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Robust Market

CHAPTER 1

1.1.1 Trading Mechanism Optimization

Considering that natural persons account for 70% of transaction value, TPEX has committed to promoting a more efficient and convenient trading environment. Promoting transaction efficiency is the main development direction of TPEX to achieve fair competition between natural persons and legal persons in an environment.

Continuously promoting Market Maker and Liquidity Provider Programs

In June 2021, TPEX launched the Market Maker and Liquidity Provider Programs. After the launch of the Program, the market maker actively fulfilled its quotation obligations and improved the trading opportunities of Main Board stocks of high quality with low liquidity. Over 93% of high quality stocks with low liquidity selected by the market makers in 2022 have met their quotation obligations, which is conducive to increasing the liquidity of underlying assets and the opportunities for investors to make transactions.

In order to encourage securities dealers to actively participate in the Market Maker and Liquidity Provider Programs, TPEX provides a fee reduction of more than a certain percentage of participating securities dealers in a system that meets the quotation obligations or trading thresholds. Moreover, TPEX continues to organize the market maker competitions to reward “market makers” with outstanding performance. In the future, TPEX will continue to refer to foreign practices and observe domestic implementation status, timely evaluate and adjust the selection criteria for stock, and the qualifications for market makers and liquidity providers, and continuously promote the plan to improve the effectiveness of the operation of the Market Maker and Liquidity Provider Programs.

In order to continue to encourage stock market makers to more actively make a market and respond to the international trend of promoting sustainable development, TPEX has planned an award event for the competition of stock market makers in the first half of 2023, and offered a higher award rate for “Sustainable Development Concept Shares” to continuously encourage stock market makers to actively make a market and improve the liquidity of high-quality and low-liquidity Main Board stocks.

The matching periods of odd lot trading were shortened to 1 minute

It has been more than 2 years since the launch of the TPEX intraday odd lot trading system. Both the trading value and the number of odd lot trading have increased significantly. In order to further enhance the matching opportunity and efficiency of odd lot trading and take into account the thinking time for investors to prudently place orders, the matching periods of odd lot trading on Main Board were shortened from 3 minutes to 1 minute from December 19, 2022.

Multiple promotion channels

Communicate opinions with securities companies through Taiwan Securities Association, and hold seminars for securities companies.

Hold education seminars, set up investor hotline, and investor mailbox.

TPEX sets up the website (TPEX official website > Mainboard > Trading System > Market Maker or > Intraday odd lot trading) and social network sites.



1.1.2 Diverse Financial Instruments

As the main promoter, TPEX is committed to developing and promoting a number of financial product and policies, building a dynamic and sound financial environment to meet the product diverse needs of investors.

Launching of relevant ESG indexes and thematic investment products

In order to meet the needs of sustainable investment, TPEX launched the “TIP Taiwan TPEX ESG Index” in 2020. In 2021, TPEX launched the “TIP Customized TPEX ESG IT Elite Total Return Index” and “TIP Customized TPEX ESG Growth Total Return Index”, combined with the advantages of the clustering of electronic stocks in the TPEX market and the high growth characteristics of small and medium-sized enterprises, by working with Taiwan Index Plus Corporation and Business Council for Sustainable Development of Taiwan. The performance of the two indexes was outstanding. Besides, securities companies also issued ESG-themed ETN products, providing investors with more diversified sustainable investment solutions.

In 2022, TPEX continued to cooperate with Taiwan Index Plus Corporation and domestic ESG evaluation institutions. In July and September 2022, the “TIP Customized TPEX ESG High Dividend Total Return Index” and the “TIP Customized TPEX ESG 30 Index” were launched respectively. The former was the tracking target of ETN of securities companies and was listed on the market on October 3, 2022. The latter is expected to be a linked index for the issuance of ETF products, with a view to providing investors with more diversified sustainable-related indexed investment solutions.

Establishing the Sustainability-Linked Bond (SLB) Market

In 2022, in order to expand the category of sustainable bond products, and help more enterprises to utilize financing tools with zero emission and sustainable transformation, TPEX has established the Sustainability-Linked Bond (SLB) Market with reference to international financial market standards and development trends, so as to further diversify the domestic sustainable bond products and facilitate the diversified development of Sustainable Bonds issuers. In the future, TPEX will continue to take into account the development trend of the international market and provide more diversified financing and investment products in line with the ESG spirit de-

pending on market demand. (Please refer to the Sustainability-Linked Bond (SLB) under Sustainable Strategy for relevant information on SLB.)

The issuance volume of the sustainable bonds market hit a new high

With regard to the sustainable bond market in 2022, the issuance volume and balance broke the mark of NT\$110 billion and NT\$360 billion, respectively, setting a new milestone in the domestic bond market. In 2022, a total of 44 sustainable bonds were issued, with an issuance amount of NT\$112.247 billion. Both the number of issued bonds and the issuance amount reached a record high, representing an increase of 26% and 6% as compared with 2021 (35 bonds and NT\$105.83 billion), respectively. At the end of 2022, there were a total of 126 bonds outstanding, with a total outstanding amount of NT\$363.334 billion, representing an increase of 39% as compared to the total outstanding amount at the end of 2021 (NT\$261.297 billion).

The number and amount of issued bonds on the Sustainable Bond Market in 2022

	Green Bonds	Sustainability Bonds	Social Bonds	Sustainability-linked Bonds
Number of issuances	27	12	3	2
Issuance amount (NT\$100 m)	794.23	237.24	56	35

In terms of issuers, the participation of domestic issuers was higher than foreign issuers in 2022. The domestic issuance amount reached NT\$82.6 billion, more than twice the foreign issuance amount (NT\$ 29.647 billion). Among domestic issuers, in addition to E.Sun Bank, Land Bank, Taiwan Semiconductor Manufacturing Company, Vanguard International Semiconductor Corporation and Taipower, which continue to participate in the issuance, there are also four new domestic issuers, namely, ChungHwa Telecom, Far EasTone Telecom, Solar and Shanghai Commercial Bank, participating in the issuance for the first time, adding new impetus to revive the domestic market; In addition, in 2022, the participation in the domestic production industry was more active, with the issuance amount reaching NT\$60.2 billion, accounting for 73% of the do-

mestic issuance amount, indicating that more and more domestic enterprises have been able to effectively make use of Taiwan's Sustainable Bond Market to raise funds for sustainable transformation.

The scale of the International Bond Market continued to grow and develop toward diversification

By the end of 2022, there were 872 international bonds and the balance reached NT\$6.17 trillion, which was a new record high. With the active participation of the TPEX in promoting the diversification of issuers, by the end of 2022, there were a total of 135 issuers in the International Bond Market, distributed in 33 different countries. In terms of the industrial attributes of issuers, there are 16 different categories, including 8 sovereign bonds and 1 local government bond.

Five new issuers were added in 2022, registered in Spain, India and the U.S. in the financial services and energy sectors, indicating that the international bond market in Taiwan has become one of the most important bond financing markets in the world, which also helps to provide investors with more diversified products and options, and diversify investors' investment risks.

Product diversity and innovation is the key to the growth of capital market

TPEX is committed to new indexes, new products, new systems and promotions, and con-

ducts information exchanges through holding seminars and actively visiting issuers and intermediaries. With the joint efforts and active participation of all market participants, TPEX hopes to effectively utilize capital market funds and transform them into a momentum for supporting industrial entrepreneurship transformation and injecting real economic growth.

Average Daily Number and Volume of Trades Executed at TPEX in 2022

Products / asset types	Average Daily Number of Trades in 2022 (Times)	Average Daily Volume of Trades in 2022 (NT\$)
Stocks	487,082	60,482,372,720
Call (put) warrants	20,321	543,665,267
Exchange-Traded Funds (ETFs)	7,931	927,473,083
Exchange Traded Notes (ETNs)	194	7,829,579
Local Currency Bonds (government bonds, corporate bonds, financial debentures)	1,601	116,186,636,413
Foreign Currency Bonds	27	2,777,594,028



1.1.3 Expanding the Capital Market

The main purpose of TPEX is to support the development of emerging enterprises, provide enterprises with convenient fund-raising channels to facilitate efficient financing in the primary market, and assist them to develop and thrive in the future to create employment opportunities and economic momentum, while taking into account the protection of investors' rights and interests and meeting the fund-raising needs of enterprises. TPEX will also follow the development trend of domestic and foreign markets, review and revise relevant regulations/rules and supporting measures in a timely manner, and improve various systems to create a fair, efficient, innovative, open, diversified, and internationalized capital market.

A multi-tiered capital market

As of the end of December 2022, 808 companies in total (777 domestic companies and 31 foreign companies) were listed on Main Board, 299 companies (296 domestic companies and 3 foreign companies) were registered on the Emerging Stock Market, and 97 domestic companies were registered on GISA.

The multi-tiered market structure of the TPEX enables enterprises of different scales and developing stages to choose suitable board for financing. It also allows investors to select markets and targets that meet their investment needs after taking into account their own financial conditions, risk tolerance and investment strategies. The main features of each board are as follows:

Market Category	Positioning	Company Attributes	Characteristics of the Registered (Listing) Companies
GISA	Provide professional counseling and fundraising functions	Non-public offering	Micro, small and medium-sized enterprises with innovative and creative ideas
Emerging Stock Market-Pioneer Stock Board	Preparation for listing on the Main Board, stage-by-stage incubation applies	Public offering ^{Note1}	1. Innovative enterprises focusing on six core strategic industries- ^{Note2} , most of which are still in the development stage 2. Adopting the mechanism of securities firm counseling
Emerging Stock Market-Emerging Stock Board	Preparation for listing on the Main Board, stage-by-stage incubation applies	Public offering	1. Mainly small and medium-sized enterprises with relatively mature operations 2. Adopting the mechanism of securities firm counseling
Main Board	Main Board Market	Public offering	Small and medium-sized enterprises or companies in emerging industries with relatively mature operations and certain performance and scale

Note 1: The application for PSB registration and filings for simplified public issuing can be submitted to TPEX at the same time.

Note 2: 6 core strategic industries: (1) information and digital industries (IoT, AI, etc.), (2) cybersecurity industry which can integrate with 5G, digital transformation, and national security, (3) biomedical technology industries in line with international standards, (4) national defense and strategic industries integrating military and civilian business (aerospace and space, etc.), (5) green and renewable energy industries, (6) Strategic stockpile industries relating to the provision of critical supplies.

Encourage domestic and foreign high-quality enterprises to register on Emerging Stock Market (Emerging Stock Board/Pioneer Stock Board) or apply for listing on Main Board

- Held or participated in 14 domestic and foreign business promotional briefings (two of which were conducted online), and visited and received visits from 85 domestic and foreign enterprises.
- A total of 12 “Main Board and Emerging Stock Market Promotion Seminars” were held with intermediaries.
- In order to attract high-quality overseas companies to apply for listing / registering on Main Board or Emerging Stock Market, 1 session of “Foreign Issuer Listing on TPEX” was held online with accounting firms; in addition, a dedicated service window for overseas companies has been set up to handle the business promotion.
- Visited 5 high-quality Taiwanese enterprises in Ho Chi Minh City, Vietnam.
- Continue to communicate or cooperate with governments to jointly promote high-quality enterprises to enter the capital market.
- In order to promote the Pioneer Stock Board and introduce systems, TPEX has visited 24 companies.
- Arrange business promotion activities, including potential cases provided by intermediaries such as securities firms and accounting firms.

Encourage domestic enterprises to register on GISA

- A total of 24 GISA companies have been successfully transferred to public offering, of which 19 are currently registered on the Emerging Stock Market, and 2 companies have been successfully listed on Main Board.
- Participated in a total of 48 promotional seminars related to GISA; subsidized 35 GISA companies to participate in domestic professional exhibitions; TPEX participated in the “2022 InnoVEX Online Exhibition”, “2022 Meet Taipei - Startup Festival”, and “2022 Meet Greater South Expo” with 16 GISA companies.
- Organized 2 startup investment (and business) matching meetings, and assisted 15 GISA companies to conduct one-on-one negotiations with large enterprises, venture capitals or investors with business collaboration opportunities or investment possibilities.
- Provision of one-on-one legal consulting services for GISA companies.



TPEX participated in “2022 Meet Greater South Expo” with GISA companies

Since its establishment, TPEX has followed the development trend of the international capital market and actively supported small and medium-sized enterprises to enter the capital market. With the strategic goal of building “multi-functional and multi-tiered comprehensive exchange”, after years of development, TPEX has built a complete multi-tiered capital market structure. Through stage-by-stage incubation, it assists micro, small and medium-sized, and even large enterprises to select suitable listing boards based on their own scale and development needs. At the same time, through relevant counseling mechanisms, financing channels and appropriate supervision systems, the companies can continuously strengthen their operation quality through the capital market platform. TPEX has been recognized as one of the most successful SME exchanges in the world by the World Bank with its excellent development performance.

TPEX will actively pursue national policies to promote industrial development, continue to understand the needs of enterprises, review and revise relevant regulations in a timely manner, promote more high-quality enterprises to enter the capital market while protecting the interests of investors and shareholders, and assist enterprises to meet international competition and challenges in a rapidly changing business environment, so as to achieve the goal of sustainable development.

1.1.4 Expanding Investment Participation

TPEX provides bonds, stocks, warrants, ETFs, ETNs, and derivatives to attract investors of different attributes and types to participate in the investment. A variety of incentives and promotional activities have been planned and designed.

Enhancing market visibility and investor participation of Pioneer Stock Board

From August 23, 2022, TPEX adjusted the financial proof threshold for natural eligible investors from “NT\$10 million” to “NT\$5 million”, hoping to increase the participation of natural eligible investors in the PSB market on the condition that investors and securities firms assume a reasonable risk tolerance.

In order to enhance the market visibility of Pioneer Stock Board, TPEX has held a series of promotional activities since January 2022, including a number of reward activities for accredited natural person investors and securities dealers, including “The Drawing Game for the Natural Persons Meeting the Criteria for Qualified Investors”, “The PSB Incentive Programs for Securities Brokers to Increase the Number of Natural Persons Meeting the Criteria for Qualified Investors”, “Securities Firms Reward Program” and “Promotion Subsidy Activities for Securities Firms”, etc., with a view to enabling more securities dealers and investors to understand Pioneer Stock Board through diversified rewards.

According to the statistics, as of the end of December 2022, the number of qualified investors in the PSB has officially exceeded 110,000 (as of the end of 2021: 66,000), of which the number of natural persons meeting the criteria for qualified investors has increased to 43,000



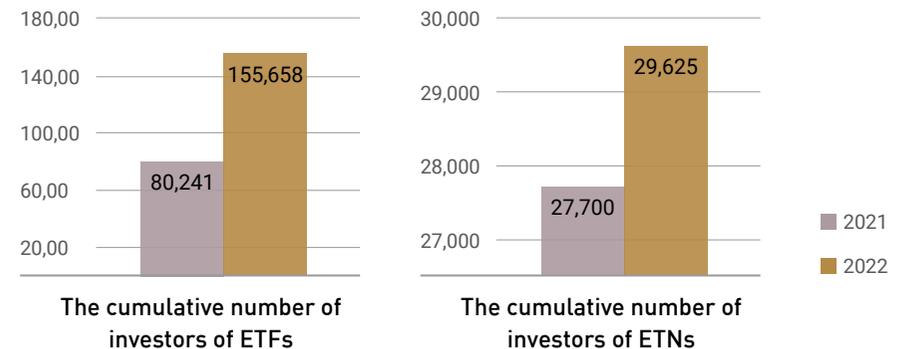
TPEX held a seminar for Pioneer Stock Board with intermediary agencies

(as of the end of 2021: 4,000), and the trading value of stocks on Pioneer Stock Board in 2022 has also increased by nearly 15% compared with 2021, indicating that various promotion activities on Pioneer Stock Board have effectively attracted the participation of securities dealers and qualified investors.

The investors of the listed bond ETFs and ETNs continued to increase

The effect of the decentralization of the bond ETFs and ETNs vigorously promoted by TPEX has gradually emerged, and the listing number and issuance size of the bond ETFs ranked first among the major stock exchanges in Asia and Australia and ranked seventh among the major stock exchanges in the world.

The number of the bond ETFs listed in 2022 was 81, with an issuance size of NT\$1.19 trillion, and the cumulative number of investors increased by more than 90% compared to 2021, and almost all of the new investors were natural persons, with the number of new natural person investors exceeding 70,000. For the ETNs, as of the end of 2022, there were 10 ETNs listed on Main Board, and the number of investors increased by 1,925 compared to the previous year.



As ETFs and ETNs have the advantages such as low transaction costs, high transparency, and good liquidity, they are financial instruments suitable for the investing public. TPEX will continue to launch incentive activities to encourage more investors to participate in the investment in index linked products listed on Main Board.

Action	Performance	Highlights
The Drawing Game for the Natural Persons Meeting the Criteria for Qualified Investors ^{Note}	24,000 participants	Encourage investors to participate in transactions of Pioneer Stock Board and expand the transaction level.
Bond ETF Investor Reward Program	In 2022, a total bonus of nearly NT\$2 million was distributed to 640 winners and 5 winning securities firms.	The effect of the decentralization of bond ETFs has gradually emerged. In 2022, the cumulative number of investors in bond ETFs listed on Main Board Market has exceeded 150,000, an increase of 75,000 over last year, an increase of 94%.

Note:Activity period: the first quarter, the second quarter and the fourth quarter of 2022

Sustainable bonds have been connected to the international market

According to the Quarterly Report of ICMA for the fourth quarter of 2022, TPEX marketed the sustainable bond market of Taiwan together with ICMA. By cooperating with ICMA, TPEX has made positive contributions in mastering international market trends, improving the international visibility of the sustainable bond market of Taiwan, aligning the market systems with international standards, and promoting the sustainable bond market of Taiwan, making TPEX become the leader in the international market of sustainable bonds.

TPEX introduced the sustainable bond market of Taiwan in the Quarterly Report of ICMA for the fourth quarter of 2022

The sustainable bond market in Taiwan by Taipei Exchange

S **A** The development of the sustainable bond market in Taiwan's sustainability is valued in Taiwan and throughout the world. Financial institutions attract funds from investors which can be managed on their behalf based on sustainable criteria and objectives. In response to sustainability trends and under the guidance of the Financial Supervisory Commission, Taipei Exchange (TPEX) established green bond, sustainability bond and social bond markets in accordance with the Green Bond Principles (GBP), Sustainability Bond Guidelines (SBG) and Social Bond Principles (SBP) of the International Capital Market Association (ICMA). In 2021, we integrated those three into the sustainable bond market and promulgated the Taipei Exchange Operation Directions for Sustainable Bonds.

Market briefing and highlights: In 2021, the outstanding amount of sustainable bonds in Taiwan reached USD9.4 billion, which is milestone in the local sustainable bond market. There were 35 sustainable bonds with a total value of USD3.9 billion issued in 2021, which increased 59% and 69% from 2020, hitting a record high in both the quantity and the issuance amount of sustainable bonds.

As of August 2022, 19 green bonds had been issued in Taiwan in the total amount of USD2 billion. Eight sustainability bonds were issued in the total amount of USD0.6 billion, and two social bonds were issued in the total amount of USD0.1 billion. In terms of the outstanding balance, there were 84 sustainable bonds in an outstanding amount of USD12.1 billion, up 28% from 2021.

Year	Green bonds	Social bonds	Sustainability bonds
2017	0.1	-	-
2018	0.1	-	-
2019	0.8	-	-
2020	1.1	0.1	0.1
2021	1.4	0.6	1.4
2022	1.8	0.6	1.2

Source: TPEX data obtained on 31.08.2022

From 2017 until the present, there has been a significant increase in and diversification of new issuers of sustainable bonds. In 2021, 16 new issuers entered the sustainable bond market, which is the largest increase in new issuers in any single year. It is worth mentioning that the Chilean Government, as the first foreign government to issue a sustainability bond in Taiwan, enhanced the diversity of sustainable bond issuers. Currently, sustainable bond issuers in Taiwan include domestic banks, foreign financial institutions, state-owned enterprises, private enterprises, and foreign governments, showing that Taiwan's sustainable bond market has effectively attracted diversified issuers.

At the inception of the green bond market, since the national policy to promote offshore wind power generation, sustainable bond issuers were mainly renewable energy-related companies such as Taipower and Orsted. Nowadays, Taiwan's representative high-tech companies such as TSMC have entered the sustainable bond market, which shows that Taiwan's sustainable bond market is not only assisting the global energy transition, but also assisting the enterprise sustainability transition.

New product launched: Sustainability-Linked Bond: In response to Taiwan's Pathway to Net-Zero Emissions in 2050 and Sustainable Development Guidelines for TWSE- and TPEX-Listed Companies, in order to assist enterprises in achieving their sustainability goals, in moving towards net-zero carbon emissions and sustainable transformation, as well as to expand the scope of sustainable bonds in Taiwan, the TPEX has established the Sustainability-Linked Bond (SLB) mechanism, which has been implemented since 8 July 2022. SLB is one of the most popular new instruments in the international sustainable bond market. Its flexible use of funds can effectively assist a more diverse range of issuers to raise funds from the sustainable financial market and provide investors with more choices for responsible investment. Following the launch of the SLB mechanism, Far East New Century and CHIMEI Corporation were the first SLB issuers in Taiwan. Both of their key sustainability indicators (KPIs) selected for the SLB framework include greenhouse gas reduction. Since SLB is a bond that links corporate sustainability objectives to bond principal and interest payment terms, investing in SLB is not only a demonstration of responsible investment, but also a concrete action to directly support the sustainable transformation of the real economy.

Outlook: Looking ahead, TPEX will focus on two aspects of the sustainable bond market. The first is to promote new instruments for issuers and investors, and the second is to continuously improve the transparency of information disclosure. To increase information disclosure, TPEX has created a website¹ for sustainable bonds which includes sustainable bond information, statistics data, the latest news and issuance process, etc.

In the future, TPEX will continue to strengthen the sustainable bond market and keep striving to encourage both development and environmental conservation among enterprises. We look forward to seeing the issuance amount of sustainable bonds increase in the future and to contribute to global sustainable development, in the hope that sustainability becomes a new Taiwan value.

1. TPEX Sustainable Bond Market (tpe.org.tw)

TPEX builds a diverse investment-friendly environment and strengthens the risk awareness of young investors

Through conducting seminars and visiting issuers and intermediaries, we exchange information with market participants, encourage market participants to invest, and enhance the vitality of the stock market. In addition, in order to help young people establish investment discipline and strengthen risk awareness, TPEX continues to widely reach the young generation through the Internet or social media, and produces lively and interesting promotional media such as promotional videos or online programs (collaborating with well-known financial online programs/live streamers, for key opinion leaders (KOLs) young people agree with to lead the topics) as well as uses various online channels to promote and publicize, so that the themes can be more complete and young people can grasp the key points.

In particular, TPEX has invited financial expert HSIA, YUN-FEN and Secretary LIN, MING-CHUN of the Prevention Division, Criminal Police Bureau to jointly produce an investment fraud prevention publicity video and record the Podcast program, combining the actual cases in the form of interviews, talking about the most common investment fraud practices and the contingency measures to be taken when encountering frauds. In the video, the experts specially provided multi-directional practical experience sharing to new investors, and explained the importance of investment risk control and investment fraud prevention in an interesting and practical way, as well as the important information on how to avoid risks before and during investment, hoping to help the investor group to better grasp the investment situation and stay away from the fraud traps.

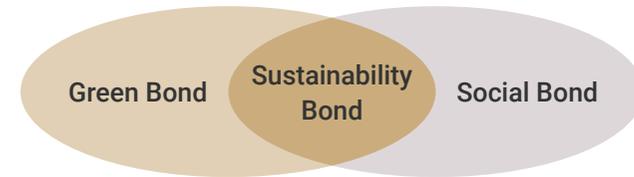
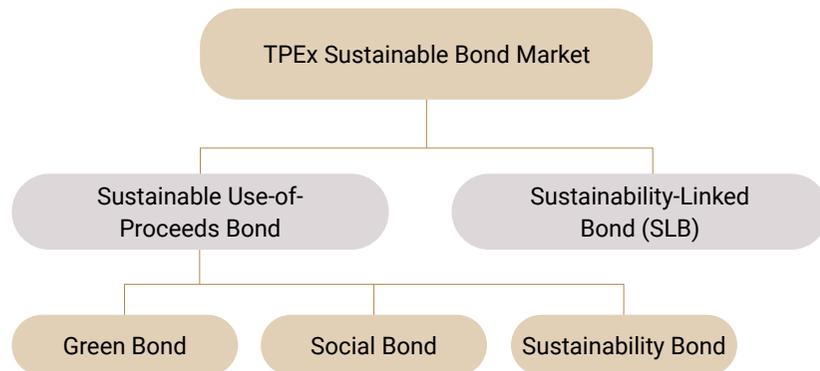
1.2.1 Promotion of Green Finance

TPEX hopes to promote sustainable products and green finance through the financial market, encourage enterprises and investors to provide further consideration to environmental, social, and corporate governance issues, and facilitate a virtuous cycle of investment and industrial pursuit of sustainable development, which will enable Taiwan to accelerate the low-carbon transition and to realize a sustainable development vision.

In line with the government's "Green Finance Action Plan", TPEX launched Green Bond, Sustainability Bond, and Social Bond from 2017 to 2021. To complete the range of sustainable products, TPEX also launched the "Sustainable Bond Market" in 2021.

To strengthen the Sustainable Bond Market, TPEX revised the "Taipei Exchange Operation Directions for Sustainable Bonds" on March 24, 2022, which added relevant regulations for information disclosure of Sustainable Bonds and strengthened the evaluation mechanism for the issuance of Sustainable Bonds by domestic government agencies, so as to improve the Sustainable Bond Market. In addition, TPEX established Sustainability-Linked Bond (SLB) Market on July 8, 2022, to provide a fund-raising channel for medium and long-term funds for sustainable development of market diversification.

Types of Sustainable Bonds in 2022



Green Bond	A bond whose proceeds are used exclusively for green projects
Social Bond	A bond whose proceeds are used exclusively for social projects
Sustainability Bond	A bond whose proceeds are used exclusively for a combination of both green projects and social projects

In 2022, the new issuance number and volume of Green Bonds reached a record high, with a total of 27 bonds amounting to NT\$79.423 billion, representing an increase of 97.1% as compared to 2021 (NT\$40.295 billion). In terms of Sustainability Bonds a total of 12 Sustainability Bonds were issued in 2022, with an issuance amount of NT\$23.724 billion and an outstanding balance of NT\$80.762 billion, representing an increase of 41.6% as compared to 2021 (NT\$57.038 billion).

The issuers of Green Bond and Sustainability Bond in Taiwan are considerably diversified, covering local banks, local branches of foreign banks, state-owned enterprises, domestic private producers, and foreign financial institutions, etc., demonstrating that the fund-raising platform of Green Bond and Sustainability Bond in Taiwan has effectively attracted all kinds of issuers to participate in Taiwan's bond market.

Type of sustainable bond	Time launched	2021		2022	
		Number of issuance	Issuance amount (NT\$1 billion)	Number of issuance	Issuance amount (NT\$1 billion)
Green Bond	April 2017	19	40.295	27	79.423
Sustainability Bond	October 2020	9	51.238	12	23.724
Social Bond	April 2021	7	14.297	3	5.6
Sustainability-linked Bond	July 2022	NA	NA	2	3.5
Total		35	105.830	44	112.247

Green and Renewable Energy Successfully Raised Funds through Capital Markets (2017~2022)

Issuance of Sustainable Bonds					
Company name	 Taipower	 TSMC	 Orsted	 ECOVE	 Chailease
Number of issuance	14	13	5	1	3
Issuance amount	NT\$54.25 billion	NT\$47.6 billion	NT\$27 billion	NT\$1 billion	NT\$4.2 billion
Investment plans	Solar, wind, hydroelectric and geothermal energy generation	Construction of green buildings	Offshore wind power construction	Solar power construction	Solar power construction

Emerging Stock Market registration and listing on Main Board: A total of 8 green energy or circular economy industrial companies were registered on Emerging Stock Market and 1 was listed on Main Board.

2022 publicity and promotion activities

- 1 online bond promotion and briefing session to introduce the sustainable bond market to the issuers, underwriters, and valuation agencies respectively.
- 1 online “Sustainable Bond Market (applied for Government Bonds)” to introduce the relevant regulations and assessment mechanism for Sustainable Bonds (applied for Government Bonds) to the local government, the Ministry of Finance, and the Central Bank of the Republic of China.
- 1 online “Sustainability-linked Bonds Market Introduction” to promote the information reporting of Sustainable Bond to the issuers.
- 7 online marketing seminars to promote enterprises to use quotes acceptance mechanism of TPEX Derivatives Trading System and achieve paperless operation.
- 5 visits to high-quality enterprises in the green energy or circular economy industries to promote their access to the capital market.
- Participated in the sun optoelectronic system Investment and financing seminar, held by Taiwan Photovoltaic Industry Association and the ESG innovation and circular economy forum held by Concord Securities Co.,Ltd. to introduce the multi-tiered market of TPEX to all green energy and circular economy companies.

International participation

- In 2018, TPEX became a member of the Climate Bonds Initiative (CBI).
- TPEX won the “Exchanges introducing new listing guidelines 2017” and was granted a certificate of recognition in 2018, which was selected and awarded by The Green Bond Pioneer Awards Committee.^{Note}
- In 2021, TPEX became a member of ICMA.
- In 2022, the first Sustainability-linked Bonds was listed. Mr. Nicholas Pfaff, the Deputy Chief Executive Officer and the Head of Sustainable Finance of ICMA, recorded a video to congratulate and exchange views.
- The Quarterly Report published in the fourth quarter of ICMA in 2022 marketed Taiwan's sustainable bond market.

Note: The Green Bond Pioneer Awards Committee was jointly set up by the CBI and the London Stock Exchange Group

1.2.2 Market Supervision

In order to protect the investors, TPEX has rolled out many supervisory measures, including regular audits of financial reports and internal control, audits on companies' information reporting, and exceptional management checks. With the implementation of various supervision, it's expected to build an efficient platform to promote the sound development of listed / registered companies, and protect the rights and interests of shareholders.

2022 supervisory measures and performance

Unit: cases

Supervisory measure	Emerging Stock Market Companies	Main Board Companies
Reviewing financial report		
Formality review	All Companies	All Companies
Substantive review	34	209
When material incidents happen, performing exception management analysis in accordance with regulations	1	482
Auditing expert opinion letter	3	10
Auditing the implementation of the internal control system	23	93
Analyzing in accordance with financial and business early warning indicators	27	40
Auditing material information	52	292
For companies that have been placed on alert, and where the latest financial information should be published according to TPEX standards, contacting the company to release material information	189	228
Reviewing the annual report of the shareholders' meeting	69	185

In 2022, due to the pandemic, TPEX continued to, via video and online briefings, organize several events of Emerging Stock Corporate Day, courses of Regulations and Business Practices for listed and registered companies, and Corporate Governance Evaluation Educational Online Programs, so as to continuously promote high-quality enterprises to enter the TPEX market, so that investors were kept up-to-date on the development of listed / registered companies, their compliance with laws, regulations and the quality of their corporate governance practices.

TPEX will continue to handle promotion and education seminars on newly revised laws and regulations, and establish a sound communication channel with the companies. TPEX will also strengthen the education and training of the industry database and the industry knowledge and inspection cases of the supervisors to enhance the supervision over high-risk companies. Furthermore, TPEX reviews and revises the relevant supervision regulations of TPEX in line with the policies of the competent authorities and the new International Financial Reporting Standards (IFRSs) to promote listed / registered companies' corporate governance and supervision system reform. To establish a sound corporate governance system, TPEX promotes companies to pay attention to corporate governance (including ESG information disclosure) by conducting corporate governance evaluations, praising outstanding companies, and continuing to improve the degree of discrimination with the policies of the competent authorities. In addition, TPEX will strengthen supervision with technologies.



1.2.3 Transaction Monitoring

To ensure fairness and investor protection, TPEX has issued relevant regulations that cover issuance, trading, and surveillance to maintain the order of securities market transactions.

Issuance

- Considering the occurrence of incidents that have a significant impact on a company's financial conditions, TPEX has formulated the trading suspension mechanism in order to reduce information asymmetry.
- With the “Taipei Exchange Procedures for Verification and Disclosure of Material Information of Companies with TPEX Listed Securities” , TPEX hopes to ensure that relevant information can be disclosed in time when Main Board companies encounter matters having a significant impact on shareholders' equity or securities prices (including changes related to corporate financial soundness, major corporate transactions, positive or negative news about the company's products, changes in key management personnel, regulatory or control developments that affect the company's operational capabilities, legal events and other major events related to shareholders meetings).

Key actions and performance in 2022:

- 4 times: Main Board companies applied for information-related trading suspension.
- 10 times: Emerging Stock Market companies applied for information-related trading suspension.

To avoid severe deviations in transaction prices due to violent market fluctuations, relevant measures are in place:

Main Board stocks

When transaction price rises or falls by more than 3.5% of the reference price with violent stock price fluctuations from the first matching of the day to 5 minutes before the market closes, TPEX will delay the matching for 2 minutes and continue to accept key-in, cancellation, and changes of buy/sell orders within the delayed matching period, and match after the currently delayed matching period ends.

Emerging Stock Market stocks

TPEX has introduced the trading halt mechanism for abnormal stock price fluctuations. When the weighted average trading price of individual stocks during the trading hours of each business day rises or falls to more than 50% of the weighted average trading price of the previous business day, trading will be halted until the end of trading hours for the day.

Trading

The timing and number of trading interruptions and trading suspensions in 2022:

	Times	Duration
Trading suspensions due to intra-day volatility interruption of Main Board stocks	18,037	36,074 minutes
Trading suspensions due to intra-day volatility interruption of Emerging Stock Market stocks	9	2,473 minutes
Trading halts of Main Board stocks due to public disclosure of information	4	36 hours ^{Note}
Trading halts of Emerging Stock Market stocks due to public disclosure of information	10	60 hours ^{Note}

Note: Daily trading hours of Main Board stocks (including block matching trades and trade-by-trade) are from 8:00 am to 5:00 pm (9 hours in total), daily trading hours of ESB stocks are from 9:00 am to 3:00 pm (6hours in total), and daily trading hours of PSB stocks are from 9:00 am to 2:30 pm (5 hours 30 minutes in total).

Supervision

TPEX's supervisory measures include surveillance and early warning, and audits on illegal transactions.

Surveillance and early warning

For securities traded at abnormal prices and volumes, TPEX makes an announcement of attention or takes disposal measures. TPEX publishes daily announcements on the website regarding securities that meet the criteria. If the condition remains for consecutive days, TPEX will implement advance collection of funds and securities and extended matching time to remind investors of trading risks.

Audits on illegal transactions

TPEX audits abnormal securities trading. If there is suspected illegal manipulation or insider trading, the violation shall be reported to the competent authority and judicial authority for handling to protect the investors and maintain market order. TPEX also distributes information on illegal transactions among issuers and securities firms to enhance their awareness.

Key actions and performance in 2022:

- In 2022, Announcement of Attention Main Board Securities has been announced 2,522 times among 472 securities; Announcement of Disposition Main Board Securities has been announced 130 times among 90 securities; Announcement of Attention Emerging Stock Market Securities has been announced 188 times among 77 securities; Announcement of Disposition Emerging Stock Market Securities has been announced 1 time among 1 security.
- In 2022, TPEX held 6 workshops on the prevention of illegal transactions for securities firm practitioners as well as insider ownership workshops.

Information

In 2022, the trading system operated normally, and there was no service interruption.

In order to further remind investors of the trading risks, on July 4, 2022, TPEX announced the amendments to certain provisions of “Directions for Announcements or Notices of Attention to Trading Information and Dispositions for Emerging Stocks” . For stocks with abnormal trading activities, TPEX will announce their names and the contents of the attention, or implement advance collection of funds and securities for investors who buy and sell on a daily basis, so as to reduce the situation of recommending securities companies to increase the number of quotations to help increase the share price, and remind investors to pay attention to the trading risks through implementing advance collection of funds and securities.

In the future, TPEX will revise relevant regulations and adjust the early warning system with various products, trading mechanisms, and market development to remind investors to be aware of the trading risks. In the aspect of illegal transaction audits, supervision technology will be utilized to strengthen the effect of market supervision, so as to improve the audit efficiency and quality of market supervision operations. TPEX also continues to cooperate closely with the competent authorities and judicial authorities to enhance the capability of market monitoring and illegal transaction audits through different aspects from discussions in meetings or case studies.

1.2.4 Securities Companies' Audit

With the development of the securities market, the countermeasures taken by TPEX for the management of securities companies have been progressively adjusted to maintain the stable operation of the securities market.

Routine audits

In accordance with the reform plan and the principle of differentiated management, TPEX works with TWSE to perform audits on the financial, business, internal audit, and other operational aspects of securities firms. There are also routine audits on securities firms operating only equity crowdfunding, those only security token offerings, financial institutions only operating bonds, and leveraged traders.

Special audits

In terms of special audits, TPEX acts according to the Article 7 of “Operational Guidelines for Follow-up, Assessment, and Guidance in Regard to Securities Firm Audit Deficiencies” .

Securities companies' risk management and evaluation operations

Securities companies that concurrently operate securities brokerage, underwriting, and proprietary business are selected as the targets in the performance of annual evaluation. In 2022, a total of 15 evaluations were carried out. In order to strengthen the overall risk control of securities companies, the strengthening mechanisms such as risk limit control, profit, and loss limit monitoring, exception management sign-off procedures, and stress testing have been incorporated into relevant evaluation index items, and the relevant weights have been adjusted.

Type of audit / Promotional seminars	Cases / Times
Routine audits on securities firms	12
Routine audits on financial institutions operating bonds	20
Audits on anti-money laundering schemes	4
Risk assessments of securities firms	8
Routine audits on leverage transaction merchants	5
Routine audit on securities firms only engaged in intermediary business of trading and exchanging fund beneficiary certificates	1
Routine audit on underwriting bidding and book building cases	7
Irregular special audits	60
Held promotional seminars on the amendments of the regulations for establishing internal control systems of securities firms with surrounding units	18 ~1800 participants

In order to strengthen the risk management and information disclosure of securities firms on climate change issues, and continuously review the companies' compliance with climate risk management regulations and information disclosure, in May 2022, TPEX revised the “Risk-Management Evaluation Procedures for Securities Firms - Risk Management Implementation Sampling Test Report Form” , “Self-inspection Form for the Risk Management Mechanism of Securities Firms” and relevant schedules of Risk-Management Evaluation Procedures for Securities Firms which have been implemented from January 1, 2023.

1.2.5 Investment Protection

While innovating mechanisms and products to meet the needs of investors and companies, TPEX also adheres to the principle of protecting the rights and interests of investors and shareholders, and works closely with the competent authorities to implement securities market supervision laws and regulations. By continuing to implement and strengthen market management, trading, and settlement as well as other mechanisms, TPEX seeks to create an open, transparent, and sound market.

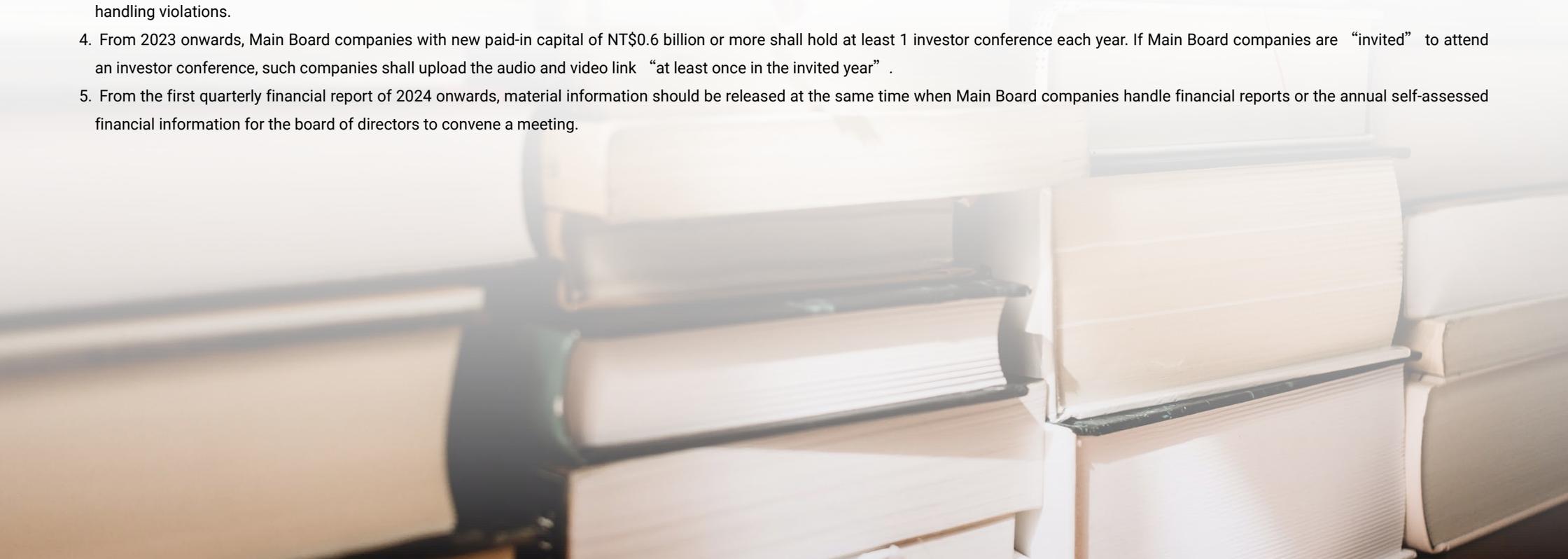
Relevant actions to protect the investors of listed / registered companies in 2022

Action	Performance	Highlight
Handling of Corporate Governance Evaluation	From March 2 to March 16, 2022, the “2022 Corporate Governance Evaluation Educational Online Programs” was held online to promote the contents of the revision of the corporate governance evaluation system, the focus of the recent regulatory amendments and the disclosure guidelines of the newly issued annual report of the shareholders meeting, the disclosure of ESG information, and the introduction of the video conference platform of the shareholders meeting.	In line with “Corporate Governance 3.0 - Sustainability Roadmap”, accelerating the promotion of corporate governance of listed companies, assisting enterprises in sound development, and enhancing market confidence.
Performance presentations of listed / registered companies	<p>Performance presentations of Main Board companies: Three major institutional investors, four major funds, and investors were invited to participate, and the presentations were conducted with the theme of TPEX family distinctive industries (including TPEX 200, biotechnology and medical care, IC design, etc.). There were a total of 34 sessions, and a total of 97 Main Board companies participated.</p> <p>Performance presentations of Emerging Stock Market companies: On May 16 and August 25, 2022, TPEX conducted 2 events of Emerging Stock Corporate Day via online live broadcast, inviting 4 Emerging Stock Board companies and 2 Pioneer Stock Board companies to participate.</p>	Improve services for listed / registered companies, establish a platform for direct communication and interaction between companies and investors, and increase information disclosure.
Promotional briefings and seminars	<p>Courses of regulations and business practices for listed and registered companies: From October 3 to 31, 2022, “the courses of Regulations and Business Practices for listed and registered companies” was held online to promote various new laws and regulations, including the new revision regulations of major information and the explanation of information reporting practice.</p> <p>Intermediary agencies training course: The course was held on April 25 and November 28, 2022, lecturing on the newly revised regulations of listed / registered companies, the review focus of enterprise application for listing /registering on Main Board / Emerging Stock Market, and conducting case sharing and exchange.</p> <p>Promotional seminar on new trading mechanisms and related services of the TPEX market: In 2022, 6 sessions were conducted for associated persons of securities firms, providing the latest and most real-time market information for various important businesses and the latest revised market regulations.</p> <p>Promotional seminars of Pioneer Stock Board: 5 sessions were held for investors to introduce the newly-registered companies of the Pioneer Stock Board and the trading mechanism of the Pioneer Stock Board.</p> <p>Bond promotional seminars: On February 22, 2022, the bond promotional seminar was held online to introduce the Sustainable Bond Market to issuers, underwriters, and evaluation bodies. On July 14, the online promotional seminar on the “Sustainability-Linked Bond Market Introduction” was held to introduce the regulations of the Sustainability-Linked Bond Market. On November 16, the online promotional seminar on information reporting for Sustainable Bond was held by recording audio and video files to promote the relevant matters of information reporting of Sustainable Bonds to the issuer.</p> <p>Investor seminars: In 2022, TPEX held the seminars in cooperation with a number of securities companies, of which 3 sessions were broadcast online and 12 sessions were held physically. The topics covered TPEX market trading mechanism (including Main Board Stocks and Emerging Stocks) and index linked products (such as ETF, ETN, and index futures).</p>	Assist listed / registered companies in understanding the key points of the latest amendments to the TPEX laws and regulations. Performing well in legal compliance and information disclosure makes the companies implement the compliance and internal control and audit systems to strengthen the quality of corporate governance, and protect the rights and interests of investors. In addition, relevant briefing sessions were held for securities dealers to assist in obtaining the latest and comprehensive market information.

Action	Performance	Highlight
Promotional seminars on financial reports filing	From November 16 to December 14, 2022, TPEX and surrounding units jointly handled the “International Financial Reporting Standard (IFRSs) Conference” and held a total of 4 briefings across Taiwan. A total of 320 accounting personnel from TWSE / TPEX listed / registered companies participated.	Assist enterprises to respond to the needs of reporting financial information related to sustainability.
Set up investor hotline and mailbox	In 2022, 1,703 calls and 363 emails were received, all of which were handled and replied to investors by the competent department according to the nature of business, with a handling rate of 100%.	Establish a platform for direct communication and interaction with investors to protect their rights and interests.

In addition to the relevant operations mentioned above, there were relevant management mechanisms implemented specifically for listed / registered companies to enhance investor protection:

1. Strengthening the supervision mechanism of the TPEX primary listed companies and foreign emerging stock companies: cooperating with the FSC to strengthen the examination and control of fundraising cases of the TPEX primary listed companies, the sponsorship period for fundraising cases of securities underwriters will be extended from 2 years to 3 years, and TPEX has been entrusted to handle the suspension of the public issuance of shares of the TPEX primary listed companies and foreign emerging stock companies, and to collaborate on the revision of relevant regulations of TPEX.
2. In the event that the chairman or the CEO of listed / registered companies are wanted, the relevant material information shall be released.
3. Listed / registered companies shall establish an internal procedure for material information processing by the end of 2022, and keep records of the relevant evaluation process and the mechanism for handling violations.
4. From 2023 onwards, Main Board companies with new paid-in capital of NT\$0.6 billion or more shall hold at least 1 investor conference each year. If Main Board companies are “invited” to attend an investor conference, such companies shall upload the audio and video link “at least once in the invited year” .
5. From the first quarterly financial report of 2024 onwards, material information should be released at the same time when Main Board companies handle financial reports or the annual self-assessed financial information for the board of directors to convene a meeting.



1.3

Collaboration with All Walks of Life

1.3.1 Participation in Guilds and Associations

TPEX is currently a member of 16 domestic associations. In addition to participating in regular meetings, TPEX also actively attends activities and seminars organized or co-organized by various associations.

Participation status of TPEX in associations in 2022

Name of entity	Participation status	Name of entity	Participation status
Taiwan Financial Services Roundtable	Member/Director	Corporate Operation Association	Member
Securities Analysts Association, Chinese Taipei	Member/Director	Taiwan Stock Affairs Association	Member
Taiwan Corporate Governance Association	Member	Taiwan Mergers & Acquisitions and Private Equity Council	Member
The Institute of Internal Auditors, R.O.C.	Member	Banking Education Association of Taiwan	Member
The Business Council for Sustainable Development of Taiwan	Member	Taiwan Bio Industry Organization	Member
Chinese Association of Business and Intangible Assets Valuation	Member	Financial Planning Association of Taiwan	Member
Chinese International Economic Cooperation Association, Taiwan	Member	Taiwan Finance Association	Member
Chinese National Association of Industry and Commerce, Taiwan	Member	Financial Engineering Association of Taiwan	Member

1.3.2 International Interactions

Due to the continuous impact of the COVID-19 pandemic in 2022, TPEX was unable to participate in physical international exchange activities in the first three quarters. However, TPEX is still actively participating in activities held by important securities-related institutions. In addition to regularly participating in membership conferences and relevant seminars every year to exchange views and explore cooperation opportunities with peers, TPEX also actively responds to the relevant initiatives of the international securities organizations to enhance the international awareness of TPEX.

Participation status of TPEX in international organizations membership and initiatives in 2022

WFE	Full member
AOSEF	Full member
IOSCO	Affiliated member ^{Note}
CCP12	Full member
CBI	Partner
Task Force on Climate-related Financial Disclosures	Signed for support in October 2020
ICMA	Full member

Note: FSC, the competent authority, is a full member

Actively engaging in international events

Participation in related organizations and activities in the international securities market	
WFE	<ul style="list-style-type: none"> • 2022 seminars (2 video conferences) • 61st annual meeting and general assembly of WFE (physical meeting: Republic of Malta) • WFE Clearing & Financial Derivatives Conference (video conference) • WFE Working Committee Meeting (video conference)
IOSCO and AMCC	<ul style="list-style-type: none"> • IOSCO and AMCC 2022 seminars (2 video conferences) • AMCC 2022 mid-year meeting (video conference) • IOSCO 2022 World Investor Week (WIW) (video conference) • International Financial System Certification Phase I Seminar (video course)
CCP12	<ul style="list-style-type: none"> • 2022 annual meeting (video conference) • 2022 special annual meeting (video conference)
AOSEF	<ul style="list-style-type: none"> • 2022 Working Committee (2 video conferences) • 2022 seminar (3 video conferences)
Participation in meetings of other securities-related organizations	
Citadel	<ul style="list-style-type: none"> • 1 video seminar
ACGA	<ul style="list-style-type: none"> • The 21st Annual Meeting in 2022 (physical meeting: London, UK)
Korea Exchange	<ul style="list-style-type: none"> • 2022 Global ETP Conference in Seoul (video conference)

In support of the WFE's “Ring the Bell for Gender Equality” and the “Ring the Bell for Financial Literacy” Event co-hosted by the WFE and the IOSCO during the “WIW 2022”, TPEX also held a ceremony to celebrate these two events.

Holding online overseas institutional investor briefing

TPEX has arranged abroad roadshows for Main Board companies since 2007 to expand the TPEX market and enhance the international visibility of Main Board companies. Due to the impact of COVID-19 in 2022, TPEX organized online overseas institutional investor briefings in June and October for foreign institutions to have a better understanding of Taiwan's capital market and guidance to invest in Taiwan.

Promoting Overseas Enterprises' Listing / Registration on TPEX Main Board / Emerging Stock Market

Due to the easing of the global pandemic, TPEX resumed the physical promotion of overseas business in November 2022 and visited Vietnam to encourage overseas enterprises' listing on TPEX. TPEX also held 1 webinar to promote listing on TPEX of overseas companies. In 2022, 3 new foreign companies received advisory services for listing applications from recommending securities. As of year-end, TPEX had 31 foreign companies listed on its Main Board and 3 foreign companies registered on the Emerging Stock Market. These companies are based mainly in China and Southeast Asia.



TPEX attaches great importance to gender equality and held a gong striking ceremony in response to WFE on gender equality



TPEX jointly held the 2022 Financial Elite Camp Award Ceremony and “Striking the Gong for Financial Literacy Campaign” to support WIW



After three years, TPEX visited Vietnam after the pandemic for the first time to promote listing of overseas enterprises on Main Board

1.3.3 TPEX service promotion

To help capital market participants understand and make use of the services provided by TPEX, we plan and promote through various channels, including:

Promotional channel	Description	Promotional channel	Description
 TPEX official website	<ul style="list-style-type: none"> Considering the participants' diversity in the capital market, "Focus Areas" was set up on the homepage. Visitors can browse according to their identity or the topics they are interested in. The "TPEX Events" and "Media Gallery" sections were set up to promote relevant policies, key businesses, and recent activities. 	 Anti-Financial Investment Fraud Zone	In order to prevent financial investment fraud, an "Anti-Financial Investment Fraud Zone" was set up on September 30, 2022, on the official website. Through the integration of FB promotional graphics and short videos, anti-financial investment fraud award-winning quizzes and news reports, TPEX promoted anti-financial investment fraud information to investors.
 Facebook fan page	<ul style="list-style-type: none"> Considering that the younger generations are more familiar with Facebook, a social media manager has been appointed to actively interact with the public, promote key products or systems, and disseminate information in an interesting way. Posts on the fan pages of competent authorities are shared on the TPEX fan page to facilitate policy communication. 	Promotional seminars	TPEX promotes various important businesses, systems, and the latest revised regulations for listed / registered companies, investors, and securities firms.
 TPEX ESG Section	In order to provide enterprises and investors with one-stop access to the sustainability information of the TPEX, an "ESG Section" for the enquiry has been provided on September 29, 2022, including four major themes, namely "Sustainable Bond Market", "ESG for Listed Companies", "ESG Indices & ETP" and "Our Sustainability".	On-site visits	TPEX makes on-site visits to domestic and foreign companies as well as listed / registered companies to introduce the multi-tiered capital market.
		Networking/matching activities	TPEX regularly organizes business promotion networking and matchmaking activities for enterprises in the TPEX market.
 TPEX HOME education	Considering the needs of young people who are new to the capital market to learn securities knowledge, the online learning resources of TPEX are collected, allowing the public to easily learn at home.	Media	TPEX promotes its services and products through the media from time to time.
		Investor hotline/fax	TPEX upholds a professional stance and a fair and objective attitude in processing investor complaints, petitions, or consultations, in a timely manner. All investor telephone and emails received in 2022 were forwarded to the relevant business departments for processing after receipt. Investor service hotline: (02-2366-6100) Emerging Stock Market investor consultation hotline: (02-2369-6102) Email address of Investor Mailbox: Click on "Contact Us" on the TPEX Official website to access the Investor Mailbox