SCB X Public Company Limited

BASEL III PILLAR 3 MARKET DISCLOSURE
DECEMBER 2022

CONTENTS

INDEX OF TABLES

INDEX OF FIGURES

1. INTRODUCTION

Siam Commercial Bank PCL (SCB) or “Bank” and its Financial Group started to adopt Basel III, the latest global regulatory framework for assessing bank capital adequacy and liquidity, on 1 January 2013 to further strengthen its risk management practices. The Bank’s implementation of Basel III strictly follows the Basel Committee on Banking Supervision’s guidelines and the Bank of Thailand (BOT)’s regulations.

In September 2017, the Bank was designated as one of the Domestic Systemically Important Banks (D-SIBs) by the BOT. This status resulted in a requirement to maintain an additional Common Equity Tier 1 (CET1) of 1.0% on top of the capital conservation buffer of 2.5%.

Following the TFRS 9 adoption in January 2020, commercial banks are required to hold minimum provisions relative to a defined list of performing and under-performing assets and off-balance sheet items according to the following schedules: 0.33% in 2020, 0.67% in 2021, and 1.0% for 2022 onwards. If available provisions fall short of the required minimum, banks must adjust for such differences in the capital fund items starting from January 1, 2020.

To implement the strategy for enhancing the competitiveness of SCB Group, according to the Extraordinary General Meeting of Shareholders of The Siam Commercial Bank Public Company Limited No. 1/2021, SCB Financial Group Restructuring Plan was approved, in which the Bank arranged for the establishment of SCB X Public Company Limited (“SCBX”) to be the parent company of the companies in the financial group in order to broaden its vision and aspire to become “the most admired financial technology group in ASEAN” amid rapidly changing consumer behavior and business landscape upon technological development and intense competition from both existing and new players.

SCBX Financial Group and SCB are still subject to BOT regulations and are required to maintain the minimum capital requirements including additional buffers as prescribed by the BOT. The policy of maintaining capital levels well above the minimum regulatory requirements, as well as adequate loan loss provisions, remains in place to allow the Financial Group to absorb unexpected events and new types of risks that may arise from new businesses under SCBX Financial Group in the future.

The current Basel Capital Accord comprises three pillars, each of which is essential for promoting the stability of financial institutions:

Pillar I provides guidelines on minimum capital requirements for credit risk, market risk and operational risk.

Pillar II addresses the key principles of supervisory review processes and relevant internal risk assessment beyond Pillar I, with an emphasis on a bank's internal capital adequacy assessment process (ICAAP).

Pillar III leverages market mechanism for bank supervision by requiring public disclosure of key information on capital adequacy and risk exposure as well as risk assessment and management.

This Pillar III report presents both qualitative and quantitative information on capital adequacy and measurement of credit risk, market risk in the trading book, and operational risk for both SCB (referred to as 'Bank-only') and SCBX Financial Group (referred to as 'Consolidated'). The report also provides information on risk management guidelines and frameworks, risk components, risk monitoring and reporting, and methodologies used to assess capital adequacy.

Qualitative information is updated annually, or whenever there is any material policy change. The Pillar III reports are published twice a year to disclose half-year and full-year information within four months of the report date (i.e. end of June 30 and December 31) as required by the BOT.

A copy of the report can be found on the Bank's website and SCBX's website under Investor Relations at *https://www.scb.co.th/en/investor-relations/financial-information.html* and *https://www.scbx.com/en/investor-relations/pillar-iii-disclosure.html*.

Beginning 1 January 2020, the BOT's disclosure requirement has been revised to include key prudential metrics to reflect the provisioning impact from TFRS 9. Moreover, the BOT also revised disclosure of general provision, which is eligible as Tier 2 capital, amended terminology to be in line with financial statements and updated capital disclosure during a transitional period according to the Basel III framework.

Although external audit is not required for this report, the Bank and SCBX have an internal verification and approval process to ensure that contents of the report adhere to the Pillar III disclosure policy. In addition to following the Basel III framework in disclosure principles, information in this report is the same as that used internally by management and for reports submitted to the BOT.

2. SCOPE OF APPLICATION

Standardized Approach

SCB and SCBX Financial Group have adopted the Standardized Approach (SA), which follows the BOT's guidelines on credit risk, market risk, and operational risk measurement, as a computational framework for regulatory capital requirements.

Accounting Consolidation

Consolidated financial statements present information on combined assets and liabilities of SCBX Financial Group. The methodology for consolidating financial statements in accordance with the Thai Financial Reporting Standards can be found in SCBX's 2022 Annual Report.

Regulatory Consolidation[1/]

Regulatory consolidation consists of **solo consolidation**, which considers only financial entities of which the Bank owns more than 75%, and **full consolidation** (referred to as 'Consolidated'), which encompasses all entities within the Financial Group, including those under solo consolidation, other subsidiaries in finance or support businesses. Under Basel III, investment in life insurance businesses or other financial entities in which the Bank and/or the parent company of the Financial Group hold more than 10% but less than 50% of issued shares is considered 'investment outside the scope of consolidation' and will be treated separately according to the BOT's guidelines.

Treatment of investment outside the scope of consolidation such as life insurance companies, depends on how much of issued common shares are held by the Bank and/or its parent company with 10% being the threshold level:

- The investment does not exceed 10% of issued common shares:

  The BOT requires that calculation be split into two parts. The portion of investment that exceeds 10% of the Bank and the Financial Group's net common equity Tier 1 capital (net CET1) must be deducted from the corresponding tier of capital (Corresponding Approach). The remaining portion under 10% of net CET1 is assigned a risk weight according to the BOT's guidelines.

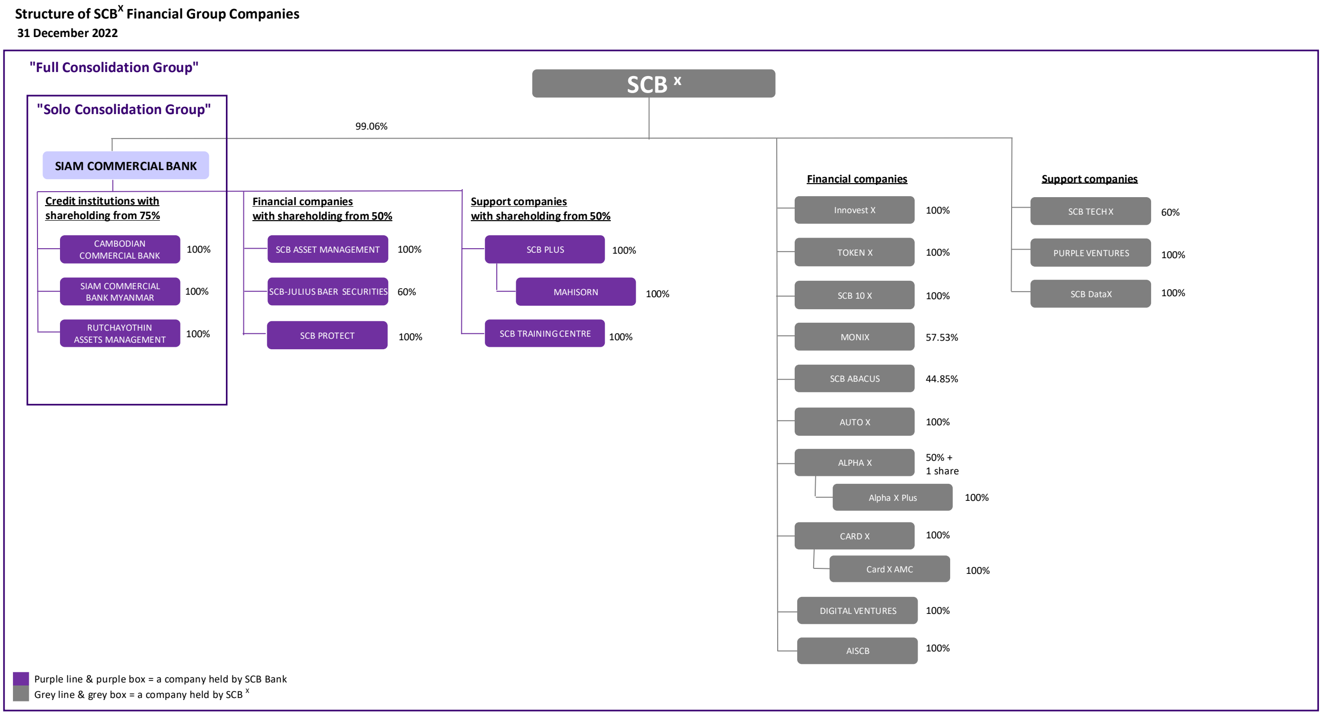
- The investment exceeds 10% of issued common shares:

  In this case which is considered a significant investment based on the threshold approach, the BOT requires calculation to be split into two parts. The portion of investment that exceeds 10% of the Bank and the Financial Group's net CET1 must be deducted from the corresponding tier of capital. Any shortfall must be deducted from the next higher tier of capital. The remaining portion under 10% of net CET1 will be assigned a risk weight of 250%.

This report presents quantitative information for both bank-only and consolidated basis.

[1/] See more details on regulatory consolidation in the Appendix.

Figure 1: List of Companies and Business Types within the SCBX Financial Group as of December 31, 2022



3. KEY PRUDENTIAL METRICS

Table 1: Key Prudential Metrics

Unit: Baht million, %

		Bank-Only		Consolidated	
		31 Dec 22	30 Jun 22	31 Dec 22	30 Jun 22
1.	**Available Capital (amounts)**				
1.1	Common Equity Tier 1 (CET1)	344,932	403,081	408,286	404,829
1.2	Fully loaded ECL CET1	344,932	403,081	408,286	404,829
1.3	Tier 1	344,932	403,081	409,359	405,793
1.4	Fully loaded ECL Tier 1	344,932	403,081	409,359	405,793
1.5	Total capital	369,182	428,146	434,907	431,429
1.6	Fully loaded ECL total capital	369,182	428,146	434,907	431,429
2.	**Risk-weighted assets (amounts)**				
2.1	Total risk-weighted assets (RWA)	2,220,000	2,282,813	2,306,339	2,311,276
3.	**Risk-based capital ratios as % of RWA**				
3.1	Common Equity Tier 1 ratio (%)	15.54%	17.66%	17.70%	17.52%
3.2	Fully loaded ECL Common Equity Tier 1 (%)	15.54%	17.66%	17.70%	17.52%
3.3	Tier 1 ratio (%)	15.54%	17.66%	17.75%	17.56%
3.4	Fully loaded ECL Tier 1 ratio (%)	15.54%	17.66%	17.75%	17.56%
3.5	Total capital ratio (%)	16.63%	18.76%	18.86%	18.67%
3.6	Fully loaded ECL total capital ratio (%)	16.63%	18.76%	18.86%	18.67%
4.	**Additional CET1 buffer requirements as % of RWA**				
4.1	Capital conservation buffer requirement (%)	2.5%	2.5%	2.5%	2.5%
4.2	Countercyclical buffer requirement (%)	0.0%	0.0%	0.0%	0.0%
4.3	Higher loss absorbency for D-SIB (%)	1.0%	1.0%	1.0%	1.0%
4.4	Total capital buffer requirements (%)	3.5%	3.5%	3.5%	3.5%
4.5	CET1 available after meeting the bank's minimum capital requirements (%)[1/]	8.1%	10.3%	10.4%	10.2%
5.	**Liquidity Coverage Ratio for Bank-Only basis**[2/]				
5.1	Total HQLA	834,934	852,163		
5.2	Total net cash outflows	387,233	405,966		
5.3	LCR ratio (%)	216%	210%		

1/ An excess of CET1 above the minimum regulatory capital adequacy ratio including minimum ratios for Tier 1, and Tier 2 which CET1 is used to maintain minimum capital requirement.

2/ Average LCR for Q4/2021 and Q2/2021 were calculated using simple averages of month-end data for each quarter. For example, Q4 data were obtained by taking a simple average of month-end data in October, November and December.

Highlight of changes to the Bank's capital and key drivers

As of December 31, 2022, the Bank's Tier 1 was 15.54%, a decrease of around 2.12% from June 2022 mainly due to the special dividend payment of Baht 61 billion to the Bank's shareholders. On a consolidated basis, Tier 1 capital was 17.75%, a decrease of around 0.19% from June 2022 mainly due to a decline in capital deduct on CET 1 capital. The capital position at the end of 2022 from both bank-only and consolidated perspectives far exceeded the minimum regulatory requirements including additional buffers.

Given its strong CET1 capital position, the Bank opted to recognize the full amount of capital impact from provisioning based on Expected Credit Loss (ECL) as required by TFRS 9 right from the first day that the new accounting standard came into effect on January 1, 2020. As a result, the Bank's Common Equity Tier 1 and Tier 1 capital is the same as fully loaded ECL Common Equity Tier 1 / Tier 1 capital.

4. REGULATORY CAPITAL

4.1 Capital Management

Since capital is the most critical resource for the banking business, SCB and SCBX Financial Group have adopted the Internal Capital Adequacy Assessment Process (ICAAP) to assess material risks and capital adequacy under both normal and stress conditions. Moreover, policies and procedures have been developed and put in place to ensure that SCB and SCBX Financial Group's capital:

- Provides adequate cushion to absorb unexpected losses and builds market confidence in the Bank's financial strength by maintaining capital in excess of the minimum regulatory requirements at all times;
- Matches the risk profile of SCB and SCBX Financial Group, facilitates growth based on their business strategies, and provides the ability to withstand potential risks from an economic downturn or other adverse scenarios; and
- Strikes the right balance between shareholders' returns and the prudential capital position.

Senior management is responsible for reviewing capital adequacy regularly based on business needs and potential regulatory changes as primary considerations.

4.2 Capital Structure and Adequacy

Capital Structure

Regulatory capital under Basel III consists of 3 following categories:

(1) **Common Equity Tier 1 Capital (CET1)** represents the highest-quality component of capital which includes:

- Fully paid-up common shares
- Premium on common shares
- Appropriated retained earnings
- Legal reserves
- Other comprehensive income, i.e. revaluation surplus on land and premises, and revaluation surplus on FVOCI investment
- Items of financial business group that operates commercial bank business, only non-controlling interests that can be included in Common Equity Tier 1 of the financial business group

(2) **Additional Tier 1 Capital** consists of high-quality capital, which includes:

- Fully paid-up non-cumulative preferred shares
- Premium on the above-mentioned preferred shares
- Perpetual subordinated debt
- Items of financial business group only non-controlling interest and third parties that can be included in Additional Tier 1 of the financial business group

(3) **Tier 2 Capital** consists of:

- Long-term subordinated liabilities
- General provisions (eligibility limited to 1.25% of credit risk-weighted assets)
- Items of financial business group only non-controlling interest and third parties that can be included in Tier 2 capital of the financial business group

Capital Adequacy

Maintaining adequate capital is crucial for financial stability of the Bank and SCBX Financial Group as it provides cushion against risk that arises from the business operation. SCB and SCBX Financial Group identify and manage risk by setting internal control procedures and performing stress tests as well as assessing and managing risk impacts through the capital planning process. Scenario analysis and stress tests are employed to assess the sensitivities of regulatory capital to business plans and adverse shocks from extreme yet plausible events. SCB and SCBX Financial Group use these analytical tools to forecast financial impacts from the business plans and capital needs and to come up with impact mitigation plans should such adverse events occur.

To comply with the regulatory requirements, SCB and SCBX Financial Group must maintain capital at a level deemed sufficient to cover credit risk, market risk, and operational risk. In addition, the Bank is required to maintain a capital conservation buffer of 2.5% of CET1. Furthermore, banks designated as Domestic Systemically Important Banks (D-SIBs) by the BOT must maintain additional CET1 of 1% to enhance their ability to absorb losses and mitigate any impact to the overall financial sector and the economy.

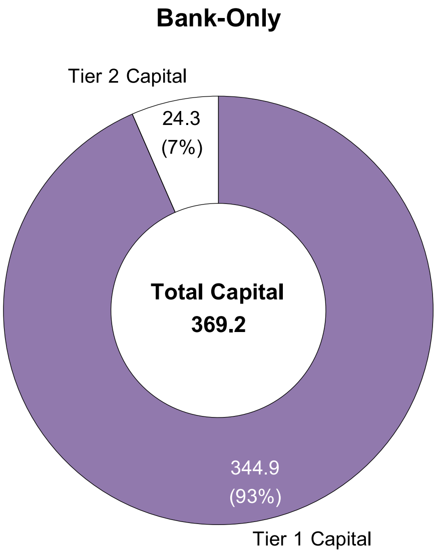
As a result, throughout 2020, the Bank and the Financial Group must maintain the minimum ratios of Common Equity Tier 1 (CET1) at 8.0%, Tier 1 capital at 9.5%, and total CAR at 12.0%.

As of December 31, 2022, the total CAR was 18.86% on a consolidated basis and 16.63% on a bank-only basis, while Tier 1 capital was 17.75% on a consolidated basis and 15.54% on a bank-only basis and CET1 capital stood at 17.70% on a consolidated basis and 15.54% on a bank-only basis.

Note: The ratios as of December 31, 2022 excluded net profit after dividend payment for 2022.

Figure 2: Basel III Capital Structure as of December 31, 2022

(In Baht billion)



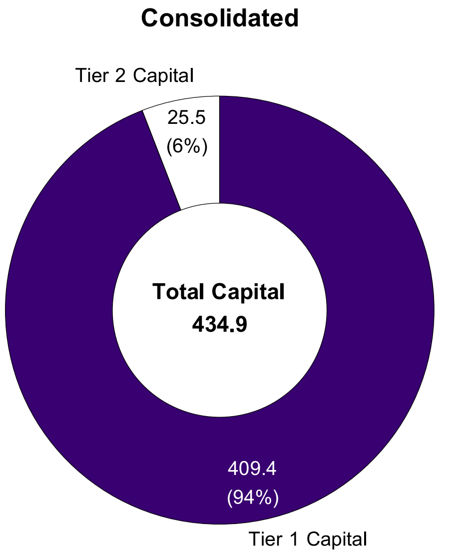
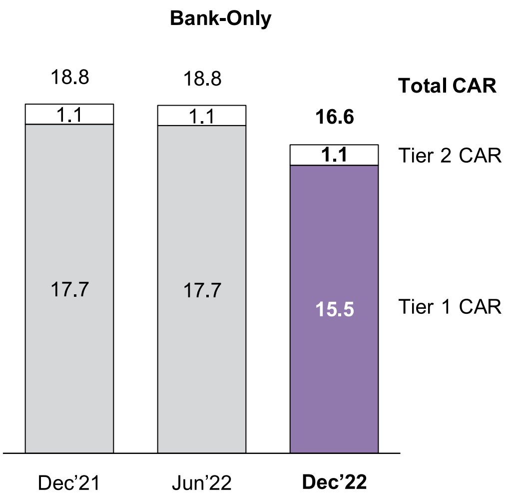


Figure 3: Capital Adequacy Ratios under the Standardized Approach (SA)

(In % of RWAs)



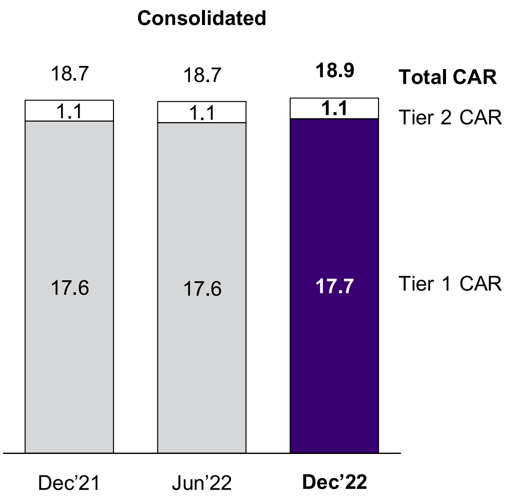


Table 2: Comprehensive Regulatory Capital and Capital Adequacy

Unit: Baht million, %

	Bank-Only			Consolidated		
	31 Dec 22	30 Jun 22	31 Dec 21	31 Dec 22	30 Jun 22	31 Dec 21
Tier 1 capital	**344,932**	**403,081**	**397,032**	**409,359**	**405,793**	**399,566**
Common Equity Tier 1 (CET1)	**344,932**	**403,081**	**397,032**	**408,286**	**404,829**	**399,566**
Paid-up common shares capital	33,992	33,992	33,992	33,671	33,671	33,992
Surplus (deficit) net worth	11,124	11,124	11,124	11,019	11,019	11,124
Legal reserve	7,000	7,000	7,000	3,400	6,934	7,000
Net profit after appropriation	293,281	354,281	345,471	360,647	357,113	347,169
Other reserves						
Other comprehensive income	18,775	18,692	20,131	20,580	20,251	21,458
Others owner changes items	-	-	-	90	0	0
Items of financial business group that operates commercial bank business, only non-controlling interests that can be included in Common Equity Tier 1 of the financial business group	-	-	-	1,668	1,648	-
Regulatory deduction to CET1 capital	(19,240)	(22,008)	(20,686)	(22,788)	(25,807)	(21,178)
Additional Tier 1	**-**	**-**	**-**	**1,072**	**964**	**-**
Items of financial business group only non-controlling interest and third parties that can be included in Additional Tier 1 of the financial business group	-	-	-	1,072	964	-
Tier 2 capital	**24,250**	**25,065**	**24,612**	**25,548**	**25,636**	**24,669**
Proceeds from issuing subordinated debt securities	-	-	-	-	-	-
General provision	24,250	25,065	24,612	24,983	25,064	24,669
Items of financial business group only non-controlling interest and third parties that can be included in Tier 2 capital of the financial business group	-	-	-	565	573	-
Total Regulatory Capital	**369,182**	**428,146**	**421,644**	**434,907**	**431,429**	**424,235**
Risk-weighted assets						
Credit risk	1,940,018	2,005,168	1,968,929	1,998,651	2,005,087	1,973,536
Market risk	47,945	49,955	45,854	69,311	72,341	61,929
Operational risk	232,037	227,690	223,569	238,377	233,847	229,977
Total Risk-Weighted Assets	**2,220,000**	**2,282,813**	**2,238,352**	**2,306,339**	**2,311,276**	**2,265,443**
Total capital/ Total risk-weighted assets	**16.63%**	**18.76%**	**18.84%**	**18.86%**	**18.67%**	**18.73%**
Total Tier 1 capital/ Total risk-weighted assets	**15.54%**	**17.66%**	**17.74%**	**17.75%**	**17.56%**	**17.64%**
Total CET1 capital/ Total risk-weighted assets	**15.54%**	**17.66%**	**17.74%**	**17.70%**	**17.52%**	**17.64%**
Minimum regulatory capital adequacy ratios:						
Minimum total capital/ Total risk-weighted assets	8.50%	8.50%	8.50%	8.50%	8.50%	8.50%
Minimum Tier 1 capital/ Total risk-weighted assets	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
Minimum CET1 capital/ Total risk-weighted assets	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Capital conservation buffer requirements	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Higher loss absorbency for D-SIBs [1/]	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Total minimum CAR including capital conservation buffer	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%

1/ D-SIB buffer requires additional CET1 of 1.0% in 2020 onwards.

Table 3: Capital Requirements by Risk Type

Unit: Baht million

	Bank-Only			Consolidated		
	31 Dec 22	**30 Jun 22**	**31 Dec 21**	**31 Dec 22**	**30 Jun 22**	**31 Dec 21**
Credit risk - Standardized Approach						
Performing						
Governments, Central Banks, MDBs [1/] and PSEs [2/] treated as Sovereign	349	522	371	1,108	1,339	1,345
Banks and PSEs [2/] treated as banks	1,646	2,007	1,719	1,844	2,131	1,794
Corporates [3/] and PSEs [2/] treated as corporates	93,028	90,784	87,915	88,241	90,394	87,800
Retail	37,436	43,808	43,118	45,843	44,490	43,611
Retail mortgage loans	18,684	18,069	18,038	18,684	18,069	18,038
Other assets [4/]	11,009	12,122	12,818	11,384	10,864	11,766
Non-performing	2,750	3,127	3,379	2,781	3,146	3,396
First-to-default credit derivatives and securitization	-	-	-	-	-	-
Minimum capital requirements for credit risk	**164,902**	**170,439**	**167,359**	**169,885**	**170,432**	**167,751**
Market risk - Standardized Approach						
Interest rate risk	2,502	3,010	3,212	2,508	3,017	3,219
Equity position risk	-	-	-	85	182	115
Foreign exchange risk	1,574	1,236	686	3,298	2,951	1,929
Commodity risk	-	-	-	-	-	-
Minimum capital requirements for market risk	**4,075**	**4,246**	**3,898**	**5,891**	**6,149**	**5,264**
Operational risk - Standardized Approach						
Minimum capital requirements for operational risk	**19,723**	**19,354**	**19,003**	**20,262**	**19,877**	**19,548**
Total minimum capital requirements [5/]	**188,700**	**194,039**	**190,260**	**196,039**	**196,458**	**192,563**

1/ Multilateral development banks

2/ Public sector entities

3/ Including claims on individuals and their related parties when aggregated limits exceed conditions of claims on retail

4/ Other assets under Basel III include investment outside the scope of consolidation which carries a 250% risk-weight

5/ Minimum capital requirements are calculated based on the minimum regulatory capital adequacy ratio at 8.5%. If capital conservation buffer of 2.5% and D-SIB buffer of 1.0%, total capital requirements at end of December 2022 would have been Baht 266,400 million on a bank-only basis and Baht 276,761 million on a consolidated basis.

Table 4: Main Features of Regulatory Capital Instruments

Ordinary share		
Issuer	The Siam Commercial Bank PCL	SCB X Public Company Limited
Unique identifier	ISIN Code: TH0015010000	ISIN Code: THA790010005
Regulatory treatment		
Instrument type	Common Equity Tier 1 capital	Common Equity Tier 1 capital
Qualified or non-qualified Basel III	Qualified	Qualified
Non-qualified Basel III features	-	-
Phased-out or full amount	Full amount	Full amount
Eligible at Solo / Group / Group and Solo	Solo	Group
Amount recognized in regulatory capital	33,992 million Baht [1/]	33,671 million Baht
Par value of instrument	10 Baht	10 Baht
Accounting classification	Shareholder's equity	Shareholder's equity
Original date of issuance	Multiple	22 April 2022
Perpetual or dated	Perpetual	Perpetual
Original maturity date	No maturity	No maturity
Issuer's authority to call prior to supervisory approval	No	No
Optional call date, contingent call date and redemption amount	-	-
Subsequent call dates, if applicable	-	-
Coupons / dividends		
Fixed or floating dividend / coupon	Discretionary dividend amount	Discretionary dividend amount
Coupon rate and any related index	The ordinary shares receive distributable profit that has been declared as dividend.	The ordinary shares receive distributable profit that has been declared as dividend.
Existence of a dividend stopper	No	No
Fully discretionary, partially discretionary or mandatory	Fully discretionary	Fully discretionary
Existence of step up or other incentive to redeem	No	No
Non-cumulative or cumulative	Non-cumulative	Non-cumulative
Convertible or non-convertible	Non-convertible	Non-convertible
Write-down feature	No	No
Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	The ordinary shares shall receive the return of capital in a winding-up, allowing the holders the rights to participate in any surplus profit or assets of the company after all senior obligations have been paid off.	The ordinary shares shall receive the return of capital in a winding-up, allowing the holders the rights to participate in any surplus profit or assets of the company after all senior obligations have been paid off.

1/ Preferential rights of the Bank’s preferred shares (Baht 36 million) expired on May 10, 2009. Since then, preferred shareholders have had the same rights as ordinary shareholders.

Table 5: Reconciliation of regulatory capital items

Unit: Baht million

Capital related items as of 31 December 2022	Balance sheet as per the published financial statements[1/]	Balance sheet under the regulatory scope of consolidation [2/]	References
Assets			
Cash	47,254	47,254	
Interbank and money market items, net	522,056	522,008	
Financial asstes measured at FVTPL	62,327	62,327	
Derivative assets	66,084	66,084	
Investments, net	390,671	390,671	
Investments in subsidiaries, associates and joint venture, net	1,206	1,394	
Loans to customers and accrued interest receivables, net			
Loans to customers	2,377,214	2,377,214	
Accrued interest receivables and undue interest receivables	19,523	19,523	
Total loans to customers and accrued interest receivables and undue interest receivables	2,396,737	2,396,737	
Less Unamortised modification loss	(3,336)	(3,336)	
Less Allowance for expected credit loss	(145,554)	(145,554)	
Qualified as capital		(24,983)	R
Non-qualified as capital		(120,571)	
Total loans to customers and accrued interest receivables, net	2,247,848	2,247,848	
Properties for sale, net	22,441	22,441	
Investment properties, net	495	495	
Premises and equipment, net	46,457	46,457	
Goodwill and other intangible assets, net	20,479	20,479	
Goodwill	1,270	1,270	M
Other intangible assets	19,209	19,209	N
Deferred tax assets	3,225	3,225	O
Other assets, net	23,910	23,910	
Total assets	**3,454,452**	**3,454,593**	
Liabilities			
Deposits	2,555,800	2,555,800	
Interbank and money market items	181,347	181,347	
Liabilities payable on demand	11,429	11,429	
Financial liabilities measured at FVTPL	39	39	
Derivative liabilities	60,632	60,632	
Debt issued and borrowings	71,996	71,996	
Provisions	19,373	19,373	
Deferred tax liabilities	929	929	P
Other liabilities	86,295	86,294	
Total liabilities	**2,987,840**	**2,987,840**	

Table 5 (Cont.)

Unit: Baht million

Capital related items as of 31 December 2022	Balance sheet as per the published financial statements 1/	Balance sheet under the regulatory scope of consolidation 2/	แหล่งอ้างอิง
Owner's Equity			
Share capital			
Issued and paid-up share capital			
Preferred shares	-	-	A
Common shares	33,671	33,671	B
Premium on share capital			
Premium on preferred shares	-	-	C
Premium on common shares	11,019	11,019	D
Other reserves			
Surplus on revaluation of land and premises	21,649	21,649	
Qualified as capital		20,368	G 3/
Non-qualified as capital		1,281	
Revaluation surplus (deficit) of investments classified at FVTOCI	934	934	H
Foreign currency translation differences	(717)	(717)	I
Surplus (deficit) from value of cash flow hedge reserve	(5)	(5)	J
Others owner changes items	90	90	K
Reserves for share-based payment	4	4	
Retained earning			
Appropriated retained earning			
Legal reserve	3,400	3,400	E
Unappropriated retained earning	391,187	391,187	
Net profit after appropriation to capital		360,647	F 4/
Net profit unappropriated to capital		30,540	
Total owners of the company	461,232	461,232	
Non-controlling interest	5,380	5,521	
Qualified as Common Equity Tier 1	-	1,668	L
Qualified as Additional Tier 1	-	1,072	Q
Qualified as Tier 2 capital	-	565	S
Non-qualified as capital	-	2,216	
Total shareholders' equity	**466,612**	**466,752**	
Total liabilities and shareholders' equity	**3,454,452**	**3,454,593**	

1/ Balance sheet per the published financial statements refers to audited financial statements on a consolidated basis as reported to the Stock Exchange of Thailand.

2/ Balance sheet under the regulatory scope of consolidation refers to financial statements on a consolidated basis under the BOT's regulation.

3/ Surplus on revaluation of land and premises can be counted toward capital only for items that the BOT has approved.

4/ Net profit for the second half of the year after being appropriated in accordance with the approved resolutions from the shareholders' meeting or profit for the first half of the year in accordance with the rules as specified by the Bank.

Table 5 (Cont.)

Unit: Baht million

Capital related items as of 31 December 2022	Regulatory capital reported by financial group	References based on balance sheet under the consolidated supervision
Tier 1 capital		
Common Equity Tier 1 (CET1) capital		
Paid-up common shares after deducting treasury shares	33,671	**A + B**
Surplus (deficit) net worth	11,019	**C + D**
Legal reserve	3,400	**E**
Net profit after appropriation	360,647	**F**
Other comprehensive income		
Revaluation surplus on land and building appraisal	20,368	**G**
Gain (loss) on investments designated at FVTOCI	934	**H**
Gain (loss) from converting foreign currency operation to the Bank	(717)	**I**
Gain (loss) from fair valued cash flow hedge reserve	(5)	**J**
Others owner changes items	90	**K**
Items of financial business group that operates commercial bank business, only non-controlling interests that can be included in Common Equity Tier 1 of the financial business group	1,668	**L**
Total CET1 capital before regulatory adjustments and deduction	431,075	
Regulatory adjustments on CET1	-	
Regulatory deductions on CET1		
Goodwill	1,270	**M**
Other intangible assets	19,209	**N**
Deferred tax assets	2,297	**O - P**
Others	13	
Total regulatory deduction on CET1	22,788	
Total CET1 capital	**408,286**	
Additional Tier 1 capital		
Items of financial business group only non-controlling interest and third parties that can be included in Additional Tier 1 of the financial business group	1,072	**Q**
Total Additional Tier 1	**1,072**	
Total Tier 1 capital	**409,359**	
Tier 2 capital		
General provision	24,983	**R**
Items of financial business group only non-controlling interest and third parties that can be included in Tier 2 capital of the financial business group	565	**S**
Total Tier 2 capital before regulatory adjustments and deduction	25,548	
Regulatory adjustment and deduction on Tier 2 capital	-	
Total Tier 2 capital	**25,548**	
Total regulatory capital	**434,907**	

Table 6: Capital Position During Transitional Period

Unit: Baht million

	Bank-only		Consolidated	
	Capital amount as of 31 December 2022	Net value of items with transitional phase subject to Basel III	Capital amount as of 31 December 2022	Net value of items with transitional phase subject to Basel III
Tier 1 capital				
Common Equity Tier 1 (CET1) capital				
Paid-up common shares capital	33,992		33,671	
Surplus (deficit) net worth	11,124		11,019	
Legal reserve	7,000		3,400	
Net profit after appropriation	293,281		360,647	
Other comprehensive income				
Revaluation surplus on land and buidling appraisal	19,059		20,368	
Gain (loss) on investments designated at FVTOCI	935		934	
Gain (loss) from converting foreign currency operation to the Bank	(1,215)		(717)	
Gain (loss) from fair valued cash flow hedge reserve	(5)		(5)	
Others owner changes items	-		90	
Items of financial business group that operates commercial bank business, only non-controlling interests that can be included in Common Equity Tier 1 of the financial business group	-		1,668	
CET1 capital before regulatory adjustments and deduction	364,172	-	431,075	-
Regulatory adjustments on CET1	-		-	
Regulatory deduction on CET1				
Goodwill	(1,270)		(1,270)	
Other intangible assets	(15,818)		(19,209)	
Deferred tax assets	(2,152)		(2,297)	
Others	-		(13)	
Total regulatory deduction on CET1	(19,240)	-	(22,788)	-
Total CET1 capital	**344,932**	**-**	**408,286**	**-**
Additional Tier 1 capital				
Items of financial business group only non-controlling interest and third parties that can be included in Additional Tier 1 of the financial business group	-		1,072	
Total Additional Tier 1	**-**	**-**	**1,072**	**-**
Total Tier 1 capital	**344,932**	**-**	**409,359**	**-**
Tier 2 capital				
Proceeds from issuing subordinated debt	-	-	-	-
General provision	24,250		24,983	
Items of financial business group only non-controlling interest and third parties that can be included in Tier 2 capital of the financial business group	-		565	
Tier 2 capital before regulatory adjustments and deduction	24,250	-	25,548	-
Regulatory adjustments and deduction on Tier 2 capital	-		-	
Total Tier 2 capital	**24,250**	**-**	**25,548**	**-**
Total regulatory capital	**369,182**	**-**	**434,907**	**-**

5. RISK MANAGEMENT

Effective implementation of a well-designed risk management process is key to the good corporate governance and long-term business sustainability of SCBX. The SCBX Financial Group is committed to continuously develop and strengthen its enterprise risk management system across its subsidiaries to be prepared for ongoing and future challenges. As the parent company, SCBX serves as the Center of Excellence for the Group’s risk management. SCBX must therefore have a comprehensive understanding and awareness of the risk exposure of each portfolio company and the Group as a whole.

Therefore, a robust risk management framework has been put in place under a transparent governance structure to maximize the effectiveness in risk management. Further details on risk management framework will be discussed in the rest of this section.

By continually strengthening SCBX Financial Group's risk management framework and governance, SCB and SCBX Financial Group will be well-prepared to respond appropriately to any current and future economic conditions, whether favorable or otherwise.

An overview of risk management structure, risk management policy, and risk management system is presented below.

5.1 Risk Management Structure

The SCBX Financial Group’s risk management structure comprises of:

5.1.1 Board of Directors

The Board of Directors has the responsibility to review and approve the Group’s material risks, Risk Appetite Statements and Group Risk Management Policy. The Group Risk Appetite Statements serve as a guideline for decision-making to take risks and to monitor the SCBX Financial Group's risk level so that SCBX can manage various risks and the stability of the capital position at the SCBX Financial Group level and Bank level as deemed appropriate. Each portfolio company must ensure that the risk appetites proposed to its board of directors for approval are aligned with the SCBX Financial Group’s Risk Appetite Statements. The SCBX Financial Group Risk Management Policy sets out the risk management and governance frameworks for all risks that are identified as material to the SCBX Financial Group. The portfolio companies must comply to and adopt these frameworks as minimum standards for setting risk management policies and governance for the material risks that are specific to their businesses and obtain approval from their respective boards of directors. Such policies shall be designed according to the business model, risk profile, operating environment and development stage of each company, and to comply with relevant laws and regulatory requirements. Any material inconsistencies with the Group Risk Appetite Statements and the SCBX Financial Group Risk Management Policy must be approved by the SCBX Board of Directors prior to the implementation. The Board of Directors has the responsibility to delegate roles and responsibilities, as well as approval authority, to sub-board committees and other management committees. The committees with significant roles in risk management have been categorized into two levels as specified below:

5.1.1.1 Sub-Board Committees

The Board of Directors has delegated its risk management duties to the following sub-board committees:

1. **The Executive Committee** is responsible for reviewing and/or approving matters related to the businesses of the Company and SCBX Financial Group, including but not limited to business strategies and plans, capital allocation, investments, mergers & acquisitions and borrowing. When making these business decisions, the Committee must ensure that they are within the risk parameters set out by the Group Risk Appetite Statements and Group Risk Management Policy. The Committee may propose revision to the risk appetites for consideration by the Board of Directors as may be appropriate to a changing operating environment, market opportunities, new regulations, or developments in the Group's financial condition.

2. **The Risk Oversight Committee** membership must comprise directors, executives or company advisors in at least half of the member seats, with the Chairman being an independent or non-executive director. The Committee is responsible for reviewing the adequacy and efficiency of overall risk management policies, frameworks, strategies, risk appetites and tolerances, and resources and tools for SCBX, as well as at the SCBX Financial Group level, and make recommendations to the Board of Directors to revise risk appetites and policies as needed. The oversight of portfolio companies' risk management is done primarily through risk dashboards and a major incident escalation process. Major incidents, key risk trends and material emerging risks are discussed by the Committee to provide guidance to the management to improve or formulate strategies to control, manage and mitigate these events and trends. The Committee also advises the Board of Directors on strategy to cultivate strong risk culture throughout the SCBX Financial Group and setting the right "tone from the top."

3. **The Audit Committee** comprises independent directors who are responsible for reviewing the adequacy of the Company's internal control as well as the effectiveness of risk management implementation of the SCBX Financial Group. The Committee provides the Board of Directors independent assessment and guidance regarding the Group's risk processes, internal control systems and risk management practices to ensure that they are operating effectively as intended and are in compliance with the Group Risk Management Policy.

4. **The Technology Committee** is responsible for providing support to the Board of Directors to oversee holistically the SCBX Financial Group's technology strategy and technology infrastructure build to keep pace with the new global context. The Committee also reviews and gives guidance on Center of Excellence (COE) development roadmaps for the Cloud Computing COE, Data Analytics and Artificial Intelligence COE, and Cyber Security COE, as well as on SCBX's technology research & development program, to mitigate technology risks and threats to the SCBX Financial Group.

5.1.1.2 Management Committees relating to Risk Management

The following management committees have also been set up to oversee the Company's risk management processes:

- **The Risk Management Committee** is responsible for developing SCBX Financial Group risk management strategies to be in line with the risk management policies and frameworks. The Committee also manages the overall risk exposure of the Group by monitoring and/or supervising the utilization of risk limits, quantification of risks, major incidents, risk trends and risk management effectiveness of portfolio companies. The Committee reviews and approves scenarios and assumptions used for stress tests, business continuity plans, incident and crisis management, disaster recovery, and supervisory capital adequacy assessment and recovery plans, as well as their respective results and action plans.

- **The Management Committee** is responsible for considering and approving matters related to businesses of the SCBX Financial Group, including providing recommendations on SCBX Financial Group Risk Appetite Statements to make sure that the strategic direction and business plans are aligned with risk appetites.

Under the organizational structure of the SCBX Financial Group, the Bank retains oversight of the risk management of its subsidiaries. To ensure that the Bank and its subsidiaries have adequate risk management and adhere to the Group's risk management guidelines as specified by the parent company, the Bank has established a risk management framework for the Bank and its subsidiaries that enables operators to understand risk, risk management, and the transparency of risk management at all levels. It will ensure that the Board of Directors, relevant committees, and all personnel are cognizant of and accountable for risk management in all activities in accordance with applicable laws and Bank of Thailand regulations.

In addition to the above sub-board committees, the Bank also set up various management committees to handle risk management responsibilities:

- **The Assets and Liabilities Management Committee** is responsible for managing liquidity risk and interest rate risk in banking book.
- **The Equity Investment Management Committee** is responsible for approving investment in equities within its approval authority and have an authority to set investment process, operation process and other management pertaining to investment. Including managing risk of the Bank's equity investment portfolio.
- **The Credit Committee, the Retail Credit Committee, Wealth Credit Committee, and the Special Assets Committee** are authorized to approve credits within a pre-specified limit which varies by each committee's approval authority level. Any loan amount exceeding the authorized level must be approved by the Executive Committee or by the Board of Directors. In addition, loans for bank-related businesses, major shareholders, or any related parties must be approved by the Board of Directors only. For any loans considered sensitive or highly complicated which may materially impact the Bank's reputation, the Chairman of the Executive Committee may escalate the matter to the Board of Directors as deemed appropriate.

  For NPAs, the Management Committee is responsible for approving NPAs that fall within its approval limit. Any NPAs with FMV above such limit require approval from the Executive Committee and the Board of Directors as specified by the rules on NPLs and NPAs approval authority.
- **The Underwriting Risk Committee** considers, reviews, and approves securities underwriting limits based on market risk, as well as making recommendations to the Executive Committee or the Board of Directors for cases beyond its approval authority or for any high-risk transactions.
- **The Model Risk Management Committee** is responsible for validating and overseeing all internal risk models employed by the Bank to ensure that model risk management frameworks perform as expected. The committee is also responsible for approving models as well as model validation results.

- Other committees, such as the Investment Committee.

5.1.2 Chief Risk Office

The SCBX Chief Risk Office, under the Chief Risk Officer (CRO), who reports directly to the Chief Executive Officer and the Risk Oversight Committee, is responsible for setting SCBX Financial Group risk management strategies, making recommendations on all risk management matters, as well as reporting and monitoring major types of risk of the Company and SCBX Financial Group. The Chief Risk Office is responsible for continuously enhancing the SCBX Financial Group's risk management practices up to global best-practice standards and for ensuring that SCBX and SCBX Financial Group have enterprise risk management processes and capabilities that are suitable to their business and stage of development. The Office will also act as a Center of Excellence to provide advice to portfolio companies on risk management and governance best practices. It is also responsible for coordinating and consolidating stress testing, capital adequacy assessment, and recovery plan exercises of SCBX Financial Group and consolidating SCBX Financial Group risk dashboards and monitoring major incidents to highlight risk hotspots of the Group for review and discussion by risk committees and the Board of Directors, as applicable. For tail risks, the CRO coordinates with the Chief Finance & Strategy Officer and in consultation with the insurance broker to design insurance coverage for the SCBX Financial Group, including cyber risk insurance, to mitigate any potential impact from large financial loss caused by major incidents.

At the Bank level, the Chief Risk Office, which reports to the Chief Risk Officer and the Chief Executive Officer, is responsible for setting risk management framework, making risk policy recommendations, as well as monitoring and reporting major types of risk. The Chief Risk Office has the responsibility to bring the Bank's risk management policies and practices up to global standards while meeting all relevant regulatory requirements, and to ensure that the Bank and its subsidiaries have a comprehensive and integrated risk management framework. In addition to the Chief Risk Office performing the above risk management roles, there are other functions overseeing specific risks, i.e., Chief Financial Office for capital adequacy, liquidity risk, and interest rate risk in the banking book (IRRBB), Chief People Office for people risk, and Chief Strategy Office for strategic risk.

5.1.3 Chief Compliance Office

The Compliance Function is responsible for providing regulatory advice, clarifications, and recommendations to other related functions to ensure that the Group understand and comply with laws, regulations, and internal rules. The Compliance Function identifies and reports any material legal and compliance risks to senior management and related committees and supports business units to implement policies and controls to ensure effective compliance risk management.

5.1.4 Chief Internal Audit Office

The Internal Audit function performs independent assurance and consulting, so that the organization's internal processes are implemented with sound governance, risk management and internal control. As the Third Line of Defense, Internal Audit evaluates the governance, risk management and control processes of the SCBX Financial Group and suggests improvements to risk practices as necessary. The Function also considers the root cause of findings as well as risks found during audits.

The Compliance and Internal Audit functions report directly to the Audit Committee on a regular basis and follow up on corrective actions to ensure that issues are solved.

The aforementioned governance structure ensures that the risk management of the Company and the Group will be efficiently managed and conducted in the best interest of its shareholders.

5.2 Risk Management Policy

SCBX, as the parent company, has a duty to oversee risk management of subsidiary companies in the SCBX Financial Group. Every subsidiary must ensure that its risk management system meets the SCBX Financial Group's standard and complies with the BOT's Consolidated Supervision Policy and other relevant laws.

SCB and SCBX Financial Group have established and applied the Risk Management Policy Framework at two levels:

- **SCBX as the parent company**, takes the risk oversight role by establishing minimum risk management and governance standards and frameworks that Group companies must comply with, while still allowing the portfolio companies to set up their own risk management policies and processes to ensure business agility to compete effectively within the risk parameters approved by their respective boards of directors. SCBX fosters a strong risk culture across the SCBX Financial Group and requires each of its portfolio companies to have a proper risk governance structure and adopt the Three Lines of Defense risk management approach. Portfolio companies are responsible for managing their own risks and are expected to have adequate resources and capabilities across the Three Lines of Defense to ensure that risk assessment and control always play a part in major decisions.
- **Subsidiary companies in SCBX Financial Group** are responsible for establishing risk management policies that materially reflect business-specific risks and align with the Group Risk Management Policy. Each subsidiary's risk management policy must be approved by the company's Board of Directors. Any material inconsistencies with the Group Risk Appetite Statements and the Group Risk Management Policy must be approved by the SCBX Board of Directors prior to the implementation.

  For the Bank, its Board of Directors sets the strategy and approves the risk management policy of the Financial Group. Every subsidiary is required to tailor its risk management policy, organizational structure, risk tolerance limit, and risk management approach to specific risks relevant to the nature of its business. Such policy shall be reviewed and approved by the Bank's Risk Management Committee, the Bank's Risk Oversight Committee, and the Audit Committee accordingly.

The Risk Management Policy Framework covers major risks facing the Financial Group which are strategic risk, credit risk, market risk including interest rate risk in banking book, liquidity risk, operational risk, model risk, reputational risk, people risk, and technology risk. The policy also identifies major risks for every subsidiary's line of business, establishes risk management and control guidelines for each business, as well as specifying reporting standards for effective and consistent risk control and monitoring across all businesses. The Board of Directors reviews and approves the Bank's major risk management policies, including:

- Risk Management Policy of SCB Financial Group
- Credit Policy Guide
- Internal Capital Adequacy Assessment Process Policy (ICAAP Policy)
- Stress Testing Policy
- Recovery Plan Policy
- Market Risk Policy Guide

- Trading Book Policy
- Interest Rate Risk in the Banking Book Management Policy
- Equity Investment Policy
- Liquidity Risk Management Policy
- Operational Risk Policy
- Business Continuity Management and Crisis Management Policy
- Strategic Risk Management Policy
- Reputational Risk Management Policy
- People Risk Management Guidelines
- Technology Risk Management Policy
- Model Risk Management Policy

5.3 Risk Factor

SCBX is a strategic investment holding company focused on financial services. The Company has identified the risk factors discussed below as being material to the SCBX Financial Group. The material risks as described do not cover all risks that SCBX and its portfolio companies might face, and our operations might be negatively affected by unforeseen events, circumstances, uncertainties, and global economic and geopolitical situations that could amplify other risk factors that we currently consider to be immaterial.

1. Strategic Risk

SCBX Financial Group is evolving beyond its mainstay business of universal banking in Thailand, which has been facing intense competition from both Thai banking peers as well as from new platforms, online digital financial service providers, and various other alternative operating models. This rising competition has curtailed the growth and pricing power of Thailand's traditional commercial banks. SCBX has responded to this challenge by establishing its new holding company structure to allow the leadership team at the holding company to focus on finding and exploring new technologies, operating models, and strategic investment opportunities instead of being saddled with the management responsibilities and issues of legacy systems in the operating companies.

This new structure will allow SCBX to be more agile in venturing into higher growth financial service segments and experimenting with new technologies and business models. Our current strategic focus to address Income Inequality, explore Disruptive Technologies and Environmental Businesses will lead to both opportunities and new kinds of risks, which are explained below. Our investments into these strategic areas, at least in the foreseeable future, will be funded principally by dividends from the Siam Commercial Bank as well as debt leverage at the SCBX Financial Group level. A risk that the Bank's performance might not allow dividends to be paid to SCBX as planned, or that SCBX might not be able to tap the debt capital market for funding needs, could jeopardize the execution of our strategic plans. SCBX will monitor the performance of our portfolio companies closely to ensure that there is no major surprise in their operating results so that our funding plans can be managed on a timely basis. SCBX also intends to maintain a resilient and strong balance sheet with an investment-grade credit rating so that we can readily access the debt market.

2. Credit Risk

As a financial conglomerate, the SCBX Financial Group still relies on loans and credit for more than 70% of revenue generation and assets. SCBX assesses and oversees credit risks using disciplined underwriting practices and regular monitoring. A borrower's credit standing may be supplemented by other credit-enhancing support, such as collateral, cashflow assignment or a third-party guarantee. SCBX determines a customer's credit score by both credit underwriting models and other qualitative factors to provide a best estimate of a loan's probability of default and expected credit loss (ECL). SCBX approaches new credit products or new market segments having little credit history or data by testing them through product programs before they are approved for full launch. The Group closely monitors loan portfolios so that deterioration of credit quality beyond certain thresholds can be remedied on a timely basis. Credit and collection models and strategies are also regularly reviewed and recalibrated as needed to improve effectiveness. It is the Group's policy to make prudent provision for expected credit loss (ECL) and to provide an appropriate management overlay to compensate for any known shortcomings of the models and methodologies and for any anticipated macroeconomic factors not already captured in the provisioning. Sudden unfavorable economic conditions or events, or an unexpected large default by a corporate borrower, would lead to a large extra ECL provision and/or write-off. As we expand our credit business to the lower-mass segment with title loans and nano-finance products, we expect that the higher credit costs in this segment will be more than offset by much larger net interest margins and a lower cost-to-income ratio achieved through digital channels. A failure to control credit costs or improve loan recovery through better collection, or to use digital mobile technology to achieve scale in this segment, could adversely impact the profitability and growth plan of our consumer finance and digital financial businesses.

3. Investment Risk

We will concentrate our future investment in digital platforms and technology businesses, particularly in fintech, digital platforms, climate tech and digital asset ecosystems. These are businesses where we do not have as much expertise as in banking. Many of these investments will be made outside Thailand in countries where we might not be familiar with the local market and regulatory environments. As the technologies, market scale requirements and business models in some of these businesses are still evolving, they might not prove successful or might take many years before they can start generating positive net cash flow. Mergers and acquisitions of strategic businesses involve risks including deal closure; regulatory clearance; retention of key personnel and customers; culture clash; integration of accounting, operations, and systems; and potential unknown liabilities not discovered during due diligence.

We also need to improve organizational health with investments in technology, governance, risk management and control, data analytics and cybersecurity. These investments might not lead to immediate direct revenue generation but are necessary to meet regulatory requirements as well as for operational resiliency and security. Our consolidated earnings might be subject to higher cost-to-income ratio, increased volatility and loss impairments on these investments, as well as on tangibles and intangibles, including goodwill. To help mitigate the risk, we will limit the size of investment in start-ups and early-stage companies and will only do follow-on investments based on their performance progress. Diversification is important for digital platforms and technology investments, as it not only helps us to experiment and learn about new technologies and operating models, but it is also a key to managing investment risk. For digital assets, which presently face unfavorable market conditions and regulatory uncertainties, we are limiting our investments to not more than 3% of our capital. We do not allow investment in crypto currency for speculation or for purposes other than to support crypto exchange business.

4. Liquidity Risk

Liquidity Risk arises from inability to meet financial obligations from normal operations as well as from unforeseen events or disruption. It is often the result of gaps in maturity of assets and liabilities. The risk is especially significant at the Bank, where a failure to meet deposit withdrawals could lead to widespread panic. Both the Bank and SCBX Financial Group maintain a Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) at levels well above regulatory requirements. Nevertheless, maintaining too much liquidity buffer can negatively impact our earnings. The Bank has been running behavior models on customer deposit withdrawals to manage this risk more efficiently. SCBX also maintains liquidity buffer through cash balance and committed credit facility to meet sudden or unexpected short-term demands by portfolio companies.

5. Market Risk

As a holding company, SCBX's primary function is to hold equity security investments in our portfolio companies. The Bank's equity investments in non-bank related businesses have been, or are in the process of being, sold to SCBX. The Bank continues to have market risk exposure on fixed income (available for sales and trading) portfolios; foreign exchange and derivatives positions; some offshore fixed income, equity and alternative assets funds; and equity securities as investments and as collateral for credit extension. Our investments in early-stage companies are principally managed and held through SCB10X, while strategic investments in consumer finance and digital financial businesses and digital platforms and technology businesses are principally held directly by SCBX.

Subsidiaries' and associated companies' financial performances are consolidated with SCBX Financial Group for financial reporting and are not subject to risk of fair-value valuation volatility, except for impairments forced by significant and persistent deterioration in operation and financial performance. Nevertheless, because it is our intention to eventually seek public listing of our portfolio companies, we could be exposed to large market risk on these investments once dilutions reach certain thresholds. Fair values of our securities holdings and other positions, including foreign exchange and derivatives, as well as investments in our portfolio companies, could experience significant fluctuations caused by underlying fundamentals, macro-economic environment, geo-political situations, natural disasters and pandemics, and market sentiment, among other potential factors. A significant decrease in value of these investments could adversely impact our profitability, statutory ratios and credit rating, and would likely lead to a large decline of our own stock price.

6. Technology & ICT Risk

Sustained investment in technology is crucial to maintaining our competitive advantage, whether in our core business of banking or in our consumer finance and digital financial businesses and digital platforms and technology businesses growth journeys. We invest in information and communication technology (ICT) platforms to support scalability and agility to offer new products and services at low operating costs and using artificial intelligence (AI) to provide better customer insight and engagement. If we are not able to acquire, develop, adopt, deploy and protect intellectual property right around new technologies, we might find ourselves at competitive disadvantage, which could lead to lower operating and financial results. The Bank plans to transfer most legacy systems onto cloud infrastructure by 2025. All of the Group's future core systems, by default, must be cloud-native. Despite all our efforts to upgrade our hardware, software, systems and network infrastructure, they might still not be sufficient to ensure systems stability or prevent service interruptions, given the exponential increase in mobile application adoption and electronic transactions seen across our Group. Our systems have been interrupted by human error and processes such as wrong coding, system misconfiguration, inadequate user acceptance tests (UATs), inadequate penetration tests, and/or poor architectural design. We continue to experience external threats, including failures of third-party interconnected systems, distributed denial-of-service attacks, cyber intrusions, network outages, and delays by technology vendors, which can result in disruptions of our systems and operations. We are setting up a Cloud Center of Excellence (COE) and a Cyber Risk COE to establish best practices and minimum requirements and coordinate activities among portfolio companies for cloud infrastructure and migration, and for cyber and technology risk management, respectively.

Our business depends greatly on trust. Theft, misuse or loss of data, especially customer data, could be detrimental to our business. These incidents could lead to operational disruption, reputational damage, loss of customers and business partners, regulatory reprimands and fines, litigation and significant financial loss. We plan to maintain the Group's data zone at DataX, which will also serve as the Group's Data COE for data sharing, data governance, data analytics and personal data protection. Although we have developed governance, systems and processes to protect personal data from security and misuse breaches, there is no assurance that these measures will always effectively prevent such incidents.

7. Operational Risk

Each of our operating subsidiaries is subject to both internal and external factors that may adversely affect their operations. Sources of internal operating failures mainly involve people, processes and systems. Human error is usually the result of inadequate training or supervision; incompetence; lack of task "ownership," overwork and stressful work environment; and complicated procedures or manual processes."

Process flaws involve poor product design; inadequate change management or project management; lack of process review and update; and ineffective controls. System stability is often affected by poor maintenance and update of software; weak architectural design; lack of redundancy and back-up systems; insufficient network capacity; and failure of third-party interconnected systems. Our operations could also be negatively disrupted by various other external factors including cyber-attack, natural disaster, accident, fraud, new regulations, terrorism and supply chain disruption. Our Group Risk Management Policy requires all portfolio operating companies to do risk and control assessments and have business continuity plans for their critical functions as well as crisis management plans for major incidents, with clear targets regarding recovery time. The plans are tested and reviewed on a regular basis. The Group also maintains comprehensive insurance policies, including cyber risk insurance, to cover the tail risk of large financial loss.

8. Legal and Compliance Risk

As a financial services group with a large customer base, we are subject to a number of unique regulations including Anti-Money Laundering (AML), Combating The Financing of Terrorism and Weapon of Mass Destruction (CFT), Know Your Customer (KYC), Foreign Account Tax Compliance, Basel III and various other laws and rules imposed by the Bank of Thailand, Securities Exchange of Thailand, Office of Insurance Commission, and National Credit Bureau for our banking, asset management, securities, brokerage, insurance and custodial businesses. To ensure financial system stability and respond to financial market crises, these regulations are constantly evolving. Last year, the Personal Data Protection Act became effective in Thailand, following enactment of similar laws around the world, such as the European General Data Protection Right (GDPR). As SCBX ventures into businesses involving new technologies, we will be exposed to new regulations related to e-commerce, advertising, artificial intelligence, retailing, fair competition, consumer protection, intellectual property, employment practices and others. Regulators are playing catch-up in many areas we are exploring, such as digital platforms, virtual banking, digital assets, non-fungible tokens and the metaverse. Moreover, as we expand overseas, we will face diverse, unfamiliar foreign legal and compliance environments. Non-compliance could lead to reputational damage; difficulty in acquiring or retaining customers and business partners; boycott; government investigation; litigation; claims; regulatory fines; criminal charges; and even forced suspension of business and revocation of license. New and evolving regulations could adversely disrupt our business and operating models, and increased compliance costs could significantly impact our earnings.

9. Reputational Risk

With over 116 years of history, our financial services business can only achieve continued success based upon the deep trust by our customers, regulators and other stakeholders. Our Board of Directors, senior management and employees are expected to adhere to the highest standards of conduct, ethics and risk culture. We require our portfolio companies to diligently monitor events and incidents that could negatively affect their reputation and that of the Group, and to ensure a timely process of escalation to SCBX. Strategic operating companies must undertake scenario planning, backed by clearly defined incident response processes, communication strategies, and roles and responsibilities. SCBX will inform regulators of major incidents on a timely basis, especially instances that could have a risk of contagion to the rest of the industry. Employees are required to take regular mandatory training on code of ethics, market conduct, AML/CFT/KYC, data protection and cyber security.

10. People Risk

Because we recently restructured our operations to become a premier regional financial technology group by establishing SCBX as our strategic investment holding company, we depend heavily on a few key leaders and personnel to set strategy, to invest and to allocate capital to drive and achieve this vision. We also rely on our qualified and competent personnel at the operating companies to effectively execute their business plans and respond to the changing environment with agility. Any sudden loss of certain key executives could impede operations in some critical areas. The boards of SCBX and our portfolio companies therefore place high importance on succession planning for our key senior management and on our development of internal talent. To be successful in digital transformation of our core banking and consumer finance and digital financial businesses, and in entering digital platforms and technology businesses, we also must be able to attract new talent and technology staff and avoid culture clash between the new generation of workers and personnel at our traditional businesses. Many of our existing workers need to be retrained in digital proficiency, agility, design thinking, data analytics and new ways of working. Inability to recruit, retrain and retain qualified and competent executives and staff could adversely affect our business and the financial results of the portfolio companies, as well as of SCBX.

11. Model and Artificial Intelligence (AI) Risk

As we digitize more and more of our processes; acquire new customers via digital channels; cooperate with business partners; and gain access to big data, our operating companies are developing various new models to capitalize on data to gain competitive advantage, better manage risks and improve customer experience. These models include models for credit underwriting, collection, propensity, marketing, audit, fraud detection and statutory capital requirement. With the availability of big data, we are also experimenting with and utilizing AI and machine learning in our model development to enhance the predictive powers and accuracy of our models. Given the increasing reliance on models for faster decision-making and sometimes automated execution, all operating companies that use models for critical business activities must have a model risk management policy and process in place. Although AI has generated a lot of benefits to customers and value to the business, it could also come with unwanted consequences caused by algorithm errors or data misuse. This could result in privacy violations, discrimination, accidents or situations that embarrass customers. Regulations on AI and machine learning are still evolving, and future regulations might rule out certain aspects of AI use and negatively impact our operating models. Wrongful use of models or model errors could result in reputational damage, regulatory reprimands, loss of customers, and lower operating results.

To mitigate some of the risks of AI, SCBX Financial Group commits to the principles of Responsible AI as follows:

• Fairness – AI should treat all people fairly

• Reliability & Safety – AI systems should perform reliably and safely

• Privacy & Security – AI should be secure and respect privacy

• Inclusiveness – AI should empower everyone, engage people and be socially beneficial

• Transparency – AI should be understandable

• Accountability – People should be accountable for AI systems

12. Environmental, Social and Governance (ESG) Risk

Over the past few years, awareness and perceptions of ESG risks have increased considerably across the world as stakeholders and the general public focus more on sustainability. At SCBX, we have elevated ESG risk to a material risk rather than treat it as an emerging risk because we believe that good ESG practice is not only critical for our own corporate sustainability but ESG factors in our investment and credit extension decision-making can have significant positive impacts in shaping a sustainable environment, society and economy. As a major financial group, we have an important role in channeling funds toward sustainable projects and influencing our investees and borrowers to transform their businesses and adopt good ESG practice. For us, doing nothing is not an option and we choose to start addressing ESG risks and create positive impacts in every little way we can now rather than later. If our strategies and efforts to tackle ESG risks are seen as materially inadequate, investors who adopt ESG investing principles could assign a lower value to SCBX and make it more costly for us to access capital and financial markets. This might also lower our reputational standing and negatively affect our relationship with customers, business partners, potential investees and regulators, leading to lower operating results.

Our Group has been included in the Dow Jones Sustainability Indices (DJSI) World Index for the past four years, and SCBX's score ranked third in the latest World Index ranking. In January 2022, SCB became the first Thai bank to adopt the Equator Principles to ensure that the projects we finance are developed in a socially responsible manner and reflect sound environmental management practices. ESG factors also play an important role in shaping the three strategic focuses of SCBX to address Income Inequality, Technology Disruption and the Environment. Widening wealth and income gaps can lead to social and political unrest if not attended. New technology, alternative data credit underwriting, and digital channels have significantly reduced bank operating costs and make nano consumer loans and micro-business financing economically feasible. This has opened up large market opportunities for our consumer finance and digital financial businesses, which aim to help reduce income inequality.

Our investments in blockchain technology, digital asset infrastructure, and tokenization reflect our belief that these technologies will lead to financial and capital market disintermediation that will greatly reduce the cost of, and increase transparency in, accessing capital and credit, especially for small players. SCBX's environmental initiative will focus on new technologies that revolutionize the way we combat climate change and conserve the environment. We are starting by investing through global green tech funds to gain knowledge of environmental technologies and monitor their evolution.

5.4 Risk Management System

One of the SCBX Financial Group's objectives is to ensure that risk management systems across all Group companies are consistent and well-aligned at both the Bank level and the Group level. As the focal point for risk management within SCBX Financial Group, SCBX has a responsibility to establish a risk management framework together with setting guidelines and overseeing risk management of all subsidiaries to facilitate sustainable growth and increase its short-term and long-term competitiveness under transparent management and good governance.

Risk management system consists of four key processes:

5.4.1 Risk Identification

As the parent company, SCBX has identified key material risks to the SCBX Financial Group as elaborated under the 5.3 section - Risk Factors. The Company will review business operations and strategies across the entire Group on a regular basis and gain a comprehensive understanding of business landscapes to assess any emerging risk that could become material to the Group. The establishment and the revision of the Company's and the Group's material risks shall be approved by the Board of Directors.

The material risks assessment is also conducted at the portfolio company level. Such material risk identification at the portfolio company is approved by that portfolio company's board of directors and endorsed by the SCBX Chief Risk Officer.

5.4.2 Risk Assessment and Measurement

Each business and operating unit within the portfolio companies must perform their risk self-assessment to identify the likelihood and potential severity of impact of the risks in their function. To assess and measure each type of risk, a wide range of quantitative and qualitative methods are used based on internal models and approaches as deemed appropriate:

- For **strategic risk**, this risk is measured and assessed using primarily qualitative risk factors, quantitative economic indicators and financial ratios to ensure that the performance of each portfolio company is aligned with its strategic plans and that its financial position remains strong and resilient.
- For **credit risk**, risk rating is used to gauge the probability of default (PD) based on credit scoring, such as application scores and behavior scores, to construct risk profiles for retail and small SME customers and uses Borrower Risk Rating model for corporate customers of the Bank. Moreover, risk models are used to estimate loss given default (LGD) and exposure at default (EAD). For derivative products, the potential future exposure (PFE) methodology is applied to measure credit risk exposure.
- For **investment risk**, measurements include various quantitative and qualitative measures in various perspectives including country-wise and product-wise. SCBX's Portfolio Management team is responsible for regular assessment of management and financial performance of subsidiaries and investees to make sure there is no earning surprise, unforeseen impairment, or unplanned financial assistance required from SCBX.
- For **market risk**, both statistical tools, such as value at risk (VaR), and non-statistical methods are applied, including risk-factor sensitivity analysis, position measures, and stress testing for the trading book.
- For **interest rate risk in the banking book (IRRBB)**, this risk is assessed by measuring the impact of interest rate fluctuation on net interest income and economic value of equity (EVE) using interest rate volatility assumption under stress scenarios.
- For **liquidity risk**, a wide variety of measurements are applied, such as balance-sheet structure, cash flows of assets and liabilities, and off-balance sheet items.

The liquidity risk measurement framework includes liquidity coverage ratio (LCR), net stable funding ratio (NSFR), liquidity ratio, and maximum cumulative outflow (MCO).

- For **operational risk**, Risk and Control Self Assessment (RCSA) is developed and used as a tool to identify and assess risk and control as well as loss incident data to determine operational risk and internal control effectiveness for each Business Unit/ Product. And, developed Key Risk Indicators (KRIs) to identify causes of risks and track movement of risk trends as the early warning to effectively manage risks. In addition, tolerance level of each KRI is defined and KRI reporting is required to perform as per defined period. All related Business Units/ Products has been communicated to acknowledge their roles and responsibilities as defined in the RCSA & KRI internal regulation to ensure consistent and transparent practice of operational risk management. As part of its risk mitigation process, business continuity management plan (BCP) has been established to ensure continuity of key activities during crisis or disasters that may cause business disruptions. Moreover, the Bank has an extensive risk assessment process for new products to ensure that risk from new products as well as risk from any changes to existing products is still within the tolerance limit to minimize potential operational risk.

- For **model risk**, model performance is measured using quantitative statistics, such as key performance indicators, and other qualitative indicators to ensure that the adopted models are suitable. Qualitative analyses and measurements are also employed to assess model risk.

- For **reputational risk** and **technology risk**, qualitative and quantitative methods are applied for risk assessment.

- For **people risk**, quantitative indicators are employed, such as loss of key personnel and required skills for the organization, to measure and evaluate the risk.

Moreover, to achieve forward-looking risk management, stress testing has been added to the existing risk assessment toolkit, particularly for market risk, credit risk and liquidity risk.

5.4.3 Risk Control and Mitigation

The Group has established Group Risk Appetite Statements that are aligned with the long-term strategic direction of SCBX Financial Group to guide its overall risk-taking decisions and its design of effective risk controls and treatment plans. SCBX and its portfolio companies shall establish key risk indicators and risk limits to control and monitor the pre-specified material risks with plan to manage and mitigate the risk impacts from breaching the approved risk appetites, as well as conducting capital adequacy review.

Risk monitoring and controls are conducted by setting key risk indicators and risk limits for different levels of exposure: SCBX Financial Group, Bank, customer, product, transaction, and others. A variety of internal control mechanisms are established to manage risks in accordance with the Bank and SCBX Financial Group's policies and procedures as well as an audit process conducted by the Internal Audit Function to review risk management practices.

5.4.4 Risk Monitoring

Group companies must regularly report the risk levels through the risk dashboard to SCBX for the Group's monitoring of consolidated risk exposures. In case there is any risk or incident that could significantly affect the business and reputation of the portfolio company and/or the SCBX Financial Group, such portfolio company must report to SCBX Chief Risk Office in a timely manner.

SCBX performs its oversight roles by establishing schedules and formats for risk monitoring and reporting, which must be submitted by relevant functions to senior management on a timely basis to ensure effective risk control and management.

Moreover, the Chief Risk Office reports risk levels, trends, and key risk issues to the Group Risk Management Committee, the Audit Committee, the Risk Oversight Committee, and the Board of Directors on a regular basis.

5.5 Emerging Risks

Our business is constantly exposed to risks from external and unpredictable events, including geopolitical conflicts, political instability and civil unrest, drastic change in macroeconomic factors, natural disasters, terrorist acts, cyber-attacks, pandemics and supply chain disruptions. We constantly manage these risks through scenario and stress testing, as well as business continuity planning and drills, as part of our normal enterprise risk management process. We consider emerging risks to be risks from evolving events or issues that could significantly disrupt our operations and business models over a medium- or long-term period. The emerging risks described below are based on our current knowledge and internal assessment. The list should not in any way be treated as exhaustive, and additional risks might appear that could adversely affect the Group’s businesses. The mitigations we are developing to manage and control these emerging risks might not be effective in materially reducing or controlling these risks, and we will continue to monitor developments and improve our mitigation measures over time.

Quantum Computing

As innovation and technology development in quantum computing advances over the next five to ten years, along with opportunities there will be increasing risks to the global financial technology sector. Quantum computing could affect our cyber security and disrupt SCBX Financial Group's current operating models. Quantum computing has the potential, when used maliciously, to break the systemically important cryptographic underpinnings of the infrastructure on which enterprises and the wider digital economy rely. For example, encryption methods widely used within the critical infrastructure sector will be at risk. This also holds true for new, innovative applications of cryptography, such as blockchain. The calculating ability of a sufficiently powerful and error-corrected quantum computer could be so large that our underlying central data protection capability and public key cryptography would no longer be secured. The key exchanges, encryption and digital signatures that protect the Group's financial transactions, secure communications, e-commerce, and personal data all rely on mechanisms that would become outmoded in such a scenario. Ultimately, this could put all of our data at risk. Information that the SCBX Financial Group obtains from customers must be secured as long as it has value and to satisfy regulatory and legal requirements. This is especially the case where sensitive data and systems currently being rolled out have long lifespans.

We have invested in quantum computing ventures, such as 1Qbit through SCB10X, to keep abreast of developments in this emerging technology and understand the new risks it brings. Digital signatures and key algorithms are areas of research aimed at ensuring secure encryption in the post-quantum future. Additionally, given the level of change that quantum computing will bring, we are constantly updating our security systems and enhancing the Group's cyber maturity.

Our security diligence extends to our partners and third-party service providers as well.

We are establishing an SCBX Technology Research & Development Program to continuously improve our competitiveness by leveraging innovation, to integrate new technology and new business models, to discover advanced technology trends and to stay ahead of new consumer demands. Our aim is to establish an innovation culture as a core competency of SCBX and its subsidiaries. We will attract talent and researchers to work with us to create new innovations and address issues such as the risks posed by quantum computing.

Cybercrime, Cyber Terrorism, and State-Sponsored Activity

As we innovate new technology platforms and advanced capabilities, criminals, terrorists, and other trans-national threat actors are adapting to our group-wide technology upgrades. Our Bank operates a financial crime and fraud prevention division that safeguards our account holders around the clock. Nevertheless, our financial crime teams have seen a steady rise in technology-enabled fraud and cybercrimes as our industry moves ahead in creating new digital channels for finance.

Additionally, the Bank along with some portfolio companies make up part of Thailand's critical infrastructure (i.e., the finance sector); therefore, our risk map includes national security considerations. In their most recent Global Risk Survey, the World Economic Forum (WEF) has ranked geo-economic confrontation as the third-most severe risk over the next two years, and it is featured as the top risk in many East and Southeast Asian countries.

The weaponization of this element of national power "economics" between countries highlights our critical financial sector vulnerabilities against well-funded weapons-grade, state-sponsored cyber-attacks. We continue to work closely with the Bank of Thailand, which regulates our financial services critical infrastructure sector, to ensure that the required security measures and resilience baselines are in order.

We are creating a Cyber Risk CoE, which will enable our group with advanced tools, knowledge, and training to build skills and abilities. Our Cyber CoE will offer opportunities to collaborate across the regional financial infrastructure sector and other critical sectors on issues such as cybercrime and advanced cyber protection to promote our Group's resilience in the face of these expanding threats. Our goal is to balance risk versus reward as we apply technology innovations to also ensure that this new capability does not enable proliferation of technology-enabled crimes, terrorism, human trafficking, and so on.

6. CREDIT RISK

6.1 Credit Risk Management Structure

To manage credit risk efficiently and effectively, SCB and SCBX Financial Group have established specific credit risk management units with a clear separation of duties from other business functions. The credit risk management units report to the Chief Risk Office, and the structure of the Bank is as follows:

- **Credit Risk Management Function** has primary responsibilities to approve loans that fall within its scope of authority and make independent recommendations for credit approval at a higher level based on the Credit Policy Guide and related underwriting standards.

- **Credit Policies and Procedures Division** makes recommendations on credit risk management of SCB Group companies as well as formulating and revising the Credit Policy Guide along with other policies and procedures related to credit risk management, including guidelines on credit approval authority, the collateral and non-performing asset appraisal policy, and the loan classification, provision, and bad debt written-off policy.

- **Retail and Small SME Portfolio Risk Management Function** oversees risk management for retail and small SME by formulating credit policy, setting approval authority, and establishing product program/ risk program/ test program of all retail lending products. This Function also work with Product Function to provide guidance on customer targeting and selection, risk-based pricing, credit line adjustments, risk segmentation by product and customer segment, and retail portfolio management, as well as working with the Retail and Small SME Collection Unit of SCB (SCB Plus) and the Special Business Unit to set collection strategy based on risk level.

- **Special Business Unit** has been set up to prevent and resolve problem loans as well as oversee NPL management.

  Debt restructuring, legal action, debt collection after a charge-off, as well as property foreclosure are within the purview of the Special Business Unit. These NPL resolution alternatives are to follow the Workout Policy Guide which sets the framework for managing non-performing assets to maximize debt recovery within an appropriate timeframe.

- **Portfolio Analytics and Measurement Function** is in charge of performing credit portfolio analysis, monitoring and controlling credit risk to be within the risk appetite, measuring and monitoring Risk-Adjusted Return on Capital (RAROC) which is used for risk-based pricing, as well as overseeing provision and capital adequacy.

- **Credit Risk Analytics Function** develops credit risk models, maintains the credit scoring system for retail lending, and manages necessary IT systems for credit risk management.

- **Model Risk Management Division** is responsible for validating and testing credit risk models.

6.2 Credit Risk Management Policy and Guidelines

The Group's Risk Management Policy requires SCB and all companies in SCBX Financial Group whose engage in lending businesses with material credit risk exposures to establish a credit risk management policy which consists of the following implementation:

- Formulate a credit risk management policy
- Have written risk-based limits and authorities
- Have checks and balances in the credit approval process to ensure both transparency and accountability under the 'four-eye' principle
- Set a concentration limit; for the Bank, this limit must take into account both borrower and industry characteristics.

6.2.1 Collateral and Credit Risk Mitigation Policy

Credit risk mitigation reduces losses from default on repayment obligations by liquidating collateral and/or claiming payment from guarantors.

SCB and SCBX Financial Group have adopted the Standardized Approach for credit risk calculation. Accordingly, collateral that qualifies for credit risk mitigation falls within one of these two following categories:

1. **Financial collateral** comprises items that can be easily liquidated for cash with clear mark-to-market values, such as cash, deposits, bonds, securities, and unit trusts.
2. **Guarantees and credit derivatives**

SCB establishes the Collateral and Non-Performing Asset Appraisal Policy to serve as a guideline for collateral management to ensure that appraised collateral value is in line with fair market value both before and after acceptance of the collateral.

For financial collateral, SCB and SCBX Financial Group follow the broad principles below to optimize the value of collateral:

- Collaterals must not be concentrated in a particular asset type or issuer;
- Collaterals must not be significantly correlated with borrowers' default risk;
- Currency of the collateral should match that of the debt obligation. If there is a difference, collateral value must be further discounted toto reflect the underlying currency risk;
- Contractual term or duration of the collateral should match that of the debt obligation. If any mismatch exists, contractual term should be monitored and extended prior to expiration date to ensure that the collateral remains valid throughout the term of the loan;
- Collateral contracts must meet the standards and must be reviewed to ensure that they are legally binding and enforceable.

Appraisal of financial collateral is typically reviewed at least once a month using the latest bid price as a benchmark. As for guarantees, an acceptable guarantor for credit risk mitigation purposes must have a lower risk weight than the borrower. A private business entity acting as a guarantor must have a better credit rating than the borrower based on ratings from external credit bureaus.

Other types of collateral must follow the Collateral and Non-Performing Asset Appraisal Policy to ensure that collateral and NPA values reflect fair market value both before and after admission as collateral.

6.2.2 On- and Off-Balance Sheet Netting Policy, Scope, and Process

SCB and SCBX Financial Group will only use netting to reduce credit risk when contracts are legally binding and enforceable for all relevant parties. Contracts must meet the minimum standards set by the Bank of Thailand and must be approved by legal functions of SCB and relevant companies. Contracts must be regularly reviewed to assess any impact on enforceability from legal and regulatory changes. In addition, SCB and SCBX Financial Group must have a system to monitor and control risk from maturity mismatch of assets and liabilities used for netting. Netting cannot be used if the above conditions are not met.

6.2.3 Definition of Default

To define default and loss are based on the occurrence of either or both of the following events:

- Borrower is unable to make a full contractual repayment, excluding any payment that can be recovered from collateral. An example of this case is an event of debt restructuring with a significant haircut or postponement of principal, interest, or fee payments due to the borrower's deteriorated financial position.
- Delinquency on payment (principal or interest) for more than 90 days or borrowers being reclassified as "Non-performing" according to the Bank of Thailand's notification on Loan Classification and Provision Criteria for Financial Institutions.

For asset impairment, requires to use the Bank of Thailand's asset classification criteria, which classify loans into performing (Stage 1), under-performing (Stage 2) and non-performing (Stage 3). Loan classifications are done at the borrower level except for retail credit which are classified at the account level for both secured and unsecured loans. In addition to delinquency duration, the qualitative credit review process is adopted to enhance the accuracy of loan classifications and to ensure adequate loan loss provisions.

6.2.4 Classification and Provisioning Policy

The loan classifications, loss provisions, and write-offs for bad debt or bad debt recovery complies with the regulations of the Bank of Thailand or other related regulatory bodies to ensure that each company has adequate provisions to absorb losses from asset impairment, particularly from loans which are each company's main assets.

Loans are typically classified based on the borrower's ability to meet his/her debt service obligations. Borrowers or related parties whose cashflows are from the same source will be assigned the same classification to ensure adequate provisions based on both quantitative and qualitative criteria.

Provision based on Expected Credit Loss (ECL)

SCB and SCBX Financial Group determine expected credit loss in accordance with TFRS 9 and the BOT's guidance. Furthermore, internal audit and credit review processes are in place to assess the adequacy of provisions based on borrowers' statuses. If warranted, additional provision based on individual assessment and/or management overlay will be used to protect against future losses.

Management Overlay

Management overlay for the Bank and SCBX Financial Group refers to additional reserves for ex-post events which include current market conditions, identifiable factors not fully covered by credit risk models, forecast revisions by credit experts, and economic risks. SCB and SCBX Financial Group have an internal control framework to regularly assess the adequacy of management overlay along with a process for model and ECL revisions to accurately reflect the current economic conditions.

6.3 Credit Approval Process

SCB and SCBX Financial Group place heavy emphasis on a separation of duties between business functions and credit underwriting functions. Retail credit approval is based on the Product Program/Risk Program/Test Program approved by the Executive Committee or the Retail Credit Committee and the Scoring Model approved by the Model Risk Management Policy which approval authorities and criteria, as well as exceptions, are clearly specified.

Approval Authority

As approved by their respective boards, all SCBX Financial Group companies have established credit approval authority which may be delegated to committees and further to individuals at different corporate levels. Any credit request that deviates from the Credit Policy Guide or the underwriting standard must be escalated to the higher authorization chain for approval.

SCB has two levels of credit approval authority: committee level and individual level. Committees with credit approval authority are the Credit Committee, the Executive Committee, and the Board of Directors, for instance. Individual authorizers range from credit managers, SEVPs, to Chief Risk Officer. In addition, the Bank also grants individual approval authority within prespecified limits to business relation functions up to the Chief Executive Officer/ President, starting at sector /regional manager level for corporate functions and branch manager level/ Credit Approval Processing Officer for retail functions.

Approval authority is determined by risk level which will depend on credit line, borrower risk rating, severity class, and fees and/or interest rates. The Bank also assigns approval authority based on group exposure where groups and relations are defined mainly by shareholding and controlling authority in accordance with Section 4 of the Financial Institution Act.

6.4 Credit Risk Measurement

Since credit risks vary by loan type, borrower, and collateral, it is necessary to use different risk measurement approaches from simple to sophisticated statistical tools to appropriately reflect credit risk exposure.

For business loans, credit risk is assessed at the borrower level by considering the following factors:

- **Probability of default (PD)** : For corporate and business customers, borrower risk ratings based on individual assessment are used to evaluate the borrower’s ability to pay. The assigned risk ratings are reviewed annually or whenever there is any material change that affects the borrower’s risk behavior.
- **Loss given default (LGD)**: LGD is calculated from losses given three recovery paths: cure, restructuring, and liquidation. Losses will depend on loan-to-value ratio (LTV), or the ratio of loan outstanding to discounted collateral value, and severity class.
- **Exposure at default (EAD)**: EAD is calculated from the current outstanding balance and the undrawn portion of credit lines which vary by product type. All off- balance sheet items must be converted to on-balance items using a credit conversion factor (CCF).

For small business and retail loans, credit risk measurement is calculated at the portfolio level using a similar methodology on a pooled basis. In addition to PD, LDG and EAD, the following factors are also included:

- **Non-performing loan ratio (NPL)** is based on the percentage of borrowers in a portfolio who are delinquent for more than 90 days or 3 months. For retail loans, NPL ratios are calculated by product and customer segment to facilitate portfolio management with information on the underlying credit quality.
- **Percentage of write-off** is the ratio of bad debts that were non- collectable and written-off in a given portfolio. This ratio is calculated by product and customer segment to facilitate portfolio management with information on the underlying credit quality.

The above measures serve as inputs into the credit approval process, which includes specifying approval authority, setting interest rates and other terms such as collateral terms, to ensure risk-based credit decisions.

6.4.1 Credit Risk Measurement under the Standardized Approach

SCB and SCBX Financial Group adopted the Standardized Approach to calculate credit risk assets. Since this approach requires external credit ratings, the Bank uses Standard & Poor's ratings for sovereign and financial institutions and TRIS Ratings and/or Fitch Ratings (Thailand) for corporate borrowers.

In the event that a borrower is rated by multiple rating agencies, SCB and SCBX Financial Group will follow the Bank of Thailand's guidelines which is to choose the rating with a higher risk weight. For non-rated companies that have issued rated securities, SCB will use the Bank of Thailand's guidelines to determine the appropriate risk weights.

6.5 Credit Risk Monitoring and Control

6.5.1 Risk Monitoring Guidelines

Credit risk monitoring is an important element of the credit risk management process to ensure that credit risk assessment is accurate, appropriate, unbiased, complete, and up-to-date.

The credit risk monitoring process has three components:

- **Part I** is to monitor credit risk with risk management tools, such as credit scoring, borrower risk rating, and other similar tools. These risk management tools have been statistically validated to ensure that they can accurately reflect the risk level and customer behaviors at an acceptable confidence level. The models are regularly reviewed to ensure their continued validity.
- **Part II** is to monitor credit risk by imposing limits on approval authority, transaction volume and credit concentration setting customer transaction limits and intra-group transaction limits, as well as industry concentration limits.
- **Part III** is to monitor retail credit risk which involves analyzing loan portfolios, credit quality, and repayment behavior measured against target benchmarks to reflect the risk management policy for retail loans.

Credit review is an important part of risk monitoring by focusing on forward-looking analysis to gain insights on positive and negative changes that affect customers' businesses or industries as well as their future financial stabilities to determine appropriate business strategies and action plans. Credit reviews are conducted annually and triggered by events that have material impacts on customers' positions.

At the portfolio level, credit risk is monitored to ensure that credit quality and loan growth stay within the annual targets. Portfolio monitoring enables SCB to analyze trends in loan growth and identify future problem loans, as well as assess the effectiveness of its credit-related strategies. For retail credit, SCB also analyzes repayment behavior and monitors credit quality by focusing on key target indicators.

The Bank also monitors credit risk by benchmarking current credit and NPL data against historical data of both SCB and the commercial banking industry to analyze credit risk trends. In addition, the Bank also performs credit risk stress testing for a wide range of scenarios to forecast losses and capital adequacy. Stress testing results are also used as important inputs for risk mitigation and capital planning.

6.5.2 Risk Control Guidelines

The concentration of lending, investments, contingent liabilities, and lending-like transactions with major borrowers divide into at two levels in accordance with the BOT's regulations:

1. **Bank level**: Concentration shall not exceed 25% of the Bank's total capital. Additionally, for all major borrowers whose loans exceed 10% of the Bank's capital, the aggregate loan balance must not exceed three times of the Bank's capital.
2. **Full consolidation level**: Concentration must not exceed 25% of the full consolidation capital.

For related lending, the Bank imposes limits on lending, investment, contingent liabilities, and lending- like transactions in accordance with the Bank of Thailand's regulations at both bank-only and solo consolidation levels.

SCB has a process to monitor and limit lending, investment, and contingent liabilities to major borrower groups. The Bank assigns a Primary Account Manager (PAM) to each customer group to ensure that lending, investment, and contingent liabilities of major borrower groups do not exceed the limits set by the Bank of Thailand. Specifically, credit must be allocated by PAM before approval can be granted by full consolidation companies or by related persons to companies in the solo consolidation group. Moreover, full consolidation companies are required to report credit lines and outstanding loans for such customer groups to the Bank on a monthly basis.

For lending to any particular industry, the Bank determines industry exposures based on industry trends, market share relative to the banking industry, probability of loss, and probability of default. The Bank uses the Herfindahl - Hirschman Index (HHI) to measure industry concentration and determine industry lending limits.

For Product Program/ Risk Program/Test Program lending, credit line must be clearly specified for each customer segment or product. In addition, this type of lending requires clearly specified objectives, types of credit line, customer qualifications, criteria, standard terms and conditions, as well as monitoring and assessment approach according to performance targets.

6.5.3 Counterparty Credit Risk and Country Risk

To control counterparty credit risk by setting counterparty limits to ensure that potential losses will remain within the risk appetite if there is a contractual breach.

In addition, SCB controls country risk by setting a maximum exposure limit and country limits that include both direct and indirect country-specific risks. The Bank actively monitors and controls the actual drawdowns against the approved country limits to ensure compliance with its Country Risk Management Policy.

6.6 Credit Risk Report

All relevant functions in each company are required to regularly report credit risk by preparing monthly reports for the functional heads to use for managing risk. Credit risk information on loan growth, credit quality, concentration, and investment diversification is then reported to the Risk Management Committee and/or the Risk Oversight Committee and/or related committee on a monthly basis.

SCB and SCBX Financial Group’s Credit Risk Report presents information on significant on- and off-balance sheet items. The report also shows unadjusted bad debts written-off by geographical area and business type (Table 7-15). Moreover, exposures by risk types and risk weights under the Standardized Approach are also presented in Table 16-18.

Table 7: Significant On- and Off-Balance Sheet Exposure Items

Unit: Baht million

	Bank-Only		Consolidated	
	31 Dec 22	31 Dec 21	**31 Dec 22**	31 Dec 21
On-balance sheet items	**3,178,923**	**3,086,582**	**3,255,645**	**3,104,249**
Net loans [1/]	2,666,945	2,733,644	2,728,897	2,739,015
Net investment in debt securities [2/]	417,579	262,792	419,705	262,946
Deposits [3/]	28,712	32,529	40,959	44,709
Derivative assets	65,687	57,617	66,084	57,579
Off-balance sheet items [4/]	**3,780,941**	**3,706,291**	**3,825,415**	**3,706,519**
Contingent	106,883	99,396	107,427	99,966
OTC derivatives [5/]	3,648,990	3,570,837	3,692,920	3,570,495
Undrawn committed lines	25,068	36,058	25,068	36,058

1/ Including accrued interest receivables, net of deferred income, unamortised modification gain (loss) and allowance for expected credit loss and including loans and accrued interest receivables of interbank and money market

2/ Excluding accrued interest receivables and net of allowances for revaluation and allowance for expected credit loss

3/ Including accrued interest receivables and net of allowance for expected credit loss

4/ Before using credit conversion factor

5/ Including equity-related derivatives

Table 8: Exposures by Geographical Area

Unit: Baht million

Bank-only	31 Dec 22			31 Dec 21		
	Thailand	Foreign Countries	Total	Thailand	Foreign Countries	Total
On-balance sheet items	**3,161,971**	**16,952**	**3,178,923**	**3,060,447**	**26,135**	**3,086,582**
Net loans [1/]	2,653,999	12,946	2,666,945	2,713,801	19,843	2,733,644
Net investment in debt securities [2/]	416,492	1,087	417,579	261,691	1,101	262,792
Deposits [3/]	26,028	2,684	28,712	27,367	5,162	32,529
Derivative assets	65,452	235	65,687	57,588	29	57,617
Off-balance sheet items [4/]	**3,773,437**	**7,504**	**3,780,941**	**3,700,726**	**5,565**	**3,706,291**
Contingent	106,287	596	106,883	99,176	220	99,396
OTC derivatives [5/]	3,642,094	6,896	3,648,990	3,565,762	5,075	3,570,837
Undrawn committed lines	25,056	12	25,068	35,788	270	36,058

Consolidated	31 Dec 22			31 Dec 21		
	Thailand	Foreign Countries	Total	Thailand	Foreign Countries	Total
On-balance sheet items	**3,223,568**	**32,077**	**3,255,645**	**3,062,820**	**41,429**	**3,104,249**
Net loans [1/]	2,712,212	16,685	2,728,897	2,715,934	23,081	2,739,015
Net investment in debt securities [2/]	418,297	1,408	419,705	261,510	1,436	262,946
Deposits [3/]	27,210	13,749	40,959	27,826	16,883	44,709
Derivative assets	65,849	235	66,084	57,550	29	57,579
Off-balance sheet items [4/]	**3,817,368**	**8,047**	**3,825,415**	**3,700,656**	**5,863**	**3,706,519**
Contingent	106,287	1,140	107,427	99,177	789	99,966
OTC derivatives [5/]	3,686,025	6,895	3,692,920	3,565,421	5,074	3,570,495
Undrawn committed lines	25,056	12	25,068	36,058	-	36,058

1/ Including accrued interest receivables, net of deferred income, unamortised modification gain (loss) and allowance for expected credit loss and including loans and accrued interest receivables of interbank and money market

2/ Excluding accrued interest receivables and net of allowances for revaluation and allowance for expected credit loss

3/ Including accrued interest receivables and net of allowance for expected credit loss

4/ Before using credit conversion factor

5/ Including equity-related derivatives

Table 9: Exposures by Remaining Maturity

Unit: Baht million

Bank-only	31 Dec 22			31 Dec 21		
	Less than 1 year	Within 1-5 years	More than 5 years	Less than 1 year	Within 1-5 years	More than 5 years
On-balance sheet items	**1,223,269**	**882,594**	**1,073,060**	**1,379,620**	**820,228**	**886,734**
Net loans [1/]	1,042,644	694,646	929,655	1,164,791	745,309	823,544
Net investment in debt securities [2/]	118,622	173,855	125,102	156,494	66,437	39,861
Deposits [3/]	28,712	-	-	32,529	-	-
Derivative assets	33,291	14,093	18,303	25,806	8,482	23,329
Off-balance sheet items [4/]	**2,327,674**	**990,411**	**462,856**	**2,131,885**	**1,033,017**	**541,389**
Contingent	89,960	3,885	13,038	81,212	3,695	14,489
OTC derivatives [5/]	2,230,476	979,144	439,370	2,036,894	1,028,190	505,753
Undrawn committed lines	7,238	7,382	10,448	13,779	1,132	21,147

Consolidated	31 Dec 22			31 Dec 21		
	Less than 1 year	Within 1-5 years	More than 5 years	Less than 1 year	Within 1-5 years	More than 5 years
On-balance sheet items	**1,262,222**	**913,686**	**1,079,737**	**1,394,204**	**821,148**	**888,897**
Net loans [1/]	1,067,975	725,359	935,563	1,167,715	746,341	824,959
Net investment in debt securities [2/]	120,676	173,899	125,130	156,545	66,526	39,875
Deposits [3/]	40,218	-	741	43,975	-	734
Derivative assets	33,353	14,428	18,303	25,969	8,281	23,329
Off-balance sheet items [4/]	**2,371,741**	**990,818**	**462,856**	**2,133,791**	**1,031,340**	**541,388**
Contingent	90,505	3,884	13,038	81,782	3,695	14,489
OTC derivatives [5/]	2,273,998	979,552	439,370	2,038,230	1,026,513	505,752
Undrawn committed lines	7,238	7,382	10,448	13,779	1,132	21,147

1/ Including accrued interest receivables, net of deferred income, unamortised modification gain (loss) and allowance for expected credit loss and including loans and accrued interest receivables of interbank and money market

2/ Excluding accrued interest receivables and net of allowances for revaluation and allowance for expected credit loss

3/ Including accrued interest receivables and net of allowance for expected credit loss

4/ Before using credit conversion factor

5/ Including equity-related derivatives

Table 10: Exposures and Provisions by Type of Financial Instruments

Unit: Baht million

Bank-only

31 Dec 22	Exposures[1/]			Provisions			Net exposures[2/]
	Defaulted exposures	Non-defaulted exposures	Total	General provisions	Specific provisions	Total	Net exposures
Net loans[3/]	89,461	2,709,798	2,799,259	80,077	52,237	132,314	2,666,945
Investment in debt securities[4/]	-	417,627	417,627	48	-	48	417,579
Deposits[5/]	-	28,712	28,712	-	-	-	28,712
Loan commitments and financial guarantee contracts[6/]	3,363	290,502	293,865	3,618	1,085	4,703	289,162

Bank-only

31 Dec 21	Exposures[1/]			Provisions			Net exposures[2/]
	Defaulted exposures	Non-defaulted exposures	Total	General provisions	Specific provisions	Total	Net exposures
Net loans[3/]	106,120	2,772,123	2,878,243	83,390	61,209	144,599	2,733,644
Investment in debt securities[4/]	-	262,820	262,820	28	-	28	262,792
Deposits[5/]	-	32,529	32,529	-	-	-	32,529
Loan commitments and financial guarantee contracts[6/]	2,469	279,017	281,486	5,655	581	6,236	275,250

Table 10 (Cont.)

Unit: Baht million

Consolidated 31 Dec 22	Exposures [1/]			Provisions			Net exposures [2/]
	Defaulted exposures	Non-defaulted exposures	Total	General provisions	Specific provisions	Total	Net exposures
Net loans [3/]	94,536	2,779,985	2,874,521	89,030	56,594	145,624	2,728,897
Investment in debt securities [4/]	-	419,800	419,800	95	-	95	419,705
Deposits [5/]	-	41,000	41,000	41	-	41	40,959
Loan commitments and financial guarantee contracts [6/]	3,448	292,231	295,679	5,022	1,169	6,191	289,488

Consolidated 31 Dec 21	Exposures [1/]			Provisions			Net exposures [2/]
	Defaulted exposures	Non-defaulted exposures	Total	General provisions	Specific provisions	Total	Net exposures
Net loans [3/]	107,210	2,777,609	2,884,819	83,793	62,011	145,804	2,739,015
Investment in debt securities [4/]	-	262,974	262,974	28	-	28	262,946
Deposits [5/]	-	44,729	44,729	20	-	20	44,709
Loan commitments and financial guarantee contracts [6/]	2,469	280,753	283,222	5,726	581	6,307	276,915

1/ Financial Instruments measurement based on TFRS9

2/ Net exposure = Exposure - Provision

3/ Including accrued interest receivables, net of deferred income, unamortised modification gain (loss), and including loans and accrued interest receivables of interbank and money market

4/ Excluding accrued interest receivables and net of allowances for revaluation

5/ Including accrued interest receivables

6/ Before credit conversion factor. Loan commitments shown in the table are undrawn committed lines which align with the BOT regulations on the calculation of credit risk-weighted assets and information disclosed in the Bank’s financial statement

Table 11: Loans and Investment in Debt Securities by Geographical Area and Asset Classification

Unit: Baht million

Bank-only	31 Dec 22			31 Dec 21		
	Thailand	Foreign Countries	Total	Thailand	Foreign Countries	Total
Total loans [1/]	**2,785,545**	**13,714**	**2,799,259**	**2,857,428**	**20,815**	**2,878,243**
Stage 1	2,532,018	12,694	2,544,712	2,562,866	19,737	2,582,603
Stage 2	165,086	-	165,086	189,503	17	189,520
Stage 3	88,441	1,020	89,461	105,059	1,061	106,120
Investment in debt securities [2/]	**416,524**	**1,118**	**417,642**	**261,709**	**1,128**	**262,837**
Stage 1	416,524	1,118	417,642	261,709	1,128	262,837
Stage 2	-	-	-	-	-	-
Stage 3	-	-	-	-	-	-

Consolidated	31 Dec 22			31 Dec 21		
	Thailand	Foreign Countries	Total	Thailand	Foreign Countries	Total
Total loans [1/]	**2,856,759**	**17,762**	**2,874,521**	**2,860,588**	**24,231**	**2,884,819**
Stage 1	2,584,450	15,849	2,600,299	2,565,179	22,358	2,587,537
Stage 2	179,064	622	179,686	189,370	702	190,072
Stage 3	93,245	1,291	94,536	106,039	1,171	107,210
Investment in debt securities [2/]	**418,329**	**1,485**	**419,814**	**261,527**	**1,464**	**262,991**
Stage 1	418,329	1,485	419,814	261,527	1,464	262,991
Stage 2	-	-	-	-	-	-
Stage 3	-	-	-	-	-	-

1/ Including accrued interest receivables, net of deferred income, unamortised modification gain (loss), and including loans and accrued interest receivables of interbank and money market

2/ Excluding accrued interest receivables and net of allowances for revaluation

Table 12: Provisions[1/] and Bad Debts Written-Off During Period on Loans and Investment in Debt Securities by Geographical Area

Unit: Baht million

Bank-only	31 Dec 22			31 Dec 21		
	Thailand	Foreign Countries	Total	Thailand	Foreign Countries	Total
Total loans [2/]						
General provisions [3/]			80,077			83,390
Specific provisions	51,529	708	52,237	60,472	737	61,209
Bad debts written-off during period	20,615	-	20,615	19,666	-	19,666
Investment in debt securities						
General provisions [3/]			63			45
Specific provisions	-	-	-	-	-	-

Consolidated	31 Dec 22			31 Dec 21		
	Thailand	Foreign Countries	Total	Thailand	Foreign Countries	Total
Total loans [2/]						
General provisions [3/]			89,030			83,793
Specific provisions	56,408	186	56,594	61,262	749	62,011
Bad debts written-off during period	21,751	-	21,751	19,854	-	19,854
Investment in debt securities						
General provisions [3/]			109			45
Specific provisions	-	-	-	-	-	-

1/ Allowance for expected credit loss

2/ Including provision for outstanding amounts and accrued interest receivables of interbank and money market

3/ Disclosed in total amount

Table 13: Loans[1/] by Type of Business and Asset Classification

Unit: Baht million

Bank-only	31 Dec 22				31 Dec 21			
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
Agriculture and mining	7,576	485	1,184	9,245	8,882	978	3,768	13,628
Manufacturing and commercial	1,108,217	63,338	43,063	1,214,618	1,116,856	46,170	45,801	1,208,827
Real estate and construction	149,401	8,611	10,247	168,259	152,481	7,770	17,660	177,911
Utilities and services	392,413	24,570	12,991	429,974	360,058	38,005	13,485	411,548
Housing loans	559,088	26,515	13,028	598,631	528,362	34,438	15,235	578,035
Others	328,017	41,567	8,948	378,532	415,964	62,159	10,171	488,294
Total	**2,544,712**	**165,086**	**89,461**	**2,799,259**	**2,582,603**	**189,520**	**106,120**	**2,878,243**

Consolidated	31 Dec 22				31 Dec 21			
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
Agriculture and mining	7,576	485	1,184	9,245	8,882	978	3,768	13,628
Manufacturing and commercial	1,043,540	63,885	43,266	1,150,691	1,114,580	46,587	45,911	1,207,078
Real estate and construction	149,454	8,611	10,655	168,720	152,529	7,770	18,460	178,759
Utilities and services	392,424	24,570	12,991	429,985	360,080	38,005	13,484	411,569
Housing loans	559,337	26,542	13,028	598,907	528,435	34,438	15,235	578,108
Others	447,968	55,593	13,412	516,973	423,031	62,294	10,352	495,677
Total	**2,600,299**	**179,686**	**94,536**	**2,874,521**	**2,587,537**	**190,072**	**107,210**	**2,884,819**

1/ Including accrued interest receivables, net of deferred income, unamortised modification gain (loss), and including loans and accrued interest receivables of interbank and money market

Table 14: Provisions[1/] and Bad Debts Written-Off for Loans[2/] by Type of Business

Unit: Baht million

Bank-only	31 Dec 22			31 Dec 21		
	General provisions[3/]	Specific provisions	Bad debts written-off	General provisions[3/]	Specific provisions	Bad debts written-off
Agriculture and mining		947	361		4,532	245
Manufacturing and commercial		28,140	6,059		29,093	4,818
Real estate and construction		7,131	904		10,649	564
Utilities and services		7,727	3,375		7,226	3,281
Housing loans		2,778	551		3,086	511
Others		5,514	9,366		6,623	10,248
Total	**80,077**	**52,237**	**20,615**	**83,390**	**61,209**	**19,666**

Consolidated	31 Dec 22			31 Dec 21		
	General provisions[3/]	Specific provisions	Bad debts written-off	General provisions[3/]	Specific provisions	Bad debts written-off
Agriculture and mining		947	361		4,532	245
Manufacturing and commercial		28,280	6,059		29,105	4,818
Real estate and construction		7,502	904		11,266	564
Utilities and services		7,727	3,375		7,226	3,281
Housing loans		2,778	551		3,086	511
Others		9,361	10,502		6,795	10,436
Total	**89,030**	**56,594**	**21,751**	**83,793**	**62,011**	**19,854**

1/ Allowance for expected credit loss

2/ Including outstanding amounts of loans, accrued interest receivables, and interbank and money market

3/ General provisions disclosed in total amount

Table 15: Reconciliation of Changes in Provisions [1/] and Bad Debts Written-Off for Loans [2/]

Unit: Baht million

Bank-only	31 Dec 22			31 Dec 21		
	General provisions	Specific provisions	Total	General provisions	Specific provisions	Total
Balance, beginning of year	83,391	61,209	144,600	78,903	57,500	136,403
Bad Debts Written-Off during period	-	(20,615)	(20,615)	-	(19,666)	(19,666)
Increase/decrease in provisions during period [3/]	(3,314)	11,643	8,329	4,487	23,375	27,862
Balance, end of year	**80,077**	**52,237**	**132,314**	**83,390**	**61,209**	**144,599**

Consolidated	31 Dec 22			31 Dec 21		
	General provisions	Specific provisions	Total	General provisions	Specific provisions	Total
Balance, beginning of year	83,793	62,011	145,804	79,090	58,324	137,414
Bad Debts Written-Off during period	-	(21,751)	(21,751)	-	(19,854)	(19,854)
Increase/decrease in provisions during period [3/]	5,237	16,334	21,571	4,703	23,541	28,244
Balance, end of year	**89,030**	**56,594**	**145,624**	**83,793**	**62,011**	**145,804**

1/ Allowance for expected credit loss

2/ Including provisions for outstanding amounts and accrued interest receivables of interbank and money market

3/ Excluding allowance for expected credit loss on financial instruments measured at FVOCI

Table 16: Exposures by Asset Type under the Standardized Approach (SA)

Unit: Baht million

Bank-only	31 Dec 22			31 Dec 21		
	On-balance sheet	Off-balance sheet[1/]	Total	On-balance sheet	Off-balance sheet[1/]	Total
Performing						
Claims on Sovereign & Central Banks, MDBs, PSEs-Sovereign	407,865	463,183	871,048	229,154	545,652	774,806
Claims on Bank, PSEs-Bank	44,023	113,852	157,875	43,527	106,210	149,737
Claims on Corporate, PSEs-Corporate	1,048,293	149,154	1,197,447	968,968	159,896	1,128,864
Claims on Retail portfolios	586,188	5,665	591,853	678,228	4,969	683,197
Claims on Retail mortgage loans	575,943	-	575,943	548,644	-	548,644
Other assets	263,924	-	263,924	298,417	-	298,417
Non-Performing loans	37,702	1,128	38,830	45,471	945	46,417
Total	**2,963,938**	**732,982**	**3,696,920**	**2,812,410**	**817,672**	**3,630,082**

Consolidated	31 Dec 22			31 Dec 21		
	On-balance sheet	Off-balance sheet[1/]	Total	On-balance sheet	Off-balance sheet[1/]	Total
Performing						
Claims on Sovereign & Central Banks, MDBs, PSEs-Sovereign	415,125	463,183	878,308	239,074	545,652	784,726
Claims on Bank, PSEs-Bank	48,767	113,772	162,539	45,839	105,557	151,397
Claims on Corporate, PSEs-Corporate	989,325	150,649	1,139,974	966,627	161,138	1,127,765
Claims on Retail portfolios	717,713	6,022	723,735	685,994	5,426	691,420
Claims on Retail mortgage loans	575,943	-	575,943	548,644	-	548,644
Other assets	278,314	-	278,314	289,593	-	289,593
Non-Performing loans	38,410	1,128	39,539	45,673	945	46,618
Total	**3,063,598**	**734,754**	**3,798,353**	**2,821,444**	**818,718**	**3,640,162**

1/ Off-balance sheet exposures (including Repo and Reverse Repo transactions) after multiplying by Credit Conversion Factor (CCF), net of specific provision

Table 17: Adjusted Exposures by Asset Type and Risk Weight under the Standardized Approach (SA)

Unit: Baht million

Bank-Only

31 Dec 22	Rated exposure					Unrated exposure									
Risk weights (%)	0	20	50	100	150	0	20	35	50	75	100	250	625	938	100/8.5%
Performing															
Claims on Sovereign & Central Banks, MDBs, PSEs-Sovereign	419,816	0	6,829	242	300										
Claims on Bank, PSEs-Bank	83	42,505	7,002	7,704	-										
Claims on Corporate, PSEs-Corporate	-	41,316	103,714	44,859	2,569						985,274				
Claims on Retail portfolios										563,359	17,902				
Claims on Retail mortgage loans								531,078		43,620	1,215				
Other assets						136,999	-				125,197	1,728			
Risk weights (%)	0	20	50	100	150					75					
Non-Performing loans		-	12,987	24,009	1,097					273					

Bank-Only

31 Dec 21	Rated exposure					Unrated exposure									
Risk weights (%)	0	20	50	100	150	0	20	35	50	75	100	250	625	938	100/8.5%
Performing															
Claims on Sovereign & Central Banks, MDBs, PSEs-Sovereign	239,157	0	7,119	290	347										
Claims on Bank, PSEs-Bank	-	44,118	11,212	6,121	-										
Claims on Corporate, PSEs-Corporate	-	36,086	91,389	51,349	2,475						925,996				
Claims on Retail portfolios										659,514	12,629				
Claims on Retail mortgage loans								498,810		48,687	1,112				
Other assets						147,612	-				150,806	-			
Risk weights (%)	0	20	50	100	150					75					
Non-Performing loans		-	13,648	30,587	1,477					175					

Capital deduction prescribed by the BOT: - None -

Table 17 (Cont.)

Unit: Baht million

Consolidated

31 Dec 22	**Rated exposure**					**Unrated exposure**									
Risk weights (%)	**0**	**20**	**50**	**100**	**150**	**0**	**20**	**35**	**50**	**75**	**100**	**250**	**625**	**938**	**100/8.5%**
Performing															
Claims on Sovereign & Central Banks, MDBs, PSEs-Sovereign	420,251	0	6,829	2,865	4,503										
Claims on Bank, PSEs-Bank	83	44,409	8,537	8,889	-										
Claims on Corporate, PSEs-Corporate	-	39,853	103,714	44,859	2,569						929,244				
Claims on Retail portfolios										691,842	20,449				
Claims on Retail mortgage loans								531,078		43,616	1,220				
Other assets						146,973	-				112,868	1,728			
Risk weights (%)	**0**	**20**	**50**	**100**	**150**					**75**					
Non-Performing loans		-	13,670	24,035	1,097					273					

Consolidated

31 Dec 21	**Rated exposure**					**Unrated exposure**									
Risk weights (%)	**0**	**20**	**50**	**100**	**150**	**0**	**20**	**35**	**50**	**75**	**100**	**250**	**625**	**938**	**100/8.5%**
Performing															
Claims on Sovereign & Central Banks, MDBs, PSEs-Sovereign	239,768	0	7,119	5,305	4,641										
Claims on Bank, PSEs-Bank	-	45,686	11,088	6,753	-										
Claims on Corporate, PSEs-Corporate	-	36,086	91,389	51,349	2,475						924,220				
Claims on Retail portfolios										665,167	14,201				
Claims on Retail mortgage loans								498,810		48,687	1,112				
Other assets						151,172	-				138,421	-			
Risk weights (%)	**0**	**20**	**50**	**100**	**150**					**75**					
Non-Performing loans		-	13,660	30,777	1,477					175					

Capital deduction prescribed by the BOT: - None -

Table 18: Collateralized Exposures by Asset and Collateral Type under the Standardized Approach (SA)

Unit: Baht million

Bank-only	**31 Dec 22**		**31 Dec 21**	
	Eligible financial collateral[1/]	**Guarantee and credit derivatives**	**Eligible financial collateral[1/]**	**Guarantee and credit derivatives**
Performing				
Claims on Sovereign & Central Banks, MDBs, PSEs-Sovereign	456,341	-	538,486	-
Claims on Bank, PSEs-Bank	89,789	11,049	81,734	5,772
Claims on Corporate, PSEs-Corporate	18,608	26,875	19,198	25,330
Claims on Retail portfolios	10,243	350	9,547	1,507
Claims on Retail mortgage loans	30	-	35	-
Other assets	-	-	-	-
Non-Performing loans	234	231	365	165
Total	**575,244**	**38,504**	**649,365**	**32,774**

Consolidated	**31 Dec 22**		**31 Dec 21**	
	Eligible financial collateral[1/]	**Guarantee and credit derivatives**	**Eligible financial collateral[1/]**	**Guarantee and credit derivatives**
Performing				
Claims on Sovereign & Central Banks, MDBs, PSEs-Sovereign	456,341	-	538,486	-
Claims on Bank, PSEs-Bank	89,827	11,049	81,739	5,772
Claims on Corporate, PSEs-Corporate	18,626	26,876	19,453	25,330
Claims on Retail portfolios	11,096	348	10,545	1,507
Claims on Retail mortgage loans	30	-	35	-
Other assets	-	-	-	-
Non-Performing loans	234	231	365	165
Total	**576,155**	**38,504**	**650,624**	**32,774**

1/ Financial collateral permitted by the BOT. When using the Comprehensive approach, values reported are after haircut.

7. MARKET RISK

7.1 Market Risk Management

Market risk positions are classified into trading book and non-trading book. Trading book positions comprise short-term market trades intended for resale to make profits from price fluctuation or market arbitrage, while non-trading book positions mainly comprise positions from risk management activities, such as interest rate risk in the banking book and investment risk.

7.2 Market Risk Management Policy

Companies in the Financial Group with material market risk exposures have their own Market Risk Policy, Trading Book Policy, or Investment Policy to manage market risk in the trading book. The policies must be submitted to the Group Risk Management Committee for review prior to seeking approval from their respective boards. These policies must be reviewed at least once a year, or when deemed appropriate and/or upon any significant strategic or market change. Companies in the Financial Group with material market risk exposure are required to set up an independent market risk management function responsible for measuring, evaluating, controlling, monitoring, and reporting market risk to ensure that market risk is effectively managed to be within the target risk limits.

7.3 Market Risk Assessment

Both statistical and non-statistical tools to assess market risk in the trading book and in the non-trading book depending on individual company's risk characteristics. These tools include stress testing, value at risk (VaR), position size, sensitivity analysis, management action trigger, and others. Stress testing for all material positions held in portfolios are conducted. Stress testing is a methodology to quantify potential losses on a portfolio in case of extreme yet plausible market events. Risks from stress events, although unlikely, can cause substantial losses and may impact the stability of the Bank and SCBX Financial Group. The independent market risk management function is responsible for defining and reviewing market risk stress testing methodology, performing stress testing, and reporting stress exposure to senior management regularly.

7.4 Market Risk Limits

Market risk limits constitute a key control mechanism to ensure that market risk exposure is aligned with market risk appetite of SCB and SCBX Financial Group. The process to review market limits considers factors such as business strategy, historical performance, market risk capital requirement, market depth, liquidity, etc. Market risk limits are reviewed and approved by SCBX Board of Directors, Board of Directors of each company or other appointed committees at least once a year and/or upon any significant strategic or market change. Market risk limits are applied at the close of the business day and are monitored daily. There are also intraday limits on foreign exchange net open positions and interest rate sensitivity limits.

7.5 Market Risk Monitoring and Reporting

Market risk reports presenting trading risk exposure against limits are prepared and delivered to relevant parties including book owners and senior management daily. Market risk exposures are regularly reported to SCBX Board of Directors, Board of Directors of each company, or other appointed committees. Moreover, market risk exposures of SCB and its Financial Group are also summarized and reported monthly to the Group Risk Management Committee.

7.6 Capital Adequacy

SCB and the Financial Group maintain capital against market risk in the trading book based on the Standardized Approach as required by the Bank of Thailand. From December 31, 2013 onward, SCB has been granted permission from the Bank of Thailand to apply the Duration Method for calculating market risk capital charges for interest rate risk and the Contingent Loss Method to determine capital requirements for currency and interest rate options. The following table shows capital requirements for market risk of the Bank and SCBX Financial Group as of December 31, 2022.

Table 19: Minimum Capital Requirements for Market Risk under the Standardized Approach (SA)

Unit: Baht million

	Bank-Only		Consolidated	
	31 Dec 22	31 Dec 21	**31 Dec 22**	31 Dec 21
Interest rate risk	2,502	3,212	2,508	3,219
Equity position risk	-	-	85	115
Foreign exchange risk	1,574	686	3,298	1,929
Commodity risk	-	-	-	-
Total minimum capital requirements for market risk	**4,075**	**3,898**	**5,891**	**5,264**

8. OPERATIONAL RISK

8.1 Operational Risk Management Principles

SCB and SCBX Financial Group recognize that operational risk is inherent in any business and have always considered operational risk management a priority and continue to encourage the enhancement /improvement of operational risk management. This priority is more pressing in today's rapidly changing environment rife with economic uncertainties, increased competition, growing complexity of products, dependency on technology, natural disasters, Covid 19 and new epidemics, and political/civil condition, for instance.

The company requires all companies in SCBX Financial Group to manage their own operational risks by using risk management tools (Risk and Control Assessment: RCSA) to identify, assess, control, monitor, and report risks. Senior management has the duty to manage operational risk within their areas of responsibilities in parallel with implementing and maintaining a sound internal control environment and control effectiveness.

8.2 Governance Framework

SCB and SCBX Financial Group have established a governance framework for operational risk management using the 'three lines of defense' principle:

- **1st line of defense** consists of business and support functions taking primary responsibilities for managing risks within their own functions.
- **2nd line of defense** consists of centralized risk management and control functions, such as the Operational Risk Management Function and Compliance Function, with the duties to support, assist, and provide risk management guidance to the 1st line functions.
- **3rd line of defense** is the internal audit function which independently checks and reviews business processes and operations to assure the Board of Directors and the Audit Committee of the effectiveness of the Group's internal control system.

8.3 Risk Management Process and Approach

Because operational risk is a major risk from conducting business, SCB and SCBX Financial Group place heavy emphasis on continually improving the Group's operational risk management practice.

Every function within SCB and SCBX Financial Group, either business or support function, has a duty to oversee and manage their operational risks with appropriate methodologies and approaches. A sound risk management approach must include risk identification and assessment, internal control effectiveness assessment in dimension of design and performance, as well as risk mitigation planning and implementation to ensure that operational risk is within the risk appetite given the nature of the business.

As part of the risk mitigation effort, SCB and SCBX Financial Group implement a wide variety of methods to manage operational risk. In addition to the core operational risk framework mentioned above, SCB and SCBX Financial Group also use other risk management tools, such as risk and control self-assessment (RCSA), key risk indicators (KRI) containing qualitative and quantitative measurement, and incident and loss management (ILM).

The Group also adopts other risk mitigation practices, such as business continuity planning (BCP), business impact analysis (BIA), for critical functions as well as crisis management plans for major incidents, with clear targets regarding recovery time. The plans are tested and reviewed on a regular basis. Including New Product & Process Approval (NPPA), insurance management, and outsourcing/insourcing management.

8.4 Operational Risk Report

Key functions of SCBX Financial Group are required to regularly report operational risk to senior management so that management is informed of the risk level and risk issues. Moreover, Group companies are required to report their operational risks to SCBX. The Risk Management Function analyzes this risk information to prepare a monthly report for the Risk Management Committee which will then be used as input into the Committee's risk management decisions.

8.5 Capital Adequacy

SCB and SCBX Financial Group have adopted the Standardized Approach to calculate capital requirements for operational risk. The table below shows capital requirements for operational risk as of December 31, 2022.

Table 20: Minimum Capital Requirements for Operational Risk under the Standardized Approach (SA)

Unit: Baht million

	Bank-Only		Consolidated	
	31 Dec 22	31 Dec 21	**31 Dec 22**	31 Dec 21
Operational risk - Standardized Approach	19,723	19,003	20,262	19,548
Total minimum capital requirements for operational risk	**19,723**	**19,003**	**20,262**	**19,548**

9. INTEREST RATE RISK IN THE BANKING BOOK (IRRBB)

Interest rate risk in the banking book arises from financial instruments or other positions held by SCB and SCBX Financial Group for non-trading purposes which may impact the Group's net interest income and economic value due interest rate fluctuations. There are four sources of interest rate risk:

- **Repricing risk** arises from maturity/timing mismatch of the Bank's assets and liabilities, which causes interest rates at reset to differ due to yield curve movements. For example, assuming all other factors are constant, if the assets can be repriced faster than liabilities (a positive gap), interest margins increase when interest rates rise. On the other hand, if the ability to reprice assets is slower than liabilities (a negative gap), then interest margins narrow when interest rates rise.
- **Yield curve risk** arises from interest rates at different maturities changing differently.
- **Basis risk** occurs when the assets and liabilities are based on different reference interest rates, e.g. fixed-deposit rates, interbank lending rates, THBFIX interest rates. Therefore, any change in reference rates will affect interest rates tied with assets and liabilities differently.
- **Options risk** arises from implicit and explicit options in the assets and liabilities and off-balance sheet items where exercising these options might affect the revenue and costs. For example, an option on three-month deposit that allows early withdrawal before maturity will, if exercised, cause the costs to rise sooner than expected.

9.1 Governance

For the purpose of managing interest rate risk in the banking book, SCB and SCBX Financial Group divide companies into two groups:

- **SCB and companies with material interest rate risk in the banking book,** i.e., banking business
- **Companies with non-material interest rate risk in the banking book,** i.e., securities, asset management, debt management, and other supporting businesses

SCB and SCBX Financial Group companies with material exposures to interest rate risk in the banking book have their own policies and guidelines to manage this risk. Companies may pursue different risk management approaches depending on the scope, volume, and complexity of transactions, local regulations, business-specific regulatory requirements as well as each company's risk appetite. Despite some differences, all companies have set up independent IRRBB risk management functions responsible for measuring, evaluating, controlling, monitoring, and reporting interest rate risk in the banking book, as well as ensuring that interest rate risk in the banking book exposure stays within the risk limits.

SCB has established the Interest Rate Risk in the Banking Book Management Policy which has been approved by the Board of Directors. The Assets and Liabilities Management Committee is responsible for ensuring compliance with such policy.

Other relevant functions include the Group Treasury Function, which manages the overall interest rate risk in the banking book, and the Balance Sheet Risk Monitoring Division, which monitors IRRBB based on both Net Interest Income (NII) and Economic Value of Equity (EVE).

9.2 Risk Assessment and Control

The Bank sets risk limits for IRRBB by measuring the impact of interest rate fluctuations on net interest income and economic value of equity (EVE) under stress situations. To monitor IRRBB, the Bank produces repricing gap reports for risk analysis and assessment which are then reported to the Assets and Liabilities Management Committee (ALCO) for further actions. The Bank has structured assets and liabilities to achieve its business targets which may require the use of derivative instruments to hedge against residual interest rate risk. Risk analysis reports are submitted to the Assets and Liabilities Management Committee, the Risk Management Committee, the Risk Oversight Committee, and the Board of Directors on a regular basis.

The Bank measures the risk of interest rate fluctuations by measuring the impact on net interest income and economic value of equity (EVE). This analysis is conducted monthly for the Bank and annually for the SCBX Financial Group.

In 2022, the Bank adopted a behavior model in measuring interest rate risk in the banking book to better reflect the risk by adjusting asset and liability repricing tenors i.e., maturity of non-maturity deposits (NMDs), fixed-rate loans subject to prepayment risk, and term deposits subject to early redemption risk, as well as adjusting the relationship of loan and deposit interest rate to the policy rate. The behavior adjustment is in accordance with the BoT notification number Sor. Kor. Sor.1. 2/2564 dated 19 August 2021, regarding to Pillar II.

As the end of December 2022, for Interest rate risk in banking book in the event that interest rates rise by 1%, within 1 year the Bank would be impacted by decreasing NII (before behavioral adjustment) by Baht 6.0 billion or 6.23% and increasing NII (after behavioral adjustment) by Baht 6.74 billion or 7.0%. With a long-term economic measure, the Bank would be impacted by decreasing EVE (before behavioral adjustment) by Baht 24.31 billion or 6.59% and increasing EVE (after behavioral adjustment) by Baht 0.58 billion or 0.16%.

For the SCBX Financial Group, net interest income would have declined by Baht 6.17 billion or 5.08% of target net interest income.

Table 21: Impact on Net Interest Income in the Event that Interest Rates Rise by 1%

Unit: Baht million

Currency	Bank-Only		Consolidated	
	31 Dec 22	31 Dec 21	31 Dec 22	31 Dec 21
THB	(5,789)	(3,961)	(5,972)	(3,895)
USD	(257)	(265)	(248)	(272)
EURO and other foreign currencies	50	91	49	91
Total impact on net interest income	**(5,996)**	**(4,135)**	**(6,171)**	**(4,076)**
% of target net interest income	**-6.23%**	**-4.90%**	**-5.08%**	**-4.40%**

Table 22: Impact on Economic Value of Equity in the Event that Interest Rates Rise by 1%

Unit: Baht million

Currency	Bank-Only		Consolidated	
	31 Dec 22	31 Dec 21	31 Dec 22	31 Dec 21
THB	(24,261)	(24,163)	(25,868)	(24,167)
USD	55	(34)	40	(47)
EURO and other foreign currencies	(106)	4	(110)	2
Total impact on economic value of equity	**(24,312)**	**(24,193)**	**(25,938)**	**(24,212)**
% of total capital	**-6.59%**	**-5.74%**	**-5.96%**	**-5.71%**

10. LIQUIDITY RISK

Liquidity risk is the risk that SCB and SCBX Financial Group cannot meet their contractual obligations from normal operations as well as from unforeseen events or disruption because of an inability to convert assets or to secure the required funding at a reasonable cost, thus resulting the loss.

10.1 Governance

For liquidity risk management, SCB and SCBX Financial Group separate companies into two groups:

- **SCB and companies with material liquidity risk,** i.e., banking, securities, asset management
- **Companies with non-material liquidity risk,** i.e., debt management and other supporting businesses

SCB and companies with material liquidity risk develop their own liquidity risk management policies and guidelines. Companies may pursue different risk management approaches depending on the scope, volume, and complexity of transactions, local regulations, business-specific regulatory requirements as well as each company's risk appetite.

SCB has established the Liquidity Risk Management Policy which has been approved by the Board of Directors. The Assets and Liabilities Management Committee is responsible for ensuring compliance with this policy. The Group Treasury Function is responsible for managing the overall liquidity risk, while the Balance Sheet Risk Monitoring Division is responsible for monitoring and controlling liquidity risk.

10.2 Liquidity Coverage Ratio (LCR)

The 2008 financial crisis had shown that a liquidity crunch can inflict severe damages to financial and real sectors. In response, the BCBS introduced new liquidity standards under Basel III, namely Liquidity Coverage Ratio (LCR) and Net Stable Fund Ratio (NSFR), to promote strong liquidity positions among commercial banks both short-term and long-term. In Thailand, the BOT has prescribed the LCR standard in line with the BCBS's guidelines since January 1, 2016.

The LCR requirement aims to ensure that commercial banks have adequate unencumbered High-Quality Liquid Assets (HQLA) to meet their liquidity needs, specifically to cover total net cash outflows for a 30-calendar day severe liquidity stress scenario according to the BOT's computation methodology. The intent is to allow commercial banks, along with the BOT and relevant regulators, sufficient time to identify and implement appropriate measures to address the situation.

The LCR components:

$$\text{LCR} = \frac{\text{High-quality liquid assets}}{\text{Total net cash outflows}}$$

I. High-quality liquid assets (HQLA)

HQLA under the LCR requirement must have the following characteristics:

- Fundamental characteristics such as having low risk, straightforward valuation; and
- Market-related characteristics such as being actively traded, having low volatility, and attracting high demand during a crisis

Additionally, HQLA is categorized into two levels according to their convertibility under stress conditions.

- **HQLA Level 1** are cash, deposits, central bank reserves, and bonds issued or backed by governments and central banks which have the highest ratings and the highest liquidity.
- **HQLA Level 2** are considered lower tier in terms of asset quality and liquidity. This level of assets is further sub-categorized into Level 2A and Level 2B which consist of lower-rated government bonds and corporate bonds. Level 2 assets are subject to a range of haircuts as specified by the BOT. Level 2 assets and Level 2B assets may not exceed 40% and 15% respectively of a commercial bank's aggregate HQLA.

In addition, HQLA must meet certain operational requirements to ensure timely convertibility through a secondary market either by outright or repo transactions during periods of financial stress. Commercial banks should ensure that their HQLA portfolios are properly diversified even though certain classes of liquid assets are likely to remain liquid both under normal and stressed conditions. Banks should also impose limits to avoid concentration risk with respect to asset types, issue and issuer types, and currency within each asset class.

II. Total net cash outflows

Total net cash outflows within 30 days under a severe liquidity stress scenario are defined as total expected cash outflows less total expected cash inflows for 30 days under a severe liquidity stress scenario. In this computation, total expected cash inflows are capped at 75% of total expected cash outflows.

Total net cash outflows = **Total expected cash outflows** - **Total expected cash inflows**

- **Total expected cash outflows** are the sum of outstanding balances of various categories of liabilities and off-balance sheet commitments multiplied by their expected run-off or drawdown rates over the next 30 days under severe liquidity stress scenario. Cash outflows can be categorized into 5 types as follows:
  - Retail deposits and borrowings
  - Unsecured wholesale funding
  - Secured funding
  - Contractual obligations
  - Non-contractual obligations
- **Total expected cash inflows** are the sum of outstanding balances of various categories of contractual receivables multiplied by their expected flow-in rates over the next 30 days under severe liquidity stress scenario. In this computation, total cash inflows are capped at 75% of total expected cash outflows. Cash inflows can be categorized into 3 types as follows:
  - Secured lending
  - Fully performing loans
  - Contractual obligations

III. The BOT's Minimum requirement

A commercial bank must maintain its LCR above 100%.

LCR report

This LCR disclosure presents information on a bank-only basis and all data are simple averages of month-end observations of the previous quarter in Baht currency. Specifically, the Bank's average LCR, HQLA, and total net cash outflows for the 4th quarter of 2022 was a simple average of month-end LCR, HQLA, and total net cash outflows, respectively, in October, November and December 2022 (3 months).

Liquidity Coverage Ratio (LCR)

Under the new requirement, the Bank has been able to maintain its LCR well above the regulatory requirement on both bank-only and consolidated basis.

The Bank's average LCR for the 4th quarter of 2022 was 216%. This level exceeded both the Bank's risk tolerance limit and the BOT's minimum requirement at 100%, showing the Bank's ample liquidity.

High-Quality Liquid Assets (HQLA)

The average HQLA for the 4th quarter of 2022 was Baht 834,934 million, of which 98.6% were level 1 assets mainly consisting of government bonds and fixed-income instruments issued by the BOT. It is the Bank's policy to hold high quality liquid assets unencumbered by legal, regulatory, or operational restrictions that can be converted into cash during a stress situation.

Total net cash outflows (Net COF)

The average net cash outflows over the next 30 days for the 4th quarter of 2022 was Baht 387,233 million. Most of the estimated cash outflows were from withdrawal of retail and wholesale deposits using the BOT's run-off rates. Meanwhile, most of the estimated cash inflows were from repayment of normal loans using the BOT's inflow rates.

10.3 Risk Assessment and Control

The Bank manages and controls liquidity risk to ensure adequate liquidity and sufficient future cash flows to cover its activities under both normal and stress situations. Cash flow report and liquidity gap report are some of the mechanisms used to monitor and control the Bank's overall liquidity risk. The Bank's policy is to maintain Liquidity Coverage Ratio (LCR), Net Stable Funding Ratio (NSFR) and the liquidity ratio (liquid assets as a percentage of total deposits) at an appropriate level and to monitor net cash outflows over different time horizons to ensure that the Bank can effectively manage its liquidity risk.

Additionally, the Bank conducts stress testing on a regular basis under the BOT's scenarios and the Bank's own scenarios. Stress test results are incorporated into the Bank's contingency funding plan which establishes scenario-specific action plans and explicit roles and responsibilities for liquidity management in a stress situation.

The Bank has a policy to maintain its daily liquidity ratio of at least 20%, measured as total liquid assets to total deposits. At the end of December 2022, the Bank's liquid assets represented 34.6% of total deposits.

Table 23: Liquidity Coverage Ratio (LCR)

Unit: Baht million

Bank-only	Q4/2022 (Average)[1/]	Q4/2021 (Average)[1/]
(1) Total HQLA	834,934	816,947
(2) Total net cash outflows	387,233	405,324
(3) LCR (%) [2/]	**216**	**202**
Minimum requirement by the BOT (%)	*100*	*100*

Table 24: LCR data for comparison [3/]

Unit: Percentage

Bank-only	2022 (Average)[1/]	2021 (Average)[1/]
3rd Quarter	200	186
4th Quarter	216	202

1/ Calculation based on a simple average using month-end data for each quarter. For example, Q4 data were calculated by taking a simple average of month-end data in October, November, and December.

2/ Data of item 3 (LCR) might not be equal to item 1 (Total HQLA) divided by item 2 (Total net cash outflows).

3/ LCR data will show Q1-Q2 for the first half period and Q3-Q4 for the second half period.

11. EQUITY INVESTMENTS IN THE BANKING BOOK

The objectives for equity investments in the banking book are as follows:

- Equity investments intended mainly to generate dividend yield and/or capital gains from changes in equity prices within an appropriate timeframe and/or to strengthen business alliances in some cases.
- Strategic investments in high-growth equity and/or those that support the Financial Group's business.
- Both direct and indirect equity investments in Fintech businesses via venture capital funds as well as investments in digital assets under regulatory conditions imposed by relevant authorities.

According to the Group Risk management Policy, group companies operating investment as their main business, such as securities, insurance, venture capital, and commercial banking business can invest in accordance with applicable regulatory requirements. Group companies that do not operate investment as their main business will be able to invest only as defined in the overall investment policy framework and only in business related to their operations, unless approved by the group's Board of Directors.

11.1 Governance

The investment approval authority at the committee level and/or individual executive level are established in accordance with the Investment Policy that has been approved by SCBX's Board of Directors and/or each company's Board of Directors. Investment approval authority varies by transaction type and investment value which has different risk attributes.

Business units with risk management duties to oversee company's equity investments portfolio are responsible for monitoring, overseeing, and controlling equity investment transactions to be in line with relevant rules and regulations. Another key responsibility is to prepare a summary report on equity investment transactions to be proposed to the Investment Management Committee, the Risk Management Committee, and/or the Board of Directors or other relevant committee in accordance with approval authorities.

SCB and SCBX Financial Group also monitor and control investment risks through SCB's Risk Management Committee and/or the risk management committees of the Financial Group companies in accordance with the specified risk management structure. This includes but not limited to the consideration of policy set up and the determination of risk ratios relating to investment transaction.

11.2 Risk Assessment and Control

The fair value assessment of securities of each type is required according to Thai Financial Reporting Standards 9 (TFRS 9). The fair value will show the intrinsic value of equity investments and identify market risk limit to include equity investments to accurately reflect the potential impact to the investment.

Moreover, there is a periodic review of equity investments at the portfolio level and the company level to determine an appropriate investment strategy.

11.3 Capital Adequacy

SCB and SCBX Financial Group have adopted the Standardized Approach to calculate capital requirements for equity exposures.

Table 25: Minimum Capital Requirements for Equity Exposures in the Banking Book

Unit: Baht million

	Bank-Only		Consolidated	
	31 Dec 22	31 Dec 21	**31 Dec 22**	31 Dec 21
Equity exposures - Standardized Approach (domestic and foreign)				
Listed equity exposures (domestic and foreign)	660	1,272	660	6,167
Others (domestic and foreign)	22,729	37,845	29,970	22,888
Total gains (losses) arising from sales during the period	6,672	1,384	1,723	2,272
Increase (decrease) in value from remeasuring FVOCI investments	1,271	1,267	1,269	1,271
Total minimum capital requirements	**1,988**	**3,325**	**2,604**	**2,470**

12. STRATEGIC RISK

Strategic risk refers to risks on financial performance (e.g. revenues, profits, capital), reputation and stability of the Bank and SCBX Financial Group both at present and in the future that arise from changes in business environment, poor strategic decisions, ineffective strategic implementation, or untimely responses to industry, economic, and technological changes. Strategic risk is managed through the strategy process consisting of 1) strategic planning, 2) alignment and change management, 3) implementation and monitoring, and 4) performance evaluation and feedback.

The goal of this process is to ensure adequate input into strategy formulation and implementation. The Bank and SCBX Financial Group also has a process to assess and monitor strategic risk in order to monitor any changes in external and internal factors that may affect the business operations.

The Strategy Function currently supports the Board of Directors and senior management in formulating and reviewing SCB and SCBX Financial Group's strategies. In addition, the Strategy Function is also responsible for conducting strategic risk assessment on a regular basis.

13. REPUTATIONAL RISK

Reputation is of paramount importance for any business, especially for financial businesses, which can only be built gradually by earning confidence and trust for the business over a long period of time. As the old adage says, it takes years to build one's reputation, and only seconds to destroy it.

SCBX Financial Group recognizes the importance of reputational risk and therefore has developed reputational risk management framework as a minimum requirement for all companies in SCBX Financial Group to establish Reputation Risk Management Policy. Each company is expected to protect their reputation from both internal and external risk factors without regard to revenue generating potential.

SCBX require the company in SCBX Financial Group to diligently monitor events and incidents that could negatively affect their reputation and that of the Group, and to ensure a timely process of escalation to SCBX. Strategic operating companies must undertake scenario planning, backed by clearly defined incident response processes, communication strategies, and roles and responsibilities. SCBX will inform regulators of major incidents on a timely basis, especially instances that could have a risk of contagion to the rest of the industry.

For any business transactions with potential reputational risk, especially the lending business for the Bank, the management concerned must seek prior approval from the Executive Committee. The Chairman of the Executive Committee may escalate the matter to the Board of Directors if necessary.

14. TECHNOLOGY RISK

Today's technology is changing rapidly. Failure to adapt or lack of a long-term plan to accommodate changes may affect business operations and cause the Bank and SCBX Financial Group to lose market share due to unable to serve customers effectively by meeting their product or pricing needs. Moreover, technology risk may also cause business and service disruptions which may lower the Bank's profitability and market share.

Because of these wide-ranging and inter-related impacts, technology risk management is one of the SCBX Financial Group's top priorities. Therefore, the Group adopts a proven framework for technology risk management consisting of: 1) Risk Identification, 2) Risk Assessment, 3) Risk Response, and 4) Monitoring and Reporting. Technology risk management is one of the key risks of the organization (enterprise-wide risk) in terms of security, integrity and availability in both normal and critical situations.

Furthermore, the SCBX Financial Group recognizes and has taken steps to build and enhance the organization's risk culture, particularly for technology risk, by educating and training employees, maintaining technology risk and knowledge databases that are accurate and up-to-date, adopting best-in-class risk management tools along with continually improving its risk management framework to be in line with global practices.

Moreover, the technology risk management process enables the SCBX Financial Group to adequately manage technology risk at both strategic and operational levels.

At the strategic level, the SCBX Financial Group aims to build a modern, flexible, and secure technology architecture to support a wide variety of customer service platforms along with providing data management capability for marketing and credit management analysis to use technology that is in line with business strategies and is flexible enough to accommodate future business changes.

At the operational level, the process covers assessing organizational structure on the technology side; technology people; system acquisition, development, and maintenance; accuracy and security of technology systems and important data (e.g., customers' information); system's capacity to accommodate high volume transactions, the complexity of information technology as well as service continuity during crises and IT vendor management. These components of technology risk management process will bolster the SCBX Financial Group's competitiveness and profitability.

SCBX is setting up a Cloud Center of Excellence (COE) and a Cyber Risk COE to establish best practices and minimum requirements and coordinate activities among the group for cloud infrastructure and migration, and for cyber and technology risk management, respectively.

15. PEOPLE RISK

People are vital resources in the business operation. Not only must the Bank provide suitable products and services that meet customer needs, the companies within the Group and its employees must also comply with rules and regulations on customer protection which may give rise to market conduct risk. Therefore, the Bank needs knowledgeable and capable people to help achieve its business goals in a sustainable manner.

SCB and SCBX Financial Group recognizes the importance of human resources which present significant and constant challenges in today's environment. A key challenge is the advent of new technologies which may replace the existing service model and put pressure on the organization to reform or transform itself. Such broad-scale organizational change raises demand on human resources both in terms of quality and quantity. Specifically, an organization requires knowledgeable, well-rounded, and adaptable people to drive its transformation efforts.

SCB and SCBX Financial Group manages such risks by implementing several key initiatives which include:

- Building a risk culture in which risk awareness and ownership are the norm and risk prevention and mitigation are the responsibility of all employees
- Establishing SCB Academy to build additional skills and knowledge necessary for future business changes, such as knowledge in product areas and data analytics for business analysis and planning
- Providing attractive career paths for employees to ensure business success and sustainable growth
- Providing safe and conducive work environment to foster employee engagement.

Governance

Boards of Directors of the SCBX and Group companies have established an effective people risk management framework and regularly reviewed the overall people risk. Senior management is responsible for managing people risks within their areas of responsibilities and establishing effective control as well as coordinating with the People Function and other relevant functions.

People Function, business functions, and relevant supporting functions are responsible for identifying people risks using appropriate analyses given the function's inherent business complexity with regular updates/reviews of potential risks.

For people risk management, the SCB and SCBX Financial Group also apply the 'three lines of defense' principle used in operational risk management to ensure effectiveness in risk management and internal control.

16. MODEL RISK

The SCB and SCBX Financial Group have prepared for changes which may affect its business operations by developing models to facilitate business analysis and decision making, which may give rise to model risk. For instance, models may produce inaccurate results or may be misused. Model risk may appear in four following forms:

- **Input** which may arise from low quality or untimely data, insufficient historical data or small sample size;
- **Methodology** which may arise during the stage of model development or data processing, including wrong theories, models derived from outdated historical data that are no longer applicable to today's context, or inappropriate assumptions, etc.;
- **Implementation** which may arise from poor implementation or inappropriate IT environment for model calculation; and
- **Usage** which may arise from outright misuse or disregarding model limitations.

To minimize the above model risks, SCBX requires companies that use models for critical transactions to establish the Model Risk Management Policy to serve as an operational framework. The policy provides the Model Risk Governance Framework and requires periodic model validation to manage and control potential model risks.

16.1 Model Risk Management Structure

To set up a dedicated unit for model risk management for ensuring that there are checks and balances as well as independence in model validation. This unit is part of the second line of defense which offers recommendations, support, and validation after the first line of defense. Model risk oversight consists of 1) Model Validation using both quantitative and qualitative approaches to ensure that the models work as expected, and 2) Model Governance to prevent any misuse of models and minimize model risks. The Model Risk Management Unit, which is part of the Risk Management Function, consists of:

- **Model Governance** is responsible for overseeing model risk management and other relevant conceptual frameworks, making a model inventory by collecting data and details for models used by the Bank, and planning for model validation resources. The unit also oversees model development and implementation according to each model's life cycle to ensure compliance with model governance; and
- **Model Validation** is responsible for validating models independently and effectively within the scope of the Model Risk Management Policy to ensure that models work as expected, meet their objectives, and fulfill their intended purposes. An effective validation must identify possible model limitations or weaknesses and assess their impacts.

16.2 Model Risk Management Policy and Guideline

Guided by the SCBX Financial Group's Model Risk Management Framework, the Model Risk Management Policy specifies key components to manage and control model risks. The policy specifies model tiering for managing and controlling model risks according to their life cycles, along with model validation principles and procedures. The Model Risk Management Committee was set up for the Bank to oversee model risk and all models used within the Bank, to verify the effectiveness of the Model Risk Management Framework, and to approve models and validation outcomes.

16.3 Model Risk Monitoring and Control

Approval for model releases follows standard protocols. Conditional approval must be accompanied by a monitoring process within a specified timeframe to ensure that model effectiveness is maximized. In addition, mitigation actions or compensating controls may be required to minimize any potential risks from using such model.

16.4 Model Risk Report

The policy requires that model risks, risk status, and risk management effectiveness be reported to the Risk Management Committee, the Risk Oversight Committee and the Model Risk Management Committee for Bank.

17. RISK MANAGEMENT FOR DIGITAL ASSET BUSINESS OPERATIONS AND TRANSACTIONS

Due to technology advancement, the increasing use of digital assets, and changing consumer behavior, the SCBX Financial Group acknowledges the significance of prioritizing the development of digital asset services and investments in various forms. Such services not only provide convenience to customers but also enhance the SCBX Financial Group's operational efficiency, potentially reducing financial service costs. This would ultimately benefit financial service users and the economy as a whole.

However, the SCBX Financial Group acknowledges that managing services and transactions related to digital assets requires careful attention to various risks and system and information security, in accordance with laws and international standards. Additionally, the protection of service users is of utmost importance. As the parent company of the Group, SCB X Public Company Limited ("SCB X") has established a Digital Asset Policy. This policy outlines the scope of digital asset business and transactions and serves as a guideline for conducting such activities, requiring robust internal controls and risk management.

Risk Oversight and Risk Management

Before engaging in digital asset business and related transactions, all companies within the SCBX Financial Group must obtain approval from both the Board of Directors of SCBX and the relevant regulatory authorities.

SCBX is responsible for appropriately managing and overseeing risks that arise from the digital asset business, while considering the nature and complexity of business operations and adhering to the overall risk management strategy. These responsibilities ensure that the digital asset businesses and services align with the Group's business strategies and that technology resources are used efficiently. Furthermore, relevant entities are made aware of the risks involved, and risk exposure is controlled to an acceptable level. Effective risk management in accordance with good corporate governance principles requires appropriate segregation of duties and checks and balances in each role, following the "three lines of defense" guideline. This guideline necessitates independent operational processes, risk management and control, and audit processes.

Moreover, SCBX ensures proper management of intragroup contagion risk that may arise from the digital asset business, which could potentially affect the Bank or the SCBX Financial Group as a whole. Guidelines for risk management in these matters are clearly identified, such as separating operating systems related to the digital asset business from the Bank's primary operating system and taking measures to ensure that shared IT infrastructure is sufficient to support and will not affect any services provided by the Bank. Additionally, appropriate recovery plans are prepared, and IT and cyber security are meticulously supervised in accordance with regulatory requirements.

Risk Monitoring and Controlling

SCBX, as the parent company of the SCBX Financial Group, is responsible for monitoring and controlling investment ratios in digital assets, while also considering capital adequacy in accordance with regulatory requirements. Companies operating digital asset related business must regularly and appropriately submit information related to digital assets to SCBX and regulatory bodies.

Table 26: Amount of credit, investment, contingent liabilities, and transaction similar to granting credit for digital asset related business limit

Unit: Million Baht

	Bank-Only	Consolidated
	31 Dec 22	**31 Dec 22**
Digital assets holding positions	**-**	**51**
Investment in digital asset related business	-	7,974
Lending to digital asset related business	1,100	1,100
Total investment in digital asset related business	**1,100**	**9,074**
Total Capital	**369,182**	**434,907**
DA Business Ratio (% of Total Capital)	**0.30%**	**2.10%**
DA Business Limit	**3.00%**	**3.00%**

APPENDIX

Details of companies within SCBX Financial Group (Solo and Full Consolidation)

Solo Consolidation Group

Company	Business Type
Siam Commercial Bank PCL	Banking
Cambodian Commercial Bank Co., Ltd.	Banking
Rutchayothin Asset Management Co., Ltd.	Asset management
Siam Commercial Bank Myanmar	Banking

Non-Solo Consolidation Group

Company	Business Type
SCB X PCL	Holding company
SCB Asset Management Co., Ltd.	Asset management
SCB-Julius Baer Securities Co., Ltd.	Private banking
SCB Protect Co., Ltd.	Insurance broker
SCB Plus Co., Ltd.	Collection
Mahisorn Co., Ltd.	Property management
SCB Training Centre Co., Ltd.	Training center
Innovest X Co., Ltd.	Securities
Token X Co.,Ltd.	Initial Coin Offering Portal
SCB 10X Co.,Ltd.	Venture capital and venture builder
Monix Co.,Ltd.	Digital lending
SCB Abacus Co., Ltd.	Digital lending
Auto X Co., Ltd.	Auto title loan and insurance brokerage
Alpha X Co., Ltd.	Luxury vehicle hire purchase, leasing, and refinancing
Alpha X Plus Co., Ltd.	Personal lending and insurance brokerage
Card X Co., Ltd.	Credit card and personal lending
Card X Asset Management Co., Ltd.	Distressed asset management
Digital Ventures Co., Ltd.	Financial technology
AISCB Co., Ltd.	Digital lending
SCB Tech X Co., Ltd.	Specialized technology services provider

Company	Business Type
Purple Ventures Co., Ltd.	Lifestyle superapp platform
SCB Data X Co., Ltd.	Data analytics as a service

The structure of the Consolidated Supervision Group can be divided into two levels:

(1) Solo consolidation which includes the Bank and its subsidiaries whose businesses involve lending or lending-related transactions for which the Bank holds more than 75% of issued and paid-up shares.

(2) Full consolidation which includes the parent company and subsidiaries categorized as solo and non-solo consolidation subsidiaries, whereby non-solo consolidation subsidiaries mean any of the subsidiaries engaging in finance or supporting businesses for which the parent company has management control over a subsidiary's business.

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