017.

(Unit : Thousand Baht)

	Consolidated Financial Statements			
	2018			
	Level 1	Level 2	Level 3	Total
Held-to-maturity debt securities	-	9,318,107	-	9,318,107
General investment	-	-	12,361	12,361
Total	-	9,318,107	12,361	9,330,468

(Unit : Thousand Baht)

	Consolidated Financial Statements			
	2017			
	Level 1	Level 2	Level 3	Total
Held-to-maturity debt securities	-	8,093,142	-	8,093,142
General investment	-	10,047	12,361	22,408
Total	-	8,103,189	12,361	8,115,550

(Unit : Thousand Baht)

	Separate Financial Statements			
	2018			
	Level 1	Level 2	Level 3	Total
Held-to-maturity debt securities	-	1,229,584	-	1,229,584
General investment	-	-	12,361	12,361
Total	-	1,229,584	12,361	1,241,945

(Unit : Thousand Baht)

	Separate Financial Statements			
	2017			
	Level 1	Level 2	Level 3	Total
Held-to-maturity debt securities	-	2,218,202	-	2,218,202
General investment	-	10,047	12,361	22,408
Total	-	2,228,249	12,361	2,240,610

There was no transfers between Levels 1 and 2 during the year.

Other financial instruments not carried at fair value are typically short-term in nature and reprice to current market rate frequently. Accordingly, their carrying amount is a reasonable approximation of fair value. This includes cash and cash equivalents, cash at banks for financial benefits payable, assets for margin deposits and benefits, accounts receivable, accrued interest receivable, deposits and other benefits in assets for clearing system protection, deposits and other benefits in Securities Investor Protection Fund, deposits and other benefits in Derivatives Investor Protection Fund, accounts payable and short-term borrowings from subsidiaries.

The management believes that the fair value of the Group's financial assets and liabilities does not materially differ from their carrying value.

Valuation techniques used to derive Level 1 fair values

Available-for-sale securities presented as long-term investments and Securities Investor Protection Fund. The fair value of investments is measured by using last bid price at the close of business on the statement of financial position date by reference to the Stock Exchange of Thailand, the New York Stock Exchange (NYSE Arca), and mutual funds domiciled in Luxembourg which are AB Low Volatility and Wellington Global Quality Growth.

Valuation techniques used to derive Level 2 fair values

Available-for-sale securities presented as short-term investments, long-term investments, Securities Investor Protection Fund and general investments, which are short-term. General investments comprise of investments in specific-purpose funds in one open-ended venture capital funds. The fair value of investments is measured by using last bid price at the close of business on the statement of financial position date by reference to the Association of Investment Management Companies.

Held-to-maturity debt securities and trading securities include fixed deposit accounts, bonds and debentures. The fair value of fixed deposit accounts, which is in Level 2, is measured by using discounted cash flows based on each contract with an average yield of 4 commercial banks. The fair value of bonds and debentures are measured by using the bid yield of debt securities published in the Thai Bond Market Association at the end of the date in the statement of financial position.

Valuation techniques used to derive Level 3 fair values

As the Group has a general investment in limited companies which the Group's shareholding was insignificant, the Group has no controlling and decision making power in the invested companies resulting in difficulty in obtaining the information to support the fair value valuation in practice. These investments are not in the stock exchange and do not have any market prices which can be used as fair value. The Group also do not have any plan for selling these investments, so the Group did not assess the fair value for the general investment. Therefore, the Group cannot disclose the fair value of the general investment in the notes to the financial statements and have stated these investments at cost net allowance for impairment (if any).

35. Contingent assets and contingent liabilities

35.1 Contingent assets

SET

In 2012, the Group sued the insurance group for the fire damages of the Stock Exchange of Thailand building (old building) in 2010. The Group has been seeking compensation for the damages under the insurance contract and coverage amounting to Baht 123 million combined with interest rate at 7.50% per annum. The case was dismissed by the civil court and the appeal court on September 30, 2013 and November 14, 2014, respectively. The Group then filed petitions to the supreme court. As at December 31, 2018, the case was still under the consideration of the supreme court. The outcome of the case has not presently been finalised. Therefore, the Group has not recorded any potential income in the financial statements for the years ended December 31, 2018 and 2017.

35.2 Contingent liabilities

SET

As at December 31, 2018, SET has letters of guarantee issued by banks totalling Baht 5.13 million (2017: Baht 4.68 million) in respect of electricity usage in the ordinary course of business from which management anticipates that no material liabilities will arise.

SET has issued a letter of comfort to a bank in respect of an overdraft credit line of Baht 2,400 million (2017: Baht 2,400 million) granted to Thailand Clearing House Co., Ltd. (TCH), a subsidiary, for clearing and settlement of equity instruments and derivatives. Under the terms of the letter of comfort, SET is required to maintain its shareholding at 99.99% of the registered share capital in TCH to the end of the credit period. In addition, SET is required to support TCH's operations to ensure its ability to repay the debt to the bank. As at December 31, 2018, TCH had not drawn down the overdraft credit line.

On December 26, 2017, SET was claimed to recourse for damages arising from non-supervising member company to force sell of the plaintiff's securities in accordance the rules specified. The plaintiff was seeking that alleged damages totalling Baht 12.65 million. As at December 31, 2018, the case was on the progress of filing the statement in the appeal court. The outcome of the case had not been finalised. Therefore, the Group did not record any potential loss in the consolidated financial statements for the years ended December 31, 2018 and 2017.

36. Financial instruments-forward foreign exchange contracts

SET has financial instruments, which their latest settlement date of forward foreign exchange contracts will be on March 25, 2019. The amount of the outstanding contracts as at December 31, 2018 and 2017 to be paid are:

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
US Dollar currency	1,501,243	682,807	1,501,243	682,807

The net fair values of forward foreign exchange contracts as at December 31, were:

(Unit : Thousand Baht)

	Consolidated Financial Statements		Separate Financial Statements	
	2018	2017	2018	2017
Forward foreign exchange contracts				
- with positive fair values	3,739	9,106	3,739	9,106

The fair value of forward foreign exchange contracts is in Level 2. They are measured based on foreign exchange rate comparing with Thai Baht announced by the Bank of Thailand which input that are observable.

37. Events occurring after the date of the financial statements

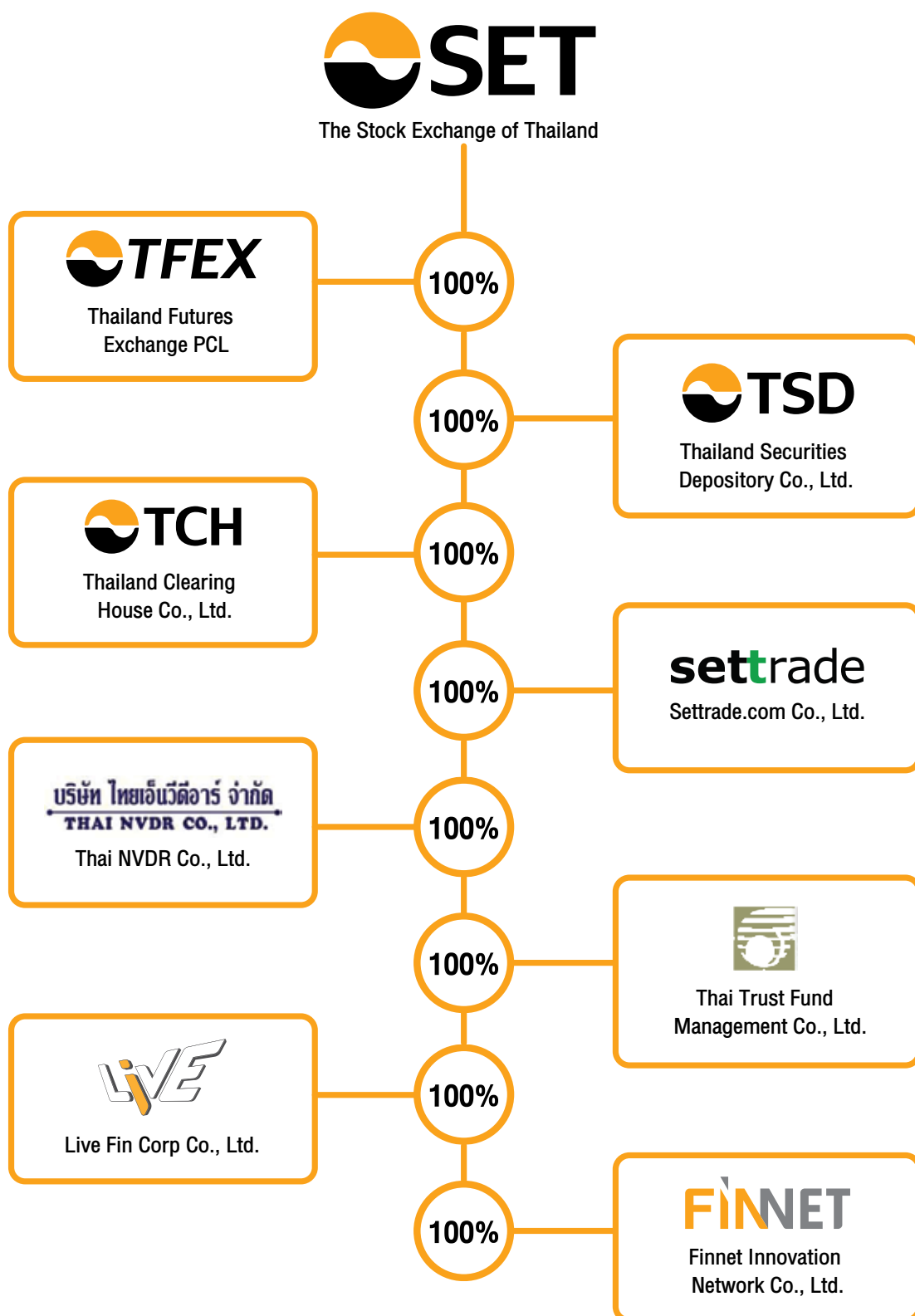
On January 22, 2019, one of our subsidiaries has received an accusation to compensate for the damages of which it is related to the case of the wrongful acts recalling the asset and compensation from the forgery of the share certificates. The subsidiary has been claimed for the amount of Baht 76.23 million. According to the fact, the case is on the process of filing the statement of the defendant in the civil court. As a result, the subsidiary does not record any transaction in relation to the above case in the 2018 financial statements.

The Group has purchased an insurance on coverage for professional liability (Financial Institutional Professional Indemnity Insurance) which has fully covered the liability for this case.

38. Approval of financial statements

These financial statements have been approved for issuance by the Stock Exchange's Board of Governors on February 20, 2019.

Shareholding Structure



Subsidiaries

THAILAND FUTURES EXCHANGE PUBLIC COMPANY LIMITED

Thailand Futures Exchange Public Company Limited (TFEX), a subsidiary of The Stock Exchange of Thailand (SET), was established on May 17, 2004, as a derivatives exchange under the Derivatives Act B.E. 2546 (2003). TFEX received a license to be a center of derivatives trading under the supervision of the Securities and Exchange Commission (SEC) on February 11, 2005. Effective on January 1, 2013, TFEX changed its Thai name to be in line with the Derivative Act. In November 2016, TFEX merged with Agricultural Futures Exchange of Thailand (AFET).

Operations

TFEX trades derivatives based on equities, bonds and other consumer products. By law, TFEX is allowed to trade futures, options and options on futures, including those with the following securities as underlying products:

- Indices of securities, including equities
- Debt instruments and interest rates
- Commodities (e.g. gold, crude oil or foreign currencies, etc.) and other financial indices.

TFEX's objective is to benefit investors and related parties by:

- Being a center of derivatives trading, meeting international standards, especially efficiency, and helping individual and juristic investors to effectively use the products as hedging instruments.

- Offering alternative investments in a trading system that is fair, transparent and liquid according to international standards, including building confidence in the clearing and settlement of every transaction made on TFEX, as TFEX has the Thailand Clearing House Co., Ltd., which is very stable, as its counterparty. Providing investors with information that reflects the expectations of market participants as to future prices of securities. Investors and enterprises will thus be able to plan their operations more effectively.

Registered capital and organizational management

TFEX has a total registered capital of THB 500 million, 100 percent wholly owned by SET.

Board of Directors

1. Chaipayat	Wibulswasdi	Chairman
2. Pakorn	Peetathawatchai	Vice Chairman
3. Aphisak	Kiewkarnkha	Director
4. Charnchai	Kongthongluck	Director
5. Pataravasee	Suvarnsorn	Director
6. Pattera	Dolokrunthirapop	Director
7. Somjin	Sornpaisarn	Director
8. Suthep	Peetakanont	Director
9. Rinjai	Chakornpipat	Managing Director

THAILAND SECURITIES DEPOSITORY CO., LTD.

Thailand Securities Depository Co., Ltd. (TSD) is a subsidiary of The Stock Exchange of Thailand. TSD was established on November 16, 1994 and commenced operations on January 1, 1995, to develop and support post-trade services to effectively reach international standards.

Operations

TSD provides two types of securities post-trade services:

- **Securities depository services:** acts as a central securities depository for stocks and bonds, using a secure and efficient scripless system, providing services for securities deposit, withdrawal, transfer, pledge, and revocation. Investors can conduct the transactions through depository participants, while providing clearing services of bonds in OTC market.
- **Securities registration services:** acts as a registrar for common and preferred stocks, offers service which mainly covers the functions of preparing and maintaining the Register Book that contains correct and complete information, and also responsible for managing the foreign holding proportion of the securities traded on the main board and foreign board of The Stock Exchange of Thailand to comply

with related rules and regulations. Our service is executed through the cutting-edge and efficient computer system that has been developed to have a direct linkage to that of the Securities Depository Center. System-wise, we also have secured data storage and processing system with the corresponding back ups ready for securing the continuity of our service. In addition, our vault and data management systems have been in place to secure the rights of the securities holders and for verification and risk minimizing purposes.

Registered capital and organizational management

TSD has a total registered capital of THB 200 million, with SET holding 100 percent of total registered capital.

Board of Directors

1. Pakorn	Peetathawatchai	Chairman
2. Kulpatra	Sirodom	Independent, Non-Executive Director
3. Nongram	Wongwanich	Independent, Non-Executive Director
4. Aphisak	Kiewkarnkha	Member
5. Rinjai	Chakornpipat	Member
6. Yupawan	Sirichainarumitr	Managing Director

THAILAND CLEARING HOUSE CO., LTD

Thailand Clearing House Co., Ltd. (TCH), a subsidiary of The Stock Exchange of Thailand (SET), was established in August 9, 2004 to clear and settle derivatives trades. On February 15, 2010, SET transferred the Securities Clearing and Settlement Unit from Thailand Securities Depository Co., Ltd. (TSD) to TCH. At present, TCH's service is being the center for clearing and settling of securities traded on SET, mai, TBX, and TFEX. Thus, there is a clear separation of operations and management between TCH and TSD, reducing the cost of managing risk and placing collateral, thus bringing the Thai capital market's post-trade services to be more in line with international standards.

Operations

TCH's most important role is to be the center of clearing and settling financial products in the Thai capital market by being the central counterparty and guaranteeing the clearing and settlement of every transaction made on the markets mentioned above, thus reducing risks, building confidence among all market participants that the clearing and settlement system will operate as planned, and promote Thai capital market development in the long term.

Registered capital and organizational management

TCH has a total registered capital of THB 600 million, with the SET holding 100 percent of total registered capital.

Board of Directors

1. Pakorn	Peetathawatchai	Chairman
2. Kulpatra	Sirodom	Independent, Non-Executive Director
3. Nongram	Wongwanich	Independent, Non-Executive Director
4. Aphisak	Kiewkarnkha	Member
5. Rinjai	Chakornpipat	Member
6. Pataravasee	Suvarnsorn	Managing Director

SETTRADE.COM CO., LTD.

Settrade.com Co., Ltd. (Settrade) was established by The Stock Exchange of Thailand (SET) on October 13, 2000 and commenced operations on November 3, 2000, to provide internet trading platforms and investment technology for securities companies, aiming to offer more channels for securities trading and to make it convenient for investors.

Operations

Settrade provides internet trading system for equities and derivatives, as well as investment technology for SET members and TFEX members. Settrade aims to offer a broader range of trading channels to investors, while developing computer system for securities and derivatives business.

Registered capital and organizational management

Settrade has a total registered capital of THB 80 million (USD 2.33 million), with SET holding 100 percent of the total registered capital.

Board of Directors

1. Pakorn	Peetathawatchai	Chairman
2. Aphisak	Kiewkarnkha	Member
3. Kirati	Kosicharoen	Member
4. Krisada	Sektrakul	Member
5. Rongrak	Phanapavudhikul	Member
6. Rinjai	Chakornpipat	Member
7. Amatee	Prapapant	Managing Director

THAI NVDR CO., LTD.

Thai NVDR Co., Ltd. (Thai NVDR) was established on October 4, 2000, with a registered capital of THB 10 million. The Stock Exchange of Thailand (SET) is the major shareholder, holding 99.99 percent of the total shares. Thai NVDR is responsible for issuing and selling Non - Voting Depository Receipts (NVDRs) to investors.

Nature of business

Thai NVDR is responsible for executing the purchase or sale of those listed company shares whose investors wish to trade through NVDRs. This service is offered to all, irrespective of the number of securities held or the holder's nationality. NVDR holders receive the same full financial benefits as they would receive had they invested directly in shares (i.e. dividends, rights, and warrants) but there are no voting rights for NVDR holders.

Registered capital and organizational management

Thai NVDR has a total registered capital of THB 10 million, with SET holding 100 percent of the total registered capital.

Board of Directors

1. Pakorn	Peetathawatchai	Chairman
2. Manpong	Senanarong	Member
3. Pataravasee	Suvarnsorn	Member
4. Rongrak	Phanapavudhikul	Member

THAI TRUST FUND MANAGEMENT CO., LTD.

Thai Trust Fund Management Co., Ltd. (TTF) was established on December 17, 1996 by The Stock Exchange of Thailand (SET) to promote foreign investment in the Thai capital market by providing foreigners with another channel for investing in Thai listed shares through mutual funds.

Operations

TTF was licensed by the Securities and Exchange Commission (SEC) and is managed by SET and Thailand Securities Depository Co., Ltd. (TSD). TTF is a passive management arrangement. When an investor places a bid through a broker, TTF will place a corresponding order to buy the underlying shares and then will issue units to the investor. TTF will not exercise its voting rights except on motions to delist the underlying shares from SET. The main function of TTF is to look after the financial benefits of unit holders on dividends and right issues. TTF functions as an open – ended fund, and

invests in shares of any listed company. The mutual funds are considered to be Thai juristic entities even though foreigners own all of the fund's units.

Registered capital and organizational management

TTF has a total registered capital of THB 100 million with SET holding 100 percent of the total.

Supervisor of the Mutual Fund

TMB Bank plc

Board of Directors

1. Pakorn	Peetathawatchai	Chairman
2. Pataravasee	Suvarnsorn	Member
3. Rongrak	Phanapavudhikul	Member
4. Yupawan	Sirichainarumitr	Member

LIVE FIN CORP CO., LTD.

Live Fin Corp Co., Ltd. is a wholly - owned subsidiary of The Stock Exchange of Thailand (SET). Established on June 26, 2017, the company serves as a funding portal to facilitate startups' and SME's access to capital funding via fundraising and provides electronic trading facilities for Over-The-Counter market.

Operations

Live Fin Corp Co., Ltd. operates as an infrastructure provider for startups and SMEs businesses. Startups and SMEs have to register for fundraising in the form of crowdfunding. Live Fin Corp Co., Ltd. oversees the disclosure of information in accordance with the SEC regulations, and allows the investors who are qualified by the SEC to view the campaign information and subscribe newly issued shares via this system.

In addition, Live Fin Corp Co., Ltd. also facilitates trading by negotiation process via the OTC trading platform so that investors who want to trade can negotiate via a safe and reliable system.

Registered capital and organizational management

Live Fin Corp Co., Ltd. has a total registered capital of THB 10 million, with The Stock Exchange of Thailand holding 100 percent of the total registered capital.

Board of Directors

1. Pakorn	Peetathawatchai	Chairman
2. Krisada	Sektrakul	Member
3. Prapan	Charoenprawatt	Member
4. Rinjai	Chakornpipat	Member
5. Thirapun	Sanpakit	Member

FINNET INNOVATION NETWORK CO., LTD.

Finnet Innovation Network Co., Ltd. is a subsidiary of The Stock Exchange of Thailand (SET). It was established on August 25, 2017 with the objective to enhance efficiency of the capital market's payment process. It acts as an intermediary institution that centralizes payment process and sets standards in connecting intermediary institutions with commercial banks.

Operations

Finnet Innovation Network Co., Ltd. is a payment service provider, acting as an intermediary that processes payment instructions. FinNet processes instructions submitted by financial institutions such as securities companies, asset management companies, listed companies, etc. FinNet aims to become the capital market's payment system infrastructure that links between the intermediaries and customers with diversity and efficiency, while operating with high standard procedures and economy of scale.

Registered capital and organizational management

Finnet Innovation Network Co., Ltd. has a total registered capital of THB 200 million, of which 100 percent is held by SET.

Board of Directors

1. Pakorn	Peetathawatchai	Chairman
2. Pataravasee	Suvarnsorn	Member
3. Thirapun	Sanpakit	Member
4. Yupawan	Sirichainarumitr	Member
5. Kittti	Sutthiatthasil	Managing Director



SET ensures the 2018 Annual Report is environmentally friendly.
The paper was printed on PS Green, eco-friendly paper, using soy ink,
reducing green house gas emissions, equivalent to the power consumption of 370 of 36-watt light bulbs/day.





The Stock Exchange of Thailand

93 Ratchadaphisek Road, Dindaeng, Bangkok 10400

Tel. +662 009 9000 Fax. +662 009 9991

www.set.or.th

