

HANDBOOK FOR **FOREIGN** INVESTORS TO TRADE ON **TFEX**



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Objectives

This handbook aims to provide foreign investors with comprehensive account and clear picture of the operations of Thailand Futures Exchange PCL (TFEX) and its related procedures. It will also help foreign nationals better understand how to access Thailand's futures market while familiarizing them with the market's operational rules and regulations. The content contains the process of account opening, trading and clearing procedures, position limits, and surveillance issues for direct accounts and omnibus accounts. For reference proposes, it also includes links to relevant rules and regulations.



Foreign nationals

i. Definition of Foreign nationals

The term “foreign nationals” means foreign natural persons and foreign institutional investors residing outside the Kingdom of Thailand.

- (i) **Foreign natural persons**
Individuals who have nationalities other than Thai.

- (ii) **Foreign institutional investors**
An institutional investor established outside Thailand in accordance with the Notification of the Capital Market Supervisory Board No. TorThor. 25/2551 such as commercial bank, finance company, securities company, insurance company, and mutual fund firm. For the full list of foreign institutional investors, please visit <http://capital.sec.or.th/webapp/nrs/data/5296se.pdf>

The order and trading of foreign investors will be marked as ‘foreign’ (F) in the TFEX system and TFEX trading statistics.

Eligible products

Non-resident foreign investors can trade all products on TFEX, except the currency futures. Specifically, the following investor characteristics are not allowed to trade TFEX currency futures:

- 1** Natural persons not of Thai nationality not having other countries identity or Thailand residence permits or not registered in Thailand's house registration database;
- 2** Juristic persons located outside Thailand, which cover corporations; institutions; funds; financial institutions; entities of foreign government; branches and agents of domestic juristic persons located outside Thailand, except the followings:
 - 2.1** Thai embassies, Thai consulates, or Thai government organizations located outside Thailand;
 - 2.2** Foreign embassies, foreign consulates, specialized agencies of the United Nations, or international organizations or institutions located in Thailand
 - 2.3** Branches and agents of foreign juristic persons located in Thailand

Foreign exchange regulations

Thailand permits both direct and portfolio foreign investments. Capital can be freely transferred into the kingdom by non-residents. To invest in TFEX, capital may be placed directly in a TFEX members' segregated account of clients. A foreign investor has a choice to fund their account in USD, EURO, and JPY for initial margin with members or place securities in The Stock Exchange of Thailand for maintenance margin. However, only THB is accepted for variation margin. For type of payment or transfer instructions and related fee, please consult with TFEX members.

A foreign investor may also choose to place capital in a non-resident baht account for securities (NRBS), or deposit into a foreign currency account with a designated bank. According to the Bank of Thailand, the outstanding balance of NRBS account must not exceed THB 200 million at the end of each trading day per nonresident. There is no limit for non-residence for size of foreign currency bank accounts. For summary of Bank of Thailand's exchange control policy, please click https://www.bot.or.th/English/FinancialMarkets/ForeignExchangeRegulations/Measure_to_Prevent_ThaiBaht_Speculation/Pages/default.aspx.

Trading

Trading facility

All TFEX's derivatives contracts are executed electronically. The Cinnober TRADExpress has successfully rolled out to meet the needs of demanding clients based on in-depth knowledge of high frequency trading, and the intricacies of capital markets.

Trading access

Members can access TFEX's trading system via FIX5.0 SP2 and EMAPI (proprietary) protocols. The minimum throttle for both protocols starts at 10 transactions per second. Drop copy service is also available in both protocols.



Order type

TFEX trading session varies product by product as prescribed in each contract specification. In general, the day trading session is from 9:45 a.m. – 4.55 p.m., while the night trading session, which is available for precious metal related product, is from 7:00 p.m. – 11:55 p.m., Bangkok time (GMT+7). At the beginning of each session, there will be a 30 minute pre-open session prior the morning and the afternoon session, and a 15 minute pre-open session prior the night session.

You may submit an order with the following types and conditions in each trading session as follows:

Order Type	Pre-open					Open				
	Day	FAK	FOK	Date	Exp	Day	FAK	FOK	Date	Exp
Limit	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
Market	✗	✓	✗	✗	✗	✗	✓	✓	✗	✗
Iceberg	✓	✓	✗	✓	✓	✓	✗	✗	✓	✓
Stop Limit	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Stop Market	✗	✓	✓	✗	✗	✗	✓	✓	✗	✗
Multi-leg order	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓

The order sending into TFEX system must follow the guidelines as described in the code of conduct on derivatives trading

(For details, please click <https://www.set.or.th/dat/content/rule/en/CodeofConductonDerivativesTrading.pdf>)

Improper order

Prior to placing an order either via an authorized officer, by himself/herself or algorithmic trading, an investor should be aware of the prohibition of an improper order which may affect price and volume trading of securities and/or the overall trading on the Exchange. Additional information about an improper trading practice is available at <https://www.set.or.th/dat/content/rule/en/CodeofConductonDerivativesTrading.pdf>

Opening price

The logic for calculation of an opening price is as follows:

- 1** The price which generates the highest trading volume at the opening of the trading session [maximum matched volume]
- 2** In cases where there are several prices under **1**, the price which generates the lowest volume of remaining bids or asks after the matching [minimum imbalance], is applied.
- 3** Where there are several prices under **2**, the price is applied as follows:
 - 3.1** If there is positive imbalance [aggregate bid volume greater than aggregate offer volume] at every level of price, the price under **2** which is the highest is applied.
 - 3.2** If there is negative imbalance [aggregate ask volume greater than aggregate bid volume] at every level of price, the price under **2** which is the lowest is applied.
 - 3.3** If there is a balance [aggregate bid volume equal to aggregate ask volume] at every level of price, the price which is closest to the last trading price is applied. In addition, if there is no last trading price, the price which is closest to the reference price is applied. In the case that there are more than one latest daily settlement price, the higher price is applied.
 - 3.4** If there are both positive and negative imbalances, only two levels of price where the positive imbalance moves to negative imbalance is considered; and the price closet to the last trading price is applied. If there is no last trading price, the price close to the reference price is applied. In the case that there is more than one price close to the latest daily settlement price, the higher price is applied.



Halting the trading

TFEX may consider halting the trading of each derivative contract as specified in its rules and specifications. In general, it can be summarized as follows:

- 1** **Individual Equity and Equity Index derivatives trading** will be halted when the trading of The Stock Exchange of Thailand (SET) is halted as a result of the activation of Circuit Breaker System of SET.
- 2** **A particular Individual Equity derivatives trading** will be halted when its underlying stock trading on SET is halted.
- 3** **Commodity derivatives trading** will be halted as results of circuit breaker triggered by the changes of such derivatives to a level specified in contract specifications. For example, in case the Gold Futures has the initial price limit at $\pm 10\%$ from the latest settlement price: If trade price reaches the limit, trading will be halted for 5 minutes and applied as pre-opening period, which orders can be submitted for the auction matching. After the end of 5-minutes period, the trading is resumed and the price limit after resuming trading will be expanded to 20% of the latest settlement price. Additional information is available at https://weblink.set.or.th/dat/content/rule/en/ProcedureinrelationtotheSuspensionofTradingofDerivativesContractDailypriceLimit_EN_051118.pdf

Position limits

TFEX has position limit on the contract specification of each product as follows:

Order Type	Position limit
SET50 Index Futures	Net 100,000 contracts of delta position in any one contract month or all contract months combined of the SET50 Index Futures and Options. Examples of calculation are in the following page.
SET50 Index Options	
Sector Index Futures	Net 20,000 contracts in any one contract month or all contract months combined
Single Stock Futures	The position limit is varied depending on the number of ordinary share of each underlying stock. The details are available at http://www.tfex.co.th/PL_en.html .
Gold Futures	No limit
Gold-D (physical delivery contract)	Net 5,000 contracts on one side of the market in any contract month or all contract months combined
Gold Online Futures	No limit
THB/USD Futures	Net 10,000 contracts in any one contract month or all contract months combined
RSS3 Futures	<ul style="list-style-type: none"> ■ 1,000 contracts for the nearest contract month ■ 10,000 contracts for any other contract months, and for all months combined
RSS3D Futures (physical delivery contract)	<ul style="list-style-type: none"> ■ 1,000 contracts for the nearest contract month ■ 10,000 contracts for any other contract months, and for all months combined
3M BIBOR Futures	Net 2,000 contracts in any one contract month or all contract months combined
5Y Government Bond Futures	Net 10,000 contracts in any one contract month or all contract months combined

In order to monitor position limit, the net positions of all accounts of the person, his/her related persons, and the accounts that such person is a beneficiary are combined according to the own or control basis. In the case that a person holds or control a derivatives position in excess of the limit stipulated in the contract specifications, the excess position will be required to be closed out.

Position limit calculation example

Example 1: SET50 Index Futures

	Long	Short	Net
S50M19	75,000	25,000	50,000
S50U19	100,000	40,000	60,000
All months			110,000

Even though net position of S50M19 (L 50,000) and S50U19 (L 60,000) did not exceed the position limit of 100,000 contracts, the total position of all contract months (L 110,000) **exceeded the position limit**.

Example 2: SET50 Index Futures and SET50 Index Options

Series	Actual Position	Delta	Position equivalent to SET50 Index Futures (Actual Position x Delta)		
			Long	Short	Net
S50M19	L 75,000		75,000		75,000
S50M19C900	L 20,000	0.6	12,000		12,000
S50M19P900	S 10,000	-0.4		-4,000	4,000
Total Jun					91,000
S50U19C925	S 30,000	0.5		15,000	-15,000
S50U19P925	S 50,000	-0.6		-30,000	30,000
Total Sep					15,000
Total All months					106,000

Total position = net position of (SET50 Index Options x delta) + SET50 Index Futures.

For above table, the net position of June contracts (L 91,000) and September contracts (L 15,000) did not exceed the position limit of 100,000 contracts.

However, the total positions of all months combined (L 106,000) **exceeded the position limit**.

Algorithmic trading

Algorithmic Trading is a trading software that can automatically create and send orders. TFEX currently allows members or members' customers to use various strategies which can be categorized as follows:

i. Market making strategy

Market Making Strategy means algorithmic trading software used by a member who is a market maker for the purpose of stabilizing liquidity of futures and options trading.

ii. Other strategies

Strategies which conform to regulations and have received approval from TFEX such as VWAP, TWAP, Volume Inline, Price Inline, Implementation shortfall, Reserve, Float and On-Close, etc.

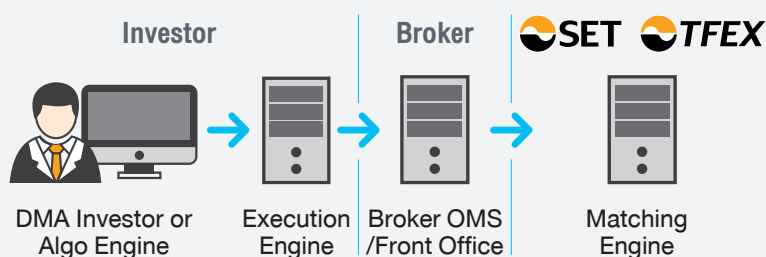
Prior to the use of algorithmic trading, a TFEX member, on behalf of your firm, must submit application form with all supporting documents to obtain an approval.

For information on how you can apply for use of program trading, please contact your broker.



Direct market access (DMA)

Investors who have their own systems are allowed to submit orders to TFEX via the member's operations management suite (OMS). All DMA orders must be recorded and go through the member's risk management systems.



Steps to begin trading via DMA:

- 1** Investors to contact member for the requirements and independent software vendors (ISVs) connectivity. List of certified ISVs can be viewed at http://www.tfex.co.th/en/products/isv/isv_p1.html
- 2** Members to submit required documents
- 3** Members to schedule the member testing according to the trading function.
- 4** Investors to begin trading after receiving approval from TFEX.

Trading ISV

The Thai equity and derivatives market is powered by SET CONNECT trading engine, which employed the state-of-the-art technology developed by Cinnober Financial Technology. The Stock Exchange of Thailand (SET) and Thailand Futures Exchange PCL (TFEX) give access to open interfaces for independent software vendors (ISVs) to develop software applications or offer technical access and/or services.

Both domestic and international ISVs are welcomed to open infrastructure in order to serve the need of investors. ISVs can choose to connect to our system via either FIX 5.0 SP2 or EMAPI (Proprietary) protocols. You can view the list of TFEX's ISV at http://www.tfex.co.th/en/products/isv/isv_p1.html. If you are a vendor looking to add SET/TFEX to your portfolio of market solutions, please contact our team to request for the technical specification documents.

Clearing

Clearing

Under the Thailand Clearing House Co., Ltd. (TCH) rules, all traded derivatives contracts must be cleared and settled on the next business day (T+1). Each contract traded on TFEX will be marked to market on a daily basis against the instrument settlement prices.

Investors are required to maintain a margin account with a member, and a clearing house member is required to maintain a margin account with the clearing house. The clearing house will specify the margin rate and re-evaluate margin requirements for each member on an hourly basis.

Should your margin level falls below certain level as determined by your broker, you will be asked to deposit additional cash into your account to bring your margin level back up to the required initial margin. This process is called variation margin. Should you make profit, you are also able to withdraw cash from your account as long as your margin level is maintained.

Margin rate calculation methodology

TCH uses the historical data of futures and underlying prices dated back at least 250 days to calculate volatility of each instrument. The calculation uses exponential weighted average method where the most recent data are given more weight than less recent data. This will ensure that the margin rate calculated from the volatility best represents the current market. TCH will announce a change in margin rate when deemed necessary, normally on a monthly basis.

Foreign currency deposit

TCH allows foreign currencies to be pledged as collateral for initial margin as well as maintenance margin with brokers. The foreign currencies pledged will be marked to market every day. Such currency will be evaluated in terms of THB using Bank of Thailand's announced exchange rate, after which a haircut rate will be applied to get the final translation value. Current haircut rate can be viewed at <https://www.set.or.th/tch/en/derivatives/news.html#HaircutRate>.

Please note that any foreign currencies deposit will earn interest which is also liable to tax.

A foreign currency account can be opened as a savings, fixed deposit or current account and can be accessed online via many banking platforms in order to view account balances and transfer funds into any local baht account.

Fund can also be transferred to an overseas account or withdraw into foreign bank notes. Please consult with your bank to find out more on the minimum initial deposit and how they can assist you to manage your fund effectively.

Non-cash collateral

Thailand Clearing House Co., Ltd. (TCH) allows investors to pledge both cash and non-cash collateral for margin requirement, aiming at enhancing flexibility and convenience for trading, as well as lowering costs. Currently, TCH accepts Thai government bonds, Bank of Thailand bonds and Shares which are underlying assets of Single Stock Futures. A concentration limit and haircut rate will also be applied to the stocks; additional information about legitimate assets, concentration limits and their haircut rate are available at <https://www.set.or.th/tch/en/derivatives/news.html>.

Compliance to EMIR and PFMI

TCH has its operation in line with international standard. In July 2016, TCH submitted the application to European Securities and Markets Authority (ESMA) to certify that TCH achieves the international standard on risk management and operation. Thus, TCH participants will benefit from using significant lower capital requirements compared to prior receiving non-QCCP status.

In addition, TCH has disclosed the self-assessment that conforms to the principle for Financial Market Infrastructure (PFMI) standard on TCH website. For more information, please visit https://www.set.or.th/tch/en/pfmi/pfmi_disclosure.html.

Legal entity identifier (LEI)

A Legal Entity Identifier (LEI) is a unique ID associated with a single corporate entity. Please find TFEX's and TCH's LEI as follows:

TFEX LEI : 5493006G4X6OUMF0CE07

TCH LEI : 5493006L9QU2265UKZ88

Services

Co-location service

TFEX offers a co-location service at the heart of TFEX data center that unparalleled latency can be enjoyed via the shortest physical connection. Currently, co-location service is available to the following customers:

- i. TFEX members
- ii. Application Service Providers (ASP)
- iii. Network Service Providers
- iv. Market Data Vendors

If your organization profile is not any of these, you may reach out to your broker to see if they can request such service and space for you.

Real-time Testing Service (RTS)

The RTS is the service that provides a virtual machine in SET/TFEX Data Center with connectivity to our Real-time market data feed, bundling with historical data. Clients who are interesting to start Algorithmic trading in SET/TFEX can use the service starting from the back testing from historical data to forward testing with real-time data to finalize the trading strategy. Clients just install the OS and software then test the strategy with no long term commitment and no initial investment in hardware or network cost.



Market data service

For comprehensive and ultimate sources of TFEX market data information, TFEX offers you a wide range of data both in static and real-time form to meet with your business needs. Currently, our services can be obtained through the following channels:

- i. Real time Data Feed – Data provided via an application programming interface (API)
- ii. Trading Data at the End of Day – Data provided for downloading via SET Portal
- iii. Historical Intraday trading data for back testing- Data available upon request

For more information on product and usage policy, please visit http://www.tfex.co.th/en/products/info/details_p1.html or contact our team.

Get Started

Open an account

i. Direct Account

You may select any member of TFEX to open account with. Currently, there are 41 members. Please visit <http://www.tfex.co.th/en/member/list.html> to see member list.

I. Foreign individual

Supporting document for opening account as follow:

- Certified copy of passport ID
- Certified copy of House Registration or work permit
- Certified copy of bank book
- Certified copy of a 6-month bank account statement
- THB 30 stamp duty

II. Foreign institution

- Certified copy of affidavit not later than 30 days
- Certified copy of company's shareholder list
- A copy of minutes of board resolution approving the opening of derivatives trading account
- List of authorized person or power of attorney to appoint an authorized person to operate the account
- Certified passport ID of board directors
- Audited 6 months – 1 year financial statement

ii. Omnibus Account

An omnibus account is the combination of aggregate and large accounts of different investors arranged by financial intermediaries such as brokers and banks. These accounts are mostly used by brokerage firms, in which one firm makes a single account by combining all of its clients at a second firm. The second firm deals omnibus account as a single entity for the convenience of brokers. The structure of omnibus account is to facilitate foreign organization in having all trading placed by a single account on behalf of your clients who are unknown to your broker. Please consult with your broker on how to open an omnibus account.

Kindly note that position limit on the omnibus account is monitored on a net basis of long and short positions. However, the margin of omnibus account is calculated from the sum of long and short positions (gross basis).

Account Type	Position limit monitoring	Position keeping in TCH system	Margin Type
Segregate Account	Net	Net	Net or Gross
Omnibus	Net	Gross	Gross

iii. Sub Account

Some brokers may offer services to add authorized trading sub accounts to each master account. The sub account may be used to represent a different trader or trading strategy of your organization.

Credit approval

Practically, derivatives trading accounts and equity trading accounts in Thailand have separate approval credit limits. If your organization chooses to trade in both markets, you will receive a separate credit line in which you may inform your broker as per your allocation needs.

Margin requirement

For any type of accounts you are going to open, before starting trading, you are required to deposit initial margin. The amount of initial margin required may be different from broker to broker.

Cash withdrawal

As broker needs to deliver client's cash collateral to TCH, procedures for clients to withdraw cash must also be in line with procedures set by the clearing house. Please contact your broker for more information on these procedures.

Intra-day force close-out

- 1** In case equity balance (EB) falls below the forced close margin (FM) levels during trading hours, the broker may issue a margin call to top up collateral or force close his/her positions in part or in whole to keep the collateral levels to meet the maintenance margin (MM) requirements.
- 2** Account holders must restore the levels back to meet the MM requirements within one hour upon notice by the broker, or before the market closes, whichever is shorter.
- 3** If the account holder fails to top up collateral or close out positions in part or in whole within the specified period of time, the broker may force close positions in part or in whole within that trading day (T).
- 4** The account holders must bear the risk of all losses occurred, which may be higher than the whole amount of collateral placed. The account holder is also entitled to pay such amount to the broker within the following trading day.

***Important Note** For foreign national individual or juristic residing outside the Kingdom of Thailand should take extra care on margin, all due to different time zones and holidays.

Having extra cash available at your broker or domestic bank are highly recommended to prevent settlement risk.

FIFO costing

Broker may calculate client's inventory using first-in, first-out (FIFO). When closing, the earliest opened positions are closed out in order and realized profit and loss is calculated based on the actual opening cost of each position. The remainder is calculated to show the average cost and unrealized profit and loss in the portfolio.

Example:

If you Long to Open SET50 Index Futures Jun'19 for two contracts. The first contract executed at THB 950.00 and the second at THB 960. Your average trade cost is THB 955.

If the last traded price is THB 970, your unrealized gain/loss is $(970 - 955) \times 2 \text{ contracts} \times 200 = \text{THB } 6,000$ (Note: contract multiplier = 200)

If you sell to close 1 contract at THB 970, your realized gain will be $(970 - 950) \times 200 = \text{THB } 4,000$ and unrealized gain $(970 - 960) \times 200 = \text{THB } 2,000$.



Taxation

7% value-added tax is added on the brokerage commission and exchange fee. Capital gain tax is exempted for both domestic and foreign individual investors. Institutional investors operating in Thailand are liable for corporate income tax but exempt from withholding tax.

Foreign institutional investors which do not operate in Thailand are subject to a 15% withholding tax, except for those who reside in the countries that have double taxation treaties agreement with Thailand.

Thailand has double taxation agreements with 57 countries or regions covering those shown below. Institutional investors from 30 countries or regions are exempted from capital gain taxes.

Without Conditions	With Conditions Applied
Denmark	The Netherlands
Germany	United Kingdom & North Ireland
France	Canada
Singapore	Switzerland
Italy	Israel
Belgium	Spain
Pakistan	Uzbekistan
India	Cyprus
Laos	Norway
Mauritius	Slovenia
Bangladesh	Turkey
The United Arab Emirates	Hong Kong
Oman	Myanmar
Taiwan	South Korea
Kuwait	
Republic of Estonia	

Furthermore, any interest received from your broker is subject to 15% withholding tax.

Investors should verify the updated information and conditions of tax exemption under Double Taxation Agreements (DTA) via the Revenue Department's website: <http://www.rd.go.th/publish/766.0.html>.



Exchange Fees and Commission

The trading and clearing fee (Exchange fees) of each product varies. You can view and download up-to-date exchange fee at http://www.tfex.co.th/fee_en.html.

In reference to commission, TFEX does not set fixed brokerage fees, brokerage commission is freely negotiable.

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