

**RELATIVE VALUATION OF DIAMOND BUILDING PRODUCTS
PUBLIC COMPANY LIMITED**



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RELATIVE VALUATION OF DIAMOND BUILDING PRODUCTS PUBLIC COMPANY LIMITED

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M.M. (FINANCIAL MANAGEMENT)

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ABSTRACT

Relative valuation is widely used to value stocks, normally by applying the average multiple from an industry peer group. The multiple has to justify with the historical data to check whether the current price is cheaper or more expensive than the average value (5 years in this study). For Diamond Building Products Public Company Limited (DRT), its current price is cheaper than the average value by using P/E band. P/E multiple is applied to this stock as the company focuses on growing its earnings per share. Other multiples (P/BV and EV/EBITDA) are not applied as DRT had the share repurchasing program in May 2020. From the comparison with peers (SCC, SCCC, COTTO, DCC, and TOA), it is obvious that DRT's P/E ratio is the lowest (P/E = 9.0x). As the stock market is so volatile, the minimum of P/E ratio from peers is applied which is 11.86x and then multiplied with the earnings per share of DRT in 2019 (0.6 baht per share). Finally, the target price of DRT is 7.12 baht, which is about 18.7% higher than the current price. So, DRT is recommended to "buy". However, it is difficult to identify when DRT can reach the target price. Nevertheless, this stock is quite interesting for value investors as its yield is high (7%) and EPS keeps increasing, which is the result of DRT's management's strategy.

DRT's risks are at the moderate level which comes from the change of customers' behavior for selecting the material for their homes and from the modern trade that would like to increase the rebate, which may decrease the sales and profit margins in the future. For the limitations, there is no guarantee that DRT will keep performing better than or equal to its peers or even attract more investors to buy.

KEY WORDS: Relative Valuation/ P/E Ratio

36 pages

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LIST OF ABBREVIATIONS

CAGR	Compound Annual Growth Rate
CAPEX	Capital Expenditure
CAPM	Capital Asset Pricing Model
CLMV	Cambodia, Laos, Myanmar, and Vietnam
COGS	Cost of Goods Sold
COTTO	Siam Cement Group Ceramics Public Company Limited
DCC	Dynasty Ceramic Public Company Limited
DCF	Discounted Cash Flow
DRT	Diamond Building Products Public Company Limited
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings before interest, taxes, depreciation, and Amortization
EPS	Earnings per share
EV	Enterprise Value
GDP	Gross Domestic Product
IMF	International Monetary Fund
P/BV	Price to Book Ratio
PE Ratio	Price to Earnings Ratio
ROA	Return on Assets
ROE	Return on Equity
SCC	Siam Cement Public Company Limited
SCCC	Siam City Cement Public Company Limited
SD	Standard deviation
SEC	Securities and Exchange Commission of Thailand
SET	Stock Exchange of Thailand
TOA	TOA Paint (Thailand) Public company limited

CHAPTER I

INTRODUCTION



Diamond Building Products Public Company Limited (DRT) is the roof tiles and construction material manufacturing and distributing company which is categorized in the construction material sector in stock exchange of Thailand (SET). The company's products are composed of 5 groups which are roofing products, board and ceiling products, siding board products, roof accessory products, and non-roof products. DRT also provides the installation service for customer.



DRT's main source of revenues is roofing products, at approximately 46-48% of sales. And services (installation) have the smallest share (8%). The portion between domestic and international revenue is approximately 80:20. DRT's strategies are (1) cost reduction strategy which make DRT gain more profit even the industry's flat growth or during the COVID-19 pandemic and (2) high dividend payout strategy (dividend yield \approx 7% p.a.) which would attract the investors.

Recently, during the COVID-19 pandemic, DRT's revenue decreased about 8.4% compared with the first 9 months of 2019, but its expense decreased more than that (-9.5%) so the net profit decreased only a little (-2.5%). However, due to stock repurchases, the earnings per share (EPS) increased by 2%.

In this relative valuation analysis, price to earnings per share (P/E), price to book value (P/BV), and Enterprise Value (EV) to Earnings Before Interest, Taxes, Depreciation & Amortization (EV/EBITDA) are applied to find the value of DRT's stock compared with its peers (SCC, SCCC, COTTO, DCC, and TOA). Before comparing with its peers, 3 bandwidths (5 years) are plotted to check whether the current

valuation ratios are within the historical range. The results show that current P/E and EV/EBITDA are below the average value which can imply that current price is cheaper than the average 5 years historical value. Nevertheless, P/BV is in between average and +1SD value. In my opinion, the use of P/BV may not be appropriate for a stock that is repurchasing shares, as it distorts the book value, making it is quite difficult to justify that the current price is cheap or expensive based on P/BV.

Compared with its peers, DRT has the lowest P/E and EV/EBITDA ratios, while COTTO has the highest P/E ratio and TOA has the highest EV/EBITDA ratio. COTTO has the lowest P/BV ratio and TOA has the highest P/BV ratio. Peers multiples are calculated, i.e., maximum, median, and minimum to create a football field. Moreover, the Damodaran's regression equation is applied to find the predicted P/E of DRT and a sensitivity analysis is applied to obtain the range value of DRT if growth of EPS, payout ratio, and Beta are changed. Finally, the possible range of DRT stock prices is 8.81-13.02 baht, which is about 40% higher than the current price (6 baht). Due to the volatility and risky of stock exchange of Thailand, the minimum P/E from peer is selected to be the multiple so the target price of DRT is 7.12 baht.

Risks are assessed but none of the risk are major or severe. Therefore, future of DRT has medium to low risk.

For the recommendation, DRT is suited to **“BUY”** for the long-term value investor, but not for the day trader as the volume for each day is quite low. In the other words, DRT has low liquidity. Value investors may enjoy the dividend from DRT which is substantially higher than the current deposit rate.



CHAPTER II

BUSINESS DESCRIPTION

2.1 Business

Diamond Building Products Public Company Limited (DRT) is a manufacturing and distributing company of roofing products, wall sidings, ceilings, and artificial boards under the brands of Diamond Roof, Adamas, and Jearanai. Besides the manufacturing and distributing of products, the company also provides design and installation services. The company has a long history since 1985 as Siam Tiles and Pipes Co., Ltd. Then, it was listed in the SEC in year 2005 and changed its name to “Diamond Building Products Co., Ltd.” in 2011 as shown in the history timeline in **Figure 2.1**.



Figure 2.1 DRT History Timelines

Source: <https://www.dbp.co.th/en/aboutus.php>

2.1.1 Products and Services

The company's products are composed of 5 groups (**Figure 2.2**).

- *Roofing products* are fiber cement roof tile and concrete roof tile.
- *Board and ceiling products* are diamond board, diamond block, diamond lintel and diamond counter for kitchen.
- *Siding board products* are lathes, eaves, fences and floor plank.
- *Roof accessory products* are heat insulators, foils and etc.
- *Non-roof products* are truss, beam, gypsum board and etc.

Besides the products, the installation services by expert teams are also provided to build the customers' confidence with the product. They are well-trained by the company. Therefore, the company provides one-stop service for the customers to change or install the new roof tiles and other products.



Figure 2.2 DRT's Products

2.1.2 Sources of Revenue and Growth

Roofing products are the main source of revenue of DRT which is approximately 46-48% (**Table 2.1**). And the service (installation) has the smallest share (8%). The ratios between domestic and international revenue is approximately 80:20. Nowadays it seems that roofing and construction material industry is in the mature stage as it could be seen from the revenue of DRT which has a linear growth (its CAGR (2015-2019) of revenue is 3.69%) in the past few years (**Figure 2.3**) as well as a flat growth of

a gross domestic product (GDP) from the construction sector (**Figure 2.4**). However, due to the efficient management, the profit margin has increased from 9.87% in 2018 to 12.04% in 2019.

Table 2.1 Revenue Structure

Products and Services	2019		2018		2017 *	
	Million Baht	%	Million Baht	%	Million Baht	%
Revenues from sales and services						
1. Revenue from Product Sales	4,326.94	91.14%	3,948.85	91.21%	3,825.51	91.71%
1.1 Roofing Products	2,232.40	47.02%	2,018.02	46.61%	2,030.59	48.68%
1.2 Board and Ceiling Products	742.69	15.65%	747.51	17.27%	717.70	17.21%
1.3 Siding Board Products	838.52	17.66%	771.57	17.82%	729.96	17.50%
1.4 Special Products	513.33	10.81%	411.75	9.51%	347.26	8.32%
2. Revenue from Services	420.61	8.86%	380.50	8.79%	345.62	8.29%
Total Revenues from sales and services	4,747.55	100.00%	4,329.35	100.00%	4,171.13	100.00%

Source: DRT Annual Report 2019

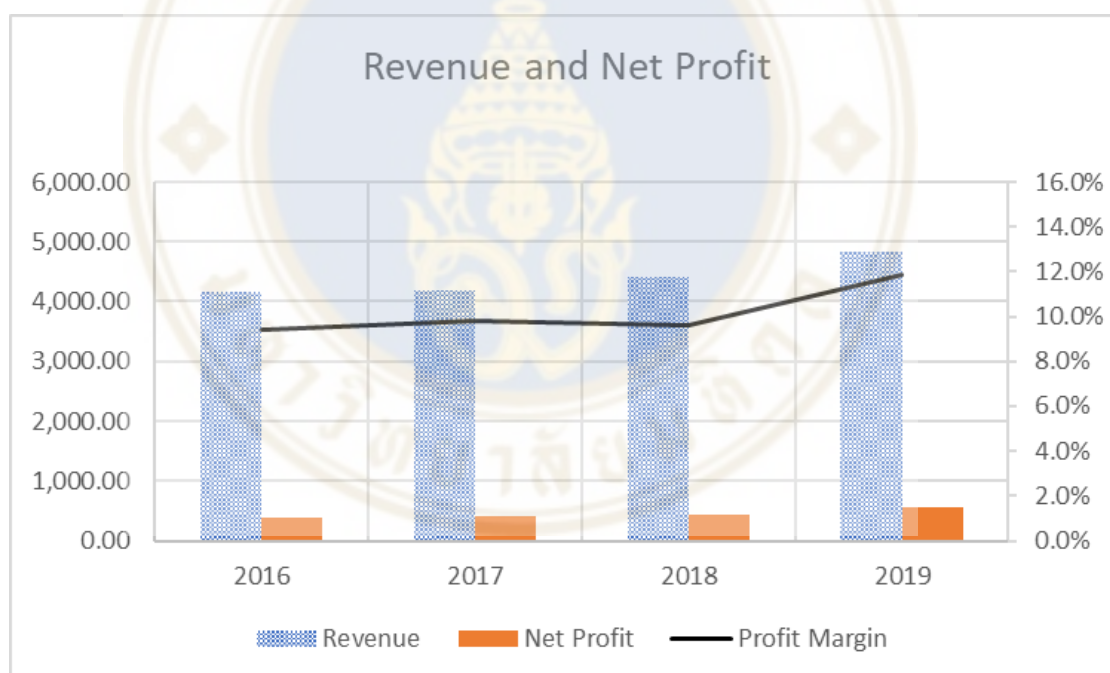


Figure 2.3 Revenue and Net Profit of DRT

Source: DRT Annual Report 2019



Figure 2.4 Gross domestic product (GDP) from the construction sector in Thailand from 2010 to 2019

Source: Statista (2020)

For roofing products, DRT holds the third rank in the market in Thailand. The first rank is held by Siam Cement Public Company Limited (SCC) and the second rank is Ha Huang tiles by Shera. As people may not change roof so often (it should be last long more than 10-20 years) and housing growth is slower than the condominium growth, the growth from the construction material sector depends on product diversification or the new products. The artificial wooden material is one of the product diversifications which all 3 companies are manufacturing and seem to have higher growth as it is cheaper than the real wood.

From Management Discussion and Analysis Quarter 3 Ending 30 Sep 2020 (DRT Management, 2020), DRT has less sales in this year comparing with the previous year. One main reason is the COVID-19 pandemic in Thailand and neighborhood countries. Even though Thailand can control the spread of COVID-19, the economy is difficult to recover as Thailand's economy depends on the service sector which is contributed more than 50% of GDP (Plecher, 2020). Moreover, the second wave of

COVID-19 is occurred in Myanmar, Laos and Cambodia which reduce the export sales. So, DRT has less net profit in quarter 3 of 2020 comparing with quarter 3 of 2019, i.e. decreasing by 14.45%. However, for 9-month period, net profit (excluding extraordinary items) increased by 1.18%.

Table 2.2 Performance of DRT in 2020

Description	Year 2020	Year 2019	Increase / (Decrease)	
	Million Baht	Million Baht	Million Baht	%
3rd Quarter (July – September)				
Net Profit (Including Extraordinary Items)	111.35	130.16	(18.81)	(14.45)
Extraordinary Items are as follows;				
(1) Less Gain on sale of unused land	-	-	-	-
(2) Plus Provision for employee retirement benefits from 300 to 400 days	-	-	-	-
Net Profit (Excluding Extraordinary Items)	111.35	130.16	(18.81)	(14.45)
9-Month Period (January – September)				
Net Profit (Including Extraordinary Items)	462.14	474.14	(12.00)	(2.53)
Extraordinary Items are as follows;				
(1) Less Gain on sale of unused land	10.18	46.31	(36.13)	(78.02)
(2) Plus Provision for employee retirement benefits from 300 to 400 days	-	18.87	(18.87)	(100.00)
Net Profit (Excluding Extraordinary Items)	451.96	446.70	5.26	1.18

Source: DRT (2020)

2.2 Strategies

DRT has set the goals for sales and marketing, production and engineering, human resources, and accounting and finance which has the monitoring system to ensure that each department is strict with the goals, strategies, and plans. The plans and strategies are medium term and whole year (annually). Several projects have been done, for example, environmental and risk assessment for the whole value chain, introduction of the innovation and production technology to enhance the competitiveness.

DRT's strategies and plan will lead to increase in its profit margin. From the annual report 2019 of DRT, the profit margin in 2017 was 9.87% but it was 12.04% in 2019. This would lead to higher earnings per share which were 0.43 baht per share and 0.60 baht per share in year 2017 and 2019, respectively. This would make DRT more attractive to the investors. Moreover, in 2019, DRT increase the dividend from 0.36 baht per share in year 2018 and 2017 to 0.40 baht per share in year 2019. For the

value investors, they may entice them to keep this stock for long time as they can get more and more dividend, even while the construction industry is mature. Or it could be classified as the dividend stock.

2.3 Management and Governance

From DRT Annual report 2019 (DRT, 2020), Board of Directors is committed to being an efficient business organization, having competitiveness with good financial performance and responsibility, prudence, honesty, transparency, and a code of conduct in business. The company might take care of shareholders and all stakeholders equally and fairly. Also, the company might contribute to society and reduce the impact on the surrounding environment and might not violate human rights. Moreover, the company should be politically neutral and anti-corruption for "creating sustainable business value". Currently, DRT's CG score from SET is 5.

DRT

DIAMOND BUILDING PRODUCTS PUBLIC COMPANY LIMITED

Property & Construction/Construction Materials

sSET

CG Report: ▲▲▲▲▲

Data as of 23 Nov 2020

CHAPTER III

MACROECONOMIC, INDUSTRY ANALYSIS, COMPETITION ANALYSIS

3.1 Macroeconomic Analysis

3.1.1 The world and the country's GDP

Due to the pandemic (COVID-19), the world economy fell, especially Thailand economy that is expected to fall more than other countries. The International Monetary Fund (IMF) has forecasted Thailand's GDP growth forecast as -7.1% for 2020 while the World's GDP growth forecast is -4.4%. (Figure 3.1) Many countries were under a lockdown for preventing the COVID-19 spread, so the tourists cannot travel, which is one key factor of GDP. Thailand also lockdown which make the income from overseas tourist to be zero.

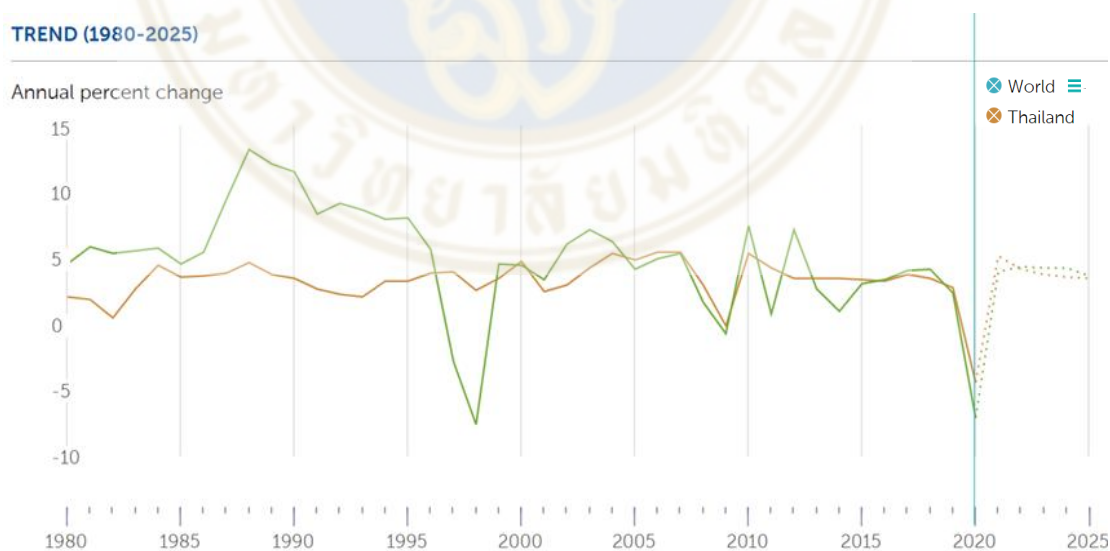


Figure 3.1 The world and Thailand's GDP

Source: IMF

As a result, many businesses have been shut down temporarily or permanently, and private sector companies delay their investment. For the government, its budget has been changed to COVID-19 curing budget so many projects have been postponed or even cancelled. Many people are unemployed due to closing businesses. Economy gets worse for all countries. Many monetary policies were issued, e.g. lower the interest rate, postpone the loan payment, etc., which may be successful in short term but not for long term. What can cure the economic crisis is a COVID-19 vaccine which they are now testing and may be launching soon. Therefore, the world and Thailand's GDP are predicted to be positive by next year.

Obviously, the growth in the construction material sector is expected to be negative this year due to the pandemic. People delay their purchasing for renovation, construction of houses, and when buying the new condominium or house.

3.1.2 Interest rate, Inflation rate and Exchange rate

Interest rates are important to the economy as it involves with people's spending, saving and investing. Low interest rate makes people have more cash in hand for spending. Then, the economy is expanded, and people will have more income. These will affect the inflation later. After inflation occurs, the government has to raise the future interest rates in order to control the inflation. The consequence from the increasing of interest rate is the inflow of money from overseas which will make Thai baht appreciate, which will affect the exports. Then, the central bank may have to manage the Thai baht somehow. It seems that it is a kind of cycle for interest rate, inflation rate and exchange rate which is quite a hard work for Bank of Thailand and government. Some theories can explain the phenomenon, i.e. Fisher effect, international Fisher effect and interest rate parity. **(Figure 3.2)**

From **Figure 3.3**, it shows that year 2020 Thailand has a negative inflation rate, or deflation. From **Figure 3.1** and **Figure 3.3**, it can be concluded that Thailand's economy is in the crisis period which may be worse than other countries nearby as Thailand's economy depends more heavily on tourism.

From Management Discussion and Analysis Quarter 3 Ending 30 Sep 2020 (DRT Management, 2020), COVID-19 is the world's economy crisis. DRT and other construction material companies are also facing this effect which decrease their sales.

For the first 9 month in 2020, DRT's sales decreased by 2.53% but its net profit surprisingly increased by 1.18% comparing with the first 9 month in 2019. It is because DRT management reduced its administrative expenses by 3.11% comparing with year 2019. For the financial ratio, both ROE and ROA in 2020 are 3.63% and 0.63% more than those in year 2019, respectively. It seems that DRT goes to the good direction even facing the world's economy crisis.

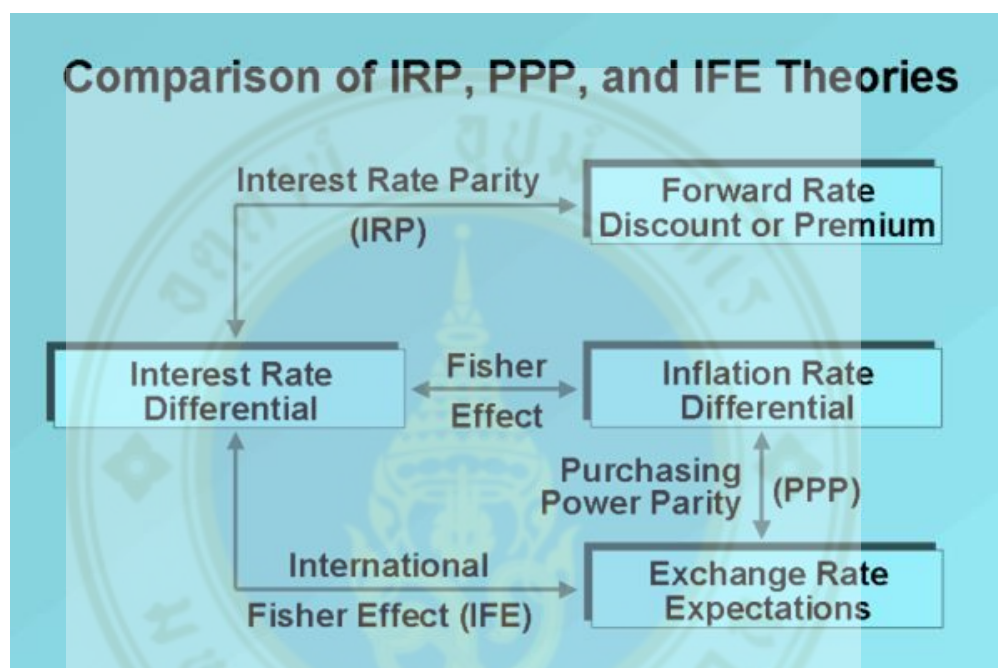


Figure 3.2 Relationship between Interest rate, Inflation rate and Exchange rate

Source: <https://www.swlearning.com/finance/madura/ifm7e/powerpoint/expanded08/sld001.htm>

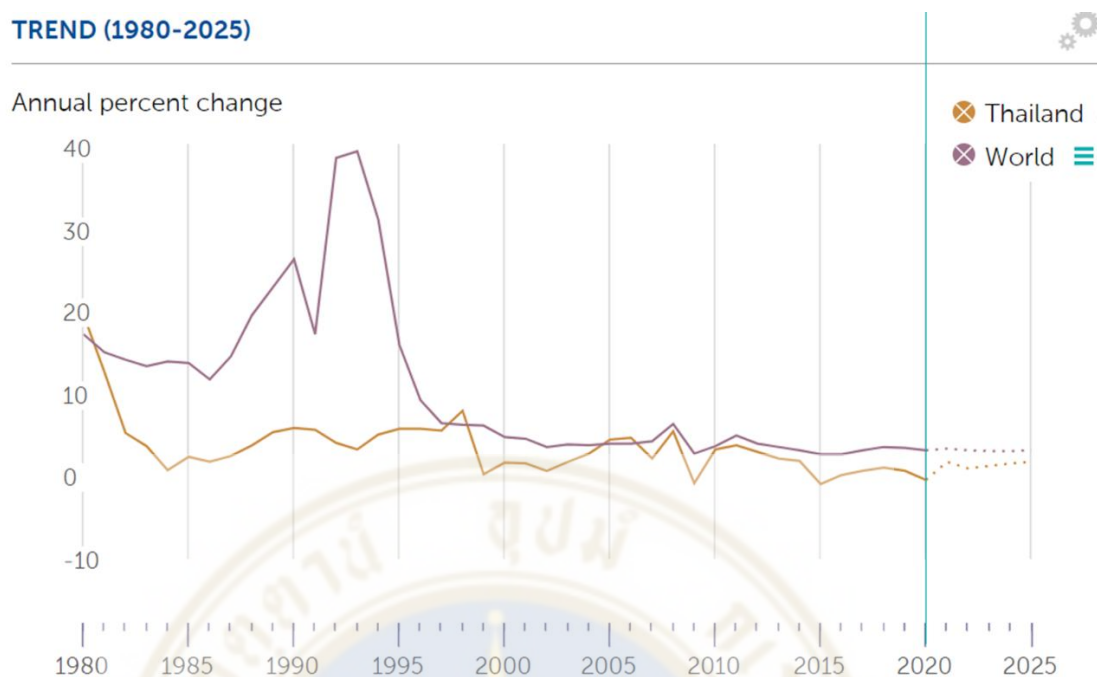


Figure 3.3 Inflation rate

Source: IMF (2020)

3.2 Industry Analysis

As mentioned earlier, the construction material industry is in the mature stage. Krungsri industry outlook 2020-22 also analyzed that the construction material industry is expected to decrease this year due to the COVID-19 impact and slow progress of construction projects. The growth is expected to be 1-2% this year (*Krungsri Industry Outlook, June 2020*). Some reasons have been given for this, which are

- Lower spending power from domestic and oversea market due to downtrend of the economy
- New loan restriction for second home mortgage (at least 10% of down payment)
- Over-supply in the residential property market.

Nevertheless, the demand for construction material would rebound in the next year as construction will be raised again, especially from the public construction

projects, e.g. mass rapid transit projects in Bangkok and its vicinities. For private sector, the demand is expected to be grown by 0-1% in 2021 and 1-2% in 2022 which is lower than the growth from the government sector. For DRT, as its main product is roof tiles and some building material which focus on the housing project, so the forecast of DRT would be focused only for private sector.

For the distribution, most of this industry use the dealers and modern trade as the distribution channel, e.g. HomePro, Thai Watsadu, Global, Dohome, etc. So, the growth of the modern trade is also the growth of this industry as well. Some companies are using their own channel, e.g. Cement Thai Home mart and SCG home by Siam Cement group, etc. The other distribution channel is direct contract to property developer.

Focusing on domestic market share in 2018, DRT was in the third rank and has the market share about 17.15%. (Table 3.1) The difference between the second (Mahaphant group) and third rank is approximately 5% (1,700 million baht), which is quite hard to make up. However, more product diversification would be the solution which may take time to develop the product.

There is the good point in this industry that they do not compete on the price with each other, so it will maintain a good profit margin for the industry.

Table 3.1 Domestic Market Shares in 2018

Manufacturers (Unit: Million Baht)	Sales in 2018	
	Amount	Market Share
1. Siam Cement Group	12,037.33	46.91%
2. Mahaphant Group	6,152.84	23.98%
3. Diamond Building Products	4,401.35	17.15%
4. Kitermit Group (Olanvanich)	844.30	3.29%
5. Conwood	1,065.45	4.15%
6. Thai Ceramic Roofing Tiles Co., Ltd.	1,159.59	4.52%
Total	25,660.86	100.00%

Source: Department of Business Development, Ministry of Commerce

3.3 Competition analysis

Five forces analysis is applied for competition analysis of DRT. **(Figure 3.4)**

Five parts will be analyzed here.

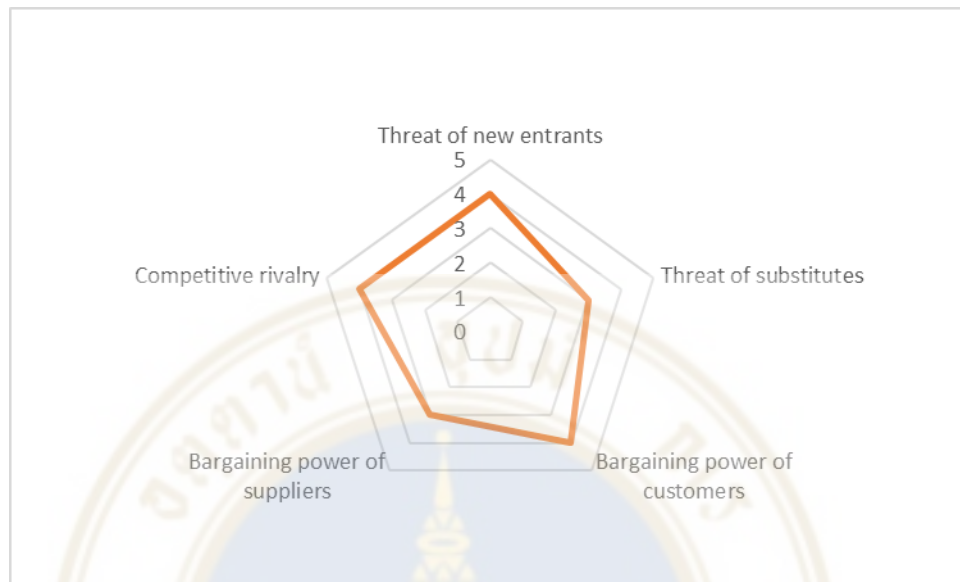


Figure 3.4 The Five Forces Analysis for DRT

High threat of new entrants, there are not many companies in this business (roofing products, boards and ceilings and siding boards). Because manufacturing business must invest large amount of money to start the business, building the factory, buying the machine, so it is difficult to enter to the business.

Medium threat of substitutes, it is not difficult to substitute construction materials for the examples, with the same function of roofing we can substitute clay and concrete tiles roof with solar tiles, metal roofing or asphalt shingles.

High bargaining power of customers, even though there are not many producers in this business, customers can change easily from one brand to another brand with no switching cost. They can choose the lowest cost or the most attractive products. It is their decision based on competitive price and quality.

Medium bargaining power of suppliers, there are lot of supplier to provide raw materials for roofing products, boards and ceilings and siding boards such as clay, cement etc. Therefore, the bargaining power of suppliers is low.

Medium competitive rivalry, as per discussed earlier, there are few large companies in this business. Therefore, it is not so high competition in terms of price to attract customers to buy the products. Company must improve the high-quality products with reasonable price in order to attract the customers. However, as mentioned earlier, the companies in this industry do not use the cost leadership strategy or no price war in the red ocean.

DRT Competitors are listed below.

3.3.1 SCC

Siam Cement Public Company Limited (SCC) is the leading company in the construction material industries and industrial supplies. The company's core business is to operate four types of business, SCG cement-building materials which is the production and sale of cement, roof tiles, ceramic tiles, sanitary wares and fittings, SCG chemical which is the sales of chemicals product such as olefins, polyolefins, SCG packaging which is the sales of printing and writing paper, corrugated boxes and document, other business which is the agricultural machine automotive parts and components.

3.3.2 COTTO

Siam Cement Group Ceramics (COTTO) is the company which produces and distributes variety of products such as wall tiles and ceramic floor. The company manufactures under the well-known brands COTTO, CAMPANA and SOSUCO. There are 4 factories in Saraburi Province. It provides one stop service from manufacturing and distribution to installation.

3.3.3 SCCC

Siam City Cement Company Limited (SCCC) was established in 1969. It is the company which is involve in manufacturing of cement-based building materials, light-weight concrete blocks and wood replacement products. The company offers the product under the brand name INSEE. The company provides variety of products, INSEE Cement, INSEE Concrete, INSEE Mortar, INSEE SUPERBLOCK, INSEE

Ecocycle and Conwood. The products are distributed nationwide and exported to overseas such as Cambodia, Laos, Myanmar, Vietnam, China and South India.

3.3.4 DCC

Dynasty Ceramic Public Company Limited (DCC) is the company which produce and distribute wall tiles and ceramic floor. The company offers the product under the brand name Dynasty and distribute through its subsidiaries around country such as Dynasty Tiletop Klongklung in Kampaeng Phet province, Dynasty Tiletop Prachin Buri in Prachin Buri province. DCC's products are sold nationwide and exported overseas including to Cambodia, Laos, Myanmar, Brunei, Philippine etc.

3.3.5 TOA

TOA Paint (Thailand) Public company limited (TOA) is the company that manufactures and distributes decorative paint and coating and non-decorative paint and coating products such as construction chemical products. There are three main decorative paint and coating products: premium grade paintings and coatings, medium grade paintings and coatings and other decorative products. For non-decorative products include heavy coating products, construction chemicals products, and other non-decorative painting products.

CHAPTER IV

VALUATION

4.1 Financial Analysis

In this section, Dupont analysis of ROE, growth analysis over the last 5 years, and some industry-specific financial ratio will be analyzed. The key competitors for DRT are Siam Cement Public Company Limited (SCC) and Dynasty Ceramic Public Company Limited (DCC). Even though SCC is much bigger than DRT, it is the only listed company that has roof tile products. For DCC, its market capital is approximately 3 times bigger than DRT and the company has growth during 3 latest years which is similar to DRT. Its product is mainly flooring tiles.

For Dupont analysis of ROE, the formula is shown below. And the ROE by Dupont analysis for latest 5 years of DRT and ROE of SCC and DCC for 2019 are shown in **Table 4.1**. ROE of DRT is up through the years because of sales or revenue and the net profit margin even though the equity has increased about 10% during last 3 years. Its asset also increased by 10%, only the debt decreased.

$$\text{ROE} = \text{Net Profit Margin} \times \text{AT} \times \text{EM}$$

where:

Net Profit Margin = Net Income / Sales

Asset Turnover (AT) = Sales / Average Total Assets

Equity Multiplier (EM) = Average Total Assets / Average Shareholders' Equity

Table 4.1 Dupont Analysis of ROE

DUPONT Analysis	2014	2015	2016	2017	2018	2019	2019 SCC	2019 DCC
Revenue (Million Baht)	4,250	4,174	4,161	4,185	4,415	4,825	458,459	8,190
Net Profit Margin	6.81%	7.93%	9.42%	9.84%	9.58%	11.84%	6.98%	11.88%
Asset Turnover	1.12	1.13	1.22	1.34	1.43	1.49	0.75	0.98
Equity multiplier	1.69	1.62	1.62	1.61	1.51	1.49	2.20	2.37
ROE by Dupont	12.89%	14.49%	18.58%	21.16%	20.78%	26.37%	11.49%	27.56%

DRT management was doing well for the last 5 years even though its growth was relatively flat. However, its net profit margin increased steadily since 2014. Compared with the competitors in 2019, DRT's net profit margin was higher than that of SCC. In 2019, both DCC and DRT have the similar net profit margin and ROE, while SCC's was about half of that. For the asset turnover, DRT can utilize its assets to generate sales more than SCC and DCC. For the equity multiplier, DRT has lower equity multiplier, as DRT has less debt and try to minimize debt. Its debt has decreased over the time.

Next, growth analysis is analyzed to see the trend and use for future forecast in the valuation. Data from 2015 to 2019 are taken into consideration. Five financial data are considered, which are total revenues, total expenses, net income, earning per share (EPS), and free cash flow. The results are shown in **Table 4.2**.

For DRT, the revenues are increasing (+3.69%) with the faster rate than the expenses (2.51%) which makes the net income has high compound annual growth rate (CAGR) during 2015-2019, i.e. 14.63%. In other words, DRT manages its expense better than its competitors as revenues growth of SCC and DCC is smaller than expense growth which make the negative CAGR for net income. Consequently, DRT gets the positive CAGR for EPS which SCC and DCC have negative CAGR for EPS. Even though all three companies have profit, the CAGR for free cash flow are negative but they still have positive free cash flow.

Table 4.2 Growth Analysis of DRT, SCC and DCC

	DRT					CAGR (2015-2019)		
	2015	2016	2017	2018	2019	DRT	SCC	DCC
Total Revenues	4,174	4,161	4,185	4,415	4,825	3.69%	-0.09%	3.33%
Total Expenses	3,723	3,647	3,661	3,884	4,112	2.51%	1.35%	5.61%
Net Income	331	392	412	423	572	14.63%	-8.36%	-8.24%
EPS	0.32	0.39	0.43	0.45	0.60	17.02%	-8.36%	-9.64%
Free Cash Flow	14.50	(8.11)	6.42	(2.90)	11.03	-6.61%	-35.22%	-530.07%

COVID-19 pandemic started around end of 2019, but the real effect was the beginning of 2020 for Thailand and countries nearby. Therefore, the comparison between first 9 months of 2019 and 2020 would be useful for the analysis as shown in **Table 4.3**. Surprisingly, SCC and DCC have the positive growth for net profit and EPS while DRT has only positive growth for EPS as DRT repurchased 94 million stocks in May 2020. Even though DRT has negative growth of revenue, its EPS has positive growth as DRT tried hard to manage the expense which make the net profit growth decreased only 2.5%. Therefore, the pandemic has some effects to these 3 companies, but they managed better in terms of expense.

Finally, as DRT is in the construction industry which rely on the people or company who plan to build the houses or the people who plan to renovate their house, the pandemic will affect their decision and postpone their plans. This can be observed from the decrease of revenue in **Table 4.3**. Moreover, it seems that residential development is over supplied, and the sales dropped. From Colliers Thailand, a property consultancy, the sales of residential units are forecasted to drop by 40% year on year in 2020 (Arcibal, 2020). Moreover, Thailand's GDP is forecasted to drop about 7.1% by IMF. As the average ratio between GDP of construction sector and Thailand's GDP is approximately 2.61%, the construction sector will drop by about 2.8% (**Table 4.4**). In DCF, the growth of construction sector may apply in the calculation.

Table 4.3 Growth Analysis for year 2019 and 2020

	DRT			SCC			DCC		
	9M 2019	9M 2020	Growth	9M 2019	9M 2020	Growth	9M 2019	9M 2020	Growth
Total Revenues	3,767	3,453	-8.4%	346,816	314,375	-9.4%	6,250	6,682	6.9%
Total Expenses	3,173	2,871	-9.5%	310,867	277,102	-10.9%	5,156	5,140	-0.3%
Net Profit	474	462	-2.5%	24,910	26,096	4.8%	735	1,224	66.6%
EPS	0.50	0.51	2.0%	20.76	21.75	4.8%	0.11	0.16	45.5%

Source: www.settrade.com

Table 4.4 GDP Construction Sector

	2015	2016	2017	2018	2019	CAGR 5y	2020F	Growth
Thailand GDP	13,743,463	14,592,595	15,486,551	16,365,572	16,875,891	5.27%	15,677,703	-7.10%
GDP_Construction Sector	379,939	400,421	394,720	410,800	421,430	2.62%	409,648.31	-2.80%
% Construction Sector	2.76%	2.74%	2.55%	2.51%	2.50%			
				Average =	2.61%			

4.2 Relative Valuation

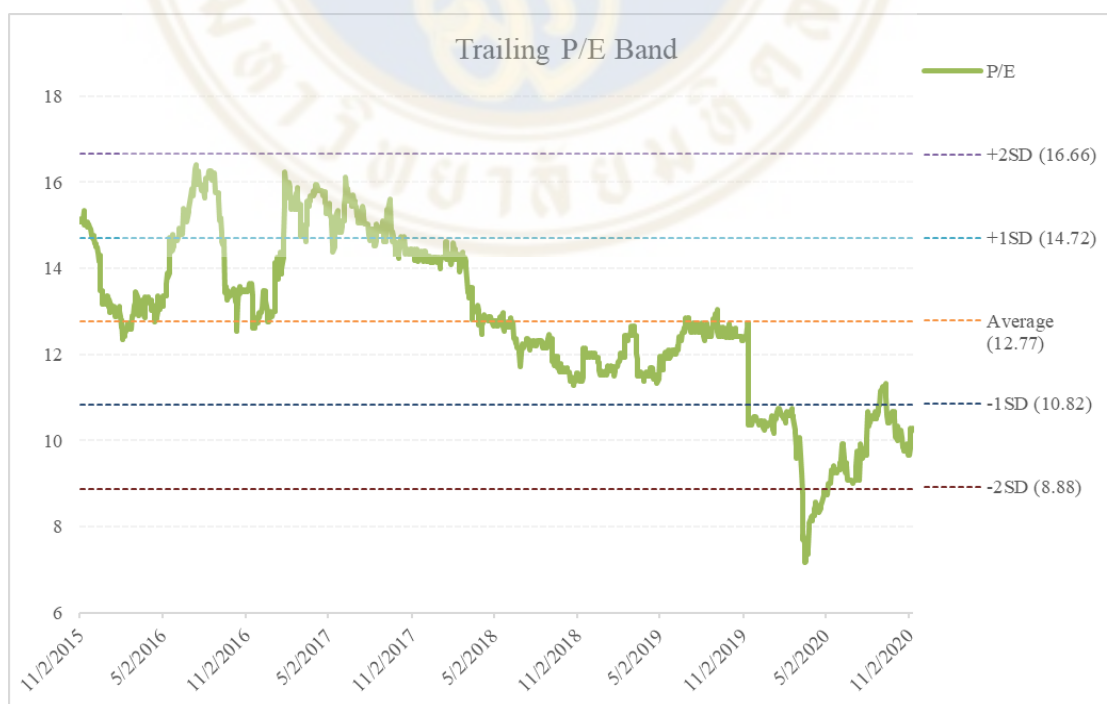
4.2.1 Historical Multiple Bands

In this section, financial data have been collected to value the DRT stock which include price, trailing earnings per share, forward earnings per share, trailing book value, forward book value, enterprise value, trailing EBITDA and forward EBITDA. Five years data are applied here to observe the historical trend and average of the stock valuation metrics. (Trailing mean the data of the previous 12 months and forward means the data of the next 12 months.)

Price to earnings ratio (P/E ratio) is the most common measure used to justify whether a stock is cheap or expensive. However, other factors have to be considered, such as the growth of the business, profitability, industry comparison, etc. Some high growth stocks have high P/E ratio and investors are willing to buy them because they have high growth, e.g. CPALL (P/E = 27.86x), or HMPRO (P/E = 36.57x)

(Data on November 10, 2020)). On the other hand, some stocks have very low P/E ratio but are not in demand by the investors as the investors may concern about decreasing profits and government policy, e.g. bank stocks. From the latest data of the Thai stock exchange, the P/E ratio of DRT is 8.87x and the current price is 6 baht. Its price range during latest month was around 5.8-6.3 baht.

From EIKON, the 5 years historical data have been collected and analyzed. From **Figure 4.1**, trailing P/E ratio is higher than forward P/E ratio as the forward earnings were higher than the trailing earnings, especially for the last few years. Standard deviation of trailing P/E ratio ($SD = 1.95$) is more than that of forward P/E ratio ($SD = 1.49$). Current P/E ratio is lower than the 5 years average (12.77) and just above -2SD band (8.88). Price of DRT dropped in early 2020 due to pandemic, P/E of both graphs dropped below -2SD which were the lowest point in 5 years. After that, the price increased to 6.80 baht in September (maximum price in 5 years) while earnings of the first half looked similar to last year. So the P/E ratio increased, but it was still lower than the 5 years average. From the data, it is obvious that P/E ratio of DRT is in a downward trend as the price is not moving much but its earnings per share is growing. This is partially due to DRT's management strategy that try to minimize expenses, which leads an increase in the net profit.



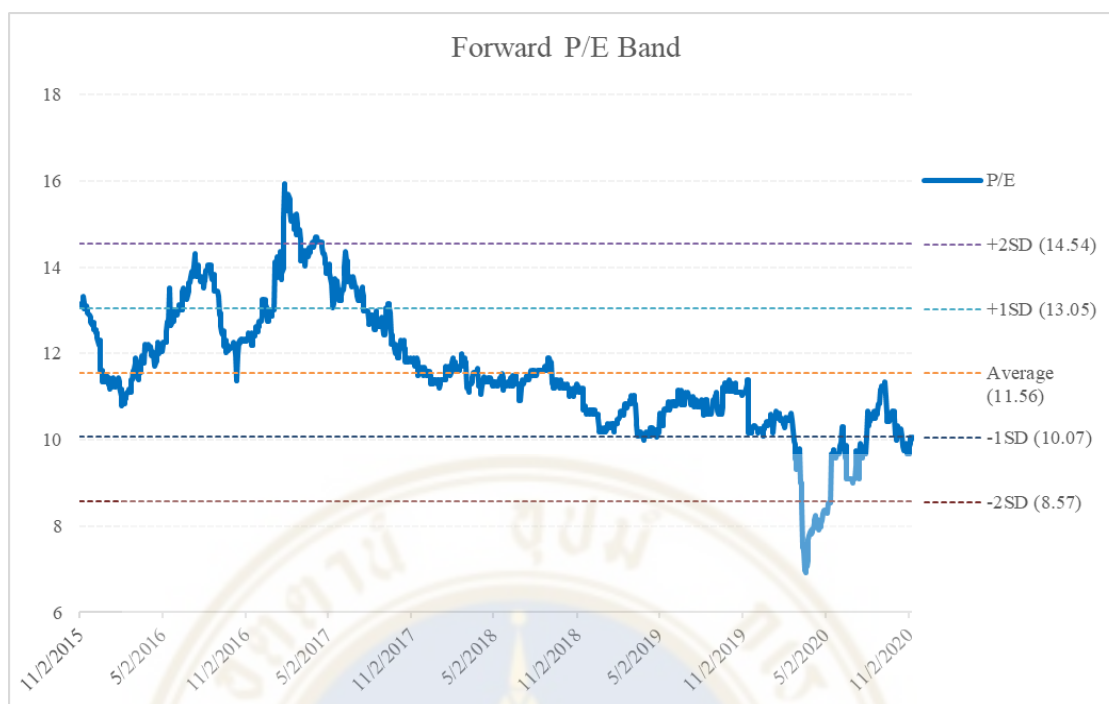


Figure 4.1 P/E Bands

Price to Book Value (P/BV) is the ratio of the market price of a stock over its book value of equity. It is obvious that both trailing and forward bands have the similar trend as book value does not change so often. **(Figure 4.2)** Book value of equity may change in the case that company has more or less debt (liability) with the same asset. Currently, P/BV is above the 5 years average. The pandemic also affected the P/BV as the price dropped a lot during the first quarter of 2020. Afterwards, the price increased to the peak around September which make the highest P/BV ratio.

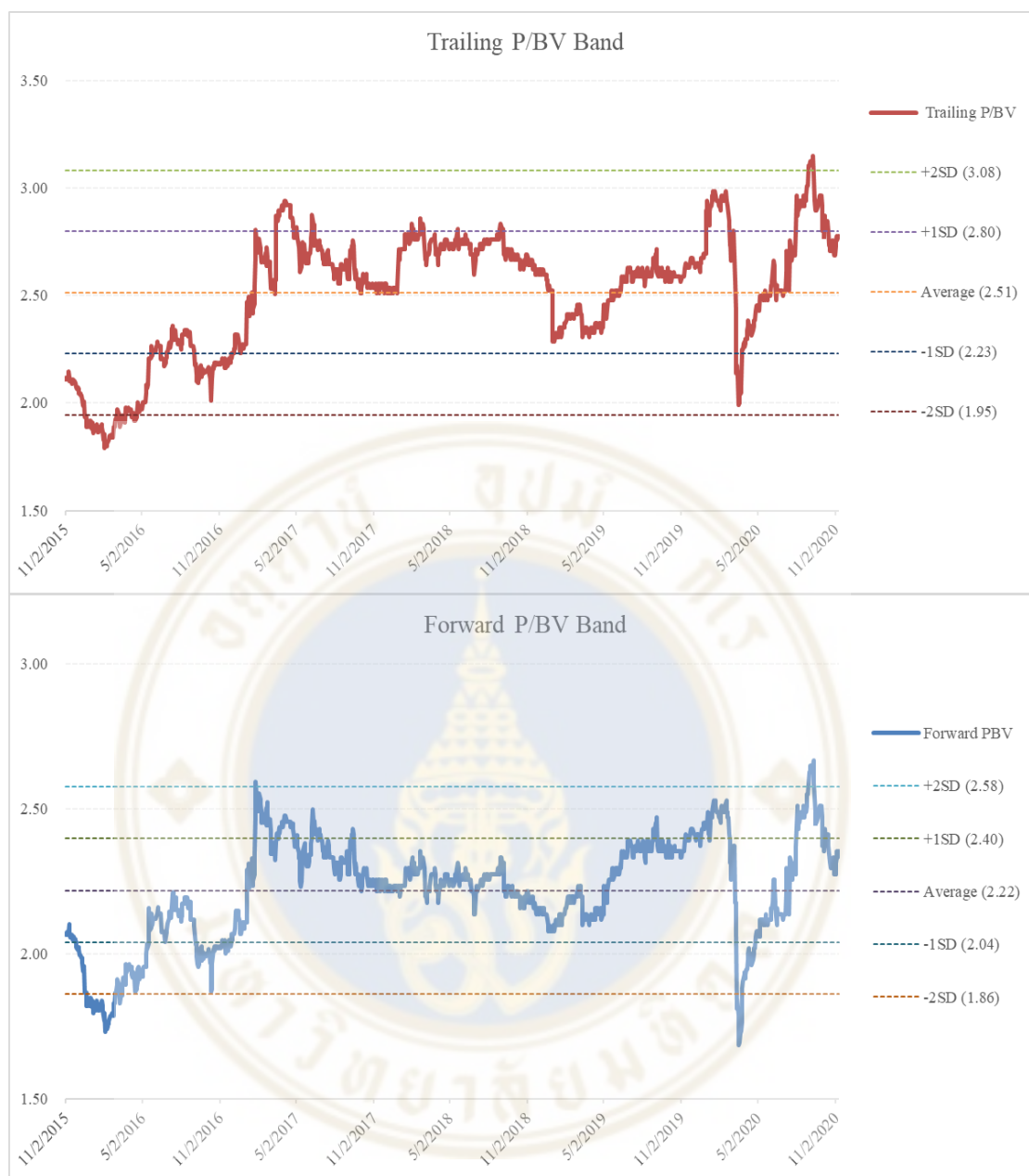


Figure 4.2 P/BV Bands

Enterprise Value (EV) to EBITDA ratio is a ratio used for measuring the value of the company. Enterprise value is the summation of the market capitalization and net debt. From the below band in **Figure 4.3**, the forward EV/EBITDA ratio is lower than the trailing one because EBITDA over the next 12 months of DRT is higher than EBITDA over the previous 12 months. In other words, analysts expect DRT to grow its EBITDA most of the time.

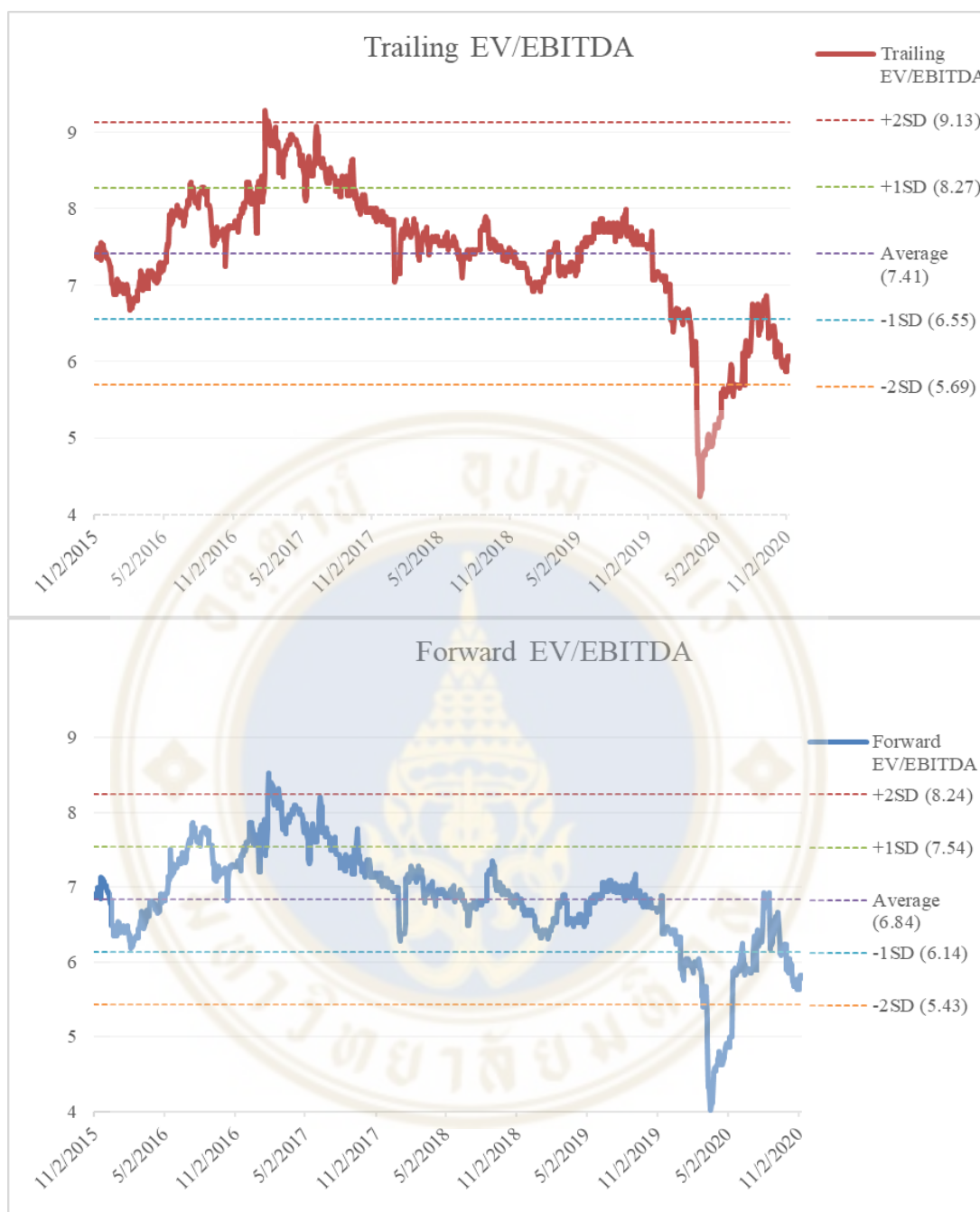


Figure 4.3 EV/EBITDA Bands

From the above multiple bands, P/E and EV/EBITDA bands show that the recent price is cheaper than the average 5 years, but not for the P/BV band. The book value per share depends on the book value of equity (Asset-Liability) and number of shares. It is difficult to imply from the P/BV band that price is cheap or expensive as DRT's liability in this year increases from 1,072.79 million baht to 1,554.16 million baht at the end of quarter 3/2020. Moreover, on May 2020 DRT repurchased 94 million

stocks (about 10% of outstanding stocks) with the offer price of 5.50 baht (market price 5.35-5.45 baht). So, both book value of equity and number of outstanding shares decreased but the book value of equity decreased more (20%). As a result, book value per share of decreased to 2.16 in Q3/2020, which make the price to book value higher. Therefore, the use of P/BV may not be appropriate for the stock that have a stock repurchasing program, because it is quite difficult to justify that the current price is cheap or expensive based on P/BV.

In my opinion, P/E would be good measure for valuation of DRT stock as it shows the effect from earnings, or profitability, while also taking into account the effects of share repurchases well. Further, DRT is an industry with relatively stable profits (no negative EPS). Moreover, it is straightforward to compute the value which it should compare with its industry peers to check whether its price is reasonable or not in the next section.

4.2.2 Peer Group Multiples

As mentioned before in Chapter 3 that the peers are SCC, SCCC, COTTO, DCC, and TOA, the data on November 9, 2020 were collected as a benchmark. All companies are based in Thailand. SCC or Siam Cement Group is the largest company among peers and also in the construction materials sector. Moreover, SCC has also diversified its business in many fields, i.e. packaging, petrochemical, delivery service etc. Other companies are in the medium size which has the market capital more than 10,000 million baht, except COTTO that is one part of SCC and sells sanitary products and ceramic tiles. Information from settrade.com are listed in **Table 4.5**. DRT has the lowest P/E ratio, or DRT is the cheapest stock based on this measure. COTTO and TOA have the highest P/E ratio so both stocks are relatively expensive. TOA has the highest P/BV and EV/EBITDA while DRT is below the average.

Then, the peer maximum, average, median and minimum multiples are computed, while excluding the value of DRT.

Table 4.5 Peer Group Multiples

Stock	Market Capital (M.Baht)	Closing Price (9 Nov 2020)	Trailing P/E	P/BV	EV/EBITDA
DRT	5,687.77	6.00	8.87	2.69	7.36
SCC	433,200.00	361.00	14.16	1.46	11.37
SCCC	38,293.00	128.50	11.86	1.13	8.12
COTTO	7,035.89	1.18	38.37	0.82	10.29
DCC	19,513.48	2.38	13.35	4.09	9.27
TOA	69,493.25	34.25	33.65	6.30	23.39
		Peer Average	22.28	2.76	12.49
		Peer Median	14.16	1.46	10.29
		Max	38.37	6.30	23.39
		Min	11.86	0.82	8.12

Source: www.settrade.com

4.2.3 Peer Group Comparison

In order to understand more about the peer group performance, peer group financial ratios are introduced in **Table 4.6**. For beta, it is a measure of volatility of stock compared with the market (SET), or the stock's systematic risk. If the beta less than 1, it means that the risk is lower than the market. In this group, all betas of the peers are less than 1. DRT and DCC have the lowest value, i.e. 0.49 and 0.45, respectively. Likewise, both DRT and DCC have similar return on equity (ROE) which are around 30% for the first 9 months of 2020 and their ROEs are more than the average and median. For debt ratio, only SCC and SCCC are higher than 1 while DRT's debt ratio is around the average value. DCC is the first rank for payout ratio while DRT is the second which are similar to the net profit margin. Surprisingly, only DRT and TOA have a positive EPS growth rate in the period 2015-2019, with DRT having a CAGR of 17.0%.

From the below table, it seems that DRT and DCC have the similar financial ratios of the first 9 month of 2020 and both P/E multiples are not so much different. Therefore, DCC could be the good peer for DRT's relative valuation, but it is hard to believe that both DRT and DCC are the same in every aspect. So, in the analysis the maximum, median, and minimum multiples will be used to find the best range for DRT.

Table 4.6 Peer Group Financial Ratios

Stock	9M/2020					EPS GROWTH (2015-2019)
	BETA	ROE (%)	DEBT Ratio	Payout	Net Profit Margin	
DRT	0.49	27.67	0.84	0.64	13.39	17.02%
SCC	0.95	11.49	1.23	0.45	8.30	-6.75%
SCCC	0.82	9.82	1.34	0.37	8.52	-13.87%
COTTO	0.81	3.07	0.29	0.27	4.38	-45.23%
DCC	0.45	31.10	0.85	0.81	18.32	-9.64%
TOA	0.75	19.28	0.48	0.54	12.47	1.92%
Peer Average	0.76	14.95	0.84	0.49	10.40	-14.71%
Peer Median	0.81	11.49	0.85	0.45	8.52	-9.64%

Remark: COTTO and TOA have the data form 2017-2019. The data was collected in November 2020.

Source: www.settrade.com

4.2.4 Price from Multiples

Next, the price from each multiple is computed so three prices (Maximum, median, and minimum) of each multiple are shown in **Table 4.7**. Prices from P/E and P/BV multiples are directly computed easily. Only price from EV/EBITDA multiple is relatively complex. Here, the median value is applied in steads of average as the median is less affected by outliers. The calculation below is applied.

$$\text{Enterprise Value (EV)} = \text{Market Capitalization} + \text{Debt} - \text{Cash}$$

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

$$\text{EV} = \text{Multiple} * \text{EBITDA}$$

$$\text{Market Capitalization} = \text{Multiple} * \text{EBITDA} - \text{Debt} + \text{Cash}$$

$$\text{Expected Price} = \text{Market Capitalization} / \text{number of shares}$$

For the median value, the results show that EV/EBITDA multiple results the highest expected price (9.35 baht). But P/BV multiple results the lowest expected price (3.39 baht) which is much lower than the current price (6.00 baht). Sensitivity analysis by applying the maximum and minimum multiple from peers' group are computed. The highest expected price is from P/E multiple (23.02 baht) and the lowest expected price is from P/BV multiple (1.83 baht) as this peer group has low P/BV ratio.

Table 4.7 Expected Prices from Relative Valuation

DRT (2019)			
EPS	0.60		
BV per share	2.32		
EBITDA (M. Baht)	962.71		
DEBT (M. Baht)	1,072.79		
Cash (M. Baht)	31.32		
Number of Share	947,961,800		
Multiple (MAX)	38.37	6.30	23.39
Multiple (Median)	14.16	1.46	10.29
Multiple (MIN)	11.86	0.82	8.12
Expected Price (MAX)	<u>23.02</u>	<u>14.62</u>	<u>22.66</u>
Expected Price (Median)	<u>8.50</u>	<u>3.39</u>	<u>9.35</u>
Expected Price (MIN)	<u>7.12</u>	<u>1.90</u>	<u>7.15</u>
	P/E Multiple	P/BV Multiple	EV/EBITDA Multiple

4.2.5 P/E Ratio from Damodaran

From Damodaran (2020), he ran the regression analysis for the emerging markets to get the P/E multiple which has the formula below.

$$PE = 13.28 + 80.06 g_{EPS} + 8.24 Payout - 2.72 Beta \quad (R^2 = 29.6\%)$$

Where g_{EPS} = Expected growth rate in EPS for next 5 years

Payout = Dividends/Earnings

From the equation, the most effect to the PE is the expected growth rate in EPS for next 5 years as its coefficient is the highest. To estimate the g_{EPS} , this sector is related to the construction sector as mentioned in Section 4.1 so the CAGR of construction sector is applied, i.e. 2.62%. The result is shown in **Table 4.8** which shows that the P/E multiple should be 20.30x, so the expected price of DRT is 12.18 baht (applied 2019 EPS) based on this equation. This forecasted price is about 2 times higher than the 2019 price. However, from the low R^2 value (29.6%), it could be used for the reference only and the model may not apply to Thailand's stock market.

Moreover, the sensitivity analysis is applied by changing g_{EPS} to 0% or no growth, payout ratio to 0.50 as the minimum policy ratio, Beta to 1.0 and change all in order to observe the change in P/E multiple and price. As DRT's beta is relatively small

so the average peer data is applied. The range of -20% to +20% are also applied. The price range is 8.81-13.02 baht which is higher than the current price (5.90-6.00 baht during November 2020).

Table 4.8 P/E Multiple from Damodaran

Stock	2019 Price	Expected Price	P/E Multiple	2019 EPS	gEPS (5 Yrs)	Payout	Beta	Remarks
DRT	5.95	12.18	20.30	0.60	2.62%	0.64	0.13	
		10.92	18.20	0.60	0.00%	0.64	0.13	Change gEPS
		11.49	19.15	0.60	2.62%	0.50	0.13	Change Payout
		10.76	17.94	0.60	2.62%	0.64	1.00	Change Beta
		10.66	17.76	0.60	2.62%	0.50	0.64	Average Peer Beta
		8.81	14.68	0.60	0.00%	0.50	1.00	Change All
		11.76	19.60	0.60	2.36%	0.58	0.12	-10%
		11.34	18.90	0.60	2.10%	0.51	0.10	-20%
		12.60	21.00	0.60	2.89%	0.70	0.14	10%
		13.02	21.71	0.60	3.15%	0.77	0.16	20%

Moreover, the regression equation from Damodaran is applied to compare with the price at the end of 2019 as shown in **Table 4.9**. The prices from the equation are higher than the 2019 price, except for TOA. Only the prices of SCC and SCCC are not so much different.

Table 4.9 Peers P/E Multiple from Damodaran

Stock	2019 Price	Expected Price	P/E Multiple	2019 EPS	gEPS (5 Yrs)	2019 Payout	2019 Beta
DRT	5.95	12.18	20.30	0.60	2.62%	0.64	0.13
SCC	392.00	467.45	17.52	26.68	2.62%	0.56	0.91
SCCC	190.00	219.17	20.70	10.59	2.62%	0.81	0.50
COTTO	1.50	N/A	N/A	0.03	2.62%	0.27	0.85
DCC	1.89	2.82	20.18	0.14	2.62%	0.77	0.57
TOA	39.25	17.42	16.28	1.07	2.62%	0.40	0.88

4.3 Valuation Recommendation

After the valuation analysis, the range of prices is compared by using the football field (Figure 4.4). It seems that the current price of DRT (6.00 baht) is relatively cheap. The maximum overlap from the graph below, or the fair range, is around 8.81-13.02 baht which is higher than what the analyst from banks predicted in Table 4.10. This price range is possible as it is in the range of all multiples (P/E, P/BV, EV/EBITDA), but it may take some time to reach that point.

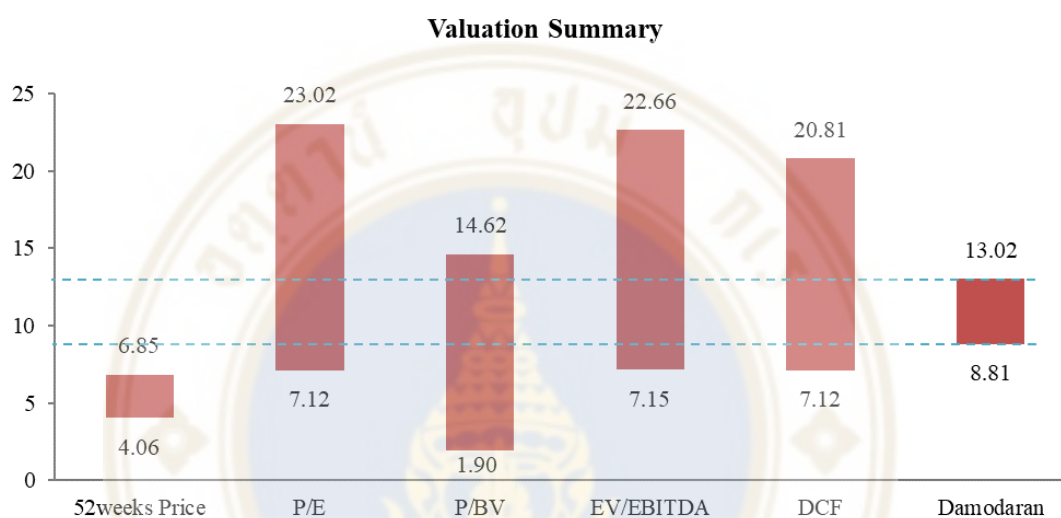


Figure 4.4 Football Field for DRT

Table 4.10 Target Prices from Analysts

No.	Broker	EPS (Baht)				P/E	P/BV	DIV (%)	Target	Rec	Last
		2020F	%Change	2021F	%Change	2020F	2020F	2020F	Price		Update
1	DBSV	0.64	1.6	0.65	1.6	9.3	2.4	6.7	7.10	Buy	23/11/20
2	UOBKHST	0.60 ▲	-	0.60	-	9.9 ▼	-	-	5.50	Hold	17/11/20
3	ASPS	0.55	-6.8	0.55	-	10.8	2.4	6.4	7.00 ▲	Buy	17/11/20
4	MBKET	0.61	15.1	0.67	9.8	9.8	-	6.7	7.00	Buy	16/11/20
Average		0.60	3.3	0.62	5.7	9.9	2.4	6.6	6.65		
High		0.64	15.1	0.67	9.8	10.8	2.4	6.7	7.10		
Low		0.55	-6.8	0.55	1.6	9.3	2.4	6.4	5.50		
Median		0.60	1.6	0.62	5.7	9.8	2.4	6.7	7.00		

Source: www.settrade.com

As mentioned before that DRT's strategies are (1) cost reduction strategy which make DRT gain more profit even the sales has a flat growth and (2) high dividend payout strategy, while having a relatively low valuation compared to peers, these positive stock characteristics could attract more investors to invest in DRT for the long term, or so called "value investors". However, in Thailand, not many individual investors want to hold stocks that long, in our opinion. Therefore, it could be concluded that ***"DRT is a good stock for investors to buy who are not a day-trader but look for the high and stable dividend yield. And the price now is cheap compared with the peers and DRT's historical valuation."***



CHAPTER V

INVESTMENT RISKS AND DOWNSIDE POSSIBILITIES

In this chapter, investment risks and downside possibilities are clarified. A risk matrix is applied which presents the downside possibilities for DRT as shown in **Table 5.1**. The risk matrix takes into account two factors, i.e. likelihood and impact.

Table 5.1 Risk Matrix

Risk Matrix		IMPACT				
		Insignificant	Minor	Moderate	Major	Severe
LIKELIHOOD	Almost Certain					
	Likely		Rules and regulations, Government policy			
	Possible		Economic risk	Consumer Behavior risk, Modern trade policy risk, Alternative material risk		
	Unlikely			Currency risk, Interest rate risk		
	Rare			New competitor risk		

For the type of investment risks, there are 5 risks relating to DRT's business, which are:

1) *Consumer Behavior Risk*

Since roofing technology has rapidly developed, the fiber cement roof (DRT's product) can be replaced by metal sheets which have better quality than fiber cement in many dimensions, e.g. more colorful, durable, lighter weight, and cheaper price. Some customers prefer metal sheets because it has more flexible design to meet customer needs. However, some customers still prefer the normal roof as they do not believe the quality of new material.

Moreover, people may change their behavior to live in the high rise building instead of a house. Therefore, the demand for roof tiles in the future could be reduced, especially in the urban area.

2) *Currency risk*

About 36.45% of raw materials such as asbestos, synthetic fibers and paper pulp, etc. are imported from overseas. Therefore, the exchange rate is a key factor affecting the cost of raw materials. However, DRT tried harder to use the material from the domestic sources (39.45% in 2018 to 36.45% in 2019) which can reduce some currency risk from purchasing material. For the currency exchange rate, if Thai baht tends to depreciate for next year, the cost of raw materials will be increased. On the other hand, if Thai baht is appreciated, the export revenues will suffer. From the data in annual report, cost of imported material ($\approx 36.45\%$ of cost of goods sold) was more than the export ($\approx 20\%$ of sales). So, if the baht is depreciate, cost of goods sold will be increased or profit will be reduced.

3) *Rules and regulations*

The sales revenue of DRT is made in the construction sector which depends on personal credit and mortgage loans provided by banks. The Bank of Thailand has a policy to control a personal credit risk by issuing Loan-to-Value (LTV) measures regarding the down payment for the house. Certainly, changes in this policy may affect the sales for DRT.

4) *Economic risk*

Since the COVID-19 pandemic, the local economy went into a downtrend since the beginning of the year. So, the purchasing power of the customers is lower compared with last year, which leads to lower sales revenue for the whole year.

5) *Interest rate risk*

The interest-bearing debt of the company is about 7%. It normally comes from short term loan such as bank overdrafts or short-term borrowings from financial institutions. Therefore, it will affect the interest that company must pay for bank. However, now the policy interest rate is reduced so it would give the benefit to the company for borrowing money to invest.

Moreover, other qualitative risks are revealed here.

- *New competitor risk:* As roof tile manufacturers in China have low production cost, some importers or traders may become new competitors. The company may lose some sales or even the profit margin in order to compete with the price in the red ocean market.

- *Alternative material risk:* Nowadays there are many products or materials that can replace the roof tiles, e.g. metal sheet roofs, metal sheet roofs with PU foam, APVC roof, shingle roof, etc. The new material can solve the problem of the heavy roof tiles, but they are more expensive than the traditional ceramic roof tiles. DRT realizes the risk, so DRT diversifies its business to sell other construction materials as well (ceiling boards, siding boards and installation services).

- *Government policy:* This risk depends on the government. If the government wants more people to own a house, the Thai government may issue a policy to stimulate more people to buy the house with low interest rate or tax benefits. So, this sector will gain the benefit from that policy and vice versa.

- *Modern trade policy risk:* As DRT's products are sold by modern trade, the profit margin depends on the negotiation with the large retail outlets. Sometimes the modern trade wants to get more profit from the suppliers so the rebate policy may be raised. DRT may have to pay for the rebate later which makes the profit margin lower.

CHAPTER VI

CONCLUSION

In this thematic paper, Diamond Building Products Public Company Limited (DRT) is evaluated by relative valuation method to appraise the suitable target price. P/E, P/BV, EV/EBITDA are the main multiples used to assess the value of DRT. The P/E multiple is selected as the most appropriate multiple to determine the value of DRT. Currently, P/E of DRT is the lowest among peers, which is about 9.0x while other peers have P/E about 11.0x-39.0x. A comparable peer is Dynasty Ceramic Public Company Limited (DCC), which has the similar Beta, ROE, and debt ratio. The result shows that the expected price range based on the overlapping range of the multiple values is 8.81-13.02 baht. This price range is also in the range as the P/E from Damodaran's regression equation for emerging market stock valuation.

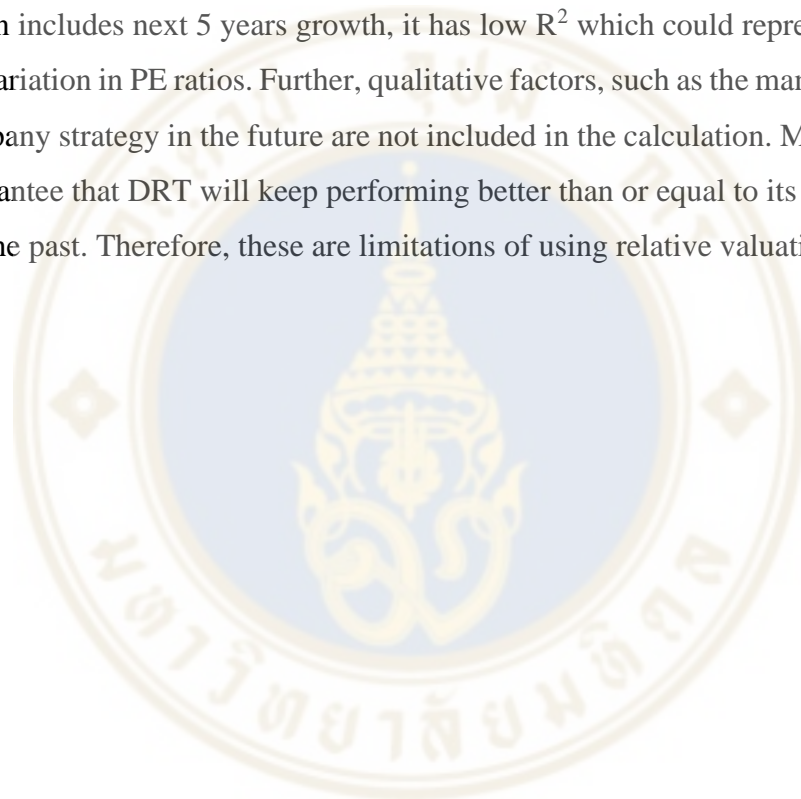
“Due to the volatility and risky of stock exchange of Thailand, the minimum P/E multiple from peer is selected to be the multiple for the low-risk taker so **the target price of DRT is 7.12 baht.**”

So, we conclude that the current price of DRT (6 baht) is undervalued. Risks are also assessed, and it is found that the risks are relatively low. Moreover, DRT's strategy and management are quite solid even in the COVID-19 pandemic. **As a result, DRT is recommended to “buy” as the current price is about 6.00 baht.** However, the time to reach the valuation price is unknown as it depends on many factors. So, this stock may not be suitable for day trader.

For the “triggers for re-assessment”, as it explained before that the closest peer for roof tiles and construction material is Siam Cement Group or SCC, but SCC is about 90 times larger than DRT in terms of market capital and the other roof tiles companies are not listed. Therefore, the triggers for re-assessment are when the new company about roof tiles or the company that has similar products and market capitalization enter the stock market. This company will be the better peer. Then the

valuation could be re-assessed. Moreover, if there is a major change in EPS or the new competing product or the change in management's strategy, the re-assessment is required.

For the "limitations of this valuation", as mentioned in previous paragraph, only some peers have somethings in common but have some big differences as well. It means that it is difficult to find the most suitable peer to evaluate the stock. The data that used in the valuation is based on the past performance so the relative valuation may not account for the future performance or any risk. Even though Damodaran's regression equation includes next 5 years growth, it has low R^2 which could represent only 29.6% of the variation in PE ratios. Further, qualitative factors, such as the management, brand, or company strategy in the future are not included in the calculation. Moreover, there is no guarantee that DRT will keep performing better than or equal to its peers, as it often did in the past. Therefore, these are limitations of using relative valuation.



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