

**DISCOUNTED CASH FLOW VALUATION OF
AP (THAILAND) PUBLIC COMPANY LIMITED**

The logo of Mahidol University is a circular emblem. It features a central golden figure, likely a deity or a royal figure, set against a blue background. The figure is surrounded by a golden border containing Thai script. The entire emblem is rendered in a light, semi-transparent style.

KORAWIT SAMPAOSONG

**A THEMATIC PAPER SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR
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COLLEGE OF MANAGEMENT
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DISCOUNTED CASH FLOW VALUATION OF AP (THAILAND) PUBLIC COMPANY LIMITED

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M.M. (CORPORATE FINANCE)

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ABSTRACT

Asian Property or AP (Thailand) Public Company Limited was established in 1991 engaging in the business of property development which covers the revenues from selling detached houses, and condominiums. The company is directed by Mr. Anuphong Assavabhokin as chief executive officer and a major shareholder. AP Thailand operates with the goal of being a property developer offering products or services that fulfill customers, together with associated parties to have a joyful life. To lead the organization to be number 1 in the nation's real estate industry, The company has strategies to transform itself to be an unconstrained leader with great flexibility along with a corporate culture that prefers innovation DNA, emphasizing digital-oriented operations and marketing.

The valuation method aims to get the target price of AP stock in the period by applying the discounted cash flow for the upcoming 4 years, from 2023 to 2027. The approach requires the variables to gain for a result: revenue, terminal value, weighted average cost of capital, and long-term growth rate. The target price of AP stock at the end of 2024 is approximately 14.61 baht which has an upside from present around 30%. This means the AP stock has become undervalued compared to its current market price. Thus, I would like to recommend "BUY" the stock.

**KEY WORDS: REAL ESTATE/ VALUATION/ DISCOUNTED CASH FLOW/
GROWTH/ COST**

47 pages

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LIST OF ABBREVIATIONS

AP	AP (Thailand) Public Company Limited
SENA	Sena Development Public Company Limited
ORI	Origin Property Public Company Limited
SUPALAI	Supalai Public Company Limited
LH	Land & House Public Company Limited
CAGR	Compound Annual Growth Rate
CAPM	Capital Asset Pricing Model
CAPEX	Capital expenditure or capital expense
COGS	Cost of Goods Sold
EBIT	Earnings before Interest and Tax
EBITDA	Earnings before Interest, Taxes and Depreciation
GDP	Gross Domestic Production
SG&A	Selling, General and Administrative Expenses
WACC	The weighted average cost of capital

CHAPTER I

BUSINESS DESCRIPTION

Firstly, we will be providing a brief overview background and Introduction to Asian Property (1.1), Business overview (1.2) where the topics that will be covered is the Portfolio of AP, different Product Types by their prices, Revenue Structures, Real Estate Activities, etc. We will also be discussing about the Competitive Strategies (1.3) the topics covered would be the Board of Directors, Company Structures, and the Governance Policies of Asian Property.

1.1 Introduction to AP

AP (Thailand) Public Company Limited, a real estate developer mainly operating in Thailand, develops properties and offers services covering townhouses, detached and single houses, as well as condominiums. These properties are primarily located in Bangkok and its vicinity. The company also focuses on development in urban areas across the country to meet the widespread demand. This is achieved by leveraging the company's strengths in residential design, quality materials, and the enduring good reputation of AP.

The company was established in 1991 by Mr. Anuphong Assavabhokin and Mr. Pichet Vipavasuphakorn, who are major shareholders and have led the organization till today. AP went public and was listed on the Stock Exchange of Thailand (SET) in 2000, acquiring Prefabricated Floor PCM Public Company Limited. In 2004, AP divested all shares of PCM Construction Material Company Limited to focus the business exclusively on property development. The company's primary source of income is derived from real estate sales, representing over 90 percent of total revenue (AP, 2023). Real estate sales comprise two main components: low-rise projects, accounting for approximately 85 percent, and high-rise projects, making up less than 10

percent based on the average of the last five years. Additionally, the remaining portion of total revenue comes from services.

1.2 Business Overview

AP Brand Portfolio

AP Thailand Public Company Limited is a famous real estate company with a diverse range of residential products, including townhomes, single detached houses, and condominiums, available in both Bangkok and upcountry areas. AP categorizes its customer segments into six groups, ranging from mass level to Super Luxury. The company offers a variety of projects to diverse the needs and preferences of its customers in terms of functionality, styles, and locations.

The selection of accommodation is strategically aligned with the marketing strategy, taking into consideration of the customer's preferences, economic cycles, and investable locations. For instance, townhomes and single detached houses are positioned on the outskirts and surrounding areas of Bangkok, while condominiums are strategically located with convenient access to metro lines or modern transport systems. This ensures easy and quick commutes from home to the workplace, especially in business districts, as well as proximity to lifestyle amenities such as department stores, restaurants, and hospitals (REPORT, 2022). The company provides a wide array of products across various genres and widespread locations throughout the country, in order to diverse the needs of its target customers.

This is a key factor contributing to AP's position as one of the leading property developers in Thailand, with a strong reputation and an established brand. Product portfolios are detailed in Figure 1.1 and Table 1.1.

Figure 1.1 AP Product Ports

	SUPER LUXURY CLASS (A+)	LUXURY CLASS (A)	HIGH CLASS (B+)	UPPPER CLASS (B)	MAIN CLASS (C+)	ECONOMY CLASS (C)	PRICE RANGE
	MIDTOWN			SUBURBAN			
Single detached house	BAAN KLANG KRUNG	THE PALAZZO	SOUL	THE CITY	CENTRO	MODEN	3-50++ MB
Condominium		THE ADDRESS	RHYTHM	Life	aspire		Avg. 58,000-250,000 Baht/Sq.m
Townhome		BAAN KLANG MUANG CLASSE		บ้านกลางเมือง	Pleno	Pleno TOWN	1.69-25 MB
Twin house			บ้านกลางเมือง THE EDITION	Brand PLENO			6-12 MB
Upcountry					อภิตาวน์		1.99-6++ MB

Source: (REPORT, 2022)

Table 1.1 Types of Products Classified by Price

Brand	Type	Price Range
Baan Klang Krung	Townhouse	Baht 10 Million
Baan Klang Muang	Townhouse	Baht 4-7 Million
Pleno	Townhouse	Baht 1.8-2.4 Million
BIZTOWN	Home Office	Baht 6 Million
The Palazzo	SDH	Baht 12-35 Million
Soul	SDH	Baht 12-30 Million
Centro	SDH	Baht 5-8 Million
The City	SDH	Baht 8-15 Million
Galerie	Condominium	Baht 25-100 Million
The Address	Condominium	120,000 Baht/sq.m.
Rhythm	Condominium	90,000-120,000 Baht/sq.m.
Life	Condominium	90,000 Baht/sq.m.
Aspire	Condominium	48,000-82,000Baht/sq.m.
Coo	Condominium	Baht 1.2-1.5 million

Source: (REPORT, 2022)

The figure and table above illustrate the types of products and customer segments which are categorized by affordability of the Customers. AP offers a diverse range of single houses under six different brands, ranging from BAAN KLANG KRUNG (super luxury class A+) to CENTRO (main class with a starting price of 5 million baht). These houses are strategically located in midtown areas. The brand MODEN, an economy-class option (C), is located in suburban areas with an initial price of 3 million baht according to (Table 1.1) The condominium portfolio of the four brands is: ADDRESS, RHYTHM, LIFE, and Aspire.

These are mainly located in urban areas and business districts, emphasizing convenient living, with prices ranging from 58,000 to 250,000 baht per square meter. Townhome brands span from the luxury class (A), such as CLASSE, to PLENO, which is in the main class (C+). Prices for these townhomes range from 1.69 to 25 million baht. Additionally, AP has launched two brands in the Townhouse category: BAN KLANG MUANG and Grande PLENO. These are located in midtown areas with starting prices ranging from 6 to 12 million baht.

The brand APIWAN focuses on meeting housing demand in upcountry areas and for affordable groups, with prices ranging from 1.99 million to more than 6 million baht (Meeting, 2023).

Revenue Structure

The company's revenue structure reveals that the primary source of revenue comes from the sale of real estate, accounting for 93.9% of the total revenue (including both low-rise and high-rise). This marks a significant increase from 75.3% in 2021, as reported in the (Meeting, 2023). On the other hand, income from high-rise sales has experienced a notable decline. In 2021, the value was 1,641 million Baht, down from 4,914 million Baht in 2010.

The proportion of high-rise sales to the total income has seen a sharp decrease from 15.4% to 4.8% in 2022. In contrast, other revenue streams, such as services, have demonstrated stability in proportion to the total revenue over the last three years, as shown in Figure 1.2. Ultimately, the company's total revenue has consistently grown, reflecting the overall expansion of real estate activities. This is shown in Figure

1.5, showing an increase in total revenue from 29,888 million Baht to 39,939 million Baht respectively.

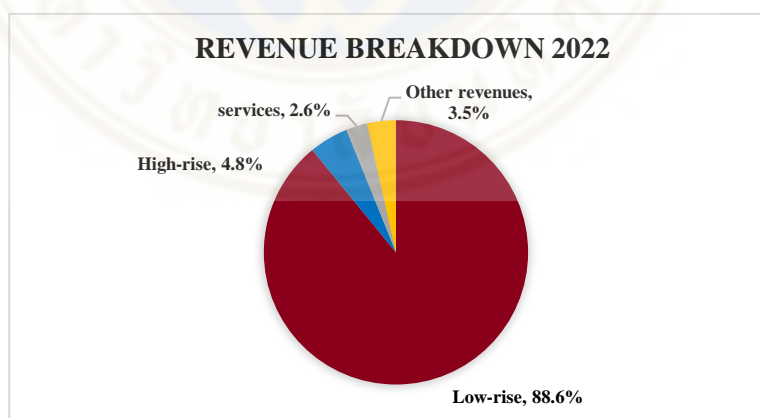
Figure 1.2 Revenue Structure

	For the year ended					
	2022		2021		2020	
	Million Baht	Percent	Million Baht	Percent	Million Baht	Percent
Income from low - rise projects	35,604	89.1	29,238	88.6	24,035	75.3
Income from high - rise projects	1,918	4.8	1,641	5.0	4,914	15.4
Total income from sale of real estate	37,522	93.9	30,879	93.6	28,949	90.7
Income from services	1,017	2.6	915	2.8	939	2.9
Total income from sale of real estate and associated services	38,539	96.5	31,794	96.4	29,888	93.7
Other income*	1,400	3.5	1,186	3.6	2,018	6.4
Total revenue	39,939	100.0	32,980	100.0	31,906	100.0

*Other revenue included profit share from investment in the associates as per investment equity method.

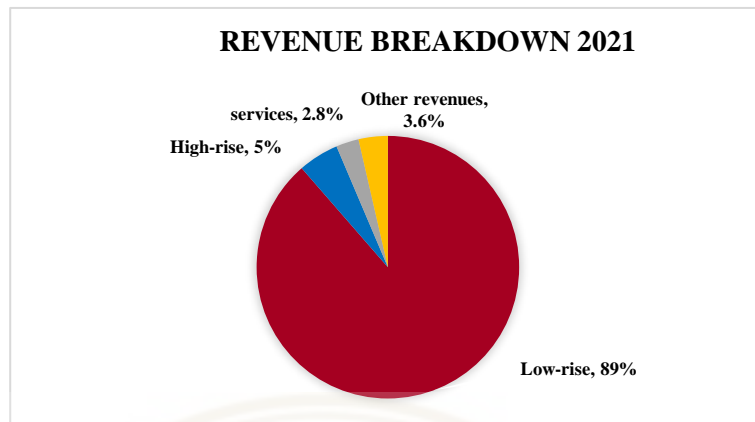
Source: (REPORT, 2022)

Figure 1.3 Revenue Breakdown 2022



Source: (REPORT, 2022)

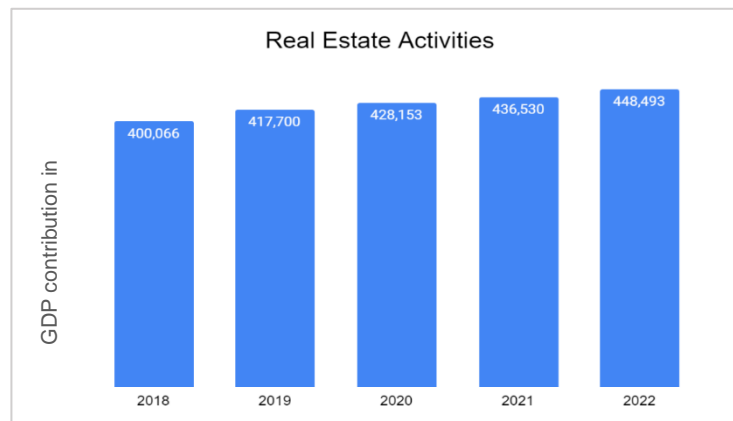
Figure 1.4 Revenue Breakdown 2021



Source: (REPORT, 2022)

When comparing the revenue breakdown between 2021 and 2022 (refer to Figures 1.3 and 1.4), there is minimal difference. The revenue from real estate sales remains relatively stable, ranging between 93% to 95% of the total revenue. The revenue can be further divided into two primary categories: low-rise projects and high-rise projects, as outlined in the (Position, 2023). Low-rise projects, in particular, contribute significantly to the company's income, accounting for 87 to 89% of the total revenue. On the other hand, revenue from high-rise projects, commonly referred to as condominiums, constitutes approximately 5% of the total income. In addition to real estate sales, revenue from services and other consolidated components collectively represents around 6% of the company's total revenue."

Figure 1.5 Real Estate Activities



Source: (NESDC, 2023)

Company Organization

The company's long-term goals and objectives are guided by its vision and mission, which have been committed over the past few years. Additionally, AP conducts regular assessments of its annual vision, mission, and strategies, examining both outcomes and processes to reinforce the corporate objectives that AP collectively adheres to. The Management of AP is led by Mr. Anuphong Assavabhokhin, serving as the Vice Chairman and Chief Executive Officer, as reported by (SET, 2023). Mr. Pichet Vipavasuphakorn fulfills the role of Managing Director. Mr. Anuphong is also the largest individual shareholder of the company, followed by Mr. Charnchai Krairitthichai, as illustrated in Figure 1.8.

Figure 1.6 AP's company structure

AP (Thailand) Public Company Limited			as of 31 st December 2022
Property development business	Other business	Joint venture with Mitsubishi Estate group	
Asian Property Co., Ltd. 99.97%	Bangkok Citysmart Co., Ltd. (Property brokerage) 99.99%	51.00% of total shares held by AP	
Asian Property (Krungthep) Co., Ltd. 99.99%	Smart Service and Management Co., Ltd. (Property management) 99.99%	Premium Residence Co., Ltd.	
AP (Phetchaburi) Co., Ltd. 99.99%	SEAsia Leadavation Center Co., Ltd. (Training) 99.05%	99.99% of total shares held by Premium Residence Co., Ltd.	
Thai Big Belly Co., Ltd. 99.99%		AP (Ratchayothin) Co., Ltd.	
Asian Property (2018) Co., Ltd. 99.99%		AP ME 2 Co., Ltd.	
The Value Property Development Co., Ltd. 99.99%		AP ME 3 Co., Ltd.	
Asian Property (2017) Co., Ltd. 99.99%		AP ME 4 Co., Ltd.	
Aventura Co., Ltd. 99.99%		AP ME 6 Co., Ltd.	
	SOE Construction Co., Ltd. (Construction) 99.99%	AP ME 8 Co., Ltd.	
Thonglor Residence Co., Ltd. 99.99%		AP ME 10 Co., Ltd.	
Signature Advisory Partners Co., Ltd. 99.99%		AP ME 12 Co., Ltd.	
RC1 Co., Ltd. 99.99%		AP ME 14 Co., Ltd.	
RC2 Co., Ltd. 99.99%		AP ME 15 Co., Ltd.	
RC3 Co., Ltd. 99.99%		AP ME 16 Co., Ltd.	
RC4 Co., Ltd. 99.99%		AP ME 17 Co., Ltd.	
RC5 Co., Ltd. 99.99%		AP ME 18 Co., Ltd.	
RC6 Co., Ltd. 99.99%		AP ME 20 Co., Ltd.	
Clay More Innovation Lab Co., Ltd. 99.99%			
Carbon2 Co., Ltd. 99.99%			
AP ME 11 Co., Ltd. 99.99%			
AP ME 19 Co., Ltd. 99.99%			
Homerun PropTech Co., Ltd. 99.99%			

Shares held by subsidiary

Source: (REPORT, 2022)

Figure 1.7 Board of Directors

Information	Board of Directors / Management	Opportunity day & Company snapshot
Name	Position	
Mr. NARIS CHAIYASOOT	CHAIRMAN OF THE BOARD	
Mr. ANUPHONG ASSAVABHOKHIN	CHIEF EXECUTIVE OFFICER, VICE CHAIRMAN	
Miss KITTIIYA PONGPUJANEEGUL	DIRECTOR	
Mr. VISANU SUCHATLUMPONG	DIRECTOR	
Mr. PICHET VIPAVASUPHAKORN	DIRECTOR	
Mr. SIRIPONG SOMBUTSIRI	DIRECTOR	
Mr. WASON NARUENATPAISAN	DIRECTOR	
MR. PORNWUT SARASIN	INDEPENDENT DIRECTOR	
Mr. NONTACHIT TULAYANONDA	INDEPENDENT DIRECTOR, AUDIT COMMITTEE	
Mr. KOSOL SURIYAPORN	INDEPENDENT DIRECTOR, AUDIT COMMITTEE	
Mr. SOMYOD SUTEERAPORNCHAI	INDEPENDENT DIRECTOR, AUDIT COMMITTEE	
Mr. YOKPORN TANTISAWETRAT	INDEPENDENT DIRECTOR	
Mr. PHANPORN DABBARANSI	CHAIRMAN OF THE AUDIT COMMITTEE	

Source: (SET, 2023)

Figure 1.8 Major Shareholders**Top 10 Shareholders**

Rank	Shareholders	# Shares (Shares)	% Shares
1	MR. ANUPHONG ASSAVABHOKHIN	670,047,561	21.30
2	บริษัท Thai NVDR Company Limited	531,413,835	16.89
3	NORTRUST NOMINEES LIMITED-THE NORTHERN TRUST COMPANY RE IEDU UCITS CLIENTS 10 PCT ACCOUNT	133,960,574	4.26
4	STATE STREET EUROPE LIMITED	96,411,260	3.06
5	SOUTH EAST ASIA UK (TYPE C) NOMINEES LIMITED	80,974,051	2.57
6	นาย ชานูชัย ไกรฤทธิชัย	62,000,060	1.97
7	นาย JAROONSAK BUNTOONGGINDA	59,884,000	1.90
8	นาย พิเชษฐ วิศวศุภกร	59,109,666	1.88
9	BNY MELLON NOMINEES LIMITED	57,156,488	1.82
10	THE BANK OF NEW YORK MELLON	51,666,601	1.64

Source: (SET, 2023)

The company's organizational structure is centered around the Board of Directors, responsible for conveying the organization's values, mission, and vision to AP's stakeholders. Additionally, the board plays a crucial role in overseeing the implementation of management policies and procedures on behalf of the shareholders. Figure 1.9 illustrates the organizational structure, highlighting the positions within the

board and management levels. Mr. Anuphong Assavabhokin serves as the Chief Executive Officer, leading the business, with Mr. Pichet Vipavasuphakorn as his assistant in the role of Managing Director.

The company has various committees with distinct responsibilities and roles, operating independently of management's interests. These committees, including the Corporate Governance and Risk Management Committee, Audit Committee, and Internal Audit, among others, are tasked with monitoring and reviewing the execution of management responsibilities (Policy, 2023).

Figure 1.9 AP's company structure



Source: (Chart, 2023)

1.3 Competition Strategies

AP Thailand operates under the mission 'EMPOWERING LIVING.' The mission is rooted in the goal of becoming a premier property developer, providing products and services that not only satisfying the customers but also enabling them, along with associated parties, to lead joyful lives of their own choices, as outlined in the (Meeting, 2023). The Company has implemented three main strategies which are the core playbook to be the leading organization in the nation's real estate industry.

- To establish itself as an unconstrained leader with exceptional agility and flexibility, particularly in challenging environments, is one of AP Thailand's primary strategies, as outlined in the (Meeting, 2023). The company is undergoing a transformation to become a decision-making leader in the new world, emphasizing independence and responsibility to customers, suppliers, and all stakeholders. The focus is mainly on being 'customer-centric' rather than solely following the corporate's requirements. This approach enables AP to rapidly identify and address the evolving perspectives and needs of customers in the face of the swiftly changing global landscape. The decentralization of decision-making is seen as more advantageous than concentrating power within a few groups in the organization.

- Another key strategy outlined in the (Meeting, 2023) is the establishment of a corporate culture that embraces an innovation DNA and cultivates design thinking. The goal is to empower employees to innovate and deliver products or services that contribute to the well-being of individuals and communities. The emphasis is on equality, where everyone is encouraged to participate and contribute to the adoption of innovation, regardless of their position, role, or responsibility within the company. AP believes that encouraging this culture will inspire employees to generate new ideas, actively seek opportunities, and enhance both individual and organizational strengths and competencies.

- Embracing a digital-first approach is a important strategy outlined in the (Meeting, 2023), to focus on 'Everything Digital.' The company is actively pushing all of its businesses towards digital-oriented operations, strategically positioning itself to thrive in dynamic environments. The organization is grounded in the belief that this digital transformation facilitates swift responses to customer needs and fosters innovation, utilizing the solid and fast data, enabling the company to quickly identify and address the unmet needs of homebuyers. The primary focus is on delivering 'the experience of living' through power and convenient products and services, with an unwavering commitment to buyers as the top priority.

- In terms of marketing and sales, AP emphasizes the strong demand of online and digital media. Recognizing the importance of these platforms, the company views them as crucial vehicles for pursuing growth. The accessibility and reach provided by online and digital media enable the company to engage with the new generation of

customers anytime, anywhere, all within a cost-effective budget. Additionally, these platforms offer diverse channels and features, including motion and voice, enhancing the company's ability to connect with its audience.

1.3 Corporate Governance & Sustainability

AP guides its business with a focus on sustainability, social responsibility, and the optimal benefit of all stakeholders through the continuous improvement of quality products and services. With a commitment to enhancing the well-being of customers, AP aims to address and fulfill customer needs and satisfaction, particularly in the face of uncertain situations and challenges. The company believes that integrating Environmental, Social, and Governance (ESG) considerations into business operations and services will allow stakeholders to deeply appreciate the company's genuine intentions. This, in turn, is expected to be reflected in the delivery of valued products, services, and executions, as highlighted in the (Meeting, 2023).

Development to Accommodate the Environmental Changes

Realizing the essentials of environmental issues, the company has a mission to create the policy and operational guidance for complying with the legal and regulations in the business context even going beyond the standard and setting the goals related to the environment as follows:

- Dealing with climate change, a company set a goal to reduce releasing Greenhouse gases by 20% by the end of 2023 from its base of 2021.
- Coping with air pollution especially reducing PM 2.5 of construction in many projects
 - Efficient resource and waste management
 - Construction materials and product development (Meeting, 2023)

Corporate Social Responsibility

The company deeply acknowledges the impacts of social activities, encompassing associations, communities, and social development. It expresses its

commitment through corporate values that prioritize human resources, aligned with a mission to contribute in creating a better society and environment. AP has consistently generated value and developed new innovations crucial for economic, social, and environmental advancement. The business strategically defines its social initiatives, categorized into three key attributes: improving society, developing the environment, and sharing skills and wisdom as outlined in the (Meeting, 2023). These aspects play a crucial role in every business activity, serving as important parts for management and stakeholders. They contribute to steering AP towards the achievement of its valuable mission, surpassing societal expectations.

Corporate governance policy

AP maintains a dedicated Corporate Governance and Risk Management Committee responsible for monitoring and reviewing the execution of the Good Corporate Governance guidelines outlined in 2017. This committee actively engages with the business's operations on a quarterly basis, with the Board of Directors conducting an annual review based on the priority of each agenda. The company demonstrates a strong commitment to corporate governance policies, emphasizing zero tolerance for corruption or bribery. Guidance and information related to corporate governance are regularly disseminated through the company's devices and email communications to all employees, as detailed in the (Meeting, 2023). Furthermore, the company's approach to corporate governance aligns with practicality and productivity, in accordance with the expectations set by the Stock Exchange of Thailand for listed companies. This reflects AP's proactive efforts to recognize and adopt corporate governance practices.

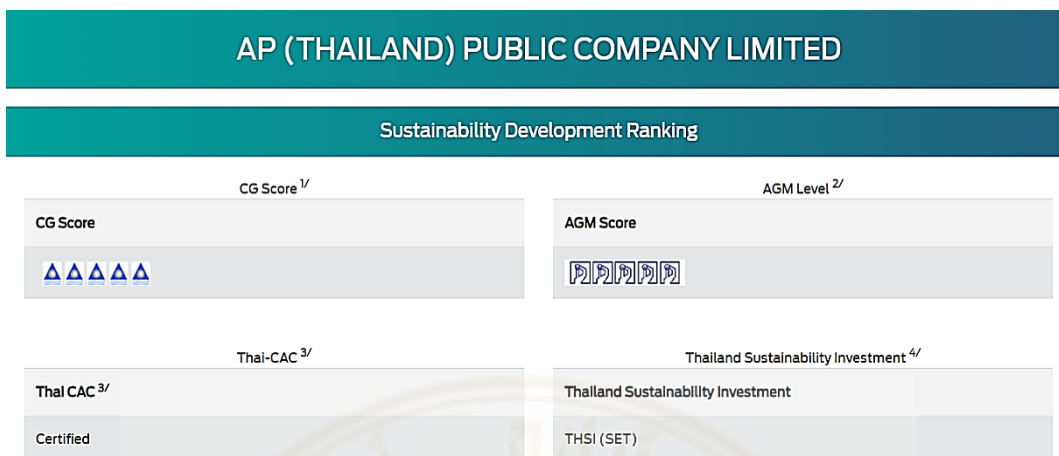
Figure 1.10 AP's CG Credential



Source: (REPORT, 2022)

AP (Thailand) has achieved the highest Corporate Governance (CG) score, as well as the highest Annual General Meeting (AGM) score, as shown on the Securities and Exchange Commission's (SEC) website (refer to Figure 1.11). The company operates its business with a commitment to integrity, transparency, and strict compliance with laws and regulations. This includes a focus on the interests of all stakeholders, guided by the principles of good corporate governance. AP not only adheres to fundamental standards but also embraces ethical operations, considering them as the steadfast foundation for sustainable growth, as mentioned on the (REPORT, 2022)

Figure 1.11 AP's CG Score



Source: (SEC, 2023)

Figure 1.12 AP's CG Assessment by Sector

ข้อมูล Sustainability Development ตามหมวดอุตสาหกรรม (จำนวนรายการที่พบ 59 รายการ)						
ชื่อย่อ	ชื่อบริษัท	CG Score ^{1/}	AGM Level ^{2/}	Thai CAC ^{3/}	THSI ^{4/}	หมวดอุตสาหกรรม
A	บริษัท อารียา พรอพเพอร์ตี้ จำกัด (มหาชน)	3	3	n/a	n/a	SET - PROP
AKS	บริษัท เอเคเอส คอร์ปอเรชั่น จำกัด (มหาชน)	3	4	n/a	n/a	SET - PROP
AMATA	บริษัท อมตะ คอร์ปอเรชั่น จำกัด (มหาชน)	5	5	ได้รับการรับรอง	THSI (SET)	SET - PROP
AMATAV	บริษัท อมตะ วิจัย จำกัด (มหาชน)	5	5	ได้รับการรับรอง	THSI (SET)	SET - PROP
ANAN	บริษัท อนันดา ดีเวลลอปเม้นท์ จำกัด (มหาชน)	5	5	n/a	n/a	SET - PROP
AP	บริษัท เอพี (ไทยแลนด์) จำกัด (มหาชน)	5	5	ได้รับการรับรอง	THSI (SET)	SET - PROP
APEX	บริษัท เอพีเคซี ดีเวลลอปเม้นท์ จำกัด (มหาชน)	-	-	n/a	n/a	SET - PROP
ASW	บริษัท แอสเสทไอวีซี จำกัด (มหาชน)	5	4	ประกาศเจตนารมณ์	THSI (SET)	SET - PROP
AWC	บริษัท แอสเสท เวิร์ด คอร์ป จำกัด (มหาชน)	5	5	ได้รับการรับรอง	THSI (SET)	SET - PROP
BLAND	บริษัท บางกอกแลนด์ จำกัด (มหาชน)	3	3	n/a	n/a	SET - PROP
BRI	บริษัท บริกาเมียม จำกัด (มหาชน)	4	4	ประกาศเจตนารมณ์	n/a	SET - PROP

Source: (SEC, 2023)

CHAPTER II

REAL ESTATE INDUSTRY

In this Chapter, we will be discussing about the Macroeconomic Outlook of Asian Property where we will be focusing on the Global & Thailand's GDP (2.1), IMF's World Economic Outlook Projections from the year 2022 to 2024 (Table 2.1) as well as the Inflation Projection (Figure 2.1). We will also be focusing on Thailand's Inflation, Unemployment Rates, and household debts. We will also be seeing the Trend of Thailand's Real Estate Industry (2.2) in order to know how the Real Estate Industry is moving while also focusing at the Competition Analysis (2.3)

2.1 Macroeconomic Outlook

The Global and Thailand GDP

The International Monetary Fund (IMF, 2023) projects a deceleration in the growth of the world economy, slowing from around 3.50 to 4.0 percent in 2022 to an estimated 3.0 percent in 2023 and 2.9 percent in the following year. This falls below the historical average of the past 10 years at 3.8 percent. Developed country economies are expected to grow by approximately 1.5 percent this year and 1.4 percent next year. Notably, the US economy, although remaining more resilient than expected, has experienced initial weakness since the second half of this year due to the impact of the Federal Reserve's tightening monetary policy, including high interest rates and a reduction in the money supply.

The growth of developed economies is primarily affected by challenges faced by large Eurozone economies such as Germany and France. These challenges include energy insecurity arising from the Ukraine war, leading to high inflation across the region, demographic changes, and high financial costs for corporations. (IMF, 2023) also predicts a surge in the growth of developing economies by 4.0 percent in the next couple of years. However, concerns persist regarding China's real estate situation,

potential deflation, and high levels of public and private debt in some emerging countries.

Geopolitical tensions add further risks, impacting both companies and consumers, making it challenging to predict the extent and effects. This contributes to a complex environment with sticky world inflation but prompts corporations to de-risk in their supply chains. Nevertheless, the world economy has a supportive cushion from the recovery in services, particularly in the tourism industry, and advancements in technology and innovation. These factors enable companies to pursue new opportunities and protect profit margins, especially amid the peak policy interest rates of major central banks, which are expected to lower in the future.

Global inflation is projected by the (IMF, 2023) to continue slowing, decreasing from 8.7 percent last year to around 6.9 percent this year and 5 percent in the following years. This forecast is based on the assumption that energy prices will not return to the peak levels seen in 2022 and that supply chain disruptions and pent-up demand after the pandemic will be subdued.

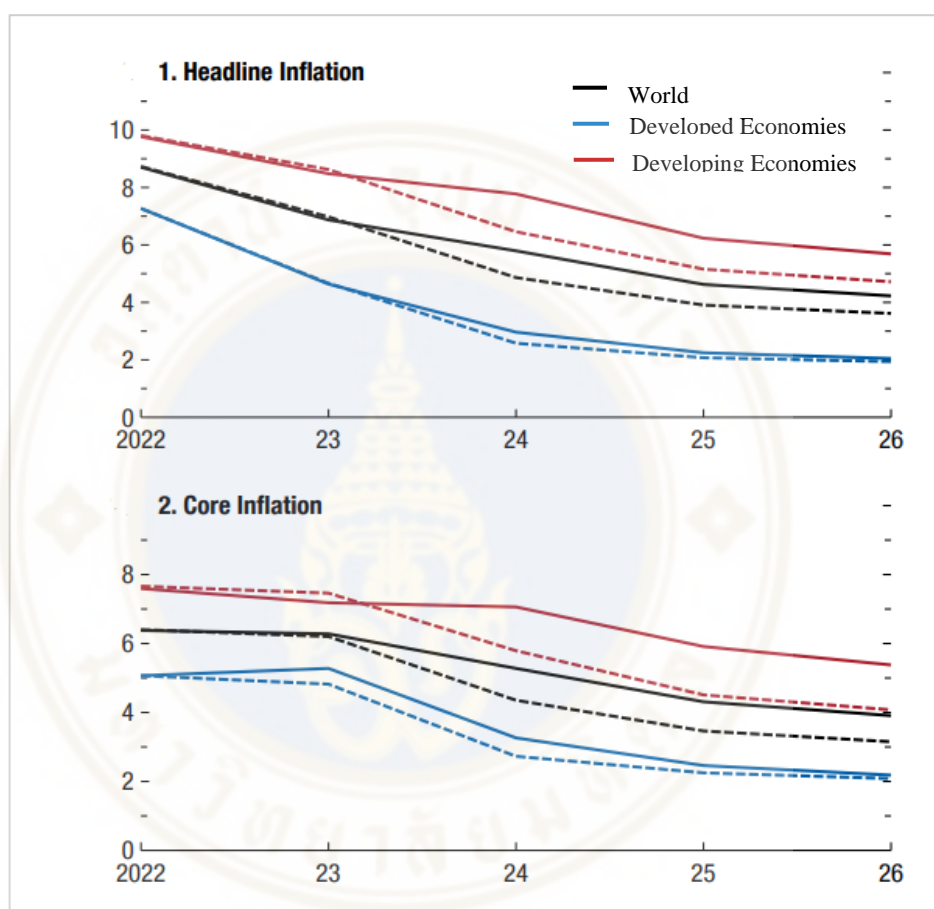
Table 2.1 IMF's World Economic Outlook Projections

(Real GDP growth, annual percent change)	2022	2023	2024
World Output	3.5	3.0	2.9
Advanced Economies	2.6	1.5	1.4
United States	2.1	2.1	1.5
Euro Area	3.3	0.7	1.2
Germany	1.8	-0.5	0.9
United Kingdom	4.1	0.5	0.6
Japan	1.0	2.0	1.0
Emerging and Developing Asia	4.5	5.2	4.8
China	3.0	5.0	4.2
India	7.2	6.3	6.3
Indonesia	5.3	5.0	5.0
Malaysia	8.7	4.0	4.3
Thailand	2.6	2.7	3.2

Vietnam	8.0	4.7	5.8
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Source: (IMF, 2023)

Figure 2.1 Inflation Projection (Percent; dashes = estimated in Apr. 2023, line = estimated in Oct. 2023)



Source: (IMF, 2023)

In 2023, Thailand's output is estimated to experience a surge of approximately 2.5 to 3.0 percent, according to the Office of the National Economic and Social Development Council (NESDC, Economic Report, 2023). The International Monetary Fund (IMF, 2023) indicates a growth rate of about 2.7 percent for this year and 3.2 percent in 2024 as we can see from (Table 2.1). This projection is based on the assumption that Thailand's exports will gradually improve amid easing global demand, geopolitical tensions, and intense competition for global market share. The new

government is expected to face challenges in seeking funding for stimulus measures aimed at boosting the country's economic growth, including a digital wallet program. However, Thailand is notably benefiting from the recovery of tourism and resilient private consumption. Thailand's real estate sector is recognized as one of the most vital contributors to the country's economy, constituting approximately 13% of Thailand's Economic Structure classified by industry exhibited in Figure 2.2

Table 2.2 Developing Economies Projection

Asian Economies	Real GDP			Consumer Prices			Unemployment		
	2022	Projections		2022	Projections		2022	Projections	
(Annual percent change)	2022	2023	2024	2022	2023	2024	2022	2023	2024
Emerging and Developing Asia	4.5	5.2	4.8	3.8	2.6	2.7	-	-	-
China	3.0	5.0	4.2	1.9	0.7	1.7	5.5	5.3	5.2
India	7.2	6.3	6.3	4.7	5.5	4.6	-	-	-
Indonesia	5.3	5.0	5.0	4.2	3.6	2.5	5.9	5.3	5.2
Thailand	2.6	2.7	3.2	6.1	1.5	1.6	1.3	1.2	1.1
Vietnam	8.0	4.7	5.8	3.2	3.4	3.4	2.3	2.1	2.1

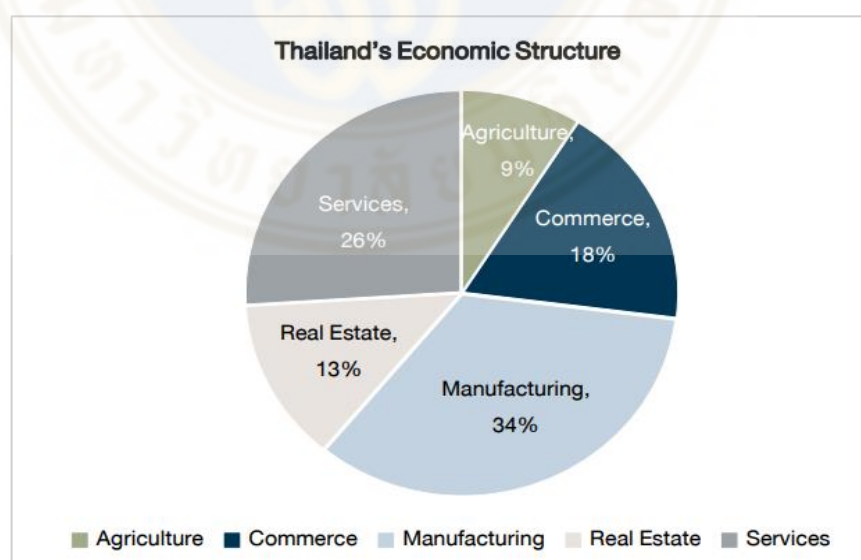
Source: (IMF, 2023)

Thailand's inflation, unemployment, and household debt

The Bank of Thailand (Thailand, 2023) forecasts a moderate increase in the country's headline inflation for this year, projecting a rise of about 1.6% from the previous year. The expectation is for inflation to further increase in the range of 1.6 to 1.8 percent next year. This projection is based on the decline in prices of food, energy, and electricity due to a global decrease in demand for energy and commodities. However, there is a possibility that inflation could re-accelerate or remain stubbornly high as private consumption increases with the reopening of the country to tourists, the effects of government stimulus programs supporting the domestic economy, and challenges arising from climate change affecting agricultural outputs. In summary, BOT

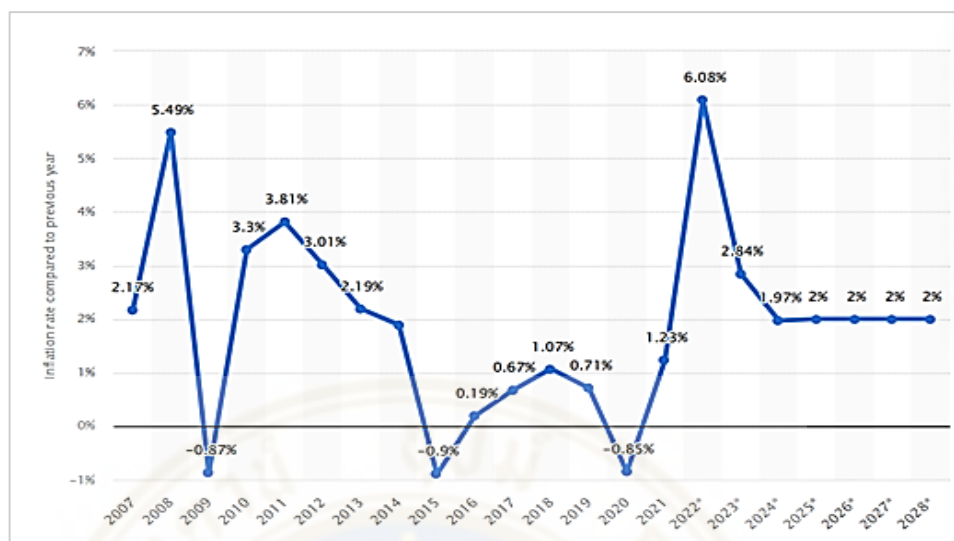
holds an optimistic view of Thai headline inflation for the upcoming phases, anticipating it to be within BOT's target range of 1 to 3 percent as we can see from (Table 2.2) This expectation is attributed to the balancing effect of promoting and demoting factors. (NESDC, Economic Report Q1/2023, 2023) reports positive developments in the Thai labor market since the first half of 2022, with the country's employment rate increasing by 2.4 percent from the previous year. This growth is supported by a healthy rebound in international travelers following the lifting of Covid-19 restrictions and stimulus packages from the state. NESDC also predicts a decline in Thailand's unemployment rate in the coming quarters, reaching 0.9 percent by early next year and remaining stable in 2024. This positive outlook supports Thai consumers and the country's consumption, which the government prioritizes as the key engine for driving economic growth in the next phases. However, challenges persist, with potential limitations on household spending and concerns about vulnerable financial health. The household debt level in Thailand, relative to GDP, stands at 90 percent, with no sign of decline (Figure 2.2). Addressing this issue remains a priority for the new government and the Bank of Thailand.

Figure 2.2 Thailand's Economic Structure



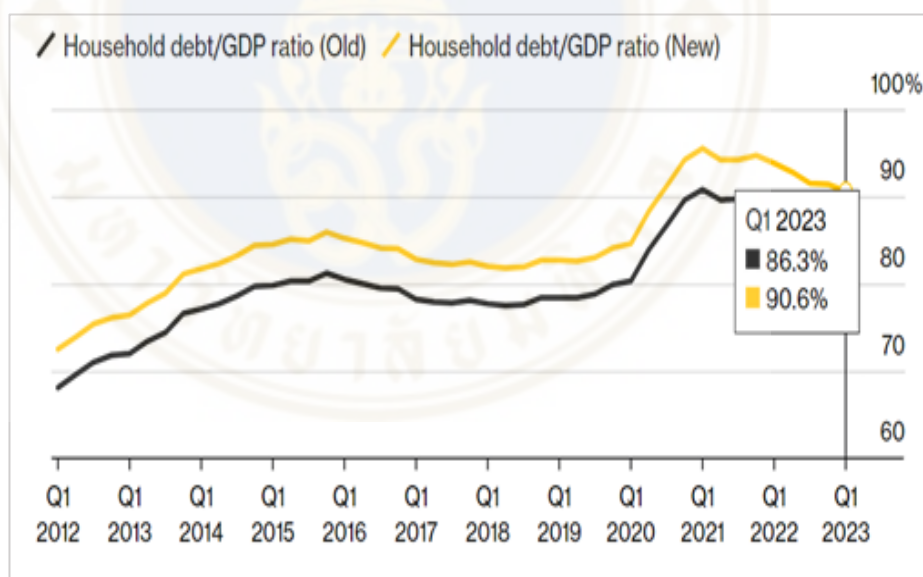
Source: (Thailand, 2023)

Figure 2.3 Thailand Inflation Forecast



Source: (Statista, 2023)

Figure 2.4 Thai Household Debt/GDP Ratio



Source: (Yuvejwattana, 2023)

2.2 Trend of Thailand's Real Estate Industry

Thailand's real estate market showed signs of a rebound in the second half of 2022. However, despite this positive trend, the global economic backdrop has been

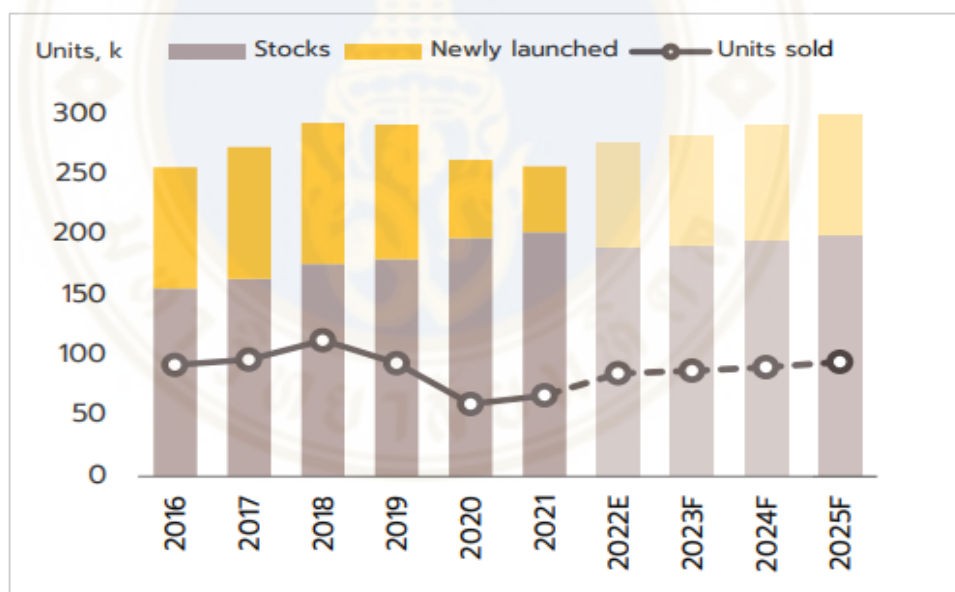
challenging for the industry. The costs of energy and construction materials have escalated due to the struggle for energy supply prompted by the Ukraine war and prolonged over-demand post-pandemic, supported by private consumption. Excess household savings, accumulated through global government stimulus measures, have exceeded pre-pandemic levels, contributing to elevated demand. While the domestic economy remains feeble, private consumption has been hampered by rising inflation, reducing consumer spending power. International buyers have played a significant role in driving growth in Thailand's real estate market, particularly following China's relaxation of pandemic restrictions and Thailand's reopening to travelers.

The Real Estate Information Center of the Government Housing Bank (Lorenzo, 2023) reported a substantial increase in condominiums purchased by non-Thai buyers, with transactions jumping by 79.2% in the first quarter of 2023 compared to the previous year. (CBRE, 2023) noted that the majority of customers in the first half of the year were Thai (89%), with the remaining mainly from various Asian countries. The agency anticipates a further increase in foreign buyers, reaching around 18% of total units sold in the coming year. Several factors contribute to the industry's growth, including rising urbanization, infrastructural improvements, and extended public transportation such as new metro lines. The aging society also plays a role, with retirees seeking prospective homes. Government measures to boost affordable housing further stimulate demand. The industry's growth is theoretically tied to the country's positive economic outlook for the next year.

(Klinchuanchun, 2022) estimates a surge in sales of residential housing in the Bangkok metropolitan zone and expects new housing units released into the market to increase over the next two years. Developers may focus on low-rise products in response to real demand, particularly in areas near educational institutions, office districts, industrial zones, and central parts of the Bangkok Metropolitan Region (BMR) alongside metro lines. Demand for low-rise housing remains strong, driven by customers seeking long-term residences with needed spaces or functionalities for remote work. Condominiums remain optimistic, with (CBRE, Midtown and Suburban Markets remains active with downtown launches expect in Q4 2023, 2023) estimating a significant increase in new launches in midtown and suburban areas next year.

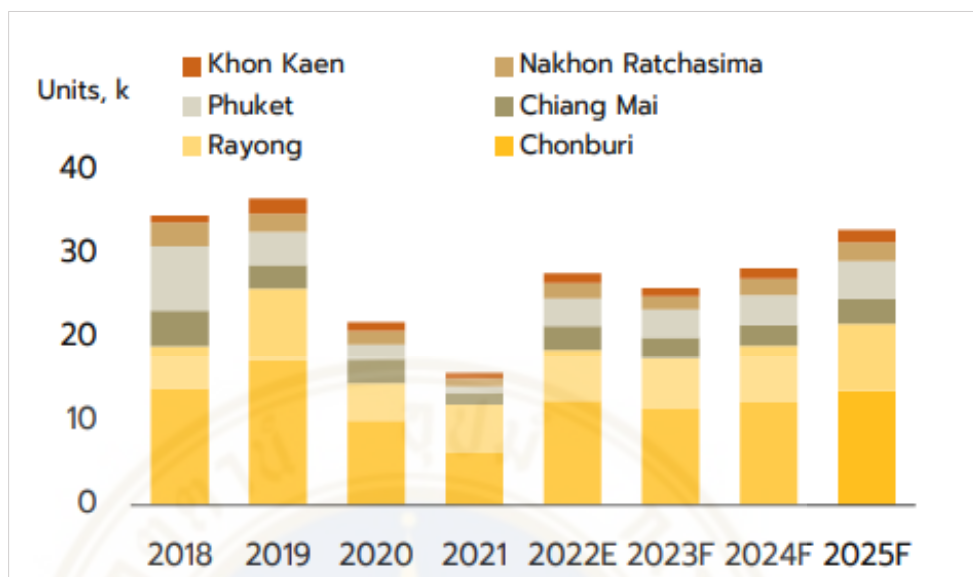
In upcountry regions, especially the main six provinces, (Klinchuanchun, 2022) projects continued expansion in the low-rise market, responding to demand from both domestic and foreign buyers. The areas serve as regional hubs for tourist attractions, industrial zones (especially the Eastern Economic Corridor or EEC), and strategic public investments by the government. Despite these positive trends, Thailand property market faces challenges in the coming years, including higher mortgage rates following the Bank of Thailand's interest rate hikes, tighter financial conditions leading banks to be more cautious about approving housing loans, high household debt levels, and the overall higher cost of living. Additionally, competition from neighboring countries, such as Vietnam and Indonesia, presents a challenge in attracting foreign buyers.

Figure 2.5 Supply Forecast of Housing in Bangkok Metropolitan Region



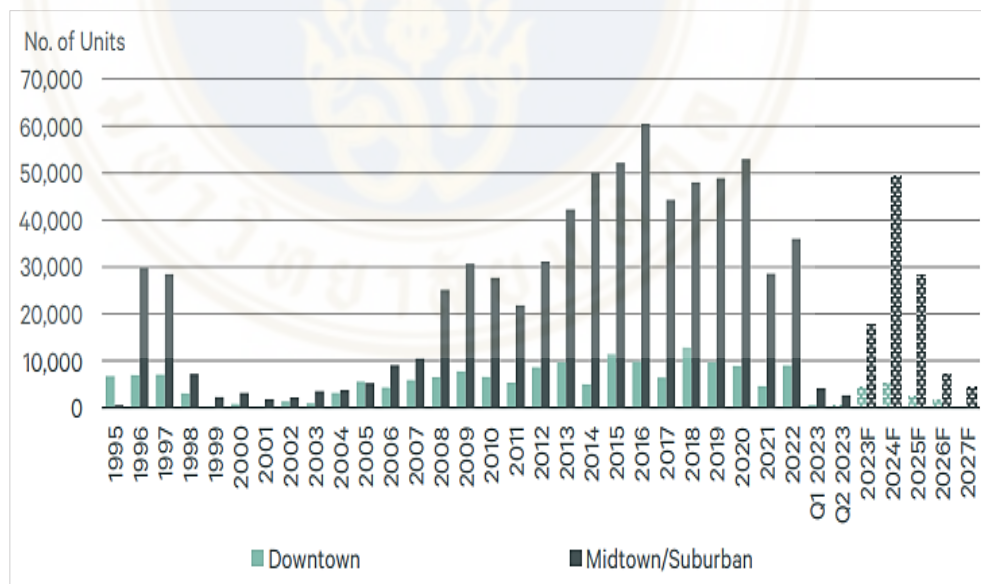
Source: (Klinchuanchun, 2022)

Figure 2.6 Supply Forecast of Housing in Upcountry



Source: (Klinchuanchun, 2022)

Figure 2.7 Newly Completed Condominiums in Bangkok, 1995-2027F



Source: (Youngprapakorn, 2023)

2.3 Competition Analysis

There are a lot of competitions in the Real Estate Industry for AP like:

- LH
- SENA
- SUPALAI
- ORI

LH or also known as Land & House Public Company, Limited was founded in the year 1973 as a property development business. Land & House was formed to be a Company Limited on August 30, 1983. Their main businesses include selling detached houses, townhomes and condominiums in Bangkok as well as other major cities like Chiangmai, Chiangrai, Phuket, etc. Land & House also does rental & service businesses in Thailand & other countries. In Thailand, they have a hotel under the name “Grande Centre Point” where in the retail business they have Terminal 21 shopping center, while in the US, Land & House also has apartments & hotels. (House, 2023)



In the 2nd Quarter of 2023, Land & Houses had a total cash of 5.78 million baht and a Net Profit of around 9.43 million baht.

SENA or Sena Development was founded in the year 1993 under the name “Krungthep Keha Group” and later changed its name to Sena Development. Sena Development focuses on residential & commercial properties like giving out for sales, rentals, property management, and related services. The properties that they sell are condominiums, houses & townhomes while also focusing on the business segments of property development like golf course services, and apartment for services. Sena development also focuses on single-family houses, semi-detached as well. (Development, 2023)



In the 2nd Quarter of 2023, SENA Development has a total cash of 1.106 million baht and a Net Profit of around 213.30 million baht.

SPALI or Supalai Public Company Limited was founded on June 26, 1989. In 1992, the Company had transformed into a public company, and they were listed on the Stock Exchange of Thailand on November 17, 1993. Supalai began its operations with real estate development in housing & commercial buildings. During the beginning phase of Supalai's business was dealing with the construction of single detached houses as well as townhomes where they were in the form of closed communities. Over time the company grew to expand its real estate to condominiums, offices, hotels, and resorts. Currently, the Company is mainly focusing on building low & high-rise housing projects both in Bangkok and other provinces (Supalai, 2023).

 A large, faint watermark of the Supalai logo is visible in the background of this section. It features the word "SUPALAI" in a bold, gold-colored, serif font, centered within a circular emblem that contains Thai text.

SUPALAI

In the 2nd Quarter of 2023, Supalai has a total cash of 3,566.01 million baht and a net profit of 2,781.14 million baht.

ORI or Origin Property Public Company Limited was founded on December 16, 2009, as a real estate development business company in Thailand. They focus mainly on developing residential condominiums & houses along the Mass Transit Railway System both in Bangkok & Eastern Economic Corridor Zone or also known as the EEC. ORI has over 60 companies as subsidiaries. The Company focuses on developing real estate projects with modern designs as well as making the best unit plan designs and excellent after-sales services. ORI has another company called "Primo

Service Solution Company Limited where they focus on Condominium tenant management services as well as condominium juristic person management services (Property, 2023).



In the 2nd Quarter of 2023, Origin has a total cash of 3,866.90 million baht and a net profit of 1,670.92 million baht.



CHAPTER III

VALUATION

This chapter is for finding the company value and the intrinsic value of AP or the target price of AP stock at the end of 2024 by the discounted cash flow (DCF) valuation from projecting the financial model for estimating the cash flow in the future. In this chapter, due to being a real estate development company, the revenue forecast is the first step by projecting the presales of real estate which were expected to become revenue of the company in the future because transactions of the property have the process of payment and transferring of right and ownership between seller and buyer that take time to be recognized revenue into the income statement in Figure 3.2 and 3.3 respectively.

Subsequently, the pro forma income statement would be brought to model the whole income statement with its assumptions in Figure 3.5. The terminal growth rate and cost of capital are components of the DCF approach exhibited and explained in Figure 3.7 WACC calculation following the pro forma income statement part. Eventually, the net present value of the firm and equity throughout the target price and sensitivity analysis are demonstrated in Table 3.1 and Figure 3.9 respectively.

3.1 Pro Forma Income Statement

In this session, the sales projection is computed with historical data from 2018 to 2022 to forecast the cash flow of the firm during the projected period for finding the potential intrinsic value of AP stock. Nevertheless, real estate developer businesses have specific characteristics of cash flow operating that are commonly negative territory in their business life and it is quite complicated to project on. As exhibited in the following contexts, the pro forma income model is formulated after the sales projection with top-down analysis and fundamental assumptions on revenue, cost, and expense.

(million THB)	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F	2027F
Revenue form low-rise projects	17,292	18,144	24,035	29,238	35,604	34,772	36,949	39,829	42,695	45,715
Revenue form condo projects	8,908	4,227	4,914	1,641	1,918	3,864	4,105	4,425	4,744	5,079
Service income	590	565	567	611	646	723	796	832	885	951
Management income	481	558	372	303	370	482	531	555	590	634
Other income	64	164	70	187	167	401.81	442.33	462.24	491.60	528.26
Total revenue	27,335	23,658	29,958	31,980	38,706	40,181	44,233	46,224	49,160	52,826
Cost of sales & service	18,338	15,627	20,458	21,483	25,475	27,323	30,078	31,432	33,429	35,922
Selling expense	2,368	2,309	2,461	2,495	2,946	2,813	3,096	3,236	3,441	3,698
Administrative expense	2,925	3,134	3,699	3,333	4,302	4,018	4,423	4,622	4,916	5,283
Other expense	64	12	2	11	5	10	10	10	10	10
Total Expense	23,695	21,082	26,620	27,321	32,728	34,164	37,608	39,300	41,796	44,912
EBITDA	3,640	2,576	3,339	4,658	5,978	6,017	6,625	6,924	7,364	7,914
Depreciation	(69)	(91)	(230)	(278)	(290)	(261)	(292)	(327)	(366)	(410)
EBIT	3,571	2,485	3,109	4,380	5,688	5,756	6,333	6,597	6,998	7,504
Interest expense	(122)	(247)	(367)	(255)	(103)	(481)	(505)	(530)	(557)	(585)
Provision for income taxes	(779)	(580)	(689)	(869)	(1,229)	(1,135)	(1,254)	(1,305)	(1,386)	(1,489)
Net income	3,952	3,064	4,225	4,542	5,876	4,140	4,574	4,762	5,055	5,430

Figure 3.1 Pro forma statement

*Data from AP Financial Report

The projected period begins from 2022 to 2027 that shows revenue from sales of real estate in 2022 is 37,522 million baht and overall revenue is 38,706 million baht and modestly increase to 52,826 million baht in 2027 which has CARG at roughly 7% both sales of real estate that is the core business and overall because the proportion of the core business represents more than 94 percent of total revenue causing it to dominate the overview of revenue. Total expenses increased from 32,728 million baht to 44,912 million baht with a CAGR of 6.5%. The interest expense has modestly increased in the specified period from 2023 to 2027 with a CAGR of around 5% and depreciation grows at a pace of CAGR of about 12% causing net income to have small growth in terms of CAGR with around 1% on the projection.

3.1.1 Sales Projection

With Top-down analysis, the real estate industry will expand tied to the country's GDP when the economy satisfyingly grows, and employment and wages will advance thus, people get more paid and are confident to buy the property which is a requisite of living while AP does business in the real estate sector. Therefore, I apply its

historical data to see the relationship among these variables to estimate the tendency of the real estate business.

(Million THB)	Historical					CAGR
	2018	2019	2020	2021	2022	
Thailand's GDP	16,373,343	16,889,169	15,661,150	16,166,598	17,367,000	1.48%
Real Estate Activities	400,066	417,700	428,153	436,530	448,493	2.90%
AP Sales	26,200	22,679	28,949	30,879	37,522	9.39%
Real Estate Activities as % of Thailand's GDP	2.44%	2.47%	2.73%	2.70%	2.58%	1.39%
AP Sales as % of Real Estate Activities	6.55%	5.43%	6.76%	7.07%	8.37%	6.31%

Figure 3.2 GDP, Real Estate Activities, and AP's Sales

*Data from NESDB, and AP financial report

3.1.2 Revenue Projection

AP's profit is largely driven by revenue from real estate sales: low-rise projects, and high-rise or condominium projects. Therefore, to find the intrinsic value of AP, the sales forecast plays a significant element in projecting the growth of the company continuing to estimate the company's perpetual growth. To do a sales forecast, there are some assumptions conducted from revenue to cost and expense proportion per revenue which are based on historically authentic data and are then formulated the pro forma income model from 2018 to 2027 that is illustrated at the end of this session.

Key Items and Assumptions

There are 3 main items to forecast AP's revenue, the real estate sector, is idiosyncrasy and has technical terms and methods to recognize revenue into an account which are presales, backlog, and cancellation.

Presale is the number of products booked in the period and accounted into the item when the buyer pays the deposit and signs the contract to buy the product. However, it cannot be recognized as revenue in the income statement because at this stage is still no transfer of the right and control of ownership to the buyer.

A backlog is the accumulated number of presales that have not transferred the right and control of ownership to the buyer yet in the period and it cannot be recognized as revenue in the income statement.

Cancellation is the canceled rate at which buyers abandon buying the property. With the assumptions listed, the backlog forecast for 2018 to 2027 is shown in Figure 3.2. For the assumptions, the details are described below.

a) I assume the growth rate of net sales booking (net presales) at 7% annually from 2023 through 2027 even though the company determines its target presales (net presales) in 2023 for 58,000 million THB in value which increases from the presales in the year-earlier by 15 percent. However, the net presales first 9 months of 2023 appeared to decline from the previous year by 5.7 percent thus, I determine the pace of net presales growth by 7 percent this year and over the coming years as a conservative trajectory to prevent the overestimated outcome and too optimism while CAGR of the net presales in the past 5 years appeared at about 13 percent.

b) The rate of cancellation filled into the formulation is the historical average rate at 45 percent.

c) The weighting of the ending backlog accounted for 40 percent of the total accumulated backlog within the period that was assumed at the same rate over the following 4 years.

d) The proportion of low-rise and high-rise (condo) projects of net sales booking (Presales) is 80 percent and 20 percent respectively.

Backlog AP (THB million)	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F	2027F
Beginning Backlog	41,964	46,381.0	57,545	33,437	28,804	30,402	33,738	36,583	39,337	42,168
Gross sales booking	56,086	56,811	63,923	69,255	85,068	98,078	104,944	112,290	120,150	128,560
Cancellation	(14,788)	(23,953)	(32,268)	(34,206)	(34,653)	(40,194)	(46,319)	(50,951)	(54,067)	(57,852)
Net Sales booking (inc. JV)	41,298	32,857	31,655	35,049	50,414	53,943	57,719	61,759	66,082	70,708
Ending Backlog (inc. JV)	46,381	57,545	33,437	28,804	30,402	33,738	36,583	39,337	42,168	45,150
- from Low Rise	4,922	9,173	8,354	11,568	14,664	15,182	16,462	17,702	18,975	20,318
- from Condo	41,459	48,373	25,083	17,236	15,738	18,556	20,121	21,635	23,192	24,833
Net Sales booking (inc. JV)	41,298	32,857	31,655	35,049	50,414	53,943	57,719	61,759	66,082	70,708
- from Low Rise	19,652	18,419	27,831	32,841	38,974	43,154	46,175	49,407	52,866	56,567
- from Condo	21,646	14,438	3,824	2,208	11,440	10,789	11,544	12,352	13,216	14,142
Net sales booking growth y/y	-4%	-20%	-4%	11%	44%	7%	7%	7%	7%	7%
Cancellation rate	26%	42%	50%	49%	41%	45%	45%	45%	45%	45%

Figure 3.3 Presale Forecast

*Data from AP Presales Update Report

Sales Forecast	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F	2027F
Beginning Backlog	41,964	46,381	47,757	33,437	28,804	30,402	33,513	36,583	39,337	42,168
Net Presales in period	41,298	32,857	31,655	35,049	50,415	53,943	57,719	61,759	66,082	70,708
Revenue	26,200	22,679	28,949	30,879	37,522	37,955	41,054	44,254	47,439	50,794
Ending Backlog	46,381	57,545	33,437	28,804	30,402	33,513	36,583	39,337	42,168	45,150
Revenue of Beginning Backlog	26,200	22,679	28,949	30,879	28,804	30,402	33,513	36,583	39,337	42,168
Revenue of Presales in period	0	0	0	0	8,718	7,553	7,541	7,671	8,102	8,626
Revenue as % of Net presales in period	0%	0%	0%	0%	17%	14%	13%	12%	12%	12%
Time span to recognize revenue from Presales in period (month)	>12	>12	>12	>12	9.9	10.3	10.4	10.5	10.5	10.5

Figure 3.4 Sales Forecast

*Data from AP Presales Update Report

3.1.3 Cost and Expense Forecast

Regarding the cost and expense, the cost of sales or COGS, selling expenses, and cost of services are variable costs and expenditures that have a movement following to a company's sales. Furthermore, the historical financial data shows that the costs of sales represent around 65-68 percent of income over the past few years and selling expenses of about 8%. Therefore, in formulation, it was assumed that the proportion of costs of sales to total revenue would minutely deviate from historical paces, and it would

be set at the highest rate at 68 percent of total revenue from 2023 to 2027. As illustrated in Figure 3.4, AP's Revenue Structure is composed of 68 percent in part of costs of sales, approximately by 1 percent of costs of services, 10 percent of administrative expenses, 8 percent of selling expenses, and a net profit margin proportion of 14 percent. However, the real estate developer business has less fixed costs in administration such as wages transferred to construction business partners and the company has continued to lower the cost of marketing and advertising expenses by taking advantage of the economy of scale to transform into a digital-oriented operation and branding. The estimation of depreciation would be assumed that of the 10 percent of fixed assets in the previous year according to the historical average of the depreciated amount in the company financial statement whereas the fixed assets of the company appeared to expand roughly by 12 percent annually over the last 8 years which is incorporated into the projection. The interest expense in the period would be counted on 3% of the outstanding long-term debt from last year and Thailand's corporate income tax is currently 20% of its annual net profit. Thus, these bases will be incorporated into the pro forma income statement that is shown at the end of the session.

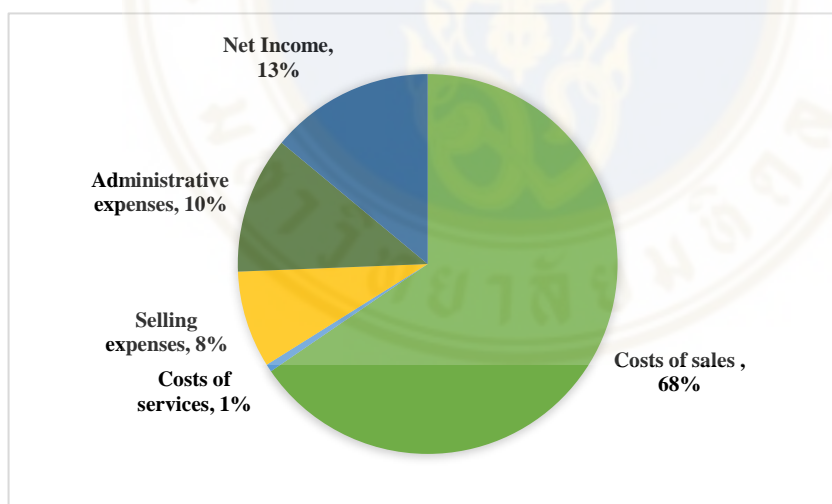


Figure 3.5 AP's Revenue Structure

*Data from AP Financial Report

3.2 DCF Valuation

Discounted Cash Flow (DCF)

The approach, discounted cash flow, is applied to estimate enterprise value and calculate the weighted average cost of capital (WACC) that becomes the discount rate for finding the present value of a firm.

The capital asset price model or CAPM was brought to estimate the cost of equity (R_e) that has variables in the formula. With CAPM, there is a systematic risk item called the company's beta which is the gauge of how a return of stock moves in parallel in terms of direction and degree with the performance of the stock market. The AP's beta is 1.153, measured by taking weekly returns for the past 3 years of the company's stock and market index performance. The beta is to formulate the regression model measuring the relationship between the return of both, the stock and market, and the slope of the linear relationship is obtained as the result indicates according to **Figure 3.6** shown. Consequently, the risk-free rate referred from the 10-year government bond yield as the underlying which is 3.02 percent as of 17 Nov 2023 (source: ThaiMBA). Whereas the equity risk premium, the return that investors expect from equity investment over the risk-free asset, is incorporated in the formula. According to risk premium measuring conducted by Stern School of Business of New York University, (2023), the country's equity risk premium is 7.43%. Therefore, the cost of equity appears to be 11.80 percent.

$$\text{Cost of equity} = R_f + (R_m - R_f) * \text{Beta}$$

Where:

R_E : The required rate of return on equity

R_f : The risk-free rate (10-year Government Bond)

Beta: The gauge of a stock's volatility

$R_m - R_f$: Market risk premium

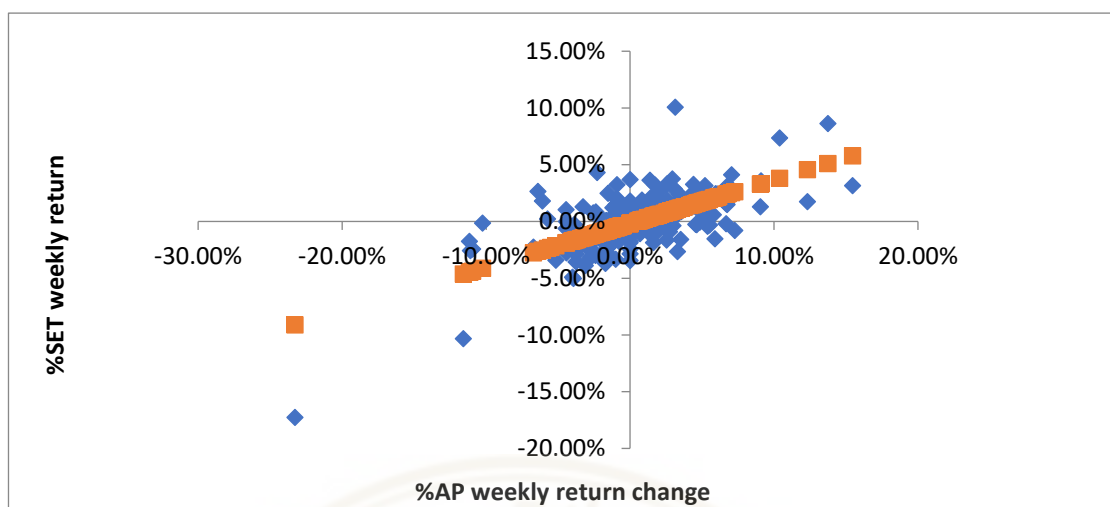


Figure 3.6 Linear Regression of Weekly Return of AP and SET

The cost of debt (R_d) is 2.91 percent which can separate the sources of funding by a loan from the bank and issuing the debentures with cost of funding by 4.8 percent and 2.9 percent respectively according to the financial report 2022, which AP published. I use the weighted debt of total outstanding debt to multiply by the cost of funding which provides the result of the cost of debt deducted by a tax rate of 20%, approximately 3.1 percent.

The weight of debt (W_d) and weight of equity (W_e) are computed from the market value of debt and equity compared to the market value of the total source of financing. Thus, the weight of debt in 2023 is 47.4 percent, and equity of 52.6 percent of overall. Ultimately, the weighted average cost (WACC) would be 7.42 percent. The formula is shown below, and the computation is demonstrated in Figure 3.7 WACC Calculation.

$$WACC = \frac{E}{E+D} * R_E + \frac{D}{E+D} * R_D * (1-T)$$

Where:

E: The market value of Equity

D: The market value of Debt

R_E : The required rate of return on equity

R_D : The cost of debt

T: The corporate tax rate

Beta	1.153
Risk-free (R_f)	3.02%
Market risk premium (MRP)	7.43%
Cost of equity (R_e)	11.80%
Weight of equity (W_e)	52.60%
Cost of debt (R_d)	3.20%
Tax (20%)	20.00%
After-tax cost of debt	2.56%
Weight of debt (R_d)	47.40%
WACC	7.42%

Figure 3.7 WACC Calculation

AP company is projected to show earnings before interest expense and tax in 2023 by 5,756 million baht and 7,504 million baht in 2027 which has a CAGR of about 7 percent. With capital expenditure, I assumed the company would massively invest in property and equipment every 3-year accounted for 2 percent of sales from real estate in the previous year, and a couple of years after that the company would have Capex accounted for 1 percent of real estate sales of the prior year. However, Capex in the commercial real estate business is to finance funds for acquiring, upgrading, and repairing the property including the equipment. Working capital change compared with the prior year appeared negative which is equivalent to 1,779 million baht in 2023 and diminishes to be a negative 1,586 in 2027.

The terminal value is 81,820 million baht that was computed with the assumption the terminal growth of a company is 2% based on the expanding pace of real estate sector activities and the nation's output and the historical inflation rate in 2018-2022 which caused the cost of company's product rise even though AP has a power of pricing or transferring the increasing cost to customers via a higher price offer of products. The present value of the firm was found to be 75,573 million baht and after deducting from the net debt it would have an equity value of amount 41,401 million baht, which is equivalent to 13.16 baht per share at the end of 2023 as the estimated exhibited in Figure 3.8.

PV of Firm Value: 75,573 million Baht

Net Debt: 34,171 million Baht

Equity Value: 41,401 million Baht

No. of outstanding shares: 3,146 million shares

Price per share: 13.16 Baht

						Million Baht
Discount Period	0	1	2	3	4	Terminal Value
Year	2023F	2024F	2025F	2026F	2027F	
EBIT	5,756	6,333	6,597	6,998	7,504	
Tax	(1,221)	(1,336)	(1,490)	(1,501)	(1,489)	
EBIT after tax	4,535	4,997	5,107	5,497	6,015	
Depreciation	261	292	327	366	410	
Working Capital change	(1,779)	(1,760)	(1,724)	(1,667)	(1,586)	
CAPEX	(629)	(386)	(410)	(885)	(474)	
% of real estate sales	1%	0.5%	0.5%	1%	0.5%	
Cash flow to the firm	2,388	3,143	3,300	3,311	4,365	81,820
Discounted Cash Flow	2,388	2,926	2,860	2,671	3,278	61,450

Figure 3.8 Discounted Cash Flow

$$DCF = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \frac{CF_n}{(1+r)^n}$$

Where:

CF: The cash flow generated for each period

r: The discount rate (This projection is WACC)

The terminal value = $\frac{CF_n \cdot (1+g)}{(r-g)}$

Where:

CF: The cash flow generated

r: The discount rate (This projection is WACC)

n: The last period on the forecast

g: Long-term growth rate

3.3 Recommendation

The intrinsic value of AP by DFC valuation which primarily takes free cash flow to firm (FCF) that the company can generate cash flow in the future formulated by the discount from the company's the weighted cost of capital (WACC) is 13.16 THB per share at the end of 2023 and the additional calculation of the target price of AP at the end of 2024 would be 14.61 baht per price, with a cost of equity of 11%. As illustrated in Table 3 Target Price. compared to the current price on 2 November at 11.10 THB Thus, the target price has an upside of about 32%, which seems to be based on the growth and fundamental factors of the business.

To decide on a recommendation whether the investors should buy, hold, or sell a stock. There are criteria to set the standard for suggestion by setting the threshold of both an upside and downside of 10% from the comparison between the stock's current market price and the estimated target price. Thus, if the target price is higher than 10 percent of the current price, it would be advisable to BUY. Second, if the target price is in the range of +10 percent or -10 percent deviated from the current price, HOLD would be taken on recommendation. Lastly, if the estimated target price is lower than 10 percent of the current price, SELL is recommended.

The target price is 14.61 at the end of 2024, which is more than 10 percent of the current market is 11.10 as of 2 November 2023. There is an upside of about 32% which means the AP stock has become considerably undervalued compared to its market price at present. Thus, I would like to recommend "BUY" the stock.

Table 3.1 Target Price

		THB
Target Price at the end of 2023		13.16
Target Price at the end of 2024		14.61
Comparable market price		11.1
Upside (%)		32%

as of 2 Nov 202.

3.4 Sensitivity Analysis

For formulating the sensitivity analysis, **the figure 3.9** shows that the key variables are WACC and the terminal growth that the discounted cash flow model is highly lean on these key factors and assumptions to get the result based on solid variables and non-bias. This formulation illustrates and explains how these factors have an impact on stock prices. The sensitivity for each variable is determined to change by $\pm 0.25\%$ in the step.

		Terminal Growth						
		1.25%	1.50%	1.75%	2.00%	2.25%	2.50%	2.75%
WACC	6.67%	14.88	15.58	16.26	16.91	17.72	18.62	19.64
	6.92%	14.30	14.88	15.50	16.08	16.80	17.60	18.50
	7.17%	13.72	14.25	14.81	15.33	15.98	16.69	17.49
	7.42%	13.19	13.67	14.18	14.61	15.23	15.88	16.59
	7.67%	12.70	13.14	13.61	14.03	14.56	15.14	15.78
	7.92%	12.24	12.65	13.08	13.47	13.95	14.47	15.05
	8.17%	11.82	12.20	12.59	12.95	13.38	13.86	14.38

Figure 3.9 Sensitivity analysis

The figure above describes that the change of the terminal growth and the weight cost of capital influence the terminal value which is the largest amount of cash flow in the specified period and has a significant effect on the stock price when it becomes present value. In difference of change by 0.25% of terminal growth rate and the weight cost of capital would be shown in the range of example that WACC is between 6.67 – 8.17 percent and the terminal growth is between 1.25 – 2.75 percent. The highest target price is 19.64 baht per share with a WACC of 6.67 percent and a terminal growth rate of 2.75 percent and the lowest price is 11.82 baht per share as WACC is 8.17 percent with a terminal growth rate of 1.25 percent. The increase of 25 basis points or 0.25 percent in WACC as terminal growth rate was unchanged would make the target price depreciate to 14.03 baht per share from 14.61 baht per share and if the terminal growth rate slow down by 0.25 percent with constant WACC would make the target price dilute to 14.18 baht per share from 14.61 baht per share.

CHAPTER V

INVESTMENT RISKS AND DOWNSIDE POSSIBILITIES

In this Chapter, we will be discussing about the Different Investment Risks & Downside Possibilities of Asian Property (AP). We will be discussing about The Risk of Increasing in Construction in Material Prices, Risk of Purchasing Land for Property Development, Risk from High Interest Rate Cycle & Tightening Liquidity Condition, Risk from Compliance with the Rules, Regulations, & Requirements, Risk from Cyberattack, Risk from Climate Change.

The Risk of Increasing in Construction Material Prices

With the real estate developer, the construction materials are considered vital cost in adding value and developing the company's products that are affected by rising of energy and commodity prices, for example, coal, steel, and aluminum, after the world facing the supply disruption situation and geopolitical tension which cause the company have to cope with experiences a shortage of raw material and seeking the prospect partners to mitigate the risk. However, AP always thinks about it to prepare management plans such as fixing prices of main raw materials which are volatile in price and acquiring for alternative materials throughout improving the workflow to reduce cost and compensate the rising cost of construction.

The Risk of purchasing land for property development

Nowadays, the intense competition for land in the urban and potential areas with a convenient commute to work is quite difficult to acquire and is intensely competitive. The company realizes this concern and has established a risk management assessment by leveraging digital tools via opening trading platforms on a company website which is another channel to seek the land agent and landowner preferring an

offer directly to a company. This is a great move for AP to create opportunities and remain competitive in the business landscape.

The Risk from High Interest Rate Cycle and Tightening Liquidity Condition

The Fluctuations in interest rates are the crucial factor affecting the cost of financing. The rising of interest rates can increase borrowing costs and pressure a company for the profitability of the projects that developers who hold fixed-income real estate assets, rising interest rates may lead to a decrease in the market value of these assets. Furthermore, accessing capital difficulty in obtaining financing, or delays in funding can hinder project progress and may lead to financial strain making it a challenge such as meeting debt obligations and shortage of funds in ongoing operations. Nevertheless, AP establishes contingency plans for unexpected events having financial reserves, assessing the financial health of the project and contingency funds can help cover unforeseen costs and delays as closely monitor the sufficiency of fund ongoing operations.

The Risk from Compliance with the Rules, Regulations, and Requirements

The release of new rules, laws, and regulations has influenced the company to adjust the business to comply with laws such as the Land Allocation Act and Condominium Act. The company is always considered strict in conducting business according to compliance with the relevant laws and regulations. The issuance of Personal Data Protection Act B.E. 2562 which is effective in June 2022 would be an important point impacting business that makes a company wary of utilizing and leveraging data as an asset for individuals such as the personal data of customers and suppliers as well. This is another risk of violating under the law and making an impact on brand image and reputation if a company ignores the issue.

The Risk from Cyberattack

As the company becomes increasingly digitized and relies on technology for various aspects of operations, the potential impact of cyber threats has grown. Because real estate developers handle sensitive information such as customer data, financial records, and project details. A data breach can result in unauthorized access to this information, leading to identity theft, financial fraud, and reputational damage. Cyberattacks can disrupt normal business operations which can lead to project delays and financial losses. With the reorganization of these potential harms, the company implements the IT technology security system along with developing and regularly updating an incident response plan to effectively manage and contain the impact of a cyberattack.

The Risk from Climate Change

Climate change poses various risks to real estate developers, impacting both current projects and the long-term viability of properties. While governments are increasingly implementing regulations to address climate change. This can include building codes, zoning changes, and environmental impact assessments that may affect the feasibility and design of real estate projects. These issues directly force a company to realize the potential impacts on business operations. Thus, AP determines and prepares an emergency action plan to deal with the several natural disasters that's why Smart Service and Management Co., Ltd. (SMART), the AP subsidiary to be founded helping and supporting AP to conduct business for long-term sustainability.

CHAPTER IV

CONCLUSION

AP (Thailand) Public Company Limited was established in 1991 engaging in the business of property development which has main revenues from selling real estate especially low-rise projects which represent more than 85 percent of total income. The company is directed by Mr. Anuphong Assavabhokin and has a goal to be a property developer offering products or services that fulfill customers, together with associated parties to have a joyful life of their own choices. To lead the organization to be number 1 in the nation's real estate industry, The company has the specific strategies and transform itself to be an unconstrained leader with great flexibility along with building a corporate culture of creativity.

Thailand's real estate market was prone to rebound after the second half of 2022. Notwithstanding, the global economic backdrops had emerged gloomy for the industry because the cost of energy and construction materials had escalated. While the domestic economy has still been feeble, private consumption has been dragged from elevating inflation which has evaporated consumer power of spending until nowadays. International buyers have been a significant player in cheering up the growth in Thailand's real estate market this year and in the upcoming years. However, the industry has catalysts to catch up with the growth through several factors that are rising urbanization with improvement in infrastructures along with extending public transportation such as new metro lines. The country has embraced on the aging society that many preparing retirees need to find their prospective home in the future and government boosting measures that also make demand up when the official's policy urges for an affordable segment, it would be more purchaser in the property market.

With estimation to the target price by using discounted cash flow to find the enterprise value and digest it by taking a discount with the weighted average cost of capital (WACC) to get the present value which has components such as a risk-free rate of 3.02 percent, market risk premium at 7.43 percent, and Beta of 1.153. The cost of

equity appears at 11.80 percent and the cost of debt after tax at 2.56 percent after, multiplied by the weighted of each source of funding to get the WACC is 7.42 percent.

The forecasted price of AP is 14.61 at the end of 2024, which is more than 10 percent of the current market price that has an upside of around 30% which means the AP stock has become considerably undervalued and has a margin of safety to take a position of the stock for now. Thus, I would like to recommend “BUY” the stock.



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