

**DISCOUNTED CASH FLOW VALUATION OF  
DYNASTY CERAMIC PUBLIC COMPANY LIMITED**



**A THEMATIC PAPER SUBMITTED IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR  
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entitled  
**DISCOUNTED CASH FLOW VALUATION OF  
DYNASTY CERAMIC PUBLIC COMPANY LIMITED**

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**DISCOUNTED CASH FLOW VALUATION OF DYNASTY CERAMIC PUBLIC COMPANY LIMITED**

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**ABSTRACT**

This thematic paper examines to value the stock price of Dynasty Ceramic Public Company Limited (DCC) base on discounted cash flow model (DCF). An entity perspective, the business derives cash payoffs in form of free cash flow. To estimate the entire company value, free cash flow discounted with appropriate weighted average cost of capital commensurate with risk involved are considered. The method can be used to value shareholders' equity value by deducting debt value from the calculated firm value. With strong performance and large market share including expectation of strong industry growth in following years, we expect the conservatively optimistic future for DCC. The target price shall be around 1.97 Baht per share while the current price is at 1.86 Baht per share. Thus, the recommendation is to BUY. Nevertheless, other external factors which beyond expectation might lead to less effectiveness in valuation of target price.

**KEY WORDS:** Dynasty Ceramic Public Company Limited/ DCC/ Valuation/ Discounted Cash Flow / DCF

53 pages

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## LIST OF ABBREVIATIONS

ASEAN	The Association of Southeast Asian Nations is a regional intergovernmental organization comprising ten countries in Southeast Asia.
B	Beta
Baa1	The eighth highest rating in Moody's Long-term Corporate Obligation Rating. Obligations rated Baa1 are subject to moderate credit risk. They are considered medium grade and as such may possess certain speculative characteristics.
BOT	Bank of Thailand
B/S	Balance Sheet
CAGR	Compound annual growth rate
CF	Cash flow
CAPex	Capital expenditure
DCC	Dynasty Ceramic Public Company Limited
DCF	Discounted Cash Flow
D/E	Debt to equity
EBIT	Earnings before taxes
EOS	Economy of scale
ERP	Equity risk premium
EV	Enterprise value
FCFF	Free Cash Flow to Firm
FV	Future value
GDP	Gross Domestic Product
I/S	Income Statement
Kd	Cost of debt
Ke	Cost of equity
L-T	Long term

## LIST OF ABBREVIATIONS (cont.)

MLR	Minimum loan rate
NOPAT	Net operating after taxes
No.	Number
Opt.	Operating
PPE	Property plant and equipment including intangible assets
PV	Present value
p.a.	Per annum
Q	Quarter
RCI	Royal Ceramic Industry PLC
Rf	Risk free rate
Rm	Return on market
SET	The Stock Exchange of Thailand
Sq.m.	Square metre
S-T	Short term
TISI	Thai industrial standards institute (TISI)
TTOP	Tile Top Industry PLC
TV	Terminal Value
UMI	Union Mosaic Public CO., LTD.
VUCA world	An acronym used by the American Military. It stands for Volatile, Uncertain, Complex and Ambiguous
WACC	Weighted average cost of capital
Wd	Weighted average cost of debt
We	Weighted average cost of equity
YE	Year ended
YoY	Year-over-year

# CHAPTER I

## VALUATION

### 1.1 Highlights

#### 1.1.1 Supporting from Thai Government

In 2019, Thai government plans to support infrastructure construction projects in capital city, frontier, and especially in up-countries i.e. high speed train, electric train, expressway, electrical wire under the ground project, and etc. That will affect Ceramic Tiles and Walls businesses because this business is considered as construction materials, thus, the infrastructure projects that have buildings benefit to this business and also real estate business. Ministry of Transport (2016)

#### 1.1.2 Expedition of outlets and renting spaces for another company

Regarding DCC (2019)'s policy, in year 2019-2023, there is going to be about 4-5 new outlets opened in Thailand. In addition, the company will renovate the exciting outlets to be more modern. And the company has available space for other companies to rent as well.

#### 1.1.3 Recommendation for BUY

The current stock price of DCC is 1.86 Baht per share as of 30 November 2019, while we forecasted the target price in 2019 is around 1.97 Baht per share and expected value of investor in 2020 is around 2.24 Baht per share. The share price of DCC is upside about 6.08% and 20.24% in 2019 and 2020 by frequency. However, as the current value is higher than market value, we therefore decide to BUY stocks because we believe FCFE will reflect the intrinsic value of the company base on gradual consistent growth the future.



**Figure 1.1 5-year Price Performance**

Source: Settrade (2019)

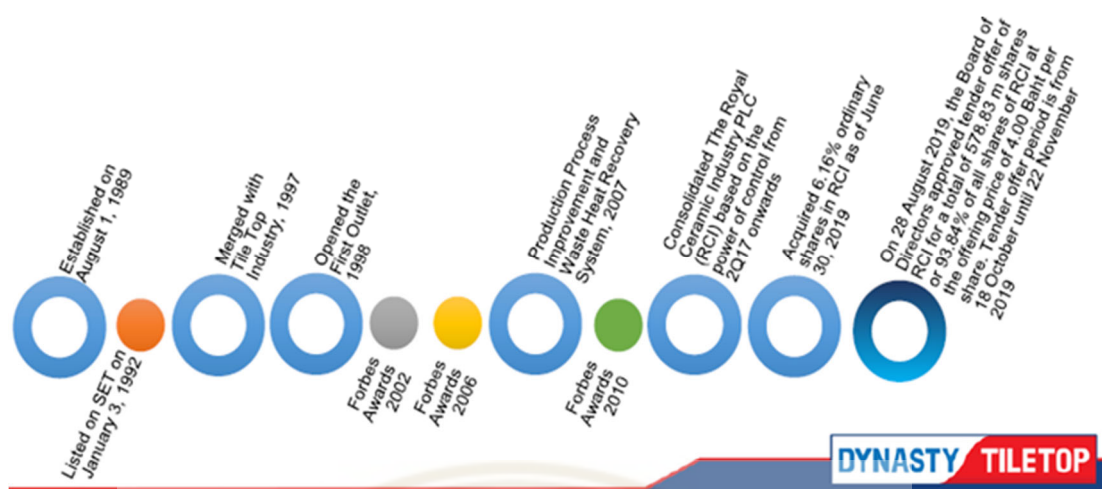
## 1.2 Business Description

The whole chapter about Business Description is summarized from DCC (2018) and DCC (2019). Dynasty Ceramic Public Company Limited (DCC) was established in 1989 earlier known as Royal Floor Tiles Co., Ltd. (Figure 2.1). Business-wise, DCC is specializing primarily on the manufacturing and distribution of ceramic tiles and walls, both domestically and internationally. In 2000, DCC expanded its production capacity by acquiring Tile Top Industry Public Co., Ltd. and its factory. DCC currently holds a major share of 96.83% in Tile Top Industry Public Co., Ltd.

In 2005, DCC heavily invested through its three subsidiaries Pick and Pay Co. Ltd., Muang thong Ceramic Co. Ltd. and Worldwide Ceramic Co. Ltd, to build factory outlets to support the retail business. This step allowed DCC to get more in touch with its customers, understand their preferences and purchasing trends. As a result, DCC improved its products and services and increased sales.

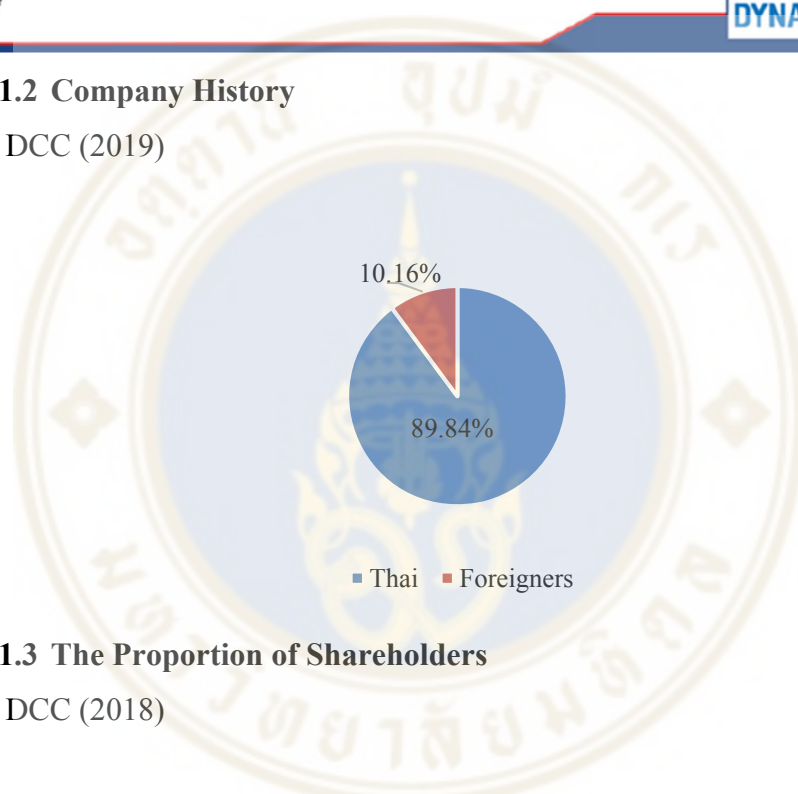
In 2014, DCC has restructured its business by Entire Business Transfer of its three subsidiaries with the goal to increase the effectivity of the business and lower the costs and expenses.

DCC and its subsidiaries produce the ceramic tiles. The secondary business comprises purchasing construction equipment in households such as staircase, grout and etc. to sell locally and aboard. The company currently owned by Thai shareholders around 89.84% and 10.16% by Non-Thai (Figure 1.3).



**Figure 1.2 Company History**

Source: DCC (2019)



**Figure 1.3 The Proportion of Shareholders**

Source: DCC (2018)

As the trend of customer demand rapidly changes, the company has to develop its product to meet customer demand, increase in productivity of the production system by using technology, develop software in order to satisfy its customers and consider social and environmental responsibility.

### 1.2.1 Plan and Strategy

In 2019, the company will continue to develop the potential of its employees in a level to improve its service quality and also set forth marketing strategies for the next year as follows:

- **Develop Distribution Channel and Customer Approach**

The key strength of the company is retail outlets that allow the company to get close to its customers, however, technology is also important which leads the company to develop its online website that is more informative and user-friendly and acts as a brochure that customers can choose from and select over a thousand designs of its tiles online.

- **Existing Store Renovation**

The company's plan to continuously renovate existing stores remains firm by refreshing the environment of the stores to be more modern with parking area as well as putting air-conditioning in some outlets.

- **Progress with Construction Material Community Mall**

In 2019, the company plans to rent out 5-10 more locations, in addition to the 3 locations already rented out in 2018.

- **Look for New Opportunity in Construction Projects and Wholesales**

Regarding wholesales, the company plans to launch a new fighting brand, manufacture OEM products, as well as assisting small shops on product and sales knowledge. As for construction projects, we target to communicate our products directly to developer and architects in order to grow its business.



## 1.2.2 Income Structure

**Table 1.1 Total Income structure in the last 3 years (Consolidated Financial Statement)**

Type of Income	by	Y2018		Y2017 (1)		Y2016	
		MB	%	MB	%	MB	%
<b>Domestic</b>							
Sales from tiles	DCC + Purchases from subsidiaries	7,428	93	6,790	92	6,672	93
Sales from grout and others	DCC and Outlets	326	4	285	4	201	3
Total Sales - Domestic		7,754	97	7,075	96	6,873	96
<b>Overseas</b>							
Sales from tiles	DCC + TTOP	273	3	288	4	291	4
Sales from grout and others	DCC	0	0	0	0	1	0
Total Sales - Overseas		273	3	288	4	292	4
Total Sales		8,027	100	7,363	100	7,165	100
Others income		26	0	30	0	19	0
Total income		8,053	100	7,393	100	7,184	100

Source: DCC (2018)

In table 1.1, the total income structure in the last 3 years is presented (Consolidated Financial Statement). Regarding domestic sales, the income in 2018 came primarily from sales from tiles by the company and purchases from subsidiaries (93%), the remaining domestic income came from sales from grout and others by the company and outlets (4%). Therefore, income from domestic sales made 97% of the total income of the company. The rest of the total income came from sales from tiles of overseas by the company and TTOP (3%).

## 1.3 Industry Overview and Competitive Positioning

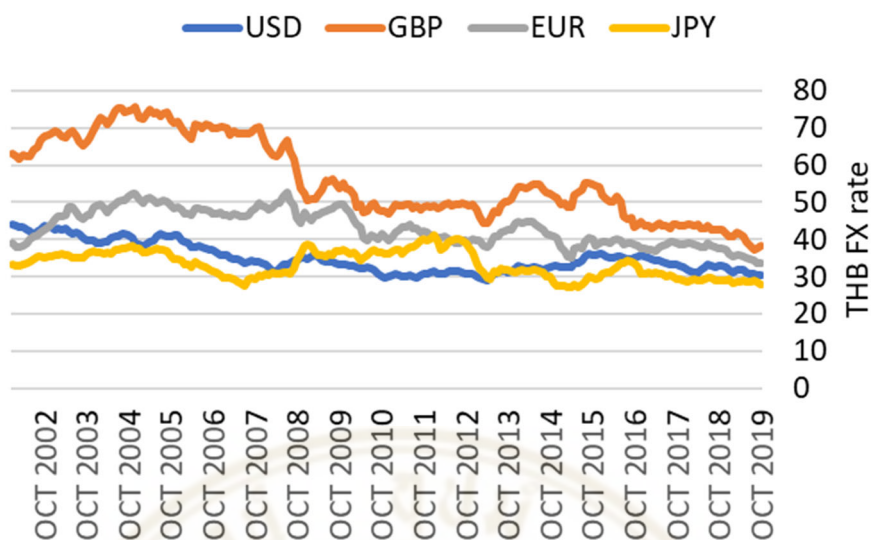
### 1.3.1 Macro-Economic Analysis

- Thai Economic Outlook

The whole chapter is about Macroeconomic analysis which summarized from Bank of Thailand (2019a). Thailand's economy is expected to grow at a slower pace at 2.8% and 3.3% (Gross Domestic Product: GDP) in 2019 and 2020. Despite the slowing down somewhat from the previous year due to the demand, foreign trade has been affected by the Trade war between the US and China. The inflation rate is expected to remain within the target. However, under VUGA world, Thailand will continue to face risks from both internal and international factors. The stability of the financial system, although still in good shape, but there are still some weak points such as the real estate sector. Seeking behaviour and the rewards that come with the risk assessment should be lower (Under-pricing of risks), the sequel to the low interest rate environment for a long-term.

- Reduction of interest rate policy 1.75 to 1.50 percentage annually by BOT

As Thailand's economy is likely to expand at a lower rate and a lower level of potential output, which resulted in a reduction to domestic demand. The board of committee of Bank of Thailand (BOT) agrees to vote for cut policy rate to 1.50% per annum which the accommodative monetary policy will be conducive to inflation returning to the target frame and support the expansion of economic uncertainty increased, especially from foreign countries. However, the committee is also concerned about the baht's appreciation versus the partner country competition which may affect the economy more vulnerable to the risks of rising there will be a follow-up exchange rate situation (Figure 1.4). Hence, the lower interest rate will push businesses to expand and individual consumption will increase rather than saving money in the account. However, BoT needs to emphasize on pros and cons of keeping low interest rate which already mentioned in overall micro and macro economies.



**Figure 1.4 THB development**

Source: Bank of Thailand (2019a)

- The Annual Average Core Inflation and Headline Inflation Target of 1.0% and 2.0% as the Target is Expected by BOT

From the forecast by BOT, headline inflation is likely to slow down, especially in 2019 as prices of energy are declining and inflation slowed by pressure on demand, but headline inflation is likely to enter the target in 2020 followed (Table 1.2). The outlook for economic growth and inflationary pressures on the cost of a policy to raise the minimum wage.

**Table 1.2 Expected Inflation rate**

Percentage (%)	2019	2020
Headline Inflation	0.8	1.0
Core Inflation	0.6	0.9

Source: Bank of Thailand (2019b)

- Construction and Real Estate Businesses Benefit Ceramic Tiles and Walls Business:

Ministry of Transport (2016) will continue supporting infrastructure construction via projects on and off road in Bangkok, countryside, and frontier around the countries.

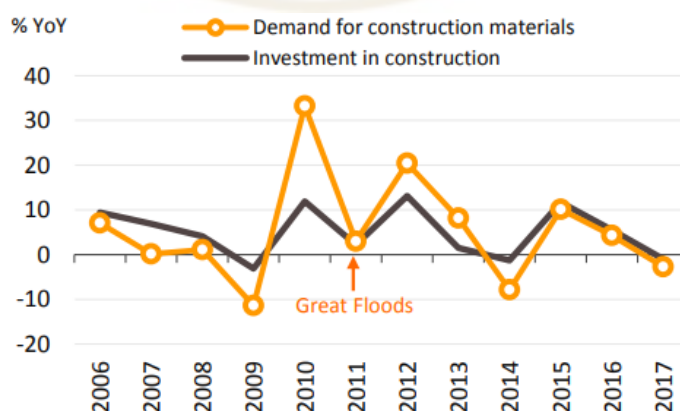
Those will help to connect and increase convenience in travelling. Therefore, it has a considerable potential to increase sales of Ceramic Tiles and Walls because the improved infrastructure will lead to better export logistics and export support.

### 1.3.2 Industry Analysis

In 2018, overall demand for construction materials in the country is growth around 3% in the construction sector which growth in the public and private sectors such as motorways in Bang Pa-in, Nakhon Ratchasima and the MRT Orange Line and the Cultural Centre Section - Min Buri. The government is accelerating construction projects to progress as planned. The construction of the expansion of the private sector increased along the transport route and area of special economic zones east (Eastern Economic Corridor: EEC) (Krungsri 2019).

- Thai Ceramic Tiles and Walls Industry Outlook

For ceramic tiles and walls are considered as construction materials, therefore, this industry is expected to rise up in 2018 to 2020 because the domestic demand will expand infrastructure projects in public sector that lead to increase the demand for construction material products because of materials sales such as concrete blocks, tiles and sanitary ware to benefit from the enhancing real estate sector (Figure 1.5). Another reason is the export of building materials is expected to recover due to many countries, especially in ASEAN is investing in upgrading infrastructure and real estate sectors (Krungsri 2019).

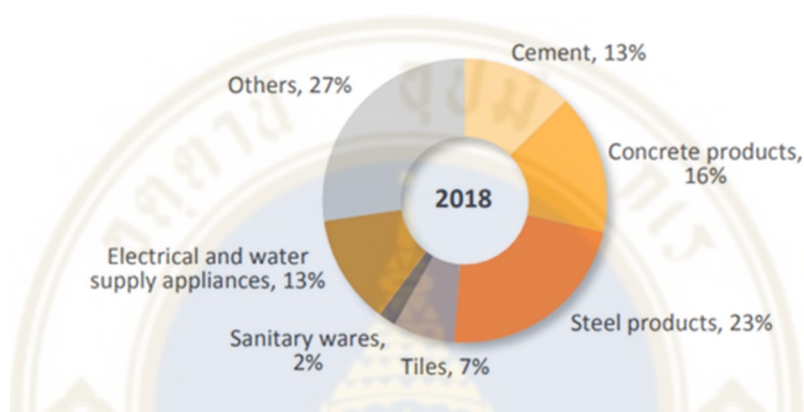


**Figure 1.5 Construction Materials (Demand) and Investment in Construction**

Source: Krungsri (2019)

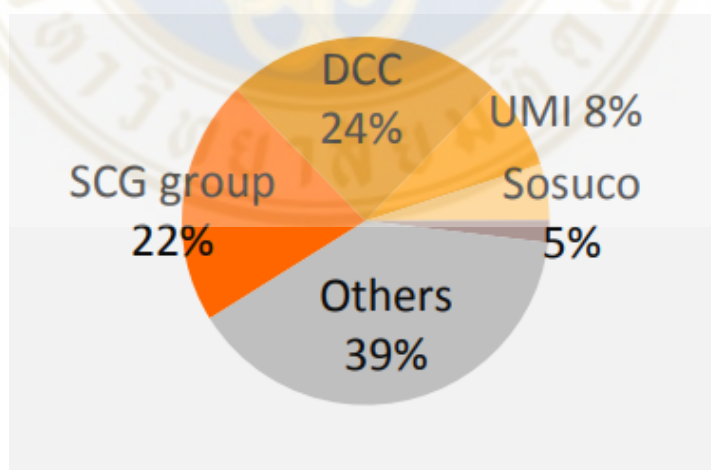
- Market Share

The medium and large-sized enterprises are able to produce a variety of products with large quantities due to its financial strength, efficient production and the strong bargaining with suppliers in the supply of adequate, while smaller players focus on smaller range of product items. Figure 1.6 is shown the largest proportion of market share in 2018 came from “others” (27%) whereas tiles’ market share is 7% and figure 3.4 shown the proportion of market share by operation which DCC’ market share is 24%.



**Figure 1.6 Market Share by Category**

Source: Krungsri (2019)

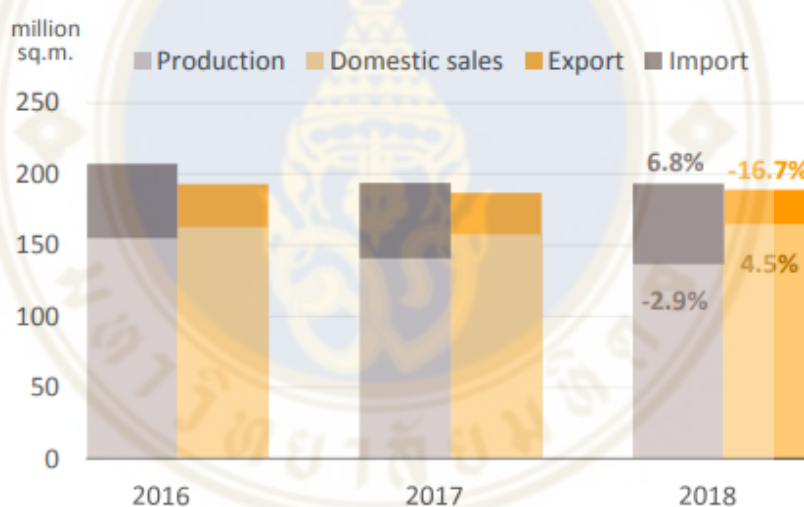


**Figure 1.7 Market Share by Operation**

Source: Krungsri (2019)

- Demand of Ceramic Tiles in Domestic, Import, and Export

In 2018, the demand for construction materials in total grew by around 3% compared to 2017 when it reached 14%. The construction sector grew, both in the public and private sectors due to the fact that the government is accelerating construction projects to progress as planned. As a result, demand in the country in 2018 rose from 4.5% which is 165 million square meter which comes from the investment in the real estate sector of residential expansion while, the volume of exports contracted by 16.7% of the country's major trading partners which including Myanmar and Lao PDR. Laos and Cambodia turned to cheaper imported goods from China instead. Production volumes decreased 2.9% due to the export of foreign markets shrinking, the stock inventory is still high that considering the finished goods inventory index stood at 75%, and consumers turn to buy imported goods from abroad increased by 6.8% (Figure 1.8).



**Figure 1.8 Ceramic Tile – Production, Domestic Sales and Export**

Source: Krungsri (2019)

- Industry Trend

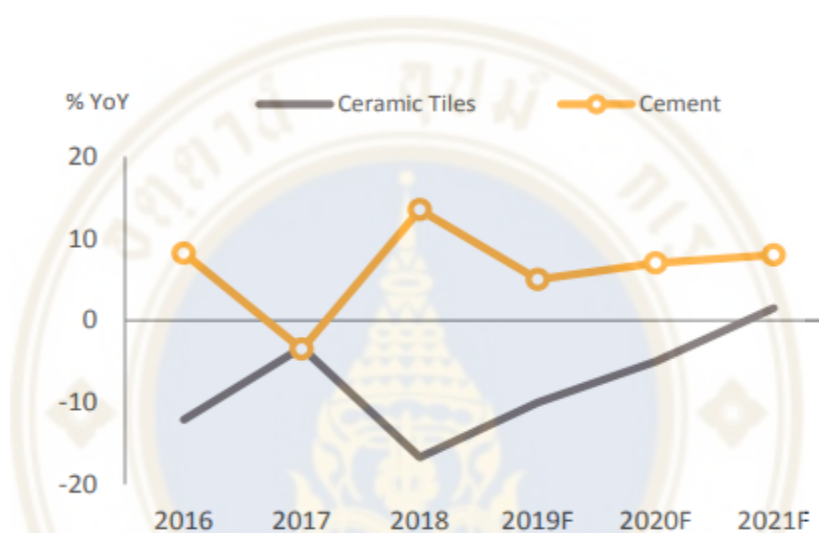
Products	2019F	2020F	2021F
<b>● Cement</b>			
(million tonnes)	34.4-35.1	36.5-37.2	39.1-39.8
Growth (% YoY)	3 - 5	5 - 7	6 - 8
<b>● Ready-mixed concrete</b>			
(million cubic meters)	17.9-18.3	19.7-20.1	21.8-22.2
Growth (% YoY)	8 - 10	9 - 11	9.5 - 11.5
<b>● Concrete products</b>			
<b>▪ Concrete piles</b>			
(million cubic meters)	1.09 - 1.11	1.17 - 1.20	1.27 - 1.29
Growth (% YoY)	5 - 7	6 - 8	7 - 9
<b>▪ Prefabricated flooring</b>			
(million sq.m.)	6.12 - 6.25	6.25 - 6.37	6.44 - 6.56
Growth (% YoY)	-1 to 1	1 - 3	2 - 4
<b>● Ceramic tiles</b>			
(million sq.m.)	168 -171	175-178	183-185
Growth (% YoY)	2 - 4	3 - 5	3.5 - 4.5
<b>● Sanitary wares</b>			
(million pieces)	3.89 - 3.97	3.91 - 4.05	4.09 - 4.17
Growth (% YoY)	0 - 2	1 - 3	2 - 4
<b>● Steel (bar &amp; section)</b>			
(million tonnes)	3.5-3.6	3.7-3.8	3.9-4.0
Growth (% YoY)	2 - 4	4 -6	5 - 7

**Figure 1.9 Construction Material Domestic Sales Trend in 2019-2021**

Source: Krungsri (2019)

Referring to Krungsri (2019), in the next 3 years (2019-2021), construction materials business trends to continue to expand. In 2019, the demand for construction materials in the country could grow in a limited manner due to the forward new projects may slow down in the first half but it expected to accelerate the signing of a new project and start construction after the announcement of election official results. Then from 2020 to 2021, the domestic demand for construction materials will be accelerated in the direction of the construction sector to grow for both the government and the private sector. For overseas growth opportunities from new export markets such as Bangladesh, the same target market as Cambodia, Laos and Myanmar are likely dropped the import from Thailand due to an increasing of entrepreneurs set up factories producing construction materials in the country.

Regarding the ceramic tiles' trend in the next 3 years, the demand in the country is expected to grow at a rate of 2-4%, 3-5% and 3.5-4.5% year on year, respectively, due to new housing projects are underway (Figure 1.10). The construction could start in the steps leading to the tiles that used to decorate more. Meanwhile, exports of ceramic tiles are likely to contract at a slower pace (Table 1.3 the highly competitive with foreign products, such as China, where production costs are lower. For this reason, production of floor tiles and ceramic wall is the gradual improvement in domestic demand (Market share in the international market was at 90:10).



**Figure 1.10** Cement and Ceramic Tile Export Volume Outlook (2019-2021)

Source: Krungsri (2019)

The main domestic competitors of DCC are Union Mosaic Public CO., LTD. (UMI) and Royal Ceramic Industry PLC (RCI) and the ranking of company are in sixth place as shown in Table 1.3.



**Table 1.3 Company Highlight: Construction Materials**

Company Highlight : Construction Materials

Rank	Securities	High	Low	Close	Change	% Change	Volume	Value (Mil B.)
1	GEL	0.19	0.18	0.18	-0.01	-5.26	970,500	0.17
2	WIJK	1.37	1.31	1.31	-0.05	-3.68	3,525,330	4.72
3	CCP	0.32	0.30	0.31	-0.01	-3.13	7,626,605	2.32
4	RCI	3.68	3.50	3.56	-0.08	-2.20	453,000	1.60
5	TPIPL	1.30	1.26	1.26	-0.02	-1.56	13,302,111	16.94
6	DCC	1.89	1.87	1.89	-0.01	-0.53	1,304,600	2.46
7	TASCO	23.30	22.80	22.80	-0.10	-0.44	11,230,215	258.66
8	SCC	400.00	391.00	393.00	0.00	0.00	5,745,409	2,269.65
9	TCMC	2.12	2.08	2.10	0.00	0.00	196,000	0.41
10	SCP	6.20	6.15	6.15	0.00	0.00	211,400	1.31
11	DCON	0.33	0.32	0.33	0.00	0.00	701,482	0.23
12	DRT	6.30	6.20	6.20	0.00	0.00	464,913	2.90
13	COTTO	1.60	1.58	1.60	+0.01	+0.63	106,490	0.17
14	Q-CON	5.50	5.45	5.50	+0.05	+0.92	46,100	0.25
15	PPP	2.18	2.14	2.18	+0.02	+0.93	34,400	0.07
16	VNG	4.04	3.94	3.96	+0.04	+1.02	319,400	1.27
17	TOA	45.25	44.50	45.25	+0.50	+1.12	1,062,623	47.78
18	SCCC	210.00	206.00	209.00	+3.00	+1.46	55,450	11.55
19	UMI	0.69	0.68	0.69	+0.01	+1.47	10,200	0.01
20	EPG	8.05	7.85	8.05	+0.30	+3.87	15,755,422	125.77
21	SKN	2.14	2.06	2.14	+0.08	+3.88	160,100	0.34

Source: Settrade (2019)

## 1.4 Investment Summary

### 1.4.1 Brief Description of the Company:

Refer to DCC (2019), the company has more than 200 branches/stores in Thailand to serve domestic demand in material in construction industry. In addition, the company currently operate 3 manufacturing facilities in Thailand –Dynasty, Tile Top, and RCI factories with total production capacity of 84M Sq.m. in 2019 (Table 1.4).

**Table 1.4 Production Capacity**

	<b>Max Capacity FY2019 (M Sq.m)</b>	<b>YTD Utilization Rate (%)</b>
Dynasty	31	72%
Tile Top	39	83%
RCI	14	82%
<b>Total</b>	<b>84</b>	<b>79%</b>

Source: DCC (2019)

### 1.4.2 Developing in Production, Head Office, and Outlets:

#### 1.4.2.1 Production

- Product Development to Meet Customer Demand

The company increases production volumes of larger size tiles, following higher sales volume and demand in this product and increases production mix of digital printing tiles to correspond to the demand of customers which shift to look for fancy and colourful patterns.

- Efficient production and Economy of Scale (EOS)

The production process always keeps researching, development, and improvement. It results to satisfy to deliver on demand. Besides, they can sell in low price with standard quality because of gaining economy of scale benefit. Fully Automatic System has been implemented and Quick Setup Time has been used to respond to dynamic change in customer taste. It also reduced firing process from multiple to one time in order to reduce energy consumption.

#### 1.4.2.2 Head Office

- Efficiency in employee knowledge, expertizing, and skill

The Company also arranged of training program in-house and externally throughout the year. The company also gives importance to online training to develop people skills and open opportunity to consider the ideas via employee's brain storm.

### 1.4.3 Outlets

According to DCC (2019), the company has planned to be opened about 4-5 new outlets during the year 2019-2023. Now, there are about 25-30 outlets in process of renovation to upgrade modernist style. Below here are the pictures of the outlets before and after renovation.



**Figure 1.11 Outlets**

Refer to the plan of DCC (2019), most of land in outlets are owned by company itself. They plan to rent other spaces to related business in material and construction industry because the company want to make their place to become one stop services for customers who buy in each place.

**Table 1.5 Outlet Space**

	Available Space	Rented Space
At YE2018A	52,000 sq.m	9,000 sq.m
At YE2019E	69,000 sq.m	33,000 sq.m*

These are the list of the companies that rent DCC’s space per below;



**Figure 1.12 Rental Clients**

- Store expansion and rebranding projects

The company emphasized on rebranding the appearance and ambiance of the outlets with modern designs and offering conveniences to customers.

- Software development

New applications have been developed continuously such as Sales and Inventory Applications for head office and outlet managers to utilize these tools to help them monitor and analyse the data more profoundly.

- Rental space and Construction materials community mall plan

The company worked on its plan to rent out vacant spaces to other manufacturer and importers of construction material and equipment to make our outlets a community mall for construction materials in the future.

#### **1.4.4 Earnings Outlook**

This year, DCC is expanding production capacity for 3 production lines, two for DCC and one for RCI, totalling 900,000 sqm/month, with a total investment of THB700m. Last year, it has production capacity of 7m sqm/month. It will add 5 tile branches, totalling 204 branches at the end of 2019, and top 219 branches in the next 5 years. It also plans to develop a comprehensive integrated construction material centre. Total investment in 5 years is THB2.3b. We have cut our earnings forecast due to additional expense of THB43m required by new Labour Protection Act and risks from drought hitting several provinces that affect purchasing power. In 2019, we estimate DCC's sales will grow 4% to THB8.364b, with a net profit of THB990m, up 1% YoY. If excluding employee benefit provision, normalized profit should grow 5.4% YoY. May Bank (2019)

#### **1.4.5 Forecasts**

The overall sale is going to be increased (2.56%) in the same direction of Thailand Economic growth per Thai's government policy which actuates the country's economy such as Policy for decreasing of transfer fee of buying a new house, Policy for supporting a down payment for buying the first new house from Thai government about 50,000 baht as example. In a mean time, DCC is also able to control its production volume as good as before. Even though, the company has to face the increasing of selling

cost that is pushing the net sale of the company to be increased. From these forecast, these all are supported the increasing of company profit.

## 1.5 Valuation (Discounted Cash Flow - DCF)

We evaluated DCC by using Discounted Cash Flow Method, we are confident that the most appropriated method for DCC are the Free Cash Flow to Firm (FCFF) which is incorporate with the sustainable growth in long term and concrete cost of capital.

We used trailing method (YE'2018 - Q3'2018 + Q3'2019) for 2019 as the latest year because it consists of actual number in 2019 until the third quarter. For fourth quarter we assume the same number with fourth quarter in 2018. In addition, we also forecast another 5-year (2020-2024) to use in this method. Information in the market value, we use November 30, 2019 as the ended of period.

### 1.5.1 Weighted Average Cost of Capital (WACC):

#### 1.5.1.1 Weight of Debt and Equity

Weighted average consists of 2 parts that disclosure information in balance sheet.

- Debts

The company's source of debt depends only short-term borrowing. We use book value because the debt is from financial institution that has no market value. We use debt outstanding from financial statement in 2019.

- Equity

We use the latest no. of shares outstanding in latest financial statement as of Q3'2019 because we assume no. of shares always remain constant. There is no news to increase additional stocks in the market. In order to obtain market value, we bring no. of shares multiplies with stock price as of November 30, 2019.

Then, we sum the value of both sources of fund. And find the average weight of each item to obtain amount of weight of debt and equity as the below table.

**Table 1.6 Average Weight**

<b>Weighted Average</b>	<b>2019</b>
no. of shares 30/9/19	6,527,993,958
Stock price 30/11/19	1.86
<b>Equity Value</b>	<b>12,142,068,761.88</b>
<b>Debts in B/S (BV) ST</b>	<b>2,274,220,576.00</b>
<b>Total Debts&amp; Equities</b>	<b>14,416,289,337.88</b>
We	84.22%
Wd	15.78%

- Cost of Debts

Refer to BOT announcement decreases interest rate from 1.75% to 1.50% on August 7, 2019. It results to lower MLR charge from the bank. In the disclosure note no. 11 as of September 30, 2019, the financial cost charged to the company by financial institution is between 1.75% to 2.80% p.a. However, we conservatively apply to estimate cost of debt in maximum charges at 2.80%. Refer to FCFF method,  $R_d$  has to adjust for tax because it is after tax expense to payback debts. Thailand's corporate tax rate is 20%. The result shows in below table.

**Table 1.7 Cost of Debts**

<b>Promissory notes</b>	<b>Interest rate per annum</b>
Promissory notes	2.80
2019 : 1.75 – 2.80 p.a.	<u>2.24</u>

- Cost of Equities

We use CAPM model to estimate cost of equity.

#### 1.5.1.2 Risk free rate

We use 10-year government bond as risk free rate because it is low default risk and 10 year is in period that we do forecast. The yield of 10-year government bond at the ended of November 29, 2019 is 1.61%.

#### 1.5.1.3 Beta

We manually calculate 5-year historical beta from Reuters. We run covariance between daily SET return and daily DCC return, and then divided by

daily variance of SET. Next, we annualize to obtain beta at 1.43 times. Also, we find annual beta in Bloomberg that value around 1.27 times. However, we choose to apply beta from regression at 1.43 times because we conservatively assume the company will highly sensitized on market affects.

#### 1.5.1.4 Risk premium

The adjusted market risk premium, the raw data was retrieved on Professor Aswath Damodaran's research that launch in January, 2019. Thailand was graded Baa1 based on Moody's rating. Then the expected market risk premium of 8.18% was reconciled by today's 10-year government bond risk-free rate to reflect the most realistic approximation at 9.79%.

Finally, we obtain cost of equity around 13.35%. Firstly, beta is multiplied with risk premium. Then, we bring those values add up with risk free rate. The result shows in below table.

**Table 1.8 Cost of Equity**

$Re = Rf + \beta(Rm - Rf)$	DCC
Risk Free Rate (Rf)	1.61%
Beta	1.43
Return on Market (Rm)	9.79% MRP+Rf =8.18%+1.61
<b>Cost of Equity</b>	<b>13.35%</b>

#### 1.5.1.5 Cost of Capital (WACC)

To obtain WACC, we bring cost of equities multiplies with weighted average of equity. In a meanwhile, cost of debts is multiplied with weighted average of after tax short term debts. Finally, those two costs of fund will be sum up as the below table.

**Table 1.9 WACC**

<b>Cost of Equity</b>	<b>2019</b>
Risk Free	1.61%
Beta	1.43
Risk Premium	9.79%
Ke	13.35%
<b>Cost of Debt after tax</b>	
Kd	2.24%
Weight of Equity	84.22%
Weight of Debt	15.78%
<b>Cost of Capital</b>	<b>11.60%</b>

### 1.5.2 Free Cash Flow to Firm Model

We derive formula from NOPAT plus Depreciation, minus/plus Change in Net Working Capital and Capital Expenditure (Operating assets - PPE). Then, we obtained Free Cash Flow to Firm. In addition, we obtain the Terminal Value of Firm with WACC at 11.60% in 2019. For sustainable growth, we find that industry analysis in construction and materials estimated industry growth around 2%-4.5% p.a. in the future. However, we conservatively apply risk free rate 1.61% at the ended of November 30, 2019 as the growth rate which is lower than the estimation. Finally, we sum FCFF and TV to obtain Summary of Cash Flow per year as the below table.



**Table 1.10 FCFF**

Free cash flow to firm model for Value 2019

	2019 (Trailings)	2020 Projection	2021 Projection	2022 Projection	2023 Projection	2024 Projection
Baht						
EBIT	1,428,816,024	1,554,790,455	1,594,648,432	1,635,528,193	1,677,455,930	1,720,458,509
NOPAT (Net Operating profit after taxes)	1,143,053,299	1,243,832,364	1,275,718,746	1,308,422,554	1,341,964,744	1,376,366,807
Add: Depreciation		586,959,654	638,633,504	694,856,537	756,029,246	822,587,384
Add/Minus: Change in Net working capital		(184,643,484)	14,788,143	15,167,246	15,556,067	15,954,856
Minus: Capital Expenditure						
Operating assets (PPE)		(744,048,598)	(799,749,516)	(860,102,854)	(925,511,751)	(996,414,674)
Free cash flow to firm		902,099,936	1,129,390,876	1,158,343,482	1,188,038,306	1,218,494,374
Terminal value of firm						12,399,257,526
<b>Summary of cash flow</b>		<b>902,099,936</b>	<b>1,129,390,876</b>	<b>1,158,343,482</b>	<b>1,188,038,306</b>	<b>13,617,751,900</b>

### 1.5.3 Valuation Model

- Target Price 2019

After we obtained amount of Summary of Cash Flow per year, we discount to find Net Present Value or Enterprise Value (EV). Then, we sum up of annual cash and non-opt. assets (other L-T investment). Later, we subtract with Value of Debt of each year to get Value of Equity only. Lastly, we divide by No. of Shares to obtained Intrinsic Share Price at 1.97 baht in 2019. The result shows in below table.

**Table 1.11 Intrinsic Value 2019**

Intrinsic Value	2019
EV (Net Present Value)	15,023,324,849
Add: Cash and non-op assets (other L-T investment)	131,096,229
Total value of firm	15,154,421,078
Less: Value of Debt	- 2,274,220,576
Value of equity	12,880,200,502
Divide: No.of shares	6,527,993,958
<b>Share Price</b>	<b>1.97</b>

- Investor's target price 2020

After we obtain value in 2019, we find target value 2020 with cost of equity at 13.35%. Then, the value will be 2.24.

**Table 1.12 Investor's target price 2020**

Target Value	2020
Share Price 2019	1.97
Cost of Equity	13.35%
<b>Share Price 2020</b>	<b>2.24</b>

### 1.5.4 Valuation Summary

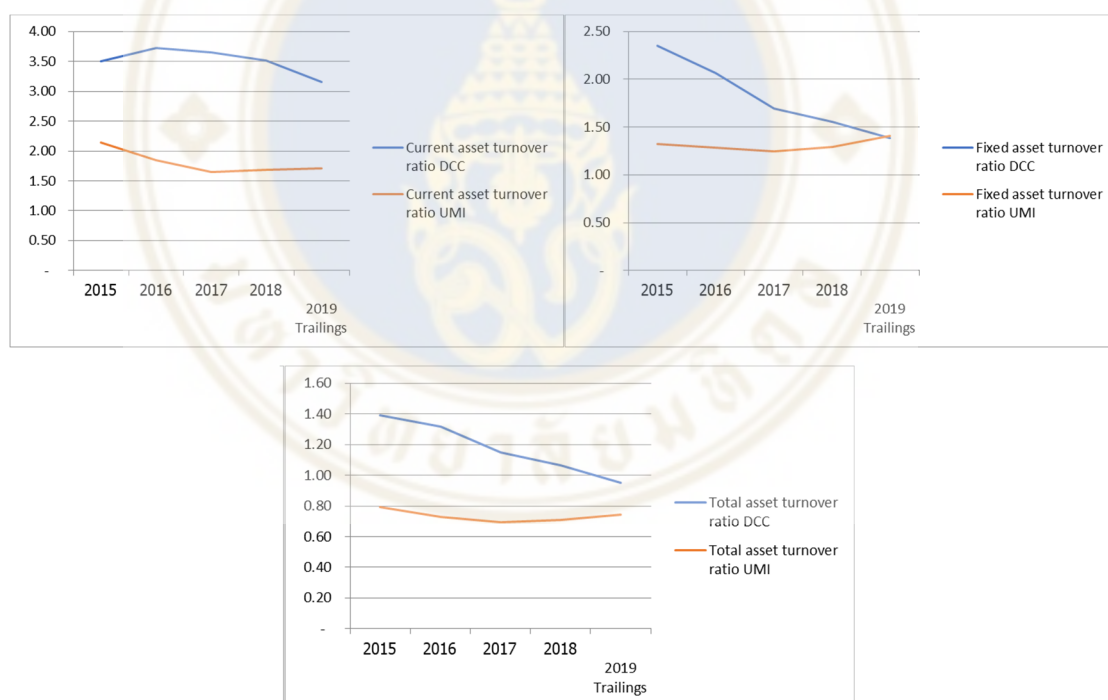
The current stock price of DCC is 1.86 Baht per share as of 30 November 2019, while we forecasted the target price in 2019 is around 1.97 Baht per share and expected value of investor in 2020 is around 2.24 Baht per share. The share price of DCC is upside about 6.08% and 20.24% in 2019 and 2020 by frequency. However, as the current value is higher than market value, we therefore decide to "BUY" stocks because

we believe FCFF will reflect the intrinsic value of the company base on gradual consistent growth in the future.

## 1.6 Financial Analysis

Financial ratio analysis: Key ratios are analysed to cover in consideration of liquidity, asset management, solvency, and profitability. The Union Mosaic Industry Public Company Limited (UMI) is chosen as peer to be comparable with the company (Dynasty Ceramic Public Company Limited (DCC) because both of firms are almost the same characteristic of business activities and operations.

### 1.6.1 Current Asset, Total Asset, and Fixed Asset Turnover Ratios

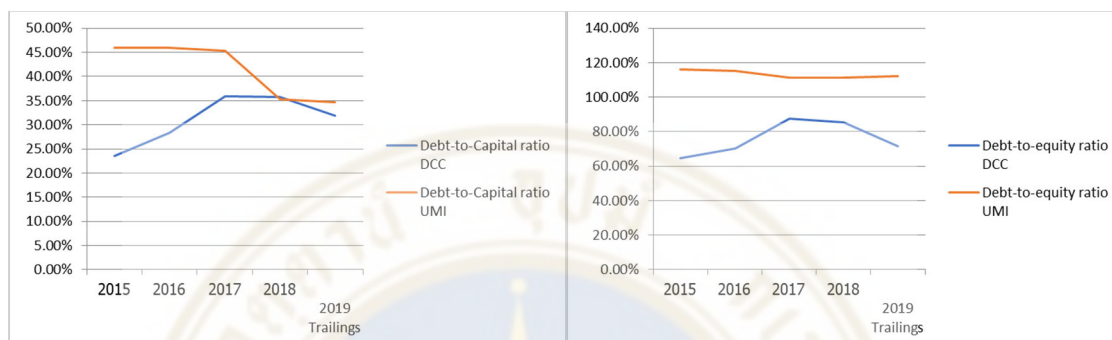


**Figure 1.13 Current Asset, Total Asset, and Fixed Asset Turnover Ratios**

The company's asset utilization trends to decrease every year, it indicates that it is not efficiently in using its assets to generate from sales. CAGR is too low comparing to investment in assets especially on PPE.

Dynasty is able to manage asset utilization look good both current and fixed assets. Also, every item can generate performance above UMI. It can conclude that they effectively use the company's asset to generate the profit.

### 1.6.2 Debt-to-Capital and Debt-to-Equity Ratios

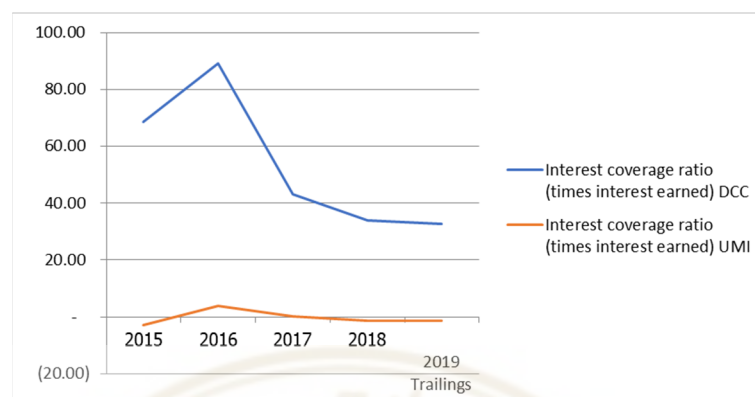


**Figure 1.14 Debt-to-Capital and Debt-to-Equity Ratios**

The company's financial distress trends to increase slightly until 2018 from continuing to increase source of funds from debts rather and issuance of equity. It results from inventories that are large amount item of assets and CAGR increase. D/E ratio is greater than debt to capital because liabilities also include borrowings and creditors while another one considers only debt from the bank. But they run in the same direction.

Dynasty's financial distress is quite low comparing to the competitor. It results to face the least chance to financial distress. In a meanwhile, UMI is risky to bankrupt from relying too much on liabilities only.

### 1.6.3 Interest Coverage Ratio

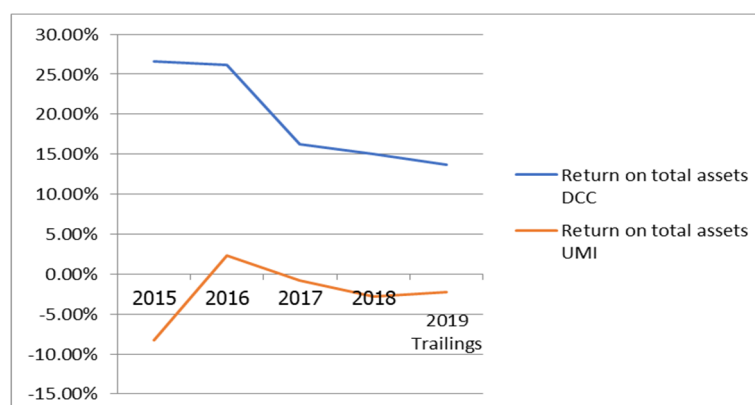


**Figure 1.15 Interest Coverage Ratio**

Dynasty's interest coverage ratio trends to decrease because of increasing in debts both borrowing and accounts payable. However, the company can manage times interest earned very well. Ability to pay interest on its outstanding debt average over 5 years is around 53.49 times. It indicates that the company's EBIT can cover financial cost.

It is difficult to compare ability to pay interest among two firms because the one is profitable and another is loss. Dynasty's interest coverage ratio is very good, the value still greater than 1 with multiple around 53 times. By the way, UMI mostly operates loss in EBIT along 5 years.

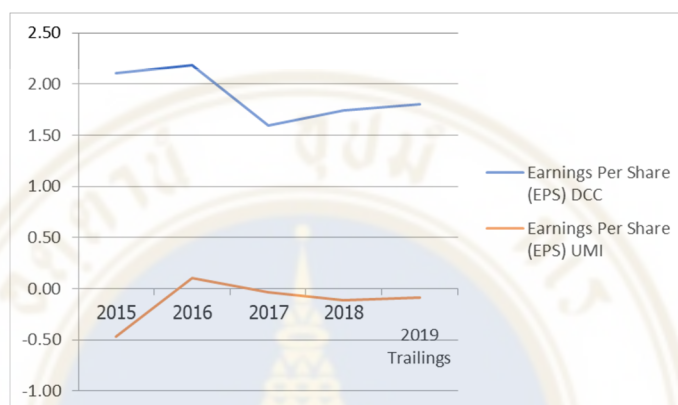
### 1.6.4 Return on Total Assets Ratio



**Figure 1.16 Return on Total Assets Ratio**

Dynasty's profitability to generate the returns from investment in asset is better than the competitor. The company creates more amount of return comparing to original investments average over 5 years is around 19.54%. In contrast, UMI is ineffective to generate return from using the assets.

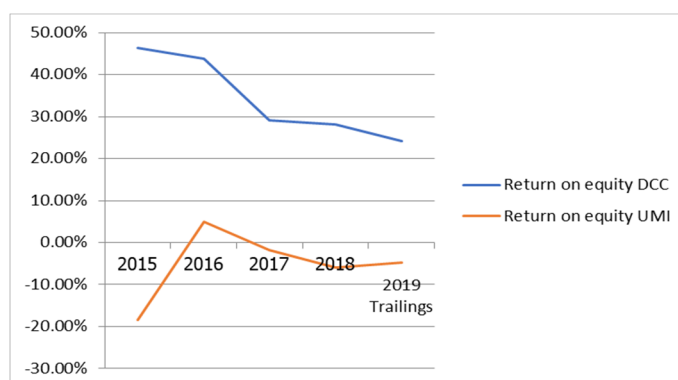
### 1.6.5 Earnings per Share (EPS)



**Figure 1.17 Earnings per Share (EPS)**

The company's EPS is quite volatile a bit over the 5 years. However, the trend starts increasing once again since 2018. In addition, the value is over than par at 1 baht. An investor can see the value of a stock in terms of how much the market is willing to pay for each amount of earning returns.

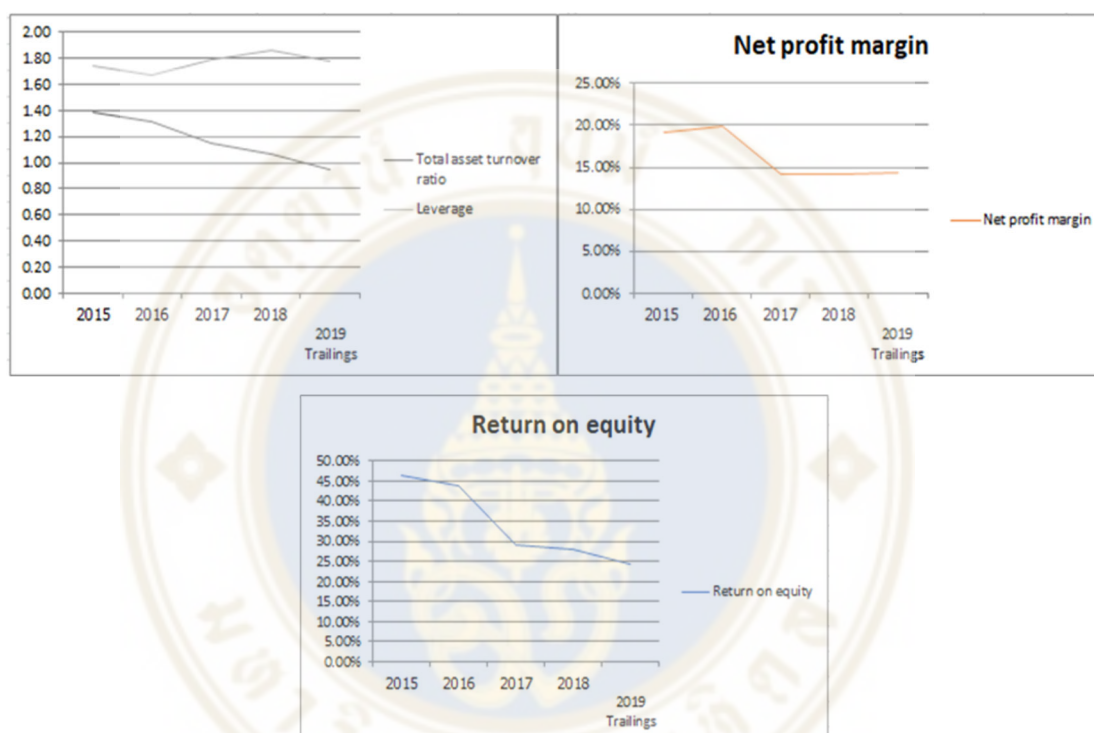
### 1.6.6 Return on equity (ROE)



**Figure 1.18 Return on equity (ROE)**

The capital structure of company mostly depends on only short term borrowing and credit term from suppliers. They also have quite high the portion of equity. It results to face the least chance to financial distress. In a meanwhile, UMI is risky to bankrupt from relying too much on liabilities.

### 1.6.7 DuPont Analysis for ROE (DCC Company)



**Figure 1.19 DuPont Analysis for ROE (DCC Company)**

Overall, DCC's ROE reduces through many years, it could be the reason that the asset had not been utilized fully capacity, the large investment on PPE cannot generate the return. DCC had impressive ROE during 2015 - 2016 because of historical high revenue and lower equity value.

## 1.7 Investment Risk

### 1.7.1 Risks

#### 1.7.1.1 Projection growth may drop.

Cause: Intensive foreign competitors from China dump a lower price than local companies.

Risk Level: Medium

Mitigations: Although, the selling price of Chinese product is quite low, the company's product quality is better in term of various/unique design and technology in research and development. Additionally, the company currently has the largest market shares in low income sector in Thailand. We could notice from Dynasty Tile-Top brand expand more than 200 branches in local area. Additionally, there is high barrier to entry for Chinese product to compete because Thai Industrial Standards Institute (TISI) assists to prevent products which are low quality out of in the market. It had been resulted to reduce competitors who sell low price with inferior goods like Chinese imported product in the market. Therefore, the risk of dumping price might decrease.

#### 1.7.1.2 Mismatch funding may arise.

Cause: Debt structure depends only on short term loans from banks. In addition, Pay-out ratio or dividend policy is too high.

Risk Level: Medium

Mitigations: The company always operates profit, net income after tax usually provide positive, and also keep more reserves in retained earnings. It could be the first source of fund to support those expenses/costs.

#### 1.7.1.3 Market share may decrease.

Cause: Intensive competitions in local business.

Risk Level: Low

Mitigations: Besides, the company has more branches than other competitors. The firm will emphasize on wholesale and support big construction projects rather than retails. It results to gain better Economy of Scale (EOS). Moreover, they have specialists to always do research and development the products. These qualifications lead them to be able to sell product in low price with good quality. Hence, it makes the competitors may face with hard situations.



### 1.7.2 Sensitivity Analysis

The sensitivity analysis presents the percentage change of growth rate and cost of capital (WACC) that would impact to the change of DCC's share price. The growth rate has a positive relationship with share price, while cost of capital has a negative relationship with share price.

**Table 1.13 Sensitivity Analysis**

WACC	1.97	g	1.97
10.00%	2.27	1.61%	1.97
11.00%	2.07	2.00%	2.04
11.60%	1.97	2.50%	2.14
12.00%	1.91	3.00%	2.25

		WACC			
		10.00%	11.00%	11.60%	12.00%
g	1.97	2.27	2.07	1.97	1.91
	1.61%	2.36	2.15	2.04	1.98
	2.00%	2.50	2.26	2.14	2.07
	2.50%	2.66	2.38	2.25	2.17

In 2019, we obtain intrinsic value around 1.97 baht with WACC 11.60% and sustainable growth 1.61%. If any factor in WACC changes, share price could be change to minimum price 1.91 baht at WACC 12% and maximum price 2.27 baht at WACC 10%. While, there is an opportunity that growth rate will reach a peak to 3.00% according to the range in industry analysis. The maximum price will turn to 2.25 baht. However, if both WACC and growth change, price will be 1.91 baht and 2.66 baht for minimum and maximum price respectively.

## CHAPTER II

### DATA

#### 2.1 Organization Structure

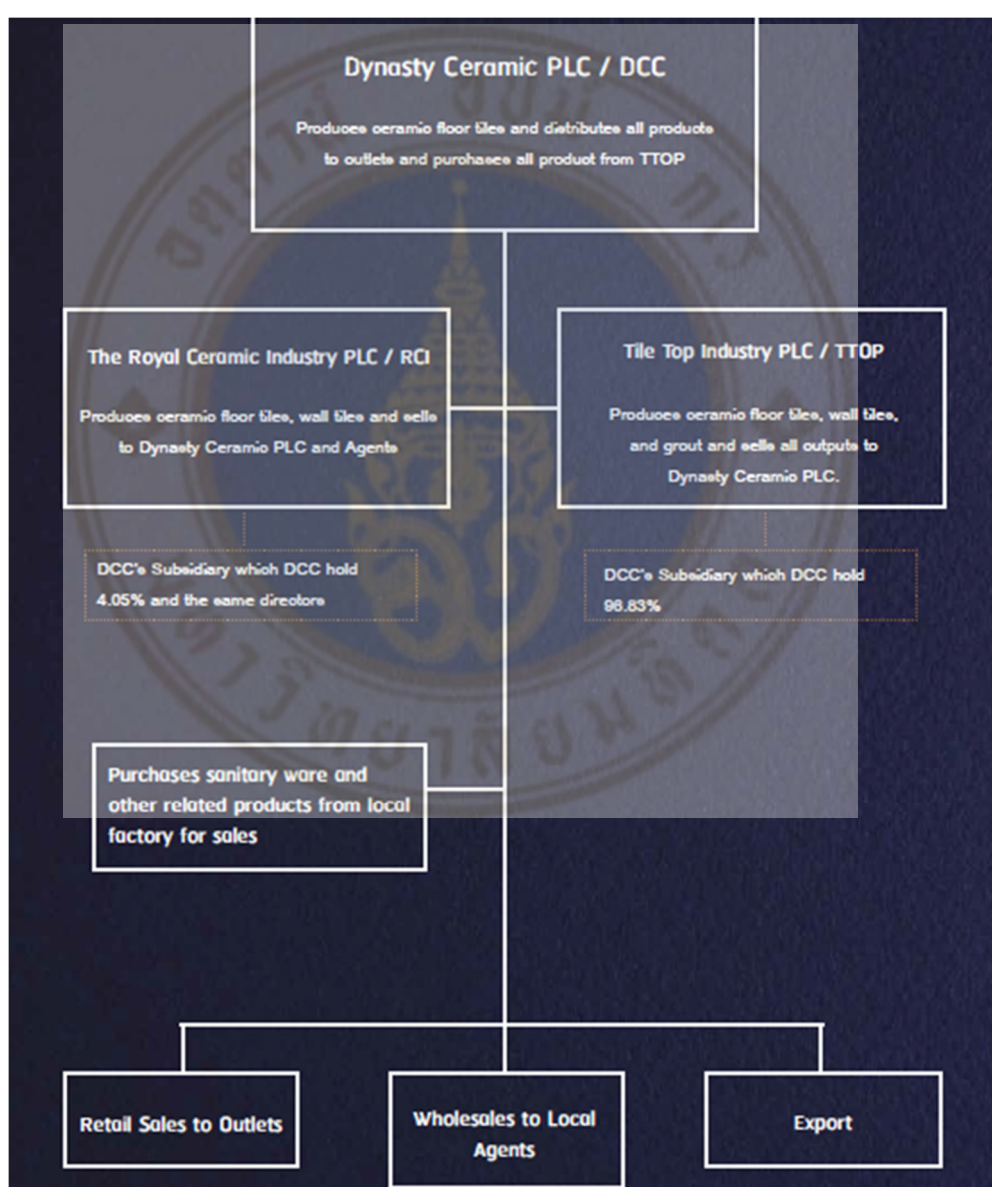


Figure 2.1 Organization Structure

## 2.2 Shareholders' Structure

Shareholding structure (10 major shareholders) and shareholding changes in the last 3 years are as follows.

**Table 2.1 Shareholding Structure**

Ranking No.	Shareholder name	% of shareholding		
		31 Jan 2017	29 Dec 2017	28 Dec 2018
1	Mr. Roongroj Saengsastra	24.510	24.510	24.510
2	Mr. Monrak Saengsastra	7.353	7.353	7.353
3	Mr. Maruth Saengsastra	7.353	7.353	7.353
4	Mr. Chaiyasith Viriyamettakul	5.038	5.038	5.069
5	N.C.B.TRUST LIMITED-NORGES BANK 11	2.723	2.887	2.996
6	Miss Supanee Thongplengsri	2.838	2.613	2.959
7	SOUTH EAST ASIA UK (TYPE C) NOMINEES LIMITED	na	na	2.821
8	Miss Cattleya Saengsastra	2.696	2.696	2.696
9	Mr. Suvit Smarnphanchai	2.451	2.451	2.451
10	Miss Rotsukon Wadcharasurang	2.257	2.257	2.257
Total 10 major shareholders		<b>58.294</b>	<b>57.218</b>	<b>57.158</b>
Total number of shares (Shares)		6,528,000,000	6,528,000,000	6,527,993,958
Issued and Paid-up share capital (Baht)		652,799,395.80	652,799,395.80	652,799,395.80
Authorized Share Capital (Baht)		652,800,000	652,800,000	652,799,395.80
Par Value per share (Baht)		0.10	0.10	0.10

## 2.3 Board of Directors

### Latest Board

#### Board of Directors

Mr. ROONGROJ SAENGSASTRA

Mr. SUVIT SMARNPHANCHAI

Mr. CHAISITH VIRIYAMETTAKUL

Miss CATTLEYA SAENGSASTRA

Mr. MONRAK SAENGSASTRA

Mr. MARUTH SAENGSASTRA

Mr. SURASAK KOSIYACHINDA

Mr. JARUWAT TRAITHAVIL

Mr. SURASAK KOSIYACHINDA

GEN. YUTHASAK SASIPRAPHA

Mr. SIRIPONG TINNARAT

Mr. TOTSAPORN BANYONGWATE

#### Position

CHAIRMAN OF BOARD OF DIRECTOR

CHAIRMAN OF EXECUTIVE DIRECTOR

DIRECTOR

DIRECTOR

DIRECTOR

DIRECTOR

DIRECTOR

INDEPENDENT DIRECTOR

DIRECTOR

AUDIT COMMITTEE

INDEPENDENT DIRECTOR

CHAIRMAN OF AUDIT COMMITTEE

INDEPENDENT DIRECTOR

AUDIT COMMITTEE

INDEPENDENT DIRECTOR

AUDIT COMMITTEE

**Figure 2.2 Board of Directors**

## 2.4 Management and Organization Chart

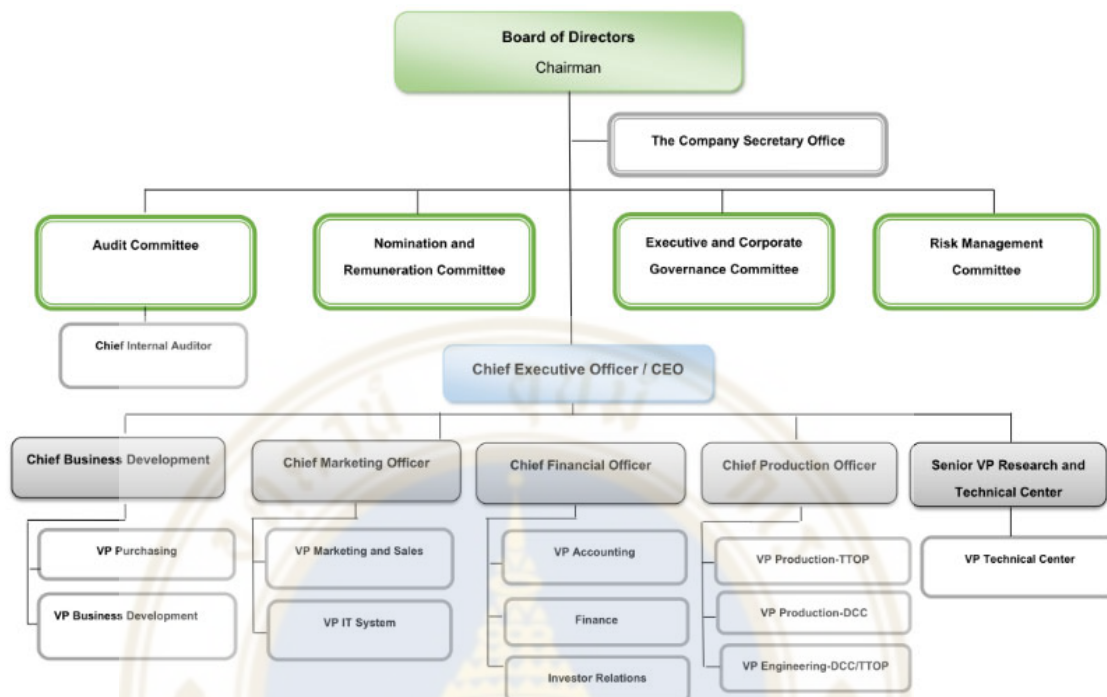


Figure 2.3 Organization Chart

## 2.5 SWOT analysis

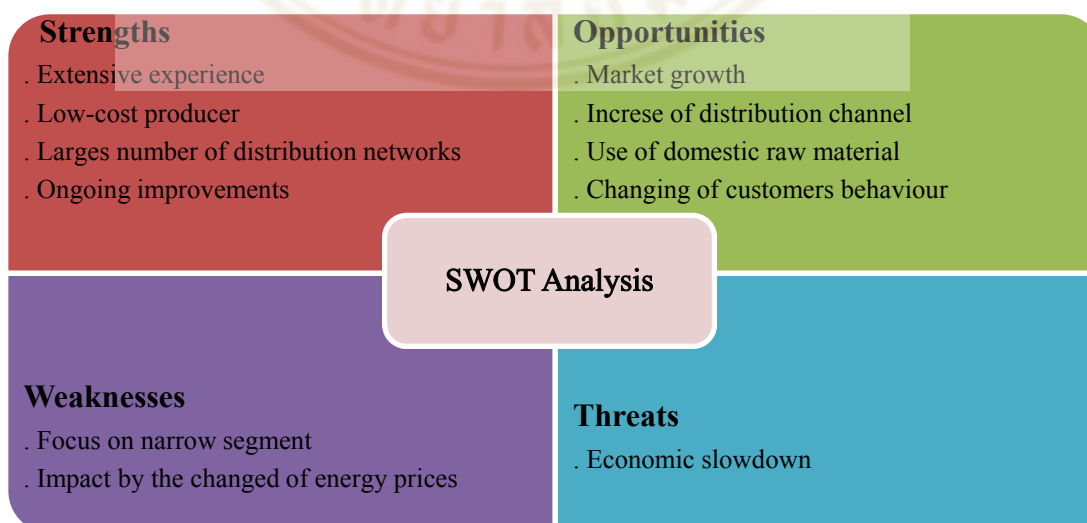


Figure 2.4 SWOT analysis

### **2.5.1 Strengths:**

- Extensive experience: the company has extensive experience in the production of ceramic tiles for a long period gives customer's confidence in the quality of ceramic tiles.
- Low-cost producer: the company is a low-cost producer from cost leadership strategy to attract the low- to mid-range markets
- Large number of distribution networks: the company has many distribution networks via the company retail outlets located throughout the country
- On-going improvements: the company also continuous improvement for its production, Head Office, and Outlets

### **2.5.2 Weaknesses:**

- Focus on narrow segment of the market: The company has a low customer base diversification because the company is mainly focus on mid to middle market
- Impact by the changed of energy prices: The changing in energy prices effects to the company's earnings due to the main production process is needed energy within its.

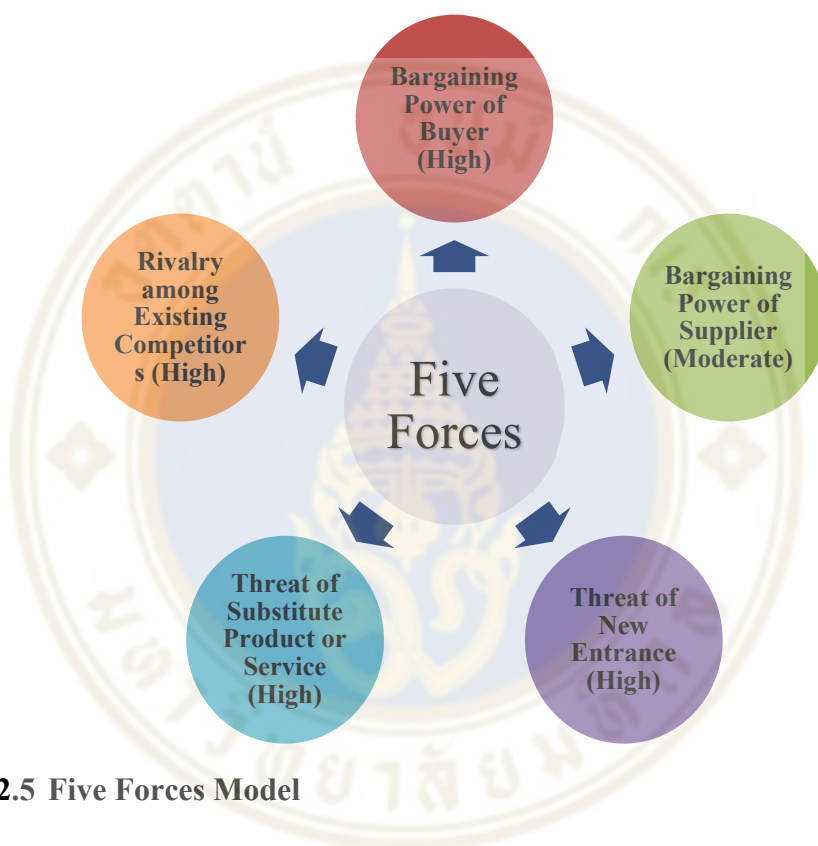
### **2.5.3 Opportunities:**

- Market growth: Government policies to stimulate the economy, the real estate market begin to recover, resulting in the ceramic tile market growth coupled with investments in the sector of construction.
- Increase of distribution channel: the result of the Free Trade Area (FTA), the company has increased its distribution channels, which can be marketed by companies exporting to foreign countries increased.
- Use of domestic raw material: Ceramic tile industry can use raw materials, mainly from within the country.
- Changing of customers' behaviour: the customers' behaviour has changed with modernization and a more urban society. Therefore, the demand for ceramic tiles quality, elegant, and differentiation.

### 2.5.4 Threats:

Economic slowdown: The potential that economy will slow down will affect weak (lower) demand of the material in construction business.

## 2.6 Five Forces Analysis



**Figure 2.5** Five Forces Model

### 2.6.1 Bargaining Power of Buyer (High)

The buyers have a strong bargaining power to force a very important due to the diverse needs of consumers with a greater choice in selecting ceramic tile because competition in the industry can produce an equal quality product, diverse, and meet the needs of customers and the sales price is lower. Therefore, consumers can choose a quality product that meets the demands and offers as reasonable prices, as the results the bargaining power of consumers is high for both in Thailand and foreigner countries.

### **2.6.2 Bargaining Power of Supplier (Moderate)**

Supplier of production factors in the ceramic tile industry has bargaining power that can be explained as follows:

- Raw Materials

The suppliers of raw materials in the field of soil, mineral, and mixed soil cannot be considered as a pressure in the ceramic industry because the mineral and soil sources are spread all over the country, so it cannot be monopolized by one group because there are other distributors that can be substituted. The machinery used in the production of paint, coatings, and various chemicals. Most are imported from foreign countries and there is no monopolization of the imports at all. The same applies to the tools used to measure and check the quality of that product that can be imported from foreign countries as well.

- Energy

Energy used in production can be considered as the industry's strongest pressure, because most operators prefer the use of LPG gas, which is monopolized by PTT and is likely to increase the price that impacts on the production of ceramic tiles because in the production requires a large stove and the need for high energy, the price of gas is an important factor that affecting the production cost. Currently the operator is unable to find other energy sources to replace gas LPG. Although some operators turn to natural gas however, the cost of connecting pipes to the factory is very high, which makes it unable to bear the cost burden?

- Labours

Labours in the ceramic tile industry can be divided into two groups: industrial workers, management workers, which range from administrative staff to managers and executives, and the other is the production group, which is skilful workers, technicians, researchers, as well as engineers involved in the production process, which labour depression is a major force in the ceramic tile industry. If considering the structure, the cost of production is the cost of labour, raw materials, energy, depreciation and other expenses.

### **2.6.3 Threat of New Entrance (High)**

The ceramic tile industry is considered an industry that requires a lot of investment. In addition, the production innovation and technology investment are also high, and requires the money to invest in building a production plant, including hire personnel in production expertise and must invest continuously to research and product development department which requires high investment funds that makes a new entry of competitors can be difficult. Another reason is that businesses need to have a large reserve of funds for working circulation.

In the other hand, the advent of new entrepreneurs coming from outside the country has a huge impact, which is something that cannot be neglected to consider. Due to the official liberalization trade facilitates new competitors to trade freely. For example, china can enter the Thai market easily, with cheap products affecting the ceramic tiles in Thailand a lot. In the future, if there is a wider liberalization of government, the entry of foreign entrepreneurs will also be easier because of the labour wage advantage that is lower than Thailand.

### **2.6.4 Threat of Substitute Product or Service (High)**

Nowadays, the ceramic tile industry is highly competitive, so the products produced are equal to quality but different in design, combined with the high price competition. Therefore, the obstacles from substitute products are moderate, even though ceramics have different properties from other materials. Thus, there are not many products that can replace ceramic tiles such as marble flooring, granite products, and wood (Paquet's), but nevertheless a ceramic tile product with transport costs and cheaper than granite but with a competition which is high in quality and price, it may give these substitutes an opportunity to come as an alternative for consumers to buy to replace the company's products.

### **2.6.5 Rivalry among Existing Competitors (High)**

Competition in the ceramic tile industry is highly competitive. The price's war has occurred within the industry both from domestic competitors and overseas. Especially the competitors from foreign countries entering the Thai market by using the low-price strategy in marketing make the competition more intense. As a result of



liberalization trade with China, Vietnam, etc. For China, it can be considered as an important competitor that have an advantage in production costs, labour costs or machinery that is lower than Thailand which leads to the import price is cheaper than Thailand and has a lot affects to the operators within country. The competitiveness of domestic industries that is violent as well. Due to the capacity of competitors is increasing every year and competitive strategies that the competition focused on producing a quality product and makes a difference in the competition even more intense with the economy making consumers decide to buy more. Thus, price competition has intensified significantly.

## 2.7 Common Size Analysis

**Table 2.2 Common Sizes**

STATEMENTS OF FINANCIAL POSITION						
(Unit : Baht)	2015	2016	2017	2018	2019 Trailing	Average over latest 5 years
<b>ASSETS</b>						
<b>CURRENT ASSETS</b>						
Cash and cash equivalents	4.23%	1.42%	1.33%	1.57%	2.09%	2.13%
Trade accounts and other current receivables - net	2.46%	2.42%	3.82%	3.64%	3.60%	3.19%
Trade accounts receivable and other receivable - subsidiary	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inventories - net	30.81%	27.26%	25.32%	24.54%	24.59%	26.50%
Other investment	0.36%	0.32%	0.26%	0.01%	0.01%	0.19%
Other current assets	0.94%	0.81%	0.00%	0.00%	0.00%	0.35%
<b>Total Current Assets</b>	<b>38.80%</b>	<b>32.23%</b>	<b>30.73%</b>	<b>29.76%</b>	<b>30.29%</b>	<b>32.36%</b>
<b>NON - CURRENT ASSETS</b>						
Investments in subsidiaries	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other long-term investment	0.00%	0.00%	0.46%	0.37%	0.33%	0.23%
Property, plant and equipment - net	59.86%	66.74%	67.73%	68.47%	67.91%	66.14%
Goodwill	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Intangible assets - net	0.42%	0.31%	0.36%	0.34%	0.24%	0.33%
Deferred income tax asset	0.43%	0.36%	0.41%	0.84%	1.06%	0.62%
Other non - current assets	0.49%	0.36%	0.30%	0.22%	0.18%	0.31%
<b>Total Non - Current Assets</b>	<b>61.20%</b>	<b>67.77%</b>	<b>69.27%</b>	<b>70.24%</b>	<b>69.71%</b>	<b>67.64%</b>
<b>TOTAL ASSETS</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>						
<b>CURRENT LIABILITIES</b>						
Short - term loans from financial institutions	18.70%	23.13%	29.74%	30.06%	27.36%	25.80%
Trade account and other current payables	9.31%	8.88%	12.31%	11.48%	9.86%	10.37%
Trade account payables - subsidiary company	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accrued income tax	3.12%	2.40%	1.31%	1.39%	1.31%	1.91%
Other current liabilities	3.88%	3.45%	0.00%	0.00%	0.00%	1.47%
<b>Total Current Liabilities</b>	<b>35.01%</b>	<b>37.86%</b>	<b>43.36%</b>	<b>42.93%</b>	<b>38.53%</b>	<b>39.54%</b>

**Table 2.2 Common Sizes (cont.)**

STATEMENTS OF FINANCIAL POSITION (Unit : Baht)	2015	2016	2017	2018	2019 Trailing	Average over latest 5 years
<b>ASSETS</b>						
<b>SHAREHOLDERS' EQUITY</b>						
Share capital - common share at Baht 1 par value						
- Registered						
- Issued and paid - up	12.71%	11.35%	9.20%	8.16%	7.07%	9.70%
Premium on share capital	9.86%	8.80%	7.13%	6.32%	5.48%	7.52%
Retained earnings	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
- Appropriated for legal reserve	1.27%	1.14%	0.92%	0.82%	0.71%	0.97%
- Unappropriated	36.03%	36.61%	32.42%	31.85%	31.70%	33.72%
other component of equity	0.00%	0.00%	0.00%	-0.99%	4.72%	0.75%
Shareholders' equity of the Company	59.87%	57.90%	49.67%	46.16%	49.67%	52.65%
Non-controlling interests in subsidiaries	0.90%	0.84%	3.60%	7.85%	8.69%	4.38%
<b>TOTAL SHAREHOLDERS' EQUITY</b>	60.78%	58.74%	53.27%	54.00%	58.36%	57.03%
<b>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</b>	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Remarks: - Orange highlight is amount that materiality.

- Yellow highlight is amount that immateriality.

#### Common size Analysis

Common size is analysed the latest 5-year financial statements of Dynasty Ceramic Public Company Limited. The information is between 2015 to 2019 (trailing). To conclude briefly for all analysis as follow;

- The company's current asset consists of quite large portion of inventories (around 26.50% of total assets average latest 5 years).
- While, more than half of uses of fund are spent to fix assets (around 66.14% of total assets average latest 5 years).
- Only two sources of fund come from accounts payable and short-term loans. They do not depend on any long-term borrowings (A/P 10.37% and S-T loans 25.80% of total assets average latest 5 years).
- With quite high and increasing revenue over the 5 years, average latest 5 years CAGR around 2.71%, always result to generate profit continuously, average latest 5 years around 16.40% of sales and keep it to be ready for investment in term of retained earnings that accumulated the current amount around 31.70% of total assets in 2019.

- However, the main company's cost structure is costs of goods sold. The firm can generate gross profit average almost half of revenues (CGS 59.65% and GP 40.35% of sales average latest 5 years).
- In addition, the other significant expenses are selling and administrative that also impact to operating expense but immateriality (S&A 10.12% of sales average latest 5 years).
- All in all, overall company's financial statement structures as normal manufacturing firm. They produce and sell by their own. The firm can generate high revenue and profit. Also, there is sufficient source of fund from equity to keep in retained earnings.

## 2.8 Significant account changes analysis

**Table 2.3 Movement in Significant Accounts**

STATEMENTS OF FINANCIAL POSITION (Unit : Baht)	2015 VS 2014	2016 VS 2015	2017 VS 2016	2018 VS 2017	2019(Trailings) VS 2018
<b>ASSETS</b>					
<b>CURRENT ASSETS</b>					
Cash and cash equivalents	4.97%	-62.45%	16.00%	33.08%	53.37%
Trade accounts and other current receivables - net	39.82%	10.26%	94.87%	7.25%	14.16%
Trade accounts receivable and other receivable - subsidiary companies					
Inventories - net	-10.10%	-0.93%	14.65%	9.30%	15.60%
Other investment	0.00%	0.00%	0.00%	-94.21%	0.00%
Other current assets	31.38%	-2.39%	-100.00%	0.00%	0.00%
<b>Total Current Assets</b>	<b>-5.68%</b>	<b>-6.95%</b>	<b>17.69%</b>	<b>9.20%</b>	<b>17.41%</b>
<b>NON - CURRENT ASSETS</b>					
Investments in subsidiaries					
Other long-term investment	0.00%	0.00%	100.00%	-10.67%	3.41%
Property, plant and equipment - net	2.48%	24.85%	25.26%	14.00%	14.45%
Goodwill					
Intangible assets - net	39.33%	-18.35%	47.29%	5.36%	-19.50%
Deferred income tax asset	-0.73%	-5.72%	39.35%	132.36%	45.06%
Other non - current assets	-44.18%	-18.06%	4.56%	-19.61%	-5.78%
<b>Total Non - Current Assets</b>	<b>1.96%</b>	<b>24.00%</b>	<b>26.17%</b>	<b>14.34%</b>	<b>14.53%</b>
<b>TOTAL ASSETS</b>	<b>-1.15%</b>	<b>11.99%</b>	<b>23.43%</b>	<b>12.76%</b>	<b>15.39%</b>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>					
<b>CURRENT LIABILITIES</b>					
Short - term loans from financial institutions	-30.94%	38.54%	58.70%	13.99%	5.00%
Trade account and other current payables	-6.27%	6.79%	71.15%	5.16%	-0.89%
Trade account payables - subsidiary company					
Accrued income tax	87.24%	-13.87%	-32.49%	19.12%	9.40%
Other current liabilities	-3.55%	-0.24%	-100.00%	0.00%	0.00%
<b>Total Current Liabilities</b>	<b>-18.00%</b>	<b>21.13%</b>	<b>41.36%</b>	<b>11.64%</b>	<b>3.57%</b>

**Table 2.3 Movement in Significant Accounts (cont.)**

STATEMENTS OF FINANCIAL POSITION					
(Unit : Baht)	2015 VS 2014	2016 VS 2015	2017 VS 2016	2018 VS 2017	2019(Trailings) VS 2018
<b>NON - CURRENT LIABILITIES</b>					
Unfunded provident fund	2.23%	-2.09%	-9.87%	2.04%	3.78%
Employee benefits obligation	11.34%	-18.24%	50.14%	4.13%	24.70%
Deferred income tax - liability	20.33%	9.24%	-6.97%	-7.62%	-8.79%
Other non-current liabilities				100.00%	160.73%
<b>Total Non - Current Liabilities</b>	<b>10.08%</b>	<b>-9.65%</b>	<b>22.15%</b>	<b>2.73%</b>	<b>16.95%</b>
<b>TOTAL LIABILITIES</b>	<b>-15.69%</b>	<b>17.82%</b>	<b>39.78%</b>	<b>11.00%</b>	<b>4.46%</b>
<b>SHAREHOLDERS' EQUITY</b>					
Share capital - common share at Baht 1 par value					
- Registered	60.00%	0.00%	0.00%	0.00%	0.00%
- Issued and paid - up	60.00%	0.00%	0.00%	0.00%	0.00%
Premium on share capital	0.00%	0.00%	0.00%	0.00%	0.00%
Retained earnings					
- Appropriated for legal reserve	60.00%	0.00%	0.00%	0.00%	0.00%
- Unappropriated	2.37%	13.77%	9.33%	10.76%	14.85%
other component of equity	0.00%	0.00%	0.00%	100.00%	650.56%
<b>Shareholders' equity of the Company</b>	<b>11.30%</b>	<b>8.29%</b>	<b>5.90%</b>	<b>4.78%</b>	<b>24.18%</b>
Non-controlling interests in subsidiaries	7.26%	4.14%	428.65%	145.75%	27.75%
<b>TOTAL SHAREHOLDERS' EQUITY</b>	<b>11.24%</b>	<b>8.23%</b>	<b>11.95%</b>	<b>14.31%</b>	<b>24.70%</b>
<b>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</b>	<b>-1.15%</b>	<b>11.99%</b>	<b>23.43%</b>	<b>12.76%</b>	<b>15.39%</b>
<b>STATEMENTS OF COMPREHENSIVE INCOME</b>					
(Unit : Baht)	2015 VS 2014	2016 VS 2015	2017 VS 2016	2018 VS 2017	2019 Trailings VS 2018
Revenue from sales	-0.08%	-0.10%	2.77%	9.01%	1.93%
Costs of goods sold	0.48%	-2.43%	11.21%	9.05%	1.19%
<b>Gross income</b>	<b>-0.84%</b>	<b>3.12%</b>	<b>-8.27%</b>	<b>8.94%</b>	<b>3.11%</b>
Other income	-40.33%	50.54%	59.21%	-13.08%	51.80%
Selling expenses	-10.42%	4.04%	12.79%	14.30%	-0.65%
Administrative expenses	-0.12%	5.13%	19.88%	11.56%	6.58%
Goodwill written-off					
Finance costs	-22.31%	-21.33%	52.98%	32.60%	8.13%
<b>Income before income tax</b>	<b>9.75%</b>	<b>2.74%</b>	<b>-26.73%</b>	<b>3.14%</b>	<b>4.04%</b>
Income tax	1.86%	-0.21%	-26.53%	-20.97%	7.78%
<b>Income for the year</b>	<b>11.95%</b>	<b>3.48%</b>	<b>-26.78%</b>	<b>9.04%</b>	<b>3.38%</b>
<b>OTHER COMPREHENSIVE INCOME (LOSS)</b>					
Actuarial losses - net of tax					
<b>TOTAL COMPREHENSIVE INCOME (LOSS) FOR THE YEAR</b>	<b>9.46%</b>	<b>4.20%</b>	<b>-27.28%</b>	<b>9.04%</b>	<b>4.39%</b>

Remarks: - Orange highlight is significant account changes.

- Yellow highlight is insignificant account changes.

#### Significant account changes analysis

In addition, the movement of each significant account is also analysed. The result concludes briefly for analysis as follow;

- In 2016, cash and cash equivalents increase significantly around 62.45%.
- In 2017, trade accounts and other current receivables – net increase significantly around 94.87%. Moreover, other long-term investments rise 100%. It is

the first time of this item over 5 years that the company invests in another long-term project. Additionally, the firm invest a lot in intangible asset that results to increase around 47.29% in this year. Result in accounts receivable increase a lot, the sources of fund from short - term loans from financial institutions and trade account and other current payables increase in the same direction to support these changes.

- In 2018, other investments decrease sharply around 94.21% because there are some subsidiaries that the company invested which are Muangthong Ceramic Co., Ltd. and Pick and Pay Co., Ltd. registered the liquidation later as at May 9, 2018 and August 23, 2018, respectively. Revenue from sales reaches a peak at around 8 billion baht. Also, costs of goods sold, selling and administrative expenses increase in the same line with core revenues. While, financial cost rises because of increasing in short term debt from the previous year. It results to lower income tax expense in this year.

## 2.9 DCC Financial Ratio Analysis and Peer to Peer Analysis

**Table 2.4 Key Financial Ratios**

Financial Ratios							
Fiancial Ratio Analysis	Ratio	unit	2015	2016	2017	2018	2019 Trailings
<b>Liquidity</b>	Current ratio	times	1.11	0.85	0.71	0.69	0.79
	Acid test ratio (quick ratio)	times	0.19	0.10	0.12	0.12	0.15
<b>Asset Mgt - Working Cap</b>	Current asset turnover ratio	times	3.50	3.73	3.65	3.52	3.16
<b>Asset Mgt - Long Term</b>	Total asset turnover ratio	times	1.39	1.32	1.15	1.06	0.95
	Fixed asset turnover ratio	times	2.35	2.06	1.70	1.55	1.39
<b>Solvency</b>	Debt-to-Capital ratio	%	23.53%	28.25%	35.83%	35.76%	31.91%
	Debt-to-equity ratio	%	64.53%	70.25%	87.72%	85.17%	71.35%
	Interest coverage ratio (times interest earned)	times	68.53	89.19	43.24	33.85	32.61
	Leverage	times	1.74	1.68	1.79	1.86	1.78
<b>Profitability</b>	Return on equity	%	46.43%	43.82%	29.12%	28.05%	24.20%
	Return on total assets	%	26.64%	26.16%	16.23%	15.05%	13.63%
	Earnings Per Share (EPS)	THB	2.11	2.18	1.60	1.74	1.80
	Price-to-Earnings (P/E Ratio)	times					
	Return on sales	%	19.18%	19.87%	14.16%	14.16%	14.36%

Table 2.5 Financial Ratios Analysis

Financial Ratios					
Fiancial Ratio Analysis	Ratio	unit	Dynasty (Avg. 5 yrs)	UMI (Avg. 5 yrs)	Fiancial Ratio Analysis
<b>Liquidity</b>	Current ratio	times	0.83	2.36	Dynasty's ability to pay short-term obligations or those due within one year is worse than the competitors and average over 5 years is lower than 1.
	Acid test ratio (quick ratio)	times	0.14	1.14	Also, if we count only liquid assets, Dynasty is ranked as lower UMI. It indicates that the performance in turning liquid assets to cover current liabilities is less.
<b>Asset Mgt - Working Cap</b>	Current asset turnover ratio	times	3.51	1.81	Dynasty is able to manage asset utilization look good both current and fixed assets. Also, every item can generate above than UMI. It can conclude that they effectively use the company assets to generate the profit.
<b>Asset Mgt - Long Term</b>	Total asset turnover ratio	times	1.17	0.73	
	Fixed asset turnover ratio	times	1.81	1.31	
<b>Solvency</b>	Debt-to-Capital ratio	%	31.06%	41.42%	Dynasty's financial distress is quite low comparing to the competitor.
	Debt-to-equity ratio	%	75.80%	113.15%	The capital structure of company mostly depends on only short term borrowing and credit term from suppliers. They also have quite high the portion of equity. It results to face the least chance to financial distress. While, UMI is risky to bankrupt from relying too much on liabilities.
	Interest coverage ratio (times interest earned)	times	53.49	(0.30)	It is difficult to compare ability to pay interest among two firms because the one is profitable and another is loss. Dynasty's interest coverage ratio is very good, the value still greater than 1 whit multiple around 53 times. By the way, UMI mostly operates loss in EBIT along 5 years.
<b>Profitability</b>	Return on equity	%	34.32%	-5.18%	The company effectively manages to use a company's net assets to create profits. They are in outstanding performance rather than UMI that generates negative return to shareholders.
	Return on total assets	%	19.54%	-2.37%	Dynasty's profitability to generate the returns from asset investment is good comparing to the competitor. The company creates more amount of return comparing to original investments average over 5 years is around 19.54. In contrast, UMI is ineffective to generate return from using the assets.
	Earnings Per Share (EPS)	THB	1.89	(0.12)	The company's EPS is always higher than par but another one is below. An investor can see the worthwhile value of a stock in terms of how much the market is willing to pay for each amount of earning returns.

## 2.10 Risk Free Rate

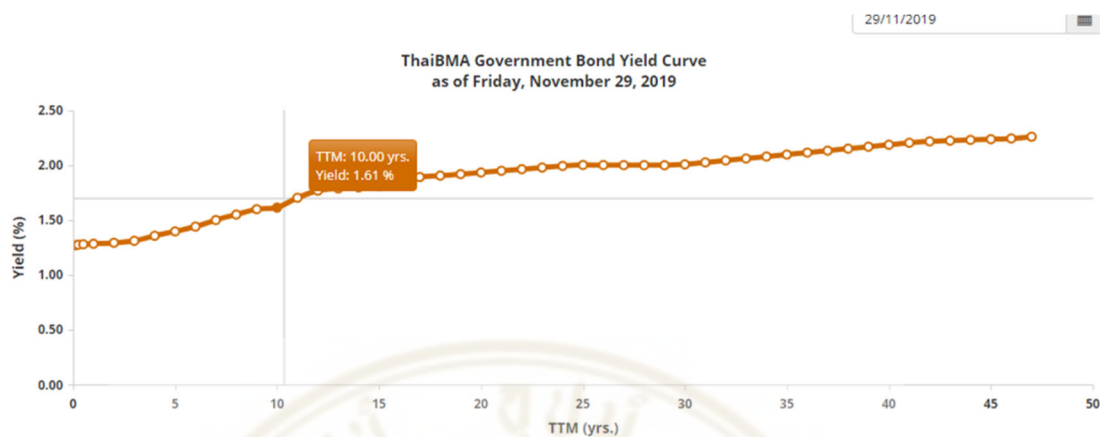


Figure 2.6 Risk Free Rate

## 2.11 Beta

Table 2.6 Regression Output

	SET	DCC
Annualized Simple Return	0.00216176	-0.000324189
Annualized SD	0.042611847	0.087917596
Annualized Variance	0.000605257	0.002576501
	<i>Column 1</i>	<i>Column 2</i>
Column 1	1	0.231825336
Column 2	0.231825336	1
	<i>Covariance</i>	
SET	0.00181577	0.000868494
DCC	0.000868494	0.007729504
	<i>Covariance SET/DCC</i>	0.000868494
	<b>Annualized Variance of SET</b>	0.000605257
	<b>Beta</b>	1.43



Figure 2.7 Bloomberg-2Y

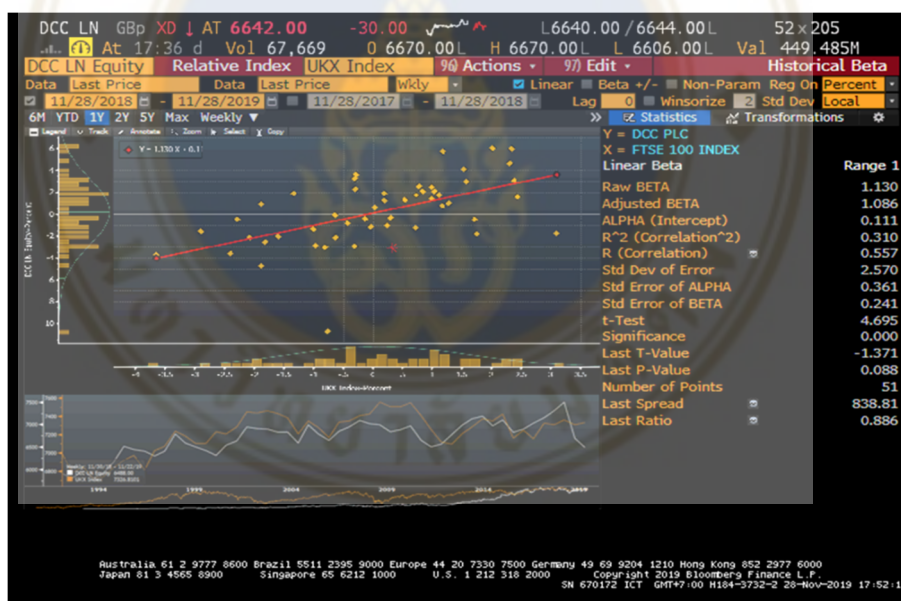


Figure 2.8 Bloomberg-1Y



## 2.12 Equity Risk Premium

### Country Default Spreads and Risk Premiums

*Last updated: January 2019*

This table summarizes the latest bond ratings and appropriate default spreads for different countries. While you can use these numbers as rough estimates of country risk premiums, you may want to modify the premia to reflect the additional risk of equity markets. To estimate the long term country equity risk premium, I start with a default spread, which I obtain in one of two ways:

(1) I use the local currency sovereign rating (from Moody's: [www.moody's.com](http://www.moody's.com)) and estimate the default spread for that rating (based upon traded country bonds) over a default free government bond rate. For countries without a Moody's rating but with an S&P rating, I use the Moody's equivalent of the S&P rating. To get the default spreads by sovereign rating, I use the CDS spreads and compute the average CDS spread by rating. Using that number as a basis, I extrapolate for those ratings for which I have no CDS spreads.

(2) I start with the CDS spread for the country, if one is available and subtract out the US CDS spread, since my mature market premium is derived from the US market. That difference becomes the country spread. For the few countries that have CDS spreads that are lower than the US, I will get a negative number.

You can add just this default spread to the mature market premium to arrive at the total equity risk premium. I add an additional step. In the short term especially, the equity country risk premium is likely to be greater than the country's default spread. You can estimate an adjusted country risk premium by multiplying the default spread by the relative equity market volatility for that market (Std dev in country equity market:Std dev in country bond). I have used the emerging market average of 1.23 (estimated by comparing an emerging market equity index to an emerging market government/public bond index) to estimate country risk premium. I have added this to my estimated risk premium of 5.96% for mature markets (obtained by looking at the implied premium for the S&P 500) to get the total risk premium.

**Figure 2.9 Equity Risk Premium**



## 2.13 Financial Statement Projection

**Table 2.7 Financial Statement Projection**

STATEMENTS OF FINANCIAL POSITION (Unit : Baht)	2019 Trailings YE2018 - Q3'2018 + Q3'2019	Assumption	2020 Projection	2021 Projection	2022 Projection	2023 Projection	2024 Projection
<b>ASSETS</b>							
<b>CURRENT ASSETS</b>							
Cash and cash equivalents	130,032,292	2.56% Estimate align with sales growth	133,365,747	136,784,657	140,291,213	143,887,662	147,576,308
Trade accounts and other current receivables - net	274,444,221	2.56% Estimate align with sales growth	281,479,762	288,695,663	296,096,548	303,687,158	311,472,359
Inventories - net	2,268,141,158	2.56% Estimate align with sales growth	2,326,286,304	2,385,922,036	2,447,086,566	2,509,819,084	2,574,159,788
Other investment	1,063,937	0.01% Constant commonsize rate with the latest data 2019	1,091,212	1,119,186	1,147,877	1,177,303	1,207,484
<b>Total Current Assets</b>	<b>2,673,681,608</b>		<b>2,742,223,025</b>	<b>2,812,521,542</b>	<b>2,884,622,203</b>	<b>2,958,571,207</b>	<b>3,034,415,938</b>
<b>NON - CURRENT ASSETS</b>							
Other long-term investment	29,314,300	0.33% Constant commonsize rate with the latest data 2019	30,065,790	30,836,544	31,627,057	32,437,835	33,269,399
Property, plant and equipment - net	6,107,007,192	68.35% Constant commonsize rate with the latest data 2019	6,263,563,951	6,424,134,135	6,588,820,631	6,757,728,963	6,930,967,361
Intangible assets - net	20,759,639	0.23% Constant commonsize rate with the latest data 2019	21,291,825	21,837,653	22,397,474	22,971,647	23,560,539
Deferred income tax asset	87,940,453	0.98% Constant commonsize rate with the latest data 2019	90,194,859	92,507,058	94,878,531	97,310,798	99,805,419
Other non - current assets	16,119,125	0.18% Constant commonsize rate with the latest data 2019	16,532,348	16,956,165	17,390,846	17,836,671	18,293,925
<b>Total Non - Current Assets</b>	<b>6,261,140,709</b>		<b>6,421,648,772</b>	<b>6,586,271,554</b>	<b>6,755,114,540</b>	<b>6,928,285,915</b>	<b>7,105,896,642</b>
<b>TOTAL ASSETS</b>	<b>8,934,822,317</b>	2.56% Estimate align with sales growth	<b>9,163,871,797</b>	<b>9,398,793,096</b>	<b>9,639,736,742</b>	<b>9,886,857,122</b>	<b>10,140,312,580</b>

Table 2.7 Financial Statement Projection (cont.)

STATEMENTS OF FINANCIAL POSITION (Unit : Baht)	2019 Trailings YE2018 - Q3 2018 + Q3 2019	Assumption	2020 Projection	2021 Projection	2022 Projection	2023 Projection	2024 Projection
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>							
<b>CURRENT LIABILITIES</b>							
Short - term loans from financial institutions	2,274,220,576	25.45% Constant commonsize rate with the latest data 2019	2,332,521,572	2,392,317,149	2,453,645,620	2,516,546,284	2,581,059,443
Trade account and other current payables	865,187,697	2.56% Estimate align with sales growth	887,367,298	910,115,486	933,446,837	957,376,301	981,919,212
Accrued income tax	96,714,590	1.08% Constant commonsize rate with the latest data 2019	99,193,926	101,736,821	104,344,905	107,019,849	109,763,366
Other current liabilities	-	0.00% Constant commonsize rate with the latest data 2019	-	-	-	-	-
<b>Total Current Liabilities</b>	<b>3,236,122,863</b>		<b>3,319,082,796</b>	<b>3,404,169,456</b>	<b>3,491,437,363</b>	<b>3,580,942,434</b>	<b>3,672,742,022</b>
<b>NON - CURRENT LIABILITIES</b>							
Unfunded provident fund	52,990,356	0.59% Constant commonsize rate with the latest data 2019	54,348,795	55,742,059	57,171,040	58,636,653	60,139,839
Employee benefits obligation	198,967,824	2.23% Constant commonsize rate with the latest data 2019	204,068,482	209,299,899	214,665,427	220,168,502	225,812,653
Deferred income tax - liability	29,610,153	0.33% Constant commonsize rate with the latest data 2019	30,369,227	31,147,760	31,946,251	32,765,213	33,605,168
Other non-current liabilities	5,659,980		5,805,077	5,953,894	6,106,525	6,263,070	6,423,627
<b>Total Non - Current Liabilities</b>	<b>287,228,313</b>		<b>294,591,581</b>	<b>302,143,612</b>	<b>309,889,243</b>	<b>317,833,438</b>	<b>325,981,287</b>
<b>TOTAL LIABILITIES</b>	<b>3,523,351,176</b>	<b>39.43%</b> Assume D/E ratio constant with the latest data 2019	<b>3,613,674,377</b>	<b>3,706,313,067</b>	<b>3,801,326,605</b>	<b>3,898,775,872</b>	<b>3,998,723,308</b>
<b>SHAREHOLDERS' EQUITY</b>							
Share capital - common share at Baht 1 par value							
- Registered	913,919,000						
- Issued and paid - up	723,143,000	Assume no. of common stocks remain constant	723,143,000	723,143,000	723,143,000	723,143,000	723,143,000
Premium on share capital	1,244,611,000	Assume no. of common stocks remain constant	1,244,611,000	1,244,611,000	1,244,611,000	1,244,611,000	1,244,611,000
Retained earnings							
- Appropriated for legal reserve	65,280,000	Assume no. of common stocks remain constant	65,280,000	65,280,000	65,280,000	65,280,000	65,280,000
- Unappropriated	2,901,064,719	Adjust R/E with net income after paid dividend (RR= 30%)	3,263,448,587	3,635,122,382	4,016,324,255	4,407,298,464	4,808,295,530

Table 2.7 Financial Statement Projection (cont.)

STATEMENTS OF FINANCIAL POSITION (Unit : Baht)		2019 Trailings YE2018 - Q3'2018 + Q3'2019	Assumption	2020 Projection	2021 Projection	2022 Projection	2023 Projection	2024 Projection
other component of equity		(254,297,578)		(496,711,963)	(745,340,785)	(1,000,343,355)	(1,261,883,067)	(1,530,127,505)
Shareholders' equity of the Company		4,679,801,141		4,799,770,624	4,922,815,597	5,049,014,900	5,178,449,397	5,311,202,025
Non-controlling interests in subsidiaries		731,670,000	Constant commonsize rate with the latest data 2019	750,426,795	769,664,432	789,395,237	809,631,853	830,387,247
TOTAL SHAREHOLDERS' EQUITY		5,411,471,141	Assume D/E ratio constant with the latest data 2019	5,550,197,420	5,692,480,029	5,838,410,137	5,988,081,251	6,141,589,272
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		8,934,822,317		9,163,871,797	9,398,793,096	9,639,736,742	9,886,857,122	10,140,312,580
STATEMENTS OF COMPREHENSIVE INCOME (Unit : Baht)		2019 Trailings	Assumption	2020 Projection	2021 Projection	2022 Projection	2023 Projection	2024 Projection
Revenue from sales		8,124,201,658	2.56% CAGR	8,332,470,395	8,546,078,226	8,765,162,020	8,989,862,157	9,220,322,616
Costs of goods sold		(4,959,708,286)	Use the average common size rate of latest 5 years bc of volatile	(4,973,074,906)	(5,100,562,637)	(5,231,318,591)	(5,365,426,552)	(5,502,972,450)
Gross income		3,164,493,372		3,359,395,489	3,445,515,589	3,533,843,429	3,624,435,605	3,717,350,166
Other income		51,863,881	0.36% of latest 5 years bc of volatile	29,782,119	30,545,601	31,328,656	32,131,785	32,955,502
Selling expenses		(849,975,205)	Use the latest common size rate because historical amount trends to increase	(879,729,913)	(902,282,312)	(925,412,855)	(949,136,364)	(973,468,038)
Administrative expenses		(937,565,424)	Use the latest common size rate because historical amount trends to increase	(954,657,244)	(979,130,447)	(1,004,231,037)	(1,029,975,097)	(1,056,379,121)
EBIT		1,428,816,624		1,554,790,455	1,594,648,432	1,635,528,193	1,677,455,930	1,720,458,509
Finance costs		(39,503,593)	Use the latest common size rate because historical amount trends to increase	(44,857,669)	(46,007,622)	(47,187,055)	(48,396,723)	(49,637,402)
Income before income tax		1,389,313,031		1,509,932,786	1,548,640,810	1,588,341,138	1,629,059,207	1,670,821,108
Income tax		(215,208,829)	Applied Thai business's tax rate	(301,986,557)	(309,728,162)	(317,668,228)	(325,811,841)	(334,164,222)
Income for the year		1,174,104,202		1,207,946,229	1,238,912,648	1,270,672,910	1,303,247,365	1,336,656,886
Dividend paid		(731,180,309)	Dividend Policy/Not less than 70 percent of the net profit after tax	(845,562,360)	(867,238,854)	(889,471,037)	(912,273,156)	(935,659,820)
Adj. to R/E		442,923,893		362,383,869	371,673,794	381,201,873	390,974,210	400,997,066

## 2.14 Terminal Growth

Table 2.8 Industry Estimated Growth

	2019	2020	2021
Industry Estimated Growth	2-4%	3-5%	3.5- 4.5%

## 2.15 Market Stock Price

Table 2.9 Current Market Stock Price

Date	Open	High	Low	Close	Adj Clo	Volume
43,798.00	1.87	1.88	1.86	1.86	1.86	3,889,200.00

## 2.16 Comparison Value with Financial Analyst

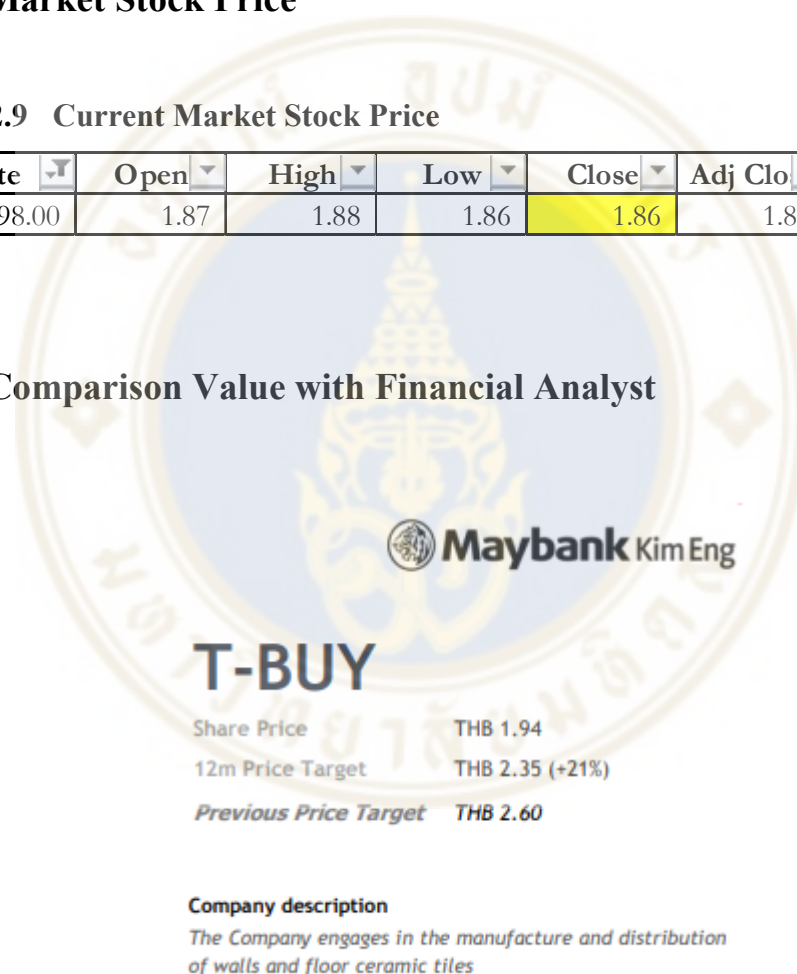


Figure 2.10 Price target by Maybank (Kimeng)

Source: [https://portal.settrade.com/brokerpage/IPO/Research/upload/2000000375859/191113\\_DCC\\_t.pdf](https://portal.settrade.com/brokerpage/IPO/Research/upload/2000000375859/191113_DCC_t.pdf)

When we compare the value we obtained from our valuation method with professional analyst. Price target by Maybank (Kimeng) is 2.35 Baht per share, which upside from our DCF valuation (at 1.97 Baht per share) around 0.38 Bath per share or 19.10%. It sounds more reasonable that our target price is conservative relatively to the market. However, the analyst also recommends to BUY this share when they believe that return is expected to be above 10% in the next 12 months.



## REFERENCES

- Adamodar (2019). Country Default Spreads and Risk Premiums. Retrieved Nov 27, 2019, from [http://pages.stern.nyu.edu/~adamodar/New\\_Home\\_Page/datafile/ctryprem.html](http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html)
- ASEAN Thailand (2019). Chairman's statement of the 35th ASEAN Summit Bangkok/Nothaburi, 3 November 2019, Advancing Partnership for Sustainability. Retrieved Nov 27, 2019, from <https://www.asean2019.go.th/en/news/chairmans-statement-of-the-35th-asean-summit-bangkok-nonthaburi-3-november-2019-advancing-partnership-for-sustainability/>
- Bank of Thailand (2019a). Monetary Policy 2019. Retrieved Nov 1, 2019, from [https://www.bot.or.th/Thai/MonetaryPolicy/Documents/PressMPC\\_52562\\_81OY3WM4.pdf](https://www.bot.or.th/Thai/MonetaryPolicy/Documents/PressMPC_52562_81OY3WM4.pdf)
- Bank of Thailand (2019b). Thai Economy in 2019. Retrieved Nov 3, 2019, from [https://www.bot.or.th/Thai/ResearchAndPublications/articles/Pages/Article\\_22Jan2019.aspx](https://www.bot.or.th/Thai/ResearchAndPublications/articles/Pages/Article_22Jan2019.aspx)
- Bank of Thailand (2019c). BOT Press Release No. 56/2019: Monetary Policy Report, September 2019. Retrieved Nov 3, 2019, from <https://www.bot.or.th/Thai/PressandSpeeches/Press/2019/Pages/n5662.aspx>
- Bank of Thailand (2019d). Industry in Thailand in 2019. Retrieved Nov 9, 2019, from [https://www.bot.or.th/Thai/MonetaryPolicy/EconomicConditions/BLP/BLP\\_TH\\_Q1\\_2019\\_n8buhqbx.pdf](https://www.bot.or.th/Thai/MonetaryPolicy/EconomicConditions/BLP/BLP_TH_Q1_2019_n8buhqbx.pdf)
- Bank of Thailand (2019e). Daily Foreign Exchange Rates. Retrieved Nov 20, 2019, from [https://www.bot.or.th/english/\\_layouts/application/exchangerate/exchangerate.aspx](https://www.bot.or.th/english/_layouts/application/exchangerate/exchangerate.aspx)
- Dynasty Ceramic Public Company Limited [DCC] (2011). Company Information. Retrieved Oct 30, 2019, from [www.dynastyceramic.com](http://www.dynastyceramic.com)
- Dynasty Ceramic Public Company Limited [DCC] (2018). Annual report 2018. Retrieved Oct 30, 2019, from <https://market.sec.or.th/public/idisc/en/FinancialReport/ALL-0000000170>

- Dynasty Ceramic Public Company Limited [DCC] (2019). Dynasty Ceramic Public Company Limited, Operating Results 3Q2019. Retrieved Nov 26, 2019, from <https://www.dynastyceramic.com/wp-content/uploads/2019/11/3Q19-DCC-Investor-Relations.pdf>
- Krungsri (2019). Thai Construction Materials in 2019. Retrieved Nov 14, 2019, from [https://www.krungsri.com/bank/getmedia/dfd2db4c-fd30-4be1-9840-6591d908cda2/IO\\_Construction\\_Materials\\_190531\\_TH\\_EX.aspx](https://www.krungsri.com/bank/getmedia/dfd2db4c-fd30-4be1-9840-6591d908cda2/IO_Construction_Materials_190531_TH_EX.aspx)
- Ministry of Transport (2016). 20 years Policy Plan of Ministry of Transport. Retrieved Nov 19, 2019, from [http://www.otp.go.th/uploads/tiny\\_uploads/Policy\\_Plan/25600316-OpertionPlan/25600316-OpertionPlan3.pdf](http://www.otp.go.th/uploads/tiny_uploads/Policy_Plan/25600316-OpertionPlan/25600316-OpertionPlan3.pdf)
- Settrade (2019). Company Highlight: Construction Materials. Retrieved Nov 27, 2019, from [https://www.settrade.com/C04\\_08\\_stock\\_sectorcomparison\\_p1.jsp?txtSymbol=DCC&ssoPageId=18&selectPage=8](https://www.settrade.com/C04_08_stock_sectorcomparison_p1.jsp?txtSymbol=DCC&ssoPageId=18&selectPage=8)
- ThaiBMA (2019). Government Bond Yield Curve. Retrieved Nov 27, 2019, from <http://www.thaibma.or.th/EN/Market/YieldCurve/Government.aspx>
- Yahoo.Finance (2019). Dynasty Ceramic Public Company Limited (DCC.BK) Stock Price. Retrieved Nov 27, 2019, from <https://finance.yahoo.com/quote/DCC.BK/history?p=DCC.BK>