



證券櫃檯買賣中心
Taipei Exchange

2022 ANNUAL REPORT

TPEX



TIDEX

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2022

Taipei Exchange Annual Report

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Deeping Capital Market towards Sustainable Development

In 2022, the world continued to be affected by the COVID-19 pandemic, supply chain restructuring and the Russia-Ukraine War. Major developed countries were under severe inflation crisis. Central banks around the world, led by the U.S. Fed, have adopted a policy of sharp interest rate hikes, resulting in significant fluctuations in the global capital markets. With well controlled pandemic in Taiwan and solid infrastructure, the dual core businesses of stocks and bonds of TPEX continued to demonstrate vitality. In the stock market, TPEX Index closed at 180.34 in 2022, down 24.08% from the previous year. However, the average daily trading value of TPEX Main board stocks amounted to NT\$60,482 million marked the second highest in history. The foreign investment accounted 20.46% of total market trading value, an increase of 17.25% from 2021, hitting a record high. There were 22 and 67(12 were from Pioneer Stock Board) new applications for listing on the TPEX Main board and registration on the Emerging Stock Market (ESM) in 2022 respectively. The performance of the TPEX market in fluctuating market was solid amidst the global stock exchanges.



In the bond market, TPEX focused on the domestic sustainable finance. After the Sustainable Bond Board, integrated green bonds, sustainability bonds and social bonds, made first debuted in 2021, sustainability-linked bond (SLB) was launched in 2022. With respect to market size, the issuance of sustainable bonds reached record high in 2022, 44 new bonds issued with totaling NT\$112.247 billion. By the end of year, there were 126 sustainable bonds with balance outstanding of NT\$363.334 billion. 146 new international bonds were issued with amount of US\$17.406 billion. By the end of year, there were 872 international bonds with balance outstanding of NT\$207.970 billion. Moreover, at the end of 2022, there were a total of 81 bond ETFs listed on TPEX with issue size of NT\$1.19 trillion. The listing number and issue size were ranked first among the main securities exchanges in Asia and was placed 7th in the world.



TPEX is actively building a multi-functional, a full-fledged market and continues to improve various mechanisms to meet the diversified needs of enterprises and investors. First of all, TPEX will step up its efforts to develop its dual core businesses of stocks and bonds in terms of assisting the development of SMEs. With respect to the stock market, TPEX will actively promote the entry of SMEs into the multi-level market. In addition to the six core strategic industries, it will also encourage

enterprises engaged in "light asset and data-oriented" industries, such as digital cloud service companies and information security companies, to enter the TPEX market, hoping to create another emerging industry cluster after the semiconductor and biotechnology industries. Furthermore, we will review our listing criteria and create a friendly fundraising environment to assist our companies to strengthen their business structure. With regard to the bond market, TPEX will exert every effort to promote sustainability bond-related products to help enterprises transition toward ESG carbon reduction and other industrial restructuring in an attempt to obtain green funds. Secondly, TPEX will significantly improve its information effectiveness. In addition to strengthening the functions of the MOPS, TPEX will also plan to conduct big data analysis, simplify issuer reporting operations, and enhance the convenience of investor inquiries through technology and automation so as to strengthen information effectiveness. Moreover, TPEX will actively enhance its operational resilience, maintain the effectiveness of its information security management system (ISO 27001), and implement abnormal emergency drills (BCM) in order to maintain its operational resilience under any external challenges. TPEX will continue to deepening Taiwan's capital market in compliance with the principles and concepts of ESG to assist enterprises in their sustainability transformation, lead the capital to sustainable development, and join hands with TPEX market participants to create a sustainable future for co-prosperity.

Philip Chen
Chairman



Edith Lee
Managing Director & CEO



Board of Directors and Supervisors

The Taipei Exchange is a non-profit institution. The board of directors is the highest executive body of TPEX and is composed of 15 directors. In addition to the directors designated by donors, the nomination and selection of directors are mainly made by the competent authorities through the appointment of impartial personnel from experts and scholars. In order to take diversity into account, the directors selected include not only experts and scholars with expertise in accounting, but also with expertise in various areas such as law, finance, business management or corporate governance. Among them, there are 2 female directors. TPEX has 5 supervisors who are also experts and scholars with expertise in accounting, finance and other areas.

The current (10th) term of directors and supervisors were appointed in August 2021 for a term of 3 years. Meetings are held once a month. Interim meetings may be called as and when necessary.



Directors

Philip Chen

Edith Lee

Wang Hsu Chi

Jiunn-Chih Wang

Han-Chiang Chu

Chiu Shean Bii

Chien-yi Chang

Chun-Hong Chen

Leo Cheng

Jerry Guo

Huang Bing Jing

Hua-Wei Huang

Min-Jeng Shiue

Fujiing Shiue

Lih-Chung Chien



Supervisors

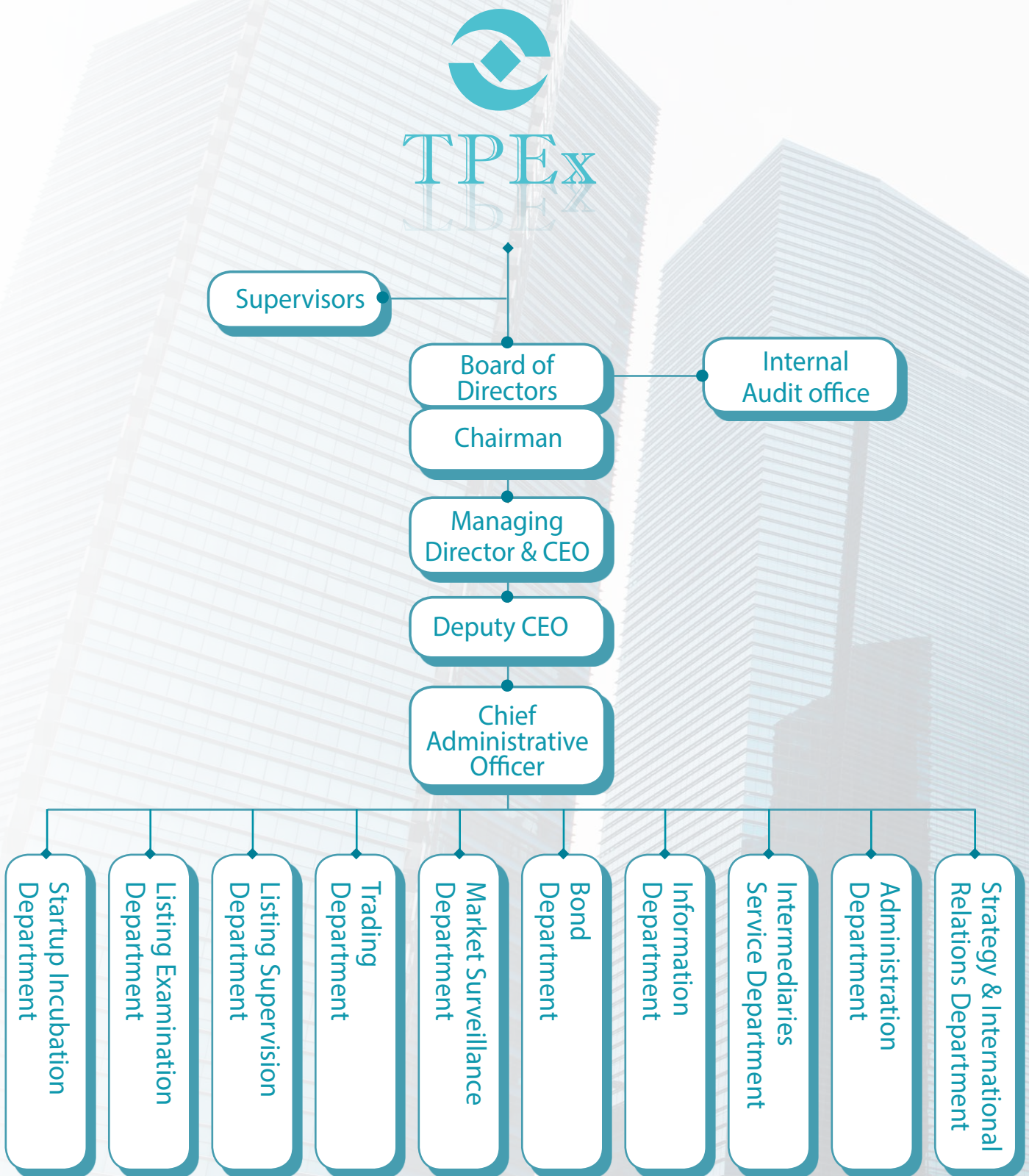
Kuei-Tseng Wang

Lin Tien Fu

Chen-Shan Chang

Shih-Kuo Yeh

Ching-Chih Lu





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Executive Management Team

Under the TPEX, there is one Managing Director & CEO who manages TPEX's business, along with one to two deputy CEOs and one Chief Administrative Officer who assist the Managing Director & CEO. TPEX has ten departments, namely Startup Incubation, Listing Examination, Listing Supervision, Trading, Market Surveillance, Bond, Information, Intermediaries Service, Administration, and Strategy & International Relations. Besides, an Internal Audit Office is subordinate to the board of directors.

Market Performance in 2022

	2022	2021	Change(%)
Equity Market			
Number of listed /registered			
Mainboard	808	788	2.54%
Emerging Stock Market	299	296	1.01%
Emerging Stock Board (ESB)	295	290	1.72%
Pioneer Stock Board (PSB)	4	6	-33.33%
Go Incubation Board	97	91	6.59%
Number of newly listed/newly registered			
Mainboard	27	13	107.69%
Emerging Stock Market	63	75	-16.00%
Emerging Stock Board (ESB)	51	69	-26.09%
Pioneer Stock Board (PSB)	12	6	100.00%
Go Incubation Board	17	13	30.77%
Market Capitalization (NT\$ 0.1Billion)			
Mainboard	44,240.70	57,821.44	-23.49%
Emerging Stock Market	9,053.32	11,237.97	-19.44%
Emerging Stock Board (ESB)	8,968.34	11,140.84	-19.50%
Pioneer Stock Board (PSB)	84.98	97.13	-12.51%
Average daily trading value (NT\$ 0.1Billion)			
Mainboard	604.82	830.98	-27.22%
Emerging Stock Market	24.28	52.49	-53.74%
Emerging Stock Board (ESB)	24.26	52.47	-53.76%
Pioneer Stock Board (PSB)	0.02	0.02	0
Capital Raised (NT\$ 0.1Billion)			
Average IPO raised (Amount/Number)	3.12	5.48	-43.07%
Average SPO raised (Amount/Number)	6.22	5.32	16.92%

	2022	2021	Change(%)
Benchmark Indices			
TPEX Index			
Highest (date)	235.53 (01/04)	237.55 (12/30)	-0.85%
Lowest (date)	159.26 (10/25)	179.54 (01/29)	-11.30%
TPEX 200 Index			
Highest (date)	10,163.31 (01/03)	10,263.11 (12/30)	-0.97%
Lowest (date)	6,150.19 (10/25)	7,665.2 (05/17)	-19.77%
TPEX 50 Index			
Highest (date)	304.61 (01/03)	307.84 (12/30)	-1.05%
Lowest (date)	167.66 (10/25)	218.11 (05/17)	-23.13%
Equity Warrant			
Number of listed	6,581	7,254	-9.28%
Number of newly listed	11,520	11,653	-1.14%
Market Capital (NT\$ 0.1Billion)	205.70	353.00	-41.73%
Average daily trading value (NT\$ 0.1Billion)	5.43	7.27	-25.31%
ETF/ETN and Open Ended Fund			
Number of listed			
ETF	87	93	-6.45%
ETN	10	15	-33.33%
Open Ended Fund	4	8	-50.00%
Average Daily Trading Value (NT\$ 10Thousand)			
ETF	262,251.02	987,795.09	-73.45%
ETN	759.08	3,515.08	-78.41%
Open Ended Fund	2.72	18.89	-85.60%

	2022	2021	Change(%)
Bond Market			
Number of listed			
Government Bonds	158	156	1.28%
Bank Debentures	391	372	5.11%
Regular Corporate Bonds	841	788	6.73%
Beneficiary Securities	4	2	100.00%
Convertible Corporate Bonds	259	237	9.28%
Foreign Bonds	38	39	-2.56%
International Bonds	872	763	14.29%
Outstanding Value (NT\$ 0.1Billion)			
Government Bonds	59,501.64	58,393.62	1.90%
Bank Debentures	10,674.28	10,476.01	1.89%
Regular Corporate Bonds	28,265.87	27,169.59	4.03%
Beneficiary Securities	90.27	42.85	110.67%
Convertible Corporate Bonds	1,828.72	1,488.26	22.88%
Foreign Bonds	552.67	513.71	7.58%
International Bonds (US\$ 0.1Billion)	2,079.70	2,038.56	2.02%
Average daily Trading Value (NT\$ 0.1Billion)			
Government Bonds	76.08	93.95	-19.02%
Bank Debentures	7.18	6.57	9.31%
Corporate Bonds(*)	36.88	52.46	-29.70%
Beneficiary Securities	0.17	0.00	-
International Bonds (US\$ 0.1Billion)	9.87	24.22	-59.24%

* Corporate bond includes regular corporate bond and convertible bond

	2022	2021	Change(%)
Derivatives			
Convertible Bond Asset Swap			
Fixed income trading			
No. of contract securities firm	18	18	0.00%
Outstanding value of contracts (NT\$ 0.1Billion)	777.64	648.35	19.94%
Trading value (NT\$ 0.1Billion)	487.49	926.29	-47.37%
Option trading			
No. of contract securities firm	19	19	0.00%
Outstanding value of contracts (NT\$ 0.1Billion)	1,473.28	1,148.00	28.33%
Trading value (NT\$ 0.1Billion)	1,322.20	1,853.81	-28.68%
Interest Rate Derivatives			
No. of contract securities firm	16	16	0.00%
Outstanding value of contracts (NT\$ 0.1Billion)	8,280.17	5,970.48	38.69%
Trading value (NT\$ 0.1Billion)	4,086.80	3,048.32	34.07%
Structured Products			
No. of contract securities firm	16	16	0.00%
No. of leverage transaction merchant	2	2	0.00%
Outstanding value of contracts (NT\$ 0.1Billion)	628.80	484.85	29.69%
Trading value (NT\$ 0.1Billion)	2,677.73	2,263.13	18.32%
Credit Derivatives			
No. of contract securities firm	6	6	0.00%
Outstanding value of contracts (NT\$ 0.1Billion)	-	-	-
Trading value (NT\$ 0.1Billion)	77.68	33.91	129.08%

	2022	2021	Change(%)
Equity Derivatives			
No. of contract securities firm	12	12	0.00%
No. of leverage transaction merchant	1	1	0.00%
Outstanding value of contracts (NT\$ 0.1Billion)	26.44	23.85	10.86%
Trading value (NT\$ 0.1Billion)	818.78	916.56	-10.67%
Foreign Exchange Derivatives			
No. of contract securities firm	1	1	0.00%
Outstanding value of contracts (NT\$ 0.1Billion)	98.16	113.94	-13.85%
Trading value (NT\$ 0.1Billion)	916.33	1,469.49	-37.64%
Foreign exchange margin trading			
No. of leverage transaction merchant	5	5	0.00%
Outstanding value of contracts (NT\$ 0.1Billion)	77.63	101.80	-23.74%
Trading value (NT\$ 0.1Billion)	9,342.23	6,533.07	43.00%
Commodity CFD			
No. of leverage transaction merchant	4	3	33.33%
Outstanding value of contracts (NT\$ 0.1Billion)	44.34	26.12	69.75%
Trading value (NT\$ 0.1Billion)	7,103.25	5,230.94	35.79%
Equity CFD			
No. of leverage transaction merchant	3	2	50.00%
Outstanding value of contracts (NT\$ 0.1Billion)	10.84	4.67	132.12%
Trading value (NT\$ 0.1Billion)	2,357.23	158.62	1,386.09%

Highlights of 2022

Introduction of New Systems



Foreign securitized products are open to securities firms

Introduced on June 13, with a total of **6 CDO registrations** and trading value of US\$150 million by the end of the year

Establishing the accreditation and listing mechanism for sustainability-linked bonds

Introduced on July 8, with a total of **2 listings** and issue amount of NT\$3.5 billion by the end of the year

Internationally Recognized Sustainability Report



In April 2022, TPEX2020 Sustainability Report won 3 awards by the Asia Sustainability Reporting Awards (ASRA) in Singapore:

ASRA 2021

- Gold Award for “Asia's Best Sustainability Report Award (Public Sector)”
- Gold Award for “Asia's Best Stakeholder Reporting”
- Silver Award for “Asia's Best Sustainability Report Award (CEO Letter)”

Market Information Optimization



Establishing ESG zone

Introduced on September 29 to consolidate information on sustainable bonds, ESG indices and products, enabling users to quickly and efficiently access the information in need

Establishing anti-financial investment fraud zone

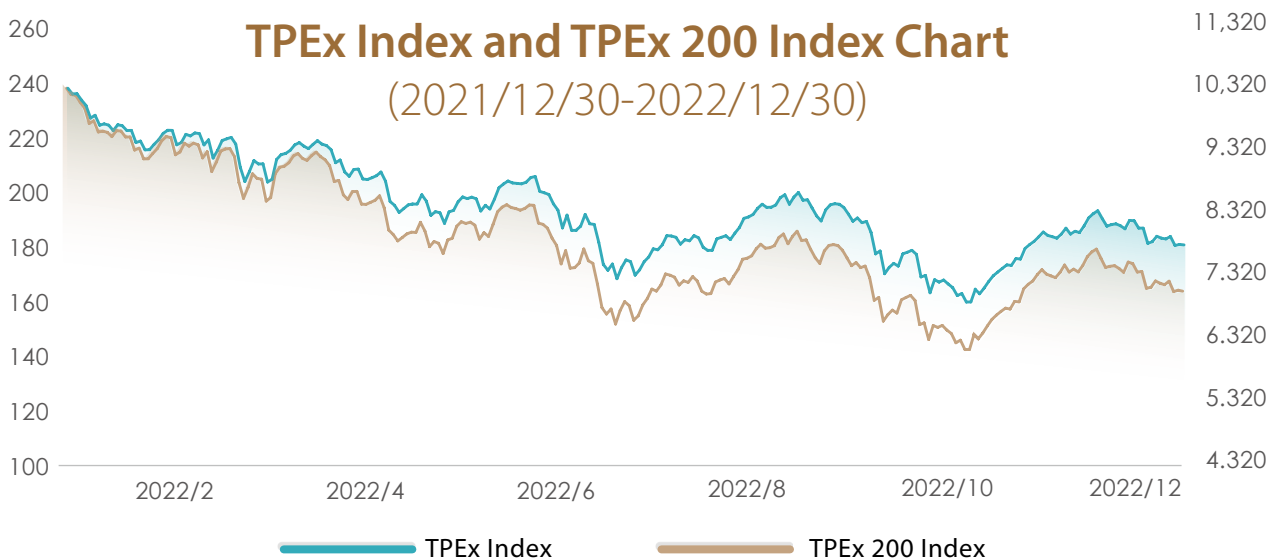
Introduced on September 30 to consolidate media reports, video clips, and promotional graphics to enhance public awareness of anti-financial investment frauds

Stock Market

TPEX main board stocks

TPEX Index closed at 180.34 at the end of 2022. Total market capitalization of TPEX Main board stocks declined from NT\$5,782.1 billion at the beginning of 2022 to NT\$4,424.1 billion at the end of the year, a decrease of approximately NT\$1,358 billion or 23.49%. In 2022, 22 companies applied for listing on TPEX Main board, and there were 808 stocks listed on TPEX at the end of the year. Of the listing applicants in the year, "Information Service" companies accounted for the highest percentage (18%). The average daily trading value of Main board stocks amounted to NT\$60,482 million in 2022, down from NT\$83,098 million or approximately 27.22% in comparison with previous year, in which foreign investment of the year accounted for 20.46%, an increase of approximately 17.25% from 17.45% previous year.

In 2022, 576 TPEX Main board companies (approximately 70%) paid cash dividends, totaling NT\$166,488 million, and 34 of them paid cash dividends of more than NT\$10 per share. The dividend yield of the Main board stocks averaged 4.16% in 2022, with 485 Main board companies reporting a dividend yield of more than 2%.



Emerging Stock Market

In 2022, 67 companies applied for registration on the Emerging Stock Market (ESM), which of 12 applications were for PSB registration, and there were 299 emerging stocks at the end of the year. Of the ESM registration applicants in the year, "Biotechnology and Medical Care" companies accounted for the highest percentage (22%). The average daily trading value of ESB stocks in 2022 amounted to NT\$2,426 million, a decrease of 53.76% from NT\$5,247 million in 2021. The average daily trading value of PSB stocks in 2022 amounted to NT\$2 million, in line with that in 2021.

Go Incubation Board for Startup and Acceleration Firms (GISA) Stocks

In 2022, 17 companies registered on GISA (Go Incubation Board for Startup and Acceleration Firms), 37 companies applied for pre-GISA counseling service, 2 GISA companies went public and 2 of them has applied to register on ESB. At the end of 2022, there were 97 GISA companies and 56 companies in pre-GISA integrative counseling. The number of registration is higher than those in 2021, indicating TPEX's instructive courses, show/exhibition participation activities, investment matching events and counseling services arranged for startups have produced positive effects.



TPEX and GISA companies participated in the “2022 Meet Greater South”

Financial Products and Market Systems

- The promotion of TPEX indices yields fruitful results

TPEX has introduced a series of indices based on the constituent stocks of the “TPEX 200 Index”, including the “TPEX RGA Quality 50 Index”, the “Semiconductor Leaders Total Return Index” and “TPEX 200 Total Return Index Daily Return Leveraged 2X Index”, and has successfully introduced ETN products linked to the “Semiconductor Leaders Total Return Index” and “TPEX 200 Total Return Index Daily Return Leveraged 2X Index”. In addition, TPEX has also introduced the “TIP Customized TPEX ESG High Dividend Total Return Index” and the “TIP TPEX ESG 30 Index” with higher index yields, and has successfully introduced ETN products linked to the “TIP Customized TPEX ESG High Dividend Total Return Index” in 2022.

- High achievement rate of stock market maker quotation obligation

TPEX introduced a stock market maker system on June 30, 2021. 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.

- Relaxing requirements for PSB eligible investors

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.



- Improving securities information transparency when matching periods are elongated

From September 26, 2022, the calculated trading price and volume, and 5 highest buy price and lowest sell price and volume calculated but not traded are disclosed every 5 seconds on the automated trade matching system from 8:30 AM until market close. For odd lot trading, calculated trading price and volume, and 5 highest buy price and lowest sell price and volume calculated but not traded are disclosed every 10 seconds from 9:00 AM until 1:30 PM. Such securities will be included in the temporary suspension of market opening and closing as well as the complementary measures of the intraday instant price stabilization and suspension matching mechanism.

- Shortening the matching periods of odd lot trading

It has been more than 2 years since the launch of the TPEX intraday odd lot trading system on October 26, 2020. Both the trading value and number of odd lot trading have increased significantly. In order to further enhance the matching opportunity and efficiency of odd lot trading, the matching periods was shortened from 3 minutes to 1 minute from December 19, 2022.

Integration of Market Information Services

- **Expansion of Industry Chain Information Platform**

On March 22, 2022, two new themes were added to the Industry Chain Information Platform, totaling nine industry chains, including next-generation technology (space satellite technology) and digital technology (cloud computing, AI, block chain, information security, big data, immersive experience technology, sports technology and fintech), the contents of which cover information on TWSE listed, TPEX listed, ESM registered, and GISA registered companies in Taiwan and renowned overseas peers, enabling investors to understand the position of each listed company in the upstream, midstream, and downstream value chains of the industry.

- **Establishing ESG Zone**

In order to make TPEX's information on sustainable development more easily accessible, an "ESG Zone" for enquiry was established on September 29, 2022 on the official website, consolidating information on four major themes, including "Sustainable Bond", "Issuers' ESG", "ESG Indices and Products" and "TPEX Sustainable development". The section not only provides information on the mechanism, issuance information and research reports on sustainable bonds such as green bonds and social bonds, but also offers information on TPEX ESG indices and ETP to facilitate investors' evaluation of responsible investment.

- **Establishing anti-financial investment fraud zone**

In response to the anti-financial fraud policy of the competent authorities, a "Anti-Financial Investment Fraud Zone" was set up on September 30, 2022 on the official website gathering media reports, video clips, and promotional graphics to enhance public awareness of financial investment fraud through diversified methods.

Bond Market

The issuance of sustainable bonds hit a new high

With regard to the sustainable bond market in 2022, the issue amount and balance outstanding broke the mark of NT\$110 billion and NT\$360 billion, respectively, setting a new milestone in the domestic bond market. In 2022, the issuance amount of sustainable bonds amounted to a total of 44 bonds in a total amount of NT\$112.247 billion. The number of issues at the end of year amounted to a total of 126 bonds, with balance outstanding of NT\$363.334 billion.

In terms of issuers, the participation of domestic issuers was higher than that of foreign issuers in 2022. The domestic issuance amount reached NT\$82.6 billion, more than twice the foreign issuance amount (NT\$29.647 billion). The issue amount also reached a record high, representing a 144% increase in domestic issue amount compared to 2021. In addition, two new telecommunications issuers participated, adding varieties of domestic issuers to the market. Currently, domestic issuers cover the industries of electronics, semiconductor, transportation, leasing and telecommunications, demonstrating that Taiwan's sustainable bond fundraising platform has effectively attracted domestic issuers from various industries.

Year	2022		2021	
Type of sustainable bond (Time launched)	Number of issues	Issue amount (NT\$100 m)	Number of issues	Issue amount (NT\$100 m)
Green bond(April 2017)	27	794.23	19	402.95
Sustainability bond (October 2020)	12	237.24	9	512.38
Social bond (April 2021)	3	56	7	142.97
Sustainability-linked bond (July 2022)	2	35	NA	NA
Total	44	1,122.47	35	1,058.3

International Bond Market

At the end of 2022, there were 872 international bonds with the outstanding of US\$207,970 million, an increase of US\$4,114 million and 109 bonds compared with that of 2021, 763 outstanding bonds and outstanding of US\$203,856 million, representing an increase of 14.29% in the number of issues and 2.02% in the outstanding balance.

There are 135 issuers in the international bond market, located in 33 different countries. 5 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.

Market Systems

- **Strengthening information disclosure of sustainable bond**

On March 24, 2022, the "Taipei Exchange Operation Directions for Sustainable Bonds" were amended and required issuers shall disclose the overall sustainability strategy, state the standards adopted to select investment projects, and that post-issuance reports shall include the substantive benefit impact of their eligible projects. In addition to "Bond Issuance Information", "Research Reports" and "Latest News" sections on the ESG Zone, the "Issuer-level Sustainability Strategies" and "Impacts of Sustainable Bonds" sections were newly added in November 2022.

- **Foreign securitized products are open to securities firms**

On June 13, 2022, the scope of foreign-registered bond products was expanded to include foreign securitized products. Securities firms, professional institutional investors and high net worth investors are open to trade Mortgage Backed Security (MBS) and Collateralized Debt Obligation (CDO). A total of 6 CDOs were registered with trading value of US\$150 million by the end of the year.

- Establishing sustainability-linked bond (SLB) system

"Taipei Exchange Operation Directions for Sustainable Bonds" was amended on July 8, 2022 and the accreditation and listing mechanism for sustainability-linked bond (SLB) was introduced. The SLB does not impose restrictions on the use of proceeds, and is characterized by a mechanism that ensures that the issuer incorporates sustainable development objectives into its business decisions and business model by setting sustainability performance targets (SPTs) and linking these SPTs to principal and interest payment terms. A total of 2 SLBs were issued by the end of 2022, with an issue amount of NT\$3.5 billion.



First 2 SLBs were listed

ESG Sustainable Development

Strengthening the requirements of corporate governance and promotion of sustainable development of main board applicant companies

TPEX amended the regulations related to the main board applicant companies to require issuers to set up a chief corporate governance officer in accordance with the “Taipei Exchange Directions for Compliance Requirements for the Appointment and Exercise of Powers of the Boards of Directors of TPEX Listed Companies” . In addition, the recommending securities firms are required to evaluate whether the main board applicant companies have properly expressed the implementation of the promotion of sustainable development in the Public Offering and Issuance Prospectus, and include sustainable development in the evaluation items of the recommending securities firms. The above new rules will be applicable to main board applicant companies starting from 2023.

Strengthening the supervisory mechanism of TPEX/ESM companies

From the first quarterly financial report of 2024, the main board companies are required to announce the board of directors' meeting before each quarterly financial report or annual financial information is submitted to the board of directors. Secondly, with respect to the shareholders' meeting, it is stipulated that the main board companies and the ESM companies shall report the resolution status of the completed resolution on the day and within two days after the resolution of the shareholders' meeting. In addition, the method of convening shareholders' meeting (physical, video conference, etc.) shall be

stated when the significant information of the shareholders' meeting is announced. The ESM companies shall adopt the electronic voting method for the shareholders' meeting starting from 2023. Moreover, the pledge ratio of the chairman and president's shares in the company shall be included as an indicator for the substantive review of financial reports. Furthermore, in order 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.

Strengthening the information disclosure of corporate governance of main board applicant companies

The main board companies shall complete the establishment of a corporate governance section on the company's website by January 1, 2023. The disclosure shall include corporate governance information on the board of directors, functional committees and corporate governance rules.

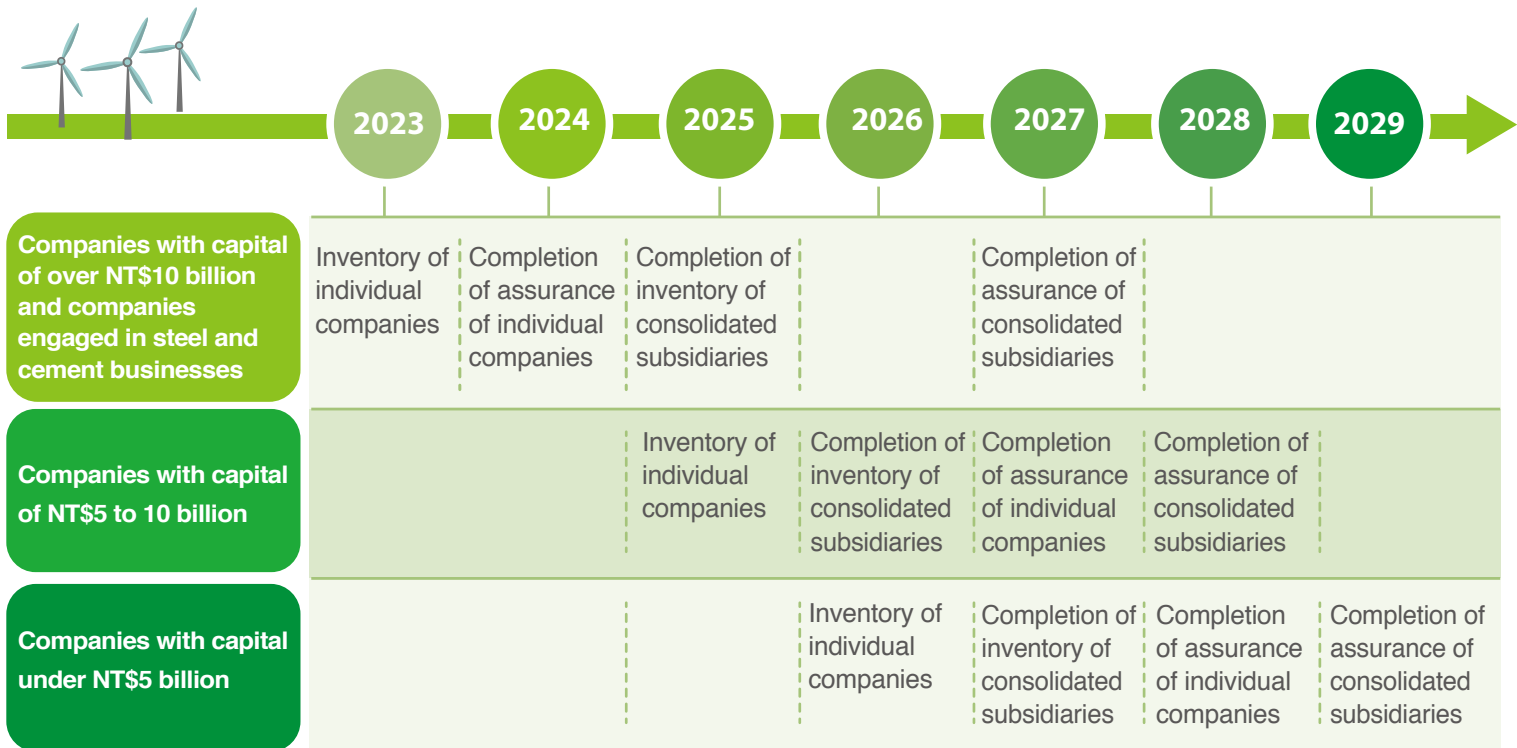
Strengthening stakeholder communication

Except to the five types of companies such as the TPEX primary listed companies, technology enterprises, culture and creativity enterprises, agricultural technology enterprises, and biotechnology and medical care enterprises, from 2023 onwards, main board companies with new paid-in capital of NT\$600 million or more shall hold at least 1 investor conference each year. The rest of main board companies shall hold at least 1 investor conference every three years.

If the 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" from 2023 to enhance the information transparency and the timeliness of information disclosure.

Promoting the sustainable development roadmap of main board companies

In line with the government's 2050 net zero carbon emissions target, TPEX sets the schedule for disclosing greenhouse gas inventory information of main board companies as follows:



TPEX has set up a sustainable development roadmap consultation group to provide main board companies with consultation channels on relevant issues and set up a "Sustainability Roadmap Section", containing information on the applicable schedule for each stage, disclosure guides, FAQs and resource sharing.

Promoting TPEX's ESG sustainable development

TPEX published sustainability reports verified by third-party from 2018 on an annual basis. The 2020 Sustainability Report was recognized by the Asia Sustainability Reporting Awards (ASRA) in Singapore in April 2022 and won 3 awards, including Gold Award for “Asia's Best Sustainability Report Award (Public Sector)” , Gold Award for “Asia's Best Stakeholder Reporting ” and Silver Award for “Asia's Best Sustainability Report Award (CEO Letter)” . In addition, in order to meet the 2050 Taiwan net zero transformation target and deepen its own ESG sustainable development, TPEX has established a sustainability committee in May 2022 and commenced a GHG Inventory Project in August. In light of promoting environmental protection and ecological conservation, TPEX has planted over 6,700 saplings in coastal and mountain areas in Keelung, Yilan, Taichung, Hualien and Kaohsiung in 2022 to promote its ESG sustainable development through multifaceted approaches.



TPEX staffs tree sapling in Keelung in an effort to afforestation and environment protection



TPEX follows Sustainable Development Goals to guard Taiwan and connect to the future

Cyber Security

Strengthening cyber security management of main board companies

In order to strengthen the reporting on cyber security, TPEX announced on July 12 and August 17, 2022 to amend the Taipei Exchange Procedures for Verification and Disclosure of Material Information of Companies with TPEX Listed Securities and the Rules Governing Information Reporting of Companies with TPEX Listed Securities, and add the requirements governing the assignment of chief information security officer and that a material information shall be announced for its changes, as well as the requirements for reporting when information security personnel are set up and changed. In addition, in order to promote cyber security, TPEX has provided timely guidance to the main board companies in arranging cyber security team and encouraged to join cyber intelligence sharing organizations (e.g. TWCERT/CC). As of the end of 2022, 13 TPEX primary listed companies have completed the setup of cyber security team, and 228 main board companies have joined the TWCERT/CC. The "Cyber Security Training Seminar for TWSE/TPEX-listed Companies" were held online from October 31 to November 11, 2022. Moreover, in order to facilitate companies' inquiries on cyber security-related regulations and issues, an "cyber security section" was set up on the TPEX business promotion website in April 2022 to consolidate relevant information on cyber security and recent deficiencies regarding the cyber security internal control system.

Business Promotion

Promoting Listing (Registration) on TPEX (ESM)

Due to the easing of the global pandemic, TPEX resumed the physical promotion of overseas business in November 2022 and visited Vietnam to encouraging 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 ESM. These companies are based mainly in China and Southeast Asia.



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

Holding online overseas roadshows

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



Holding “TPEX Investor Education Seminar”

Since 2016, TPEX has been cooperating with securities firms and securities investment trust companies to hold "TPEX Investor Education Seminar", which are well received by investors. A total of 15 seminars were held in 2022, covering topics such as market outlook, featured products and systems of TPEX, etc. Among which, some of the seminars were held in accordance with the policy of 100% coverage of financial knowledge promotion activities in townships, districts and cities of the competent authorities. Investors from "Dapu Township, Chiayi County" and "Jinfeng Township, Taitung County" were invited to participate in the seminar online. A total of around 940 people attended the "TPEX Investor Education Seminar" in 2022.

Investor education

Through vigorous promotional strategies and making the most of Internet, social media and digital channels, TPEX actively publicizes TPEX measures and products, enhances financial literacy among younger generation and college students along with the concept of risk management. To further cultivates new forces for the capital market, TPEX holds various trading competition activities to enhance investors' understanding and use of investment

tools. In addition, in line with the authorities' work plan of the anti-financial investment fraud project, TPEX participated in the anti-financial investment fraud promotion ceremony on September 19, 2022, and has been actively promoting the prevention of financial investment fraud through multifaceted approaches.

Holding TPEX business briefing sessions

- TPEX continues to promote the entry of quality enterprises into the capital market, holding a number of TPEX/ESM briefing sessions for domestic and foreign enterprises, and organizing a series of promotional activities for the PSB to enhance market visibility.
- TPEX has held several seminars for the themes of assurance institutions for sustainability report, greenhouse gas inventory and assurance guideline to assist companies and assurance institutions in completing greenhouse gas inventory and assurance-related operations.



Successful " Assurance Institution for Sustainability Report Management Seminar"

- TPEX joined hands with the TWSE and Taiwan Corporate Governance Association to hold 4 sessions of "2022 Reference and Guidelines on the Exercise of Powers and Responsibilities by Independent Directors and Audit Committee and Directors and Supervisors Seminar" to provide guidance to directors and corporate governance executives on the exercise of powers and responsibilities by independent directors and audit committees in order to strengthen the functions of the board of directors.

Actively engaging international conferences

TPEX continues to deepen two-way interactions with international securities organizations and institutions. Despite the COVID-19 pandemic in 2022, TPEX participated in a number of online forums and seminars, including online working committee meeting held by the World Federation of Exchange (WFE), CCP's Clearing & Derivatives Conference, a number of seminars held by WFE or CCP, the annual general meeting and special general meeting of the Global Association of Central Counterparties (CCP12), the AMCC meeting and seminar of the IOSCO, the working committee meeting and seminar of the AOSEF, and 2022 Global ETP Conference Seoul. After the easing of the pandemic since the third quarter, TPEX has been physically attending in annual meetings of WFE, IOSCO and the ACGA.

In addition, in response to the WFE's Gender Equality Event and the Financial Literacy Event co-hosted by the WFE and the IOSCO during the "World Investor Week 2022, WIW", TPEX also held a ceremony to celebrate these two events on March 8 and October 5, 2022.



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

Business Plans

Establishing a sustainable bond market with international competitiveness

In order to build an internationally competitive and comprehensive sustainable bond market, TPEX will follow international trends, assist domestic issues meeting international standards, expand the scope of the sustainable bonds, and enhance the international visibility of the sustainable bond market and issuers in Taiwan. Secondly, in order to promote sustainable bonds, TPEX will continue to visit potential issuers, underwriters, intermediaries and investors in 2023, and publish relevant columns and press releases to disseminate the advantages of sustainable investment and financing. In addition, in line with the Ministry of Finance's plan to promote the issuance of Type B government bonds and sustainable government bonds, TPEX will continue to promote and persistently encourage the government authorities to issue sustainable bonds in order to attain sustainability in Taiwan.

Attract enterprises into TPEX multi-tiered market

As the international pandemic eases in 2023, in addition to invite domestic investment, TPEX will cooperate with intermediaries to attract foreign enterprises with high quality to be listed and to promote the benefits of entering the TPEX market. TPEX regularly organizes educational training courses and provide sustainability information for issuers to have a better understanding of the securities market regulations and for future sustainable development.

Supporting the digital and cloud service industry and accelerating the formation of industrial clusters

The rapid digital transformation around the world has facilitated the booming development of the digital, cloud and cyber security industries. In order to support the entry of these enterprises into the capital market, TPEX will visit companies within the industries with intermediaries, hold operational performance presentations for TPEX companies in the digital and cloud industries in 2023. Furthermore, TPEX will increase new sectors of listing industries in order to form emerging industrial clusters, thus creating a more diversified industries in the capital market.

Building a variety of product innovation platforms (Provide innovative and diversified products)

To meet the investors' needs in asset allocation and diversity of investment, TPEX will continue to promote the innovation and diversity of financial products. TPEX opens the list of structured products issued by securities firms, which will help expand the overall size of wealth management market. In addition, TPEX will launch dual-currency trading system for ETFs to develop the foreign-currency ETF market. Respond to the competent authorities' plan to allow securities investment trust enterprises issuing the real estate investment trusts funds. TPEX will announce the relevant regulations. In order to promote the business development of leveraged transaction merchants, TPEX plans to expand the product scope referred by futures dealers for leveraged margin contracts. In addition, in order to enhance market service and management efficiency, the NDF trading information of TPEX will be transmitted to the Taiwan Futures Exchange as a new synchronized sharing information.

Strengthening ESG and sustainable development

In line with the "Sustainable Development Roadmap" of the competent authorities, TPEX assists main board companies to set sustainable development goals, strengthen the functions of board of directors, and complete greenhouse gas inventory and disclosure in phases to implement ESG towards sustainable management. In order to increase the quality and accuracy of sustainability disclosure, the "Management Guidelines for Sustainability Report Assurance Institutions of TWSE/TPEX Listed Companies" was implemented on January 1, 2023 to regulate the qualifications of assurance institutions and personnel. On top of that, TPEX will issue its first greenhouse gas inventory report during the inventory period in 2022, work on GHG reduction plan and continue to deepen ESG sustainable development through diversified methods.

Boosting market trading momentum

In the efforts to promote Pioneer Stock Board (PSB), ETF and ETN listed on TPEX, and encourage market making, in 2023, TPEX will host a series of promotional activities in the hope to draw more investors into the market through a myriad of incentives and reward programs, while continuously enhancing the information transparency and increasing the proportion of English information disclosure of TPEX listed companies in an attempt to increase market momentum. In the future, TPEX will also continue to propagate correct wealth management knowledge and enhance investment risk awareness among young people through various channels.

Promoting digital transformation to enhance service efficiency

TPEX plans to build a big data application platform and timely introduce related technologies, including visualization tools and robotic process automation tools, to enhance operational efficiency. TPEX will also design real-time data dashboards and charts through visualization tools to present statistical analysis data, enabling market participants to make analysis and decisions easier. Moreover, in order to provide a more swift and convenient platform to enhance service efficiency, TPEX plans to upgrade the online bond listing application system to add new functions for international bond listing applications and for sustainable bond accreditation, simplifying the application process for bond issuers through electronic operations.

Strengthening TPEX's operational resilience

TPEX promotes the implementation of ISO 27001 information security standard certification, which is expected to be certified by 2023. In addition, TPEX regularly conducts drills related to information system and business continuity operations (e.g., off-site backup mechanism drills, cyber security drills, business continuity operations drills, etc.) on an annual basis to ensure that the information system and key business operations are in operations in the event of disasters.

Anti-financial investment frauds

Since 2022, TPEX has been cooperating with the authorities' anti-financial investment frauds promotion project, and has conducted various anti-fraud advocacy. In 2023, TPEX will continue the prevention of financial investment fraud through media outreach like videos, the official website of TPEX, Facebook fan page, TPEX HOME Academy and so on.

Internal Control Statement

March 24, 2023

The Taipei Exchange states the following with regard to its internal control system during the year of 2022 based on the results of self-evaluation:

1. TPEX is fully aware that the establishment, implementation, and maintenance of the internal control system are the responsibility of the board of directors and management. TPEX has established such a system with the objective to reasonably ensure the achievement of goals with respect to the effectiveness and efficiency of business operations (including profitability, performance and security of assets), reliability, timeliness, and transparency of financial reporting, and compliance with relevant regulatory requirements.
2. An internal control system has its inherent limitations. No matter how perfect the system is in design, an effective internal control system can only provide reasonable assurance for the attainment of the 3 goals described above. However TPEX internal control system is equipped with the function of self-monitoring, that TPEX will take immediate action once a deficiency is identified.
3. TPEX determines if the design and implementation of its internal control system are effective based on the criteria provided in the Regulations Governing the Establishment of Internal Control System by Service Enterprises in Securities and Future Markets (referred to as the Guidelines hereunder). Said criteria divides internal control into 5 elements based on the process of management control: (1) Control Environment, (2) Risk Assessment, (3) Control Activities, (4) Information and Communication, and (5) Monitoring Activities. Each element contains several items. Please refer to the Guidelines.
4. TPEX has evaluated the validity of the design and implementation of its internal control system based on the aforesaid criteria.
5. Based on the results of aforementioned evaluation, it is found that the internal control system (including the implementation of cyber security) of TPEX in December 31, 2022 was effective in design and implementation, that it reasonably assures the attainment of aforesaid goals, including the effectiveness and efficiency of business operations, reliability, timeliness, and transparency of financial reporting, and compliance with relevant regulatory requirements, however the items in the appendix are exempted.
6. Any false representation or concealment in this Statement shall be subjected to legal consequences as stipulated in Articles 174 of the Securities & Exchange Law.
7. This statement has been passed by the board of directors in the meeting held on March 24, 2023, where 15 attending directors voiced assent view to the content of this statement.

Chairman




Managing Director & CEO



General Auditor



Chief of Cyber Security



Appendix

Taipei Exchange

Enforcement Items and Improvement Measures for Internal Control

(Reference date : December 31, 2022)

Enforcement Item	Improvement Measure	Estimated Completion Date
None	None	None

**Taipei Exchange
BALANCE SHEETS**

(In New Taiwan Dollars)

A s s e t s	December 31, 2022		December 31, 2021	
	A m o u n t	%	A m o u n t	%
CURRENT ASSETS				
Cash and cash equivalent	\$ 552,236,958	3	\$ 552,142,052	3
Amortised cost of Financial assets at cost	199,736,085	1	99,931,965	1
Notes and accounts receivable	184,281,683	1	271,721,258	1
Other financial assets	6,168,816,666	33	5,372,916,666	26
Other current assets	56,441,712	-	44,063,522	-
Securities settlement debit	7,701,160,981	42	11,132,588,570	53
Total current assets	14,862,674,085	80	17,473,364,033	84
NON-CURRENT ASSETS				
financial asset at fair value through profit or loss	287,217,300	1	114,504,191	1
financial asset at fair value through other comprehensive income	316,228,616	2	280,471,139	1
Amortised cost of Financial assets at cost	2,148,979,454	12	2,248,502,744	11
Special securities settlement fund	400,000,000	2	400,000,000	2
Default damage fund	122,289,797	1	122,289,797	1
Property and equipment	56,011,483	-	64,879,794	-
Right-of-use asset	306,332,224	2	101,030,726	-
Prepayment for equipment	31,501,000	-	10,219,000	-
Refundable deposits	17,299,989	-	15,047,076	-
Other assets	26,971,110	-	33,414,320	-
Total non-current assets	3,712,830,973	20	3,390,358,787	16
TOTAL ASSETS	\$ 18,575,505,058	100	\$ 20,863,722,820	100

LIABILITIES AND FUNDS AND NET ASSETS	December 31, 2022		December 31, 2021	
	A m o u n t	%	A m o u n t	%
CURRENT LIABILITIES				
Accounts payable	\$ 61,668,115	-	\$ 94,427,595	-
Lease liabilities	79,183,080	-	42,239,640	-
Other payable	361,821,176	2	340,313,176	2
Current income tax liabilities	246,322,914	1	319,299,853	2
Other current liabilities	151,234,655	1	191,196,115	1
Securities settlement credit	7,701,160,981	42	11,132,588,570	53
Total current liabilities	8,601,390,921	46	12,120,064,949	58
NON-CURRENT LIABILITIES				
Lease liabilities	229,563,382	2	60,347,856	-
Net defined benefit liabilities	38,051,002	-	105,497,629	1
Provisions	6,795,386	-	6,742,123	-
Guarantee deposit received	28,036,286	-	24,122,063	-
Total non-current liabilities	302,446,056	2	196,709,671	1
Total liabilities	8,903,836,977	48	12,316,774,620	59
NET ASSETS				
Funds				
Initial fund	345,450,000	2	345,450,000	1
Donated fund	5,000,000	-	5,000,000	-
Surplus transferred to fund	7,751,988,359	42	6,408,791,433	31
Total funds	8,102,438,359	44	6,759,241,433	32
Accumulated surplus	1,534,283,963	8	1,788,518,042	9
Unrealized gain or loss on financial asset at fair value through other comprehensive income	34,945,759	-	(811,275)	-
Total net assets	9,671,668,081	52	8,546,948,200	41
TOTAL LIABILITY AND NET ASSETS	\$ 18,575,505,058	100	\$ 20,863,722,820	100

STATEMENTS OF COMPREHENSIVE INCOME

(In New Taiwan Dollars)

	2 0 2 2		2 0 2 1	
	A m o u n t	%	A m o u n t	%
OPERATING REVENUES	3,317,334,096	100	3,888,544,584	100
OPERATING EXPENSES	2,113,253,911	64	2,313,984,349	59
NET OPERATING INCOME	1,204,080,185	36	1,574,560,235	41
NON-OPERATING INCOME AND EXPENSE	61,338,323	2	87,186,208	2
SURPLUS BEFORE INCOME TAX	1,265,418,508	38	1,661,746,443	43
INCOME TAX EXPENSE	245,834,367	7	318,549,517	8
SURPLUS AFTER INCOME TAX	1,019,584,141	31	1,343,196,926	35
OTHER COMPREHENSIVE INCOME (NET, AFTER TAX)	105,135,740	3	89,191,813	2
TOTAL COMPREHENSIVE SURPLUS	\$ 1,124,719,881	34	\$ 1,432,388,739	37



TPEX



證券櫃檯買賣中心
Taipei Exchange

15F, No. 100, Sec. 2, Roosevelt Rd., Taipei, Taiwan

TEL : 886-2-2369-9555

FAX : 886-2-2369-5517

Service Hot Line : 886-2-2366-6100

<http://www.tpex.org.tw>

E-mail: server@tpex.org.tw



No. 11-11208003



More TPEX sustainable development and news, please check "TPEX Sustainability"

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