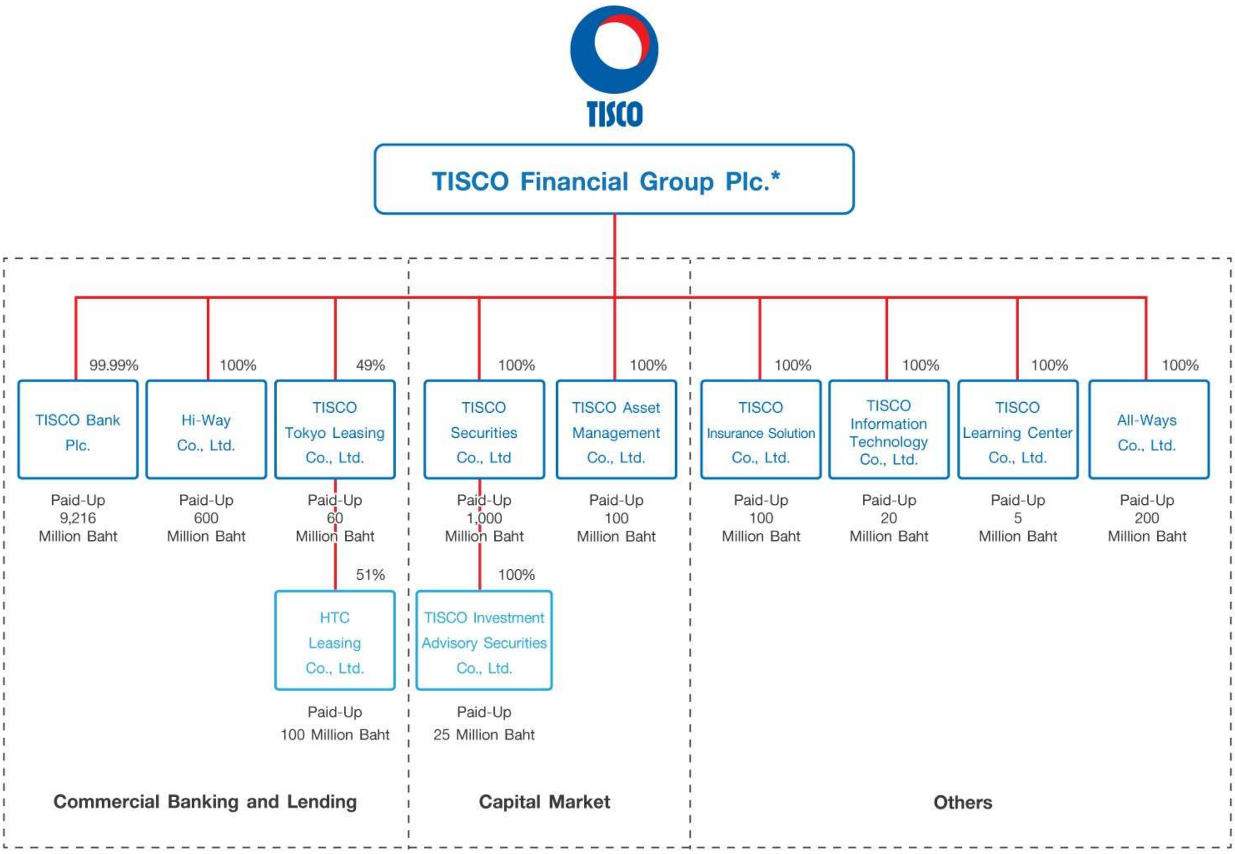
Information Disclosures under Basel III Capital Requirement
As of 31 December 2020

Scope of Information Disclosure

TISCO Financial Group Public Company Limited (TISCO) discloses information under Basel III capital requirement based on the full consolidated position and in accordance with the Bank of Thailand's notification SorNorSor 15/2562 on the regulatory disclosure requirement for consolidated financial institutions (2nd edition). The full-consolidation structure of TISCO Financial Group can be shown as follow.



*Listed in The Stock Exchange of Thailand

However, TISCO Tokyo Leasing Co., Ltd. is not included in the consolidated financial statements since its shares are held by TISCO Group in a ratio of less than 50% of issued and paid-up shares. In addition, TISCO Group adopts a materiality concept which is in consistent with accounting concept.

Key Prudential Metrics

Table 1 Key Prudential Metrics

	Items	31 Dec 20	31 Dec 19
Capital (Unit : Million Baht)			
1	Common Equity Tier I (CET1)	32,369	30,395
1A	Fully Loaded ECL CET1[1/]	32,369	
2	Tier I Capital	32,369	30,395
2A	Fully Loaded ECL Tier 1	32,369	
3	Total Capital	40,478	38,567
3A	Fully Loaded ECL Total Capital	40,478	
Risk-Weighted Assets (Unit : Million Baht)			
4	Total Risk-Weighted Assets (RWA)	185,140	186,033
Total Capital Adequacy Ratio (%)			
5	CET1 Ratio	17.48	16.34
5A	Fully Loaded ECL CET1 Ratio	17.48	
6	Tier 1 Ratio	17.48	16.34
6A	Fully Loaded ECL Tier 1 Ratio	17.48	
7	Total Capital Ratio	21.86	20.73
7A	Fully Loaded ECL Total Capital Ratio	21.86	
Capital Add-On Ratio (%)			
8	Conservation Buffer Ratio	2.50	2.50
9	Countercyclical Buffer Ratio	-	-
10	Higher Loss Absorbency	-	-
11	Total Capital Add-on Ratio	2.50	2.50
12	Remaining CET1 Ratio after Minimum Total Capital Ratio Requirement [2/]	10.48	9.34

[1/] Expected Credit Loss (ECL) under The Thai Financial Reporting Standard No. 9 (TFRS 9) adoption

[2/] Remaining CET1 ratio after minimum total capital ratio requirement is not necessarily equal to the difference between CET1 ratio in item 5 and the minimum CET1 ratio requirement at 4.5% since CET 1 ratio might already be included in the minimum Tier 1 ratio requirement at 6% and/or the minimum total capital ratio requirement at 8.5%.

As of 1 January 2020, the amount of allowance for expected credit loss (ECL) as determined in accordance with TFRS 9: Financial Instruments was lower than the amount of allowance for doubtful accounts as of 31 December 2019 as determined in accordance with the former accounting policy by 2,113 million Baht, which will be released in quarterly basis within 2 years under straight-line method in line with the Bank of Thailand's guideline.

Capital Structure

According to the Bank of Thailand’s regulation, the regulatory capital for commercial banks registered in Thailand and based on Internal Rating Based Approach (IRB) consists of Common Equity Tier 1 (CET1), Additional Tier 1, and Tier 2 Capital. CET1 capital includes paid up capital, premium (discount) on share capital and warrants, statutory reserve, reserves appropriated from net profits, net profit after appropriation, and other components following the Bank of Thailand’s regulation, which are the net amount after regulatory adjustments such as goodwill and intangible assets, where Additional Tier 1 capital consists of money received from the issuance of non-cumulative preferred stocks and money received from the issuance of debts instruments that are subordinated to depositors, general creditors, and other subordinated debts of the Group, which are the net amount after regulatory adjustments such as reciprocal cross holding in the Additional Tier 1 capital of banking, financial and insurance entities.

Tier 2 capital is the sum of instruments issued by the bank which meet the criteria for inclusion in Tier 2 capital, general provision and surplus of provision, less any deduction from Tier 2 capital.

For TISCO Group, Tier 1 capital primarily comprises of paid-up share capital and cumulative profit after appropriation, while Tier 2 capital mostly consists of long-term subordinated debentures issued. Additionally, the deductions from shortage of reserve are also incorporated in Tier 1 capital.

Table 2 TISCO Financial Group's Capital Structure

Unit : Million Baht

Items	31 Dec 20	31 Dec 19
1. Tier 1 Capital	**32,369**	**30,395**
1.1 CET 1	**32,369**	**30,395**
1.1.1 Paid-up share capital	8,006	8,006
1.1.2 Premium (discount) on share capital	1,018	1,018
1.1.3 Warrants	-	-
1.1.4 Statutory reserves	801	801
1.1.5 Reserve appropriated from net profit	-	-
1.1.6 Retained earnings after appropriation	21,759	20,512
1.1.7 Other components of CET1 and disclosed reserves	1,838	1,811
1.1.8 Non-controlling interests	-	-
1.1.9 Any adjustments of CET 1	-	-
1.1.10 Deductions from CET 1 *	1,054	1,754
1.2 Additional Tier 1	**0**	**0**
1.2.1 Non-cumulative perpetual preferred stock and non-cumulative perpetual preferred stock warrants	0	0
1.2.2 Hybrid Tier 1 to be counted as Tier 1 Capital	-	-
1.2.3 Surplus (shortfall) from the issue of instruments in 1.2.1-1.2.2 where the bank receives funds	-	-
1.2.4 Eligible non-controlling interests	-	-
1.2.5 Deductions from Additional Tier 1 Capital **	-	-
2. Tier 2 Capital	**8,109**	**8,172**
2.1 Cumulative perpetual preferred stock and cumulative perpetual preferred stock warrants	-	-
2.2 Funds received from debt instruments subordinated to depositors and general creditors	6,620	6,680
2.3 Surplus (shortfall) from the issue of the instruments 2.1-2.2 where the bank receives funds	-	-
2.4 General provision	727	723
2.5 Surplus of provisions	762	769
2.6 Deductions from Tier 2 ***	-	-
3. Total Regulatory Capital	**40,478**	**38,567**

* e.g. Net losses, goodwill, intangible assets, deferred tax assets, and shortfall of provisions

** Investment in financial instruments which can be counted as Tier 1 Capital of commercial bank

*** Investment in financial instruments which can be counted as Tier 2 Capital of commercial bank

Capital Adequacy under Basel III Capital Accord

Based on minimum capital requirement under Basel III effective since the beginning of 2014, TISCO Group has adopted the Internal Rating Based Approach (IRB) for regulatory capital calculation of credit risk since December 31, 2012. The IRB approach is considered more sophisticated calculation given that it can truly reflect TISCO Group risk profiles as well as assets quality with more prudent than the calculation from the Standardized Approach (SA) which is less comprehensive risk weights subject to quality of assets. The risk parameters relied on determining the capital requirement consists of Probability of Default (PD), Loss Given Default (LGD), and Exposure at Default (EAD).

Capital adequacy of the TISCO Group is still in strong position and adequate to support business expansion into the future. At the end of 2020, the regulatory capital adequacy ratio (BIS ratio) based on IRB approach stood at 21.86%, remaining higher than 11% required by the Bank of Thailand, while Tier-I capital adequacy ratio stood at 17.48%, which remained higher than the minimum requirement at 8.5%.

Table 3 Minimum Capital Requirements for Credit Risk by Asset Classes under SA Approach

Unit : Million Baht

Credit Risk - SA	31 Dec 20	31 Dec 19
Performing	**1,648**	**1,704**
1. Claims on Financial Institutions and Public Sector Entities treated as Claims on Financial Institutions and Securities Company	38	27
2. Claims on Corporate and Public Sector Entities treated as Claims on Corporate	273	166
3. Claims on Retail	838	905
4. Claims on Residentail Property	500	606
5. Other Assets	-	-
Non-performing	**116**	**116**
Total Minimum Capital Requirements for Credit Risk - SA	**1,764**	**1,820**

Table 4 Minimum Capital Requirements for Credit Risk by Asset Classes under IRB Approach

Unit : Million Baht

Credit Risk - IRB	31 Dec 20	31 Dec 19
Non-Default	**10,929**	**10,999**
1. Corporate Lending	3,872	3,674
2. Retail	6,208	6,577
3. Equity Exposure	359	292
4. Other Assets	490	457
Default	**225**	**190**
Total Minimum Capital Requirements for Credit Risk - IRB	**11,154**	**11,189**

Table 5 Minimum Capital Requirements for Equity Exposures under IRB Approach

Unit : Million Baht

Minimum Capital Requirements for Equity Exposures under IRB	31 Dec 20	31 Dec 19
Equity Exposure with an Exemption from IRB Calculation	359	292
Total Minimum Capital Requirements for Operational Risk	**359**	**292**

Table 6 Minimum Capital Requirements for Market Risk (Standardized Approach / Internal Model Approach)

Unit : Million Baht

Minimum Capital Requirements for Market Risk	31 Dec 20	31 Dec 19
Standardized Approach	60	49
Internal Model Approach	-	-
Total Minimum Capital Requirements for Market Risk	**60**	**49**

* Since the transaction amount in trading book of TISCO Group was lower than the minimum thresholds required by the Bank of Thailand, the market risk capital was maintained only for the element that cover price risk of commodities related products.

Table 7 Minimum Capital Requirements for Operational Risk

Unit : Million Baht

Minimum Capital Requirements for Operational Risk	31 Dec 20	31 Dec 19
Standardized Approach	2,758	2,754
Total Minimum Capital Requirements for Operational Risk	**2,758**	**2,754**

Table 8 TISCO Bank's Capital Adequacy Ratio

Unit : %

Ratio	31 Dec 20		31 Dec 19	
	TISCO's Capital Ratio	Regulatory Minimum Requirement	TISCO's Capital Ratio	Regulatory Minimum Requirement
1. Total Capital Adequacy Ratio	**21.86%**	**11.00%**	**20.73%**	**11.00%**
2. Total Tier I Capital Adequacy Ratio	17.48%	8.50%	16.34%	8.50%
3. CET 1 Capital Adequacy Ratio	17.48%	7.00%	16.34%	7.00%

Overview of Risk Management

Risk management of TISCO Group is centralized by consolidating all risk exposure to TISCO Financial Group as a parent company. All risk exposures are controlled and managed under the consolidated supervision principle.

Following the risk management policy of TISCO Group, TISCO places great importance on effective risk management and controls. By establishing an overall risk management framework, including policy objectives for all risk-related transactions, TISCO is able to increase awareness, accountability and efficiency in enterprise-wide risk management as well as maintain best practice standards and high-quality corporate governance. In addition, TISCO aims to maximize sustainable risk-adjusted returns over the long run.

Risk Management Policy

The risk management policy of TISCO Group encompasses the following structures:

1. Consolidated and centralized risk management

Risk management infrastructure is centralized by consolidating risk exposure from all subsidiaries under TISCO Financial Group through careful risk assessment and the establishment of appropriate risk guidelines and procedures.

2. Business line accountability, independent risk oversight

Each business line is accountable for managing its own risks in the best interests of the Group while complying with risk management policies, guidelines, and procedures. Independent risk oversight and check-and-balance system have been established to ensure that risks are adequately monitored and controlled.

3. Comprehensive risk assessment

Risk assessment is performed comprehensively in all key activities. Risk assessment methodologies may range from basic approaches such as expert judgments to more advanced approaches such as quantitative and statistical analysis, depending on the size and complexity of the risks involved. These assessments are in turn supplemented by fundamental risk analysis and stress testing of extreme risk events.

4. Capital management based on standardized risk measure

Capital represents the ultimate interests of the shareholders. All risk exposures are quantified into a standardized risk measure called Risk Capital based on Value-at-Risk (VaR) concept which can relate risks to the amount of capital required to protect against them according to predefined risk limits. The process of risk assessment under Risk Capital is considered as part of Internal Capital Adequacy Assessment Process (ICAAP) of TISCO. Risk capital enables management and business line managers to understand the level of risks being taken in a meaningful manner. Risks from different levels are integrated to produce an overall risk picture of the Group, which is used for capital adequacy planning and strategic capital allocation both at the corporate and business unit level.

5. Risk tolerance level and capital 0061llocation

The total risk capital shall not be in excess of available capital fund of the Group where qualitative risk tolerance level shall be applied for non-capital based assessment. Risk Capital shall determine the economic capital adequacy of TISCO, which the available capital is also allocated to the business and operating units such that the capital adequacies to undertaken risk are ensured both at the corporate- and business-unit-level.

6. Adequate return for risk and risk-adjusted performance management

To promote shareholder value creation, risk components are incorporated into business performance measurements with the objective of maximizing risk-adjusted returns for shareholders. Product pricing takes into account varying risks to ensure overall profitability. Business expansion is advocated in the areas where marginal risk-adjusted returns are in excess of the marginal risks.

7. Portfolio management, diversification and hedging

Risk diversification is a key risk management principle in all business activities. Diversification is considered and adopted by management and business line managers both at the portfolio and transaction levels as an effective approach to reducing the aggregate level of risks in accordance with certain guidelines and limits.

8. Strong risk awareness culture

Awareness and understanding of risks and risk management are important for the accountability of risk management. Business heads are expected to have a high degree of awareness and understanding of the risks in their accountable areas and how they contribute to the overall risk of the corporate as a whole.

9. Effective risk modeling and validation

Risks shall be modeled as forward-looking measures that reflect potential likelihood and impact on the intrinsic value of TISCO assets, liabilities, or businesses. Mark-to-market practice shall be adopted in all portfolios as appropriate, where independent validation from risk management shall be adopted in the case of high complexity in valuation. Key risk models with sufficient information shall be validated through a systematic back-testing process or other prudent statistical tools.

10. Regulatory best practice

TISCO Group has adopted risk management policies and guidelines that comply with all regulations and best practice standards of the Bank of Thailand (BOT), the Securities and Exchange Commission (SEC) and other regulatory authorities.

11. New Business or Product

All new businesses or products shall be approved by the portfolio risk authority and relevant specific-area risk authority according to the procedure outlined in the risk management guideline. New business or product will be evaluated in terms of its risk-reward characteristics, the contributions to the overall corporate risk profile, and the consistency with corporate capital capacity.

12. Related Party Transaction

All business transactions among TISCO Group and related party shall be on a similar basis with same treatment of regular customers. Additionally, the related transaction shall be transparent and auditable. Meanwhile, the proportion of business transaction among TISCO Group shall be controlled under regulatory guideline.

13. Stress Testing

Stress testing is a procedure to assess the impact on the company's financial status under extreme risk events. Stress testing process is designed to be as a supplementary tool for the analysis of credit risk, market risk and funding risk. Risk Management Committee is responsible to oversee the framework for stress tests. The Committee will establish guidelines and key required assumptions to perform stress tests based on the appropriate framework. Meanwhile, Risk Management Functions are responsible to facilitate all related business units in order to perform periodically stress tests, and report the stress testing results as well as the recommendations on any important aspects to the Risk Oversight Committee as well as the Risk Management Committee. Stress testing assessment and results shall be integrated to setting and evaluating the internal management strategy which may involve reviewing the need for limit changes or developing contingency plans.

14. Risk Management for Foreign Exposures

Risk from foreign exposures arises from changes in the value of foreign exposures due to country-specific sovereign and economic conditions including political risk and capital flow risk. TISCO Group shall ensure that credit granting or investment activities in foreign countries are carried out in alignment with business strategy and well-controlled within the manageable level. The risk management of foreign exposures shall take into account the monitoring of economic and political risk factors that may adversely affect the value of foreign exposure position, as well as the country-specific liquidity, market and correlation risks. In case the foreign exposures are substantial and exceeding the threshold limit of 50% of regulatory Tier-I capital, TISCO Group will establish the detailed guidelines for managing foreign exposure risks in accordance with the BOT's regulation.

15. Policy for Recovery Plan

According to the past global financial crisis, it demonstrated the necessity for the financial institutions to be prepared to deal with financial distress. Development of a recovery plan is the preparation of mechanism in advance to deal with potential stress condition that may arise in the future to ensure that commercial banks have a framework that may be adapted as appropriate to the circumstances at the time of actual stress. The recovery plan shall at least cover key processes and provide necessary information as set out in the BOT's guideline on Recovery Planning. The plan includes a set of tools and procedures to enable the recovery or continuation of TISCO Group under extreme risk events. The Board of Directors through the Executive Board and Risk Oversight Committee oversee the recovery plan framework, whereby the Risk Management Committee formulates the recovery plan with support from the Enterprise Risk Management function in facilitating all related business units, consolidating all necessary information, and defining appropriate recovery trigger and recovery option in according with possible economic condition and market environment. Moreover, the Recovery Plan will be reviewed at least once a year or when there is a material change that may affect the recovery plan and the effective implementation of recovery options. The recovery trigger event result and option in the recovery plan will be reviewed by the Risk Oversight Committee and approved by the Executive Board.

Risk Management Framework

In accordance with enterprise-wide risk management policies and objectives, risk management and internal control have been monitored and controlled by the Board of Directors of the Company with the delegation to the Executive Board of Directors of the Company. An effective management process has been established for assessing and managing all firm-wide risk exposures at both the portfolio and transactional levels to ensure the financial soundness and safety of TISCO Group. Senior management and relevant business advisory committees oversee the entire risk management framework and strategy for all business areas supported by planning and budgeting function. The Risk Oversight Committee is set up to advise the Board of Directors on risk governance framework to ensure that top management and heads of risk management functions follow the risk management policy, strategies, and risk appetites, as well as to ensure that capital and liquidity management strategies are consistent with the risk appetites. The Risk Oversight Committee also reviews the sufficiency and effectiveness of overall risk management policy and strategies, and reports risk exposures, effectiveness of risk management system and risk governance culture of the organization, as well as any significant factors or required improvement to the Board of Directors, and advises or participates in evaluation of heads of risk management functions. Moreover, the Risk Management Committee, supported by enterprise risk management, risk and business analytics, IT risk management, and operational risk management functions, is set up to oversee that enterprise-wide risk management of the group is undertaken according to the same standard.

Specific-area risk authorities are then established to manage in-depth, transaction-level risks in each particular area, such as the Credit Committee, Problem Loan Committee, and Compliance & Operation Control Committee. These mechanisms are in turn supported by the credit control and other supporting functions, governing compliance, and legal office. Business lines are fully accountable for managing their own risks within the policy guidelines established by the Risk Management Committee and specific-area risk authorities. All the business operations are under the risk limit approved by the Risk Management Committee including new business analysis in each business line, where risk limits triggered as well as new businesses shall be reported monthly to the Risk Management Committee for acknowledgement. Additionally, the Risk Oversight Committee shall review the sufficiency and effectiveness of overall risk management policy and strategies, and reports risk exposures, effectiveness of risk management system and risk governance culture of the organization, as well as any significant factors or required improvement to the Board of Directors, and advises or participates in evaluation of heads of risk management functions. However, to enhance the overall risk management system, the risk management system shall be audited and reported to the Audit Committee which directly reports to the Board of Directors.

In the present, Information Technology (IT) is involved as integral part of business to serve business needs and being customer channels to access information and services as known as Financial Technology (FinTech), in addition to several laws and regulations which have been announced for IT good governance. TISCO Group set up IT Risk Management function to manage in-depth and transaction-level of IT risks and to support the Risk Oversight Committee as well as the Risk Management Committee regarding to IT risk as integral part of operational risk and IT Risk Committee in specific-area risk authorities.

The roles and responsibilities of the relevant committees and risk management authorities are described as follows:

- Board of Directors

The Board of Directors of the Company shall ensure the institution of effective risk management system of the Bank and ensure that the Company has adopted and adhere to TISCO Group Risk Management Policy. The Board has assigned Executive Board the task of overseeing and monitoring risk management activities. This is achieved by setting risk limits and risk appetites, and ensuring the establishment of effective risk management systems and procedures in accordance with the standard practices of risk identification, assessment, monitoring and control, all of which are in line with the Audit Committee standards.

- Board of Directors of Subsidiaries

Under consolidated supervision framework, the Board shall ensure that each subsidiary adopt and adhere to TISCO Group Risk Management Policy approved by the Board of Directors of the parent company. The Board will appoint other committees according to the needs and suitability to carry out specific tasks to ensure that the operations are in compliance with established Corporate Governance Policy and report risk management activities and financial performance to the parent company's Executive Board on a regular basis, in compliance with the Consolidated Supervision Principle of the Bank of Thailand.

- Risk Oversight Committee

The Risk Oversight Committee is set up to advise the Board of Directors on risk governance framework to ensure that top management and heads of risk management functions follow the Board of Directors' approved risk management policy, strategies, and risk appetites, as well as to ensure that capital and liquidity management strategies are consistent with the approved risk appetites. Moreover, the Risk Oversight Committee has responsibilities on reviewing sufficiency and effectiveness of overall risk management policy and strategies as well as risk appetites, at least once a year or when there is significant change. The Committee also reports on risk exposures, effectiveness of risk management system and risk governance culture of the organization, as well as any significant factors or required improvement to the Board of Directors, and advises or participates in evaluation of heads of risk management functions.

- Risk Management Committee

The Risk Management Committee of the company, comprising the senior managements from the TISCO Group, has been appointed by the Group CEO in charge of the formulation and implementation of enterprise-wide risk strategies and action plans in connection with risk management policies and guidelines. The Risk Management Committee meeting is regularly held once a month. Enterprise risk management, risk and business analytics, operational risk management, and IT risk management functions support the Risk Management Committee in setting up and monitoring risk management policies and guidelines and performing enterprise-wide risk management activities through research, assessment, and reporting process.

- Specific-Area Risk Authorities

Specific-area risk authorities are set up to address in-depth risk management and controls at the transaction level. Key specific-area risk authorities include the Credit Committee and Problem Loan Committees, which are in turn supported by the credit control in overseeing credit approval and risk management. In addition, Executive board of Directors of the bank and Board of Directors of other credit-granting subsidiaries shall control and follow up all specific risk areas which are directly reported to the Board of Directors of the bank as well as the Board of Directors of the company on a regular basis.

Roles and Responsibilities of Internal Audit

The Audit Committee of TISCO Financial Group independently reviews the assessment of the adequacy of the TISCO Group's internal control system, as annually prepared by the Executive Board, in relation to the group's risks, and also reviews the policy and guidelines for internal audit as well as for the Compliance Committee and the Audit Committee of other subsidiaries to ensure that financial statement reports are transparent and accurate. The committee also effectively assesses that all business operations have adequate internal controls and are in compliance with laws and regulations, and reports the key issues to the Board of Directors of TISCO Financial Group for consideration. For other subsidiaries under the supervision of regulators, the Audit Committee, internal control and internal audit reporting process have been established in each company. The committee also effectively assesses that all business operations have adequate internal controls and are in compliance with laws and regulations.

The Internal Audit function is responsible for regular auditing of business operations in compliance with policies and guidelines, and reporting to the Audit Committee. Internal Audit also coordinates with management and relevant business units to improve the effectiveness of internal control systems.

Credit Risk

Credit Risk is defined as the possibility of an obligor's failure to meet the terms of any contract with TISCO as agreed or by defaulting on a loan agreement. Credit risk, if it occurs without pledged assets, requires the Bank to maintain higher provisions for expected credit loss, which will then adversely affect net income and TISCO Group's capital.

- Credit Risk Management Framework

The Risk Management Committee is delegated to oversee credit risk management of the corporate portfolio. The committee is responsible for formulating credit risk strategies and establishing guidelines and limits, as well as advising other credit risk authorities and retaining accountability on related issues. It also monitors and reviews credit risks at the portfolio level and reports essential credit risk information to the Board. In addition, the Risk Oversight Committee shall advise the Board of Directors on risk governance framework to ensure that top management and heads of risk management functions follow the Board of Directors' approved risk management policy, strategies, and risk appetites, while reviewing sufficiency and effectiveness of overall risk management policy and strategies. The Risk Oversight Committee shall also report on risk exposures, effectiveness of risk management system and risk governance culture of the organization, as well as any significant factors or required improvement to the Board of Directors, and advises or participates in evaluation of heads of risk management functions.

Credit risk is mainly incurred from subsidiary companies, in which conducting loan as main business. Specific-Area credit risk authorities include the Credit Committee, and Problem Loan Committee, which are established to oversee credit risk management and control at in-depth transaction level of subsidiary companies. The Credit Committee is responsible for reviewing and granting credit approvals to any single client proposed by lending officers. The Credit Committee may delegate its authority to designated persons for authorizing lower-risk transactions. The Problem Loan Committee was set up to monitor and follow up overdue payment of problem loan accounts and foreclosed assets on a regular basis.

Sound credit risk assessments are key risk practices at TISCO Group such as credit analysis, credit rating, delinquency analysis, concentration level and risk capital. All loan origination must operate under a sound credit granting process in which an effective credit rating system is employed in key business area. In retail lending area, quantitative-oriented approaches to credit grading are implemented, considering its homogenous high-volume characteristics, with emphasis on the use of extensive data mining and analysis. In corporate lending area, qualitative-oriented credit grading approaches shall be employed, taking into account its highly varying risk profiles, with well-defined standard. The credit rating for capital calculation also based on the issuer ratings assigned by credit rating agencies, i.e., Standard & Poor's, Moody's Investors Service, Fitch Ratings, Fitch Ratings Thailand and TRIS Rating.

Concentration risks are also essential in credit portfolio risk management. Appropriate guidelines on concentration risks are set up considering appropriate business practice and company risk capital capacity.

TISCO Group uses credit risk management guidelines and limits that are comprehensively applied to all credit-related functions both at the portfolio and transactional levels, as well as monitoring and managing problem loan and foreclosed assets. Credit risk factors are explained in detail as follows:

1. Default Risk

Definition of Default

Whenever one or both of the following events occur, a default is determined:

(1) TISCO deems that debtors are unable to repay fully according to the credit obligations, without consideration on payment that may receive from collateral. The following events constitute the debtor is unlikely to pay:

(1.1) TISCO stop accrue interests of debtor

(1.2) TISCO write-off or sets additional provisions as it deems that debtor is unable to repay or credit quality of debtor significantly deteriorates

(1.3) TISCO have sold the credit obligation at a material credit-related economic loss.

(1.4) TISCO consent to a debt restructuring by material forgiveness or postponing principal, interest or fees as it deems that financial condition of debtor deteriorates

(1.5) TISCO have filed litigation against debtor

(1.6) Debtor has filed for protection under Bankruptcy law or other creditors have file bankruptcy against debtor, therefore delaying debt repayment to TISCO or

(2) Debtor has more than 90-day past due (principal or interest), or debtor is classified as substandard or lower according to the Notification of the Bank of Thailand Re: Criteria for Assets Classification and Provision of Commercial Bank.

TISCO has prudently managed non-performing loans (NPLs) with effective risk management tools and stringent practice of loan collection, debt restructuring and write-off process. TISCO has applied Collective Approach for loan loss provisioning to the car hire-purchase portfolio. The loan loss reserve was derived from the best estimate of expected credit losses from the portfolio over the next 12 months, based historical loss data incorporating with adjustment for the forecasted economic condition. Loan loss reserve of TISCO consists of specific reserve for classified loan and general reserve reflecting the prudent provisioning policy to mitigate potential risk.

2. Concentration Risk

Most of TISCO portfolio consists of hire purchase portfolio, of which concentration is very low. For the commercial loan portfolio, it was diversified into three different sectors: manufacturing and commerce, real estate and construction, and public utilities and services. There is slight concentration in real estate sector which has been managed under risk management procedure. However, commercial loan portfolios are almost fully collateralized. In loan approval process, appropriate proportion of collateral value and financing amount is maintained to ensure that risks were kept within a manageable level. Additionally, collateral values will be regularly appraised and effective loan drawdown procedure has been implemented. Portfolio credit quality was closely monitored.

3. Collateral Risk

Most of the total lending portfolio in TISCO was asset backed or with collateral. For the hire purchase portfolio, the underlying asset under the loan agreement itself is still owned by TISCO. In case the borrowers of hire purchase loans cannot meet the terms and conditions, TISCO can follow up and seize the underlying assets immediately. After repossession, the process of asset liquidation can be completed within one month.

A major risk factor in the hire purchase business depends on the market value of used cars. A substantial decrease in the market value of a used vehicle results in credit loss, which directly affects the net income and capital of TISCO. Market prices for used cars depend on such diverse factors as market demand, type, brand and tax regulations.

However, judging by past records, the recovery rate for asset liquidation in the secondary market was somewhat high at 70-90% of the remaining net financing amount, which helped in absorbing losses from defaulted loans. TISCO has attempted to minimize credit risk by regularly updating its information regarding trends in the used car market, requiring high-value collateral, sufficient down payment, and favoring well-known brands in the secondary market.

For commercial and mortgage loans, most collateral extended as loan guarantees was in the form of real estate, of which the value could be deducted for the purposes of expected credit loss provisioning. Collateral values were appraised according to the Bank of Thailand's rules and regulations.

Generally, the risk of real estate value changes depends on economic conditions. A recession in the Thai economy might result in lower values, which would require TISCO to reserve higher provision for expected credit loss. Moreover, the legal process of collateral acquisition through related laws and enforcement is both costly and time consuming. However, all pending cases are closely monitored on a regular basis.

4. Property Risk from Foreclosed Assets

Property risk from foreclosed assets is the impairment of assets transferred from loans, hire purchase receivable on which debtors had defaulted on their repayment obligations under the loan contracts or restructured receivables.

Definition of Assets Impairment

Impairment of Assets means an exceeding of the carrying amount of an asset over its recoverable amount. TISCO assesses at each reporting date whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, TISCO estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's fair value less costs to sell and its value in use. Where the carrying amount of an asset exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs to sell, an appropriate valuation model is used. These calculations are corroborated by a valuation model that based on information available, reflects the amount that TISCO could obtain from the disposal of the asset in an arm's length transaction between knowledgeable, willing parties, after deducting the costs of disposal.

Impairment losses are recognized in the income statement. For assets other than goodwill, an assessment is made at each reporting date as to whether there is any indication that previously recognized impairment losses may no longer exist or may have decreased. If such indication exists, TISCO estimates the asset's recoverable amount. An impairment loss recognized in prior periods for an asset other than goodwill shall be reversed.

Credit Risk Exposures under Standardized Approach (SA)

In order to maintain the minimum capital requirement under Standardized Approach, External Credit Assessment Institution Rating (ECAI) has been applied for the corporate portfolio in 2010 in order to better reflect risk of client comparing with the risk weight of 100% has been applied for all TISCO corporate loans.

Credit Risk Exposures under Internal Rating Based Approach

Internal Rating Based (IRB) Phase Rollout

As Basel II capital requirement has been effective since the end of June 2010, TISCO Group has adopted standardized approach (SA) for credit risk capital calculation in the first year and has been permitted from Bank of Thailand to rollout internal rating based approach (IRB) for credit risk capital calculation from the period of December 31, 2012. The detail of phase rollout plan which is approved from Bank of Thailand is as follow.

Credit Portfolio	Implementation Period
1. Hire Purchase Portfolio	Period of 31 December 2009
2. Corporate Loan Portfolio	Period of 31 December 2012
3. Auto Cash Portfolio	Period of 31 January 2016
4. Floor Plan Financing	Period of 31 January 2017
5. SME Loan Portfolio	Period of 31 December 2020

Scope of Internal Rating System Implementation

TISCO Group has adopted IRB approach for the calculation of credit risk-weighted assets for hire purchase portfolio which is the major portfolio of TISCO Group since the period of 31 December 2009. The credit scoring systems are developed from statistical modeling and validated performance by independent unit.

TISCO Group regularly performs the credit scoring model validation process on quarterly basis to ensure the performance and consistency of scoring system, regarding to the market environment and risk characteristics of current customers. The validation result is reported to Risk Management Committee.

The credit grades resulted from the credit scoring models shall be used in credit risk-weighted assets following IRB approach. Moreover, the credit grades shall also be used in credit approval process, portfolio performance monitoring, expected credit loss provisioning and business strategic planning.

Furthermore, TISCO Group has also adopted foundation IRB approach for the calculation of credit risk-weighted assets for corporate loan portfolio since the period of 31 December 2012. The credit rating systems are developed from the cooperation of Credit Analyst and Risk Management functions and validated performance by independent unit.

TISCO Group regularly performs the validation process of corporate credit rating model on annual basis to ensure the integrity and consistency of rating system, regarding to the economic situation and firm-specific risk of current customers. The validation result is reported to Risk Management Committee.

The credit ratings resulted from the credit rating models shall be used in credit risk-weighted assets, employed the IRB function under Basel III. Additionally, the credit ratings shall also be used as the supplementary tool for credit approval process, portfolio performance monitoring and business strategic planning.

For year 2016, TISCO Group has adopted IRB approach for the calculation of credit risk-weighted assets for auto cash portfolio since the period of 31 January 2016. The credit scoring systems are developed following the frameworks as used in hire purchase portfolio. The credit scoring model validation process is performed on quarterly basis and the validation result is reported to Risk Management Committee.

Moreover, TISCO Group has adopted IRB approach for the calculation of credit risk-weighted assets for Floor Plan Financing since the period of 31 January 2017 where the credit rating systems are developed in accordance with the frameworks as used in corporate loan portfolio. And since the period of 31 December 2020, the Bank has adopted IRB approach for the calculation of credit risk-weighted assets for SME loan where the credit rating systems are also developed in accordance with the frameworks as used in corporate loan portfolio.

The credit grades resulted from the credit scoring models shall be used in credit risk-weighted assets following IRB approach. Moreover, the credit grades shall also be used in credit approval process, portfolio performance monitoring, expected credit loss provisioning and business strategic planning.

Internal Rating Structure

Hire purchase and auto cash portfolios are retail credit portfolio which is managed as a portfolio pool. The credit scoring system is developed as a tool for portfolio management. The internal credit scorings for hire purchase and auto cash businesses comprise of two main scoring systems which are Application Credit Scoring to be used in loan origination process, and Behavior Credit Scoring to assess and monitor portfolio quality, maintain provision for expected credit loss, and calculate credit risk-weighted assets.

In loan origination process, the customer shall be generated the credit score and corresponding credit grade based on the customer's characteristics data, combined with requested loan facilities. Meanwhile, the customer's payment behavior shall be incorporated with customer characteristics and loan facilities to produce credit score and corresponding credit grade for portfolio monitoring and credit risk-weighted asset calculation. The behavior credit scoring system is classified into two major groups which are non-defaulted group and defaulted group. For non-defaulted group including Pass and Special Mention loan, credit grade of can be divided into 12 grades from 1 to 12 for hire purchase portfolio and divided into 8 grades from 1 to 8 for auto cash portfolio where an obligor of loan has credit worthiness and payment behavior to meet its financial commitments respectively from exceptional credit to poor credit, while for defaulted group including Sub-standard Doubtful and Doubt to Loss loan, credit grade can be divided into N2 which represents defaulted accounts with 4-6 overdue installments and N3 which represents defaulted accounts with overdue installments greater than 6.

Corporate loan, Floor Plan Financing, and SME loan portfolios are managed under the individual basis and the credit rating is applied to large corporate client applying all loan which portfolio managed based on individual client treatment. The internal credit rating for corporate loan portfolio comprises of two main rating systems which are Corporate Credit Rating to be applied to all corporate clients, and Specialized Credit Rating to be applied to the entity associated with the financing of individual projects where the repayment is highly dependent on the performance of the underlying collateral. Both Corporate and Specialized Credit Ratings shall be used in loan origination process and to monitor portfolio quality, and calculate credit risk-weighted assets.

For corporate credit rating, for non-defaulted group, the credit rating can be divided into 7 ratings from A1 to A7 where an obligor of loan has credit worthiness and payment behavior to meet its financial commitments respectively from exceptional credit to poor credit. Meanwhile, the credit rating of non-defaulted group under specialized credit rating can be divided into 4 ratings from S1 to S4 following the definition under the supervisory slotting criteria published by Bank of Thailand. The credit rating of floor plan financing is divided into 7 ratings, from FP1 to FP7 where an obligor of loan has credit worthiness and payment behavior to meet its financial commitments respectively from exceptional credit to poor credit. For SME loan portfolio apart from hire purchase and inventory financing, the SME credit rating shall be used where the credit rating is divided into 7 ratings, from B1 to B7 where an obligor of loan has credit worthiness and payment behavior to meet its financial commitments respectively from exceptional credit to poor credit, while SME floor plan loan that applies for other credit lines shall refer to the credit rating of floor plan financing. Meanwhile, there are credit ratings for default group of both corporate and specialized credit ratings as well as floor plan and SME loan credit ratings.

Rating Assignment Process

For rating assignment of hire purchase and auto cash customers in credit approval process, customers shall be generated the credit score and corresponding credit grade based on the application credit scoring model through the loan origination system. Loan approval procedure and credit result is primarily based on credit grade results by loan origination system. For rating assignment to use in portfolio monitoring, expected credit loss provisioning and the calculation of credit risk-weighted asset, customers shall be generated credit score and corresponding credit grade based on the payment behavior using behavior credit scoring model.

For portfolio monitoring and provisioning, all hire purchase and auto cash customers shall be managed as a portfolio pool under the same management framework and credit scoring model. However, the hire purchase and auto cash customers, which are applied IRB approach to calculate credit risk-weighted assets using behavior credit scoring model, must be complied with the Bank of Thailand's definition of retail exposures. For hire purchase and auto cash customers who are not qualified to the definition of retail exposures under IRB approach shall be adopted standardized approach (SA) for the calculation of credit risk-weighted assets.

For rating assignment of corporate loan, floor plan financing and SME loan customers, the credit rating shall be generated to the customer as a part of credit analysis process as done by the credit analysts The corporate loan, floor plan financing and SME loan customers which are applied IRB approach to calculate credit risk-weighted assets must be assigned the credit rating. The customers who are not required to be assigned the credit rating as defined regarding to the internal guideline shall be adopted standardized approach (SA) for the calculation of risk-weighted assets.

PD and LGD Estimation and Validation

TISCO Group clearly defines the definition of defaulted account for hire purchase and auto cash portfolios which is the account with overdue more than 3 installments or 90 days, repossessed account and legal account. Moreover, the definition of defaulted account also includes the account which classified as credit impaired financial assets according to the Bank of Thailand’s notification.

For the estimation of Probability of Default (PDs) of hire purchase and auto cash portfolios, PD estimates are the long-term average of the historical one-year default rates and adding by a volatility rate of historical default rates as a margin of conservatism. The data range of historical one-year default rates used for PD estimation must be covered at least 5 years.

For the estimation of Loss Given Default (LGDs) of hire purchase and auto cash portfolios, LGD estimates must be the worst loss that can be happened under the worst but potential business environment under the sufficient conservative confidence level. The LGD estimates are derived based on the historical loss rates with the range of data to be at least 5 years.

PD and LGD estimates of hire purchase and auto cash portfolios must be regularly validated on quarterly basis. The estimates are validated through back-testing by comparing the estimates of each reporting period with the actual default rate and loss rate occurred in that reporting period.

For the validation of PD estimates, TISCO considers if the actual default rates are greater than the PD estimates, exceeding the acceptable limit. Should the back-testing result exceeded the defined limit, PD estimates shall be reviewed accordingly.

For the validation of LGD estimates, the actual loss rate shall not exceed the LGD estimates. Should the actual loss rate exceeded LGD estimates, the LGDs shall be reviewed immediately.

For corporate loan, floor plan financing, and SME loan portfolios, the definition of defaulted account is defined as the client classified in credit impaired financial assets according to the Bank of Thailand’s notification. Furthermore, the definition of default client also includes the restructured client whose lending terms has been modified because of deterioration in the financial condition to reduce and renegotiate its delinquent debts in order to improve or restore liquidity and rehabilitate so that it can continue its operations.

Due to the low defaulted client data availability of corporate loan portfolio of TISCO Group, the statistical method for low default portfolio that can be used to estimate long run PDs with the conservative buffer under the limitation of the available default data has been adopted to estimate PDs with conservative cushion.

For the estimation of LGDs of corporate loan, floor plan financing as well as SME loan portfolios, TISCO Group has adopted the foundation IRB approach to calculate the risk-weighted assets. Thus, the LGDs used in the calculation must be the standard LGDs provided by the Bank of Thailand.

PD estimates of corporate loan, floor plan financing and SME loan portfolios must be regularly validated on annual basis. The estimates are validated through back-testing by comparing the average portfolio PD of each reporting period with the actual default for the portfolio occurred in that reporting period. The PD estimates, and credit rating systems if needed, shall be reviewed if the actual default rate of the portfolio is greater than the average portfolio PD, exceeding the acceptable limit.

Table 9 Assets Exposures and Off Balance Sheet Items before Credit Risk Mitigation

Unit : Million Baht

Items	31 Dec 20	31 Dec 19
1. Assets Exposures	**263,115**	**288,035**
1.1 Total Net Loan (Including Accrued Interest)[1/]	248,390	275,160
1.2 Net Fixed Income Investment [2/]	9,953	9,363
1.3 Deposits (Including Accrued Interest) [3/]	4,710	3,490
1.4 Derivatives	62	22
2. Off Balance Sheet Items [4/]	**3,026**	**1,931**
2.1 Aval and Guarantee	494	479
2.2 OTC Derivative [5/]	1,190	917
2.3 Undrawn Committed Line	1,343	535

[1/] Including accrued interest and after netting of unearned income, profit (loss) from changing new conditions, allowance for expected credit loss, and including loan and accrued interest of interbank and money market

[2/] Not including accrued interest and after netting of impairment

[3/] Including accrued interest and allowance for expected credit loss

[4/] Before credit conversion factor

[5/] Including equity derivatives

Table 10 Assets Exposures and Off Balance Sheet Items before Credit Risk Mitigation Classified by Country or Region

31 Dec 20

Unit : Million Baht

Country or Region	Assets Exposures					Off Balance Sheet Items [4/]			
	Total	Total Net Loan (Including Accrued Interest) [1/]	Net Fixed Income Investment [2/]	Net Deposits (Including Accrued Interest) [3/]	Derivatives	**Total**	Aval and Guarantee	OTC Derivative [5/]	Undrawn Committed Line
Thailand	**254,822**	240,497	9,953	4,309	62	**3,026**	494	1,190	1,343
Asia Pacific (excluding Thailand)	**8,278**	7,877	-	401	-	-	-	-	-
North America and Latin America	**2**	2	-	0	-	-	-	-	-
Africa and Middle East	**3**	3	-	-	-	-	-	-	-
Europe	**11**	11	-	-	-	-	-	-	-
TOTAL	**263,115**	**248,390**	**9,953**	**4,710**	**62**	**3,026**	**494**	**1,190**	**1,343**

31 Dec 19

Unit : Million Baht

Country or Region	Assets Exposures					Off Balance Sheet Items [4/]			
	Total	Total Net Loan (Including Accrued Interest) [1/]	Net Fixed Income Investment [2/]	Net Deposits (Including Accrued Interest) [3/]	Derivatives	**Total**	Aval and Guarantee	OTC Derivative [5/]	Undrawn Committed Line
Thailand	**280,339**	267,864	9,363	3,089	22	**1,931**	479	917	535
Asia Pacific (excluding Thailand)	**7,697**	7,296	-	401	-	-	-	-	-
North America and Latin America	**21**	-	-	21	-	-	-	-	-
Africa and Middle East	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-
TOTAL	**288,034**	**275,160**	**9,363**	**3,511**		**1,931**	**479**	**917**	**535**

[1/] Including accrued interest and after netting of unearned income, profit (loss) from changing new conditions, and allowance for expected credit loss, and including loan and accrued interest of interbank and money market

[2/] Not including accrued interest and after netting of impairment

[3/] Including accrued interest and allowance for expected credit loss

[4/] Before credit conversion factor

[5/] Including equity derivatives

Table 11 Assets Exposures and Off Balance Sheet Items before Credit Risk Mitigation Classified by Remaining Maturity

Unit : Million Baht

Items	31 Dec 20			31 Dec 19		
	≤ 1 Year	> 1 Year	**Total**	≤ 1 Year	> 1 Year	**Total**
1. Assets Exposures			**263,115**			**288,035**
1.1 Total Net Loan (Including Accrued Interest) [1/]	43,451	204,939	**248,390**	55,011	220,150	**275,160**
1.2 Net Fixed Income Investment [2/]	9,940	13	**9,953**	8,192	1,171	**9,363**
1.3 Deposits (Including Accrued Interest) [3/]	4,699	11	**4,710**	3,479	11	**3,490**
1.4 Derivatives	62	-	**62**	22	-	**22**
2. Off Balance Sheet Items [4/]			**3,026**			**1,931**
2.1 Aval and Guarantee	229	265	**494**	185	293	**479**
2.2 OTC Derivative [5/]	1,107	83	**1,190**	917	-	**917**
2.3 Undrawn Committed Line	165	1,178	**1,343**	90	445	**535**

[1/] Including accrued interest and after netting of unearned income, profit (loss) from changing new conditions, and allowance for expected credit loss, and including loan and accrued interest of interbank and money market

[2/] Not including accrued interest and after netting of impairment

[3/] Including accrued interest and allowance for expected credit loss

[4/] Before credit conversion factor

[5/] Including equity derivatives

Table 12 Exposures of Financial Instruments* before Credit Risk Mitigation and General provision and Specific provision

31 Dec 20

Unit : Million Baht

Items	Exposures		Total Provision [2]	Provision [2] under SA Approach		Provision [2] under IRB Approach	Net Exposure [3]
	Defaulted exposures [1]	Non-defaulted exposures [1]		General provision	Specific provision		
1. Total Net Loan (Including Accrued Interest) [4]	5,941	254,275	11,826	712	1,467	8,586	248,390
2. Net Fixed Income Investment [5]	231	9,722	-	-	-	-	9,953
3. Deposits (Including Accrued Interest) [6]	-	4,711	1	-	1	-	4,710
4. Loan commitment and Financial Guarantee contract [7]	-	1,822	15	-	0	15	1,807
Total	**6,172**	**270,530**	**11,841**	**712**	**1,469**	**8,601**	**264,861**

* Only financial instruments that are subjected to recognizing impairment in accordance with the Thai Financial Reporting Standard No. 9 (TFRS 9) - "Financial Instruments" of the Federation of Accounting Professions

** General provision as defined by the BOT's Regulation on Components of Capital for Commercial Banks, which included provision for financial assets and contingents that have no significant increase in credit risk (performing) as well as those that have significant increase in credit risk (under-performing), but not included general provisions that are already counted as specific provision

[1] Depending on the method used by the commercial banks (1) SA: Non-performing and Performing exposures (2) IRB: Defaulted and Non-defaulted exposures. The non-performing / defaulted exposures shall apply the same BOT's loan classificationa and provisioning guidelines as applied for credit-impaired financial assets.

[2] Allowance for expected credit loss as defined in the TFRS 9. For financial instruments measured at fair value through other comprehensive income, the provisions as stipulated in TFRS 7 - "Financial Instruments: Disclosures" shall not be presented in the table, where the exposures shall be shown as net of provisions.

[3] Net exposure = Exposures - Provision

[4] Including accrued interest and after netting of unearned income and profit (loss) from changing new conditions, and including loan and accrued interest of interbank and money market

[5] Excluding accrued interest and net of allowance for securities revaluation, but not including investment in receivables

[6] Including accrued interest

[7] Before credit conversion factor

Table 13 Loan Exposures including Accrued Interest and Fixed Income Investment before Credit Risk Mitigation Classified by Country or Region and BOT's Asset Classification

31 Dec 20

Unit : Million Baht

Country or Region	Loan (Including Accrued Interest) [1/]					Fixed Income Investment [2/]				
	No Significant Increase in Credit Risk	Significant Increase in Credit Risk	Credit Impaired	Purchased or Originated Credit Impaired	Total	No Significant Increase in Credit Risk	Significant Increase in Credit Risk	Credit Impaired	Purchased or Originated Credit Impaired	Total
Thailand	215,945	30,173	5,940	-	**252,059**	9,722	-	231	-	**9,953**
Asia Pacific (excluding Thailand)	8,120	21	1	-	**8,141**	-	-	-	-	-
North America and Latin America	2	-	-	-	**2**	-	-	-	-	-
Africa and Middle East	3	0	-	-	**3**	-	-	-	-	-
Europe	9	2	0	-	**11**	-	-	-	-	-
TOTAL	**224,078**	**30,196**	**5,941**	-	**260,215**	**9,722**	-	**231**	-	**9,953**

[1/] Including accrued interest and after netting of unearned income and profit (loss) from changing new conditions, and including loan and accrued interest of interbank and money market

[2/] Not including accrued interest and after netting of impairment (but including investment in receivables)

Table 13A Provision (General Provision and Specific Provision) and Write-Off Amount during The Year for Loan including Accrued Interest and Fixed Income Investment Classified by Country or Region

31 Dec 20

Unit : Million Baht

Country or Region	Loan (Including Accrued Interest) [1/]				Fixed Income Investment [2/]		
	Provision [3/] under SA Approach		Provision [3/] under IRB Approach	Write-Off Amount during The Year	Provision [3/] under SA Approach		Provision [3/] under IRB Approach
	General Provision	Specific provision			General Provision	Specific provision	
Thailand		1,462	8,327	3,744		-	-
Asia Pacific (excluding Thailand)		5	259	-		-	-
North America and Latin America		-	0	-		-	-
Africa and Middle East		-	0	-		-	-
Europe		-	0	-		-	-
Total	**712**	**1,467**	**8,586**	**3,744**	-	-	-

31 Dec 19

Unit : Million Baht

Country or Region	Loan (Including Accrued Interest) [1/]				Fixed Income Investment [2/]		
	Provision [3/] under SA Approach		Provision [3/] under IRB Approach	Write-Off Amount during The Year	Provision [3/] under SA Approach		Provision [3/] under IRB Approach
	General Provision	Specific provision			General Provision	Specific provision	
Thailand		1,264	8,646	3,929		1	-
Asia Pacific (excluding Thailand)		-	89	-		-	-
North America and Latin America		-	-	-		-	-
Africa and Middle East		-	-	-		-	-
Europe		-	-	-		-	-
Total	**718**	**1,264**	**8,734**	**3,929**	-	**1**	-

[1/] Including provision and write-off during the year of loan and accrued interest of interbank and money market

[2/] Not including investment in receivables

[3/] Allowance for expected credit loss

Table 14 Loan Exposures including Accrued Interest* before Credit Risk Mitigation Classifiled by Type of Business and BOT's Asset Classification

Unit : Million Baht

Type of Business	31 Dec 20				
	No Significant Increase in Credit Risk	Significant Increase in Credit Risk	Credit Impaired	Purchased or Originated Credit Impaired	Total
- Agricultural and Mining	503	131	26	-	**661**
- Manufacturing and Commerce	13,571	2,705	280	-	**16,556**
- Real Estate and Construction	18,059	494	58	-	**18,611**
- Public Utilities and Services	27,306	662	163	-	**28,132**
- Housing Loan	10,833	672	767	-	**12,273**
- Hire Purchase	92,490	18,501	3,166	-	**114,157**
- Others	61,315	7,031	1,480	-	**69,826**
Total	**224,078**	**30,197**	**5,940**	-	**260,215**

* Including accrued interest and after netting unearned income and profit (loss) from changing new conditions, and including loan and accrued interest of interbank and money market

Table 15 Provision (General provision and Specific provision) and Write-off Amount during The Year for Loan Including Accrued Interest* Classified by Type of Business

Unit : Million Baht

Type of Business	31 Dec 20				31 Dec 19			
	Provision [1/] under SA Approach		Provision [1/] under IRB Approach	Write-off Amount during The Year	Provision [1/] under SA Approach		Provision [1/] under IRB Approach	Write-off Amount during The Year
	General provision	Specific provision			General provision	Specific provision		
- Agricultural and Mining		26	12			15	10	
- Manufacturing and Commerce		141	1,339			88	306	
- Real Estate and Construction		20	528			22	78	
- Public Utilities and Services		78	702			63	271	
- Housing Loan		154	-			216	-	
- Hire Purchase		726	3,959			632	2,656	
- Others		322	2,047			226	1,378	
Total	**713**	**1,467**	**8,586**	**3,744**	**4,757**	**1,263**	**4,697**	**3,929**

* Including Provision and Write-off Amount during The Year of Loan including Accrued Interest of Interbank and Money Market

[1/] Allowance for expected credit loss

Table 16 Reconciliation of Change in Provision for Asset Classification (General provision and Specific provision) for Loan including Accrued Interest* Classified by Type of Business

Unit : Million Baht

Items	31 Dec 20					31 Dec 19				
	Provision [1/] under SA Approach		Provision [1/] under IRB Approach	Provision [1/] for Bad Debt Written-Off	**Total**	Provision [1/] under SA Approach		Provision [1/] under IRB Approach	Provision [1/] for Bad Debt Written-Off	**Total**
	General Provision	Specific Provision				General Provision	Specific Provision			
Balance - Beginning of Year	384	1,169	6,834	-	**8,387**	1,114	1,544	9,016	-	**11,673**
Increase (Decrease) in Provision during The Year [2/]	328	299	1,753	3,744	**6,123**	- 395	- 279	- 281	3,929	**2,973**
Bad Debt Written-Off	-	-	-	- 3,744	- **3,744**	-	-	-	- 3,929	- **3,929**
Balance - Ending of Year	712	1,467	8,586	-	**10,766**	718	1,264	8,734	-	**10,717**

* Including provision of loan and accrued interest of interbank and money market

[1/] Allowance for expected credit loss

[2/] Not including expected credit loss of financial instruments measured at Fair Value through Other Comprehensive Income

Table 17 Assets Exposures and Credit Equivalent Amount of Off Balance Sheet Items Classified by Asset Classes under SA Approach

Unit : Million Baht

Assets Type	31 Dec 20			31 Dec 19		
	On Balance Sheet	Off Balance Sheet [1/]	**Total**	On Balance Sheet	Off Balance Sheet [1/]	**Total**
1. Performing						
1.1 Claims on Sovereign and Central Bank and Multilateral Development Bank and Public Sector Entities treated as Claims on Sovereign	12,543	-	**12,543**	10,006	-	**10,006**
1.2 Claims on Financial Institutions and Public Sector Entities treated as Claims on Financial Institutions and Securities Company	35,398	56	**35,454**	43,308	18	**43,326**
1.3 Claims on Corporate and Public Sector Entities treated as Claims on Corporate	3,778	17	**3,795**	3,026	17	**3,043**
1.4 Claims on Retail	13,859	0	**13,859**	14,614	2	**14,615**
1.5 Claims on Residentail Property	11,423	-	**11,423**	13,719	-	**13,719**
1.6 Other Assets	-	-	-	-	-	-
2. Non-performing	**1,456**	-	**1,456**	1,437	3	**1,439**
Total	**78,456**	**72**	**78,529**	**86,109**	**39**	**86,148**

[1/] Including Repo-Style Transaction and Reverse repo

Table 18 Assets Exposures and Credit Equivalent Amount of Off Balance Sheet Items Classified by Asset Classes under IRB Approach

Unit : Million Baht

Assets Type	31 Dec 20			31 Dec 19		
	On Balance Sheet	Off Balance Sheet [1/]	Total	On Balance Sheet	Off Balance Sheet [1/]	Total
1. Non-Default	**199,657**	**1,232**	**200,889**	**215,076**	**618**	**215,694**
1.1 Corporate Lending	44,599	1,232	**45,831**	47,185	618	**47,803**
1.2 Hire Purchase	143,905	-	**143,905**	157,693	-	**157,693**
1.3 Equity Exposures	3,011	-	**3,011**	2,212	-	**2,212**
1.4 Other Assets	8,142	-	**8,142**	7,985	-	**7,985**
2. Default	2,952	-	**2,952**	**2,647**	-	**2,647**
Total	**202,609**	**1,232**	**203,841**	**217,723**	**618**	**218,341**

[1/] Including Repo-Style Transaction and Reverse repo

Table 19 Assets Exposures and Off Balance Sheet Items* after Credit Risk Mitigation in each Assets Type Classified by Risk Weight under Standardised Approach

Unit : Million Baht

Assets Type	31 Dec 20													
	Exposures with Rating					Exposures without Rating								
Risk Weight (%)	0	20	50	100	150	0	20	50	35	75	100	625	937.5	100/8.5%
Performing														
1 Claims on Sovereign and Central Bank and Multilateral Development Bank and Public Sector Entities treated as Claims on Sovereign	12,543	-	-	-	-			-			-			
2 Claims on Financial Institutions and Public Sector Entities treated as Claims on Financial Institutions and Securities Company	0	1,884	1	67	-						-			
3 Claims on Corporate and Public Sector Entities treated as Claims on Corporate	573	10	1	-	-						3,205			
4 Claims on Retail						485				13,045	76			
5 Claims on Residentail Property									6,711	4,712	-			
6 Other Assets						-	-				-	-	-	-
Risk Weight (%)	0	20	50	100	150	0	20	50	35	75	100	625	937.5	100/8.5%
Non-performing 1/			287	921	150					97				
Exposures to be Deducted from Capital	-													

Unit : Million Baht

Assets Type	31 Dec 19													
	Exposures with Rating					Exposures without Rating								
Risk Weight (%)	0	20	50	100	150	0	20	50	35	75	100	625	937.5	100/8.5%
Performing														
1 Claims on Sovereign and Central Bank and Multilateral Development Bank and Public Sector Entities treated as Claims on Sovereign	10,006	-	-	-	-			-			-			
2 Claims on Financial Institutions and Public Sector Entities treated as Claims on Financial Institutions and Securities Company	0	1,486	20	11	-						-			
3 Claims on Corporate and Public Sector Entities treated as Claims on Corporate	1,061	-	10	-	-						1,948			
4 Claims on Retail						101				14,043	116			
5 Claims on Residentail Property									7,905	5,814	-			
6 Other Assets						-	-				-	-	-	-
Risk Weight (%)	0	20	50	100	150	0	20	50	35	75	100	625	937.5	100/8.5%
Non-performing 1/			258	808	203					170				
Exposures to be Deducted from Capital	-													

* After Credit Conversion Factor

1/ For Non Credit Risk Mitigation, Risk Weight is based on the Provision Set up

Table 20 Credit Risk Assessment Information under IRB Approach for Corporate Exposures

31 Dec 20

Type of Corporate Exposures	Non-Defaulted Group			Default Group		
	EAD[1/] (MM)	Ø PD[2/] (%)	Ø RW[3/] (%)	EAD[1/] (MM)	Ø PD[2/] (%)	Ø RW[3/] (%)
Corporate Lending (excluding Specialized Lending and SME)	17,755	5.11%	89.46%	25	100.00%	0.00%
SME classified as Corporate Lending	8,058	12.18%	144.82%	52	100.00%	0.00%
Specialized Lending	20,942	N.A.	85.95%	-	N.A.	0.00%
Total	**46,754**		**97.43%**	**77**		

31 Dec 19

Type of Corporate Exposures	Non-Defaulted Group			Default Group		
	EAD[1/] (MM)	Ø PD[2/] (%)	Ø RW[3/] (%)	EAD[1/] (MM)	Ø PD[2/] (%)	Ø RW[3/] (%)
Corporate Lending (excluding Specialized Lending and SME)	21,027	5.01%	85.99%	259	100.00%	0.00%
SME classified as Corporate Lending	10,792	10.01%	0.00%	48	100.00%	0.00%
Specialized Lending	16,201	N.A.	84.71%	-	N.A.	0.00%
Total	**48,020**		**66.23%**	**308**		

[1/] The net amount after CRM of total outstanding amount of on-balance sheet items and credit converted amount of off-balance sheet items

[2/] Ø PD is EAD-weighted average of PD, Downturn PD based on IRB capital calculation

[3/] Ø RW is EAD-weighted average of risk weighted asset

Table 21 Credit Risk Assessment Information under IRB Approach for Hire Purchase (Pooled basis)

31 Dec 20

Type of Retail Exposures	Non-Defaulted Group				Defaulted Group			
	EAD[1/] (MM)	Ø PD[2/] (%)	Ø RW[3/] (%)	Ø LGD [4/] (%)	EAD[1/] (MM)	Ø PD[2/] (%)	Ø RW[3/] (%)	Ø LGD [4/] (%)
Hire Purchase	119,249	6.64%	42.70%	29.64%	2,707	100.00%	63.26%	30.82%
Auto Cash	27,261	12.41%	81.13%	47.10%	1,031	100.00%	90.21%	47.10%
Total	**146,511**	**7.71%**	**49.85%**	**32.89%**	**3,738**	**100.00%**	**70.69%**	**35.31%**

31 Dec 19

Type of Retail Exposures	Non-Defaulted Group				Defaulted Group			
	EAD[1/] (MM)	Ø PD[2/] (%)	Ø RW[3/] (%)	Ø LGD [4/] (%)	EAD[1/] (MM)	Ø PD[2/] (%)	Ø RW[3/] (%)	Ø LGD [4/] (%)
Hire Purchase	131,374	6.32%	42.23%	29.59%	2,708	100.00%	61.55%	31.28%
Auto Cash	28,934	9.81%	75.68%	46.28%	636	100.00%	89.41%	46.28%
Total	**160,309**	**6.95%**	**48.27%**	**32.60%**	**3,344**	**100.00%**	**66.85%**	**34.13%**

[1/] The net amount after CRM of total outstanding amount of on-balance sheet items and credit converted amount of off-balance sheet items

[2/] Ø PD is EAD-weighted average of PD, Downturn PD based on IRB capital calculation which is conservatively bias , PD under capital calculation is much higher than the long-term average PD or actual PD

[3/] Ø RW is EAD-weighted average of risk weighted asset

[4/] Ø LGD is EAD-weighted average of LGD, Downturn LGD based on IRB capital calculation which is conservatively bias and much higher than the actual LGD

Table 22 The Net Amount after CRM of Total Outstanding Amount and Off-balance Sheet Amount after CCF under IRB Approach Classified by Expected Loss Rating

Type of Retail Exposures	31 Dec 20				31 Dec 19			
	Non-Defaulted Group		Defaulted Group		Non-Defaulted Group		Defaulted Group	
	EAD (MM)	EL[1/] (%)	EAD	EL[1/] (%)	EAD (MM)	EL[1/] (%)	EAD	EL[1/] (%)
Hire Purchase	119,249	2.10%	2,707	25.76%	131,374	1.98%	2,708	26.35%
Auto Cash	27,261	5.85%	1,031	39.88%	28,934	4.54%	636	39.13%
Total	**146,511**	**2.80%**	**3,738**	**29.65%**	**160,309**	**2.45%**	**3,344**	**28.78%**

[1/] $\Sigma EL_i \div \Sigma EAD_i$

EL is estimated based on capital calculation under IRB approach, Downturn EL, which is conservatively bias and higher than the estimated EL under normal situation.

Table 23 The Net Amount after CRM of Total Outstanding Amount of Specialized Lending under IRB Approach adopting Supervisory Slotting Criteria Classified by %Risk Weight

Unit : Million Baht

Supervisory Grade	%Risk Weight	EAD[1/] (MM)	
		31 Dec 20	31 Dec 19
Excellent	70%	8,404	5,055
Excellent*	50%	-	-
Good	90%	10,235	9,876
Good*	75%	-	-
Satisfactory	115%	2,052	1,127
Weak	250%	219	-
Default	0%	-	259
Total		**20,909**	**16,318**

[1/] The net amount after CRM of total outstanding amount of specialized lending

Table 24 Actual Loan Losses of IRB Bank Classified by Asset Type

Unit : Million Baht

Assets Type	Actual Loss	
	31 Dec 20	31 Dec 19
Hire Purchase	1,270	1,497
Auto Cash	339	217
Total	**1,609**	**1,714**

Table 25 Comparison of Expected Loss and Actual Loan Losses

Unit : Million Baht

Assets Type	31 Dec 20		31 Dec 19	
	Expected loss[1/]	Actual Loss	Expected loss	Actual Loss
Hire Purchase	3,200	1,270	3,320	1,497
Auto Cash	2,005	339	1,563	217
Total	**5,205**	**1,609**	**4,883**	**1,714**

[1/] Expected loss is estimated based on Basel II - IRB approach, Downturn EL, hich is conservatively biased and higher than the TISCO's estimated expected loss.

Credit Risk Mitigation

Based on the Basel III minimum capital requirement under Standardized Approach and Foundation Internal Rating Based Approach, Credit Risk Mitigation (CRM) has become effective in obtaining capital relief. Currently in TISCO, only financial collateral and guarantee are considered applied eligible collaterals

following the Bank of Thailand's rules and regulation under CRM process. In addition, TISCO still has no policy to adopt netting agreements in both on and off balance sheet under CRM process.

Table 26 Assets Exposures Covered with Collateral under Standardised Approach Classified by Type of Collateral

Unit : Million Baht

Assets Type	**31 Dec 20**		**31 Dec 19**	
	Financial Collateral [1/]	Guarantee and Credit Derivative	Financial Collateral [1/]	Guarantee and Credit Derivative
1. Performing				
1.1 Claims on Financial Institutions and Public Sector Entities treated as Claims on Financial Institutions and Securities Company	-	-	-	-
1.2 Claims on Corporate and Public Sector Entities treated as Claims on Corporate	8	-	26	1
1.3 Claims on Retail	254	-	355	-
2. Non-performing	-	-	-	-
Total	**262**	**-**	**381**	**1**

[1/] Eligible Financial Collateral after Haircut

Table 27 Assets Exposures Covered with Collateral under IRB Approach Classified by Type of Collateral

Unit : Million Baht

Assets Type	**31 Dec 20**		**31 Dec 19**	
	Financial Collateral [1/]	Guarantee and Credit Derivative	Financial Collateral [1/]	Guarantee and Credit Derivative
Performing				
1 Corporate Lending (excluding Specialized Lending and SME)	922	157	1,614	155
2 SME classified as Corporate Lending	598	1,091	616	1,377
3 Specialized Lending	33	137	-	143
Total	**1,552**	**1,385**	**2,229**	**1,675**

[1/] Eligible Financial Collateral after Haircut

Most of TISCO's eligible collateral applied under CRM process consists of Government Bond, TISCO's Negotiable Certificate of Deposit (NCD) and Bill of Exchange (BE), and Listed Equity where the appraisal value has been performed regularly following the Bank of Thailand guideline. Moreover, positive correlation of the collateral shall be assessed and reviewed in order to ensure the effectiveness of credit risk mitigation.

Market Risk

An effective market risk management has been established by adopting the risk management policy approved by the Risk Management Committee, supported by enterprise risk management function in order to ensure appropriate application of the policy in all functions.

In accordance with the market risk capital requirement based on the Bank of Thailand's rules and regulations, since the trading book position of TISCO is still below the minimum thresholds, TISCO is required to maintain its capital to support the market risk only for the element that cover the price risk of commodities related product. However, internal market risk assessments including all positions related to price and interest rate change has been performed to ensure the effective market risk management still in place.

Table 28 Minimum Capital Requirement for Market Risk under Standardised Approach

Unit : Million Baht

Minimum Capital Requirement for Market Risk under SA	31 Dec 20	31 Dec 19
1. Interest Rate Risk	-	-
2. Equity Price Risk	-	-
3. Foreign Exchange Rate Risk	-	-
4. Commodity Price Risk	60	49
Total	**60**	**49**

Equity Exposures in Banking Book

Market risk of equity in banking book stems from adverse changes in securities prices, which directly affect net income, capital, asset value, and liabilities of TISCO.

- Market Risk Management in Equity Framework

Risk Management Committee is responsible to oversee the portfolio risk management and control of market risks. The business lines are accountable to manage market risks in their portfolios within the guidelines and limits set by the Risk Management Committee. Specific-Purpose Risk Authorities have been established in high-risk areas to oversee all aspects of transaction-level risks, such as setting investment guidelines, authorizing investment transactions and trade counterparties etc. In addition, the Risk Oversight Committee shall advise the Board of Directors on risk governance, review sufficiency and effectiveness of overall risk management policy and strategies.

Market exposures shall be grouped appropriately according to the nature and characteristics of risks involved. Suitable risk treatment framework shall be implemented to effectively manage each class of market exposures. Portfolio market risks of all assets and liabilities shall be assessed and quantified using the Value-at-Risk (VaR) concept employing methodologies and techniques appropriate to the nature of risks involved. Back-testing has been prudently performed to validate internal value-at-risk model. In addition, stress testing in place as a supplement to VaR is performed under various extreme scenarios. The risk assessment and corresponding risk treatment has taken into account the transaction intent as well as the market liquidity of the securities.

Interest rate risk from banking book is analyzed on the basis of mismatch between the timing of interest rate re-pricing of assets and liabilities and its potential impacts on future net interest income of TISCO Group under simulated scenarios.

Sophisticated market risk positions, such as derivatives securities, shall be handled with special attention. Derivative risks must be decomposed into basic risks and analyzed such that the inherent risk profile is clearly understood. In addition, derivative risk management policy has been set up in order to effectively control and manage risks from derivative transactions with appropriation to complexity of the derivative. Important market risk factors are provided as follows:

(1) Listed Equity Risk and LTF

The vulnerability of market price will directly affect listed equity investment portfolio measured at fair value through profit or loss (FVTPL) in which a change in its value would impact the net profit of TISCO Group.

TISCO calculates VaR for risk assessment purposes and files reports to management in charge as well as to the Risk Management Committee on a daily basis. VaR is a maximum potential loss at a predefined confidence level at 99% and time horizon. For effective risk management and control, trigger limits have been set up to monitor the overall market risk profile according to internal guidelines, such as concentration trigger limit, stop-loss trigger limit, etc.

(2) Non-Listed Equity Risk

Presently, our investment strategy is not to increase the size of the non-listed equity portfolio. TISCO is instead seeking opportunities to liquidate them, while at the same time closely monitoring portfolio quality on a regular basis.

Policy in Determining Fair Value of Financial Instruments

A fair value is the amount for which an asset can be exchanged or a liability settled between knowledgeable, willing parties in an arm's length transaction.

In determining the fair value of financial instruments that are not actively traded and for which quoted market prices are not readily available, the business units exercise judgment, using valuation techniques that are appropriate in the circumstances and maximizes the use of relevant observable inputs related to assets and liabilities that are required to be measured at fair value.

In determining the fair value of financial instruments, the estimate fair value will be adjusted by allowance for expected credit loss with respective risk. For financial instruments with duration of one year or less, the book value represents a reasonable estimate of fair value. For financial instruments with duration greater than one year, fair value was determined based on the quoted market prices, where available, or otherwise based on present values of contractual cash flows, discounted using rates at which financial instruments with similar features and maturities could be issued as of the balance sheet date.

The methods and assumptions used by the Bank in estimating the fair value of financial instruments are as follows:

- For financial assets and liabilities which have short-term maturities or carry interest at rates approximating the market rate, including cash, interbank and money market items (assets), securities and derivatives business receivables, receivable from clearing house, deposits, interbank and money market items (liabilities), liabilities payable on demand, securities and derivative business payables and payables to clearing house, the carrying amounts in the statement of financial position approximate their fair value.
- For investments in debt securities, their fair value is generally derived from quoted market prices or determined by using the yield curve as announced by the Thai Bond Market Association.
- For investments in marketable equity securities, their fair value is generally derived from quoted market prices, or based on discounted future cash flows and/or book value of the investees for investments in non-marketable equity securities.
- Loans to customers and accrued interest receivables, except for hire purchase receivables and other retail loans, are presented at fair value which is estimated from balance of loans to customers and accrued interest receivables as stated in the financial statements less allowance for expected credit loss, since most loans carry interest at floating rates. Hire purchase receivable and other retail loans are presented at fair value, which is the present value of future cash inflows, discounted by the current interest rate for new loans.
- The fair value of debts issued and borrowings is estimated by discounting expected future cash outflows by the current market interest rates of the borrowings with similar terms and conditions.

For derivatives, their fair value is determined by using a discounted future cash flow model and a valuation model technique. Most of the inputs used for the valuation are observable in the relevant market, such as spot rates of foreign currencies, yield curves of the respective currencies and interest rate yield curves. TISCO Bank has considered the counterparty's credit risk when determining the fair value of derivatives.

Table 29 Equity Exposures in Banking Book

Unit : Million Baht

Equity Exposures	31 Dec 20	31 Dec 19
1. Equity Exposures		
1.1 Listed Equity Exposures (Both Domestic and Foreign)	1,400	484
1.2 Other Equity Exposures (Both Domestic and Foreign)	773	1,113
2. Profit (Loss) from Sale of Equity during The Period	-1	1
3. Revaluation Surplus (Deficit) from Fair Value through Other Comprehensive Income (FVOCI) of Equity	-	-36
4. Minimum Capital Requirement for Equity Exposures under IRB	359	292
5. Equity Exposure under IRB with Exemption to Calculate under Standardised Approach	3,011	2,212

Interest Rate Risk in Banking Book

Interest rate risk in banking book is considered an impact to the vulnerability of earnings and economic value including assets and liabilities profile whenever there is a change in interest rate both on and off balance sheet position.

- Interest Rate Risk in Banking Book Management Framework

Interest rate risk occurs whenever there is a mismatch in the re-pricing period of assets and liabilities. A movement in the level of interest rates may lead to higher borrowing costs when compared to earnings, resulting in lower interest rate income, which in turn influences TISCO's income and capital. The Risk Management Committee also acts as the Assets and Liabilities Management Committee (ALCO), which is responsible for managing and maintaining interest rate risk at an appropriate level.

Under the TISCO internal model in assessing interest rate risk in banking book, the risk has been measured on a monthly basis by applying the appropriate assumptions in order to estimate the interest rate movement and applying the concept of Value at Risk to calculate the possible impact to TISCO earnings at confident level of 99%.

Table 30 Impact from Change in Interest Rate* to Earnings

Unit : Million Baht

Currency	Impact to Earnings	
	31 Dec 20	31 Dec 19
Baht	122	137
USD	-	-
EURO	-	-
Others	-	-
Total Impact to Earnings	**122**	**137**

* Change in Interest Rate of 100 bps

Operational Risk

Reference is made to the definition given by Basel Committee on Banking Supervision of the Bank for International Settlements and in accordance with the Policy Statement of the BOT in regard to the Operational Risk Management. Operation Risk is defined as the vulnerability of earnings, capital, or business continuity due to inadequate or deficient or failed internal processes, people, technology or external factors including the legal risk and fraud risk. The impact can be classified into financial loss and non-financial loss as reputational damage and business opportunity losses. TISCO Group well realizes that the operational risk is one of the risks those may significantly impact to the business undertaking of TISCO Group. Thereby, TISCO Group puts more emphasis on the operational risk management and continuously develops the operational risk management programs and processes with an aim to minimize the possible operational risks.

- Operational Risk Management Framework

The operational risk management policy is set by TISCO Financial Group Public Company Limited and coherent adoption across all subsidiary companies in TISCO Group. Operational Risk Management function performs duties in supporting and impelling all functions in proceeding operations in accordance with the framework stipulated in the operational risk management policy as well as providing assurance on the adequate control systems established for each business under risk-return perspectives. Compliance functions shall have duty in overseeing all functions to operate in compliance with the rules and regulations of the supervisory authorities. IT Risk Management function performs IT risk analysis and provides proper recommendation to all IT and business functions for appropriate IT control level as well as IT compliance. Internal Audit function shall independently conduct audit process and provide assurance on the internal control system and whole risk management processes under the supervision of the Audit Committee.

In year 2020, TISCO Group has expanded new digitalized service channels to customers and new business products; therefore, operational risk increased accordingly following the business expansion. Nevertheless, the inherent risks in all aspects of such new businesses were analyzed and well managed to assure that the possible risks were mitigated to be in acceptable risks with prudent control process establishment in compliance with TISCO New Business Guideline prior launching. As a result of business expansion as well as the increasing trend of complex fraudulent behavior in current environment TISCO has enhanced the capacity of Transaction Fraud Monitoring System. The system shall be capable to detect the irregularities in order to have further prudent investigation on the appropriateness of transactional execution and minimize the possible losses incurred either to customers or TISCO.

Pursuant to the ongoing operational risk management process of the TISCO Group, it starts from the establishment of operational risk management culture by building control awareness to all business units and educating them in regard to the stipulations according to the operational risk management framework for thorough understanding and perception. For practicing as risk owner, all functions shall have to participate and take accountabilities in managing operational risk of functions under their supervision. Operational Risk Management function shall have duty in managing overall operational risk in an enterprise wide addition to the duty in supporting, overseeing and monitoring all functions to proceed in accordance with the determined operational risk management framework. In the process of operational risk assessment, the key operational risk would be identified together with the assessment on the control effectiveness. The remedial action plan as well as the Key Risk Indicators would be subsequently determined in order to mitigate the revealed residual risks or prevent the incurrence of possible risks for properly mitigating risks for properly containing them within the acceptable risk level appropriate to each business (Risk Appetite). The result of the risk assessment in corporate level would be reported to the Risk Oversight Committee, the Risk Management Committee and the Audit Committee for acknowledgement. Due to the information technology places importance in business operations of TISCO Group as well as the expansion of digitalized service channels, these resulted to the dramatically increasing of IT risk including but not limited to the cyber threats. IT Risk Management function shall be responsible for supervising and governing IT risk. The function also has duty to assess the appropriateness and efficiency of control measures over related to IT risk, follow IT risk through IT KRI for properly mitigating risks and containing them within the acceptable risk level and to determine the appropriate IT risk management. The IT Risk Committee has set up with an aim to govern the efficiency of IT risk management of TISCO Group.

In regard to the incident management process which treated as an integral part of operational risk management, TISCO Group has arranged the supporting system to log and track the incidents. The purpose of the system arrangement is aimed to have the systematic and integrated remedial process with monitoring control for timely responses. Other than that, the incident and loss database would be gathered to make analysis for mitigating repeated risks for monitoring purpose in order to minimize the error rate or enhance the operational efficiency. In addition, TISCO has formulated the guideline and authority delegation for considering and approving the compensation made to the customers in order to have the standardized practice and fair to affected customers. The overall results of the incident incurrence within TISCO Group as well as the notable operational incidents as well as the summarized report of compensation made to customers would be reported to the relevant committees for acknowledgement and determination remedial actions as deemed appropriate. With respect to the complaint handling and management process, TISCO arranged various channels for accepting complaints and determined the measures for handling and resolving complaints cases within determined timeframe. The complaint cases shall be analyzed and summarized the results to report to the relevant managements for considering improving the effectiveness of operational processes as deemed appropriate.

Whereas the TISCO Group undertakes financial businesses and provides financial services to customers, the continuity of business undertaking in order not to disrupt the services provision to the customers is the crucial matter that the TISCO Group highly emphasizes on. TISCO has well developed and proactively prepared readiness of every system and process relating to the critical businesses for ascertaining the continuous business operations (Business Continuity Plan) without any disruption. Within the Business Continuity Plan, it also covers the process for recovering the critical systems to resume their availabilities within the determined period and the other relevant contingency and backup plans. The actions according to the Business Continuity Plan is subjected to be tested on a regular basis in order to make all relevant business units perceive and understand their roles and responsibilities and actions required to be taken whenever disaster incurs. In addition, TISCO has realized the severity of several impacts those may affect to the safety of employees, customers, counterparties or other relevant parties, thereby, the Emergency Plan has been established as an integral part of the Business Continuity Plan to determine appropriate action plans for managing various emergency situations exposed from external events with the primary objective to secure the safety and minimize possible losses. In order to support and enhance the efficiency of the proceeding in accordance with the Business Continuity Plan, TISCO Group has determined communication plan and channels for communication between managements and employees including the communicating channels with the external parties in order to convey the situation updates and the corporate action plans to all relevant persons in the timely manner.

Given the current situation, cyber threats are a growing potential risk that could cause damage to the organization's business operations either in the form of monetary effects or corporate reputation or any other forms. TISCO are well aware of the impact of such threats and proactively prepares the preventive measures and proper response plan in the event of such impacts incurred. To raise awareness and perception of all employees, the enhancement of the understanding on cyber threats is regularly conducted through organizational training, posting on various office places including the announcement of information on the corporate website with an aim to avoid or reduce the possibility of being affected by cyber threats. Additionally, the study on the potential cyber-crime attack, monitoring and assessment on possible IT risks and cyber threats are regularly conducted in order to effectively improve the quality of risk management, appropriately harden the security and prepare for preventive measures and establish response plan including the communication plan both for internal and external parties.

Composition of capital disclosure requirements

Attachment 1

Main features of regulatory capital instruments

	Subject	Description						
1	Issuer	TISCO Financial Group Public Company Limited						
2	Unique identifier	TISCO268A	TISCO272A	TISCO27NA	TISCO292A	TISCO292B	TISCO 306A	TISCO 30OA
	BOT's regulatory treatment							
3	Instrument type (CET 1 / Tier 1 / Tier 2)	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
4	Qualified as capital under Basel III	Qualified	Qualified	Qualified	Qualified	Qualified	Qualified	Qualified
5	If not, specify unqualified feature as per the Basel III regulation	-	-	-	-	-	-	-
6	Recognised as capital partially or in full	Fully recognised	Fully recognised	Fully recognised	Fully recognised	Fully recognised	Fully recognised	Fully recognised
7	Eligible at solo/ group / group & solo	Group & Solo	Group & Solo	Group & Solo	Group & Solo	Group & Solo	Group & Solo	Group & Solo
8	Amount recognised in regulatory capital (Unit: million baht)	680 MM baht	1,000 MM baht	600 MM baht	1,200 MM baht	1,200 MM baht	690 MM baht	1,250 MM baht
9	Par value of instrument (Unit: baht)	1,000 baht	1,000 baht	1,000 baht	1,000 baht	1,000 baht	1,000 baht	1,000 baht
10	Accounting classification	Financial liabilities stated at amortised cost	Financial liabilities stated at amortised cost	Financial liabilities stated at amortised cost	Financial liabilities stated at amortised cost	Financial liabilities stated at amortised cost	Financial liabilities stated at amortised cost	Financial liabilities stated at amortised cost
11	Original date of issuance	August 10, 2016	February 23, 2017	November 15, 2017	February 1, 2019	February 22, 2019	June 10, 2020	October 21, 2020
12	Perpetual or dated	Dated	Dated	Dated	Dated	Dated	Dated	Dated
13	Original maturity date	August 10, 2026	February 23, 2027	November 15, 2027	February 1, 2029	February 22, 2029	June 10, 2030	October 21, 2030
14	Issuer call subject to prior supervisory approval	Issuer call option with BOT's prior approval	Issuer call option with BOT's prior approval	Issuer call option with BOT's prior approval	Issuer call option with BOT's prior approval	Issuer call option with BOT's prior approval	Issuer call option with BOT's prior approval	Issuer call option with BOT's prior approval
15	Optional call date, contingent call dates and redemption amount	(1) On the 5th anniversary from the issue date or at any coupon dates after the 5th year of issuance; or (2) Any change in tax law which affect tax benefits of the issuer; or (3) Any change in regulatory capital requirement that occurs on or after the issue date which disqualifies these debentures to be included in the Tier 2 capital of the issuer; or (4) Any other conditions which the Bank of Thailand may prescribe						
16	Subsequent call dates, if applicable							
	Coupons / Other returns							
17	Fixed or floating dividend / coupon	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
18	Coupon rate and any related index	Fixed at 3.875%	Fixed at 4.0%	Fixed at 3.70%	Fixed at 4.0%	Fixed at 4.0%	Fixed at 3.15%	Fixed at 3.50%
19	Existence of a dividend stopper	No dividend stopper	No dividend stopper	No dividend stopper	No dividend stopper	No dividend stopper	No dividend stopper	No dividend stopper
20	Fully discretionary, partially discretionary or mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
21	Existence of step up or other incentive to redeem	No step up interest payment	No step up interest payment	No step up interest payment	No step up interest payment	No step up interest payment	No step up interest payment	No step up interest payment
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative

	Subject	Description						
	Issuer	TISCO Financial Group Public Company Limited						
	Unique identifier	TISCO268A	TISCO272A	TISCO27NA	TISCO292A	TISCO292B	TISCO 306A	TISCO 30OA
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	-	-	-	-	-	-	-
25	If convertible, fully or partially	-	-	-	-	-	-	-
26	If convertible, conversion rate	-	-	-	-	-	-	-
27	If convertible, specify instrument type convertible into	-	-	-	-	-	-	-
28	If convertible, specify issuer of instrument it converts into	-	-	-	-	-	-	-
29	Write-down feature	Write-down feature	Write-down feature	Write-down feature	Write-down feature	Write-down feature	Write-down feature	Write-down feature
30	If write-down, write-down trigger(s)	In case of non-viability and/or regulatory authorities deciding to provide financial aids to the issuer, these debentures may be required to be written off (fully or partially).						
31	If write-down, full or partial	Full or partial write-down	Full or partial write-down	Full or partial write-down	Full or partial write-down	Full or partial write-down	Full or partial write-down	Full or partial write-down
32	If write-down, permanent or temporary	Permanent	Permanent	Permanent	Permanent	Permanent	Permanent	Permanent
33	if temporary write-down, description of write-up mechanism	-	-	-	-	-	-	-
34	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Hybrid debt capital instrument / Preferred stock / Common stock	Hybrid debt capital instrument / Preferred stock / Common stock	Hybrid debt capital instrument / Preferred stock / Common stock	Hybrid debt capital instrument / Preferred stock / Common stock	Hybrid debt capital instrument / Preferred stock / Common stock	Hybrid debt capital instrument / Preferred stock / Common stock	Hybrid debt capital instrument / Preferred stock / Common stock

Attachment 2

Reconciliation Requirements

Unit: MM baht

Items related to capital funds as of December 31, 2020		Balance sheet as in published financial statements (a)	Under regulatory scope of consolidation (b)	References (c)
Assets				
1.	Cash	1,220	1,220	
2.	Interbank and money market items - net	38,212	38,212	
3.	Financial Asset measured at Fair Value through Profit or Loss (FVPL)	2,173	2,173	
4.	Derivatives assets	62	62	
5.	Investments - net	9,953	9,953	
6.	Investment in subsidiaries - net	805	838	
7.	Loans to customers and accrued interest receivables - net	214,888	214,888	
8.	Property foreclosed - net	30	30	
9.	Premises and equipment - net	2,922	2,922	
10.	Goodwill and intangible assets - net	214	214	J
11.	Deferred tax assets	766	766	
12.	Other assets - net	4,198	4,198	
	Total Assets	**275,443**	**275,476**	
Liabilities				
13.	Deposits	203,473	203,506	
14.	Interbank and money market items - net	5,808	5,808	
15.	Liabilities payable on demand	1,285	1,285	
16.	Financial liabilities measured at fair value through profit and loss (FVPL)	-	-	
17.	Derivatives liabilities	-	-	

Items related to capital funds as of December 31, 2020	Balance sheet as in published financial statements (a)	Under regulatory scope of consolidation (b)	References (c)
18. Debts issued and borrowings			
18.1 Subordinated unsecured debentures	6,620	6,620	L
18.2 Unsubordinated unsecured debentures	6,169	6,169	
18.3 Unsubordinated guaranteed debentures	-	-	
18.4 Bills of exchange and Promissory notes	37	37	
19 Provisions	1,691	1,691	
20. Accrued interest payables	1	1	
21. Other liabilites	10,898	10,898	
Total Liabilities	**235,981**	**236,014**	
22. Shareholders' Equity			
22.1 Share capital			
22.1.1 Registered			
22.1.1.1 Preferred shares	0	0	
22.1.1.2 Common shares	8,007	8,007	
22.1.2 Issued and paid-up			
22.1.2.1 Preferred shares	0	0	K
22.1.2.2 Common shares	8,006	8,006	A
22.2 Warrants			
22.3 Share premium (discount)			
22.3.1 Share premium (discount) on preferred shares	-	-	
22.3.2 Share premium (discount) on common shares	1,018	1,018	B
22.4 Capital surplus on treasury stock - preferred shares			

Items related to capital funds as of December 31, 2020	Balance sheet as in published financial statements (a)	Under regulatory scope of consolidation (b)	References (c)
22.5 Capital surplus on treasury stock - common shares			
22.6 Other components of shareholders' equity			
22.6.1 Surplus on revaluation of assets	1,157	1,157	F
22.6.2 Revaluation surplus (decifit) of equity investment	-	-	G
22.6.3 Revaluation surplus (decifit) of debt securities investment	6	6	H
22.6.4 Cash flow hedges Reserve	-4	-4	
22.6.5 Translation differences	-	-	I
22.6.6 Share of other comprehensive income of associates and joint ventures	-	-	
22.6.7 Other components from owner changes	679	679	C
22.7 Retained earnings (deficit)			
22.7.1 Appropriated			
22.7.1.1 Statutory reserves	801	801	D
22.7.1.2 Others		21,759	E
22.7.2 Unappropriated	27,795	6,036	
22.8 Less Treasury stocks - preferred shares	-	-	
22.9 Less Treasury stocks - common shares	-	-	
Equity attributable to owners of the company	39,459	39,459	
22.10 Non-controlling interests of the subsidiaries	3	3	
Total Shareholders' Equity	**39,462**	**39,462**	
Total Liabilities and Shareholders' Equity	**275,443**	**275,476**	

Reconciliation requirements related to capital funds

Unit: MM baht

	Capital Funds as of December 31, 2020	Components of capital funds (d)	References under regulatory scope of consolidation (e)
	Common Equity Tier 1 (CET1): Eligible items for Common Equity Tier 1		
1	Paid-up shares capital net of treasury stocks	8,006	A
2	Warrants	-	
3	Premium (discount) on common share capital - net	1,018	B
4	Statutory reserves	801	D
5	Reserve appropriated from net profit	-	
6	Retained earnings after appropriation	21,759	E
7	Accumulated other comprehensive income		
	7.1 Change in incremental from revaluation appraisal of land, buildings, or units of condominium	1,157	F
	7.2 Gain (loss) on revaluation of available for sale equity investment	-	G
	7.3 Gain (loss) on revaluation of available for sale debt securities	6	H
	7.4 Cash flow hedges Reserve	-	
	7.5 Translation differences	-4	I
	7.6 Share of other comprehensive income of associates and joint ventures	-	
8	Other items from owner changes	679	C
9	Non-controlling interest of subsidiaries operating in commercial bank business which can be counted as CET1 of consolidated financial institutions	-	
10	Total Common Equity Tier 1 (CET1) before regulatory adjustments and deduction items	33,423	
	Common Equity Tier 1 (CET1): Regulatory adjustments		
11	Cash flow hedge reserve	-	
12	Accumulated gain (loss) on fair value option	-	
13	Accumulated gain (loss) from fair value measurement of derivatives due to debit valuation adjustment	-	
14	Other items specified by the Bank of Thailand	-	
15	Total regulatory adjustments to Common Equity Tier 1	-	
	Common Equity Tier 1 (CET1): Deduction items		
16	Net loss	-	
17	Goodwill	-	
18	Intangible assets	214	J
19	Deferred tax assets	840	
20	Shortfall of provision	-	
21	Securitisation gain on sale	-	
22	Reciprocal cross-holdings in common equity between banks and other financial business companies and other supporting business	-	
23	Investment in equity including warrants of finance companies and credit foncier companies, which are held directly and indirectly	-	
24	Investment in equity including warrants counted as CET 1 of other financial institutions or other consolidated financial institutions other than specified in no. 21 and 22	-	
25	Value of underlying financial instruments countable as Tier 1 capital under shareholders' equity of other financial institutions or financial groups, in case of buying equity derivatives	-	
26	Investment in equity including warrants of joint venture companies	-	

	Capital Funds as of December 31, 2020	Components of capital funds (d)	References under regulatory scope of consolidation (e)
27	Investment in equity including warrants of companies engaged in financial business and supporting business which are held not exceeding 10% of paid-up share in each company	-	
28	Investment in equity including warrants of companies engaged in financial business and supporting business which are held exceeding 10% of paid-up share in each company	-	
29	Other items specified by the Bank of Thailand	-	
30	Deductions from Additional Tier 1 capital, for the remaining amounts in case Additional Tier 1 capital is insufficient to be fully deducted	-	
31	**Total regulatory deductions from Common Equity Tier 1**	1,054	
32	**Total Common Equity Tier 1 (CET1)**	**32,369**	
	<u>Additional Tier 1 Capital: Eligible items for Additional Tier 1</u>		
33	Proceeds from issuance of non-cumulative preferred shares, after deducting the repurchase of non-cumulative preferred shares	0	K
34	Warrants of non-cumulative preferred shares	-	
35	Proceeds from issuance of subordinated debts, in which the holders' right to receive payment is after depositors, creditors and holders of Tier 2 financial instruments	-	
36	Premium (discount) on the instruments under no. 32 to 34	-	
37	Non-controlling interest of subsidiaries which can be counted as Additional Tier 1 capital	-	
38	**Total Additional Tier 1 capital before deduction items**	0	
	<u>Additional Tier 1 Capital: Deduction items</u>		
39	Treasury financial instruments countable as Tier 1 capial	-	
40	Reciprocal cross-holding in financial instruments qualified as Additional Tier 1 capital between banks and other financial companies or other supporing business	-	
41	Investment in financial instruments qualified as Additional Tier 1 capital of other banks or other financial companies, which are held directly and indirectly	-	
42	Investment in financial instruments qualified as Additional Tier 1 capital of other financial institutions or consolidated financial companies, other than specified in no. 40 and 41	-	
43	Value of underlying financial instruments qualified as Additional Tier 1 capital of other financial institutions or other consolidated financial companies, in case of buying bond / equity derivatives and in case of selling protection of credit derivatives	-	
44	Investment in financial instruments qualified as Additional Tier 1 capital of companies engaged in financial business and supporting business which are held not exceeding 10% of all paid-up shares	-	
45	Investment in financial instruments qualified as Additional Tier 1 capital of companies engaged in financial business and supporting business which are held exceeding 10% of all paid-up shares	-	
46	Other items specified by the Bank of Thailand	-	
47	Deductions from Tier 2 capital, for the remaining amounts in case Tier 2 capital is insufficient to be fully deducted	-	
48	**Total regulatory deductions from Additional Tier 1 capital**	-	
49	**Total Additional Tier 1 capital (AT1)**	**0**	
50	**Total Tier 1 capital (T1 = CET1+AT1)**	**32,369**	
	<u>Tier 2 Capital: Eligible items for Tier 2</u>		
51	Proceeds from issuance of cumulative preferred shares, after deducting the repurchase of cumulative preferred shares	-	
52	Warrants of cumulative preferred shares	-	
53	Proceeds from issuance of subordinated debts, in which the holders' right to receive payment is after depositors and creditors	6,620	L
54	Premium (discount) on the instruments under no. 50 to 52	-	

	Capital Funds as of December 31, 2020	Components of capital funds (d)	References under regulatory scope of consolidation (e)
55	General provision	727	
56	Surplus of provision	762	
57	Non-controlling interest of subsidiaries which can be counted as Tier 2 capital	-	
58	**Total Tier 2 capital before deduction items**	8,109	
	Tier 2 Capital: Deduction items		
59	Repurchase of financial instruments qualified as Tier 2 capital	-	
60	Reciprocal cross-holding in financial instruments qualified as Tier 2 capital between banks and other financial companies or other supporing business	-	
61	Investment in financial instruments qualified as Tier 2 capital of other banks or other financial companies, which are held directly and indirectly	-	
62	Investment in financial instruments qualified as Tier 2 capital of other financial institutions or consolidated financial companies, other than specified in no. 60 and 61	-	
63	Value of underlying financial instruments qualified as Tier 2 capital of other financial institutions or other consolidated financial companies, in case of buying bond / equity derivatives and in case of selling protection of credit derivatives	-	
64	Investment in financial instruments qualified as Tier 2 capital of companies engaged in financial business and supporting business which are held not exceeding 10% of all paid-up shares	-	
65	Investment in financial instruments qualified as Tier 2 capital of companies engaged in financial business and supporting business which are held exceeding 10% of all paid-up shares	-	
66	Other items specified by the Bank of Thailand	-	
67	**Total regulatory deductions from Tier 2 capital**	-	
68	**Total Tier 2 capital (T2)**	8,109	
69	**Total Capital (TC = T1+T2)**	40,478	

Attachment 3

Capital composition during the transitional period under Basel III

Unit: MM baht

	Capital Funds as of December 31, 2020		Remaining amount subject to transitional adjustment under Basel III
	Common Equity Tier 1 (CET1): Eligible items for Common Equity Tier 1		
1	Paid-up shares capital net of treasury stocks	8,006	
2	Warrants	-	
3	Premium (discount) on common share capital (net)	1,018	
4	Statutory reserves	801	
5	Reserve appropriated from net profit	-	
6	Retained earnings after appropriation	21,759	
7	Accumulated other comprehensive income		
	7.1 Change in incremental from revaluation appraisal of land, buildings, or units of condominium	1,157	
	7.2 Gain (loss) on revaluation of available for sale equity investment	-	
	7.3 Gain (loss) on revaluation of available for sale debt securities	6	-
	7.4 Gain (loss) from translation of financial statements of foreign operations	-4	-
	7.5 Gain (loss) on fair value estimation of derivatives for cash flow hedge reserve	-	-
	7.6 Gain (loss) on hedges of a net investment in a foreign operation	-	-
8	Other items from owner changes	679	
9	Non-controlling interest of subsidiaries operating in commercial bank business which can be counted as CET1 of consolidated financial institutions	-	-
10	**Total Common Equity Tier 1 (CET1) before regulatory adjustments and deduction items**	33,423	
	Common Equity Tier 1 (CET1): Regulatory adjustments		
11	Change in fair value of derivatives for cash flow hedge reserve	-	
12	Accumulated gain (loss) on fair value option	-	
13	Accumulated gain (loss) from fair value measurement of derivatives due to debit valuation adjustment	-	
14	Other items specified by the Bank of Thailand	-	
15	**Total regulatory adjustments to Common Equity Tier 1**	-	
	Common Equity Tier 1 (CET1): Deduction items		
16	Net loss	-	
17	Goodwill	-	
18	Intangible assets	214	-
19	Deferred tax assets	840	
20	Shortfall of provision	-	
21	Securitisation gain on sale	-	-
22	Reciprocal cross-holdings in common equity between banks and other financial business companies and other supporting business	-	
23	Investment in equity including warrants of finance companies and credit foncier companies, which are held directly and indirectly	-	
24	Investment in equity including warrants counted as CET 1 of other financial institutions or other consolidated financial institutions other than specified in no. 21 and 22	-	
25	Value of underlying financial instruments countable as Tier 1 capital under shareholders' equity of other financial institutions or financial groups, in case of buying equity derivatives	-	

	Capital Funds as of December 31, 2020		Remaining amount subject to transitional adjustment under Basel III
26	Investment in equity including warrants of joint venture companies	-	
27	Investment in equity including warrants of companies engaged in financial business and supporting business which are held not exceeding 10% of paid-up share in each company	-	-
28	Investment in equity including warrants of companies engaged in financial business and supporting business which are held exceeding 10% of paid-up share in each company	-	-
29	Other items specified by the Bank of Thailand	-	
30	Deductions from Additional Tier 1 capital, for the remaining amounts in case Additional Tier 1 capital is insufficient to be fully deducted	-	
31	**Total regulatory deductions from Common Equity Tier 1**	1,054	
32	**Total Common Equity Tier 1 (CET1)**	**32,369**	
	Additional Tier 1 Capital: Eligible items for Additional Tier 1		
33	Proceeds from issuance of non-cumulative preferred shares, after deducting the repurchase of non-cumulative preferred shares	0	
34	Warrants of non-cumulative preferred shares	-	
35	Proceeds from issuance of subordinated debts, in which the holders' right to receive payment is after depositors, creditors and holders of Tier 2 financial instruments	-	
36	Premium (discount) on the instruments under no. 32 to 34	-	
37	Non-controlling interest of subsidiaries which can be counted as Additional Tier 1 capital	-	-
38	**Total Additional Tier 1 capital before deduction items**	0	
	Additional Tier 1 Capital: Deduction items		
39	Treasury financial instruments countable as Tier 1 capial	-	
40	Reciprocal cross-holding in financial instruments qualified as Additional Tier 1 capital between banks and other financial companies or other supporing business	-	
41	Investment in financial instruments qualified as Additional Tier 1 capital of other banks or other financial companies, which are held directly and indirectly	-	
42	Investment in financial instruments qualified as Additional Tier 1 capital of other financial institutions or consolidated financial companies, other than specified in no. 39 and 40	-	
43	Value of underlying financial instruments qualified as Additional Tier 1 capital of other financial institutions or other consolidated financial companies, in case of buying bond / equity derivatives and in case of selling protection of credit derivatives	-	
44	Investment in financial instruments qualified as Additional Tier 1 capital of companies engaged in financial business and supporting business which are held not exceeding 10% of all paid-up shares	-	-
45	Investment in financial instruments qualified as Additional Tier 1 capital of companies engaged in financial business and supporting business which are held exceeding 10% of all paid-up shares	-	-
46	Other items specified by the Bank of Thailand	-	
47	Deductions from Tier 2 capital, for the remaining amounts in case Tier 2 capital is insufficient to be fully deducted	-	
48	**Total regulatory deductions from Additional Tier 1 capital**	-	
49	**Total Additional Tier 1 capital (AT1)**	**0**	
50	**Total Tier 1 capital (T1 = CET1+AT1)**	**32,369**	
	Tier 2 Capital: Eligible items for Tier 2		
51	Proceeds from issuance of cumulative preferred shares, after deducting the repurchase of cumulative preferred shares	-	
52	Warrants of cumulative preferred shares	-	
53	Proceeds from issuance of subordinated debts, in which the holders' right to receive payment is after depositors and creditors	6,620	-
54	Premium (discount) on the instruments under no. 50 to 52	-	
55	General provision	727	
56	Surplus of provision	762	
57	Non-controlling interest of subsidiaries which can be counted as Tier 2 capital	-	-
58	**Total Tier 2 capital before deduction items**	8,109	

Capital Funds as of December 31, 2020			Remaining amount subject to transitional adjustment under Basel III
Tier 2 Capital: Deduction items			
59	Repurchase of financial instruments qualified as Tier 2 capital	-	
60	Reciprocal cross-holding in financial instruments qualified as Tier 2 capital between banks and other financial companies or other supporing business	-	
61	Investment in financial instruments qualified as Tier 2 capital of other banks or other financial companies, which are held directly and indirectly	-	
62	Investment in financial instruments qualified as Tier 2 capital of other financial institutions or consolidated financial companies, other than specified in no. 59 and 60	-	
63	Value of underlying financial instruments qualified as Tier 2 capital of other financial institutions or other consolidated financial companies, in case of buying bond / equity derivatives and in case of selling protection of credit derivatives	-	
64	Investment in financial instruments qualified as Tier 2 capital of companies engaged in financial business and supporting business which are held not exceeding 10% of all paid-up shares	-	-
65	Investment in financial instruments qualified as Tier 2 capital of companies engaged in financial business and supporting business which are held exceeding 10% of all paid-up shares	-	-
66	Other items specified by the Bank of Thailand	-	
67	**Total regulatory deductions from Tier 2 capital**	**-**	
68	**Total Tier 2 capital (T2)**	**8,109**	
69	**Total Capital (TC = T1+T2)**	**40,478**	

Capital instruments which are not qualified under Basel III requirement will be phased out at the rate of 10% each year since 2013, and will no longer be included as capital from 2022 onward. For TISCO Group, there was no capital instrument unqualified under Basel III at the end of December 2020.