

**RELATIVE VALUATION OF THONBURI HEALTHCARE  
GROUP PUBLIC COMPANY LIMITED**



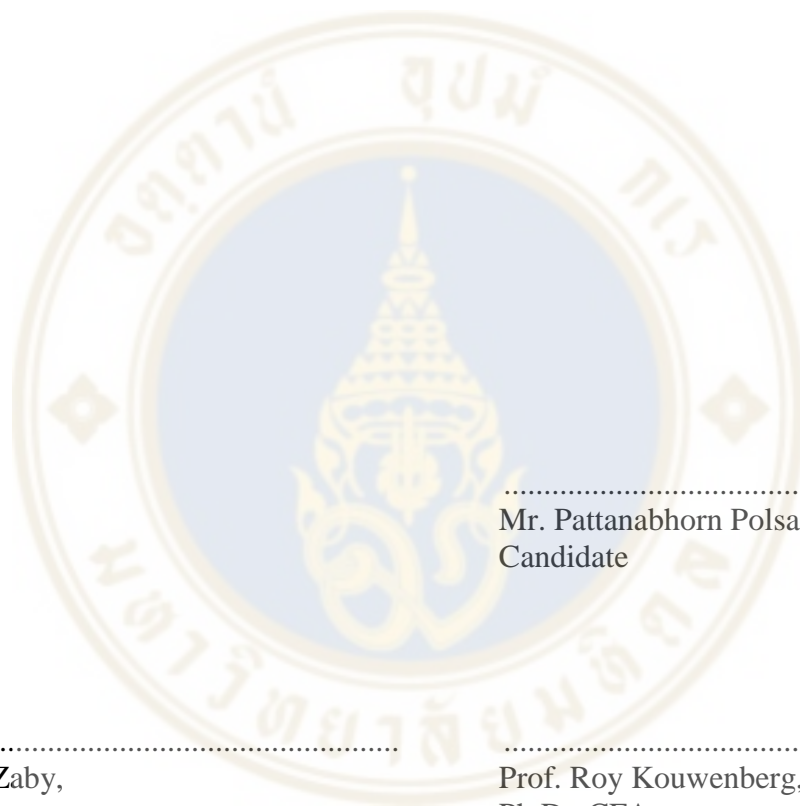
**PATTANABHORN POLSAMAK**

**A THEMATIC PAPER SUBMITTED IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF MASTER OF MANAGEMENT  
COLLEGE OF MANAGEMENT  
MAHIDOL UNIVERSITY  
2021**

**COPYRIGHT OF MAHIDOL UNIVERSITY**

Thematic paper  
entitled  
**RELATIVE VALUATION OF THONBURI HEALTHCARE  
GROUP PUBLIC COMPANY LIMITED**

was submitted to the College of Management, Mahidol University  
for the degree of Master of Management  
on  
September 12, 2021



.....  
Mr. Pattanabhorn Polsamak  
Candidate

.....  
Simon Zaby,  
Ph.D.  
Advisor

.....  
Prof. Roy Kouwenberg,  
Ph.D., CFA  
Chairperson

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

.....  
Worapong Janyangyuen,  
D.B.A.  
Committee member

## ACKNOWLEDGEMENTS

First of all, I would like to appreciate Duangkamol Kaewang for her great contribution for the overview information about THG and economic outlook. I wish to express my gratitude to Dr. Simon Zaby for his guidance and encouragement through all stage of carrying out this research. I also would like to give special thank to Professor Roy Kouwenberg and Dr. Worapong Janyangyuen for valuable comment as a committee member to fulfill this paper.

Moreover, I would like take this opportunity to thank all professors, staff and classmates at CMMU for all their teaching, knowledge sharing and fun moment together all the way from the beginning of my studying here until today.

Finally, I would like to thank all the people who always support me including my family and friends for all the success.

Pattanabhorn Polsamak

**RELATIVE VALUATION OF THONBURI HEALTHCARE GROUP PUBLIC COMPANY LIMITED**

PATTANABHORN POLSAMAK 6249137

M.M. (CORPORATE FINANCE)

THEMATIC PAPER ADVISORY COMMITTEE: SIMON ZABY, Ph.D., PROF.  
ROY KOUWENBERG, Ph.D., CFA, WORAPONG JANYANGYUEN, D.B.A.

**ABSTRACT**

Thonburi Healthcare Group Public Company Limited (THG) is one of the top 10 companies based on market capitalization in healthcare sector of the Stock Exchange of Thailand, providing tertiary care services with the target of middle to upper-middle income consumers in Bangkok and other provincial cities in Thailand.

The relative valuation of THG is based on two parts which are the relation to itself and peers valuation. For the relation to itself is determined from 5 years historical data on 6 multiples consists of 1) Trailing P/E, 2) Forward P/E, 3) Trailing P/BV, 4) Forward P/BV, 5) Trailing EV/EBITDA, and 6) Forward EV/EBITDA, we found that THG current price is overvalued in relation to itself in all multiples. For peer valuation to, we identified that forward EV/EBITDA is the most appropriate multiple to determine target price because it's useful for the company with significant investments to exclude high depreciation and amortization effect while THG is the company with huge amount of investment and depreciation. Finally, the target price of THG in 2021 is 12.27 THB/share and in 2022 is 24.48 THB/share which is much lower than the current price (28 THB as of July 1, 2021). We concluded that the company is underperforming and our recommendation is to “sell” at the current price.

**KEY WORDS:** Relative Valuation/ P/E/ P/BV/ EV/EBITDA/ THG

39 pages

## CONTENTS

	<b>Page</b>
<b>ACKNOWLEDGEMENTS</b>	<b>ii</b>
<b>ABSTRACT</b>	<b>iii</b>
<b>LIST OF TABLES</b>	<b>vi</b>
<b>LIST OF FIGURES</b>	<b>vii</b>
<b>CHAPTER I VALUATION</b>	<b>1</b>
1.1 Company Background	1
1.2 Service and Brand	2
1.3 Management, Administration and Governance	3
1.4 Strategies	3
1.5 Revenue	4
<b>CHAPTER II MACRO &amp; MICROECONOMIC ANALYSIS</b>	<b>6</b>
2.1 The World and Country's GDP	6
2.2 Inflation	8
2.3 Aging Society	8
2.4 Medicine Price Control	9
2.5 Current Health Expenditure (% of GDP)	10
2.6 Industry Analysis	10
2.7 Benchmark Identification	16
<b>CHAPTER III FINANCIAL STATEMENT ANALYSIS</b>	<b>20</b>
3.1 Profitability	20
3.2 Margin Analysis	22
3.3 Asset Turnover	23
3.4 Short Term Liquidity	24
3.5 Long Term Solvency	26
3.6 Interest Coverage Ratio	27
<b>CHAPTER IV RELATIVE VALUATION</b>	<b>28</b>
4.1 Trailing Multiple	28

## CONTENTS (cont.)

	<b>Page</b>
4.1.1 Trailing P/E Band	28
4.1.2 Trailing P/BV Band	29
4.1.3 Trailing EV/EBITDA Band	29
4.2 Forward Multiple	30
4.2.1 Forward P/E Band	30
4.2.2 Forward P/BV Band	31
4.2.3 Forward EV/EBITDA Band	31
4.3 Peers Group Multiples (Trailing)	33
4.4 Peers Group Multiples (Forward)	34
4.5 Calculate Expected Price from Peers	35
<b>CHAPTER V INVESTMENT RISKS AND DOWNSIDE POSSIBILITIES</b>	<b>37</b>
<b>CHAPTER VI CONCLUSION AND RECOMMENDATION</b>	<b>39</b>
<b>REFERENCES</b>	<b>40</b>
<b>APPENDICES</b>	<b>41</b>
Appendix A: Five Force Analysis	42
Appendix B: Trend Analysis	44
<b>BIOGRAPHY</b>	<b>45</b>

## LIST OF TABLES

<b>Table</b>	<b>Page</b>
1.1 THG Revenue Structure	2
2.1 Number of patients in 2016 by type of patient and region	13
2.2 Number of patient days of all inpatients, number of beds and occupancy rate in 2016 by region	14
3.1 ROE and ROA	21
4.1 Peers Group Multiples (Trailing)	33
4.2 Peers Group Multiples (Forward)	34
4.3 Expected Price from Relative Valuation	35
5.1 Risk Matrix	37



## LIST OF FIGURES

<b>Figure</b>	<b>Page</b>
2.1 Correlation between healthcare sales and Thai GDP growth (1997-2019)	6
2.2 Correlation between healthcare sales and Thai GDP growth (2012-2020)	7
2.3 Correlation between healthcare revenue growth and Thailand inflation (2005-2020)	8
2.4 Growth rate of population between 15-56 yrs and more than 60 yrs	8
2.5 Growth rate of population between 15-56 yrs and more than 60 yrs	9
2.6 Current Health Expenditure (% GDP)	10
2.7 Top ten biggest market capitalization hospitals in Thailand	11
2.8 Types of private hospitals by services	12
2.9 Types of private hospitals by registered bed	13
2.10 Types of patients	14
2.11 Revenue structure of private hospitals	15
3.1 ROE	20
3.2 Margin	22
3.3 Asset Turnover	23
3.4 Current Ratio and Quick Ratio	24
3.5 Cash Conversion Cycle	25
3.6 Solvency Ratio	26
3.7 Interest Coverage Ratio	27
4.1 Trailing P/E Band	28
4.2 Trailing P/BV Band	29
4.3 Trailing EV/EBITDA Band	29
4.4 Forward P/E Band	30
4.5 Forward P/BV Band	31
4.6 Forward EV/EBITDA Band	31



## **CHAPTER I**

### **COMPANY OVERVIEW**

Thonburi Healthcare Group is a holding company, ranked in Top 10 private hospital in Thailand. The Stock is currently of interest with P/E at 300. However, net income and other financial data shows that management may having a hard time struggling in COVID-19. This study aims to conduct research about its intrinsic value and fair price.

#### **1.1 Company Background**

Thonburi Healthcare Group Public Company Limited is a private hospital which was founded by a group of doctors in 1976 with a paid-up capital of 849.08 million Baht. The company runs through three operating segments: Medical Services Business, Healthcare Solution Provider and Other Business.

The Medical Service business is divided into four sub-categories. The first sub-category is domestic medical service which consists of eight hospitals. Four are based in Bangkok and vicinity, and others are in provincial cities such as Songkhla, Ubonratchathani, Chanthaburi and Nakhon Si Thammarat.

The second sub-category refers to overseas branches which currently have one branch, located in Myanmar. There used to be another branch in China. It will be sold in 2020. Next, THG has contracts with Phuket Provincial Administrative Organization Hospital and Pattaya City Hospital for management services. Lastly, the company offers specialized medical service centers such as hearth centers for special treatment.

As Healthcare Solution Provider, THG offers a senior care and senior living operated by Jin Wellbeing County, and home healthcare run by Thonburi Health Village, and a medical supplies distributor managed by Dental Siam.

Last segment is medical software development where the firm develops software for hospital management used in private and public hospitals.

## 1.2 Service and Brand

There are a bunch of brands under Thonburi Group, providing different products and services. Each brand has different targeted customers and offers different levels of medical sophistication. However, the focus of attention is Tertiary Care Services and the primary targeted consumer is middle and middle-upper income class. Most of them are located in big cities especially Bangkok and vicinity.

**Table 1.1 THG Revenue Structure**

Revenue Structure: Thonburi Hospital Group	Location	% of Shareholding
<b>Hospital Operation</b>		
Thonburi Healthcare Group PCL		
<i>Overseas</i>		
Ar Yu International Hospital	Myanmar	40%
<i>Domestics</i>		
Thonburi Hospital	Bangkok	
Thonburi 2 Hospital	Bangkok	
Thonburi Healthcare Group PCL - Pattaya City Hospital	Chonburi	
Thonburi Healthcare Group PCL -Phuket Provincial Hospital	Phuket	
Rajyindee Hospital PCL.	Songkhla	56.91%
Thanarad Thung Song Co., Ltd.	Nakon Si Thammarat	56.43%
Thonburi Hospital Heart Centers Co.,Ltd. (Srivej, Ubonrak)	Bangkok	99.99%
Thonburi Bamrungmuang Hospital Co., Ltd.	Bangkok	99.99%
<b>Healthcare Solution Provider</b>		
Dental Siam Co., Ltd.	Bangkok	99.43%
Thonburi Wellbeing Co., Ltd.	Bangkok	99.99%
<b>Other Business</b>		
Modular Software Expertise Co., Ltd.	Bangkok	70%
Rajthanee Realty Co., Ltd.	Bangkok	100%
Thonburi Realty Development Co., Ltd.	Bangkok	99.86%

**Source: Thonburi Healthcare Group (2021)**

### **1.3 Management, Administration and Governance**

Companies under Thonburi Group operate under one board of directors and committees. They follow the same standard of internal control, goal and objectives. Knowledge, experience and technology among affiliates are integrated and shared in order to gain competitive advantages in a fierce competition.

The Board of Directors of the company complied with regulations of the Stock Exchange of Thailand (SET) and conducted business in accordance with the code of ethics and good corporate governance. The company understands that good corporate governance will preserve competitive ability and sustainable growth. THG established corporate governance policy covering five areas which consists of Right of Shareholders, Equitable Treatment of Shareholders, Roles of Stakeholders, Disclosure of Information and Transparency, and Responsibility of the Board of Directors. Firm has proved its commitment to operate its business by adhering to good corporate governance principles of Stock Exchange of Thailand and achieved five medals in CG Scoring by SET in 2020.

### **1.4 Strategies**

THG aims to improve people's quality of life by being people's most preferred health partner. The Board of Directors have set a mission to provide customer-centric, innovation, and reasonable healthcare solutions for people of all ages, as well as increase added value to society and company's stakeholders. Strategies in focus are to enhance the company's sustainable development covering 3 areas which consist of economy, social area and environmental area. At the same time, the company takes social responsibility seriously by adhering to good governance practices for sustainable development. These strategies are adjusted to suit circumstances of COVID-19.

The management mainly focuses on building a brand through relationships with customers such as creating a good impression and satisfaction. Meanwhile, they will cooperate with partners to enhance the company's image and show the high standard level of medical services provided by Thai hospitals. The management realizes the importance of medical innovation technology and creates innovation in the integrated

hospitals. Furthermore, the company oversees that the company's personnel work with professionalism and high standard of services. Lastly, THG seeks for opportunities in investment in order to diversify risk and growth. In the meantime, the company protects society and environment through Corporate Social Responsibility program and effective waste management.

In March 2021, the company expected some economic recovery and estimated the company's revenue growth by approx. 7-10%. However, the forecast was probably inaccurate and worse than expected due to the fact that Thailand cannot control the epidemic and supply vaccines to Thai people as expected. To cope with Covid-19, THG adopted online technology to communicate and follow up foreign patients who could not make a visit. The management has seen the epidemics as a catalyst for innovation and it is the company's duty to adjust itself.

## **1.5 Revenue**

The primary earnings are generated from domestic medical services, especially Thonburi I, Thonburi II, Rajyindee Hospital and Thonburi Bamrung Muang, which accounts for 90% of total revenue. Another ten percent comes from other businesses both domestic and overseas.

Cash or cash equivalents is only one method available for payment. This policy reflects that the company's source of income is from the middle-high income class, not middle-low income. The explanation is that insurance limits generally do not cover medical treatment expenses. To avoid an excess expense, these people visit other hospitals instead. In Thailand, many high-standard private hospitals join SSS.

Cash-based patients in middle-high class income expect not only a high standard of services, expertise, and personalization, they are also impressed with good-looking places, decorations and sophisticated restaurants. Serving customers' wants and needs results in an opportunity for additional income to meet their expectations.

Although THG offers all types of medical sophistication which are primary, secondary and tertiary care, their primary concern is on tertiary healthcare (complex cases) which have comparatively low margins. For example, THG focuses more on

heart disease, cancer and fatal illness instead of Plastic Surgery. The disadvantages are firstly, the number of serious disease patients is much lower than plastic surgery patients. Secondly, the margin from plastic surgery is higher than serious illness.

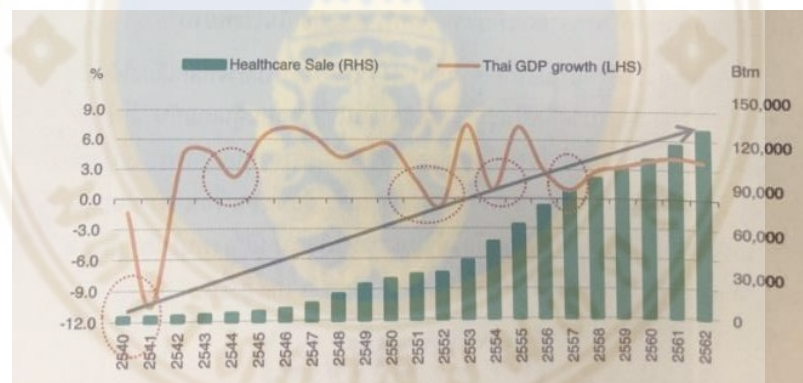


## CHAPTER II

### MACRO & MICROECONOMIC ANALYSIS

Since macro-economic data can be used to make sales forecast assumption and inaccurate future cash flow leads to imprecise company's intrinsic value, macro-economic index such as GDP, CPI, or inflation rate play an important role in valuation. Selecting index appropriately reflects reliability of the result. Therefore, historical correlation between company's financial data and alternative index is generally checked first.

#### 2.1 The World and Country's GDP



**Figure 2.1** Correlation between healthcare sales and Thai GDP growth (1997-2019).

Source: Eksamut (2019)



**Figure 2.2 Correlation between healthcare sales and Thai GDP growth (2012-2020).**

**Source: Kasikorn Securities (2021)**

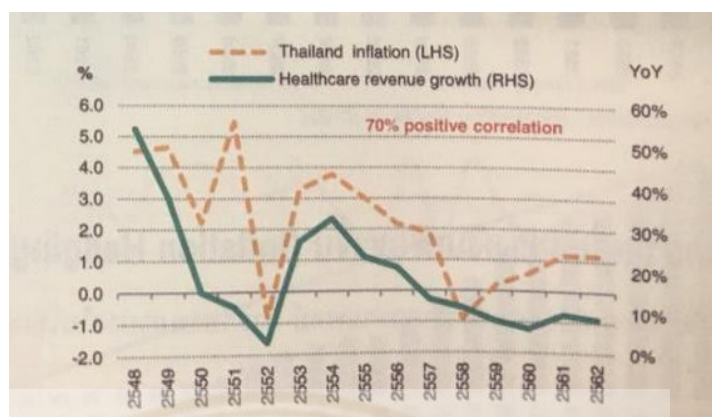
Gross Domestic Product or GDP is widely used in stock valuation. However, it is not applicable for the healthcare sector.

Eksamut (2019) conduct a research and summarize that here is no significant correlation between Thailand GDP growth and Healthcare sales for the last twenty years. Therefore, it may not be suitable to forecast growth according to GDP.

However, Healthcare growth statistically runs above GDP. KS Securities conducts research by comparing revenue growth rate of big 4 players (BDMS, BH, BCH and CHG) with GDP growth rate during 2012-2020. In saying that BDMS, BH, BCH and CHG's market share account for 80%, these four hospital chains do represent growth of industries.

In conclusion, the study does not directly apply GDP in forecasting revenue. However, the projection considers the fact that healthcare growth rate tends to be higher than GDP.

## 2.2 Inflation

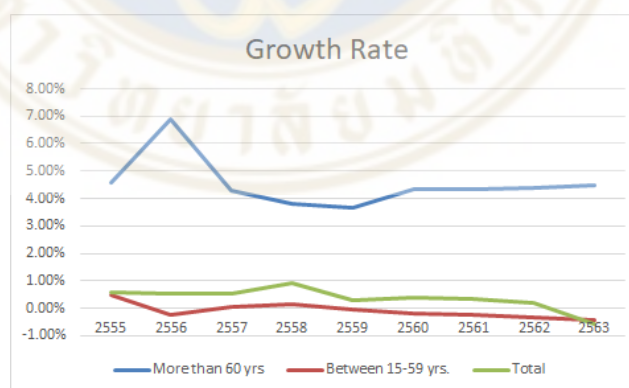


**Figure 2.3 Correlation between healthcare revenue growth and Thailand inflation (2005-2020).**

Source: Eksamut (2019)

In contrast to GDP, inflation line graph illustrates significant correlation between healthcare revenue growth and inflation rate. Therefore, THG's organic growth is forecast based on Thailand's inflation projection.

## 2.3 Aging Society



**Figure 2.4 Growth rate of population between 15-56 yrs and more than 60 yrs**

Source: National Statistical Office (2021)

Aging society is one of the major concerns in Thailand. According to the National Statistical Office (2021), the growth rate of elderly population accelerates while the growth rate of the overall population decreases continuously. The population



aged over 60 accounted for 18% of the population in 2020 and it is forecast to reach 28% in 2031. Other words, there are eleven million elderly or 1:3 of the whole population and it is still increasing. Therefore, the demand for medical services and gadgets for elderly is expected to increase significantly in the near future.

## 2.4 Medicine Price Control

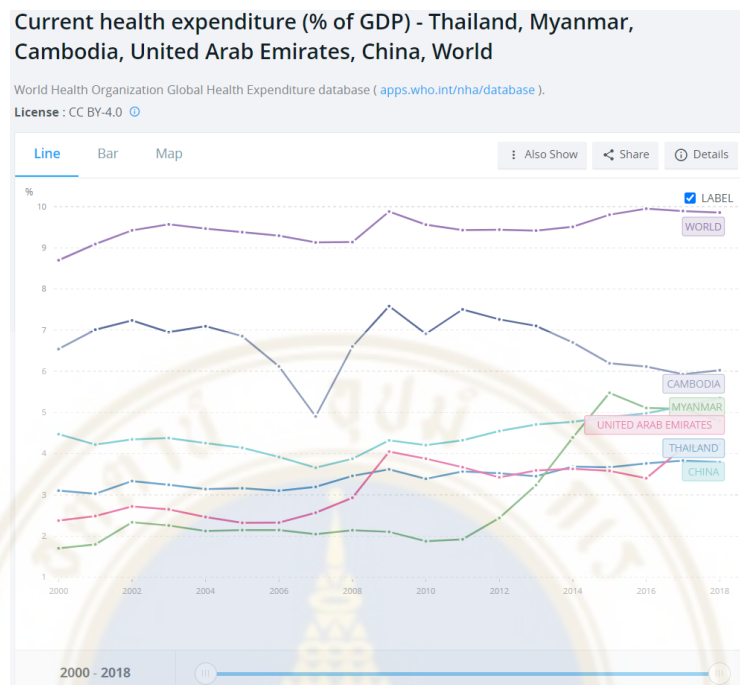


**Figure 2.5 Growth rate of population between 15-56 yrs and more than 60 yrs**

**Source: Thai Private Hospital Association (2014)**

In 2019, the new product price control list has been approved by the government which includes drug prices sold at private hospitals. The commerce ministry invited private hospitals to explain the reason for overpriced medicine to determine the fair price for every party. However, the new price surely affects the margin of private hospitals including THG.

## 2.5 Current Health Expenditure (% of GDP)



**Figure 2.6 Current Health Expenditure (% GDP)**

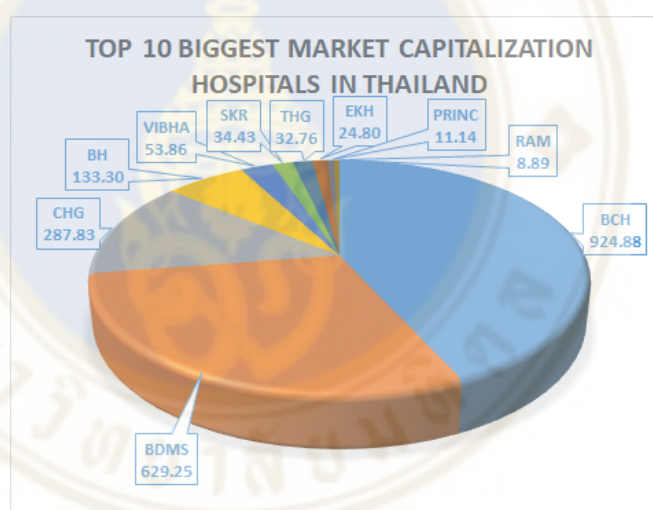
**Source: World Health Organization (2021)**

According to World Health Organization (2021), Thailand has a health expenditure (% of GDP) at 3.79% which is relatively low compared to developing countries. However, the line illustrates an increasing number. It reflects that there is a chance for additional growth because the market penetration rate is at a low level in healthcare business

## 2.6 Industry Analysis

There are different types of healthcare service centers in Thailand which consist of Public Hospitals, Private Hospitals, other health offices and small clinics. The public hospitals are mainly managed by the Ministry of Public Health and University Hospitals while the private hospitals are owned and managed by private or public companies. Currently, there are 382 private hospitals in Thailand as of 15 September 2020 (Department of Health Service Support, 2020) and 23 groups of private hospitals

registered as public companies listed in the Stock Exchange of Thailand with the total market capital over two billion baht as of June 2021 (The Stock Exchange of Thailand, 2021). The top ten biggest market capital hospital companies in the Stock Exchange of Thailand consists of 1) BCH: Bangkok Chain Hospital Public Company Limited 924.88 MB, 2) BDMS: Bangkok Dusit Medical Services Public Company Limited 629.25 MB, 3) CHG: Chularat Hospital Public Company Limited 287.83 MB, 4) BH: Bumrungrad Hospital Public Company Limited 133.30 MB, 5) VIBHA: Vibhavadi Medical Center Public Company Limited 53.86 MB, 6) SKR: Sikarin Public Company Limited 34.43 MB, 7) THG: Thonburi Healthcare Group Public Company Limited 32.76 MB, 8) EKH: Ekachai Medical Care Public Company Limited 24.80 MB, 9) PRINC: Principal Capital Public Company Limited 11.14 MB, and 10) RAM: Ramkhamhaeng Hospital Public Company Limited 8.89 MB



**Figure 2.7 Top ten biggest market capitalization hospitals in Thailand.**

**Source: The Stock Exchange of Thailand (2021)**

There are three types of healthcare services in the hospitals which rank from general service to more specialized service depend on the capacity of hospitals based on National Health Services (NHS) in the United Kingdom (Multiple Sclerosis Trust, 2018) as follow:

1. Primary Care Services: refers to the services that provide the first point of contact that a patient sees when they have a common health problem, screening,

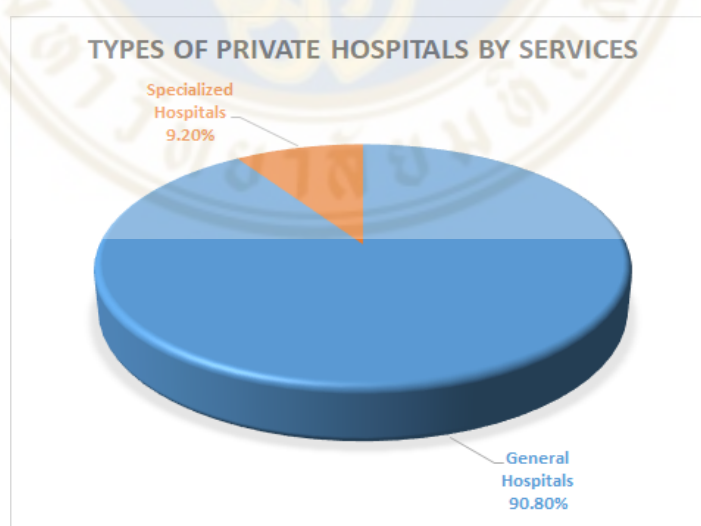
giving immunization and providing advice to prevent future illness. Besides, the primary care practitioner can refer the patients to specialists if needed.

2. Secondary Care Services: this service is more specialized and will be provided if the primary care cannot resolve health problems. These services will need specialist health practitioners and tools to serve the patients. The Secondary Care Services may include specialized clinics such as ophthalmology, radiology, orthopedic surgery, and rehabilitation services.

3. Tertiary Care Services: this service is the most advanced service in the healthcare system. It will be provided at large hospitals or specialized hospitals. The doctors who provide this service have expertise, well-trained and can access specialized equipment to serve the patients who have serious health problems such as cancer management, neurosurgery and cardiac surgery.

The private hospitals are divided into two types which are

1. General hospitals (90.8%), the hospitals that provide treatment for various types of diseases under the same place.
2. Specialized hospitals (9.2%), the hospitals that specialize in the treatment of specific groups of diseases e.g. skin, ear, nose, foot etc.

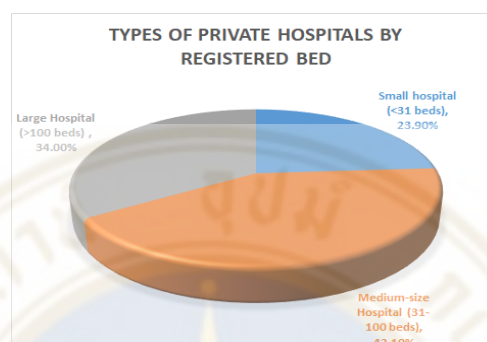


**Figure 2.8 Types of private hospitals by services.**

**Source: National Statistical Office (2017)**

Moreover, the private hospitals can also be classified by size based on the number of bed into three categories:

1. Small hospital (<31 beds) 23.9%
2. Medium-size Hospital (31-100 beds) 42.1%
3. Large Hospital (>100 beds) 34%



**Figure 2.9** Types of private hospitals by registered bed.

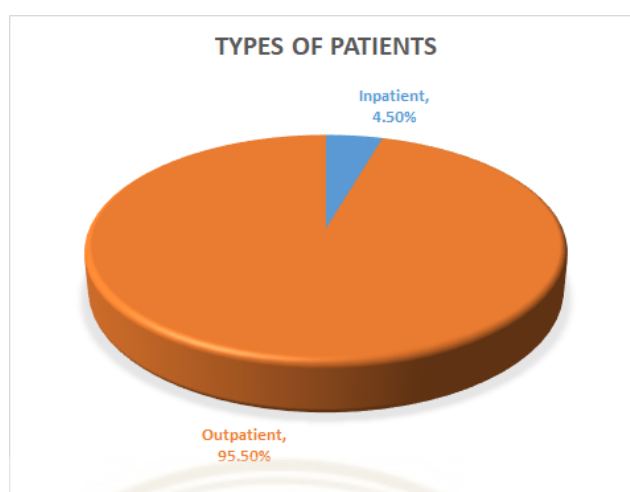
**Source:** National Statistical Office (2017)

According to the 2017 Private Hospitals Survey from the National Statistic Office, they indicated that the number of patients can be divided to 4.5% of inpatient and 95.5% of outpatient as detail below:

**Table 2.1** Number of patients in 2016 by type of patient and region

Region	Total Patients		Inpatient		Outpatient	
	Total	%	Total	%	Total	%
<b>Whole Kingdom</b>	<b>61,641,944</b>	<b>100.0</b>	<b>2,803,899</b>	<b>4.5</b>	<b>58,838,046</b>	<b>95.5</b>
Bangkok	32,174,518	100.0	986,084	3.1	31,188,433	96.9
Central Region	17,964,855	100.0	857,763	4.8	17,107,092	95.2
Northern Region	4,902,077	100.0	469,509	9.6	4,432,568	90.4
Northeastern Region	3,334,140	100.0	236,088	7.1	3,098,053	92.9
Southern Region	3,266,355	100.0	254,455	7.8	3,011,900	92.2

**Source:** National Statistical Office (2017)



**Figure 2.10** Types of patients.

**Source:** National Statistical Office (2017)

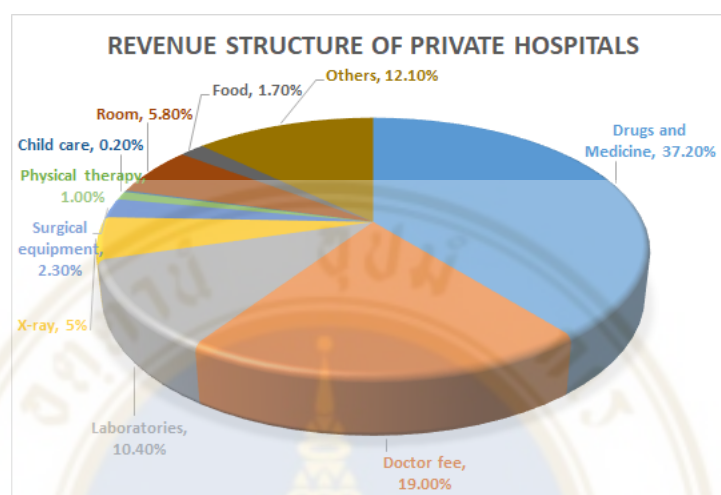
The number of beds for the whole nation is 34,701 beds, the average number of patient days of inpatient is three days and the occupancy rate is 71% which can be divided by region as in the table:

**Table 2.2** Number of patient days of all inpatients, number of beds and occupancy rate in 2016 by region

Region	Total number of Inpatients	Number of patient days of inpatients	Average number of patient days of inpatient	Number of total beds	Occupancy rate (%)
<b>Whole Kingdom</b>	<b>2,803,899</b>	<b>9,027,568</b>	<b>3</b>	<b>34,701</b>	<b>71</b>
Bangkok	986,084	3,683,318	4	14,687	69
Central Region	857,763	2,528,323	3	9,941	70
Northern Region	469,509	1,600,261	3	4,549	96
Northeastern Region	236,088	600,287	3	2,826	58
Southern Region	254,455	615,380	2	2,700	62

**Source:** National Statistical Office (2017)

The revenue structure from medicals treatment of private hospitals in Thailand consists of Drugs and Medicine 37.2%, Doctor fee 19.0%, Laboratories 10.4%, X-ray 5%, Surgical room and equipment 2.3%, Physical therapy 1.0%, Child care 0.2%, Room 5.8%, Food 1.7%, and others 12.1%.



**Figure 2.11 Revenue structure of private hospitals.**

**Source:** National Statistical Office (2017)

The government has a policy to support the healthcare industry in Thailand and promote the country to become a global medical & wellness hub within 2026. (Ninkitsaranont, 2020). The priority services that the government would like to promote are anti-aging treatments, cosmetic surgery, dental care, and fertility clinics. The plan also included the extending of the allowed length of stay in the country from 30 to 90 days for patients from China and CLMV Countries who are seeking medical treatment in the country. They also support several programs to achieve global medical hub goal such as: 1) Telemedicine for Thai who live oversea, they would like help Thai people outside the country to access medical service directly from their home country, 2) Support Global Health Insurance program to attract patients from CLMV and Middle East in order to increase revenue from those people, 3) Promote health check-up and wellness center at hotel call “Hotelistic” (Hotel+Holistic) to remove mind symptom at the hotel, and 4) Promote Thailand as top of mind for medical service around the world through international media.

The government also gives tax-exemption benefits to private hospitals as an incentive to increase margin and attract investors to do this business in order to maintain good health to people and expand the market to both Thai and foreign medical tourists.

## **2.7 Benchmark Identification**

Thonburi Healthcare Group (THG) comprises of large hospitals that provide from primary up to tertiary care services. The competitors to be analyzed should be the same tier. Hence, we picked five leading hospital groups in Thailand which are Chularat Hospital Group (CHG), Bangkok Chain Hospital (BCH), Bumrungrad Hospital (BH), Bangkok Dusit Medical Services (BDMS), Vibhavadi Hospital (VIBHA) and two leading international competitors which are PT Mitra Keluarga Karyasehat Tbk. (MIKA) from Indonesia and Max Healthcare Institute Ltd. (MAXHEALTH) to compare with our target company.

### **CHG (Chularat Hospital Group)**

CHG consists of 10 subsidiaries that operate 14 branches of hospitals and clinics which cover areas in Eastern Bangkok, Chachoengsao, Prachinburi, Chonburi, Sa-Kaeo, Rayong. The group has a total capacity of 749 beds and can support 6,000 cases per day of outpatients. The hospitals are promoting themselves to be the best private hospital in the eastern region.

CHG provides service to both General patients and Government Welfare patients (SSO and NHSO). The company considered themselves for outstanding services in Orthopedic and Micro Vascular Clinic, Neonatal Intensive-Care Unit, Stroke Center, Skin Center and Cosmetics Surgery, Integrated Heart Center, Integrated Cancer Center with HIFU, Prostate Cancer Center using Brachytherapy, The New Baby Fertility Center, and Suvarnabhumi Eye Center.

In 2020, the company's revenue structure consisted of 59.1% from General Patient which can be divided into 31.1 from Outpatient and 28% from Inpatient, and 40.9% from Government Welfare Schemes.



### **BCH (Bangkok Chain Hospital)**

BCH consists of 15 hospitals in Thailand which cover area in suburban of Bangkok, Nonthaburi, Sa-Kaeo, Chiang Rai, Saraburi, Chachoengsao, Prachinburi, Pathum Thani, Ayudhaya, and 1 hospital in Vientiane, Lao PDR.

The hospitals in the group have four sub-group with different names which target different patients as well as follows:

1. World Medical Hospital Group (WMC): their target customers are high-end and international patients. They provide tertiary care that requires high specialized medical services.
2. Kasemrad International Hospital Group (KIH): their target customers are middle to high income patients. The hospital provides secondary and up to some level of tertiary care.
3. Kasemrad Hospital Group (KH): their target customers are middle-income patients and social security patients. The hospital provides primary, secondary and up to some level of tertiary care.
4. Karunvej Hospital Group (KV): their target customers are mainly social security patients. The hospital provides primary and up to secondary care.

The group has a total capacity of 2,029 beds and 484 examination rooms for outpatients. In 2020, the company's revenue structure consisted of 63.10% from General Patient and 35.94% from Social Security Patients

### **BH (Bumrungrad Hospital)**

BH is a single hospital that offers general medical service up to tertiary. The target customers of the hospital are high income patients and international patients. Bumrungrad Hospital is the first hospital in Asia to receive the Joint Commission International (JCI) accreditation. The hospital has a total capacity of 580 beds and 272 examination rooms to serve over 5,500 outpatients per day.

The hospital's revenue is contributed by 48% of outpatients and 52% of inpatients in 2020. BH also has the international patient service to accommodate foreign patients including medical and visa assistance that led the hospital to receive a revenue contribution over 60% of the total every year.

### **BDMS (Bangkok Dusit Medical Services)**

Bangkok Dusit Medical Services has the largest market share in the healthcare sector. The group consists of 49 hospitals covered nationwide in Thailand. They first started from Bangkok Hospital and grew by acquisition of hospitals in the big city in every region of Thailand. Now, the company operates 6 hospital sub-groups which are Bangkok Hospital Group, Samitivej Hospital Group, BNH Hospital, Phyathai Hospital Group, Paolo Hospital Group, and Royal Hospital Group in Cambodia. The company provides tertiary care service and targets high income patients and international patients. The hospital specializes in neurology, orthopedic, and spine diseases.

The group has a total capacity of around 8,600 beds. In 2020, the company's revenue structure consisted of 66.96% from General Patient which can be divided into 34.11% from outpatient and 32.85% from Inpatient, and 19.57% from Government Welfare Patients.

### **VIBHA (Vibhavadi Hospital)**

Vibhavadi Hospital can be considered as a single hospital because it mainly operates one hospital in Northern Bangkok. VIBHA is a general hospital that has the capacity of 258 beds and more than 200 rooms that can serve about 2,000 patients per day. They also provide specialized eye care by setting up Advanced Lasik Center.

The company's revenue structure consisted of 45.44% from outpatient and 32.79% from Inpatient from both General Patients and Government Welfare Patients.

### **MIKA (PT MITRA KELUARGA KARYASEHAT TBK)**

MIKA is a leading group of hospitals in Indonesia comprising 25 hospitals all over the country. The group has grown up through acquisition of other hospitals over an extended period.

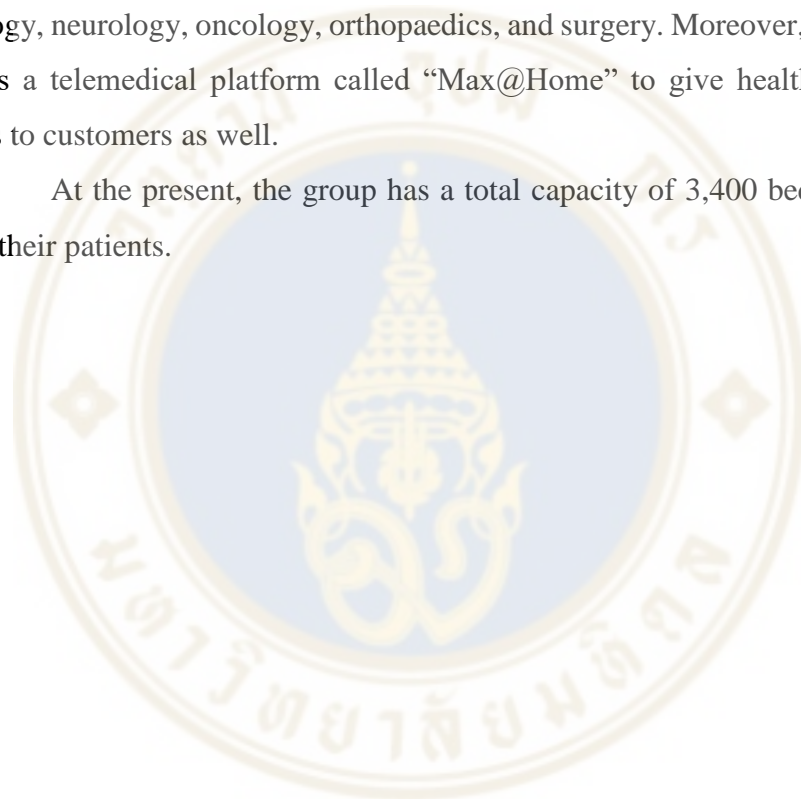
The hospital showed their emphasis and specialization by setting up few Centers of Excellence such as Diabetes & Thyroid Center, Fertility & Reproduction Clinic, Neurosurgeon Clinic, and Urology Center.

At the present, the group has a total capacity of around 3,000 beds. The company's revenue structure consisted of 34.4% from outpatient and 65.6% from Inpatient.

#### **MAXHEALTH (MAX HEALTHCARE INSTITUTE LTD)**

Max Healthcare is the second largest hospital group in India. The group comprises 16 healthcare facilities located in Delhi, Bathinda, Dehradun, Mohali, and Mumbai. They provide secondary and tertiary care services with specialization in cardiology, neurology, oncology, orthopaedics, and surgery. Moreover, MAXHEALTH provides a telemedical platform called "Max@Home" to give healthcare consulting services to customers as well.

At the present, the group has a total capacity of 3,400 beds nationwide to service their patients.



## CHAPTER III

### FINANCIAL STATEMENT ANALYSIS

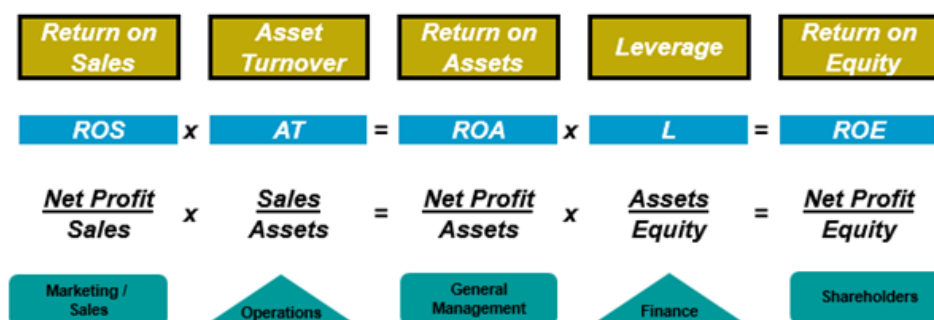
For financial statement analysis, we would like to see the financial strength of THG in Profitability, Margin, Utilization of assets, Short Term Liquidity, and Long Term Solvency. We will use the healthcare sector average ratio computed from information of all companies (excluded THG) in the sector from SETSMART. Yet, there is a limitation that the number which they use to calculate ratios for peer companies from the database might not be consistent with our own calculation for THG.

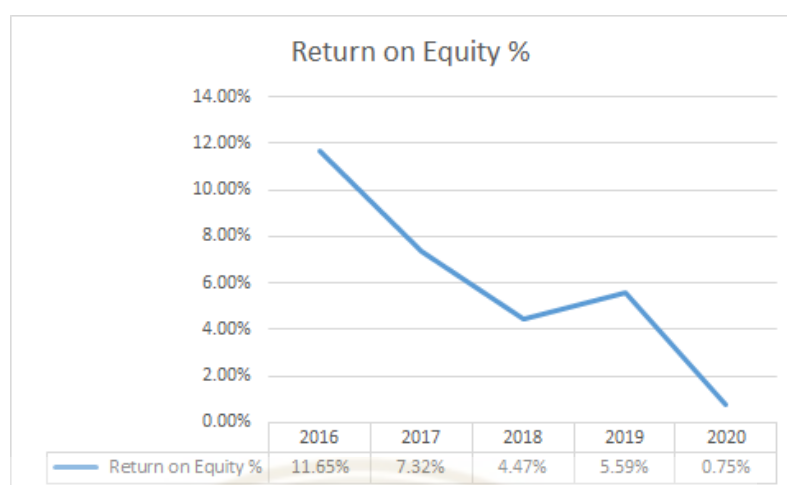
### 3.1 Profitability

#### Return on Equity (ROE) and Return on Assets (ROA)

ROE is the measure of business performance or profitability of the company. ROE can be used to identify problems or gaps for improvement of the company as well. DuPont Analysis break down the ROE into three factors:

1. Return on Sales or Net Profit Margin calculated by Net Profit divided by Sales. We can use the factor to measure marketing and sales performance or operating efficiency of the company.
2. Asset Turnover calculated by Sales divided by Total Assets. We can use this factor to measure operations performance or asset used efficiency.
3. Leverage or Equity Multiplier calculated by Total Assets divided by Total Equity. We can use this factor to measure the financial leverage of the company.





**Figure 3.1 ROE**

Source: Own calculation

**Table 3.1 ROE and ROA**

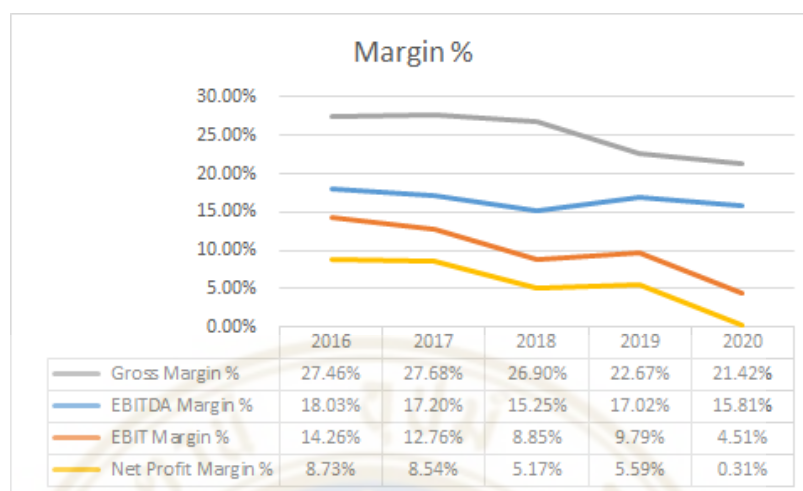
THG	2016	2017	2018	2019	2020
<b>ROE</b>	11.65%	7.32%	4.47%	5.59%	0.75%
<b>ROA</b>	5.74%	4.53%	2.18%	2.42%	0.31%
<b>Net Profit Margin</b>	8.21%	8.38%	4.90%	5.62%	0.85%
<b>Asset Turnover</b>	0.70	0.54	0.44	0.43	0.36
<b>Assets/Equity</b>	2.03	1.62	2.05	2.31	2.43

Source: Own calculation

The ROE of THG has declined from 2016 to 2018 and began to recover back in 2019. However, it's really worse again in 2020 that the ROE is only 0.75% due to COVID-19 pandemic. The hospital lost international patients because they couldn't travel across countries to use the service as the hospital. However, the average ROE of the healthcare sector in SET is 8.11%, so THG has a huge lower ROE from the peers.

We can understand it more by looking deeper in detail, the ROA is very low in 2020 because of the huge decrease in Profit Margin as well as the decreasing of asset turnover caused by lower revenue from previous years. However, the leverage level (assets/equity) is not so different from the previous year.

### 3.2 Margin Analysis



**Figure 3.2 Margin**

**Source: Own calculation**

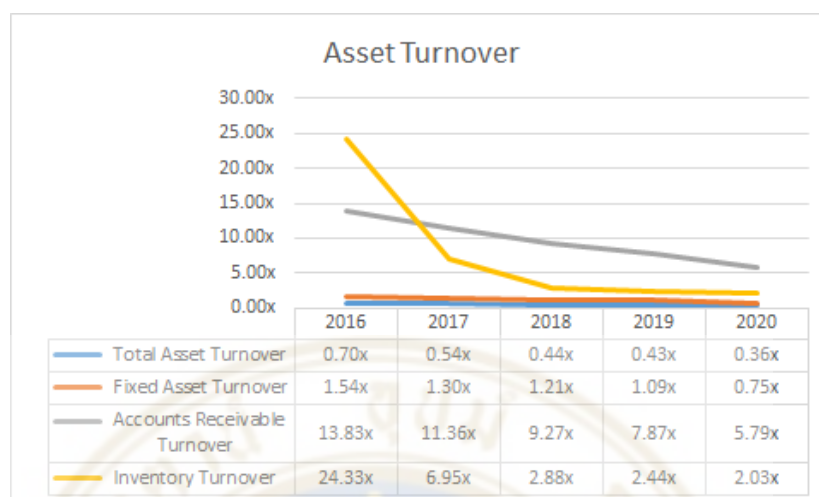
Gross Profit Margin showed the amount of profit left after deducted by the Cost of Goods Sold. In 2020, THG has Gross Profit Margin at 21.42% which is not far from the sector average at 25.92%.

EBIT Margin showed the amount of profit left after Gross Profit and SG&A cost. We can see that THG has much lower EBIT Margin in 2020 than 2019 because they can generate less revenue at 4.51% compared to the peers that have average EBIT Margin at 9.96%, meaning that THG may have more admin cost than the peers.

EBITDA Margin showed the EBIT include Depreciation and Amortization, we can see that THG have big amount of Depreciation and Amortization as the chart showed the big gap between EBITDA and EBIT.

Net Profit Margin showed a net amount of profit after excluding all costs including finance cost and tax out of revenue. We can see that the net profit of THG dropped a lot from 2019 because they can generate lower revenue but have to pay the same fixed cost, so the Net Profit Margin is only 0.31% while the sector average is 6.96%. THG will need to improve their cost structure more efficiently to compete with the peers.

### 3.3 Asset Turnover



**Figure 3.3 Asset Turnover**

**Source: Own calculation**

To analyze asset turnover, we should have the common size of each asset as well. We set the total asset to have common size as 100% and calculate the result that the common size of Fixed Asset is 54.91%, Account Receivable is 6.27%, and Inventory is 25.86%. We can see that Fixed Asset and Inventory will drive the turnover ratio a lot.

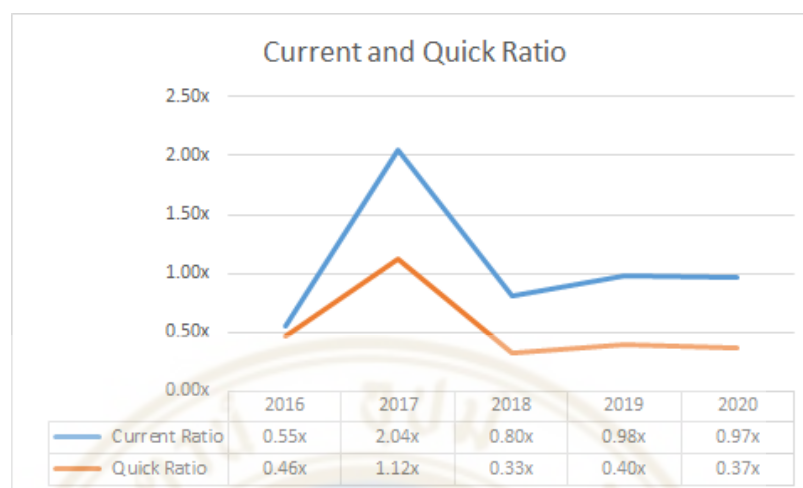
In 2020, the Total Asset Turnover showed that THG could generate revenue by 0.36 times of its total assets while the sector average is 0.62x, showing that THG has less efficiency to utilize total assets than the peers.

The Fixed Asset Turnover showed that THG could generate revenue by 0.75 times of its property and equipment net of accumulated depreciation while the sector average is 1.08x, showing that THG has less efficiency to utilize fixed assets than the peers.

The Account Receivable Turnover showed that THG could generate revenue by 5.79 times of its investment in account receivable while the sector average is 9.94x, showing that THG has less efficiency to generate sales by offering credit terms to customers than the peers.

Lastly, the Inventory Turnover showed that THG could generate revenue by 2.03 times of its investment in inventories while the sector average is 30.02x, showing that THG has less efficiency to utilize Inventory to generate sales than the peers.

### 3.4 Short Term Liquidity



**Figure 3.4 Current Ratio and Quick Ratio**

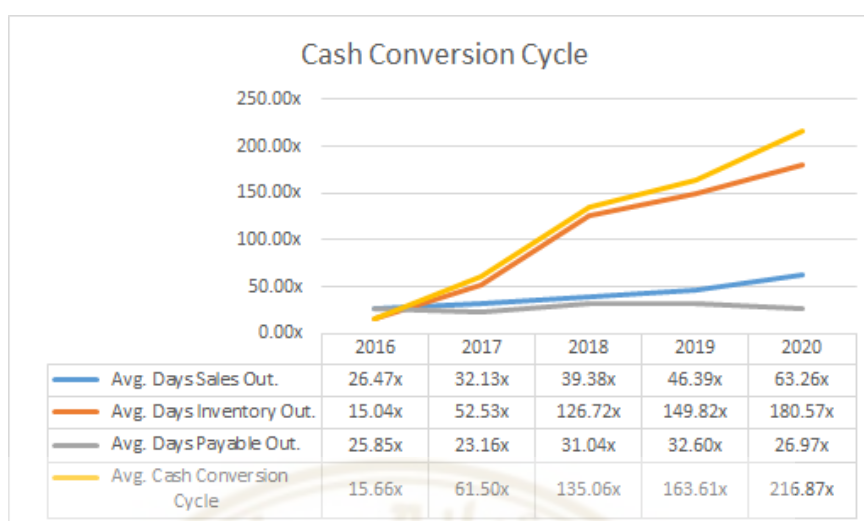
**Source: Own calculation**

Current Ratio and Quick Ratio showed the ability of the firm to pay off its debt that will be due within one year.

Current Ratio calculated from Current Assets divided by Current Liability. THG has the Current Ratio at about 1 time which is acceptable because the company has enough assets to pay off its incoming due shortly. Even, it's lower than the sector average which is 1.65 times but it's still good enough.

The more aggressive ratio is Quick Ratio which is calculated from Cash, Short Term Investment, and Account Receivable divided by Current Liability. That means the assets which the company can liquidate really quick to pay off their debt. THG has Quick ratio at 0.37 times while the sector average is at 1.12 times, meaning that THG has much lower ability to pay off its debt compared to the peers.





**Figure 3.5 Cash Conversion Cycle**

**Source: Own calculation**

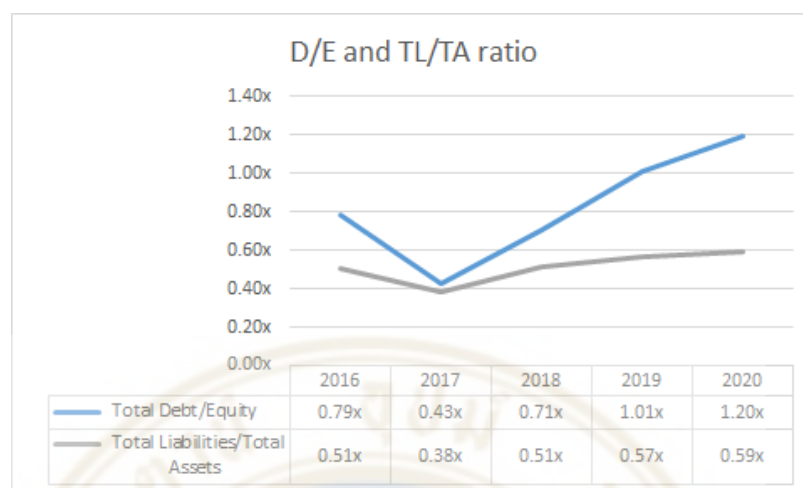
Days sales Outstanding (DSO) is the period that the company collects cash from customers after product/service has been sold. The DSO of THG is 63.26 days while the sector average is 41.54 means that THG can collect cash from customers slower or give longer credit terms to customers than the peers

Days Inventory Outstanding (DIO) is the period that the company purchases inventory to the sale of product/service. The DIO of THG is 180.57 days while the sector average is 14.67 means that THG can make sales of product/service a lot slower than the peers.

Days Payable Outstanding (DPO) is the period that the company purchases inventory to the day the company has to pay to suppliers. The DPO of THG is 26.97 days while the sector average is 58.86 means that THG has shorter credit terms from suppliers and lower negotiation power than the peers.

Lastly, Cash Conversion Cycle (CCC) showed the period that the company collects cash from customers after payout to suppliers for inventory. The CCC of THS is 216.87 days which is derived from long collection period and long inventory holding period while the sector average is -2.65 days. That means other competitors can even collect cash from customers before paying out to suppliers. This issue needed to be addressed seriously to help THG compete with competitors in better position.

### 3.5 Long Term Solvency



**Figure 3.6 Solvency Ratio**

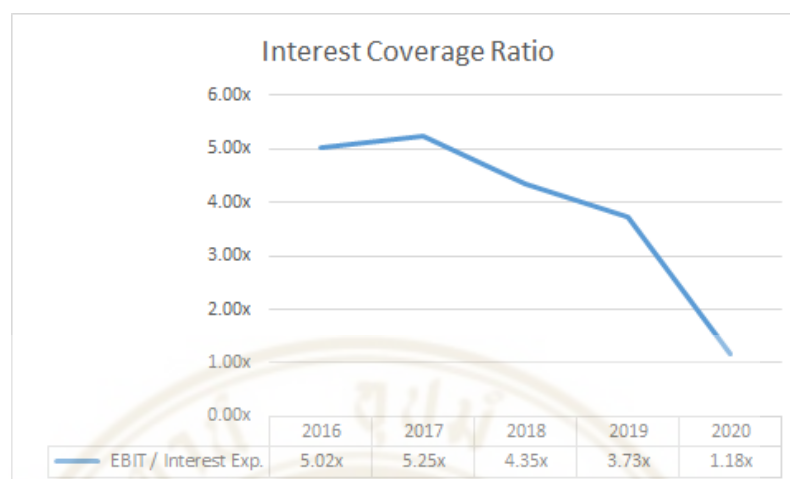
**Source: Own calculation**

To see the risk of the company whether the company can meet long-term financial obligation or not, we will consider Debt to Equity (D/E) and Total Liabilities to Total Assets (TL/TA).

Debt to Equity (D/E), to see how much the company uses debt to finance their operation. THG has the D/E ratio at 1.20 times compared to the sector average which is 0.62 times, meaning that THG uses Debt to finance their business more than the peers. However, the ratio is still at an acceptable level, not too much risk.

Total Liabilities to Total Assets (TL/TA), to see if the company goes into bankruptcy process whether they can dispose of the total asset to pay debt and remain to pay for equity holders or not. THG has TL/TA ratio at 0.59 times, meaning that they use 59% capital from liability to finance their assets which is still at an acceptable level.

### 3.6 Interest Coverage Ratio



**Figure 3.7 Interest Coverage Ratio**

**Source: Own calculation**

Interest Coverage Ratio showed the ability whether the company can generate operating profit to cover interest expense or not. We can see that the Interest Coverage Ratio keeps going over the past year because they can generate less income and issue more debt as well, especially in 2020, the ratio is only 1.18 times while the sector average is 136.03 times. We can conclude that THG has a long way lower ability to pay interest and is riskier than the peers.

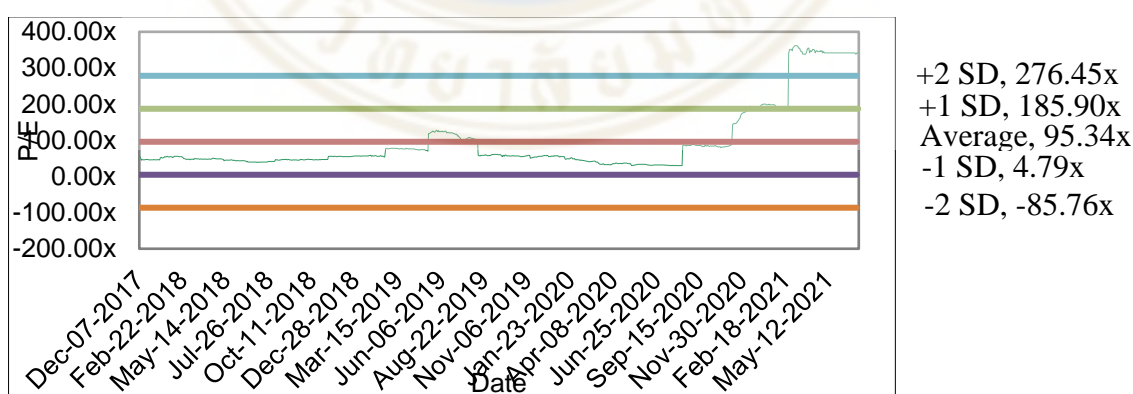
## CHAPTER IV

### RELATIVE VALUATION

The relative valuation of THG will based on 6 multiples consists of 1) Trailing P/E, 2) Forward P/E, 3) Trailing P/BV, 4) Forward P/BV, 5) Trailing EV/EBITDA, and 6) Forward EV/EBITDA. We will show the band for each multiples by plotting graph based on 5 years history together with each line of average, +/-1 standard deviation and +/-2 standard deviation to see whether the current stock price is overvalued or undervalued in relation to itself or not. After that, we will integrate each multiples to compare with competitors, we will receive 6 target price after we have done all the process at the end.

#### 4.1 Trailing Multiple

##### 4.1.1 Trailing P/E Band

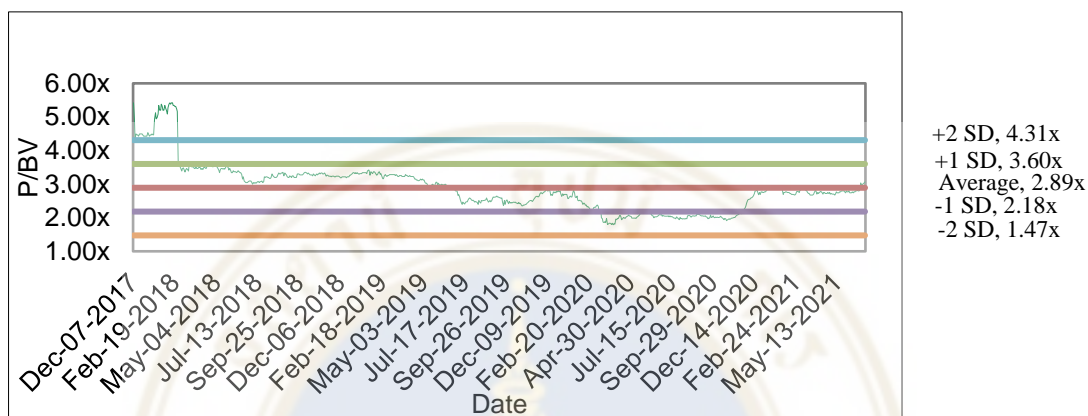


**Figure 4.1 Trailing P/E Band**

**Source: S&P Global Market Intelligence (2021)**

The current P/E as of 1 July 2021 is 341.45x which is higher than average P/E (95.34x) and above +2SD band (276.45x). We can conclude that the firm is overvalue in relation to itself.

#### 4.1.2 Trailing P/BV Band

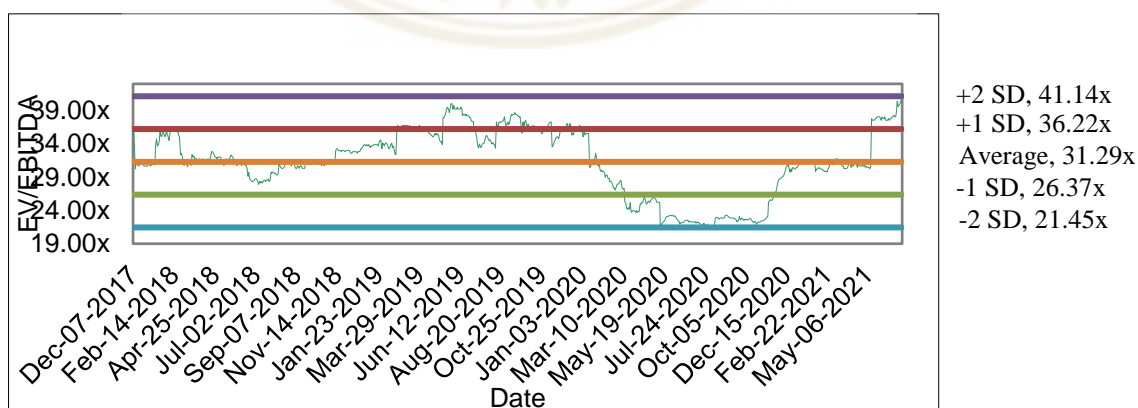


**Figure 4.2 Trailing P/BV Band**

**Source: S&P Global Market Intelligence (2021)**

The current P/BV as of 1 July 2021 is 3.07x which is slightly higher than average P/BV (2.89x). We can conclude that the firm is at fair value in relation to itself.

#### 4.1.3 Trailing EV/EBITDA Band



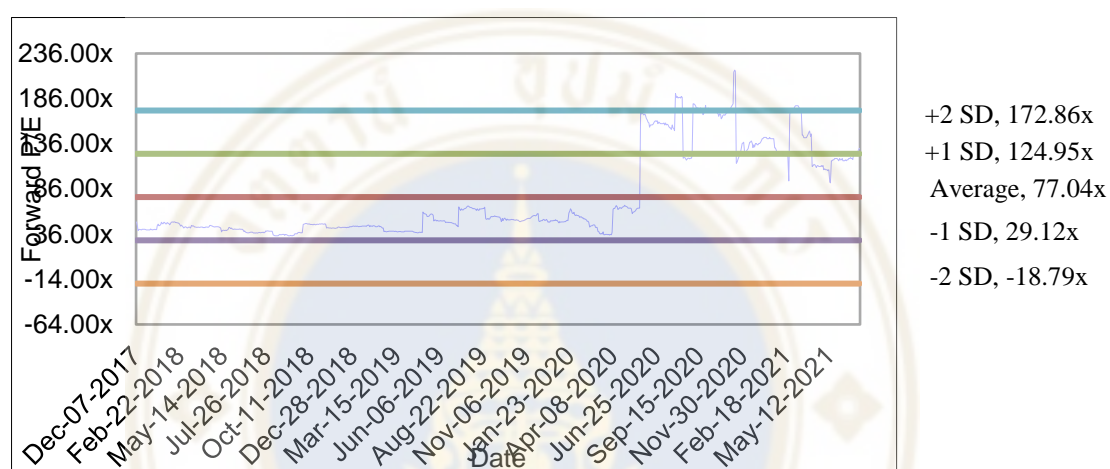
**Figure 4.3 Trailing EV/EBITDA Band**

**Source: S&P Global Market Intelligence (2021)**

The current EV/EBITDA as of 1 July 2021 is 40.61x which is higher than average EV/EBITDA (31.29x) and slightly below +2SD band (41.14x). We can conclude that the firm is overvalue in relation to itself.

## 4.2 Forward Multiple

### 4.2.1 Forward P/E Band

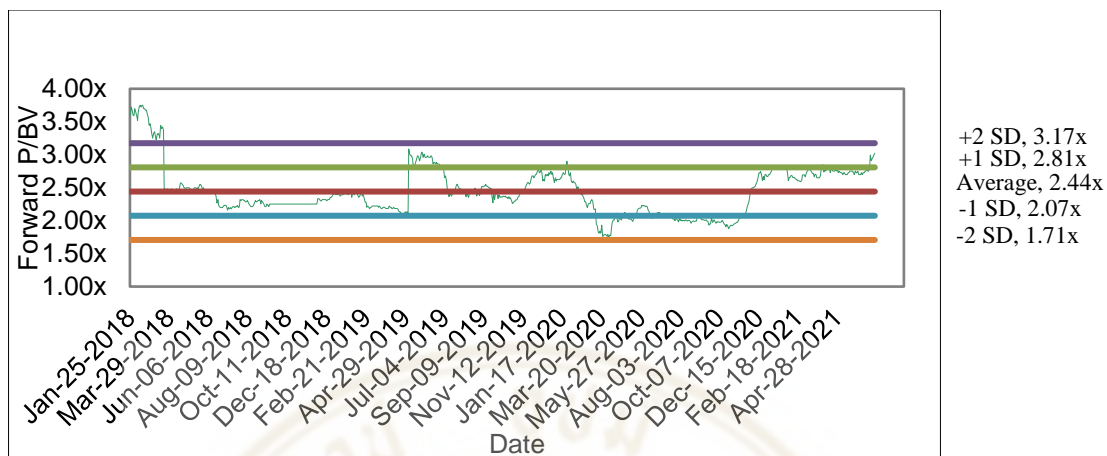


**Figure 4.4 Forward P/E Band**

**Source: S&P Global Market Intelligence (2021) and Refinitiv (2021)**

The Forward P/E as of 1 July 2021 is 127.68x which is higher than average Forward P/E (77.04x) and slightly higher than +1SD Band (124.95x). We can conclude that the firm is overvalue in relation to itself.

### 4.2.2 Forward P/BV Band

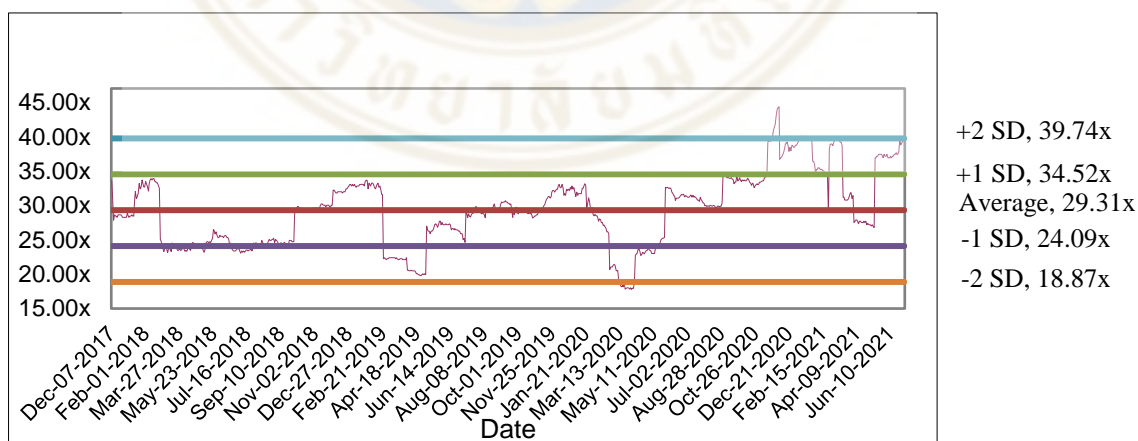


**Figure 4.5 Forward P/BV Band**

**Source: S&P Global Market Intelligence (2021)**

The Forward P/BV as of 1 July 2021 is 3.02x which is higher than average Forward P/BV (2.44x), higher than +1SD Band (2.81x) but below +2SD (3.17x). We can conclude that the firm is overvalue in relation to itself.

### 4.2.3 Forward EV/EBITDA Band



**Figure 4.6 Forward EV/EBITDA Band**

**Source: S&P Global Market Intelligence (2021)**

The Forward EV/EBITDA as of 1 July 2021 is 39.81x which is higher than average Forward EV/EBITDA (29.31x) and higher than +2SD (39.74x) as well. We can conclude that the firm is overvalue in relation to itself.





### 4.3 Peers Group Multiples (Trailing)

Table 4.1 Peers Group Multiples (Trailing)

Ticker	Company Name	Country	Currency	Market Capital	Closing Price (1 Jul 2021)	Trailing P/E (1 July 2021)
THG	Thonburi Healthcare Group PCL	Thailand	THB	23,626,360,800	28.00	341.45
CHG	Chularat Hospital Group PCL	Thailand	THB	45,100,000,000	4.10	47.88
BCH	Bangkok Chain Hospital PCL	Thailand	THB	59,101,827,221	23.70	45.21
BH	Bumrungrad Hospital PCL	Thailand	THB	102,104,254,997	128.50	207.26
BDMS	Bangkok Dusit Medical Services PCL	Thailand	THB	376,640,444,912	23.70	62.93
VIBHA	Vibhavadi Hospital PCL	Thailand	THB	30,138,421,592	2.38	69.73
MIKA	PT Mitra Keluarga Karyasehat Tbk.	Indonesia	IDR	38,877,820,527,000	2730.00	40.53
MAXHEALTH	Max Healthcare Institute Ltd.	India	INR	254,864,589,833	263.85	177.92
					Peer Average	93.07
					Peer Median	62.93

Ticker	Company Name	Country	Currency	Market Capital	Closing Price (1 Jul 2021)	Trailing P/BV (1 July 2021)
THG	Thonburi Healthcare Group PCL	Thailand	THB	23,626,360,800	28.00	3.07
CHG	Chularat Hospital Group PCL	Thailand	THB	45,100,000,000	4.10	10.55
BCH	Bangkok Chain Hospital PCL	Thailand	THB	59,101,827,221	23.70	8.19
BH	Bumrungrad Hospital PCL	Thailand	THB	102,104,254,997	128.50	5.48
BDMS	Bangkok Dusit Medical Services PCL	Thailand	THB	376,640,444,912	23.70	4.22
VIBHA	Vibhavadi Hospital PCL	Thailand	THB	30,138,421,592	2.38	3.68
MIKA	PT Mitra Keluarga Karyasehat Tbk.	Indonesia	IDR	38,877,820,527,000	2730.00	7.43
MAXHEALTH	Max Healthcare Institute Ltd.	India	INR	254,864,589,833	263.85	4.29
					Peer Average	6.26
					Peer Median	5.48

Ticker	Company Name	Country	Currency	Market Capital	Closing Price (1 Jul 2021)	Trailing EV/EBITDA (1 July 2021)
THG	Thonburi Healthcare Group PCL	Thailand	THB	23,626,360,800	28.00	40.61
CHG	Chularat Hospital Group PCL	Thailand	THB	45,100,000,000	4.10	29.70
BCH	Bangkok Chain Hospital PCL	Thailand	THB	59,101,827,221	23.70	24.11
BH	Bumrungrad Hospital PCL	Thailand	THB	102,104,254,997	128.50	59.40
BDMS	Bangkok Dusit Medical Service PCL	Thailand	THB	376,640,444,912	23.70	30.08
VIBHA	Vibhavadi Hospital PCL	Thailand	THB	30,138,421,592	2.38	41.85
MIKA	PT Mitra Keluarga Karyasehat Tbk.	Indonesia	IDR	38,877,820,527,000	2730.00	25.41
MAXHEALTH	Max Healthcare Institute Ltd.	India	INR	254,864,589,833	263.85	68.04
					Peer Average	39.80
					Peer Median	30.08

Source: S&P Global Market Intelligence (2021) and Refinitiv (2021)

## 4.4 Peers Group Multiples (Forward)

**Table 4.2 Peers Group Multiples (Forward)**

Ticker	Company Name	Country	Currency	Market Capital	Closing Price (1 Jul 2021)	Forward P/E (1 July 2021)
THG	Thonburi Healthcare Group PCL	Thailand	THB	23,626,360,800	28.00	127.68
CHG	Chularat Hospital Group PCL	Thailand	THB	45,100,000,000	4.10	39.39
BCH	Bangkok Chain Hospital PCL	Thailand	THB	59,101,827,221	23.70	36.47
BH	Bumrungrad Hospital PCL	Thailand	THB	102,104,254,997	128.50	54.47
BDMS	Bangkok Dusit Medical Service PCL	Thailand	THB	376,640,444,912	23.70	53.22
VIBHA	Vibhavadi Hospital PCL	Thailand	THB	30,138,421,592	2.38	40.20
MIKA	PT Mitra Keluarga Karyasehat Tbk.	Indonesia	IDR	38,877,820,527,000	2730.00	38.66
MAXHEALTH	Max Healthcare Institute Ltd.	India	INR	254,864,589,833	263.85	36.07
Peer Average						42.64
Peer Median						39.39

Ticker	Company Name	Country	Currency	Market Capital	Closing Price (1 Jul 2021)	Forward P/BV (1 July 2021)
THG	Thonburi Healthcare Group PCL	Thailand	THB	23,626,360,800	28.00	3.02
CHG	Chularat Hospital Group PCL	Thailand	THB	45,100,000,000	4.10	9.83
BCH	Bangkok Chain Hospital PCL	Thailand	THB	59,101,827,221	23.70	7.43
BH	Bumrungrad Hospital PCL	Thailand	THB	102,104,254,997	128.50	5.65
BDMS	Bangkok Dusit Medical Service PCL	Thailand	THB	376,640,444,912	23.70	4.32
VIBHA	Vibhavadi Hospital PCL	Thailand	THB	30,138,421,592	2.38	3.61
MIKA	PT Mitra Keluarga Karyasehat Tbk.	Indonesia	IDR	38,877,820,527,000	2730.00	6.84
MAXHEALTH	Max Healthcare Institute Ltd.	India	INR	254,864,589,833	263.85	4.01
Peer Average						5.96
Peer Median						5.65

Ticker	Company Name	Country	Currency	Market Capital	Closing Price (1 Jul 2021)	Forward EV/EBITDA (1 July 2021)
THG	Thonburi Healthcare Group PCL	Thailand	THB	23,626,360,800	28.00	35.17
CHG	Chularat Hospital Group PCL	Thailand	THB	45,100,000,000	4.10	25.63
BCH	Bangkok Chain Hospital PCL	Thailand	THB	59,101,827,221	23.70	20.17
BH	Bumrungrad Hospital PCL	Thailand	THB	102,104,254,997	128.50	29.00
BDMS	Bangkok Dusit Medical Service PCL	Thailand	THB	376,640,444,912	23.70	22.82
VIBHA	Vibhavadi Hospital PCL	Thailand	THB	30,138,421,592	2.38	25.78
MIKA	PT Mitra Keluarga Karyasehat Tbk.	Indonesia	IDR	38,877,820,527,000	2730.00	23.40
MAXHEALTH	Max Healthcare Institute Ltd.	India	INR	254,864,589,833	263.85	21.90
Peer Average						24.10
Peer Median						23.40

Source: S&P Global Market Intelligence (2021)

## 4.5 Calculate Expected Price from Peers

**Table 4.3 Expected Price from Relative Valuation**

	2021	2022
EPS	0.17	0.37
BVPS	9.27	9.44
EBITDA (MB)	835.00	1,275.00
Debt (MB)	10,194.88	10,194.88
Cash (MB)	1,011.53	1,011.53
No. of Share (mm)	843.80	843.80
Expected Price		
Trailing P/E		
Median	10.70	23.28
Trailing P/BV		
Median	50.78	51.71
Trailing EV/EBITDA		
Median	18.88	34.57
Average	26.79	36.52
	2021	2022
EPS	0.17	0.37
BVPS	9.27	9.44
EBITDA (MB)	835.00	1,275.00
Debt (MB)	10,194.88	10,194.88
Cash (MB)	1,011.53	1,011.53
No. of Share (mm)	843.80	843.80
Expected Price		
Forward P/E		
Median	6.70	14.57
Forward P/BV		
Median	52.42	53.38
Forward EV/EBITDA		
Median	12.27	24.48
Average	23.80	30.81

**Source: S&P Global Market Intelligence (2021) and own calculation**

We considered the all multiples to see the rationales of each multiple which can be listed as followed:

1) P/E is useful because earnings powers is major driver for value. It will be a good choice if the company have stable earning every years. However, it's already reflect leverage because the earnings come after subtracting finance cost and tax. Each companies might have different leverage level.

2) P/BV, Book Value is more stable than earning. P/BV will be a good choice if the earning is fluctuating. However, P/BV might be inappropriate if the assets of the benchmarks differ significantly.

3) EV/EBITDA is appropriate for companies with different debt level. EBITDA can control the differences in depreciation and amortization. It's useful for the company with significant investments to exclude high depreciation and amortization effect which is non-cash expense.

4) Trailing is based on historical data while the Forward is based on estimated/projected data in the future by analyst consensus.

After reviewing the financial statement of THG, we found that the income is unstable, it's fluctuate up and down over the past 5 years. The company has a lot of new investment and the gap between EBIT and EBITDA is huge which means that there is high depreciation and amortization. Moreover, the size and leverage level of peer companies are different. Hence, we preferred to use forward EV/EBITDA multiple to calculate expected price because we would like to see the price based on data in the future rather than historical data.

However, to calculate price from EV/EBITDA, we need to apply calculation below:

$$EV = \text{Market Capitalization} + \text{Total Debt} - \text{Cash and Cash Equivalents}$$

$$\text{Market Capitalization} = EV - \text{Total Debt} + \text{Cash and Cash Equivalents}$$

$$EV = \text{EV/EBITDA multiple} * \text{EBITDA}$$

$$\text{Expected Price} = (\text{EV/EBITDA multiple} * \text{EBITDA} - \text{Total Debt} + \text{Cash and Cash Equivalents}) / \text{Number of shares}$$

With the result that our expected price in 2021 will be 12.27 THB and expected price in 2022 will be 24.48 THB.

## CHAPTER V

### INVESTMENT RISKS AND DOWNSIDE POSSIBILITIES

The risk matrix illustrates risks that are likely to occur to Thonburi Healthcare Group, as well as, assess the degree of the likelihood and severity.

**Table 5.1 Risk Matrix**

RISK MATRIX	Not Significant	Minor	Moderate	Severe
Almost Certain		New healthcare policies	Economic uncertainty	
Likely		Competition Risks		Investment expansion
Possible				
Rare				

**Source: Thonburi Healthcare Group (2021)**

#### **Economic Uncertainty**

The COVID-19 Pandemic adversely results in global economic fluctuation. It radically disrupts the consumer's lifestyle. An increasing uncertainty makes it more difficult to assess expected revenue, expenses and threads. Although healthcare is a defensive sector where it does not fluctuate much from market fluctuation, revenue records a significant decrease. The reason is that patients delay their treatment or use public hospitals instead because they have lower purchasing power and less confidence on their future earnings. A bad investment climate does not benefit THG's recent investment project. The shortage of income growth harshly damages EBIT margin and it directly affects company cash flow.

### **Risk in healthcare policies issued by the public sector**

Private hospitals have to follow the public sector regulation. Therefore, if the government approves healthcare-related policy, the new policy probably hurts margins. Firstly, THG enjoys cash-based patients. If the government launches an expanded number of people entitled for universal healthcare coverage, it may affect the number of general patients. Moreover, the commerce department is keeping an eye on the price of medicine and medical services in private hospitals. The margin of medicine charge may decrease.

### **Competition risk**

The competition is fierce because every company tries to survive in the global depression. The hospital has to compete with public hospitals, bigger hospital chains, clinics, and even pharmacies. The intense competition reduces profitability.

### **Risk of investment expansion**

Thonburi healthcare group invests large amounts of capital for home healthcare and senior care projects in response to the aging society trend. However, the business model does not guarantee success in Thailand. No one can answer how Thai people will act in an aging society.

## **CHAPTER VI**

### **CONCLUSION AND RECOMMENDATION**

Thonburi Healthcare Group (THG) is evaluated based on relative valuation in various multiple included trailing P/E, trailing P/BV, trailing EV/EBITDA, forward P/E, forward P/BV, and forward EV/EBITDA to value the firms based on the value of comparable firms.

First, we illustrated the five years historical data to analyze whether the firm is overvalued or undervalued compared to itself and found that THG stock price is overvalued in all multiple aspects. After that, we choose the peers from leading companies in same business; five from domestic market and two from international market and use the median of peers to minimize outlier effect to calculate the target price of THG compare with the peers. We came up to use forward EV/EBITDA to control the huge amount of depreciation and amortization in hospital industry and to avoid the different of size and leverage level of each company.

We concluded that the target price for 2021 is 12.27 Baht and for 2022 is 24.48 Baht while the current price as of July 1, 2021 is at 28.00 baht which is overvalued. Moreover, we looked into the detail of financial strength of the company and found that THG is lower than peers average from stock exchange of Thailand in many aspects such as ROE, ROA, and Profit Margin. As the result, we concluded that the company is underperforming and our recommendation is to “sell” at the current price.

## REFERENCES

- Gregory, M. (2019, May). Commerce Ministry warns on price. Bangkok Post.  
<https://www.bangkokpost.com/learning/easy/1681336/commerce-ministry-warns-on-prices>
- International Monetary Fund. (n.d.). Thailand and the IMF.  
<https://www.imf.org/en/Countries/THA>
- Multiple Sclerosis Trust. (2018, May). Care in the NHS. <https://mstrust.org.uk/a-z/care-in-the-nhs>
- National Statistical Office. (2018). The 2017 Private Hospital Survey.
- Ninkitsaranont, P. (2020, September 20). Industry Outlook 2020-2022: Private Hospital. Bank of Ayudhya Public Company Limited.  
<https://www.krungsri.com/en/research/industry/industry-outlook/Services/Private-Hospitals/IO/io-Private-Hospitals>
- Refinitiv. (2021). THONBURI HEALTHCARE GROUP PCL. <https://apac1.apps.cp.thomsonreuters.com/web/Apps/Corp/?s=THG.BK&st=RIC&app=true#/Valuation>
- Stock2morrow. (2019, June 30). คุ่มกำไร'รพ.เอกชน'.
- S&P Global Market Intelligence. (2021). Thonburi Healthcare Group Public Company Limited (SET:THG) Public Company Profile. <https://www.capitaliq.com/CIQDotNet/company.aspx?companyId=35546>
- Thai Private Hospital Association. (2014). เผลยที่เมา... “ราคาขาโรงพยาบาลเอกชน” แพง?
- The Stock Exchange of Thailand. (2021, June 5). Sector Quotation.
- Thonburi Healthcare Group. (2021). Annual Report 2020.
- Wilairat, C., Jedtika, T. (2018, November). ธุรกิจศูนย์ดูแลผู้สูงอายุในไทย. Kasikornbank Public Company Limited. [https://kasikornbank.com/international-business/th/Thailand/IndustryBusiness/Documents/201811\\_Thailand\\_Elderly\\_TH.pdf](https://kasikornbank.com/international-business/th/Thailand/IndustryBusiness/Documents/201811_Thailand_Elderly_TH.pdf)





## **APPENDIX A: FIVE FORCE ANALYSIS**

The **Five Force Analysis** of THG and Hospital Industry can be described as followed:

### **Rivalry among competitors.**

It's high competition in the healthcare industry because there are many healthcare providers in Bangkok and other provinces of Thailand both public and private. However, THG is among the top 5 private hospitals in Thailand that can provide up to tertiary care and cover many areas.

### **The bargaining power of buyers.**

It's weak bargaining power of buyers. The buyers hold a weaker position in healthcare service because it's a specialized service. People have to pay professional and service fees to receive high quality and fast service. They are willing to pay for good health and a better life.

### **The bargaining power of suppliers.**

It's low bargaining power of suppliers. The suppliers of hospitals are mostly the medical equipment and medicine. There are many competitors among suppliers and they would offer the best alternative and price to hospitals. Hence, the bargaining power of hospitals is higher than suppliers.

### **Substitute of existing products.**

It's high threat of substitute products. Beside the private hospitals, there are other healthcare providers such as public hospital, private clinics. However, if the patients need more complex care, high technology and specialized treatment, the private hospitals would be the best place to serve patients with more comfort.

**Threat of the entry of new entrants.**

It's low threat of new entrants because private hospitals are capital intensive businesses, it requires a large amount of initial investment for both location and equipment. Moreover, the need for knowledge and specialization from doctors and other healthcare practitioners is necessary to do the business. Hence, there is a high barrier for new players to enter the healthcare business.



## APPENDIX B: TREND ANALYSIS

### Income Statement

Income Statement	CMS	2020	2019	2018	2017	2016	CAGR	2015 (STD)
Revenue	100%	126%	142%	123%	114%	108%	5%	100%
Other Revenue		-	-	-	-	-		-
<b>Total Revenue</b>	100%	126%	142%	123%	114%	108%	5%	100%
Cost Of Goods Sold	79%	135%	149%	122%	112%	106%	6%	100%
<b>Gross Profit</b>	21%	103%	122%	125%	120%	112%	1%	100%
Selling General & Admin Exp.	19%	180%	179%	177%	129%	109%	12%	100%
<b>Other Operating Exp., Total</b>	19%	180%	179%	177%	129%	109%	12%	100%
<b>Operating Income</b>	2%	22%	63%	71%	110%	115%	-26%	100%
Interest Expense	-4%	173%	133%	89%	99%	109%	12%	100%
Interest and Invest. Income	0%	92%	100%	83%	71%	83%	-2%	100%
<b>Net Interest Exp.</b>	-3%	198%	143%	90%	107%	117%	15%	100%
<b>EBT Excl. Unusual Items</b>	0.37%	4%	42%	58%	93%	99%	-48%	100%
<b>EBT Incl. Unusual Items</b>	1%	6%	77%	63%	89%	92%	-42%	100%
Income Tax Expense	0.36%	15%	72%	64%	65%	88%	-32%	100%
<b>Earnings from Cont. Ops.</b>	0.31%	4%	79%	63%	97%	93%	-48%	100%
<b>Net Income to Company</b>	0.31%	4%	79%	63%	97%	93%	-48%	100%
Minority Int. in Earnings	1%	-132%	-9%	64%	37%	109%	-206%	100%
<b>Net Income</b>	1%	11%	84%	63%	100%	93%	-35%	100%

### Balance Sheet

Assets	CMS	2020	2019	2018	2017	2016	2015 (STD)
Cash And Equivalents	2%	69%	93%	104%	81%	78%	100%
Short Term Investments	0%	1%	11%	22%	21%	21%	100%
<b>Total Cash &amp; ST Investments</b>	3%	39%	53%	64%	52%	51%	100%
Accounts Receivable	6%	295%	291%	194%	161%	109%	100%
Other Receivables	0%	66%	56%	19%	8%	9%	100%
<b>Total Receivables</b>	7%	253%	255%	170%	133%	91%	100%
Inventory	14%	1779%	1725%	1504%	721%	129%	100%
Other Current Assets	1%	228%	232%	65%	16%	24%	100%
<b>Total Current Assets</b>	24%	230%	236%	201%	123%	67%	100%
Gross Property, Plant & Equipment	80%	297%	216%	186%	145%	150%	100%
Accumulated Depreciation	-25%	188%	132%	122%	115%	107%	100%
<b>Net Property, Plant &amp; Equipment</b>	55%	404%	299%	248%	175%	193%	100%
Long-term Investments	10%	285%	360%	334%	313%	274%	100%
Other Intangibles	1%	407%	4285%	4286%	4358%	150%	100%
<b>Total Assets</b>	<b>100%</b>	<b>276%</b>	<b>276%</b>	<b>244%</b>	<b>191%</b>	<b>142%</b>	<b>100%</b>