

**DISCOUNTED CASH FLOW VALUATION OF  
SAPPE PUBLIC COMPANY LIMITED**



**TONGCHAI KITPHARADON**

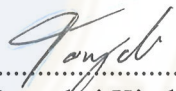
**A THEMATIC PAPER SUBMITTED IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF MASTER OF MANAGEMENT  
COLLEGE OF MANAGEMENT  
MAHIDOL UNIVERSITY  
2024**


**COPYRIGHT OF MAHIDOL UNIVERSITY**


Thematic paper  
entitled  
**DISCOUNTED CASH FLOW VALUATION OF  
SAPPE PUBLIC COMPANY LIMITED**


was submitted to the College of Management, Mahidol University  
for the degree of Master of Management  
on  
24 August 2024




  
.....  
Mr. Tongchai Kitpharadon  
Candidate

  
.....  
Prof. Roy Kouwenberg,  
Ph.D.  
Advisor

  
.....  
Asst. Prof. Simon Zaby,  
Ph.D.  
Chairperson

  
.....  
Assoc. Prof. Vichita Ractham,  
Ph.D.  
Acting Dean  
College of Management  
Mahidol University

  
.....  
Eakapat Manitkajornkit,  
Ph.D.  
Committee member

## ACKNOWLEDGEMENTS

Firstly, I would like to extend my heartfelt thanks to the professors at CMMU, whose exceptional expertise and guidance were crucial in the preparation of this thematic paper. I am particularly indebted to Ajarn Roy Kouwenberg, whose insightful advice and deep knowledge of valuation methods significantly contributed to the completion of this work. Before undertaking this finance course, my understanding of finance and capital markets was quite limited. I am confident that the knowledge I have acquired will open new doors for me in the finance industry.

Additionally, I had the honour of collaborating with my peers in the Corporate Finance program. Their constant support and cooperation were invaluable in helping me meet deadlines and navigate challenges. I greatly appreciate their willingness to assist and their companionship throughout this journey.

Lastly, I am immensely grateful for the unwavering love and support of my family. Without their encouragement, reaching this point would have been unimaginable. I am deeply thankful for their willingness to listen, offer advice, and provide emotional support, especially during difficult times. My gratitude towards them is boundless.

Tongchai Kitpharadon

**DISCOUNTED CASH FLOW VALUATION OF SAPPE PUBLIC COMPANY LIMITED**

TONGCHAI KITPHARADON 6449069

M.M. (CORPORATE FINANCE)

THEMATIC PAPER ADVISORY COMMITTEE: PROF. ROY KOUWENBERG, Ph.D., ASST. PROF. SIMON ZABY, Ph.D., EAKAPAT MANITKAJORNKIT, Ph.D.

**ABSTRACT**

This thematic paper seeks to assess the intrinsic value of SAPPE Public Company Limited (SAPPE) utilizing the discounted cash flow valuation method (DCF). The estimated share value reflects the company's core fundamentals, projected future performance, and inherent risks. SAPPE operates within rapidly expanding markets with relatively high nominal GDP growth rates. We anticipate that this economic growth will increase demand for soft drink products, as historical data indicates a direct relationship between the company's sales and disposable income levels. Our analysis results in a target stock price of 80.42 Baht per share, which suggests an 8.5% downside from the current market price of 87.25 Baht as of July 23, 2024. Consequently, we recommend investors to HOLD their SAPPE stocks. Ultimately, we hope this study provides valuable insights for investors interested in the intrinsic valuation of SAPPE Public Company Limited.

**KEY WORDS: SAPPE/ VALUATION/ DISCOUNTED CASH FLOW (DCF)/ SOFT DRINK**

44 pages

## CONTENTS

	<b>Page</b>
<b>ACKNOWLEDGEMENTS</b>	<b>ii</b>
<b>ABSTRACT</b>	<b>iii</b>
<b>LIST OF TABLES</b>	<b>vii</b>
<b>LIST OF FIGURES</b>	<b>viii</b>
<b>CHAPTER I INTRODUCTION</b>	<b>1</b>
1.1 Company Introduction	1
1.2 Summary of valuation	1
1.3 Investment recommendation	1
<b>CHAPTER II COMPANY DESCRIPTION</b>	<b>3</b>
2.1 Company Overview and Business Lines	3
2.1.1 Product Information	4
2.1.2 Sappe Timeline	5
2.1.3 Subsidiaries	5
2.2 Strategies	6
2.2.1 Vision, Mission, Objective	6
2.2.2 Income structure	7
2.3 Management and Governance	8
2.3.1 Governance	8
2.3.2 Business Ethics	8
2.3.3 Board of Directors	9
2.3.4 Major Shareholder	10
<b>CHAPTER III MACRO-ECONOMIC, INDUSTRY AND COMPETITOR ANALYSIS</b>	<b>11</b>
3.1 Macro Economic	11
3.1.1 Global and Thai GDP	11
3.1.2 Interest Rate, Inflation Rate, and Exchange Rate	13
3.2 Industry Analysis	16

## **CONTENTS (cont.)**

	<b>Page</b>
3.2.1 Domestic Distribution of Non-alcoholic Drinks	16
3.2.2 Export Distribution of Non-alcoholic Drinks	16
3.2.3 Forecasting of Thai Beverage Production	17
3.3 Competitor Analysis	18
<b>CHAPTER IV FINANCIAL ANALYSIS</b>	<b>20</b>
4.1 Growth Analysis	20
4.1.1 Dupont Analysis	21
4.2 Discounted Cash Flow Valuation	22
4.2.1 Revenue Forecast	23
4.2.2 FCFE Projection (Pro forma Statement)	25
4.2.3 Pro Forma Statement and EPS	27
4.2.4 Terminal Growth Rate	28
4.2.5 WACC	28
4.2.6 DCF Valuation Result	30
4.2.7 Sensitivity Analysis	32
<b>CHAPTER V INVESTMENT RISK</b>	<b>34</b>
5.1 Risk Matrix	34
5.1.1 Expansion Risk	34
5.1.2 Risk of foreign currency exchange rates	35
5.1.3 Market Performance Risk	35
5.1.4 Consumer Behavior Risk	36
<b>Chapter VI CONCLUSIONS</b>	<b>37</b>
6.1 Investment recommendations	37
6.2 Triggers for re-assessment	38
6.2.1 Sensitivity of Cost of equity	38
6.2.2 Sensitivity of Capital Structure and WACC	38
6.2.3 Sensitivity to SAPPE's Future Growth rate	38
6.3 Limitations	39

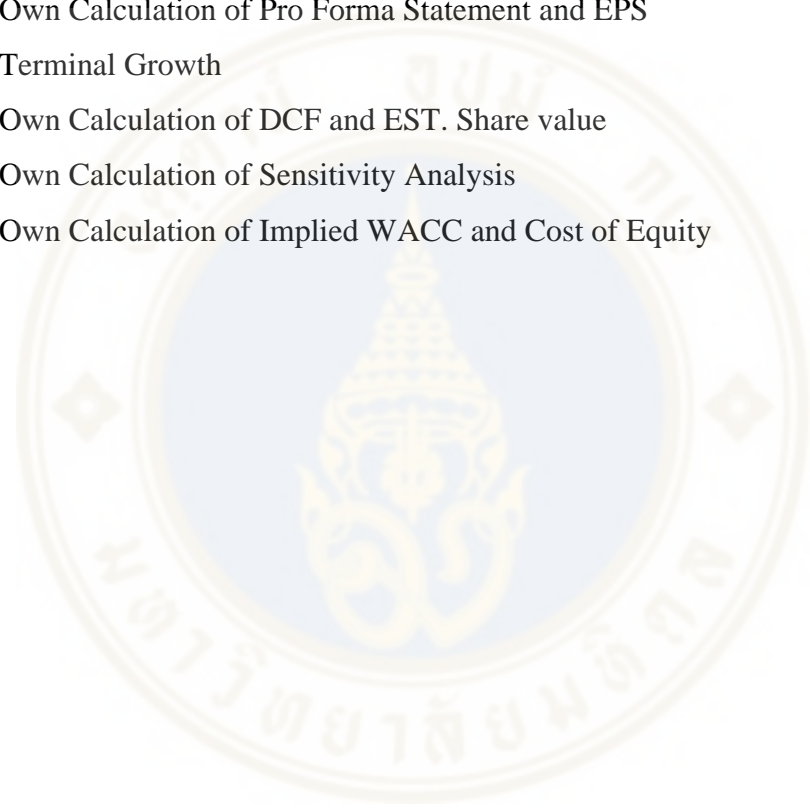
**CONTENTS (cont.)**

	<b>Page</b>
<b>REFERENCES</b>	<b>40</b>
<b>APPENDIX</b>	<b>41</b>
Appendix A: Beta	42
Appendix B: SAPPE Statement of Finances	43



## LIST OF TABLES

<b>Table</b>	<b>Page</b>
4.1 Own Calculation of Dupont Analysis	21
4.2 Own Calculation of Capex and Depreciation Forecasting	26
4.3 Own Calculation of Pro Forma Statement and EPS	27
4.4 Terminal Growth	28
4.5 Own Calculation of DCF and EST. Share value	30
4.6 Own Calculation of Sensitivity Analysis	32
4.7 Own Calculation of Implied WACC and Cost of Equity	33





## LIST OF FIGURES

<b>Figure</b>	<b>Page</b>
1.1 Target price of SAPPE (DCF Valuation)	1
2.1 SAPPE Products	4
2.2 SAPPE sale structure	7
2.3 SAPPE product category	7
2.4 SAPPE board of directors	9
2.5 SAPPE Shareholder detail	10
2.6 SAPPE major shareholder	10
3.1 Thailand GDP Growth Rate	12
3.2 Core Inflation	13
3.3 Thailand Interest Rate	14
3.4 SAPPE sale contribution	15
3.5 Thai Beverage Production Forecast	17
4.1 Own Calculation of Growth Analysis	20
4.2 Own Calculation of Soft Drink Market Size	23
4.3 Own Calculation of 2024 Sale Forecast	24
4.4 Own Calculation of 2024 - 2028 Sale Forecast	24
4.5 Own Calculation of Other Income Forecast	25
4.6 Linear regression	26
4.7 Calculation of WACC	29
4.8 Calculation of EST. Share Value	31
4.9 Calculation of Spider Chart	32
5.1 Risk Assessment Matrix of SAPPE	34

## CHAPTER I

### INTRODUCTION

#### 1.1 Company Introduction

Sappe Public Company Limited stands out as a leader in the innovative beverage industry. As a trailblazer in Thailand's functional drinks market, Sappe is driven by a mission to improve lives through a spirit of innovation. The company consistently applies creative thinking to develop unique products, which reflect its lively and energetic corporate culture. The market capitalization of SAPPE's listed stock is 23,584.11 million Baht, which is a mid-cap stock, and it is a member of the SET100 index.

#### 1.2 Summary of valuation

The analysis of SAPPE's projected financial performance from 2023 to 2028 reveals strong growth prospects. Net profit is anticipated to nearly triple, growing from 1,050.5 million Baht in 2023 to 2,944.4 million Baht in 2028, with an average annual growth rate of 22.9%. Earnings per share (EPS) is expected to increase correspondingly, rising from 3.41 Baht to 9.55 Baht over the same period. This growth reflects SAPPE's effective cost management and operational efficiency, positioning the company to significantly enhance shareholder value in the coming years.

#### 1.3 Investment recommendation

Target Price	80.42
Share Price	87.25
<b>Dow side</b>	<b>8.49%</b>

**Figure 1.1 Target price of SAPPE (DCF Valuation)**

According to our team findings forecast, the operating revenue will have an average growth rate of 20.5% between 2024 and 2028. The gross profit margin in 2024 is 34%, slightly decreased from 2023 because of the extreme growth after COVID-19. According to the DCF valuation model, the target stock price for SAPPE is 80.42 baht per share, indicating an 8.5% downside compared to the current price of 87.25 baht as of July 23, 2024. Given that this percentage difference is within the range of +/-20%, my recommendation is to "HOLD" the stock.



## **CHAPTER II**

### **COMPANY DESCRIPTION**

#### **2.1 Company Overview and Business Lines**

With an emphasis on the target valuation company's primary business portfolio and historical financial performance, this chapter will offer a thorough assessment of the organization. The organization's future business strategy may then be understood by looking at its vision, mission, and objectives. To help understand its business strategy, a detailed explanation of the growth patterns and income sources will be provided based on its recent annual report. An extensive examination of the ownership structure of the company, including data on significant shareholders, is required to have a meaningful knowledge of its management and governance. Finally, the latest dividend decision will be examined to explain the recent changes in the market value of the company's shares.

Sappe Public Company Limited, a leader in innovative beverages, is renowned for pioneering the creation of fruit juice mixed with coconut jelly. According to Sappe's 2023 annual report, Sappe is driven by the mission to "better people's lives through our innovative spirit." The company embraces creativity and innovation to produce unique products, embodying an energetic and vibrant corporate culture. Fruit juice, healthier snacks, functional beverages, functional powders, and supplemental products were the five areas into which Sappe, together with its stakeholders, introduced items in 2023. Dominating the market with the Sappe Beauti Drink brand, Sappe has established itself as a leader in the functional drink sector. Their diverse beverage range, featuring brands like Mogu Mogu, Sappe Aloe Vera, and All Coco, is available in 100 countries worldwide with the total revenue in 2023 of 6,207.7 million baht (Annual Report, n.d). Committed to sustainable practices, transparent governance, and a strong corporate culture, Sappe takes pride in enhancing the quality of life, supporting Thai farmers, and promoting Thai products and brands on the global stage. The company's objective is to transform this Thai brand into a globally recognized and sustainable leader across all continents.

### 2.1.1 Product Information



**Figure 2.1 SAPPE Products**

Source: SAPPE Products (n.d.)

According to Sappe's annual report of 2023, SAPPE offers a variety of products across five different categories. In the Functional Beverage Segment, there are options such as Sappe Beauti Drink, which emphasizes women's health and beauty, B'lue, a contemporary fruit-flavored vitamin water, and Sappe Keaf, providing CBD-infused beverages tailored for health-conscious consumers. The Fruit Juice/Juice Drink Segment includes Mogu Mogu, known for its unique coconut jelly drink experience, Sappe Aloe Vera with various fruit juice blends, and All Coco providing organic coconut water and Gumi Gumi by Mogu Mogu. The Functional Powders, options like Preaw Coffee and SlimFit Coffee offer weight control solutions, while Preaw Chlorophyll detoxifies, Taurine Coffee and Sappe Beauti Power Stix provide an energy boost and vitamin C. The Healthier Snack Segment includes Sappe Beauti Jelly, Maxtive energy gel pouches, and Mogu Mogu Jelly pouches. Lastly, the Supplement & Others Segment features SAPPE InnoSci dietary supplements, Sappe Inyang functional shots, and Limitless Lozenges for cognitive support. SAPPE's diverse product range reflects its commitment to meeting consumer needs with quality and innovation across various market segments.

### **2.1.2 Sappe Timeline**

Originally established in 1988 as Sapanan General Foods Co., Ltd., Sappe Public Company Limited (SAPPE) had THB 500,000 as the starting registered capital. The company entered the beverage market with the introduction of Mogu Mogu, the first juice in history to incorporate coconut jelly. To raise consumer awareness of healthy beverage options, SAPPE boosted its registered capital to THB 5 million in 2004. In 2006, the company created the "SAPPE Beauty Drink," a health beverage that helped launch the new functional drink category. 2011 highlighted SAPPE's international expansion with the establishment of joint ventures with investors from Slovakia and Indonesia, respectively, to form SAPPE Europe and PT. SAPPE Indonesia. In 2012, the company's registered capital was raised to THB 225 million. To achieve awareness abroad, the corporation relaunched itself as SAPPE Public Corporation Limited on September 5, 2013. On June 25, 2014, SAPPE was formally listed on the Stock Exchange of Thailand. To increase the export of coconut water to other countries, Sappe bought shares in Coconut Factory Co., Ltd., which is currently known as All Coco Co., Ltd. in 2016. Sappe joined the digital transformation space in 2021 when it bought stock in M Intelligence, a well-known provider of technology consulting services. As a worldwide megatrend, the acquisition is treated as an investment in a new business line (Annual Report, n.d.).

### **2.1.3 Subsidiaries**

A direct subsidiary is a company that a parent business directly controls, usually through ownership of more than 50% of the voting shares in the subsidiary. On the other hand, the parent company controls an indirect subsidiary using one or more intermediary firms; in other words, ownership is not direct but rather handled through other subsidiaries. The main differences are in ownership structure, control path, management complexity, and reporting lines; in contrast to direct subsidiaries, indirect subsidiaries add layers that can make operational monitoring and regulatory compliance more difficult.

#### **2.1.3.1 Direct Subsidiaries**

- SAPPE Europe s.r.o: Founded with a 60% ownership share held by SAPPE, it aims to distribute SAPPE beverages in Europe. Plans included outsourcing manufacturing to a Slovakian supplier for market expansion.

- SAPPE Holding (Thailand) Co., Ltd.: Established to provide group management services, founded by SAPPE's directors (Annual Report, n.d.).

#### 2.1.3.2 Indirect Subsidiaries

SAPPE Trading Hong Kong Co., Ltd.: An indirect subsidiary focusing on the import, export, and distribution of goods.

- SAPPE Hong Kong Co., Ltd.: A company registered in Hong Kong engaged in offering management services to a group of companies.

- SAPPE Trading Shanghai Co., Ltd.: Established to oversee product distribution and marketing in China.

- All Coco Group Co., Ltd.: Founded with a 51% ownership share held by SAPPE. A company involved in the production and distribution of coconut-derived products under the trademark "ALL COCO".

- SAPPE Philippines Co., Ltd.: Founded by SAPPE's directors to fortify its market presence and expand its customer base in the Philippines.

- Danone Sappe Beverages Co., Ltd.: Engaged in the development, production, promotion, and distribution of healthy beverages in Thailand.

- M Intelligence Co., Ltd.: The company offers comprehensive consultancy services regarding digital transformation. This includes expertise in Customer Relationship Management (CRM), data analytics, and digital technology aimed at enhancing sales and providing streamlined one-stop services (Annual Report, n.d.).

## 2.2 Strategies

### 2.2.1 Vision, Mission, Objective

According to the SAPPE annual report, the company's Vision is to become the top choice and most trusted global brand in the Functional drink and Fruit drink business. This ambition is fueled by a talented group of individuals who are not only highly skilled but also enthusiastic and work together seamlessly in a dynamic and creative workplace. Their mission is to serve as an inspirational model organization that embodies "Thai Pride" and enriches lives by providing exceptional food and beverage options. This objective aligns with their vision. They focus on becoming a leader in the

food and beverage industry, with a strong emphasis on producing and distributing healthful products, alongside efforts in new product development and crafting attractive packaging. Their commitment is to offer consumers high-quality choices by adapting their strategies to meet the changing needs and preferences of the market.

### 2.2.2 Income structure

Sale	2021		2022		2023	
	%	MB	%	MB	%	MB
<b>Total</b>	100	3,444.2	100	4,566.4	100	6,052.8
Domestic	35.1	1,209.9	23.1	1,052.1	19.1	1,156.3
International	64.9	2,234.3	76.9	3,514.3	80.9	4,896.2

**Figure 2.2 SAPPE sale structure**

Source: SAPPE 2023 annual report

The company's sales structure from 2021 to 2023 indicates substantial growth, primarily fueled by its international market expansion. Total sales increased from 3,444.2 million Baht in 2021 to 6,052.6 million Baht in 2023, with international sales becoming a larger portion of the revenue. In 2021, international sales comprised 64.9% of the total, rising to 76.9% in 2022 and 80.9% in 2023. Meanwhile, domestic sales, despite a slight increase in absolute figures from 1,052.1 million Baht in 2022 to 1,156.3 million Baht in 2023, have declined as a percentage of overall sales, decreasing from 35.1% in 2021 to 19.1% in 2023. The data indicates that the business is growing its sales quickly, particularly in foreign markets. While domestic sales remain significant, the proportion of international sales is increasing, indicating a purposeful shift towards international market expansion. This trend may continue if the business places a high priority on expanding internationally.

Product Category	2021		2022		2023	
	%	MB	%	MB	%	MB
Functional Beverage	15.7	541.4	10.5	478.7	8.7	524.8
Fruit Juice/Juice Drink	71.7	2,468.7	81.4	3,718.8	83.4	5,046.6
Functional Powder	7	242.6	4.7	212.5	4.5	270.6
Healthier Snack	4.2	144.1	2.8	127.7	3.4	205.9
Supplement and Others	1.4	47.4	0.6	28.6	0.1	4.6

**Figure 2.3 SAPPE product category**

Source: SAPPE 2023 annual report.



The Fruit Juice/Juice Drink category, which has grown significantly over the last three years and now accounts for over 83% of total sales, is the main driver of the company's sales. In contrast, the Functional Beverage and Supplement categories have experienced a decline in both their overall sales percentage and absolute sales. The categories of healthier snacks and functional powders have performed differently, with varying sales percentages but overall declining trends. This suggests that while other product categories seem to be either stalling or losing significance, fruit juice and juice drinks are clearly preferred by the market and are strategically promoted.

## **2.3 Management and Governance**

### **2.3.1 Governance**

The Company is aware of how critical it is to keep up an efficient, accountable, and transparent management structure to inspire confidence among stakeholders and guarantee long-term corporate success through moral behaviour and compliance with applicable regulations. To achieve this, the Company has put in place Corporate Governance Policies that are designed to improve present operations and encourage a distinct, multifaceted attitude among staff members, thereby establishing a robust Corporate Governance culture. The 2017 Corporate Governance Code for Listed Companies (CG Code) has been incorporated by the Company. The Board evaluates compliance with the CG Code based on evaluation results that are created and summarized by management (Annual Report, n.d.). It also acknowledges these principles and its leadership role in generating sustainable business value.

### **2.3.2 Business Ethics**

The Board of Directors is dedicated to moral and just corporate conduct. The company has made its codes of ethics and conduct public, and all employees, directors, and management are expected to abide by them. Mutual treatment, giving and receiving gifts, conflicts of interest, business dealings, interactions with state enterprises, environment, health and safety, procurement, marketing communications, trade competition, international business operations, data and asset management, political actions, and the

avoidance of money laundering are just a few of the areas in which the Company has outlined ethical guidelines (Annual Report, n.d.).

### 2.3.3 Board of Directors

As of 31 December 2023, the Board of Directors consisted of 9 people as follows:

Name	Position
1. Mr. Natee Onin	Chairman
2. Mr. Adisak Ruckariyapong	Vice Chairman
3. Mr. Anan Ruckariyapong	Director
4. Ms. Piyajit Ruckariyapong	Director
5. Mr. Arnupap Ruckariyapong	Director
6. Mr. Thana Thienachariya	Independent Director
7. Mr. Surath Pralongsil*	Independent Director and Chairman of the Audit Committee
8. Mrs. Niratchara Siriamphunkul	Independent Director and Member of the Audit Committee
9. Mr. Chanin Archjananun*	Independent Director and Member of the Audit Committee

Remark: \* Mr. Padungdej Indralak, an independent director and chairman of the audit committee, concluded his term during the 2023 Annual General Meeting of Shareholders and expressed his decision not to seek renewal. Consequently, the Annual General Meeting of Shareholders resolved to appoint Mr. Chanin Archjananun as the new independent director and member of the Audit Committee, effective from April 27, 2023. Concurrently, during the Board of Directors' meeting, it was resolved to appoint Mr. Surath Pralongsil as the Chairman of the Audit Committee (formerly a member of the Audit Committee), also effective from April 27, 2023.

**Figure 2.4 SAPPE board of directors**

Source: SAPPE 2023 annual report.

The Board of Directors includes 9 members, this includes 5 non-executive directors and 4 independent directors, who constitute one-third of the entire board. The experts that make up the Board of Directors are highly valuable to the Company in areas including corporate governance, company strategy, accounting and finance, management, and business expertise. Their qualifications meet the legal requirements for public limited companies and securities and exchange regulations. These individuals are committed to dedicating their time and efforts to their roles and responsibilities.

### 2.3.4 Major Shareholder

Shareholders Detail	
Overview As of 25 Apr 2024 Rights Type : XD	Free Float As of 18 Mar 2024
Total Shareholders 3,446	Minor Shareholders (Free float) 3,078
% Shares in Scripless Holding 73.74	% Shares in Minor Shareholders (% Free float) 26.44

**Figure 2.5 SAPPE Shareholder detail**

Source: Stock Exchange of Thailand

(a) List of major shareholders listed in the share register of shareholders as of 28 December 2023 are summarized as follows:

No.	Name	No. of shares	%
1	Ms. Piyajit Ruckariyapong	54,591,375	17.71
2	Mr. Adisak Ruckariyaphong	51,739,257	16.78
3	Mr. Arnupap Ruckariyapong	47,076,496	15.27
4	Mr. Thanarat Ruckariyapong	43,444,069	14.09
5	THAI NVDR Co., Ltd.	17,619,862	5.72
6	UBS AG SINGAPORE BRANCH by Mr. Arnupap Ruckariyapong, 10 million shares	10,090,000	3.27
7	BNP PARIBAS SINGAPORE BRANCH by Mr. Thanarat Ruckariyapong	10,000,000	3.24
8	Mr. Anan Ruckariyapong	4,963,988	1.61
9	Mr. Kachen Benjakul	4,893,600	1.59
10	Mrs. Somnuk Isoonpisansiri	4,805,632	1.56
	<b>Total</b>	<b>249,224,279</b>	<b>80.84</b>

**Figure 2.6 SAPPE major shareholder**

Source: SAPPE 2023 annual report.

Based on the available shareholder data, it is evident that the company is largely family owned. The top four shareholders, all sharing the surname Ruckariyapong, collectively possess 63.86% of the company's total shares, demonstrating substantial family dominance in the ownership structure. The rest of the shares are held by various institutional investors and minor shareholders. The free float, which stands at 26.44%, represents the portion of shares owned by minor shareholders that are available for public trading. This indicates that while there is some market liquidity, the majority ownership remains firmly with the family.

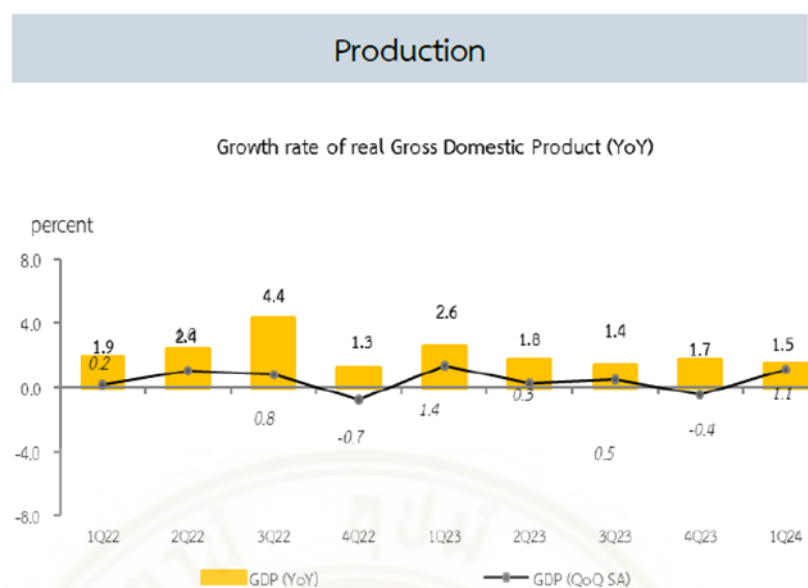
## **CHAPTER III**

### **MACRO-ECONOMIC, INDUSTRY AND COMPETITOR ANALYSIS**

#### **3.1 Macro Economic**

##### **3.1.1 Global and Thai GDP**

According to the World Bank Group, Global economic growth is anticipated to stabilize at 2.6% this year, marking a period of stability after three years of volatility, despite ongoing geopolitical tensions and high interest rates. It is projected to slightly increase to 2.7% by 2025-26, supported by modest growth in trade and investment. Inflation worldwide is expected to decrease, although at a slower rate than previously expected, averaging 3.5% for the year. Global growth during the forecast period is forecasted to be nearly half a percentage point lower than the average pace observed from 2010 to 2019. In the coming years, growth is expected to trail behind the 2010s average in almost 60% of economies, representing over 80% of the global population and economic output. Growth in emerging markets and developing economies is predicted to moderate from 4.2% in 2023 to 4% in 2024 and 2025. Economic challenges persist, particularly in vulnerable economies, where over half of those in fragile or conflict-affected situations are projected to have lower economic conditions by the end of this year compared to pre-pandemic levels (World Bank Group, 2024).



**Figure 3.1 Thailand GDP Growth Rate**

Source: NESDC

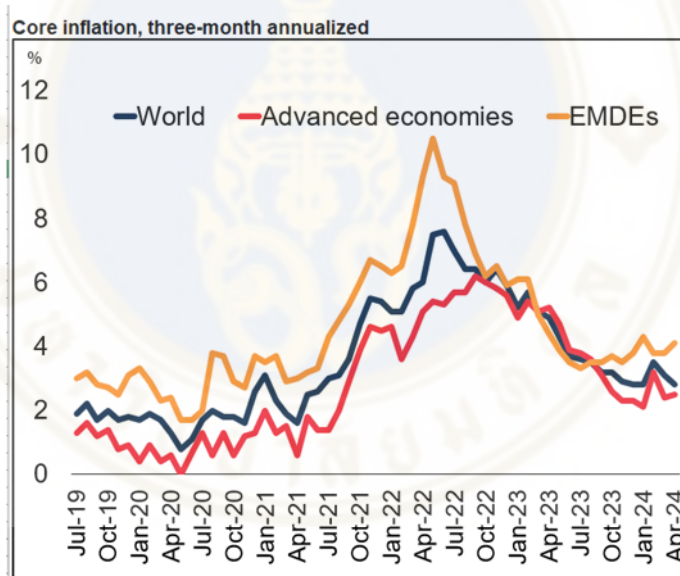
According to the office of the National Economic and Social Development Council (NESDC), In the first quarter of 2024, Thailand's economy grew by 1.5% compared to the same period last year, following a 1.7% rise in the previous quarter. Adjusted for seasonal variations, the economy increased by 1.1% from the fourth quarter of 2023. This growth was largely fueled by a strong export of services, robust private consumption, and continued private investment expansion. However, there were declines in the export of goods, public investment, and government spending.

In the first quarter of 2024, Thailand's imports reached \$67.982 billion, a 3.2% rise that slowed from the previous quarter's 6.1% growth. Import volume increased by 4.5%, while prices dropped by 1.2%. This resulted in a trade surplus of \$1.6 billion (58.6 billion Baht), down from the \$3.5 billion (122.6 billion Baht) surplus seen in the prior quarter (Quarterly Gross Domestic Product (QGDP), n.d.). On the export front, the total value was \$69.592 billion, representing a 1.0% decrease due to a 2.3% fall in export volume, despite a 1.3% price increase. Products that saw a decline in export value included durian (-53.2%), sugar (-29.1%), rubber products (-19.2%), air conditioners (-15.4%), pickup trucks (-15.3%), integrated circuits & parts (-11.3%), and computer parts & accessories (-6.9%). On the other hand, exports of rice (43.2%), rubber (24.9%),

computers (172.5%), metal & steel (62.4%), and telecommunication equipment (24.3%) saw notable increases (Quarterly Gross Domestic Product (QGDP), n.d.).

The changes in Thailand's import and export dynamics during the first quarter of 2024 could impact SAPPE in several ways. With increased import volumes and lower prices, SAPPE may benefit from reduced raw material costs, though a decrease in overall export volume suggests challenges in international markets. Specific declines in export values of products like durian and rubber could indirectly affect SAPPE. Reduced trade surpluses and potential currency fluctuations may also affect SAPPE's cost structure and global competitiveness. Navigating these changes requires SAPPE to manage costs effectively, capitalize on growth areas, and remain flexible to market dynamics.

### 3.1.2 Interest Rate, Inflation Rate, and Exchange Rate

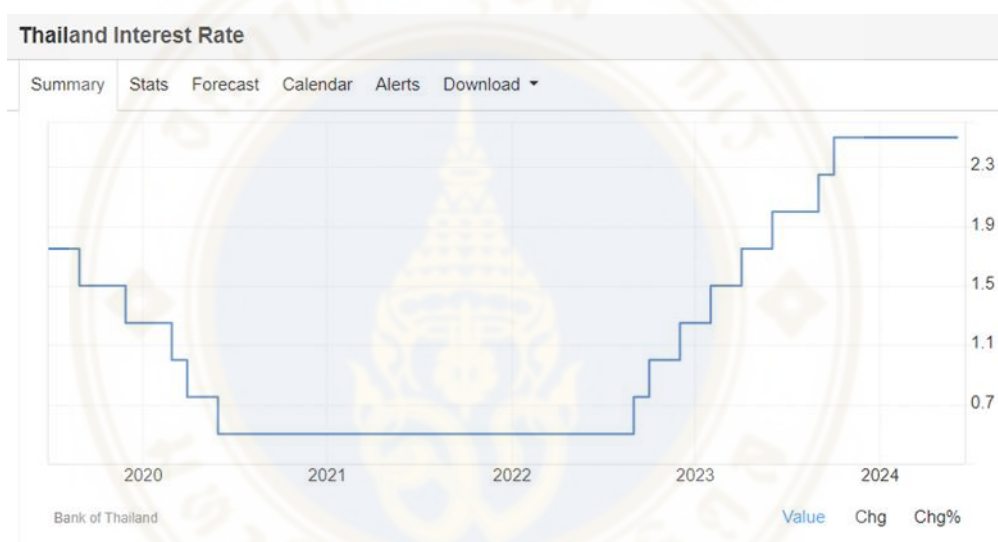


**Figure 3.2 Core Inflation**

Source: World Bank Group

According to the World Bank Group, Global inflation is expected to decrease, averaging 3.5% for the year. Despite this overall decline, inflation remains above target levels in many advanced economies and approximately one-fourth of inflation-targeting emerging markets and developing economies (EMDEs). Initially, inflation started to ease after the pandemic due to lower energy prices and reduced pressures

in supply chains. However, recently, the rate of consumer price disinflation has slowed, driven by a partial recovery in energy prices and a noticeable deceleration in core inflation declines (World Bank Group, 2024). In 2024, inflation rates will significantly impact both interest rates and exchange rates. Globally, inflation is expected to average about 2.8%, with advanced economies (AEs) seeing lower inflation of around 2.1% and higher inflation of approximately 4.1% in emerging markets and developing economies (EMDEs) (World Bank Group, 2024). Central banks are likely to respond cautiously, potentially maintaining or raising benchmark interest rates to manage inflationary pressures virtually.



**Figure 3.3 Thailand Interest Rate**

Source: Trading Economics

There is a notable connection between interest rates and inflation. Specifically, the policy interest rate is key in managing inflation and mitigating its impact. While interest rates don't directly control inflation, they influence saving and borrowing behaviors, affecting inflation. When central banks raise interest rates, it encourages more deposits into the banking system, reducing the money circulating in the economy. This decrease in liquidity leads to lower prices for goods and services, eventually bringing down inflation (TRADING ECONOMICS, n.d.). If global inflation decreases while Thailand's interest rates rise, several effects on the Thai baht (THB) exchange rate are likely. Higher interest rates in Thailand make its financial assets more attractive to

international investors, leading to an inflow of foreign capital and increased demand for the baht. This demand can cause the baht to appreciate, making it stronger relative to other currencies. A stronger baht may make imports more affordable and possibly improve the trade balance, but it could also make Thai exports less competitive owing to higher pricing.



**Figure 3.4 SAPPE sale contribution**

Source: SAPPE 2023 annual report.

For companies like SAPPE that rely heavily on exports, a stronger Thai baht driven by rising interest rates can pose several challenges. An appreciating baht makes Thai products more costly for international buyers, which can reduce demand and negatively affect revenue and profit margins. This issue is compounded if sales are denominated in foreign currencies, resulting in lower earnings when converted back to baht. As a result, companies may struggle with reduced profitability unless they can adjust their prices or manage costs effectively. On the positive side, a stronger baht also makes imported raw materials cheaper, which can help reduce production expenses. To mitigate these effects, companies might use hedging techniques to protect against currency fluctuations and stabilize their financial outcomes.



## **3.2 Industry Analysis**

According to the office of the National Economic and Social Development Council (NESDC), In the first quarter of 2024, the food and non-alcoholic beverages sector experienced a 5.0% increase, up from a 4.7% rise in Q4/2023. Consumption of non-alcoholic beverages surged by 10.3%, compared to 6.8% in the previous quarter. Meanwhile, food consumption grew by 4.3%, slightly slower than the 4.5% increase seen in Q4/2023. This deceleration was mainly due to reduced growth in bread, cereals, and dairy products like milk, cheese, and eggs.

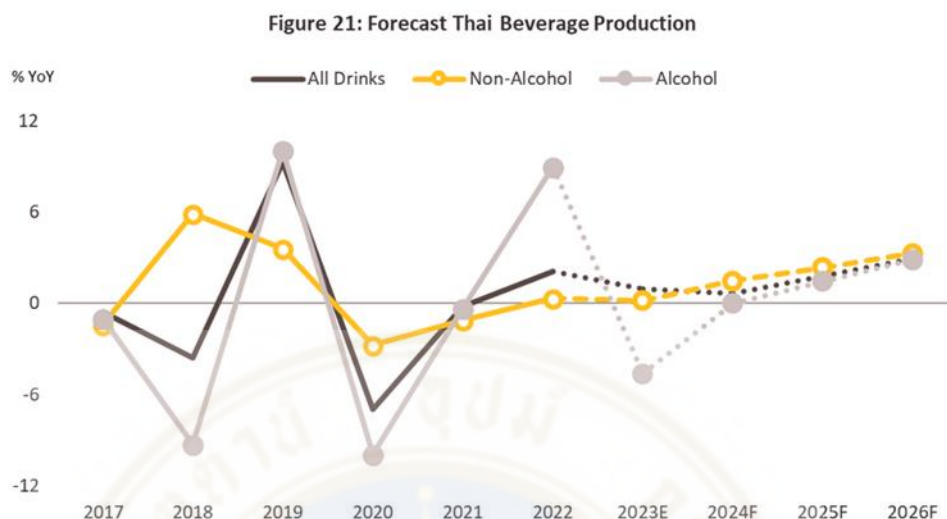
### **3.2.1 Domestic Distribution of Non-alcoholic Drinks**

According to Krungsri Bank research, from January to August 2023, domestic distribution rose by 6.7% year-on-year, fueled by the tourism sector's recovery and an extended hot weather period that increased demand for refreshing beverages. In 2022, non-alcoholic drink distribution grew by 5.8% as economic activities normalized, and this growth trend carried into the first eight months of 2023, resulting in a further 10.2% year-on-year increase. The surge in demand was supported by the recovery in restaurants, hotels, and the overall tourism sector due to the recovery from the Covid situation. This positive momentum is expected to continue, potentially leading to a 5.5-6.5% rise in sales for the entire year of 2023.

### **3.2.2 Export Distribution of Non-alcoholic Drinks**

According to Krungsri Bank research, throughout 2023, exports are anticipated to drop by 0.5% to 1.5% across various market segments. In the non-alcoholic drinks sector, exports decreased by 6.9% in volume in 2022, though their value rose by 2.5%. The decline was particularly pronounced in the soda and carbonated drinks segment, which faced significant challenges in Myanmar due to political issues and import bans. In the first eight months of 2023, international sales fell by 0.3% year-on-year in both volume and value. However, for the whole of 2023, exports of non-alcoholic drinks are expected to improve slightly, with growth projected between 0.0% and 2.0%.

### 3.2.3 Forecasting of Thai Beverage Production



**Figure 3.5 Thai Beverage Production Forecast**

Source: Krungsri Bank research

According to Krungsri Bank research, In the next few years, Thailand's beverage industry is expected to grow at an average annual rate of 1.5-2.5%, fueled by several key factors. The current El Niño weather phenomenon is projected to increase temperatures, leading to higher beverage demand. Simultaneously, there is a need to restock to meet rising demands from an economy that is steadily recovering. However, challenges such as the intensifying El Niño, which affects water availability, may reduce agricultural yields and increase costs for agricultural inputs. Despite these challenges, packaging costs are likely to decrease due to lower energy prices. Specifically, the production of non-alcoholic beverages is anticipated to rise by 2.0-3.0% annually, driven by increasing demand in the tourism sector and the expected return of foreign visitors to pre-pandemic levels by 2025 (Kornboontritos, 2023). Manufacturers are responding by expanding production capacities and introducing new product lines, particularly focusing on health-oriented drinks to capitalize on market opportunities.

The expected growth in Thailand's beverage sector, driven by factors such as heightened demand due to warmer El Niño weather and economic recovery, offers strategic opportunities for SAPPE. With industry expansion forecasted at 1.5-2.5% annually, SAPPE can capitalize by aligning production and marketing strategies to meet

growing consumer needs, especially in non-alcoholic beverages. The company can seize these prospects by expanding production capabilities and launching new product lines, focusing on health-oriented drinks to tap into market growth. Furthermore, SAPPE could address challenges like rising agricultural costs through optimized supply chain management and exploring sustainable sourcing options.

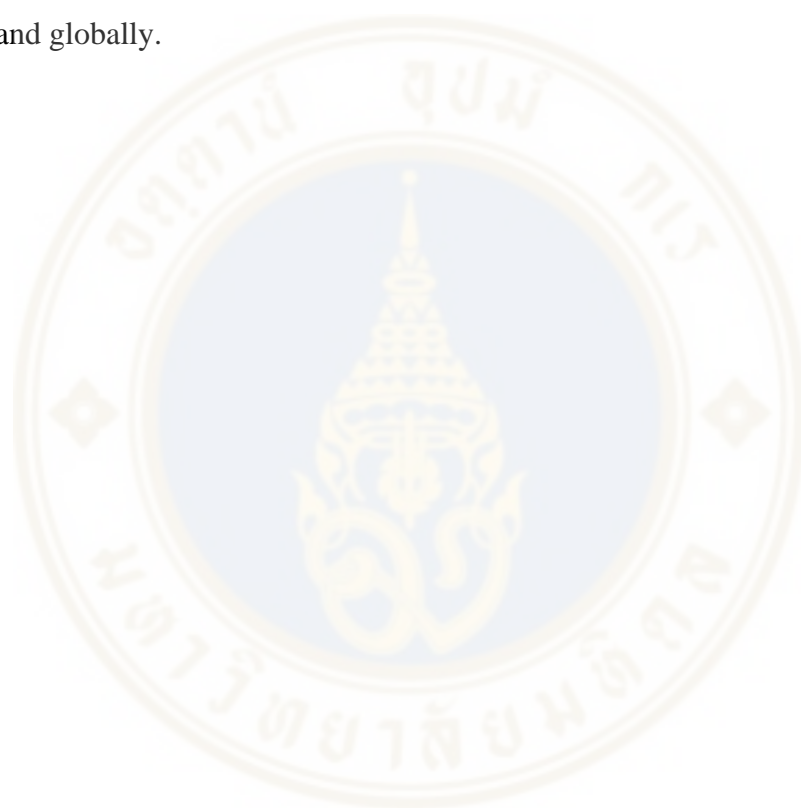
### **3.3 Competitor Analysis**

There are Three key companies listed on the Thai Stock Exchange, namely OSP, TIPCO and ICHI.

According to Osotspa annual report, the company was founded in 1891 as "Teck Heng Yoo," Osotspa started as a pharmacy in Thailand under the leadership of Mr. Pae, marking the beginning of the Osathanugrah family's legacy in the country. The company reached a significant milestone on October 17, 2018, when it became publicly listed on the Stock Exchange of Thailand (SET) with the ticker symbol OSP, signaling its aspirations for global expansion and sustainable growth. Over the past century, Osotspa has grown steadily and diversified its product offerings in the Fast-Moving Consumer Goods (FMCG) sector. Today, it is a leading manufacturer in various markets, specializing in beverages, personal care products, healthcare items, and confectionery. In addition to its core businesses, Osotspa is involved in non-core activities such as OEM (Original Equipment Manufacturing) for products and packaging, as well as providing marketing technology services, which further strengthens its market presence and operational capabilities.

According to Tipco annual report, Established on March 22, 1976, Tipco Foods operates with a registered capital of 500-million-baht. Tipco Foods Public Company Limited engages in two main business sectors. The first is the beverage business, involving the production and distribution of ready-to-drink fruit and vegetable juices under the brand "Tipco," alongside natural mineral water sold under "Aura" and "Aquare" brands. The second sector focuses on vegetable, fruit, and plant products, including fresh pineapple items marketed as "Tipco Homsuwan," canned pineapple, and extracts derived from herbs and agricultural sources. Recently, the company expanded its market presence by introducing fresh cut "Homsuwan" pineapple products in supermarkets.

According to Ichitan annual report, Ichitan Group Public Company Limited, trading under "ICHI" on the Stock Exchange of Thailand, was established as a private limited company on September 3, 2010, and later converted to a public company on July 11, 2013, before commencing trading on April 21, 2014. The company is dedicated to leading the beverage industry through a commitment to quality and innovation, with a strong focus on contributing positively to society. Ichitan continually strives to enhance product quality and expand its range to meet evolving consumer preferences. This strategy involves exploring new business opportunities to enhance competitiveness both locally and globally.



## CHAPTER IV FINANCIAL ANALYSIS

### 4.1 Growth Analysis



**Figure 4.1 Own Calculation of Growth Analysis**

Over the past five years, SAPPE has shown impressive financial growth across key metrics. The company's total revenues increased steadily from \$2.89 billion in 2018 to \$6.21 billion in 2023, reflecting annual growth rates that varied from 17.4% to 32.0% during this period. This upward trajectory suggests SAPPE's success in expanding its revenue base through strategic market expansions and innovations in product offerings. Concurrently, total expenses also rose from \$2.45 billion in 2018 to \$4.84 billion in 2023. Annual growth rates ranged from 17.0% to 28.5%, indicating the challenges of managing costs amid business expansion. Despite these increases, SAPPE maintained strong gross margins, highlighting effective cost management practices. The most impressive aspect of SAPPE's financial performance is its net income, which surged from \$351 million in 2018 to \$1.05 billion in 2023. Growth rates varied from

14.6% to 60.5% annually, showcasing the company's ability to not only boost revenues but also significantly enhance profitability over time. This growth is likely attributed to efficient cost controls, favourable market conditions, and strategic business decisions. In summary, SAPPE's financial data from 2018 to 2023 illustrates a company achieving substantial growth across its financial indicators. With consistent revenue expansion, controlled expense management, and impressive increases in net income.

#### 4.1.1 Dupont Analysis

**Table 4.1 Own Calculation of Dupont Analysis**

SAPPE	2019	2020	2021	2022	2023
Net Profit Margin	402.73	385.95	410.23	654.43	1,050.52
Total Asset Turn over	1.07	0.94	0.99	1.17	1.21
Asset / Equity	0.04	0.04	0.04	0.03	0.02
Dupont or ROE	15.88	14.03	14.47	21.19	30.36
OSOTSPA	2019	2020	2021	2022	2023
Net Profit Margin	12.50	13.15	11.68	7.00	9.09
Total Asset Turn over	1.09	1.04	1.03	1.03	1.05
Asset / Equity	1.33	1.38	1.38	1.40	1.45
Dupont or ROE	18.13	18.89	16.65	10.09	13.81
TIPCO FOOD	2019	2020	2021	2022	2023
Net Profit Margin	5.63	18.71	16.98	9.36	9.29
Total Asset Turn over	0.54	0.39	0.39	0.46	0.41
Asset / Equity	1.69	1.63	1.50	1.48	1.51
Dupont or ROE	5.14	11.86	9.94	6.39	5.76
ICHITAN	2019	2020	2021	2022	2023
Net Profit Margin	7.62	10.09	10.41	10.09	13.61
Total Asset Turn over	0.67	0.68	0.72	0.88	1.11
Asset / Equity	1.32	1.20	1.17	1.17	1.21
Dupont or ROE	6.73	8.25	8.77	10.38	18.32
ROE Benchmark	2019	2020	2021	2022	2023
SAPPE	15.88	14.03	14.47	21.19	30.36
OSOTSPA	18.13	18.89	16.65	10.09	13.81
TIPCO FOOD	5.14	11.86	9.94	6.39	5.76
ICHITAN	6.73	8.25	8.77	10.38	18.32

The financial performance of OSOTSPA, TIPCO FOOD, and ICHITAN from 2019 to 2023 reveals separate trends and metrics across these beverage companies. OSOTSPA showed varying profitability, with a noticeable decline in net profit margin until 2022, followed by a slight recovery in 2023. The company maintained a relatively stable asset turnover, indicating consistent sales generation relative to its assets. Despite

a modest increase, the financial leverage ratio increased from 1.33 in 2019 to 1.45 in 2023, suggesting greater reliance on equity financing. ROE mirrored these fluctuations, reflecting challenges in sustaining profitability and operational efficiency over the period.

SAPPE has shown remarkable financial progress, particularly when compared to its competitors. Its Return on Equity (ROE) has surged from 15.88% in 2019 to an impressive 30.36% in 2023, reflecting strong gains in both profitability and asset efficiency. This growth is bolstered by a substantial rise in net profit margin, which increased from 402.73 to 1,050.52, and a steady improvement in asset turnover, climbing from 1.07 to 1.21. Additionally, SAPPE's deliberate reduction in leverage, as seen in its Asset/Equity ratio dropping from 0.04 to 0.02, has further enhanced its financial stability. On the other hand, ICHITAN has also made significant strides in ROE and profitability but not as dramatically as SAPPE. TIPCO FOOD displays fluctuating profitability and declining asset efficiency, while OSOTSPA shows stable asset turnover but suffers from decreasing profitability and rising leverage. Overall, SAPPE stands out for its strong financial performance and operational efficiency.

## **4.2 Discounted Cash Flow Valuation**

This segment of the valuation report is split into two main sections. The first part focuses on valuing SAPPE through the discounted cash flow (DCF) method. This approach estimates the firm's intrinsic value by forecasting its future free cash flows and discounting them back to their present value. The second section delves into the sensitivity analysis.

## 4.2.1 Revenue Forecast

Soft Drink Market Size Unit >>>		2018	2019	2020	2021	2022	2023	2024 F	2025 F	2026 F	2027 F	2028 F
Geography												
World		0.87	0.89	0.78	0.88	0.96	1.05	1.10	1.16	1.23	1.31	1.39
	% YoY		1.64%	-11.70%	12.77%	8.88%	9.46%	4.80%	5.65%	5.98%	5.94%	6.02%
Asia Pacific		0.22	0.23	0.21	0.23	0.23	0.24	0.26	0.28	0.30	0.32	0.34
	% YoY		2.82%	-8.15%	7.24%	-0.86%	5.50%	9.36%	7.42%	7.09%	6.64%	6.92%
Australasia		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	% YoY		-3.95%	-2.85%	11.49%	-0.10%	4.12%	5.61%	3.16%	3.03%	3.46%	3.51%
Eastern Europe		0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.06	0.06
	% YoY		2.37%	-10.12%	13.82%	8.12%	5.98%	1.35%	2.88%	5.45%	4.95%	4.22%
Latin America		0.12	0.12	0.09	0.11	0.13	0.16	0.16	0.17	0.18	0.19	0.20
	% YoY		-0.38%	-19.44%	16.82%	20.23%	17.91%	2.71%	5.23%	6.24%	6.72%	6.51%
Middle East and Africa		0.09	0.10	0.09	0.11	0.12	0.12	0.13	0.14	0.16	0.18	0.20
	% YoY		7.71%	-6.90%	14.35%	14.13%	-0.72%	3.83%	11.68%	12.36%	12.96%	13.15%
North America		0.21	0.22	0.19	0.22	0.25	0.28	0.29	0.30	0.31	0.32	0.33
	% YoY		2.60%	-11.56%	15.62%	12.64%	11.04%	4.27%	3.42%	3.55%	3.33%	3.46%
Western Europe		0.17	0.17	0.14	0.16	0.17	0.20	0.21	0.21	0.22	0.23	0.24
	% YoY		-2.76%	-15.10%	13.23%	7.06%	14.24%	3.13%	4.02%	3.85%	3.45%	2.99%

**Figure 4.2 Own Calculation of Soft Drink Market Size**

Source: Euromonitor

According to Euromonitor, the table provides crucial insights into the historical and projected market sizes of the soft drink industry worldwide from 2018 to 2028, which will be key for our sales forecasting. Overall, the global market has shown consistent growth, with a notable rebound following 2020, and is anticipated to reach \$1,386,269.80 million by 2028. In the Asia Pacific region, despite a setback in 2020, the market is on a strong upward path, expected to hit \$340,907.90 million by 2028, indicating significant sales growth. Australasia's market exhibits steady growth with slight variations, indicating moderate sales increases. Eastern Europe's market is steadily recovering from a 2020 dip, suggesting future sales growth. Latin America has bounced significantly since 2020, with projected sales potential reaching \$204,403.60 million by 2028. The Middle East and Africa are forecasted to experience substantial market growth, indicating high sales potential. North America shows a strong recovery and consistent growth trends, promising reliable sales increases. Despite a decline in 2020, Western Europe is steadily recovering, indicating steady future sales growth. By utilizing the year-over-year growth rates and overall market trends, we will craft a detailed sales forecast that captures the global soft drink industry's expected growth and regional variations.



in MB		2023				2024				2024 Total
PL		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Revenue from sale of goods		1,520.3	1,656.9	1,666.7	1,208.7	1,836.0	2,001.1	2,012.9	1,459.7	7,309.7
	% YoY		8.99%	0.59%	-27.48%					

**Figure 4.3 Own Calculation of 2024 Sale Forecast**

Source: Stock Exchange of Thailand

To estimate the total sales for 2024 based on the YoY growth rates from 2023 and the Q1 2024 actual revenue, start with the Q1 2024 revenue of 1,836.0 MB which we get from the Q1 sale from SET (Stock Exchange of Thailand). Using the growth rates from 2023, project Q2's revenue by applying an 8.99% increase, leading to an estimated 2,001.1 MB. For Q3, apply a 0.59% increase to Q2's forecasted revenue, giving around 2,012.9 MB. Finally, for Q4, factor in a significant decline of 27.48% from Q3's revenue, resulting in an estimated 1,459.7 MB. Adding these values together, the forecasted total revenue for 2024 comes to about 7,309.7 MB.

in MB		post covid avg growth >>> 33%						
PL	2023	2023 %Sale	2024 F	2025 F	2026 F	2027 F	2028 F	
Revenue from sale of goods	6,052.6	100.0%	7,309.7	8,803.2	10,625.1	12,808.3	15,437.6	
Asia Pacific	3,546.8	58.6%	4,283.5	5,139.9	6,159.0	7,366.2	8,820.6	
Australasia Middle East and Africa	762.6	12.6%	921.0	1,139.3	1,412.5	1,758.4	2,191.1	
Western Europe Eastern Europe	1,416.3	23.4%	1,710.5	2,047.9	2,476.7	2,983.9	3,577.3	
Latin America North America	326.8	5.4%	394.7	476.1	576.9	699.8	848.6	

**Figure 4.4 Own Calculation of 2024 - 2028 Sale Forecast**

Source: Stock Exchange of Thailand

Using SAPPE's 2024 revenue from sale goods as a base, we have separated the sales according to SAPPE sale contribution from Figure 3.3. We find the average Growth rate by region per year by applying the growth rates from the soft drink market size per region from Figure 4.1 and the SAPPE sale post-COVID average growth rate from 2022 to 2023 to forecast future revenue. In 2024, SAPPE's total revenue from the sale of goods was 7,309.7 MB, distributed across regions as follows: Asia Pacific (4,283.5 MB or 58.6%), Australasia & Middle East and Africa (921.0 MB or 12.6%), Western & Eastern Europe (1,710.5 MB or 23.4%), and Latin America & North America

(394.7 MB or 5.4%). By applying the YoY growth rates from the soft drink market size data and post-COVID average growth rate (sale in 2024 \* (1+((market YoY + post covid growth)/2))), we forecast that the revenue for Asia Pacific will increase from 4,283.5 MB in 2024 to 8,820.6 MB in 2028, Australasia & Middle East and Africa from 921.0 MB in 2024 to 2,191.1 MB in 2028, Western & Eastern Europe from 1,710.5 MB in 2024 to 3,577.3 MB in 2028, and Latin America from 349.7 MB in 2024 to 848.6 MB in 2028. This method, which leverages SAPPE's financial performance and the projected market growth rates, provides a comprehensive and accurate sales forecast aligned with industry trends and regional market dynamics.

## 4.2.2 FCFE Projection (Pro forma Statement)

### 4.2.2.1 Other income

PL	2023	2024	2025	2026	2027	2028
Other income	145.84	287.24	301.85	316.88	332.62	348.65

Nominal GDP		2022	2023	2024 F	2025 F	2026 F	2027 F	2028 F
Geography								
World		100.86	105.08	109.01	114.56	120.26	126.24	132.32
	% YoY	3.64%	4.19%	3.74%	5.09%	4.98%	4.97%	4.82%

PL	2023				2024				2024 Total
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Other income	34.56	35.84	32.22	43.22	68.07	70.58	63.46	85.12	287.24
	% YoY	3.68%	-10.08%	34.14%					

**Figure 4.5 Own Calculation of Other Income Forecast**

Source: Euromonitor and Stock Exchange of Thailand

Transportation fees, which constitute additional charges for providing transportation services upon customer request, are included under other income. First, we find the 2024 other income by using the Q1 data from SET and using the growth rate from 2023 to forecast 2024 Q2 to Q4. Then we forecast this revenue involves utilizing the nominal GDP growth rate. This approach leverages GDP growth as a proxy for estimating future income, aligning revenue projections with broader economic trends and potential shifts in consumer spending habits and economic activity.

#### 4.2.2.2 Cost of Goods Sold (COGs)

Cost of Goods Sold (COGs) represents the direct costs incurred by the company in producing goods or delivering services. I'm forecasting COGs using a historical average common size expense-to-revenue ratio of 54% from 2023.

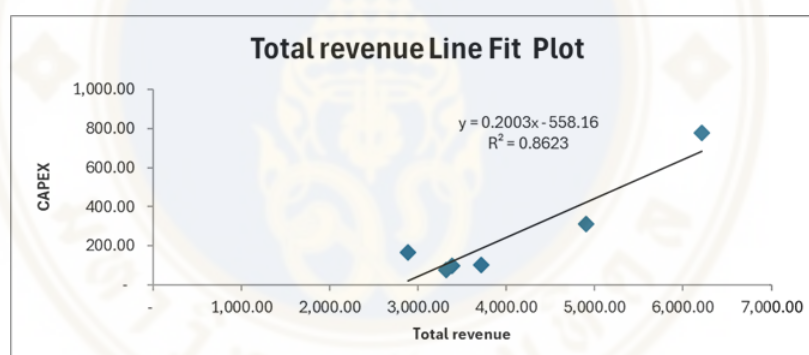
#### 4.2.2.3 Selling, General, and Administrative Expenses (SG&A)

Selling, General, and Administrative Expenses (SG&A) being periodic costs that include both fixed and variable components, are forecasted using an average common size expense-to-revenue ratio of 21% from 2023.

#### 4.2.2.4 Depreciation

**Table 4.2 Own Calculation of Capex and Depreciation Forecasting**

PL	2018	2019	2020	2021	2022	2023	2024 F	2025 F	2026 F	2027 F	2028 F
Total revenue	2,885.9	3,386.9	3,320.9	3,712.8	4,899.5	6,207.7	7,600.9	9,109.1	10,946.0	13,145.0	15,790.3
CAPEX	- 167.3	- 97.8	- 78.4	- 104.8	- 314.5	- 778.4	- 964.3	- 1,266.4	- 1,634.3	- 2,074.8	- 2,604.6
Depreciation	160.9	191.3	202.2	197.9	187.2	178.1	210.9	217.0	224.4	233.3	243.9



**Figure 4.6 Linear regression**

In using linear regression for forecasting, the relationship between CAPEX and revenue is initially determined to be positive and negative for Depreciation and CAPEX. By applying the formula “ $Y = bx + a$ ” when “ $b$ ” is the slope, “ $a$ ” is the y-intercept and “ $x$ ” is the value of observation we can find the forecast of both CAPEX and Depreciation. The data we obtain indicates that as the company's revenue grows, there is a corresponding increase in capital expenditure. For example, investing in new technology or expanding production facilities to meet higher customer demand illustrates this relationship. On the other hand, when predicting depreciation, the company's expansion in an industry like SAPPE suggests a non-significant (or zero) correlation with CAPEX.

This reflects the scenario that whereas the company invests more in capital assets, depreciation expenses do not change much relative to the growth of its asset base. In linear regression, a positive relationship signifies that as one variable rises, so does another, while a negative relationship indicates that as one variable increases, the other decreases.

#### 4.2.2.5 Financial Cost and Tax

We use the year 2023 effective interest cost that the firm paid to financial institutions to operate the business, which is 2.84%. A corporate tax rate of 20% is applied following regulatory standards.

### 4.2.3 Pro Forma Statement and EPS

**Table 4.3 Own Calculation of Pro Forma Statement and EPS**

(in Million Baht)												CAGR
PL	2018	2019	2020	2021	2022	2023	2024 F	2025 F	2026 F	2027 F	2028 F	2023 - 2028
<b>Revenue</b>												
Revenue from sale of goods	2,826.9	3,299.5	3,268.1	3,444.2	4,566.4	6,052.6	7,309.7	8,803.2	10,625.1	12,808.3	15,437.6	20.6%
Other income	51.5	69.9	52.8	268.6	333.1	145.8	287.2	301.8	316.9	332.6	348.6	
Net foreign exchange gain	7.5	7.4	0.0	0.0	0.0	9.3	4.0	4.0	4.0	4.0	4.0	
<b>Total revenue</b>	<b>2,885.9</b>	<b>3,386.9</b>	<b>3,320.9</b>	<b>3,712.8</b>	<b>4,899.5</b>	<b>6,207.7</b>	<b>7,600.9</b>	<b>9,109.1</b>	<b>10,946.0</b>	<b>13,145.0</b>	<b>15,790.3</b>	20.5%
% Growth		17.4%	-1.9%	11.8%	32.0%	26.7%	22.4%	19.8%	20.2%	20.1%	20.1%	
<b>Expenses</b>												
Cost of sales of goods	1,799.8	2,083.8	2,067.2	2,089.1	2,702.9	3,341.4	4,091.3	4,903.1	5,891.8	7,075.5	8,499.4	
% to Sale	62.4%	61.5%	62.2%	56.3%	55.2%	53.8%						
SGA	488.1	589.5	553.6	885.9	1,187.5	1,320.5	1,616.9	1,937.7	2,328.5	2,796.3	3,359.0	
% to Sale	16.9%	17.4%	16.7%	23.9%	24.2%	21.3%						
<b>Total expenses</b>	<b>2,287.9</b>	<b>2,673.4</b>	<b>2,620.8</b>	<b>2,975.1</b>	<b>3,890.4</b>	<b>4,661.9</b>	<b>5,708.2</b>	<b>6,840.8</b>	<b>8,220.3</b>	<b>9,871.7</b>	<b>11,858.3</b>	20.5%
% Growth		16.8%	-2.0%	13.5%	30.8%	19.8%	22.4%	19.8%	20.2%	20.1%	20.1%	
<b>EBITDA</b>	<b>598.0</b>	<b>713.5</b>	<b>700.1</b>	<b>737.7</b>	<b>1,009.2</b>	<b>1,545.8</b>	<b>1,892.7</b>	<b>2,268.3</b>	<b>2,725.7</b>	<b>3,273.3</b>	<b>3,932.0</b>	20.5%
Depreciation and amortisation expenses	160.9	191.3	202.2	197.9	187.2	178.1	210.9	217.0	224.4	233.3	243.9	
<b>EBIT</b>	<b>437.1</b>	<b>522.2</b>	<b>498.0</b>	<b>539.8</b>	<b>821.9</b>	<b>1,367.7</b>	<b>1,681.9</b>	<b>2,051.3</b>	<b>2,501.3</b>	<b>3,040.0</b>	<b>3,688.0</b>	21.9%
% Growth		19.5%	-4.6%	8.4%	52.3%	66.4%	23.0%	22.0%	21.9%	21.5%	21.3%	
Total Finance costs	-0.1	-19.5	-16.0	-23.6	-5.8	-42.4	-21.4	-16.9	-13.4	-9.1	-3.9	
Effective Interest rate						2.84%						
<b>EBT</b>	<b>437.0</b>	<b>502.7</b>	<b>481.9</b>	<b>516.2</b>	<b>816.1</b>	<b>1,325.3</b>	<b>1,660.5</b>	<b>2,034.4</b>	<b>2,487.9</b>	<b>3,030.9</b>	<b>3,684.1</b>	22.7%
Tax	85.6	100.0	96.0	106.0	161.7	274.8	333.4	408.5	499.6	608.6	739.8	
% Tax	20%	20%	20%	21%	20%	21%						
<b>Net profit</b>	<b>351.4</b>	<b>402.7</b>	<b>386.0</b>	<b>410.2</b>	<b>654.4</b>	<b>1,050.5</b>	<b>1,327.1</b>	<b>1,625.9</b>	<b>1,988.4</b>	<b>2,422.3</b>	<b>2,944.4</b>	22.9%
% Growth		14.6%	-4.2%	6.3%	59.5%	60.5%	26.3%	22.5%	22.3%	21.8%	21.6%	
Number of Shares (MN)	308.4	308.4	308.4	308.4	308.4	308.3	308.3	308.3	308.3	308.3	308.3	
<b>EPS</b>	<b>1.14</b>	<b>1.31</b>	<b>1.25</b>	<b>1.33</b>	<b>2.12</b>	<b>3.41</b>	<b>4.30</b>	<b>5.27</b>	<b>6.45</b>	<b>7.86</b>	<b>9.55</b>	

From 2023 to 2028, the PL Statement outlook shows strong growth in both net profit and earnings per share (EPS). Net profit is anticipated to grow from 1,050.5 million Baht in 2023 to 2,944.4 million Baht in 2028, reflecting an average annual increase of approximately 22.9%. This growth underscores effective cost management despite higher expenses such as depreciation and finance costs. Consequently, EPS is forecasted to rise steadily from 3.41 Baht per share in 2023 to 9.55 Baht per share in 2028, driven by both the growth in net profit and a stable number of outstanding shares.

These projections indicate that SAPPE is poised to deliver enhanced shareholder value through strong operational performance and strategic financial control.

#### 4.2.4 Terminal Growth Rate

**Table 4.4 Terminal Growth**

Geography	Data Type	CAGR		
		2018 - 2023	2023 - 2028	2018 - 2023
World	Market Size Soft Drink	3.8%	5.7%	4.7%
	Norminal GPD	4.0%	4.7%	4.3%
Market Size CAGR / Norminal GDP CAGR		0.96	1.20	1.09

Source: Euromonitor

Using a Nominal GDP Compound Annual Growth Rate (CAGR) of 4.3% for terminal growth in financial forecasting is justified due to its representation as a fundamental economic gauge encompassing overall economic activity, including inflationary effects. This long-term trend serves as a stable reference point for projecting future economic conditions and harmonizes financial projections with broader macroeconomic variables. By integrating this rate into terminal growth assumptions, businesses can ensure their forecasts reflect plausible economic scenarios, facilitating informed decision-making and comprehensive financial planning.

#### 4.2.5 WACC

##### 4.2.5.1 WACC Calculation

To determine the firm's value using the Discounted Cash Flow (DCF) method, I calculate the present value of future cash flows discounted at the Weighted Average Cost of Capital (WACC). Here is how we approach it based on the provided formulae:

$$\text{WACC} = w_d * r_d (1 - \text{Tax}) + w_e * r_e$$

where:

WACC = weighted average cost of capital

$w_d$  = weight of debt

$r_d$  = cost of debt

Tax = corporate tax

$w_e$  = weight of equity

$r_e$  = cost of equity

$$r_e = r_f + \text{Beta} * \text{MRP}$$

where:

$r_e$  = cost of equity

$r_f$  = risk-free (10-year government bond yield)

Beta = relative market risk

MRP = market risk premium

Calculation of WACC	
<b>1) Cost of Debt</b>	
Interest Rate	2.84%
Tax Rate	20%
<b>Cost of Debt</b>	<b>2.27%</b>
<b>2) Cost of Equity (CAPM)</b>	
Beta	0.749
Risk Free Rate	2.62%
Equity Risk Premium	6.94%
<b>Cost of Equity</b>	<b>7.82%</b>
<b>in MB</b>	
Total Debt	2,536.2
Total Equity	26,898.2
Weighted Debt	8.62%
Weighted Equity	91.38%
<b>WACC</b>	<b>7.34%</b>

**Figure 4.7 Calculation of WACC**

The cost of debt ( $r_d$ ) is calculated at 2.27% by dividing financial costs by the average interest-bearing debt, which includes bank overdrafts and borrowings from financial institutions.

Corporate tax is applied at a standard rate of 20%.

Beta ( $\beta$ ) is estimated at 0.749 using linear regression based on the relationship between changes in SET and SAPPE over the past five years or 59 months, reflecting relative market risk. The details are shown in Appendix A.

The cost of equity (re) is determined using the Capital Asset Pricing Model (CAPM).

The risk-free rate (rf) is sourced from the Thai Bond Market Association's 10-year government bond yield data, at 2.62%.

The market risk premium (MRP), provided by Professor Aswath Damodaran and updated on July 1, 2024, stands at 6.94%.

Once all necessary inputs are gathered, I compute the Weighted Average Cost of Capital (WACC), resulting in a figure of 7.34%. This calculation is detailed in the table provided above.

## 4.2.6 DCF Valuation Result

### 4.2.6.1 DCF Valuation

Terminal value (TV) equation.

$$TV = FCF(1+g)/(WACC-g)$$

where:

TV = Terminal value

FCF = Free cash flow

g = perpetual growth of free cash flow, expected growth of 4.35%

WACC = Weight average cost of capital 6.42.

**Table 4.5 Own Calculation of DCF and EST. Share value**

(in Million Baht)	2018	2019	2020	2021	2022	2023	2024 F	2025 F	2026 F	2027 F	2028 F	Terminal Value
EBIT	437.1	522.2	498.0	539.8	821.9	1,367.7	1,681.9	2,051.3	2,501.3	3,040.0	3,688.0	
TAX	85.6	100.0	96.0	106.0	161.7	274.8	333.4	408.5	499.6	608.6	739.8	
EBIT AFTER TAX	351.5	422.2	402.0	433.8	660.2	1,092.9	1,348.4	1,642.8	2,001.7	2,431.4	2,948.3	
DEPRECIATION	160.9	191.3	202.2	197.9	187.2	178.1	210.9	217.0	224.4	233.3	243.9	
WORKING CAPITAL CHANGE	0.0	105.5	74.5	36.5	134.3	134.6	104.1	187.1	221.8	265.5	319.4	
CAPEX	-167.3	-97.8	-78.4	-104.8	-314.5	-778.4	-964.3	-1,266.4	-1,634.3	-2,074.8	-2,604.6	
CASHFLOW TO THE FIRM		621.2	600.3	563.4	667.3	627.2	699.1	780.5	813.6	855.4	907.0	31,625.8
DISCOUNTED CASHFLOW							699.1	727.1	706.1	691.6	683.2	23,823.1

Total (Terminal Growth)	4.3%
PV OF FIRM VALUE	27,330.3
NET DEBT	2,536.2
PV OF EQUITY VALUE	24,794.1
# OF SHARES (MN)	308.3
<b>EST. SHARE VALUE</b>	<b>80.42</b>

**Figure 4.8 Calculation of EST. Share Value**

The estimated share value of 80.42 is calculated through a multi-step valuation process that incorporates detailed financial projections and discounting techniques. First, the future cash flows for the years 2024 through 2028 and the terminal value are discounted to their present values using the Weighted Average Cost of Capital (WACC) of 7.34%. For instance, the cash flow in 2024 is discounted to 699.1, while the 2025 cash flow is discounted to 727.1. This process continues for subsequent years, with the 2026, 2027 and 2028 cash flows being discounted to 706.1, 691.6 and 683.2, respectively. The terminal value of 31,625.8, representing the value of the firm beyond 2028, is discounted to 23,823.1. Adding these discounted values yields a total present value of the firm of 27,330.3. Next, to determine the equity value, the net debt of 2,536.2 is subtracted from this total present value. This calculation provides a present value of equity of 24,794.1. Finally, this equity value is divided by the number of shares outstanding, which is 308.3 million. This resulted in an estimated share value of 80.42 which is 9% lower than the actual SAPPE price as of 23 July 2024, 87.25 THB per share. This comprehensive valuation captures the company's projected financial performance, adjusted for the time value of money, and reflects the impact of its capital structure on the per-share value.

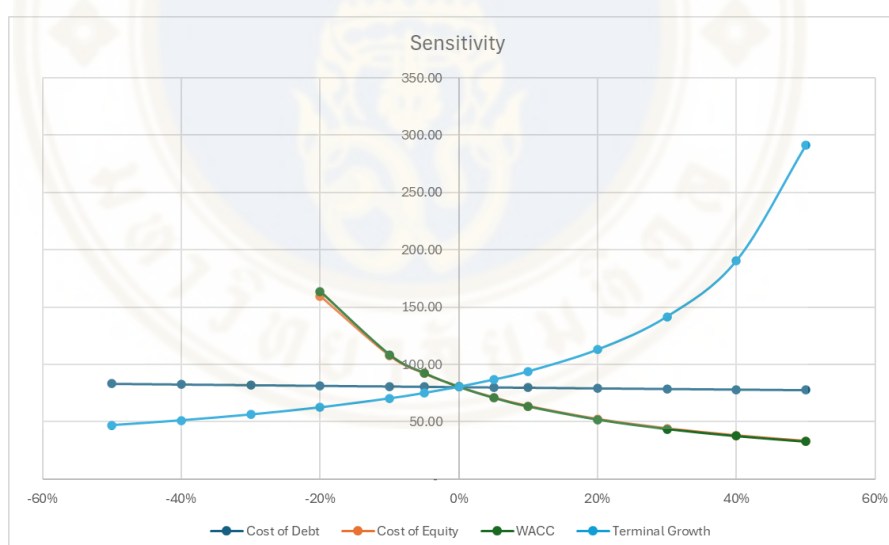


### 4.2.7 Sensitivity Analysis

**Table 4.6 Own Calculation of Sensitivity Analysis**

Deviation	Cost of Debt	Price (Baht)	Cost of Equity	Price (Baht)	WACC	Price (Baht)	Terminal Growth	Price (Baht)
50%	3.41%	77.69	11.73%	33.35	11.01%	32.77	6.52%	291.45
40%	3.18%	78.22	10.94%	38.16	10.28%	37.58	6.09%	190.70
30%	2.95%	78.76	10.16%	44.32	9.54%	43.75	5.65%	141.83
20%	2.72%	79.31	9.38%	52.47	8.81%	51.95	5.22%	112.98
10%	2.50%	79.86	8.60%	63.75	8.07%	63.38	4.78%	93.94
5%	2.38%	80.14	8.21%	71.20	7.71%	70.97	4.56%	86.65
0%	2.27%	80.42	7.82%	80.42	7.34%	80.42	4.35%	80.42
-5%	2.16%	80.71	7.43%	92.15	6.97%	92.52	4.13%	75.04
-10%	2.04%	80.99	7.04%	107.56	6.61%	108.54	3.91%	70.34
-20%	1.82%	81.57	6.25%	159.49	5.87%	163.74	3.48%	62.53
-30%	1.59%	82.16	5.47%		5.14%		3.04%	56.30
-40%	1.36%	82.75	4.69%		4.40%		2.61%	51.21
-50%	1.14%	83.35	3.91%		3.67%		2.17%	46.98

To compare sensitivity, a spider chart to trace the sensitivity of each key factor as shown in Figure 4.9



**Figure 4.9 Calculation of Spider Chart**

The sensitivity analysis shows how changes in the cost of debt, cost of equity, WACC (Weighted Average Cost of Capital), and terminal growth rate can significantly affect the asset's price in Baht. When the cost of debt drops from 3.41% to 1.14%, the asset's price increases from 77.69 Baht to 83.35 Baht, suggesting that lower borrowing costs boost the asset's value. Similarly, a decrease in the cost of equity from 11.73% to

6.25% leads to a rise in the asset price from 33.35 Baht to 159.49 Baht, indicating that reduced equity costs enhance the asset's worth. A lower WACC also contributes to this trend; as it falls from 11.01% to 5.87%, the asset price climbs from 32.77 Baht to 163.74 Baht, showing that a lower WACC reduces the discount rate on future cash flows, increasing the asset's value. Additionally, variations in the terminal growth rate significantly impact the asset's valuation. As the growth rate increases from 2.17% to 6.52%, the asset price surges from 46.98 Baht to 291.45 Baht, highlighting that higher growth expectations lead to a greater asset valuation.

**Table 4.7 Own Calculation of Implied WACC and Cost of Equity**

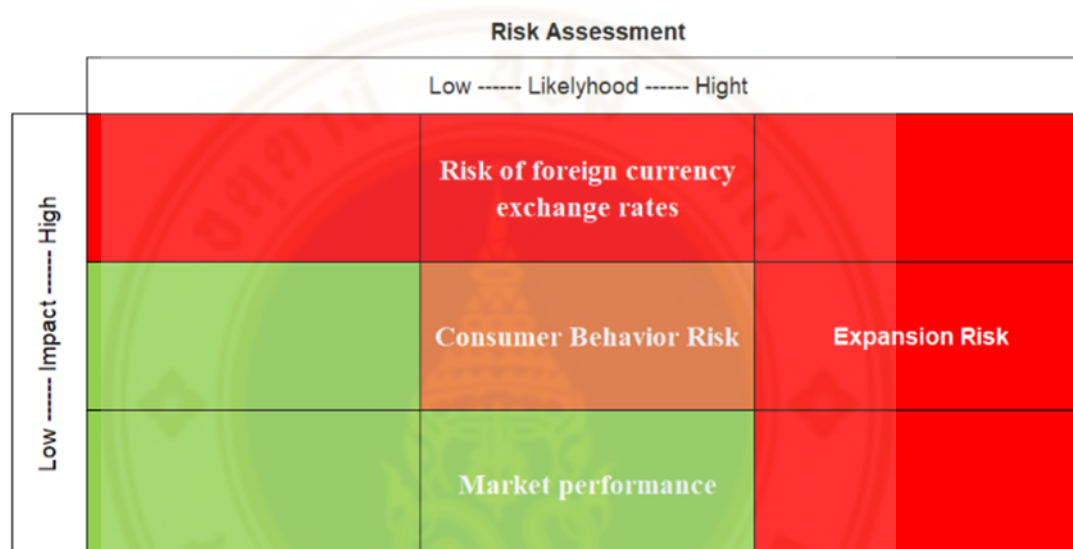
k Price (Baht)	Perpetual Growth	Implied WACC	Implied Cost of equity
80.42	4.35%	7.34%	7.82%
87.25	4.58%	7.12%	7.58%
87.25	0.00%	3.13%	3.20%

The data shows that for a stock price of 80.42 Baht with a perpetual growth rate of 4.35%, the implied WACC is 7.34% and the implied cost of equity is 7.82%. However, when the stock price increases to 87.25 Baht, the perpetual growth rate increases to 4.58%, the implied WACC drops to 7.12% and the implied cost of equity decreases to 7.58%. When we set the perpetual growth rate to 0%, the implied WACC drops to 3.12% and the implied cost of equity decreases to 3.20%. This demonstrates that higher stock prices generally lead to lower implied WACC and cost of equity, illustrating how these financial measures are affected by changes in stock price.

## CHAPTER V

### INVESTMENT RISK

#### 5.1 Risk Matrix



**Figure 5.1 Risk Assessment Matrix of SAPPE**

For the type of investment risks, there are 4 risks relating to SAPPE's business, which are

##### 5.1.1 Expansion Risk

As shown in Appendix B, an increase in Property, Plant, and Equipment (PPE) reflects significant capital investments to enhance the company's operational capabilities. Although such investments can foster growth, they also bring risks if SAPPE doesn't generate proportional revenue increases. Higher PPE levels lead to increased depreciation costs, which can gradually diminish profitability as we can see in Table 4.4. These higher capital expenditures (CAPEX) result in elevated depreciation expenses spread over the life of the new assets, potentially lowering net income and overall profitability. Additionally,

maintaining and operating new assets can further strain financial resources. The combination of rising debt and increased PPE creates a leverage effect that can amplify both potential gains and losses. High CAPEX and resulting depreciation can also affect the cash flow statement, as significant upfront investments are followed by ongoing maintenance costs.

### **5.1.2 Risk of foreign currency exchange rates**

For export-dependent companies like SAPPE, as the distribution percentage of 2023 can be seen in Figure 4.3, shifts in foreign currency exchange rates can pose considerable risks. When the Thai baht strengthens, Thai products become more expensive for international customers, which can lead to reduced demand and lower revenue and profit margins. This effect is magnified if sales are conducted in foreign currencies, as the earnings will decrease when converted back into baht, further affecting profitability. On the positive side, a stronger baht can make imported raw materials more affordable, potentially lowering production costs. However, the main challenge remains the potential drop in export demand and reduced earnings due to currency conversion.

### **5.1.3 Market Performance Risk**

When a company's growth significantly outstrips the overall market as we can see in YoY growth of SAPPE and market performance in Table 4.4 and Figure 4.1, it offers both potential benefits and significant challenges. While strong growth can highlight the company's excellent performance and competitive advantage, it also raises questions about its ability to sustain this pace over time. Rapid expansion, often driven by aggressive strategies or high expectations, can be hard to maintain without continuous innovation and adaptation. As the company quickly captures market share, it may reach market saturation sooner, leading to slower growth once the market is fully penetrated. Moreover, swift expansion typically attracts more competition, which can increase marketing costs and shorten profit margins. Financially, the company might encounter liquidity issues and higher debt as it invests heavily in infrastructure and marketing to support its growth, which could strain cash flow and profitability.

#### **5.1.4 Consumer Behavior Risk**

The soft drink industry faces significant risks due to a notable decline in sugary drink consumption, driven by growing health awareness among consumers. As we can see from Figure 4.1, the % YoY growth has decreased by half from 2023 to 2024. This shows that more consumer concerns over obesity, diabetes, and dental health have led people to choose low-calorie or sugar-free options more frequently. Additionally, regulations like sugar taxes and advertising restrictions are further diminishing sugary drink sales.



## **Chapter VI**

### **CONCLUSIONS**

#### **6.1 Investment recommendations**

In this paper, I utilize the discounted cash flow (DCF) valuation method to determine the intrinsic value of a firm by projecting future free cash flows and discounting them back to their present value. For this analysis, I projected the company's performance from 2024 to 2028, using various assumptions grounded in real GDP growth, historical growth trends, and a linear regression approach. The projected cash flows were then discounted using an estimated cost of equity at 7.82% (weighted at 91.38%) and a cost of debt at 2.27% (weighted at 8.62%), resulting in a weighted average cost of capital (WACC) of 7.34%.

Additionally, I conducted a sensitivity analysis to evaluate the impact of variables such as the cost of equity, cost of debt, WACC, and terminal growth rate on the stock price. The resulting stock price range was between 32.77 and 291.45 baht per share. Furthermore, I employed a solver in the financial model to estimate the cost of equity under two scenarios: perpetual growth at 4.58% and no growth, both aligning the stock value with the market price. The analysis indicated that SAPPE is overvalued, with implied costs of equity at 7.58% and 3.20% respectively, both lower than the projected 7.82%.

Based on the DCF valuation model, the target stock price is 80.42 baht per share, suggesting an 8.5% downside from the actual share price of 87.25 as of July 23, 2024. Consequently, my recommendation for SAPPE is "HOLD", as the percentage difference falls within the range of +/-20%.

## **6.2 Triggers for re-assessment**

### **6.2.1 Sensitivity of Cost of equity**

The cost of equity, or the return expected by shareholders, is influenced by the risk-free rate, the equity risk premium, and the beta. Therefore, any significant change in the risk-free rate, such as fluctuations in the 10-year government bond yield, necessitates a reassessment of the stock's value. Additionally, beta, which reflects the stock's volatility relative to the market, can change over time and must be updated to ensure an accurate valuation.

### **6.2.2 Sensitivity of Capital Structure and WACC**

The capital structure plays a critical role in re-evaluating a company, particularly one like SAPPE which is in an expansion phase. Currently, SAPPE uses over 92.38% equity, with an associated equity cost of 7.82%. This heavy reliance on equity affects the company's weighted average cost of capital (WACC) and, consequently, the discount rate used in valuation.

In an expansion phase, companies often seek additional funding to support growth activities such as entering new markets or expanding production. If SAPPE opts to increase its debt to fund these initiatives, its capital structure would change. This shift could lower the overall cost of capital since debt is generally cheaper than equity. However, increasing debt also introduces higher financial risk, which could raise the cost of both debt and equity. In essence, while increased debt might reduce WACC in the short term, it also raises financial risk and could lead to a higher cost of capital over time.

### **6.2.3 Sensitivity to SAPPE's Future Growth rate**

SAPPE's future growth rate could be adversely affected by several external factors, including shifts in consumer preferences, regulatory changes, and intensifying competition. Consumer tastes are subject to rapid changes, often influenced by trends toward healthier lifestyles or sustainability. If SAPPE's products do not adapt to these evolving preferences, the company may face reduced demand, which could hinder its growth. Additionally, government-imposed taxes on sugary or non-alcoholic beverages could increase product costs, either deterring consumers or forcing the company to

absorb the financial burden, both of which could negatively impact growth. Furthermore, the highly competitive nature of the beverage industry means that SAPPE could lose market share if it fails to effectively differentiate its offerings or if competitors introduce superior or more innovative products. These factors, individually or collectively, could result in a growth rate for SAPPE that falls short of expectations, thereby affecting its long-term profitability and competitive standing.

### **6.3 Limitations**

The discounted cash flow (DCF) valuation method comes with certain limitations, largely because it relies on assumptions and publicly available information due to the lack of internal company data. Firstly, estimating a company's value using DCF is challenging and not always highly accurate because it depends on several assumptions. The projection of free cash flows is based on past market trends, SAPPE's historical performance, and the assumption that no new competitors will enter the market. However, SAPPE's significant expansion post-COVID-19 has attracted new competitors, which could impact future cash flows. Secondly, the terminal value, which represents the company's worth beyond the projection period, adds a layer of uncertainty. Any changes in the assumed perpetual growth rate after 2023 can significantly alter the valuation, and this growth rate might change over time. Lastly, the cost of equity is estimated using the CAPM model, which assumes a standard return rate for all investors. In practice, individual investors may have different required returns based on their financial situations and risk appetites, leading to variations in the valuation results.



## REFERENCES

- Annual report. (n.d). *SAPPE*. <https://www.sappe.com/en/annual-report-en/>
- Ichitan Group Public Company Limited. (n.d.). *Corporate Movement*. <https://www.ichitangroup.com/investor.php>
- Kornboonritros, S. (2023, November 14). *Industry Outlook 2024-2026: Beverage Industry*. [krungsri.com. https://www.krungsri.com/en/research/industry/industry-outlook/food-beverage/beverage/io/io-beverage-2024-2026](https://www.krungsri.com/en/research/industry/industry-outlook/food-beverage/beverage/io/io-beverage-2024-2026)
- Mahidol e-Journal Access. (n.d.). <https://www-portal-euromonitor-com.ejournal.mahidol.ac.th/magazine/homemain/>
- Office of the National Economic and Social Development Council. (n.d.). *Quarterly Gross Domestic Product (QGDP)*. [https://www.nesdc.go.th/nesdb\\_en/more\\_news.php?cid=155](https://www.nesdc.go.th/nesdb_en/more_news.php?cid=155)
- Osotspa. (2023). *One Report 2023 Sustainable Future*. <https://investor.osotspa.com/en/document/viewer/98136/2023-annual-report-form-56-1-one-report>
- SAPPE - Shareholders - The Stock Exchange of Thailand. (n.d.). *SET*. <https://www.set.or.th/en/market/product/stock/quote/SAPPE/major-shareholders>
- Sappe products. (n.d.). *SAPPE*. <https://www.sappe.com/en/sappe-products-en/>
- Tipco. (n.d.). *Annual Report*. <https://investor.tipco.net/en/annualreport/>
- Trading Economics. (n.d.). *Thailand interest rate*. <https://tradingeconomics.com/thailand/interest-rate>
- World Bank Group. (2024, June 10). *Global growth is stabilizing for the first time in three years*. <https://www.worldbank.org/en/news/press-release/2024/06/11/global-economic-prospects-june-2024-press-release>

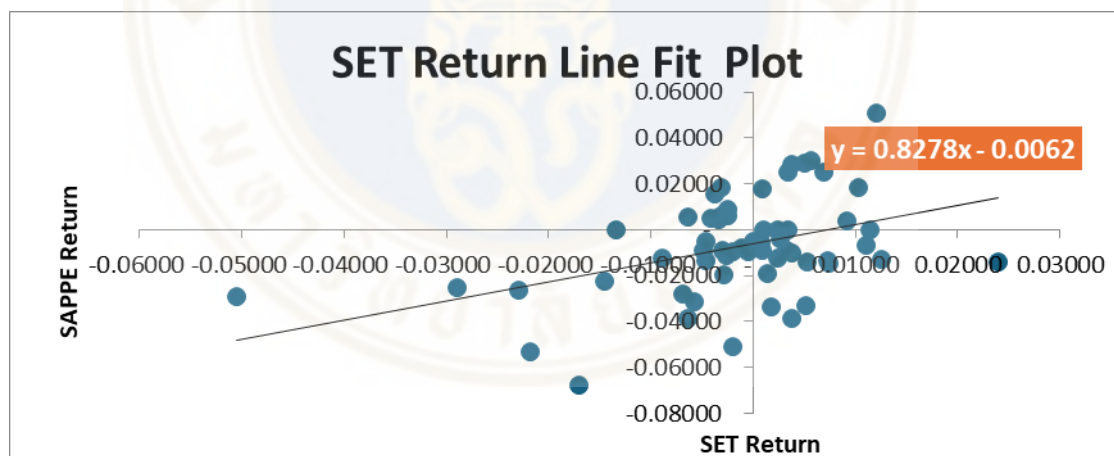


## Appendix A: Beta

To estimate beta, I use Data Analysis in Excel as shown in Table A-1, and a scatter plot between SAPPE total return and SET total return as shown in Figure A-2.

**Table A-1 Beta estimation using Data Analysis in Excel**

SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0.327234681							
R Square	0.107082536							
Adjusted R Square	0.106333445							
Standard Error	0.02293288							
Observations	1194							
<i>ANOVA</i>								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	0.075179735	0.075179735	142.9498118	3.38388E-31			
Residual	1192	0.626893051	0.000525917					
Total	1193	0.702072786						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.001581119	0.000663732	2.382166642	0.017367213	0.000278907	0.002883331	0.000278907	0.002883331
SET Return	0.748962246	0.062642363	11.95616208	3.38388E-31	0.626060678	0.871863815	0.626060678	0.871863815



**Figure A-2 Scatter plot**

## Appendix B: SAPPE Statement of Finances

### Balance Sheet statement

#### Statement of Financial Position – Consolidated financial statements

Statement of Financial Position	31-Dec-23		31-Dec-22		31-Dec-21		31-Dec-20	
	Million Baht	%	Million Baht	%	Million Baht	%	Million Baht	%
<b>Assets</b>	<b>5,860.24</b>	<b>100.00</b>	<b>4,661.33</b>	<b>100.00</b>	<b>3,848.40</b>	<b>100.00</b>	<b>3,647.16</b>	<b>100.00</b>
<b>Current assets</b>	<b>3,855.81</b>	<b>64.38</b>	<b>3,079.28</b>	<b>67.51</b>	<b>2,523.69</b>	<b>65.58</b>	<b>2,381.32</b>	<b>64.74</b>
Cash and cash equivalents	554.20	9.78	298.81	6.55	382.81	9.94	194.39	5.33
Current investments	1,977.36	34.81	1,829.72	40.11	1,371.10	35.63	1,415.10	38.80
Trade account receivable	328.42	5.78	324.14	7.11	340.58	8.85	435.59	11.94
Other current receivables	313.14	5.51	135.38	2.97	89.17	2.32	64.46	1.77
Short-term loans to related parties	-	-	-	-	-	-	-	-
Inventories	437.83	7.71	444.48	9.74	290.72	7.55	221.07	6.06
Other current assets	44.86	0.79	46.80	1.03	49.51	1.29	30.71	0.84
<b>Non-current assets</b>	<b>2,024.43</b>	<b>35.84</b>	<b>1,482.04</b>	<b>32.49</b>	<b>1,324.71</b>	<b>34.42</b>	<b>1,265.84</b>	<b>35.28</b>
Investment in associates	75.85	1.34	89.12	1.95	88.98	2.31	14.19	0.39
Investment in joint ventures	23.33	0.41	30.17	0.66	-	-	-	-
Other non-current financial assets	40.59	0.71	66.75	1.46	66.75	1.73	-	-
Other long-term investments	-	-	-	-	-	-	-	-
Property, plant and equipment	1,864.87	29.31	1,067.73	23.41	951.27	24.72	1,008.22	27.59
Right-of-use assets	52.82	0.93	84.21	1.41	54.97	1.43	96.76	2.65
Goodwill	90.90	1.60	90.90	1.99	90.90	2.38	90.90	2.49
Intangible assets other than goodwill	32.82	0.58	37.04	0.81	43.35	1.13	49.95	1.37
Deferred tax assets	32.30	0.57	28.41	0.68	19.81	0.51	18.31	0.50
Other non-current assets	10.95	0.19	9.70	0.21	8.70	0.23	9.51	0.26
<b>Liabilities and equity</b>	<b>5,860.24</b>	<b>100.00</b>	<b>4,661.33</b>	<b>100.00</b>	<b>3,848.40</b>	<b>100.00</b>	<b>3,647.16</b>	<b>100.00</b>
<b>Liabilities</b>	<b>1,784.36</b>	<b>31.41</b>	<b>1,201.27</b>	<b>26.34</b>	<b>841.93</b>	<b>21.88</b>	<b>774.05</b>	<b>21.22</b>
<b>Current liabilities</b>	<b>1,847.48</b>	<b>29.00</b>	<b>1,071.14</b>	<b>23.48</b>	<b>745.47</b>	<b>19.37</b>	<b>870.50</b>	<b>18.38</b>
Bank overdraft	-	-	1.08	0.02	1.89	0.05	1.46	0.04
Trade accounts payable	270.82	4.77	229.97	5.04	180.82	4.70	217.94	5.98
Other current payables	1,214.58	21.38	734.23	16.10	495.09	12.88	380.00	9.87
Current portion of long term borrowings from financial institutions	-	-	-	-	-	-	0.03	0.00
Short-term borrowings from related parties	9.47	0.17	9.35	0.20	9.46	0.25	9.35	0.26
Current portion of lease liabilities	11.52	0.20	10.92	0.24	10.07	0.28	25.33	0.69
Current income tax payable	129.98	2.29	85.61	1.88	48.14	1.25	56.39	1.55
Current provisions for employee benefits	11.11	0.20	-	-	-	-	-	-
<b>Non-current liabilities</b>	<b>138.90</b>	<b>2.41</b>	<b>130.14</b>	<b>2.85</b>	<b>96.46</b>	<b>2.51</b>	<b>103.55</b>	<b>2.84</b>
Long-term loans from financial institution	-	-	-	-	-	-	-	-
Lease liabilities	49.20	0.87	60.54	1.33	51.88	1.35	65.90	1.81
Deferred tax liabilities	1.05	0.02	2.97	0.07	3.00	0.08	2.91	0.08
Non-current provisions for employee benefits	82.49	1.45	61.82	1.36	38.61	0.99	27.81	0.78
Other non-current liabilities	4.16	0.07	4.81	0.11	4.97	0.13	7.13	0.20
<b>Equity</b>	<b>3,885.88</b>	<b>68.59</b>	<b>3,380.05</b>	<b>73.68</b>	<b>3,006.47</b>	<b>78.12</b>	<b>2,872.11</b>	<b>78.78</b>
Issued and paid-up share capital	308.29	5.43	308.29	6.78	308.09	7.95	304.38	8.35
Share premium on ordinary shares	1,082.23	19.05	1,082.23	23.73	1,021.35	26.54	975.61	26.75
Share-based payment reserve	5.91	0.10	-	-	-	-	-	-
Treasury shares	(12.57)	(0.22)	-	-	-	-	-	-
Warrants	-	-	-	-	19.03	0.49	27.80	0.78
Retained earnings – Legal reserve	30.84	0.54	30.84	0.68	30.84	0.80	30.84	0.85
Retained earnings – Treasury shares reserve	12.57	0.22	-	-	-	-	-	-
Retained earnings – Unappropriated	2,392.28	42.12	1,839.30	40.32	1,533.85	39.85	1,433.30	39.30
Difference from common control transactions	(4.37)	(0.08)	(4.37)	(0.10)	(4.37)	(0.11)	(4.37)	(0.12)
Currency translation differences	2.34	0.04	1.52	0.03	(0.91)	(0.02)	4.03	0.11
Equity attributable to non-controlling interests	78.36	1.38	102.24	2.24	100.79	2.62	101.52	2.78

## Income Statement

### Statement of comprehensive Income – Consolidated financial statements

Statement of comprehensive income	Consolidated financial statements							
	31 December							
	2023		2022		2021		2020	
	Million Baht	%	Million Baht	%	Million Baht	%	Million Baht	%
<b>Revenue</b>								
Total revenue	6,207.71	102.66	4,899.51	107.29	3,712.77	107.80	3,320.93	101.82
Revenue from sale of goods	6,052.57	100.00	4,568.40	100.00	3,444.16	100.00	3,268.08	100.00
Other income	145.84	2.41	333.11	7.29	268.61	7.80	52.85	1.82
Accounting adjustments	-	-	-	-	-	-	-	-
Gain from change in interest in associate	-	-	-	-	-	-	-	-
Net foreign exchange gain	9.30	0.15	-	-	-	-	-	-
<b>Total revenue (according to financial statements)</b>	<b>6,207.71</b>	<b>102.66</b>	<b>4,899.51</b>	<b>107.29</b>	<b>3,712.77</b>	<b>107.80</b>	<b>3,320.93</b>	<b>101.82</b>
<b>Expenses</b>								
Cost of sales of goods	3,341.39	55.21	2,702.90	59.19	2,069.13	60.66	2,067.23	63.26
Accounting adjustments	-	-	-	-	-	-	-	-
<b>Cost of sales (according to financial statements)</b>	<b>3,341.39</b>	<b>55.21</b>	<b>2,702.90</b>	<b>59.19</b>	<b>2,069.13</b>	<b>60.66</b>	<b>2,067.23</b>	<b>63.26</b>
Distribution costs	988.39	16.30	982.88	21.52	759.88	22.06	451.48	13.81
Administrative expenses	512.24	8.46	383.27	8.39	318.26	9.24	298.38	9.13
Net foreign exchange loss	-	-	8.51	0.19	5.68	0.16	5.91	0.18
Share of losses from investments in associate	-	-	-	-	-	-	-	-
Finance costs	2.55	0.04	2.29	0.05	2.52	0.07	3.15	0.10
<b>Total expenses</b>	<b>4,842.57</b>	<b>80.01</b>	<b>4,079.85</b>	<b>89.34</b>	<b>3,175.47</b>	<b>92.20</b>	<b>2,826.13</b>	<b>86.48</b>
TFRS 9	(19.74)	(0.33)	(3.87)	(0.08)	(0.86)	(0.02)	2.87	0.08
Share of loss from associates accounted for using equity method	(20.12)	(0.33)	0.34	0.01	(20.23)	(0.59)	(15.55)	(0.48)
<b>Profit before income tax expense</b>	<b>1,325.28</b>	<b>21.90</b>	<b>816.14</b>	<b>17.87</b>	<b>516.21</b>	<b>14.99</b>	<b>481.92</b>	<b>14.75</b>
Tax expense	274.77	4.54	161.71	3.54	105.98	3.08	95.97	2.94
<b>Profit for the year</b>	<b>1,050.51</b>	<b>17.36</b>	<b>654.43</b>	<b>14.33</b>	<b>410.23</b>	<b>11.91</b>	<b>385.95</b>	<b>11.81</b>
<b>Profit (loss) attributable to:</b>								
Owners of the parent	1,074.20	17.75	653.15	14.30	410.81	11.93	380.18	11.83
Non-controlling interests	(23.68)	(0.39)	1.28	0.03	(0.58)	(0.02)	5.79	0.18
	1,050.52	17.36	654.43	14.33	410.23	11.91	385.95	11.81

### Statement of Cash flows – Consolidated financial statements

Statements of Cash flows	31-Dec-23	31-Dec-22	31-Dec-21	31-Dec-20
Net cash from (used in) operating activities	1,883,695,257	1,014,952,626	693,388,614	539,910,069
Net cash from (used in) investing activities	(868,328,754)	(792,091,491)	(215,802,827)	(251,551,165)
Net cash from (used in) financing activities	(535,326,334)	(308,667,556)	(289,372,337)	(275,663,481)
Cash and cash equivalents at 1 January	296,805,526	382,609,637	194,389,005	181,695,045
Effect of disposals of investments in subsidiary	-	-	-	-
Effect of exchange rate changes on cash and cash equivalents	(4,641,662)	2,312	6,962	(1,463)
<b>Cash and cash equivalents at 31 December</b>	<b>564,204,036</b>	<b>298,806,526</b>	<b>382,609,637</b>	<b>194,389,005</b>