

**DISCOUNTED CASH FLOW VALUATION OF
TIPCO ASPHALT PUBLIC COMPANY LIMITED**

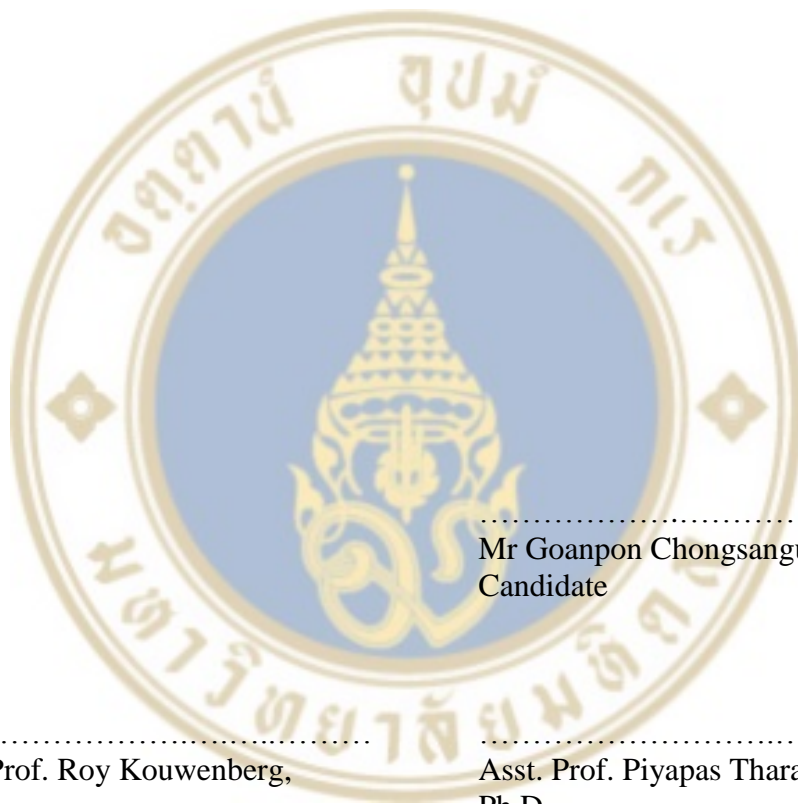


**A THEMATIC PAPER SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF MANAGEMENT
COLLEGE OF MANAGEMENT
MAHIDOL UNIVERSITY
2015**

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

was submitted to the College of Management, Mahidol University
for the degree of Master of Management
on
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DISCOUNTED CASH FLOW VALUATION OF TIPCO ASPHALT PUBLIC COMPANY LIMITED

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ABSTRACT

The stock market which acts as a source of funding for the firms and source of investment for the investors, is changing every second due to both internal and external factors and circumstances. Fast information updates and careful analysis of the targeted firms are crucial for taking into consideration whether to take buy-sell-hold action on their stocks.

Tipco Asphalt Public Company Limited (TASCO) is the leading manufacturer and distributor of asphalt related products in the Asia-Pacific region, with strong market position and high potential in business growth. The interesting point is how the changing landscape of the oil market has greatly improved their cost structure and their investment plans to maintain the market leader position; both of which will affect to their stock price, but in which way? This is the motivation why I choose TASCO to analyse their business and financial situation, creating a forecast and calculating a reasonable valuation of the firm's share price using the "discounted cash flow" method.

The result from this paper shows the five years' future value of TASCO share price is expected to be valued higher than the current share price by 29.11%. This results lead to my recommendation of "buy" because the current share price is considered to be undervalued.

KEY WORDS: TASCO / Valuation / Discounted Cash Flow / Construction Materials

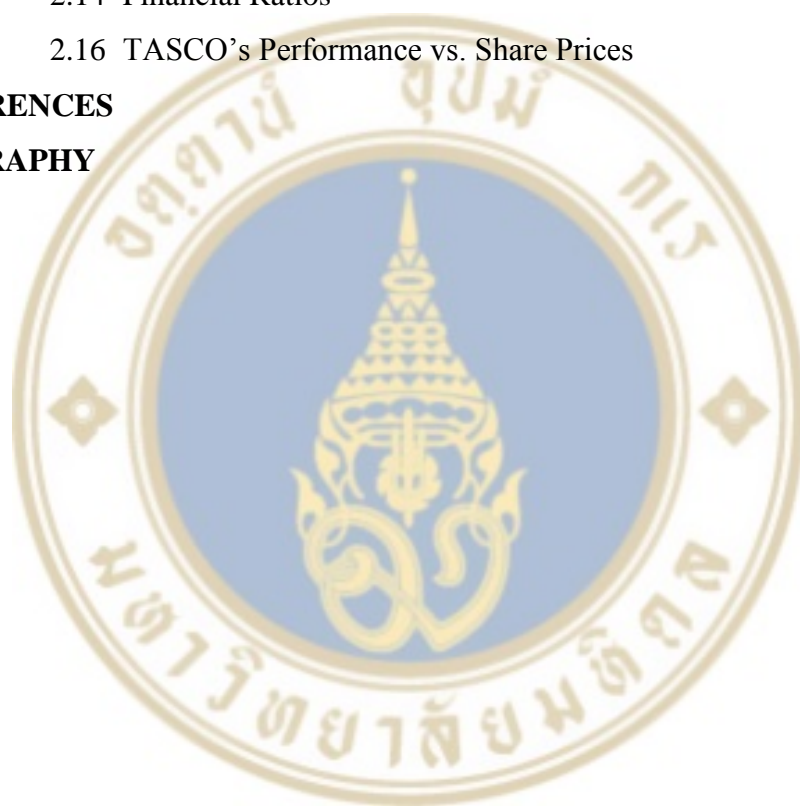
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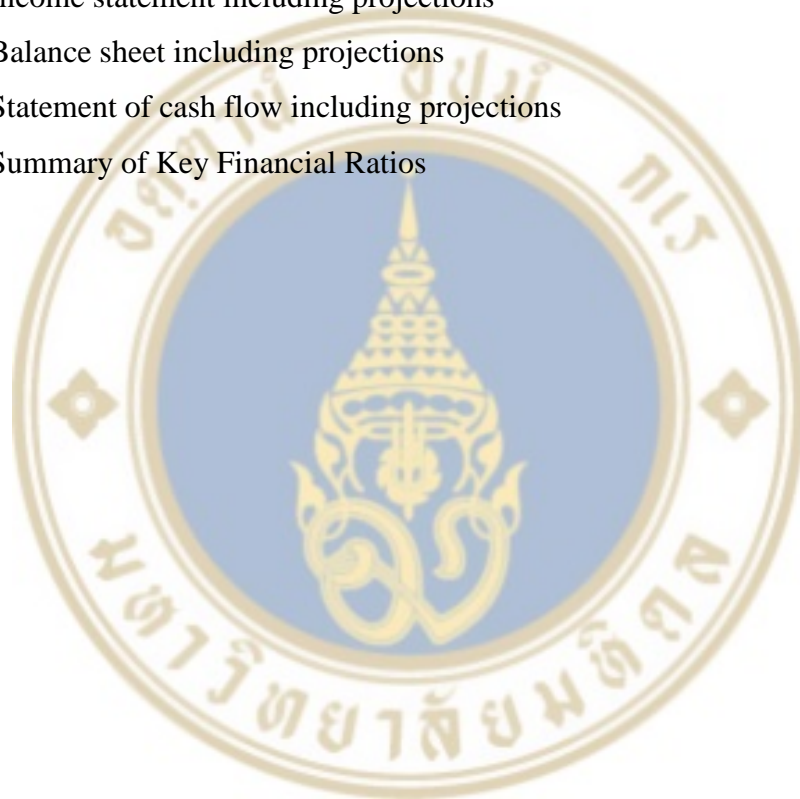


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LIST OF ABBREVIATIONS

BBL	An oil barrel unit
BPD	Barrels per day
BV	Book value
CAGR	Compound Annual Growth Rate
CAPEX	Capital Expenditure
COGS	Cost of Goods Sold
D/E	Debt/Equity
EBIT	Earnings before Interest and Taxes
EBITDA	Earnings before Interest, Taxes and Depreciation
EPS	Earning per share
EV	Enterprise value
GDP	Gross Domestic Products
N/I	Net Income
NOPAT	Net Operating Profit after Taxes
NOWC	Net Operating Working Capital
OPEC	Organization of the Petroleum Exporting Countries
P/E	Price/Earning
QoQ	Quarter on Quarter
Rf	Risk free
ROA	Return on Assets
ROE	Return on Equity
SET	Stock Exchange of Thailand
SG&A	Selling, General and Administrative Expense
SWOT	Strength, Weakness, Opportunity and Threats
WACC	Weighted Average Cost of Capital
YoY	Year on Year

CHAPTER I VALUATION

1.1 Highlights “Paving the Road of Success”

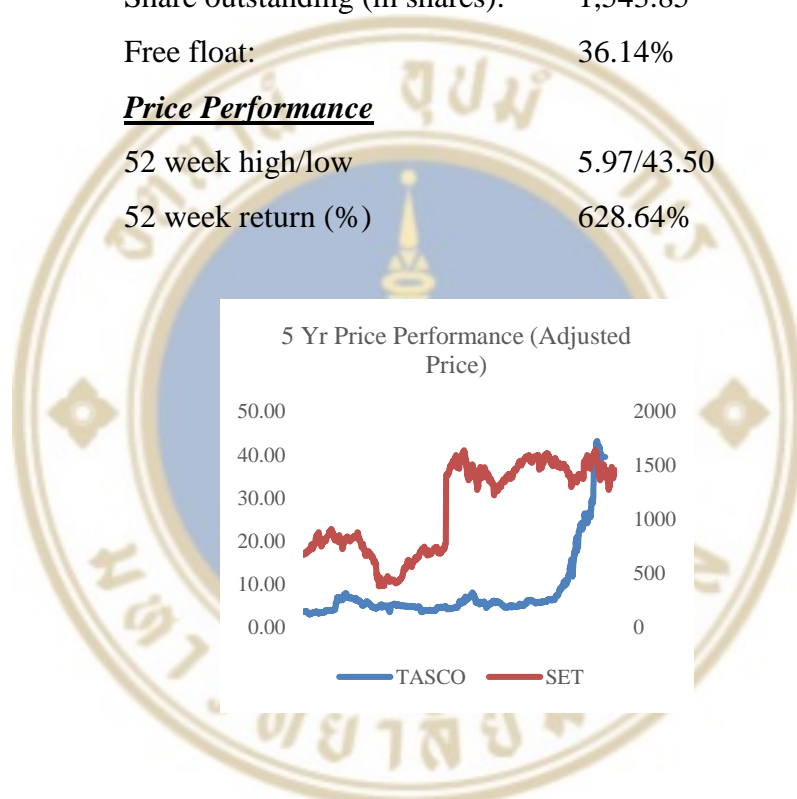
Share outstanding (m shares): 1,543.85

Free float: 36.14%

Price Performance

52 week high/low 5.97/43.50

52 week return (%) 628.64%



Date 04Dec2015

Ticker: SET: TASCO

Recommendation: BUY

Price: THB 39.50

Target Price: THB 51.00

Upside: 29.11%

Figure 1.1 TASCO stock performance

- **Bright future with high-potential growth:** The company's five-year potential growth will push the target price up from THB 39.50 closing on 4 Dec 15 to THB 51.00 (29.11% upside), using the DCF method to demonstrate the bright FCFF outlook towards Y2020. The company's vision of distributing 6 million tons of asphalt products across the globe (by Y2020) does not appear difficult to achieve, looking back into their outperforming history, such as distributing over 2 million tons of asphalt in 2015 (100% increase from Y2010), having improved cash flows from achieving higher margins and lower raw-material costs (crude oil prices dropped significantly) over recent years, and having their strategic partnership, alliances and recently acquired businesses.

- **Capitalizing on the asphalt market growth prospect:** Asphalt demand has been consistently increasing over the years, and this trend is expected to continue, with the infrastructure projects announced for each country (discussed in the industry analysis). From 2016 onwards, with the increased market shares from the acquisitions and the strategic partnerships and alliances in key markets such as Vietnam and Indonesia, and additional volumes of other necessary petroleum products (e.g. bunker fuel-oils and diesel-oils) being produced and/or traded. This demand growth is a major contributor to the estimated high annual operating-cash-flow exceeding THB 20 billion from the fiscal years 2015F to 2020F. TASCOS competitive advantages of having the complete and efficient supply chain management (crude-refinery-vessels), remaining an expert in asphalt production and trading, and R&D excellence, being the only asphalt-focus company in the region and having long-term, crude supply secured will enable them to cover as much demand as possible.

- **Proper investments supporting the growth:** TASCOS main investments in expanding its refining capacity from 1.2 million to 2 million tons of yearly production volume, acquiring new vessels, renewing fleet trucks, and automating and relocating their plants will support their growth strategy. These investments are backed by the available capital (equity and debt); the recent upgrade of their credit rating by Fitch from 'BBB+(tha)' to 'A-(tha)' will definitely help the debt part (if needed by the company).

- **Changing the landscape:** Although asphalt-price fluctuation, market cannibalization and historically high COGS are the main risk factors, TASC0's current business strategy would allow it to cope with the risks which could possibly occur. Moreover, governments changing the regulations in various countries, reduction of asphalt demand, competition from domestic production in some countries, and possible arbitrage cargoes expanding into TASC0's existing markets in the region are factors that investors need to take into account.

1.2 Financial Summary

Table 1.1 TASC0 – Key Financial Indicators

Financial Summary FY Ended 31 Dec	2012A	2013A	2014A	2015F	2016F	2017F
Sales Revenue (btm)	38,379	33,094	46,200	37,227	44,596	53,424
Gross Profit (btm)	1,817	1,899	2,477	6,518	7,434	8,905
Net Profit (btm)	676	862	1,157	4,420	5,006	6,028
EPS (Bt)	0.44	0.56	0.75	2.86	3.24	3.90
Dividend (Bt)	1.25	1.00	1.00	0.56	0.64	0.77
ROA (%)	6.36%	6.05%	8.78%	34.12%	31.68%	30.87%
ROE (%)	14.25%	15.76%	19.26%	55.96%	42.85%	37.41%
D/E (x)	2.7	2.44	1.47	0.88	0.64	0.49

1.3 Business Description

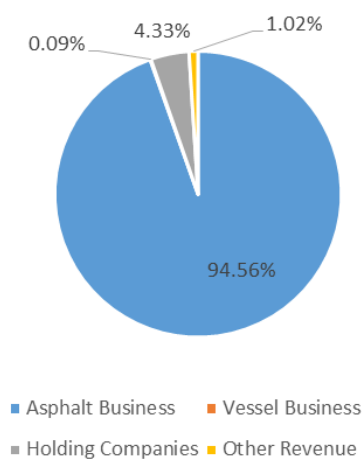
Tipco Asphalt Public Company Limited (TASC0) is the leading manufacturer and distributor of asphalt related products in the Asia-Pacific region. It focuses on servicing road construction, maintenance and paving industries, which are essential for transportation within the country.

TASC0 has been in the asphalt business since 1979. Its products are used mainly in the construction and maintenance of roads, highways and airport runways. On average, 94.65% of TASC0's total revenue is derived from the sales of asphalt (Figure 1.2), with 99.01% from asphalt business and 0.09% from the vessel business, with key asphalt volumes to Thailand, China, and Indonesia (Figure 1.3).

The company has manufacturing facilities and asphalt terminals located in the center of every region of the country with close proximity to its customers. With these four domestic manufacturing facilities strategically covering all regions, the company can promptly deliver asphalt products to domestic customers in Thailand, as well as to neighboring countries via its own fleet of 300 trucks. This unique logistic capability is core to Tipco Asphalt's dominance of the domestic market. Building on this capability, the company also owns and operates seven ocean-going asphalt vessels, which significantly expands its presence in the export market and strengthens the domestic market distribution (Data 2.1).

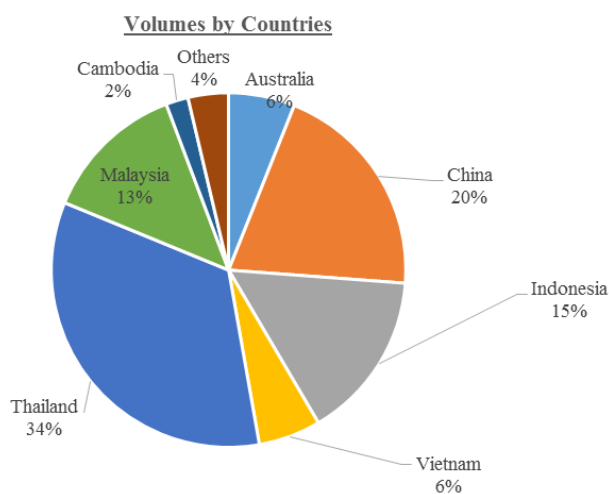
In addition, the company operates a refinery in Kemaman, Malaysia through its subsidiary, Kemaman Bitumen Company Sdn. Bhd. The refinery, located on 26 hectares of land in the Telok Kalong Industrial Estate, has a nameplate refining capacity of 30,000 barrels of heavy crude oil per day, or the equivalent of 9 million barrels or 1.4 million tons of crude oil per year. This translates into production of about one million tons of asphalt cement per year.

Revenue Breakdown as of December 31, 2014



Source: Company data

Figure 1.2 Revenue Structure



Source: Company data

Figure 1.3 Export Volumes by Countries

1.3.1 Vision and mission 2020

The company aims to be the preferred integrated asphalt & petroleum related product company. This is to be achieved by distribution of 6 million tons of asphalt and petroleum products across five continents by 2020 in a sustainable and responsible manner.

1.3.2 Company strategies

The company's strategic direction focuses on five points below:

Strategic partnership - The company continues to explore the possibility of global asphalt-trading businesses; this has enabled growth for the initial 2015 vision and mission target (Figure 1.4) for instance, transcontinental shipping arbitrage. They have been in cooperation and share initiatives with SK Innovation; as of July 2014, they created a joint venture together in Singapore, lubricant business and Kemaman refinery upgrade in which the business model is to become fully independent later. The marine group business model would also become more independent; with ship management and chartering services. The company is also exploring the group's tax saving initiatives. In addition, they just announced their acquisition of Raycol Asphalt Company Limited ("Raycol"), PT Asphalt Bangun Sarana and subsidiary ("ABS"), Highway Resources Pte Ltd. ("HR"), including Asphalt Distribution Co., Ltd.

(“ADCo”) as a subsidiary, from their main business partner, Colas S.A., to strengthen their asphalt sales volume in Thailand, Indonesia and Vietnam respectively. The acquisition transaction includes adding two more vessels owned by Highway Resources to their existing vessel-fleet capacity.

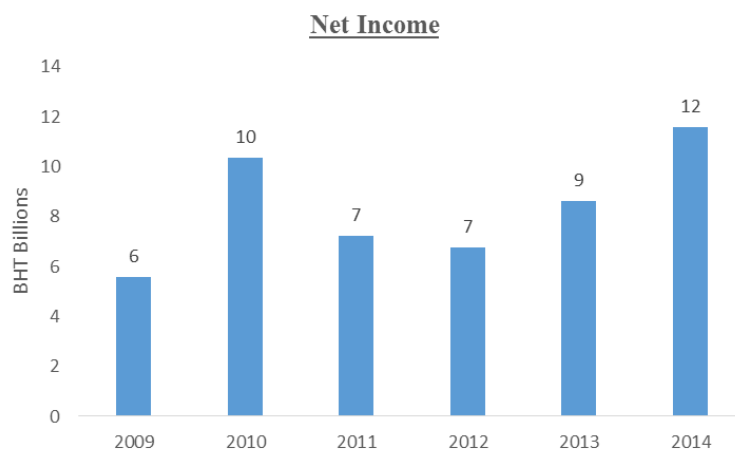
Long term agreement on crude oil procurement - With the projected crude-price ranging from USD 60 – 90 per barrel from 2016 – 2019, the company would still benefit from the market. The company has procured more crude oil cargoes under long term agreement to support the asphalt sales for both domestic and international markets.

Maximize refinery utilization in Malaysia - With almost 100% refining capacity utilization, the company can continue to enjoy high-efficiency in fuel consumption and production cost. Added that, the production cost is low due to the declining fuel oil prices. The refinery’s production volume is part of the 50% asphalt supply for Malaysia’s domestic sales which are from the country’s biggest refineries.

Maximize transportations utilizations - Tightness of asphalt vessel availability still continues and the freight revenue from marine group improved significantly as the freight market for asphalt carriers remains strong despite the currently-low freight market worldwide in other vessel transportation sectors; such as, dry bulk and other wet-product tankers. The low fuel oil prices help reduce the costs of operating owned vessels as well.

A new-building vessel, 12,000 dead weight tons has been ordered and will be delivered in 2017 adding more capacity to the current fleet. The new-building vessel helps reduce the average vessels’ age for the existing fleet, thus helping improve the company’s bottom line, as the company can generate more revenue and reduce maintenance costs.

The group has also chartered two vessels starting from 2015 and one vessel starting from early 2016, all are 5,000 metric tons loading capacity resulting in the increased fleet capacity and expanded cargo-loading volume.



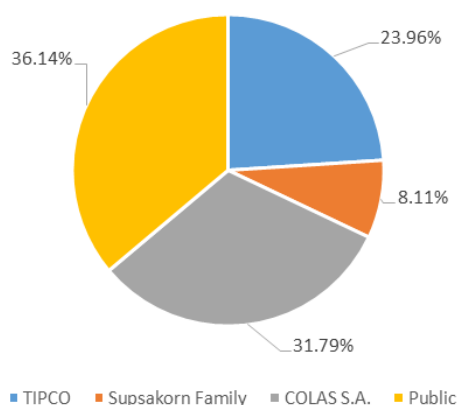
Source: Company

Figure 1.4 Net Income

1.3.3 Shareholder structure

TASCO is owned by two major shareholder groups and the public. As of November 2015, Tipco Foods PCL (TIPCO) and the Supsakorn family owns altogether a total of 32.07% of the common shares. COLAS S.A., a major French civil engineering firm, owns 31.79% of the outstanding shares through BNP PARIBAS, Singapore. The public owns the remaining 36.14% (Figure 1.5). Since 2000, COLAS S.A. and TASCO entered into the strategic partner agreement which allows TASCO to received unlimited access to the central asphalt research and development center in France, as well as all specialty asphalt products formulations and application techniques; enabling them to have a competitive advantage in the area.

Shareholder Structure



Source: Company

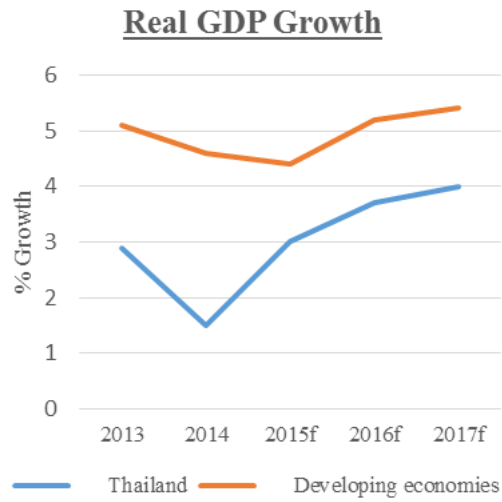
Figure 1.5 Shareholder Structure

1.4 Macro-economic Analysis

1.4.1 Thailand GDP growth & government investments outlook.

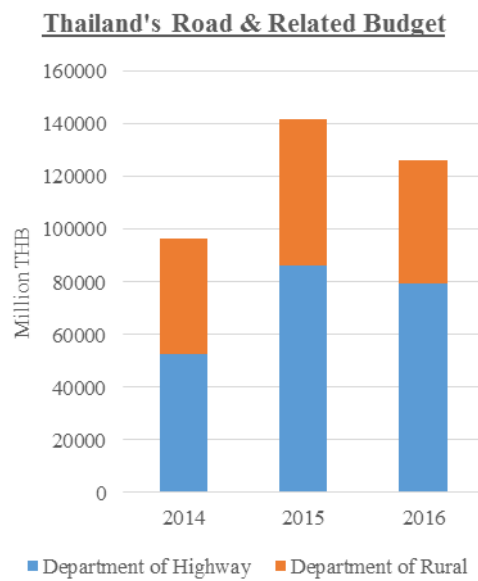
From the slowdown of the global economy, the Bank of Thailand (BOT) has decreased the forecasted target for Thailand's GDP growth outlook for 2015 to be 3% (Figure 1.6). The outlook for 2016 is expected to be strong from the government investment worth 186 billion baht, which has been announced for fast-track public-private partnership schemes, and a Thailand futures fund will be established to help fund these and other infrastructure ventures

Government projects are expected to continue, although the 2016 fiscal budget from Department of Highway and Department of Rural shows negative growth at -8% and -16% respectively (Figure 1.7) as it was just announced, and additional budget has not been defined. The highway development project for connectivity enhancement has a total investment of 623,808 million baht, with total road distance expansion of more than 13,000 km nationwide (Data 2.5)



Source: World Bank & BOT

Figure 1.6 Real GDP Growth



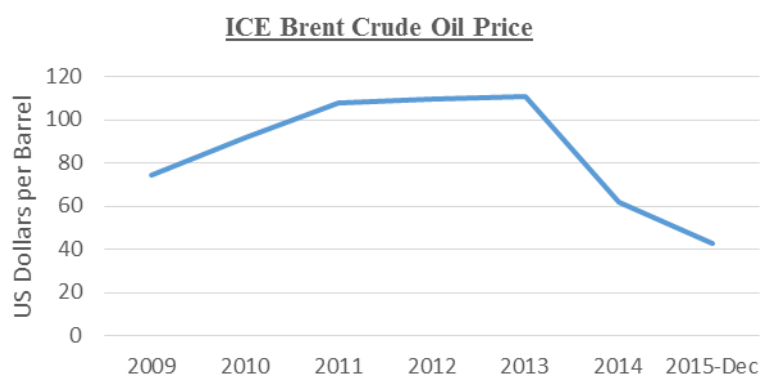
Source: Bureau of Budget

Figure 1.7 Thailand's Road & Related Budgets

1.4.2 Lower crude oil price and inflation impact

The oil price is expected to hold at the current price range of USD 40-50 (Figure 1.8) as Iran is expected to return 0.5mn bpd to the already over supplied-market once its sanctions is lifted; added to the fact that OPEC has failed to reach an agreement on a collective output ceiling that could see production cut. Therefore, the price of crude oil is expected to remain at the current steady level. (Data 2.5)

The oil prices decline and the decrease in domestic and global oil demands had led to BOT adjustment decrease of the November headline inflation to -0.97%, falling from -0.77% YoY and Core inflation at 0.88% YoY. Although the demand and inflation is expected to recover, the BOT has remarked that Thailand will have to cope with increased volatility because of the quantitative easing (QE) exit and divergent monetary policies and the slow growth, low commodity prices and sluggish emerging market (EM) exports. There may be low inflationary pressure, given room for monetary policy to remain accommodating, but in the long-term with reforms, Thailand is expected to gain traction.



Source: Bloomberg

Figure 1.8 ICE Brent Crude Oil Price

1.4.3 Strong US dollar and recovering global economic environment

Against Thai baht, the US dollar has appreciated strongly which has reflected from the confidence in the U.S economy (Data 2.5). Although the US central bank is expected to push up interest rates for the first time since 2006, increasing from 0.25% to 0.5%, the world economic recovery is expected to ease on the impact of the rise in cost of borrowing of US dollars. Japan is going ahead with its plan from prime

minister Shinzo Abe, a mix of government spending, monetary stimulus and business reform. China's slowdown has bottomed out, and the Yuan acceptance as one of the IMF reserve currencies is a good sign for the country's economic reform. Lastly, the Eurozone countries have expected to continue their modest recovery over into 2016. The US can therefore continue its longer track record of growth for the time being, so the trend will be beneficial for Thailand's exporting firms.

1.4.4 ASEAN Economic Community (AEC) benefit to trades

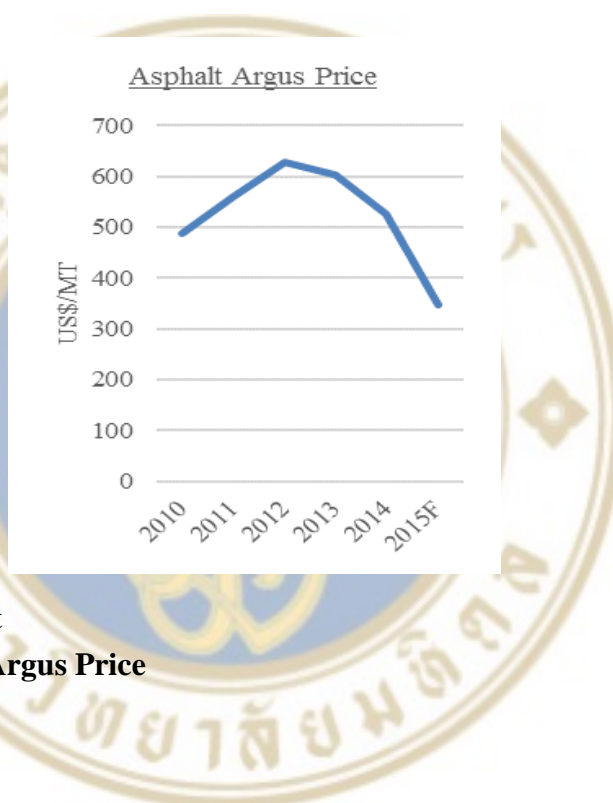
The ASEAN Economic Community aims to create a single market and production bases concept. This would allow for free movement in the following five areas: services, products, investments, skilled labors and capitals. With no tariffs and tax barriers, companies that engage in trades within the AEC countries are expected to benefit greatly, especially as the opportunity to expand, transfer or allocation resources within the AEC countries can be achieved with less barrier. With the opportunity and the current strategies, the company should be able to maintain its long-term competitive advantages and solidify its strength in the market.

1.5 Industry Analysis

Unpaved roads account for more than 40% of the world's roads. These unpaved roads can deteriorate quickly because of traffic, weather changes and bad driving behavior, leading to accidents in most of the cases. The need to have paved roads is considered as a priority for growing infrastructure development globally and has driven the demand to produce more asphalt pavers. Rising infrastructural and road development initiatives in emerging economies to develop smart cities are major driving factors, which accelerate the growth of the world asphalt market. Based on projections of demand by infrastructure segment globally, investment in road development and maintenance account to 25% of overall revenue share of the demand for asphalt around the world.

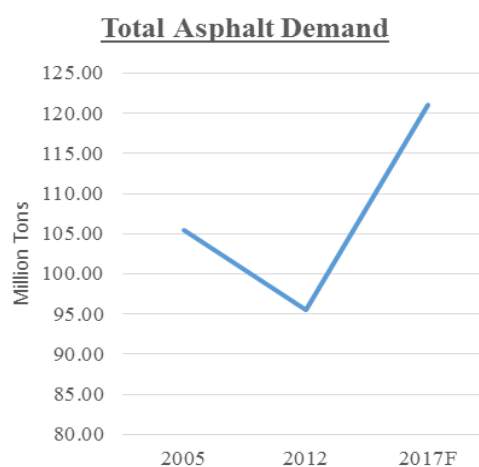
Although the price declined following the decline in crude oil prices (Figure 1.9), global demand of asphalt is projected to rise 3.6% annually to 121 million tons through 2017 (Figure 1.10). However, from the effect of the declining

crude oil price, the price of asphalt has dropped significantly over the year; this, however, is one of the driver for positive demand of asphalt. Asia remains the growth area and Asia-pacific economic growths remain promising towards 2020. China and ASEAN economies' policy focuses on development of infrastructure and road network, hence indicating good prospect for asphalt demands. With the declining crude oil price trend projected to continue over the next few year, demand in China is expected to surpass the USA in 2017. Moreover, the increasing Thai government budget implies more expenditure for road construction. (Data 2.6)



Source: Argus Report

Figure 1.9 Asphalt Argus Price



Source: AGGBUSINESS

Figure 1.10 Total Asphalt Demand

1.5.1 Global asphalt market – Drivers and restraints

With growth in industrial and infrastructural sector in the fast-paced economies, there has been heavy expenditure on the road maintenance and infrastructural projects, creating demand for asphalt throughout the world. According to Energy Technology Perspectives (ETP) it is estimated that the world will need to add nearly 25 million paved road lane kilometers, as only up to 60 % of roads are paved globally. The enhancement and establishment of modern roads and development in emerging economies such as India and China are major growth drivers of the global asphalt market. Understanding the importance of road maintenance globally is proving to be very effective in reducing the number of accidents, ultimately driving the global asphalt market during the forecast period. Increasing demand from road traffic will require continuous construction and improvement of roads, in both urban and rural areas, and is likely to fuel the global asphalt market through 2025.

1.5.2 Future prospects

According to reports from Argus Asian Bitumen Conference in Singapore this year, Asia's emerging economies will be building roads for the next two decades. This means there are big opportunities for suppliers of bitumen, related technology and risk management companies.

One of the strongest messages to emerge from the conference is the sheer volume of road building planned in the region. For many countries, there are political and financial hurdles to clear first, but in the medium and long term, these are important markets for companies supplying bitumen and associated products and technology.

China is by far the biggest user of bitumen, accounting for over 60% of Asia's demand according to the Argus Asphalt Report which tracks bitumen prices around the world. However, according to reports and professionals in the bitumen trading market, demand from China for imports is declining towards the 2016-year end as China's domestic bitumen prices are low due to lower prices on crude oil to be refined for domestic consumption. China is also increasing its production of asphalt for export to Japan, Vietnam, the Philippines and Indonesia. Although they are still importing some bitumen from their main sources of supply, imports of bitumen to China will continue to decrease while exports from China will increase.

China is expected to be turning its attention from road construction to maintenance, as investment in road construction was set to peak in the period between 2010 and 2015. After 2015, the volume of construction will decrease gradually, but import demand is expected to be around 4 million tons.

Meanwhile, Australia is closing its refineries, with imports of bitumen now accounting for between 80 and 85% of supply, according to Argus. Australia is starting to accept bitumen from South Korea and Taiwan, with production in Thailand increasing to meet Australian demand. As the government USD 50 billion in infrastructure project to improve roads and rail linkages in every state by 2020 (Data 2.6).

The increased demand for imports from Australia could possibly put pressure on shipping availability, as vessels making the journey are effectively 'out of action' for longer as they make the long return journeys from Australia. The shipping market is expected to get larger in the future, with operators looking at ways to carry other cargoes on return journeys.

Though India is largely self-sufficient when it comes to bitumen, importing only 150,000 tons, there are still opportunities for investors. In the past, importing bitumen into India has not been an attractive proposition. Some of the

reasons include high discounts offered by domestic oil companies, high import duties and other taxes, and poor infrastructure at ports. However, there could be a place for imports into India; for example, during the peak season between February and June when there is a mismatch between supply and demand. And chances to export bitumen during the monsoon period between July and October.

In Indonesia, the cabinet has approved USD 1.98 billion for road construction and USD 1.25 billion for road maintenance. The country has 38,750 km of roads in its national network, 34,004 km of which have asphalt surfaces, 1,209 km Penmac (penetration macadam which is made in-situ by rolling layers of aggregate and spraying with bitumen) and 3,358 km gravel or earth. Its demand for bitumen each year is around 1.2 million tons, 750,000 of which is for maintenance.

With domestic production of around 500,000 million tons/year, Indonesia needs to import bitumen. It is reported that cargoes from China and India are now being accepted more often in Indonesia in addition to its usual sources of supply (Singapore and Malaysia).

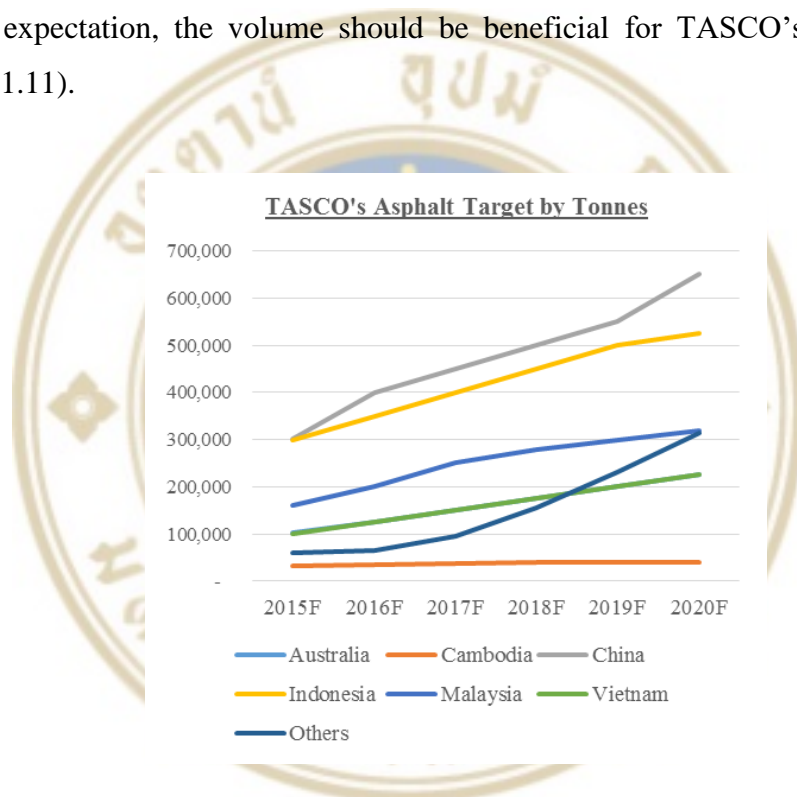
Outline of Indonesia's planned road developments includes: six priority economic corridors: Eastern Sumatra to North-west Java; Northern Java; Kalimantan; Western Sulawesi, East Java to Bali to Nusa Tenggara; and Papua. Between 2010 and 2014 over 15,000 km of new roads will have been built with 3,400 km planned for the year 2016.

Indonesia also has a toll road network development programme, with a further 4,619 km planned. The 720km Sumatera highway will be delivered in four stages, starting from Bakaheuni in the South and finishing by the year 2025 at Banda Aceh in the North. The 617km trans-Java toll road network must be finished by 2014, due to the economic importance of North Java. And the Great Jakarta toll road network, split into 10 sections, is also under development. Overall, asphalt volume is expected to reach 1.5m tons.

According to the Bank for Investment and Development of Vietnam, only 32% of roads in Vietnam are in a good condition, while the rest are now below standard and required to be upgraded or rebuilt. The country will need around USD 48 billion from 2016 through to 2020 to improve the country's weak transportation by constructing 2,347km of express ways.

TASCO produces up to 1 million tons of bitumen per year at its Kemaman refinery in Malaysia, supplying 20% of the volume used in the country. Malaysia's asphalt demand is expected to be stable at 700,000 tons, yet it is likely to grow further as the capacity of the refinery increases.

There will be opportunities over the next 10-20 years. Indonesia is one of the growing opportunities, and Vietnam and Bangladesh have some long-term road building projects, while most of these countries offer good opportunities as developing countries to develop and build roads on a long-term basis. Based on the industry growth expectation, the volume should be beneficial for TASCO's overall growth (Figure 1.11).



Source: Company

Figure 1.11 TASCO's Projected Asphalt Sales Volume (Metric Tons)

1.6 Competition Analysis

1.6.1 Favorable position in competitive environment

As TASCOS main product is bitumen, rather than a by-product as is the case with oil refineries, it can produce in a volume that gives it a competitive advantage over its competitors. Moreover, it can produce bitumen which is right for a particular market, as the grade can be adjusted according to customer requirements and needs, such as the particular viscosity. In the region, therefore, there is no direct competitor to TASCOS in terms of supplying its three core asphalt products: asphalt cement, asphalt emulsion (AE), and polymer modified asphalt (PMA) (Table 1.2).

Table 1.2 TASCOS Projected Asphalt Sales Volume (Metric Tons)

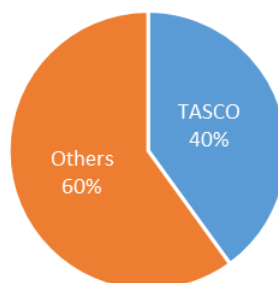
Product	Details
Asphalt Cement	Crude oil refining and processing base lubricating oil
Asphalt Emulsion (AE)	Asphalt cement, water and chemicals
Polymer Modified Asphalt (PMA)	Polymer and Asphalt Cement

Source: Company

1.6.2 Domestic market

In Thailand, TASCOS has three main competitors in asphalt distribution which are PTT, Shell and ESSO. TASCOS domestic market share is around 40% (Figure 1.12) of the asphalt cement consumption and 70-80% (Figure 1.13) of asphalt emulsion & poly modified asphalt nationwide, which places them as number one distributor of asphalt related products.

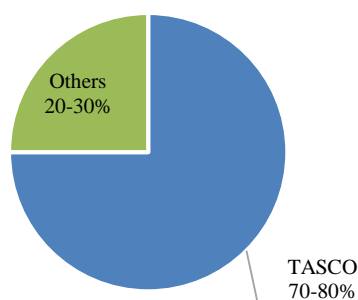
Local Market Share -
Asphalt Cement



Source: Company

Figure 1.12 Local Market Share – Asphalt Cement

Local Market Share - Asphalt Emulsion &
Poly Modified Asphalt



Source: Company

Figure 1.13 Local Market Share – Asphalt Emulsion & Poly Modified Asphalt

1.6.3 International market

There are quite a few asphalt producers (refineries) in Asia; some are bigger, similar and smaller in sizes namely SK, S-Oil, GS Caltex and Hyundai in Korea, Sinopec in China, Simosa in Taiwan, Singapore Refinery, Shell and Exxon in Singapore and Petronas in Malaysia where TASCO's refinery is situated. TASCO's competitive advantage is that none of these refineries focus mostly on asphalt as an output of the refining process, unlike what TASCO does. Being the only asphalt-focus refinery in the region, it means that it has sufficient asphalt volume ready to supply to its customers whenever required, regardless of any seasonal demands.

1.6.4 Competitive positioning

TASCO operates at a large scale in the region, thereby limiting the bargaining power of its customers, with limited numbers of competitors and a low threat of new entrants. Our analysis suggests that it is quite a profitable environment for TASCO's core business (Figure 1.14 and Data 2.4).

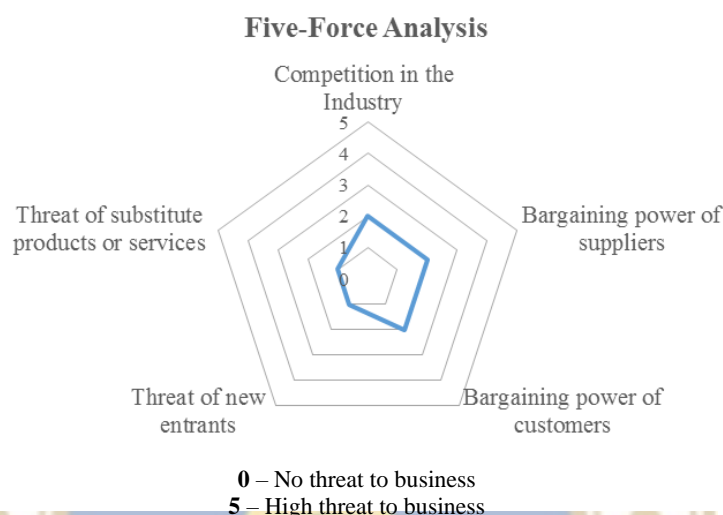
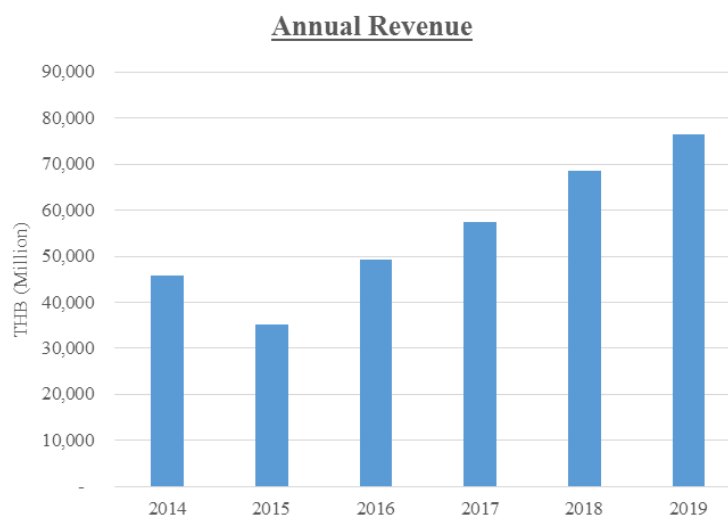


Figure 1.14 Five-Force Analysis

1.7 Investment Summary

We issue a BUY recommendation on Tipco Asphalt Public Company Limited (TASCO) with a target price of THB 51.00 using the Discounted Free Cash Flow to Firm method. This offers a 29.11% upside from its closing price of THB 39.50 on December 04, 2015. TASCO has shown they are able to deliver on the growing demand of the asphalt market through solid business performance and improving operating cash flows from the higher margin of lower raw material costs. The synergy achieved from strategic partnerships and acquisitions allows the company to achieve a higher presence in the international markets, which can further maximize the firm value.



Source: Company

Figure 1.15 Annual Revenue

1.7.1 Core asphalt products providing higher operating cash flows

TASCO is able to deliver solid operations, as evidenced by its achieving the five-year performance goal plan of distributing over 2 million tons of asphalt, which is over a 100% increase from the 2010 volume. Industry data reveals that asphalt volumes have been consistently increasing over the years, and this trend is expected to continue, with the infrastructure projects announced for each country as discussed in the industry analysis. For 2016 onwards, there will be an increased market share from the acquisitions and strategic partnerships in key market, such as Vietnam and Indonesia, and additional volume of other petroleum products, such as bunker fuel oil and diesel oil, both of which are basic necessity fuel types. This growth is translated into a higher operating margin during the forecasted period. Moreover, with the lower cost of crude oils leading to a bigger net profit margin, the company's performance is expected to show an increase in the operating cash flow; the projected annual operating cash flow will likely exceed THB 20 billion for the period of 2015F to 2020F (Data 2.10).

1.7.2 Capitalizing on the asphalt market growth prospects

TASCO will expand its refining capacity from 1.2 million to 2 million tons, as well as the fleet size. With insufficient capacity of only 1.2m tons (30,000 bbl/

day), TASCOCO will expand to 50,000 bbl/ day or 2m tons/ year. Capital expenditure is set at USD 100 million and construction should be completed by 2019.

Furthermore, in order to be more efficient in their production process, they also plan to make all the asphalt production plants fully automated by 2020. In addition, some plant relocation may be needed to be more suitable for their production and distribution structure. The capital expenditure for this project is around THB 50 million.

To serve the increasing asphalt-sales volume, TASCOCO has acquired one 1600 DWT tanker and is planning to procure two new built asphalt vessels: 1) A 10,000 DWT vessel, to be completed by 2017 and 2) A 4,000-5,000 DWT vessel, to be completed by 2018; total capital expenditure is set at USD 75 million.

As their current truck fleet average age is quite high, the group recently planned to renew the existing fleet trucks which will result on capital expenditure of around THB 2 million per one truck head and around THB 1 million per one truck tail, altogether around THB 80 million. This project is to be completed within 2018. The Capital expenditure for this project is around THB 240 million.

Based on their investment plans, in 2015-2020, TASCOCO would have a net capital expenditure of around THB 6.4 billion (Table 1.3).

From the favorable cash position as shown by TASCOCO's EBITDA / year over THB 5 Billion, it is expected that the company will not consider additional debt financing.

Table 1.3 TASCOCO CAPEX

Project	Estimates (THB)
Refinery	3,589,000,000
Trucks	80,000,000
Vessels	2,691,750,000
Plant automation & relocation	50,000,000
Total	6,410,750,000

Source: Company

1.7.3 Globally integrated asphalt and petroleum related product producer in 2020

Despite big market shares of Indonesia and Vietnam, TASCOCO only have approximately 10.0% and 19.0% market shares through import into Vietnam and Indonesia in 2014, respectively. The company chooses to do strategic acquisition, by acquiring the following COLAS company's: Firstly, AD Shipping Pte Ltd and Reta Link Pte Ltd. (Singapore), which also lead to acquiring two additional asphalt vessels into the fleet. Secondly, Asphalt Distribution Co., Ltd (Vietnam), Vietnam's second largest asphalt market share. Thirdly, PT Asphalt Bangun Sarana and subsidiary (Indonesia), this lead to an increase in 8% of Indonesia's asphalt market share. Lastly, Raycol Asphalt Co., Ltd. (Thailand), manufacturer and seller of Thailand's (local) asphalt business. Altogether, they are able to enjoy synergy and benefit (Table 1.4) such as: 15% sales increase for the company as we can expect the volume to increase by as much as 300,000 tons (200,000 tons and 100,000 tons increase from Vietnam and Indonesia respectively), larger shipping cargo carry capacity at 32,000 MT, wider margin integration, and taking advantages of 2015 AEC.

Table 1.4 Acquisition Synergies

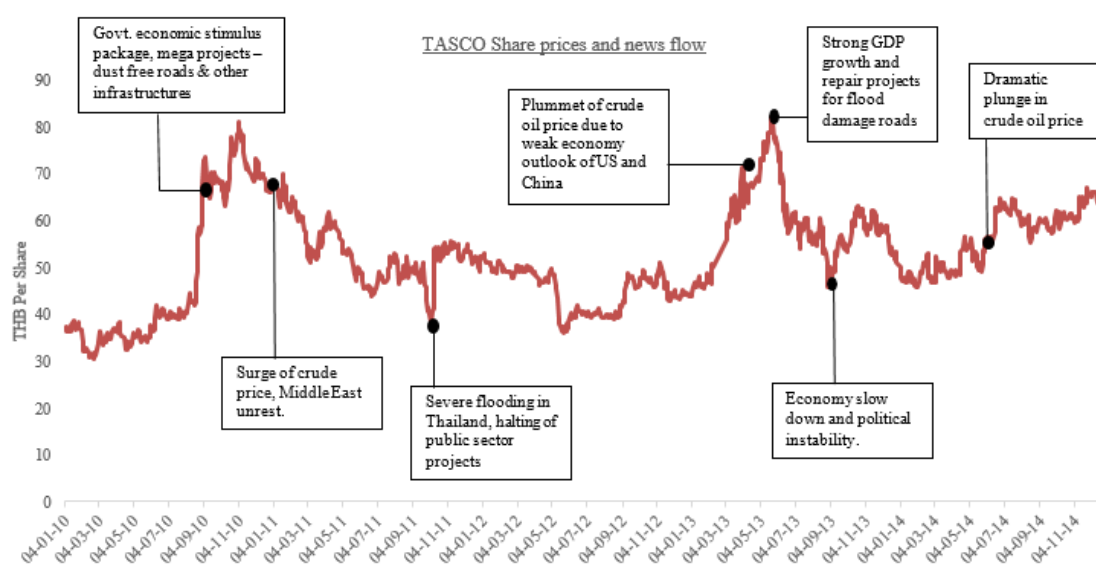
Projects	Current	After Acquisition
Vessel Fleet Expansion		
No. of vessels	7	9
Carrying capacity (KTons)	26	32
Market Expansion		
Vietnam sales (KTons)	100	300
Indonesia sales (KTON)	300	390

Source: Company

1.7.4 Drivers of volatility in earnings

Based on the research, the cost of sales and the distributed volume will be the main drivers of volatility in TASCOCO's earning. As the acquisition plan for TASCOCO goes through, we expect the additional volume to contribute significantly to the overall earnings performance of the company. The distributed volume of asphalt is driven by GDP growth of the country, such as government investment in road infrastructure. The

cost of sales is driven mainly by the price of crude oil, as in 2014 the margin for sales averaged out to only 5%, but because of the lower crude oil price, the current margin on sales is as high as 20%. However, it should be noted that to a certain degree, the price of asphalt positively correlates with the price of crude oil, so the sales revenue is driven by the price of crude oil as well (Figure 1.16).



Source: Bloomberg

Figure 1.16 TASCO Share Prices and News Flow

1.7.5 Possible investment risks

There is a variety of risks that investors must be aware of. One is regulatory risk, such as trade restriction, government regime change, and imposed product restrictions. Another is legal risk, which could delay expansion of the refinery capacity and vessel completions. Market risks include unfavorable market conditions, resulting in lower demand. Operational risks include downtime caused by unplanned breakdown of plant and equipment or uncertainty of the crude oil supply. A detailed discussion of the risks, mitigation factors and their impact on value are discussed in the Investment Risk section.

1.8 Valuation

This paper uses **Discounted Cash Flow Model: FCFE (DCF)** to determine the appropriated intrinsic value of TASCOT.

1.8.1 Discounted Cash Flow Model: FCFE

Using the Discounted Free Cash Flow to Firm (DCF) method, we arrived at the value per common share of THB 50.96 and adjusted it to THB 51.00 (Figure 1.18); this was completed by estimating the firm's value and using the value of debt to adjust for the equity value of the firm (Table 1.5)

In using the DCF model, we forecast the core asphalt business by use of a two-stage growth model. The first stage includes a detailed year-to-year forecast up to 2020 based on the distribution of product volume targets of the company, which aim to cater to the growing market demand and achieve the 2020 vision and mission commitment. After that stage, we assumed a constant growth rate for the terminal phase. As 99% of the company's revenue source is generated from the asphalt business and less than one percent comes from the supporting activities, the basis for our valuation is the expected growth of sales in the asphalt business.

Table 1.5 Target Price Breakdown

	Value (THB)
Enterprise Value	85,755,692,643
Net Debt	7,100,195,537
Equity	78,675,497,106
No. of Shares	1,543,850,070
Target Price	51.00

As of 4 Dec. 2015

1.8.2 Key assumptions

1.8.1.1 Volume growth & price adjustment

Estimates of growth are based on the government's investment projects in the key international market areas of TASCOS – China, Indonesia, and Vietnam – and local projects in Thailand. We compared the required asphalt volumes of these investment projects with the company's past five years' CAGR of 15.1%, and the company's target product distribution volume in terms of market demand. We were then able to forecast the next five years' sales growth volume in order to check if the company's target distribution of 6 million tons is achievable by 2020 (Table 1.6). In our calculation, we round up the target to 5 million tons by 2019, which would have CAGR forecast at 19.8% for the next five years, which is supported by expansion of the current market with more focus towards the Asia Pacific region (as much as 88% of the company's sales); we also take a conservative approach that the company should be able to accomplish this target by 2019. Therefore, we assume this growth rate for our high-growth period.

As for the forecast for the year 2015, we adjusted the current tonnage distributed at around 2.1 million tons; with the 15% increase volume that is achieved through synergy from the current acquisition plans of 2015, it is conservatively expected to reach as high as 2.3 million. This positive synergy effect will be realized from the year 2016 forward.

As the asphalt price has dropped an average of 32.04% from the decline of the crude oil price. We had to re-adjust our base year revenue assumption to reflect this drop in price. However, it is expected that this lower price will lead to increasing demand, especially since the trend of crude oil is expected to remain at the current level for the duration of our first-stage growth (Table 1.7).

Table 1.6 Target Distribution Demand by Metric Tons

	2016F	2017F	2018F	2019F	2020F
Total Domestic	501,350	555,950	596,350	649,050	700,000
Total International	2,716,000	3,203,000	3,880,000	4,606,000	5,350,000
Non Bitumen from KBC	389,000	389,000	365,000	389,000	638,000
Trading	82,000	242,000	606,000	1,062,000	1,277,000
Bitumen Mixture	945,000	1,040,000	1,135,000	1,135,000	1,135,000
Asphalt	1,300,000	1,532,000	1,774,000	2,020,000	2,300,000
Total	3,217,350	3,758,950	4,476,350	5,255,050	6,050,000

Table 1.7 Growth Per Year Assumptions

	2015F	2016F	2017F	2018F	2019F
				Round Down	5000
Target Volume	2,300	3,217.35	3,758.95	4,476.35	5,255.05
Adjustment for Reduction in Asphalt Prices	-32.04%				
Company Est. Revenue Target	35,208,045	49,250,698	57,541,427	68,523,276	76,539,229
Growth per year	13.30%	39.88%	16.83%	19.09%	11.70%
CAGR based on volume	19.80%				

1.8.1.2 Dividend assumption

Based on the average payout ratio of the past three years, we assume that the company will pay out dividends at the ratio of 19.72% for the forecast period.

1.8.1.3 Proportionated cost of sales and selling and administrative expense to sales

In terms of the cost of sales, we compare it to the price of ICE Brent crude. However, since the current performance of the company is at 82% cost of goods sold, using an average Brent price over the past five years would not reflect the recent crash of oil prices. Therefore, because we expect the trend of Brent crude prices to remain around the current low levels, we assume that the new cost-of-sales level should reflect the current proportion of the company's recent performance; a fair

value would be at an average of 83.25%, given that it should not exceed 85% for year 2016F onwards (Figure 1.17). As for the selling and administrative expenses, using the average from the last five years (2010-2014), we found that it is about 2.2% of sales.

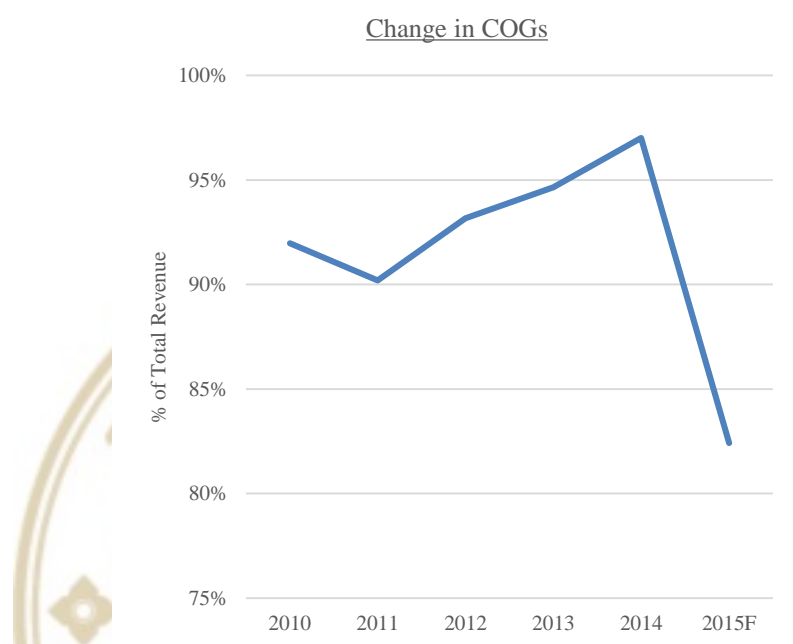


Figure 1.17 Change in COGs

1.8.1.4 Change in net working capital and investment in net fixed assets

Based on our forecast, which is for high revenue growth annually, it means more net working capital is required to support the growth in the company's sales. Definitely, inventories, account receivables, and accounts payable are three main factors defining net working capital. Moreover, we expect an increase in PPE every year until 2019, for a total of THB 8.8 billion, based on the expansion plan of the company in order to meet its 2020 mission. Capex is assumed to be financed using retained earnings, while M&A will have debt issuance of approximately THB 448 million (Data 2.11)

1.8.1.5 Weighted average cost of capital

We used the weighted average of the market value of equity and book value of debt to calculate WACC for TASCOT. The cost of debt was determined by comparing the current percentage of interest expense to interest-bearing debts and data from Bloomberg (which is around 3.375% before-tax K_d); our weighted average cost of debt includes the notes to financial statements of bank overdrafts, trust receipts, financial lease agreements and long-term bank loans. With regard to tax, we can calculate after-tax K_d equal to 2.7%.

With regard to the cost of equity, we obtained the risk-free rate at 2.7% from 10-year government bonds (Data 2.11); the risk premium at 8.15% is based on Thailand's national risk premium, from Damodaranand data provided by NYU, and this is also adjusted down to 8%, based on the current market performance and in accordance with keeping a conservative approach. The adjusted beta is at 1.11 from Bloomberg. As a result, we calculate cost of equity equal to 11.70% by using the CAPM model.

After all relevant variables ($W_d=10.4%$, $W_e=89.6%$, after-tax $K_d=2.7%$, and $K_e=11.7%$) have been put into the WACC formula, WACC is estimated at 10.80%. WACC will be used as the discount rate of FCF in the DCF model (Table 1.8).

Table 1.8 WACC Computation

Weighted Average Cost of Capital	
Risk Free Rate	2.7%
TASCO Beta	1.11
Mkt Risk Premium	8.00%
Cost of Equity (Ke)	11.6%
Cost of Debt	3.38%
Tax Rate	20%
After-Tax Cost of Debt (Kd)	2.7%
Weight of Debt (Wd)	10.4%
Weight of Equity (We)	89.6%
WACC	10.65%
Terminal Growth	3.5%

1.8.1.6 Terminal growth

Since road projects are tied directly with government investments, TASC0's performance is assumed to move along with the economy. The Terminal Growth Rate assumption is based on the historical average nominal GDP growth of each country that TASC0 is currently trading with, which is weighted according to the sales volume (Table 1.9). Since the global trend is on a decline, we assume that the trend should be toward this stable rate and adjusted to around 3.5% on average for our second-stage stable growth period.

Table 1.9 GDP% Growth by Country

Countries	GDP % G	Weight	GXW
Australia	2.6%	6.94%	0.18%
China	7.4%	22.21%	1.64%
Indonesia	5.0%	19.43%	0.97%
Vietnam	6.0%	6.94%	0.42%
Thailand	0.7%	27.83%	0.19%
Malaysia	6.0%	11.10%	0.67%
Cambodia	7.0%	1.94%	0.14%
Others	4.3%	3.61%	0.16%
Total		100%	4.36%

Source: World Bank

Free cash flow to firm : FCFF

		1	2	3	4	5
EBIT	1,555,297,603	5,695,760,844	6,449,187,956	7,725,873,087	9,255,291,574	11,087,474,666
Tax	176,350,380	1,105,085,931	1,251,546,548	1,506,877,385	1,812,750,012	2,179,185,897
NOPAT		4,590,674,913	5,197,641,408	6,218,995,702	7,442,541,562	8,908,288,769
Dep		467,341,439	747,726,195	837,054,016	919,304,662	924,162,481
WC	6,331,195,054	5,235,045,998	6,312,821,184	7,564,619,642	9,055,712,089	10,840,889,221
chg. In WC	-	1,096,149,056	1,077,775,186	1,251,798,458	1,491,092,447	1,785,177,132
NET CAPEX		4,012,502,000	1,874,500,000	1,874,500,000	977,250,000	50,000,000
FCFF		2,141,663,408	2,993,092,417	3,929,751,260	5,893,503,778	7,997,274,118
Terminal value						115,701,328,665
FCFF		2,141,663,408	2,993,092,417	3,929,751,260	5,893,503,778	123,698,602,783
PVFCFF		1,935,460,974	2,444,480,242	2,900,445,228	3,931,030,156	74,564,276,044
PV of Firm	85,775,692,643					
Non-Operating Asset	-					
Net Debt	7,100,195,537					
EQUITY	78,675,497,106					
No. of Share	1,543,850,070					
Target Stock Price	50.96					

Figure 1.18 Discounted Cash Flow Model

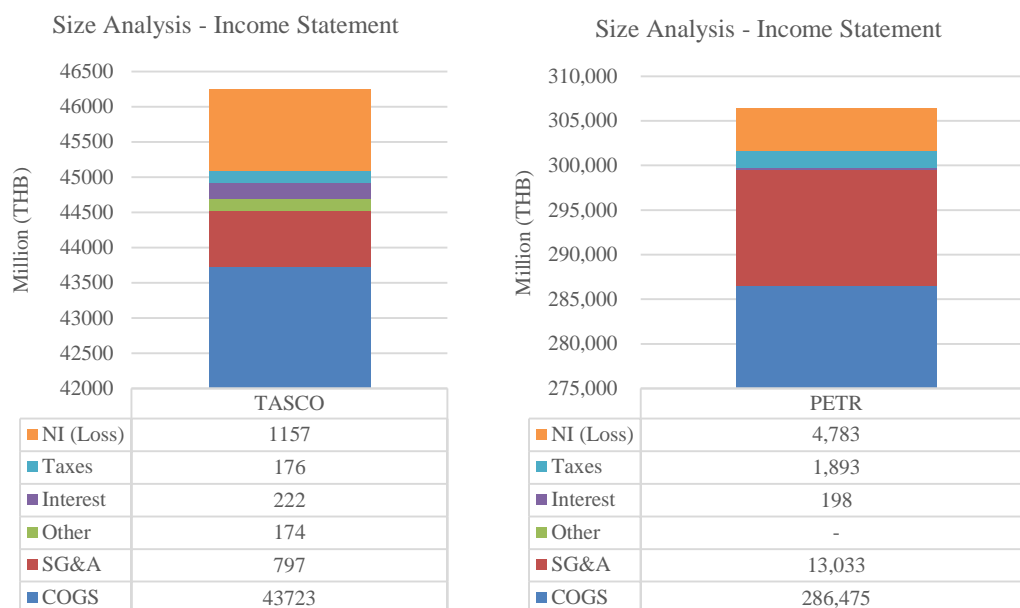
1.9 Financial Statement Analysis

1.9.1 Summary figures from financial statements (Size analysis)

As TASCOS does not have a direct competitor in the domestic market for asphalt distributor, to make a fair comparison, we will be comparing TASCOS with Petronas Dagangan Bhd (PETR), since both serve the same region with the same strategy of full integration of the supply chain in delivering downstream petroleum products to customers. Moreover, as there is a considerable size difference, we begin by comparing the QoQ of both companies; doing so, we found that there is an 80% correlation in terms of total revenue and 47% for the component of EBIT.

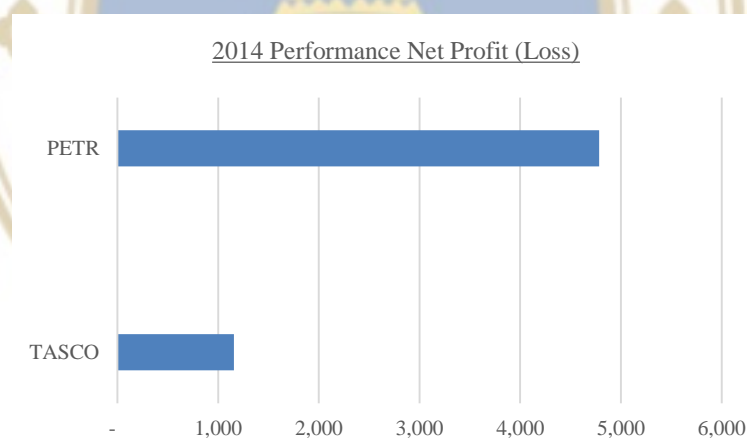
1.9.1.1 Income statement

In 2014 (Figure 1.19), total revenue of TASCOS is THB 46,200 million and net income is THB 1,157 million. The revenue from sales and services income grew YOY 35%, owing to the increased demand for asphalt caused by lower prices and the introduction of bitumen mix, which is a mixture of crude oil with bitumen, reducing the tank top problem and allowing a higher volume to be distributed in the year. In 2013, however, the revenue from sales and services had decreased YOY of 10%, caused by the decline in asphalt demand, which was due to the peaking of the crude oil prices; another major factor was that customers were postponing the delivery of products, which contributed to tank topping in the Kemaman refinery. The gain on the exchange rate YOY from 2013 to 2014 is 1060%; this is attributed to the strong appreciating dollar trend, as TASCOS receives its international trade revenue in USD. The EBIT margin decreased from 3.46% in 2013 to 3.37% in 2014, because of the sudden decline in crude oil prices, leading to higher costs from oil hedging and lower asphalt selling margin, causing an increase in the COGS percentage from 95% in 2013 to 97% in 2014. Overall, performance of the firm is quite favourable (Figure 1.20).



Source: SET and Bloomberg

Figure 1.19 Income Statement – Size Analysis



Source: SET and Bloomberg

Figure 1.20 2014 Performance Net Profit (Loss)

1.9.1.2 Balance sheet

In 2014 (Figure 1.21), the company's total assets were around THB 15,145 million; this was composed of current assets of THB 8,409 million and non-current assets of THB 6,736 million. The total assets have decreased 25% YOY, which is mainly attributed to the lower inventory the company held in 2014, having decreased from THB 9,349 million to THB 3,817 million from the bitumen mix and

higher asphalt demand. Other components of assets have shown an increase, which related to the higher sales revenue. In terms of liability and equity, TASCOS has managed its debt with a decrease of -37% YOY. The amount of total liabilities consists of current liabilities at THB 6,683 million and non-current liabilities at THB 2,336 million. On the equity side, the portion has increased about 4% YOY from THB 5,890 million in 2013 to THB 6,125 million in 2014.



Source: SET and Bloomberg

Figure 1.21 Balance Sheet - Size Analysis

1.9.1.3 Dividend

In 2014, the company has paid a dividend of THB 1 per share, which makes up to 13% payout ratio. (Table 1.10)

Table 1.10 TASC0 Dividend

Year	Dividend	Payout Ratio
2010	-	-
2011	-	-
2012	190,684,210	28%
2013	152,578,968	18%
2014	153,276,257	13%

Source: SET and Bloomberg

1.9.2 Common size analysis

1.9.2.1 Income statement

Revenue from sales and services income is 98.98% of the total revenue. Cost of sales makes up for 94.64%, and SG&A is at 1.73%. Gross profit margin is at 5.36%; EBIT is at 3.37%; and as TASC0 has benefited from a low interest rate and tax expenses, the net income is 2.50% (Table 1.11).

Table 1.11 Common Size – Income Statement

	2014 - Income Statement (Million THB)			
	TASCO	%	PETR	%
Total Revenue	46200	100%	304,440	100%
COGS	43723	94.64%	286,475	94.10%
SG&A	797	1.73%	13,033	4.28%
Other	174	0.38%	-	0.00%
Interest	222	0.48%	198	0.06%
Taxes	176	0.38%	1,893	0.62%
NI (Loss)	1157	2.50%	4,783	1.57%

Source: SET and Bloomberg

1.9.2.2 Balance sheet

TASCO's total assets comprise current assets at 55.53% and non-current assets at 44.47%. The major assets are trade and other receivables, inventories, and PPE, representing 26.53%, 25.21%, and 37.32%, respectively. Total liabilities and equity comprise total liabilities at 59.56%; this is composed of current liabilities at 44.13% and non-current liabilities 15.43%.; and total equity at 40.44%, of which 24.51% is unappropriated retained earnings, issued and paid-up capital at 10.12%, and non-controlling interest at 1.12%. The major items for both TASCO and PETR in current liabilities are trade and other payables, which for TASCO is at 8.68% (Table 1.12).

Table 1.12 Common Size – Balance Sheet

2014 - Balance Sheet [Assets] (Million THB)				
	TASCO		PETR	
		%		%
Other Non-current Assets	760	4.05%	4,856	5.41%
PPE - net	5,653	37.32%	37,946	42.25%
LT Investment	323	2.14%	26.18	0.03%
Other Current Assets	297	1.96%	-	0.00%
Inventories	3,818	25.21%	9,714	10.82%
Trade and Other Accounts Receivable	4,018	26.53%	19,948	22.21%
Cash and Cash Equivalents	277	1.83%	17,318	19.28%

2014 - Balance Sheet [Liabilities & Equity] (Million THB)				
	TASCO		PETR	
		%		%
Total Equity	6,125	40.44%	45,108	50.23%
Other L-T liabilities	114	0.81%	1,594	1.77%
L-T Debts	2,222	14.62%	1,268	1.41%
S-T Debts	4,094	27.03%	3,385	3.77%
Operating liabilities	2,589	17.10%	38,454	42.82%

Source: SET and Bloomberg

1.9.2.3 Comparing with competitors

In comparison with PETR, TASCO's income statement has similar COGS but lower SG&A than PETR, which suggest that TASCO is more efficient in terms of cost management. Moreover, due to the lower tax expense and better cost management, TASCO ended 2014 with a higher net income margin from sales, compared with PETR. On the asset side, TASCO, although improving, has a higher portion of trade and other receivables, as well as inventories, but a lower

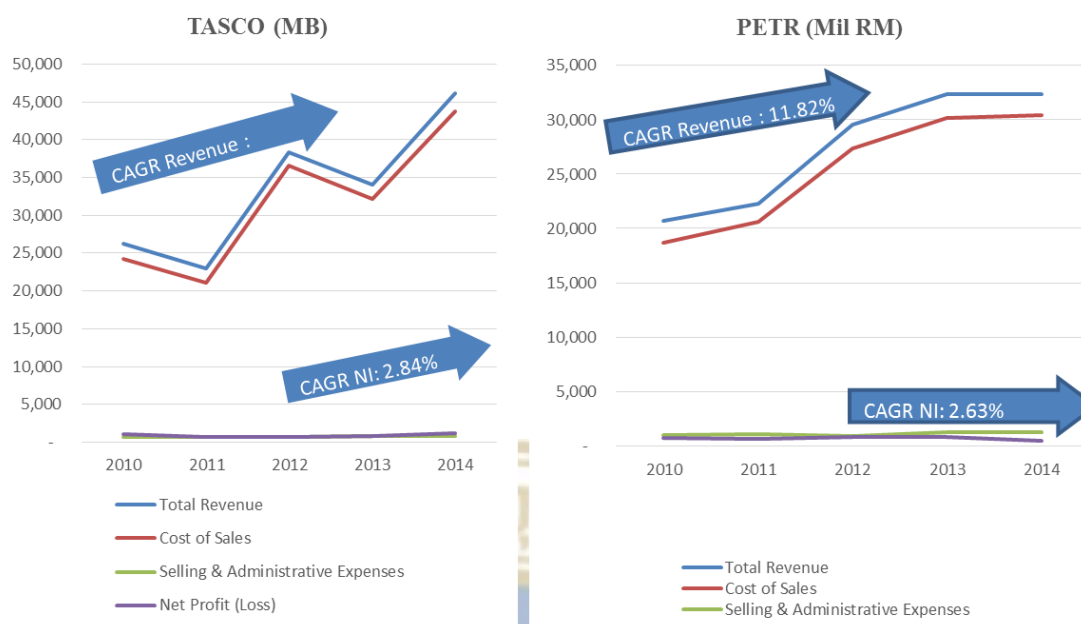
portion of cash and cash equivalents and PPE. On the liabilities and equity side, the portion does not show a significant difference in terms of leverage, while PETR relies heavily on short-term debt financing.

1.9.3 Trend analysis

1.9.3.1 Income statement

As shown in TASCOS's 2015 vision and mission, the company is committed to increasing the distribution volume of asphalt products from 1,000,000 tons to 2,000,000. During the last five years, the revenue of TASCOS has grown on the CAGR of 15.13%, as asphalt consumption in the region increased, based on the infrastructure projects and bitumen mix from the High-Sulphur crude oil, which sold very well and contributed greatly to revenue in 2014. The cost of goods sold increased in relation to sales, which has a CAGR of 15.97%, which is also reflected in the increased price of crude oil. The selling and administrative expenses increase as they expand in the region, in order to provide the required demands, so the CAGR is 4.1%, but the cost does not impact much on the profit as its proportion is only around 1.73%. The CAGR of net profit has been about 2.8% over the past five years.

Revenue of PETR grew with a CAGR of 11.82%, with their growth period moving in the same direction, although the pattern suggests that it is reaching a stable level. Cost of sales is increasing in relation to sales at CAGR of 12.94%, and SG&A increases at a lower CAGR of 6.46%. As for net income, the CAGR of -9.5% suggests that the earnings are in a decline, while TASCOS is still stable, owing to the sudden decrease in the crude oil price (Figure 1.22).



Source: SET and Bloomberg

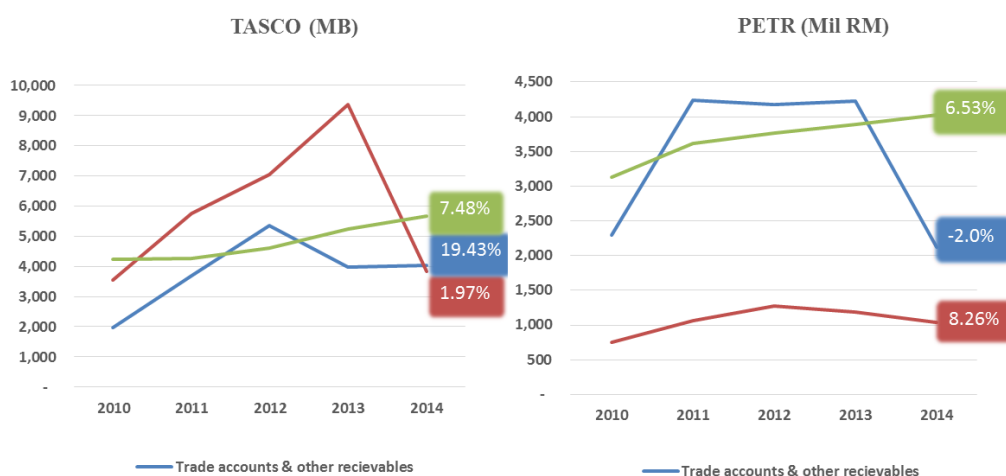
Figure 1.22 Income Statement - Trend Analysis

1.9.3.2 Balance sheet

In terms of Trend of Assets, trade and other receivables, inventories, and PPE is chosen to calculate the relationship between the financial performance and the company's assets. Trade and other receivables increase with CAGR of 19.4% and inventories with CAGR of 2.0%. Inventories only slightly increase due to the improvement of inventory management in the recent year. Moreover, Net PPE increases CAGR at 7.5%.

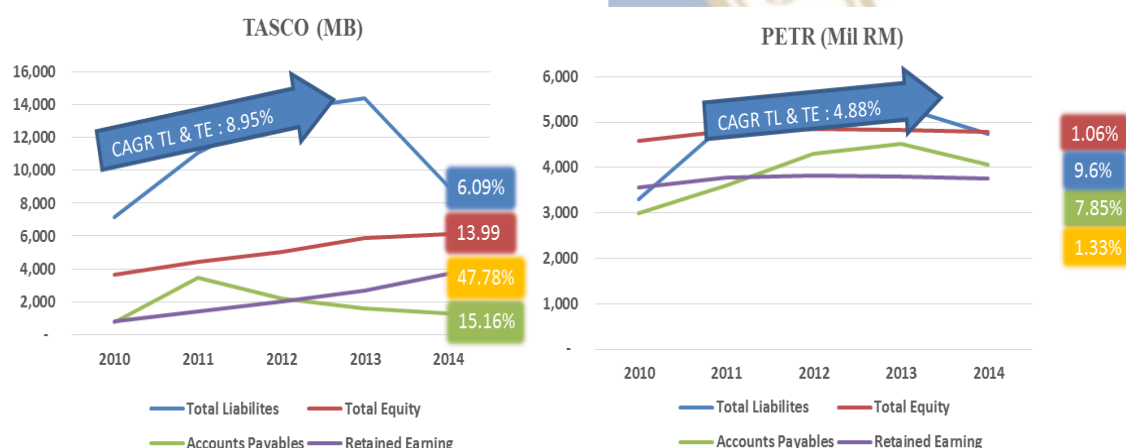
PETR CAGR trade and other receivables decrease at -2.0% and inventories increases at 8.26% following the sales growth. A comparison indicates that TESCO is becoming more efficient at managing its inventory. At the same time, the net-PPE increase at CAGR of 6.53% (for PETR) is similar to TESCO's (Figure 1.23).

As for the trend of liabilities and equity of TESCO, we have chosen trade and other payables to identify their relationship with the COGS based on the trade trend and other payables, which increase by CAGR of 15.2%, while PETR has a lower CAGR for trade and other payables at 9.6% (Figure 1.24).



Source: SET and Bloomberg

Figure 1.23 Balance Sheet Trend Analysis - Assets



Source: SET and Bloomberg

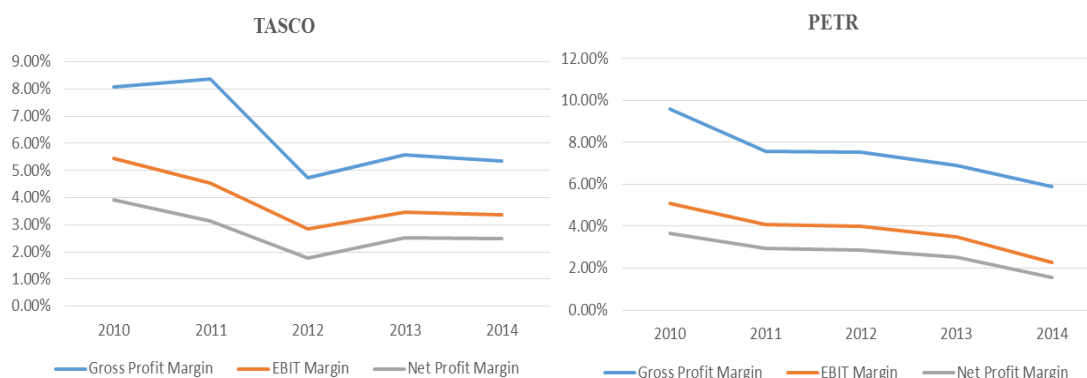
Figure 1.24 Balance Sheet Trend Analysis – Liabilities and Equity

1.9.4 Financial ratios - Return

Profitability ratio is compared by using gross profit margin, EBIT margin and net profit margin between TESCO and PETR during the past five years.

TESCO's gross margin is stable between 8.4% - 4.7%, the EBIT margin between 5.5% - 2.8%, and net profit margin between 3.9% - 1.8%; this performance fluctuation is due to the fluctuation of crude oil prices, which is the main cost driver of the company. PETR's gross profit margin is stable similar range of 9.57% - 5.9%. The operating margin is also stable at around 5.07% - 2.26%, and the net profit margin is

around 3.66% to 1.57%. In conclusion, as the most recent performance shows, TASCOS has a better return on operating and net margin, suggesting it can manage expenses, COGs and SG&A better than PETR (Figure 1.25).



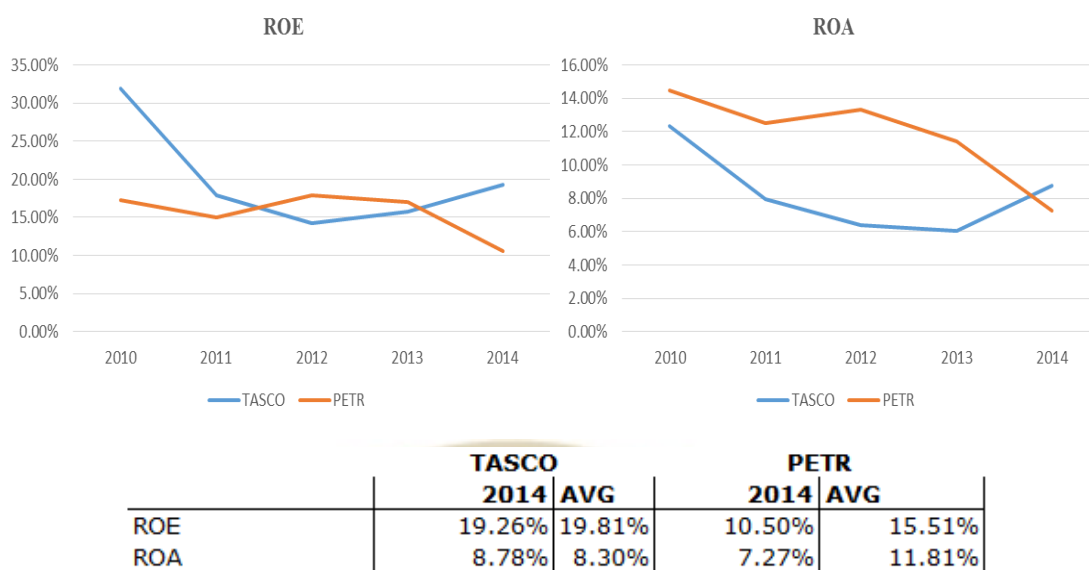
	TASCOS		PETR	
	2014	AVG	2014	AVG
Gross Profit Margin	5.36%	6.43%	5.90%	7.50%
EBIT Margin	3.37%	3.93%	2.26%	3.78%
Net Profit Margin	2.50%	2.77%	1.57%	2.72%

Source: SET and Bloomberg

Figure 1.25 Profitability Ratios

In terms of ROA, TASCOS was operating at a lower percentage return than its competitor and recently has overtaken PETR; this implies that TASCOS is able to manage the business operations better than its competitor.

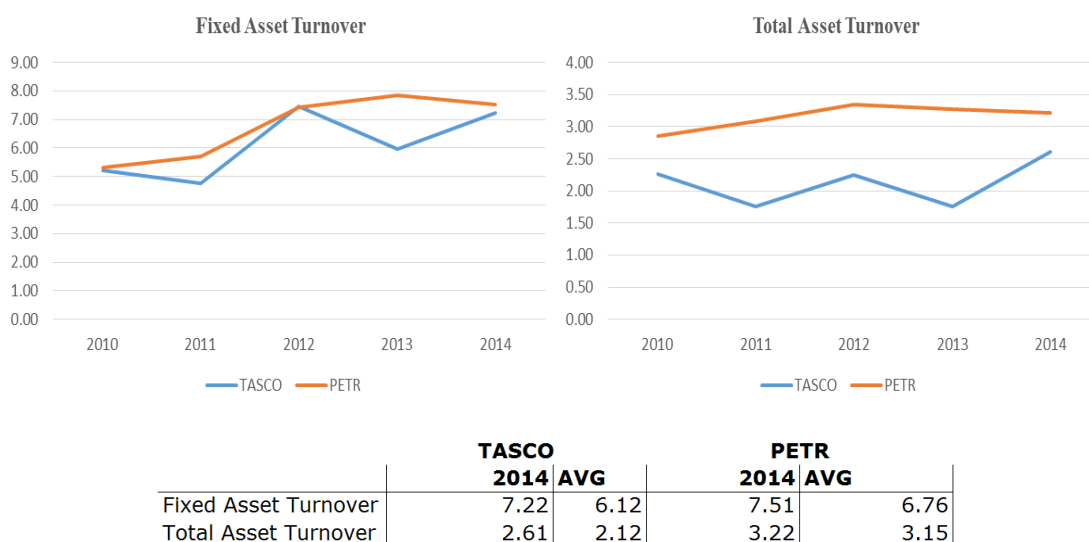
The ROE of TASCOS is also higher than that of PETR in recent years. TASCOS's ROE is stable in the 15% to 20% range, while PETR's ROE is just above 10%. This indicates that TASCOS can generate more return to the common shareholders than its competitor. Moreover, with a decreasing debt ratio, it suggests that this good range is due to improvement in debt and monetizing (Figure 1.26).



Source: SET and Bloomberg

Figure 1.26 Efficiency Ratios

Fixed assets turnover and total assets turnover are moving in the same direction. Both ratios are used to explain the efficiency of assets to generate sales. Both companies' ratios are similar, which implies that both are able to utilize their assets to the market efficient standards (Figure 1.27).



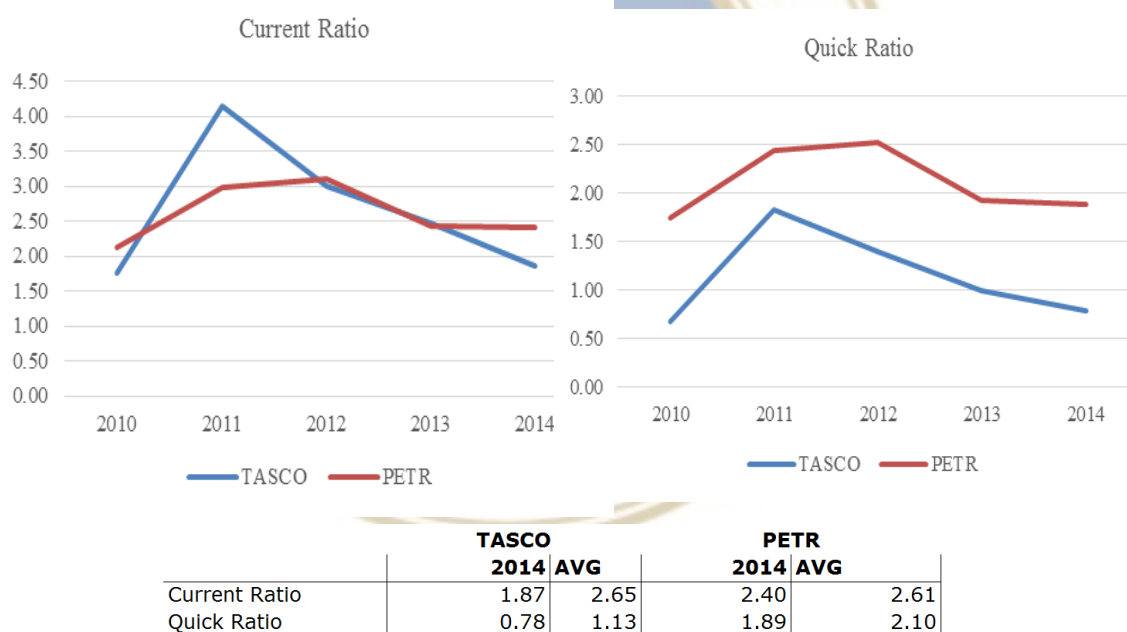
Source: SET and Bloomberg

Figure 1.27 Turnover Ratios

1.9.5 Financial ratios - Risk

1.9.5.1 Short-term liquidity risk

The current ratio of TASCOT implies that the company does not have a liquidity problem, as the company's current assets are still higher than its current liabilities, but taking into account the quick ratio shows that there is a concern, as the current liabilities exceed the amount for the current asset, minus inventories. PETR, on the other hand, has a slightly better current and quick ratio than TASCOT. The cash conversion cycle of TASCOT is shown to be on a favorable trend, because with better inventory management they have reduced the inventory conversion period by as much as 46 days and nearly half of the previous years. However, the cycle of cash for TASCOT is high, at 74.29 days, while for PETR it is only 11.51 days (Figure 1.28).

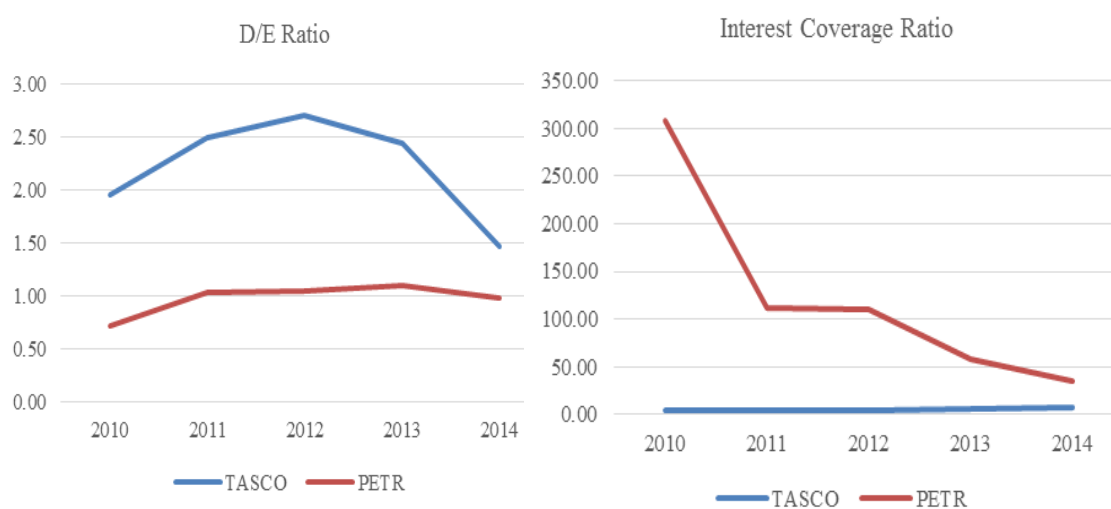


Source: SET and Bloomberg

Figure 1.28 Liquidity Ratios

1.9.5.2 Long-term solvency risk

The debt ratio of TASCOT is on a decreasing trend at 59.56%, as it has growing equity from retained earnings. TASCOT's source of fund is from both debt and equity; its capital structure policy is targeted at a D/E ratio below or close to 1x, and is currently at 1.47x; this indicates low long-term solvency risks. Moreover, based on the structure of PETR, the debt ratio at 49.77% and D/E ratio at 0.991 are quite similar, so both have low long-term solvency risks. According to the interest coverage ratio, the cost of borrowing for both firms is quite low, with TASCOT covering 7.01x and PETR covering 34.76x. (Figure 1.29)



	TASCOT 2014 AVG		PETR 2014 AVG	
Interest Coverage	7.01	5.28	34.76	124.82
D/E Ratio	1.47	2.21	0.99	0.98
IBD/E Ratio	1.49	1.78	0.25	0.50

Source: SET and Bloomberg

Figure 1.29 Leverage Ratios

All key ratios can be referred to in Data 2.14.

1.10 Investment Risks and Downside Possibilities

Probability and consequences of the following risks are presented in Table 1.13.

Table 1.13 Risk Matrix

C o n s e q u e n c e	Probability					
		<i>Rare</i>	<i>Unlikely</i>	<i>Possible</i>	<i>Likely</i>	<i>Almost Certain</i>
<i>Critical</i>		OR1, FR5	OR2, MR6	MR1, MR2 MR4, MR5	MR3	
<i>Major</i>				RR1		
<i>Moderate</i>		FR2	FR3			
<i>Minor</i>		FR1	FR4			
<i>Insignificant</i>						

1.10.1 Regulatory risks

1.10.1.1 Global warming urges governments to regulate emission standard – additional investment needed (RR1).

Concern over climate change and the increase in global temperatures has prompted governments in many countries, including Thailand, Malaysia, and China, to control CO₂ emission levels. The small amount of emissions released from refineries and plant control systems are closely monitored to ensure they stay well below any permitted level set by the governments. This positively affects asphalt refineries and plants, because the need for innovative control systems and manufacturing technology could lead to future large investment capital required for TASCO's refinery and plants to stay within the standard in order to be permitted to operate.

1.10.2 Market and competition risks

1.10.2.1 Global financial system recession as a downside risk to asphalt demand (MR1).

In mid-2015 the price of U.S. oil dropped below 38 dollars a barrel for the first time in six years. Michael Snyder of the Economic Collapse commented that when the oil price was this low, in 2003, the global financial system was on the recession process and the U.S. economy was experiencing the worst recession ever since the Great Depression of the 1930s. Snyder warned that the crash in the oil price would be an extreme deflation and would have severe consequences for the global economy. Many countries such as Japan, Canada, Brazil and Russia have already gone into recession by August 2015, and of all major global stock market indexes are down at least 10 percent year to date. As the global recession continues TASCOS can expect slower import and export in the Asia Pacific region, and this may lead to a downside risk to asphalt demand.

1.10.2.2 Sources and prices of heavy crude supply could become an issue (MR2).

According to the company's information, the company's refinery has been designed to process heavy crude oils, as this is best suited for the company's business model. Because of the geographical distribution of heavy crude oil, in terms of commercially viable sources of supply, crude oil availability is crucial to keep the refinery operative and for the company to meet its asphalt supply obligations. Although the company managed to secure a long-term supply contract, which is supposed to be adequate to meet its refinery operations, there is still a downside risk to crude supply availability, since we understand from the company that they rely mainly on one crude supplier in Venezuela, which could be considered putting all the eggs in one basket. And we can see in the company's COGS history that when the crude prices were high, the company's earnings shrank significantly (although they currently have the hedging contracts in place); therefore, fluctuation of crude oil prices is the key risk factor to consider.

1.10.2.3 Volatile asphalt-selling prices has a downside effect (MR3).

Since oil prices fluctuate all the time, so do the asphalt prices (although asphalt prices are not as volatile as oil prices). Lower-than-expected asphalt prices would have an adverse impact on TASCOS's earnings. Moreover, domestic prices of asphalt in some countries may be cheaper than the prices of some imported asphalt products. This would have an impact on the asphalt demand or volumes imported into those countries (for example, China), which would have a consequential impact on TASCOS's sales volume in those countries and definitely have an impact on TASCOS's earnings.

1.10.2.4 Risk related to the domestic market (MR4).

The domestic market relies mainly on government budgets, which are negatively affected by political instability. In early 2014, this resulted in reduction in market demand, followed by high-price competition, and oversupply of asphalt. However, in September 2015, the new government urged the Ministry of Transport (MOT) to disburse approximately 75% of the budget, which was below the target of 95%. The main cause of delay in disbursement was due to continuous political unrest from late 2013 to 2014. Therefore, from this view point, a downside risk on TASCOS's domestic sales is unavoidable, should political unrest occur again.

1.10.2.5 Risk related to the international market (MR5).

In 2014, TASCOS's asphalt product sales to the international market grew significantly by a year-on-year basis, achieving a historical high. However, difficult market conditions in specific countries, along with increased competition, created unfavorable conditions during the first half of the year. There were new players in the market with better trading strategies or more resources. With new merger and acquisition deals or joint ventures in the market, the competition became more aggressive. Customers had more choices, so the risk of losing customers became more apparent.

1.10.2.6 Global-expansion possibility encourages opportunity but also comes with threats (MR6).

It is possible to look at the other side of the coin and see that, if TASCOS is encouraged by the opportunity to expand its market share into other

markets across the globe, so would companies from other sides. Players from other markets, who have competitive advantages over TASCOCO, especially with regard to resources, pricing, cost of raw materials and shipping, can also exercise their cannibalization strategy into TASCOCO's market shares in the regional existing markets as well. The recent lifting of Iranian sanctions, for example, is a scenario that we should take a closer look at.

1.10.3 Operational risks

1.10.3.1 Natural disasters would definitely effect asphalt sales volume (OR1).

In the year 2013, there was a major flood that forced many factories and plants to close down for many days, so the operation process was not possible and the company's asphalt sales volume dropped drastically. We could possibly expect similar effects should there be another major flood.

1.10.3.2 Breakdowns or explosions are possible risks for refineries and plants (OR2).

Although the company has continued its focus on managing the overall business risk relating to the operations of its refinery and has implemented the Safety Integrity Level (SIL) System in May of this year, which will improve the refinery's safety instrument standard, some parts of the operation process are still manually controlled by humans, and human errors can occur. The wear and tear or malfunction of the main equipment resulting from imbalanced maintenance could happen as well. The refinery's shut down would result in a shortage of storage tanks for the crude supply and the asphalt products, causing the production to stop.

1.10.4 Financial risks

The company's business activities are exposed to various financial risks, including those related to credit, liquidity, foreign currency, interest rates and oil prices.

1.10.4.1 Credit risk (FR1).

We understand the company's credit policy is regularly reviewed, and exposure to credit risk is monitored on an on-going basis. Credit

reviews and evaluations are performed on all customers, while credit approvals are based on delegated limits of authority. There was no significant exposure to any customer group in 2014, except that trading conditions in China had become more challenging, and this resulted in TASC0 having to compromise on the credit risk.

1.10.4.2 Liquidity risk (FR2)

The company operates under unsecured and uncommitted short-term trade and working capital facility arrangements with reputable local and international banks, which have combined limits of over Baht 30 billion or USD 900 million. Financing associated with crude purchases is fully supported by their current asset ratio of 1.20 and is short-term in nature, with a short asset-to-cash conversion cycle of less than 120 days. Since the company has entered into a four-year crude purchase contract with a major oil supplier, the company continues its efforts to secure committed crude financing facilities in order to mitigate the risk associated with the uncommitted short-term trade facilities.

1.10.4.3 Currency risk (FR3)

The company is exposed to foreign currency risk. This occurs as a result of purchases of raw materials and export revenue. This risk is adequately mitigated by the provision of financing and exporting revenue in the same currency. There are also forward contracts booked for known foreign currency expenses, all of which have maturities of less than six months. These methods already help the company in limiting the risk relating to currency rate changes.

1.10.4.4 Interest risk (FR4)

As the company has projected quite large amounts of investment capital, they also need to borrow large amounts from banks. The floating interest rate is one of the main factors affecting the company's earnings, although it has entered into interest swaps to achieve fixed interest rate borrowing on its long-term loans, and a portion of permanent trust receipt loans under crude financing.

1.10.4.5 Hedging risk (FR5)

Crude oil is a major cost component for TASC0, which means that a sharp or sustainable increase in crude oil prices would have an adverse impact on earnings. Markets for petroleum products have been extremely volatile during the year. Crude prices fluctuated, ranging from the high level of USD 116 per barrel

during the year, to the level of USD 58 per barrel at the end of 2015. Although the company has a hedging policy in order to mitigate the risks, there is a possibility of downside risk should the company's hedging strategy for crude cargo become inefficient for any reason.

1.10.5 Drivers of Volatility in Earnings

We performed a sensitivity analysis on the identified investment risks to determine their impact on the value of TASCOC. To supplement this analysis, we evaluated the impact of change in these risk variables on the target price of TASCOC. Table 1.14 shows the impact of risk variables relating to the business, Table 1.15 details the effect of risk variable from the price of crude oil and the effect of risk variable from the change in growth rate.

Table 1.14 Effects of Changes in GDP Growth and WACC on Target Share Price

		WACC				
		9.00%	10.00%	10.65%	11.00%	12.00%
GDP Growth	4.50%	84.52	67.11	58.81	55.10	46.32
	4.00%	76.37	61.75	54.59	51.35	43.57
	3.50%	69.70	57.22	50.96	48.10	41.15
	3.00%	64.14	53.33	47.81	45.25	39.00
	2.50%	59.43	49.96	45.04	42.74	37.08

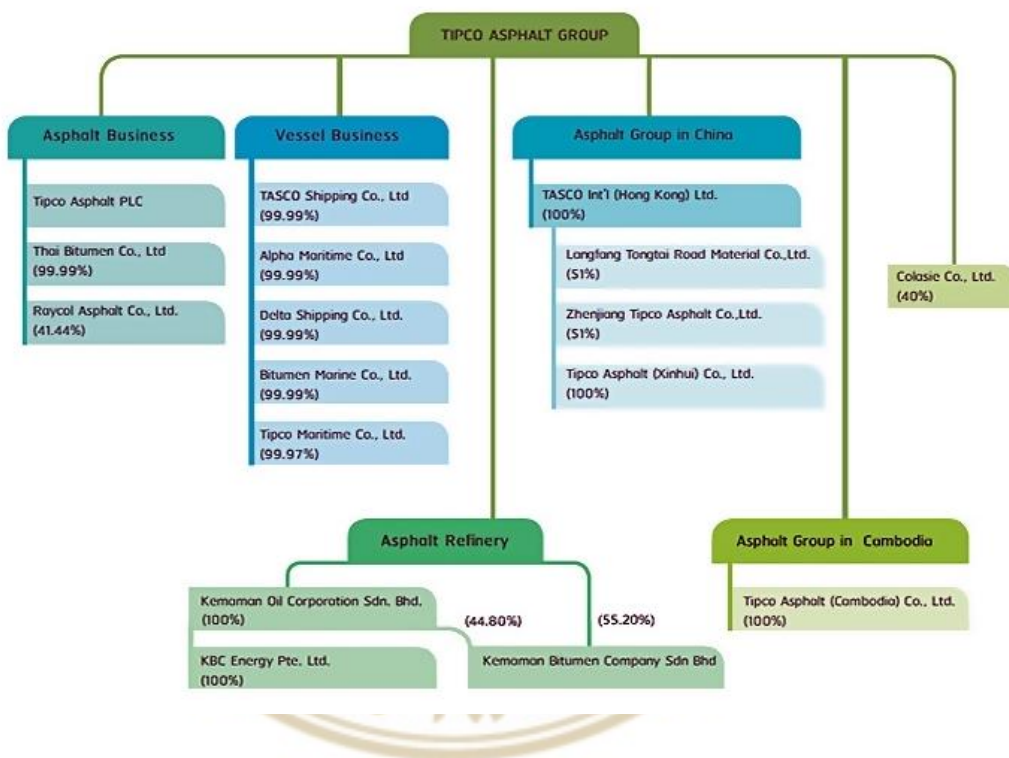
Table 1.15 Effects of Changes in Crude Oil Prices to COGS and Sales Growth to Earning Target Adjustments

		Sales Growth %				
		15.00%	19.00%	19.80%	20.00%	25.00%
COGS Change %	85.00%	33.73	41.70	43.41	43.85	55.71
	84.00%	37.30	45.89	47.73	48.21	61.00
	83.25%	39.96	49.02	50.96	51.47	64.95
	83.00%	40.86	50.07	52.05	52.57	66.29
	82.00%	44.42	54.26	56.37	56.92	71.57

CHAPTER II DATA

2.1 Business Structure (TASCO)

Shareholding Structure of the Group



Source: Company

Figure 2.1 Business Structure (TASCO)

2.2 Revenue Structure (TASCO)

Table 2.1 Revenue structure (TASCO)

PRODUCT LINE/ BUSINESS CATEGORY	SHARE HOLDING (%)	2014		2013		2012	
		REVENUE	%	REVENUE	%	REVENUE	%
1. Asphalt Business							
Tipco Asphalt PLC		37,415.54	80.99	26,257.39	77.01	30,687.44	79.96
Thai Bitumen Co., Ltd.	99.99	1,412.84	3.06	1,303.78	3.82	1,584.37	4.13
Raycol Asphalt Co., Ltd.	41.44	994.62	2.15	992.84	2.91	1,259.65	3.28
Tipco Asphalt (Cambodia) Co., Ltd	100.00	701.23	1.52	524.84	1.54	599.74	1.56
Kemaman Oil Corp. Sdn. Bhd.	100.00	3,163.58	6.85	2,977.78	8.73	2,606.52	6.79
Total		43,687.81	94.56	32,056.63	94.02	36,737.72	95.72
2. Vessel Business							
Tipco Maritime Co., Ltd.	99.97	27.31	0.06	31.80	0.09	31.48	0.08
Delta Shipping Co., Ltd.	99.99	131.09	0.28	66.49	0.20	121.10	0.32
Alpha Maritime Co., Ltd.	99.99	138.58	0.30	68.39	0.20	66.78	0.17
Bitumen Marine Co., Ltd.	99.99	246.34	0.53	302.36	0.89	301.59	0.79
Tasco Shipping Co., Ltd.	99.99	357.57	0.77	352.06	1.03	217.28	0.57
Elimination		(863.49)	(1.87)	(746.25)	(2.19)	(727.61)	(1.90)
Total		37.40	0.08	74.85	0.22	10.62	0.03
3. Holding Companies							
Tasco International (Hong Kong) Ltd.	100.00	2,002.09	4.33	1,803.43	5.29	914.80	2.38
Total		2,002.09	4.33	1,803.43	5.29	914.80	2.38
Total Sales and Services		45,727.30	98.98	33,934.91	99.53	37,663.14	98.13
Other Revenue		472.91	1.02	159.25	0.47	715.81	1.87
Total Revenue		46,200.21	100.00	34,094.16	100.00	38,378.95	100.00

Source: Company



2.3 Major Shareholders and Free Float

Table 2.2 Major Shareholders and Free Float

Free Float As of 11/03/2015	
Minor Shareholders (Free float)	3,050
% Shares in Minor Shareholders (% Free float)	36.14

Remark: Updated as of the latest book closing date.

Overview As of 31/08/2015 Rights Type : XD	
Total Shareholders	7,064
% Shares in Scripless Holding	75.31

Rank	Major Shareholders	# Shares	% Shares
1.	BNP PARIBAS SECURITIES (ASIA) LTD-FOR COLAS	490,731,040	31.81
2.	บริษัท ทีปโก้ฟูดส์ จำกัด (มหาชน)	369,881,660	23.97
3.	บริษัท ไทยเอ็นวีดีอาร์ จำกัด	203,445,900	13.19
4.	AIA Company Limited-APEX	30,000,000	1.94
5.	นายสมจิตต์ เศรษฐิน	28,000,000	1.81
6.	นายวิวัฒน์ โกวითยโสภณ	19,542,000	1.27
7.	นายคฤชฤทธิ์ เศรษฐิน	17,423,000	1.13
8.	น.ส.ลักษณา ทรัพย์สาคร	15,080,000	0.98
9.	AIA Company Limited-TIGER	15,000,160	0.97
10.	น.ส.รวมสิน ทรัพย์สาคร	15,000,000	0.97
11.	นางเรียม ทรัพย์สาคร	14,131,120	0.92
12.	นายสิทธิลาภ ทรัพย์สาคร	12,300,000	0.80
13.	นายพิชิต เลิศคำหวัม	10,650,000	0.69
14.	STATE STREET BANK AND TRUST COMPANY	10,124,800	0.66
15.	น.ส.มียะรัตน์ ทรัพย์สาคร	10,000,000	0.65
16.	นายกิตติพงษ์ ภัทรชัยกุล	10,000,000	0.65
17.	นายกาญจน์ วิทย์อานวยคุณ	8,750,000	0.57

Source: SET

2.4 Management and Organizational Chart

Organization Chart



Source: Company

Figure 2.2 Management and Organizational Chart

2.5 Corporate Governance (CG)

CG Report: 

Source: SET

Figure 2.3 CG Report Score

The company has been awarded a “Very Good” corporate governance rating by Thai Institute of Directors, a rating which is based on OECD Principles of Corporate Governance, which the company has won the fourth year in a row (2009-2012).

The Board of Directors has formulated the company’s corporate governance policy with guidelines covering governance structure, including roles and duties of the Board of Directors and Board committees, stakeholder rights, shareholder

meetings, codes of business conduct, conflict-of-interest management, internal controls, and disclosure policy, as follows:

2.5.1 One share, One Vote.

Basic rights, equality at acceptable and trusted standard available to shareholders (as investors and owners). This includes the right to freely trade or transfer their own shares, the right to receive dividends from the Company, the right to attend the shareholders' meeting, the right to propose the agenda of the meeting, the right to nominate a person to be a director, the right to make decisions on important affairs of the Company e.g. the election of directors, etc.

2.5.2 Equitable Treatment of Shareholders.

Internal information control and conflict of interest prevention.

2.5.3 Role of Stakeholders in Corporate Governance.

All stakeholders: shareholders, employees, customers, suppliers, creditors, business partners and even competitors are invited to work with the Company toward shared goals and mutual benefits, while making Tipco Asphalt a competitive and successful business.

2.5.4 Structure, Roles, Duties, Responsibilities and Independence of the Board of Directors.

6 out of 15 members are independent directors, also separation of position as the chairperson and the Chief Executive Officer is not held by the same person.

2.5.5 Information disclosure and transparency.

2.5.6 Board of Directors' Sub-committees

Four committees appointed by the Board to study and review specific matters. They are the Executive Committee; the Audit Committee; the Nomination and Remuneration Committee and the Risk Management Committee.

2.5.7 Business Ethics.

2.6 SWOT Analysis

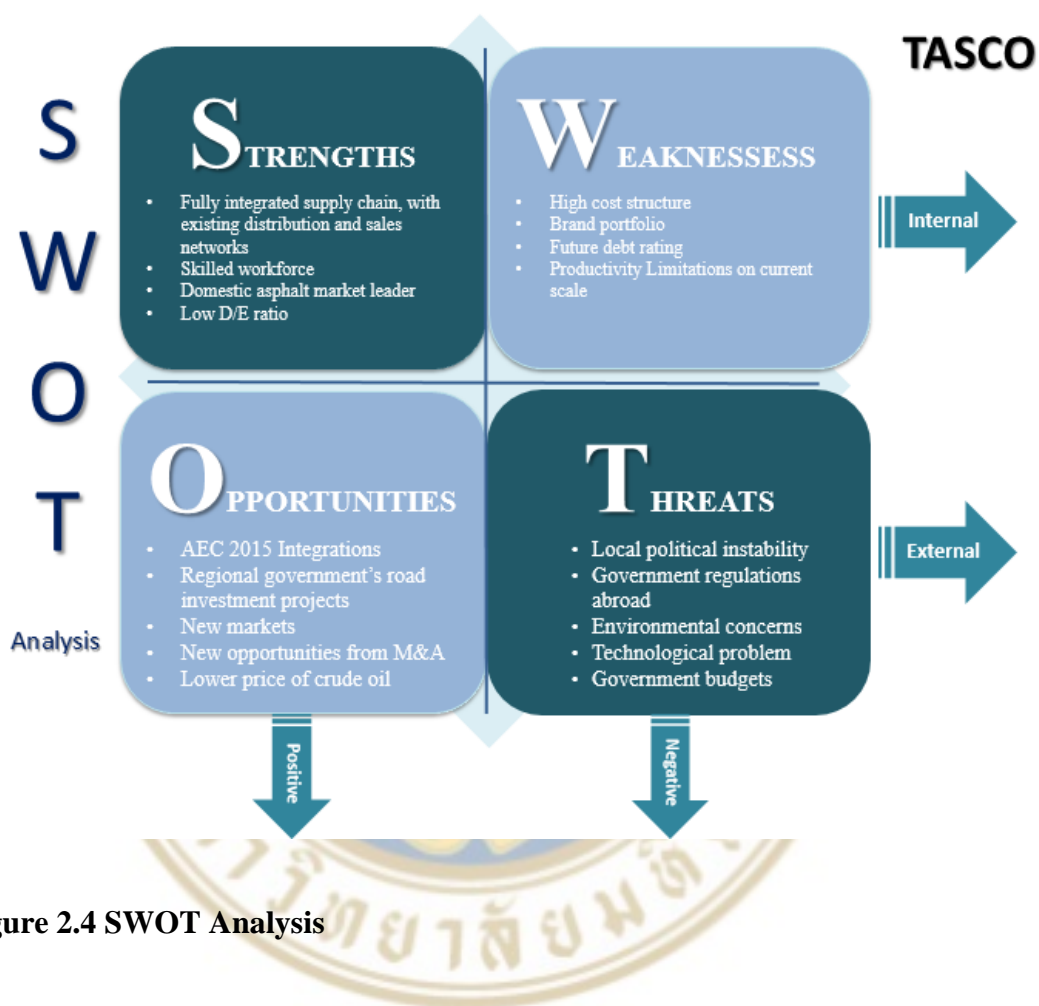


Figure 2.4 SWOT Analysis

2.7 Five Forces Analysis

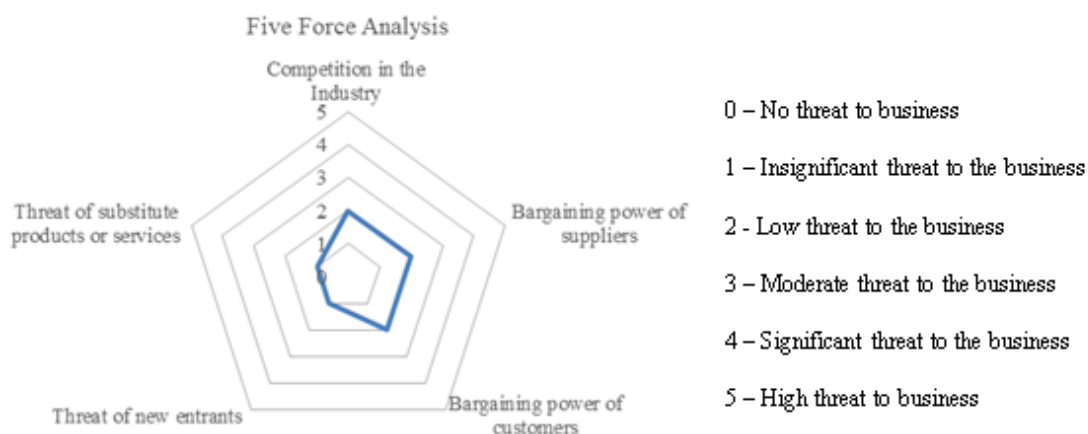


Figure 2.5 Five-Force Analysis

In order to construct a five force analysis diagram, we have decided a score factor for each forces according to the legend.

2.7.1 Competition in the Industry – Score: 2

There are a few players in the international and domestic asphalt markets; most of them are oil-major companies and/or large commodity trading houses that have enough capital to invest in the expanded markets. As the competitor cannot be unable to match the high volume of TASC0, the competitive advantage over Competitors remain. Domestic competitors are mainly Shell and PTT. And TASC0 still plays a dominant role in the market.

International competitors are SK [now alliance], Simosa, Petronas, Shell Singapore, Exxon Singapore, and Singapore Refinery Company.

2.7.2 Bargaining power of suppliers – Score: 2

2.7.2.1 Crude

TASC0 does not have much bargaining power with suppliers in the past as the crude supply especially the ones with higher bitumen yields are limited. However, since there may be more crude supply in the market due to the Iranian sanction being lifted and TASC0 is expanding its capacity and buying volume,

considering their increased sales target and expanded refining capacity, they may have more bargaining power in the near future.

2.7.2.2 Asphalt

TASCO has moderate bargaining power over domestic suppliers as TASCO is considered a big customer; however, as domestic suppliers being national refineries, TASCO still does not have a full bargaining powers. As for international asphalt supply, TASCO has less bargaining power since asphalt volume being supplied by other refineries in the region is limited and TASCO is also considered as their competitors, though by the product's nature, the storage capacity, the heating capacity making the asphalt commodity less liquidated since there are fewer players in both domestic and international markets.

2.7.3 Bargaining power of customers – Score: 2

There are few asphalt players in the market, unlike the oil products. And TASCO appears to be the only asphalt focused refinery in the region. This should equip TASCO with much bargaining powers. However, customers can easily switch to buying from competitors first if they feel TASCO is not competitive, and then they can come back to TASCO later when supply from other refineries in the region is short. In addition, at times the asphalt supply being short which could be possible due to the increased demand, TASCO appears to gain back the bargaining powers.

2.7.4 Threat of new entrants – Score: 1

Threat of new entrant is low due to the required high capital investment and the government specification of each country that must be passed in order to be consider for suitable for the market. However, there are other oil-major and commodity trading companies from other regions such as Europe or North America [who have access to ships and trucks] trying to enter the market or expand their asphalt market shares. Trafigura, Gulf Petrochem, and others have tried hard to enter TASCO's existing market, but without strategic partner in the area it would be difficult for these firms to break into the market.

2.7.5 Threat of substitute products or services – Score: 1

There may be a threat from cement producers though it is unlikely as the cost of the roads being built using cement is around 2-3 times more expensive than the ones built using asphalt. Cement roads are considered stronger and this may influence the Ministry of Transports' decision to allocate the budget for cement roads in some part of the countries.

The new technology may also encourage the substitute products; however, TASCOCO together with their alliance, Colas, is also considered the leader in product innovation.

2.8 Macro-economic Analysis



Source: Trading Economics

Figure 2.6 Thailand's GDP Growth Rate

REAL GDP GROWTH

Actual figures and projections of Thailand real GDP growth for 2013-2015

Category	2013	2014	2015 (percentage year on year)
GDP	2.9	1.5	3.5
Total consumption	1.0	0.8	1.7
Private consumption	0.2	0.3	1.5
Government consumption	4.9	3.4	2.5
Gross fixed capital formation (public and private investments)	1.9	2.8	6.9
Private Investment	2.8	3.0	6.0
Public Investment	1.3	1.9	10
Total domestic demand	1.3	2.3	3.9
Exports (volume)	4.2	0.7	6.4
Exports (value)	0.2	0.7	5.2
	(\$225.41 bn)	(\$227.21 bn)	(\$ 239.03 bn)
Exports of goods	0.2	1.8	5
Exports of services	19.7	2.9	11
Net foreign demand	12.4	23.8	1.6

Source: The Nation NATION GRAPHICS

Source: The Nation

Figure 2.7 Thailand's Real GDP Growth Rate

Table 2.3 Thailand GDP Growth by Sectors

	2015F	2016F
GDP growth	3.0	3.7
Private consumption	2	2.7
Private investment	2.7	5.4
Government consumption	3.3	3.1
Government investment	16.3	4.2
Exports	2.2	3.3
Imports	2.7	4.4

Source: Bank of Thailand

2.8.1 Inflation

Thailand Economic Watch: Inflation dips further, but rate to be on hold
Announced: November inflation.

Table 2.4 November Headline Inflation

Actual:	-0.97% YoY	Previous: -0.77% YoY
Consensus:	-0.9% YoY	Phatra: -0.74% YoY
November inflation -0.97% YoY		

Source: Bank of Thailand

November headline inflation was -0.97% YoY, falling from -0.77% YoY in October and below expectations. Core inflation was 0.88% YoY.

Month-on-month, headline inflation also fell 0.32% while core inflation rose only 0.05%. A fall in inflation was driven by weaker-than-expected vegetable and fruit prices which declined by 4.5% MoM, and a drop in retail domestic oil prices (-2% MoM). Meanwhile other items such as prepared food, apparel, medical and personal care, housing and recreation increased modestly.

Policy rate to maintain at 1.5%, subdued inflation and a slow pace of recovery in the economy would support the Bank of Thailand to keep its current accommodative stance. Thus we maintain our view that the policy rate will be kept unchanged at 1.5% at the Monetary Policy Committee meeting on 16 December, and we forecast the policy rate will be raised by only 25bps to 1.75% by end-2016.

Table 2.5 Consumer Price Index

Table 1: Consumer price index (% change YoY)

	Weight	Jul-15 %YoY	Aug-15 %YoY	Sep-15 %YoY	Oct-15 %YoY	Nov-15 %YoY
Headline CPI	100.00	-1.05	-1.19	-1.07	-0.77	-0.97
Food and beverages	33.48	1.10	1.27	1.31	1.75	0.88
Non-food and beverages	66.52	-2.22	-2.52	-2.36	-2.12	-1.99
Apparel and footwear	3.06	0.48	0.46	0.46	0.41	0.49
Housing and furnishing	24.14	0.44	0.30	0.12	0.10	0.08
Medical and personal care	6.54	0.87	0.71	0.89	1.01	0.94
Transportation and communication	25.54	-6.95	-7.58	-7.08	-6.50	-6.12
-Motor fuel		-22.5	-24.7	-23.6	-21.9	-21.1
Recreation and education	6.03	1.25	1.27	1.31	1.25	1.26
Tobacco and alcoholic beverages	1.20	2.01	2.01	2.15	2.14	1.78
Core CPI	73.09	0.94	0.89	0.96	0.95	0.88

Source: MoC

Table 2: Consumer price index (% change MoM)

	Weight	Jul-15 %MoM	Aug-15 %MoM	Sep-15 %MoM	Oct-15 %MoM	Nov-15 %MoM
Headline CPI	100.00	-0.07	-0.23	-0.05	0.20	-0.32
Food and beverages	33.48	0.41	0.09	0.11	0.45	-0.63
Non-food and beverages	66.52	-0.34	-0.39	-0.14	0.06	-0.16
Apparel and footwear	3.06	0.03	0.04	0.13	0.04	0.15
Housing and furnishing	24.14	0.00	-0.03	-0.15	0.03	0.05
Medical and personal care	6.54	-0.01	0.02	0.29	0.16	0.04
Transportation and communication	25.54	-1.05	-1.09	-0.31	0.06	-0.51
-Motor fuel		-3.92	-4.09	-1.25	0.28	-2.06
Recreation and education	6.03	0.52	0.06	0.02	0.02	0.01
Tobacco and alcoholic beverages	1.20	0.02	-0.01	0.08	0.02	0.03
Core CPI	73.09	0.10	0.03	0.07	0.05	0.05

Source: MoC

Source: Ministry of Commerce



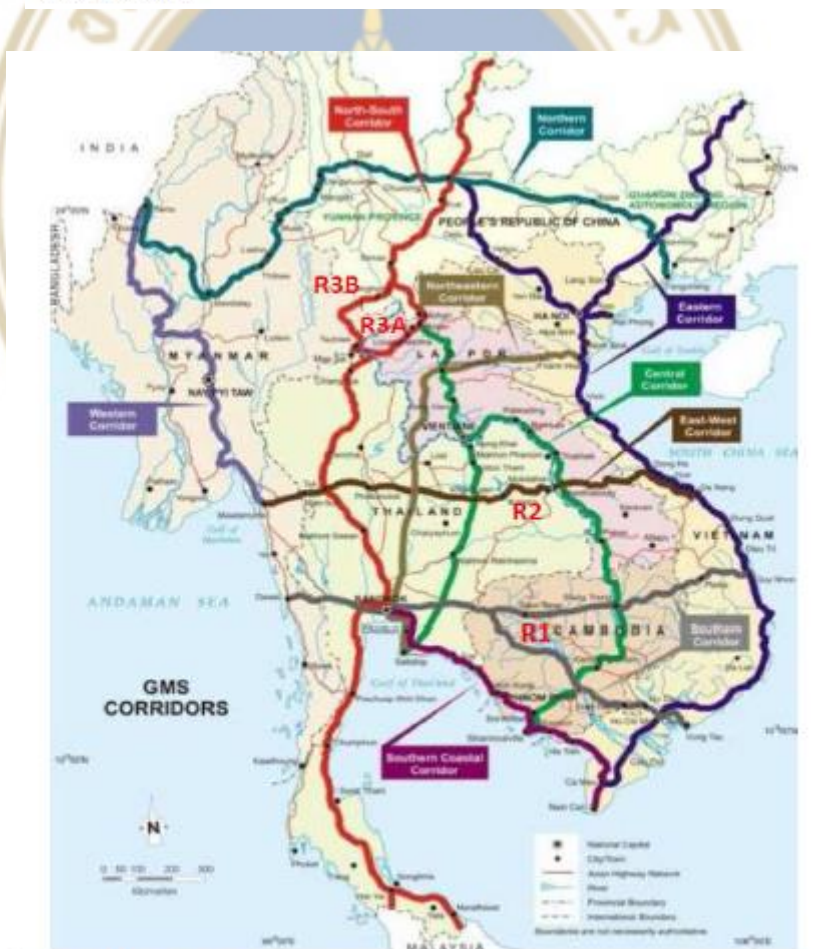
Source: Trading Economics

Figure 2.8 Exchange Rate – (5 years THB/USD)





Source: NESDB.



Source: Ministry of Transport

Source: Ministry of Transport
Figure 2.9 Government Investment – Thailand

Table 2.6 Motorway Projects

Motorway Projects	Distance (KM)	Value (MB)
Bangpa-in/ Saraburi/ Nakorn Ratchasima	196	84,000
Bang yai/ Baan Pong/ Kanchanaburi	96	56,000
Pattaya/ Maptaphut	32	20,200
Nakornpathom/ Cha-Am	118	44,000
Bangpa-in/ Nakorn Sawan	206	37,000
Total	648	241,200

Source: Department of Highways

Table 2.7 Budgets for Related Road Construction

	2011	2012	2013	2014	2015
Department of Highways	48,800	46,944	52,966	52,759	61,378
Rural Highways Department	26,178	25,296	33,951	38,045	40,597
Total	74,978	72,240	86,918	90,804	101,975
% Change	60.10%	-3.70%	20.30%	4.50%	12.30%

Source: Bureau of the Budget / Ministry of Transport



Source: Trading Economics

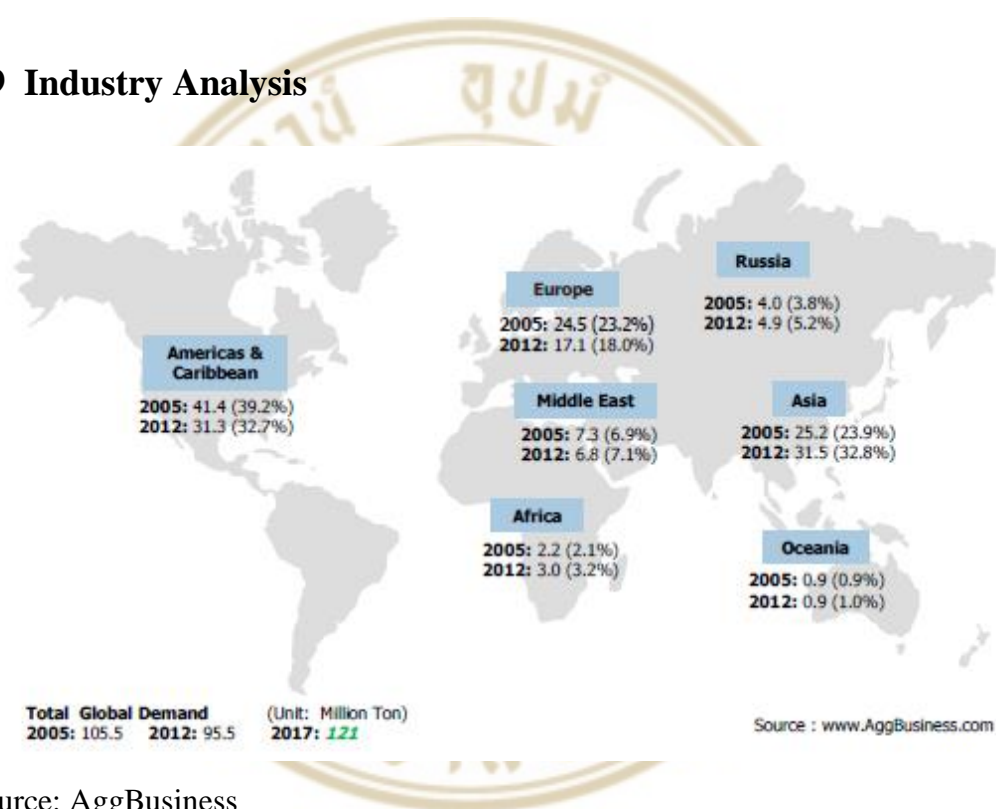
Figure 2.10 Crude Oil Price – ICE BRENT

Table 2.8 Inflation

	2015E		2016E	
	15-Jun	15-Sep	15-Jun	15-Sep
Headline inflation(% YoY)	-0.5	-0.9	1.6	1.2
Core inflation(% YoY)	-1.0	1.0	1.0	0.8

Source: Bank of Thailand

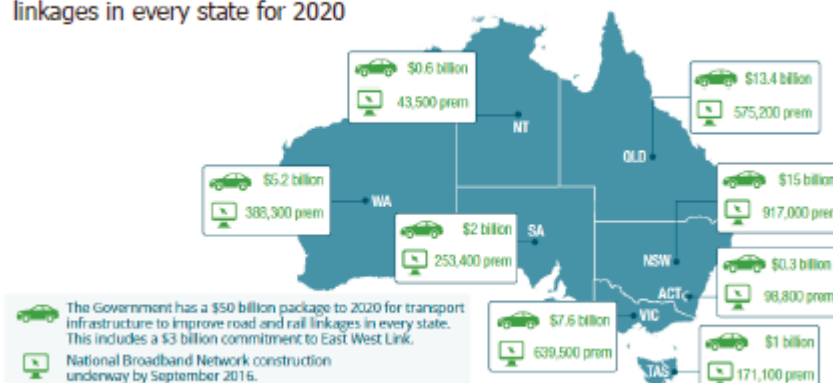
2.9 Industry Analysis



Source: AggBusiness

Figure 2.11 Global Asphalt Demands

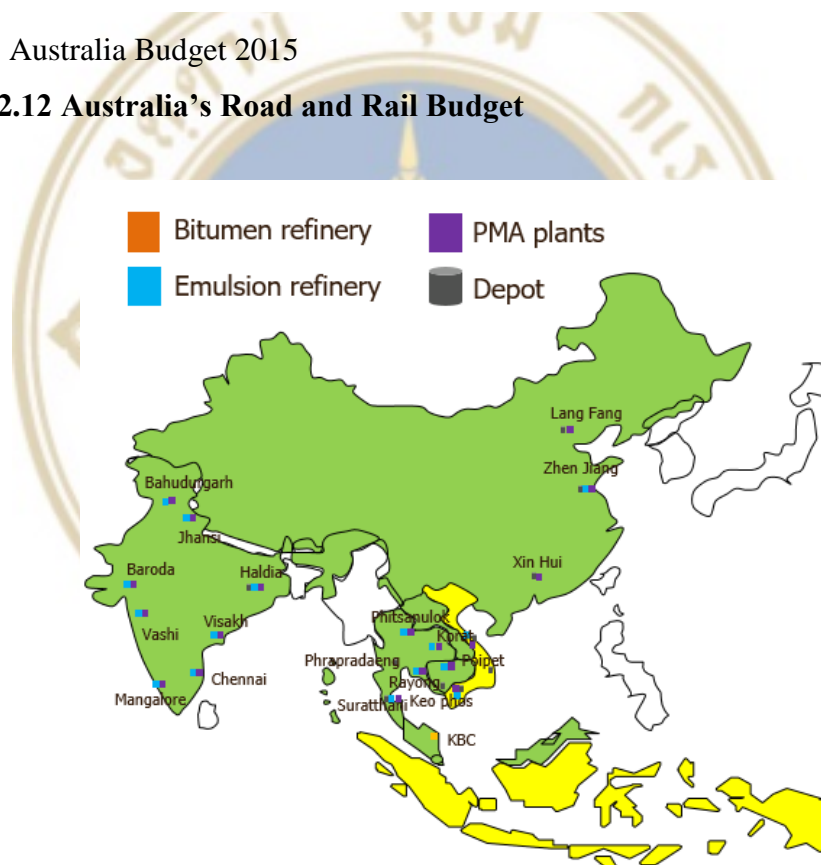
The Government's \$50 billion infrastructure commitment is improving road and rail linkages in every state for 2020



Source: Australia budget 2015

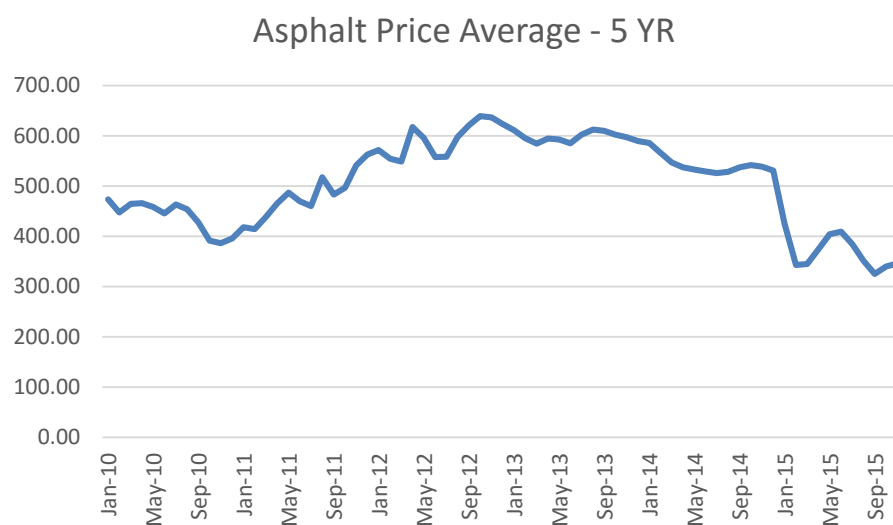
Source: Australia Budget 2015

Figure 2.12 Australia's Road and Rail Budget



Source: Company

Figure 2.13 TASCO's Coverage



Source: Argus Report

Figure 2.14 Asphalt Price – ex Sing to Malaysia

2.10 Discounted Cash Flow Assumptions

Table 2.9 Company's Supply Target

Supply Source 2020	Description
KBC Refinery	Production : 50,000 / Day Asphalt : 2,000,000 Tons Other Products : 1,000,000 Tons
Asphalt supply (Other Refinery)	Current: 520,000 Tons
Petroleum Trading	1,000,000 Tons
Bitumen mixed	1,200,000 Tons
Total Asphalt & Petroleum (Round up)	6,000,000 Tons

Source: Company

Table 2.10 Investment Plan

In thousand THB

Tasco's Project	Estimates					
	2015	2016	2017	2018	2019	2020
Vessel	897,250	897,250	897,250			
Refinery	897,250	897,250	897,250	897,250		
Truck		80,000	80,000	80,000		
Plant Automation & Relocation					50,000	
M&A	2,218,002					

Source: Company

Table 2.11 Weighted Average Cost of Capital (WACC)

Key Assumptions	Year 2015 - 201	Year 2020 Going Forward
Sales Growth (%)	19.80%	3.5%
COGS (%)	83.25%	
SG&A (%)	2.24%	
Tax Rate (%)	20%	

TTM (Yrs.)	Yield (%)
1	1.50
2	1.57
3	1.74
4	1.96
5	2.25
6	2.43
7	2.53
8	2.61
9	2.64
10	2.70

Cost of Debt	2.70%
1 - Effective Tax Rate	0.8
Effective Tax Rate	0.2
Total Pre-Tax Cost of Debt	2.393%
Note Rate x ST Debt to Total Debt	0.384%
ST Debt to Debt	25.60%
x Note Rate	1.50%
+ Bond Rate x LT Debt to Total Debt	2.0%
LT Debt to Total Debt	74.40%
x Bond Rate	2.70%
x Debt Adjustment Factor	1.41
Total Debt	3172.3
ST Debt	812.13
LT Debt	2360.2

Source: thaibma

Table 2.12 Revenue Growth Assumptions – Volume by Country

Country	2014	2015F	Volume %
Australia	86,145	112,192	6.04%
China	286,958	283,040	20.14%
Indonesia	218,961	351,293	15.36%
Vietnam	80,895	161,978	5.68%
Thailand	484,394	507,381	33.99%
Malaysia	186,328	160,000	13.07%
Cambodia	28,923	30,000	2.03%
Others	52,558	34,972	3.69%
Total	1,425,162	1,640,856	

Source: Company

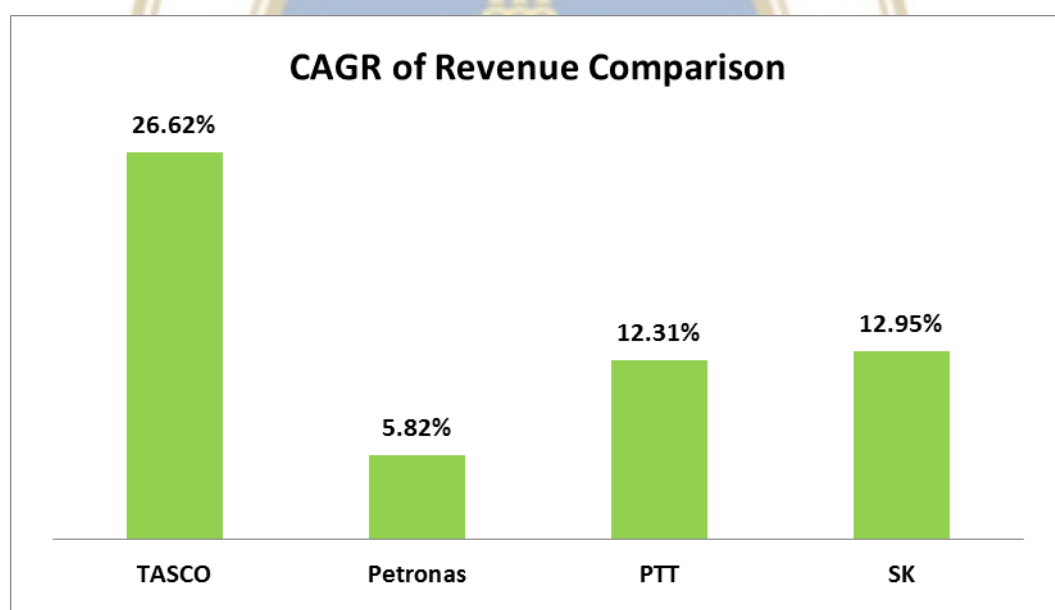
**Figure 2.15 CAGR of Revenue Comparison**

Table 2.13 Free Cash Flow to Firm (2015-2019)

Free cash flow to firm : FCFF		1	2	3	4	5
<i>EBIT</i>	1,555,297,603	5,695,760,844	6,449,187,956	7,725,873,087	9,255,291,574	11,087,474,666
<i>Tax</i>	176,350,380	1,105,085,931	1,251,546,548	1,506,877,385	1,812,750,012	2,179,185,897
<i>NOPAT</i>		4,590,674,913	5,197,641,408	6,218,995,702	7,442,541,562	8,908,288,769
<i>Dep</i>		467,341,439	747,726,195	837,054,016	919,304,662	924,162,481
<i>WC</i>	6,331,195,054	5,235,045,998	6,312,821,184	7,564,619,642	9,055,712,089	10,840,889,221
<i>chg. In WC</i>	-	1,096,149,056	1,077,775,186	1,251,798,458	1,491,092,447	1,785,177,132
<i>NET CAPEX</i>		4,012,502,000	1,874,500,000	1,874,500,000	977,250,000	50,000,000
<i>FCFF</i>		2,141,663,408	2,993,092,417	3,929,751,260	5,893,503,778	7,997,274,118
<i>Terminal value</i>						115,701,328,665
<i>FCFF</i>		2,141,663,408	2,993,092,417	3,929,751,260	5,893,503,778	123,698,602,783
<i>PVFCFF</i>		1,935,460,974	2,444,480,242	2,900,445,228	3,931,030,156	74,564,276,044
<i>PV of Firm</i>	85,775,692,643					
<i>Non-Operating Asset</i>	-					
<i>Net Debt</i>	7,100,195,537					
<i>EQUITY</i>	78,675,497,106					
<i>No. of Share</i>	1,543,850,070					
<i>Target Stock Price</i>	50.96					



2.11 Income Statement including Projections

Table 2.14 Income statement including projections

	2010	2011	2012	2013	Unit: Baht 2014
Revenues	26,298,267,344	23,019,808,342	38,378,963,687	34,094,166,764	46,200,211,527
Revenue from sales and services income	25,790,959,610	22,303,811,809	37,663,155,183	33,934,919,398	45,727,305,483
Gain on exchange	431,000,474	26,143,187	567,189,427	35,305,530	409,440,044
Others	76,307,260	80,762,164	98,310,237	123,941,836	63,466,000
Compensation received from claims for damages		609,091,182	50,308,840		
Cost of sale	24,175,621,109	21,089,409,349	36,561,708,970	32,194,941,734	43,722,786,454
Cost of sales and services	24,185,256,425	20,764,374,987	35,754,713,865	32,271,716,606	44,816,416,396
(Gain) loss from price hedging contracts	(1,918,585)	325,980,217	805,913,511	(84,606,270)	(1,451,672,684)
Reduction of cost of inventory to net realisable value	(7,716,731)	(945,855)	1,081,594	7,831,398	358,042,742
Gross margin	2,122,646,235	1,930,398,993	1,817,254,717	1,899,225,030	2,477,425,073
Gross margin of sales and services income	2,122,646,235	1,930,398,993	1,817,254,717	1,899,225,030	2,477,425,073
Share of profit (loss) Associates	5,069,659	33,952,035	35,323,425	46,207,339	48,851,296
Total other income	5,069,659	33,952,035	35,323,425	46,207,339	48,851,296
Selling & Administrative expenses	679,512,023	713,057,207	702,920,934	785,330,333	797,288,826
- Allowance for doubtful accounts (reversal)	8,754,940	3,519,871	31,475,421	(19,669,545)	165,723,156
- Impairment loss of equipment and vessel			20,834,537	1,756,500	7,966,784
- Impairment loss of investment properties		198,935,174	4,767,500		
- Loss from claim under bank guarantee	5,313,374				
- Impairment loss of assets held for sales		1,182,718	4,800,298		
Total expenses	693,580,337	916,694,970	764,798,690	767,417,288	970,978,766
EBIT	1,434,135,557	1,047,656,058	1,087,779,452	1,178,015,081	1,555,297,603
Finance costs	280,935,403	238,334,556	282,340,477	194,704,205	221,838,007
Income tax expenses	118,735,498	88,353,746	129,589,957	121,703,983	176,350,380
Net profit (loss)	1,034,464,656	720,967,756	675,849,018	861,606,893	1,157,109,216

Table 2.14 Income statement including projections (cont.)

	2015	2016	2017	2018	2019	Unit: Baht 2020
Revenues	37,569,870,219	45,007,224,345	53,916,881,572	64,590,299,907	77,376,634,562	92,694,159,722
Revenue from sales and services income	37,226,538,202	44,595,926,116	53,424,162,497	64,000,041,868	76,669,528,686	91,847,074,742
Gain on exchange	240,224,379	287,779,342	344,748,314	412,994,898	494,751,616	592,692,944
Others	103,107,637	123,518,887	147,970,760	177,263,141	212,354,259	254,392,036
Compensation received from claims for damages	-	-	-	-	-	-
Cost of sale	31,052,175,941	37,573,392,518	45,011,443,921	53,921,936,458	64,596,355,461	77,383,888,877
Cost of sales and services	30,965,545,439	37,469,612,589	44,887,119,655	53,773,000,885	64,417,936,513	77,170,150,006
(Gain) loss from price hedging contracts	11,804,473	14,141,294	16,940,713	20,294,307	24,311,780	29,124,555
Reduction of cost of inventory to net realisable value	74,826,029	89,638,635	107,383,553	128,641,266	154,107,168	184,614,316
Gross margin	6,517,694,278	7,433,831,827	8,905,437,651	10,668,363,449	12,780,279,100	15,310,270,845
Gross margin of sales and services income	6,517,694,278	7,433,831,827	8,905,437,651	10,668,363,449	12,780,279,100	15,310,270,845
Share of profit (loss) Associates	56,879,000	68,138,801	81,627,599	97,786,648	117,144,552	140,334,557
Total other income	56,879,000	68,138,801	81,627,599	97,786,648	117,144,552	140,334,557
Selling & Administrative expenses	841,400,595	1,007,964,764	1,207,502,075	1,446,539,913	1,732,897,825	2,075,943,322
- Allowance for doubtful accounts (reversal)	37,411,838	44,817,908	53,690,088	64,318,610	77,051,161	92,304,255
- Impairment loss of equipment and vessel	-	-	-	-	-	-
- Impairment loss of investment properties	-	-	-	-	-	-
- Loss from claim under bank guarantee	-	-	-	-	-	-
- Impairment loss of assets held for sales	-	-	-	-	-	-

Table 2.14 Income statement including projections (cont.)

Unit: Baht

	2015	2016	2017	2018	2019	2020
Total expenses	878,812,433	1,052,782,672	1,261,192,163	1,510,858,523	1,809,948,986	2,168,247,577
EBIT	5,695,760,844	6,449,187,956	7,725,873,087	9,255,291,574	11,087,474,666	13,282,357,826
Finance costs	170,331,188.88	191,455,214.37	191,486,163.80	191,541,513.88	191,545,181.29	191,546,676.30
Income tax expenses	1,105,085,931	1,251,546,548	1,506,877,385	1,812,750,012	2,179,185,897	2,618,162,230
Net profit (loss)	4,420,343,724	5,006,186,193	6,027,509,538	7,251,000,048	8,716,743,588	10,472,648,920



2.12 Balance Sheet including Projections

Table 2.15 Balance sheet including projections

	2010	2011	2012	2013	<i>Unit: Baht</i> 2014
Balance sheet					
Cash and cash equivalents	299,920,234	1,001,818,734	739,597,042	495,434,890	276,988,052
Marketable securities (pro forma differentiated)					
Current investments	52,106,331	-	-	-	-
Trade and other receivables	1,974,906,078	3,687,503,063	5,347,921,360	3,966,572,674	4,017,943,397
Inventories	3,531,813,724	5,743,778,747	7,048,482,865	9,349,415,454	3,817,828,985
Price hedging contracts	-	67,791,020	27,359,301	134,593,745	199,321,453
Forward exchange contracts	33,191,002	3,845,478	7,801,110	1,625,030	1,520,238
Other current assets	111,562,705	70,073,650	104,971,269	270,943,416	95,864,518
Total current assets	6,003,500,074	10,574,810,692	13,276,132,947	14,218,585,209	8,409,466,643
Assets held for sales - Vessels			45,423,693		
Investment in associates joint ventures and/or jointly-control entities, equity method	26,728,900	41,639,567	60,648,740	110,520,585	124,002,346
Investment properties - net	-	204,200,000	199,432,500	199,432,500	199,432,500
Property, plant and equipment - net	4,235,614,150	4,247,666,676	4,595,800,707	5,246,623,305	5,652,535,869
Goodwill	146,293,504	146,293,504	146,293,504	146,293,504	146,293,504
Intangible assets - net	10,489,063	7,735,064	19,972,993	21,790,227	28,932,785
Leasehold right - net	212,589,564	220,175,110	207,872,195	217,812,961	382,414,570
Deferred tax assets	28,255,793	-	106,845,698	102,407,897	192,921,996
Other non-current assets	12,567,048	11,948,686	11,331,624	10,052,516	9,117,436
Deposits with financial institutions with restrictions	72,572,960	66,038,240	-	-	-
Total non-current assets	4,745,110,982	4,945,696,847	5,393,621,654	6,054,933,495	6,735,651,006
Total assets	10,748,611,056	15,520,507,539	18,669,754,601	20,273,518,704	15,145,117,649
Short-term loans from financial institutions	2,338,748,570	3,784,809,127	8,236,833,408	9,416,459,737	4,094,130,521
Trade accounts payable	747,225,288	3,485,909,495	2,202,837,490	1,611,815,321	1,314,381,616
Price hedging contracts	143,635,479	27,996,342	12,708,499	119,813,680	242,627,513
Forward exchange contracts	7,112,334	13,763,714	502,902	7,812,219	1,109,549
Current portion of long-term loans	440,672,549	480,388,584	596,304,373	688,820,992	783,842,280
Current portion of liabilities under finance lease agreements	10,645,976	12,230,076	8,595,644	7,009,538	4,173,305
Income tax payable	36,846,145	24,330,283	69,328,878	13,735,830	206,816,451

Table 2.15 Balance sheet including projections (cont.)

	2010	2011	2012	2013	Unit: Baht 2014
Cash received from former co-venture	50,765,211	-	-	-	-
Other Current Liabilities	207,915,071	86,572,337	26,039,584	228,942,475	36,348,408
Total current liabilities	3,983,566,623	7,915,999,958	11,153,150,778	12,094,409,792	6,683,429,643
LT Loan (pro forma differentiated)					
Long-term loans from financial institutions	3,095,327,506	3,073,593,282	2,364,592,294	2,179,870,256	2,214,432,030
Long-term loan from related party	-	-	7,227,108	7,950,789	7,790,706
Liabilities under finance lease agreements	14,593,707	12,767,587	13,415,586	8,279,000	4,019,905
Interest rate swap contracts	27,112,769	10,082,962	19,445,155	22,250,378	22,794,355
Provision for long-term employee benefits	-	65,128,682	69,231,320	69,821,799	87,634,839
Total Non-current liabilities	3,137,033,982	3,161,572,513	2,473,911,463	2,288,172,222	2,336,671,835
Total liabilities	7,120,600,605	11,077,572,471	13,627,062,241	14,382,582,014	9,020,101,478
<i>Authorized share capital</i>	<i>1,525,476,630</i>	<i>1,690,024,290</i>	<i>1,700,437,290</i>	<i>1,710,599,290</i>	<i>1,721,233,290</i>
Issued and paid-up share capital	1,525,476,630	1,525,480,680	1,525,480,680	1,525,808,680	1,532,779,570
Premium on ordinary shares	886,091,137	886,112,274	886,112,274	887,824,106	916,250,081
Share subscription	-	-	-	-	7,748,118
Non-controlling interests of subsidiary acquired at price lower than book value	6,237,755	6,237,755	6,237,755	6,237,755	6,237,755
Change in the Company's interest in subsidiary not result in loss of control	-	12,904,468	12,904,468	12,904,468	308,455,017
Capital reserve for share-based payment	-	4,644,652	13,140,737	23,254,939	38,432,931
Retained earnings	872,452,405	1,551,566,037	2,165,311,519	2,844,181,935	3,883,881,849
Retained earnings - appropriated legal and statutory reserves	94,203,000	115,503,000	140,503,000	162,053,000	172,123,329
Retained earnings (deficit) - unappropriated	778,249,405	1,436,063,037	2,024,808,519	2,682,128,935	3,711,758,520
Other components of equity - other surplus (deficit)	-	-	-	-	-
Equity attributable to equity holders of parent	3,046,148,578	3,849,950,157	4,424,665,998	5,241,706,538	5,955,321,564
Non-controlling interests	581,861,873	592,984,911	618,026,362	649,230,152	169,694,607
Total equity	3,628,010,451	4,442,935,068	5,042,692,360	5,890,936,690	6,125,016,171
Total liabilities and shareholder equity	10,748,611,056	15,520,507,539	18,669,754,601	20,273,518,704	15,145,117,649

Table 2.15 Balance sheet including projections (cont.)

	2015	2016	2017	2018	2019	<i>Unit: Baht</i> 2020
Balance sheet						
Cash and cash equivalents	1,376,493,543	3,190,757,999	5,740,214,205	10,012,057,899	16,098,578,894	23,177,131,684
Marketable securities (pro forma differentiated)	-	-	-	-	-	-
Current investments						
Trade and other receivables	3,267,379,239	3,914,191,600	4,689,047,326	5,617,293,957	6,729,296,850	8,061,432,506
Inventories	3,104,646,813	3,719,244,565	4,455,508,459	5,337,523,595	6,394,142,980	7,659,931,373
Price hedging contracts	85,813,104	102,975,725	110,012,665	126,543,338	124,933,257	110,055,618
Forward exchange contracts	9,596,572	4,877,686	5,084,127	4,540,730	5,123,871	5,844,597
Other current assets	130,683,112	134,507,193	147,393,902	155,878,428	132,865,430	140,265,613
Total current assets	7,974,612,382	11,066,554,767	15,147,260,683	21,253,837,948	29,484,941,282	39,154,661,391
Investment in associates joint ventures and/or jointly-control entities, equity method						
	124,002,346	124,002,346	124,002,346	124,002,346	124,002,346	124,002,346
Investment properties - net						
Property, plant and equipment - net	9,222,637,941	10,372,726,431	11,431,966,500	11,510,284,496	10,655,165,955	9,817,595,406
Goodwill	146,293,504	146,293,504	146,293,504	146,293,504	146,293,504	146,293,504
Intangible assets - net	17,784,026	19,243,019	21,544,610	21,858,934	21,872,675	20,460,653
Leasehold right - net	357,473,620	334,158,935	312,364,851	291,992,192	272,948,253	255,146,372
Deferred tax assets	192,921,996	192,921,996	192,921,996	192,921,996	192,921,996	192,921,996
Other non-current assets	11,003,462	10,690,745	10,439,157	10,260,663	10,302,292	10,539,264
Deposits with financial institutions with restrictions						
Total non-current assets	10,271,549,896	11,399,469,976	12,438,965,963	12,497,047,131	11,622,940,021	10,766,392,541
Total assets	18,246,162,278	22,466,024,743	27,586,226,646	33,750,885,079	41,107,881,302	49,921,053,932
Short-term loans from financial institutions						
Trade accounts payable	1,068,851,096	1,280,441,503	1,533,918,473	1,837,573,898	2,201,341,133	2,637,119,949
Price hedging contracts	100,786,509	100,786,509	115,344,542	135,871,750	139,083,364	118,374,535
Forward exchange contracts	6,060,144	5,849,706	4,266,904	5,019,704	4,461,201	5,131,532
Current portion of long-term loans						
Current portion of liabilities under finance lease agreements	4,173,305	4,173,305	4,173,305	4,173,305	4,173,305	4,173,305
Income tax payable	70,211,517	76,884,592	87,395,454	91,008,769	106,463,357	86,392,738

Table 2.15 Balance sheet including projections (cont.)

	2015	2016	2017	2018	2019	Unit: Baht 2020
Cash received from former co-venture						
Other Current Liabilities	117,163,575	99,013,276	101,501,464	116,593,839	94,124,112	105,679,253
Total current liabilities	1,367,246,146	1,567,148,889	1,846,600,141	2,190,241,265	2,549,646,472	2,956,871,311
LT Loan (pro forma differentiated)	7,090,933,865	7,092,080,141	7,094,130,144	7,094,265,974	7,094,321,344	7,093,146,294
Long-term loans from financial institutions						
Long-term loan from related party						
Liabilities under finance lease agreements	4,019,905	4,019,905	4,019,905	4,019,905	4,019,905	4,019,905
Interest rate swap contracts	22,794,355	22,794,355	22,794,355	22,794,355	22,794,355	22,794,355
Provision for long-term employee benefits	87,634,839	87,634,839	87,634,839	87,634,839	87,634,839	87,634,839
Total Non-current liabilities	7,205,382,964	7,206,529,240	7,208,579,243	7,208,715,073	7,208,770,443	7,207,595,393
Total liabilities	8,572,629,110	8,773,678,129	9,055,179,384	9,398,956,338	9,758,416,916	10,164,466,703
<i>Authorized share capital</i>	<i>1,721,233,290</i>	<i>1,721,233,290</i>	<i>1,721,233,290</i>	<i>1,721,233,290</i>	<i>1,721,233,290</i>	<i>1,721,233,290</i>
Issued and paid-up share capital	1,532,779,570	1,532,779,570	1,532,779,570	1,532,779,570	1,532,779,570	1,532,779,570
Premium on ordinary shares	916,250,081	916,250,081	916,250,081	916,250,081	916,250,081	916,250,081
Share subscription	7,748,118	7,748,118	7,748,118	7,748,118	7,748,118	7,748,118
Non-controlling interests of subsidiary acquired at price lower than book value	6,237,755	6,237,755	6,237,755	6,237,755	6,237,755	6,237,755
Change in the Company's interest in subsidiary not result in loss of control	-	-	-	-	-	-
Capital reserve for share-based payment	308,455,017	308,455,017	308,455,017	308,455,017	308,455,017	308,455,017
Retained earnings	38,432,931	38,432,931	38,432,931	38,432,931	38,432,931	38,432,931
Retained earnings - appropriated legal and statutory reserves	7,432,398,846	11,451,212,292	16,289,912,940	22,110,794,419	29,108,330,065	37,515,452,906
Retained earnings (deficit) - unappropriated	172,123,329	172,123,329	172,123,329	172,123,329	172,123,329	172,123,329
Other components of equity - other surplus (deficit)	121,553,723	121,553,723	121,553,723	121,553,723	121,553,723	121,553,723
Equity attributable to equity holders of parent	9,503,838,561	13,522,652,007	18,361,352,655	24,182,234,134	31,179,769,780	39,586,892,621
Non-controlling interests	169,694,607	169,694,607	169,694,607	169,694,607	169,694,607	169,694,607
Total equity	9,673,533,168	13,692,346,614	18,531,047,262	24,351,928,741	31,349,464,387	39,756,587,228
Total liabilities and shareholder equity	18,246,162,278	22,466,024,743	27,586,226,646	33,750,885,079	41,107,881,302	49,921,053,932

2.13 Statement of Cash Flow including Projections

Table 2.16 Statement of cash flow including projections

	2010	2011	2012	2013	2014
<i>Unit: Baht</i>					
Operating Activities CF					
Profit Before Income Tax	1,153,200,154	809,321,503	805,438,975	983,310,876	1,333,459,596
Adjustments to reconcile profit:					
Depreciation & Amortization	379,389,133	405,168,063	418,850,240	434,352,337	493,205,243
Written-off withholding tax Allowance for doubtful accounts (reversal)	142,676	172,881	1,177,404	10,751	352,233
Reduction of cost of inventories to net realisable value (reversal)	8,754,940	3,519,871	31,475,421	(19,669,545)	165,723,156
Dividend income from subsidiaries	(7,716,731)	(945,855)	1,081,594	7,831,398	358,042,742
Dividend income from associate	-	-	-	-	-
Loss on disposal of investment in subsidiary	-	-	-	-	-
Unrealised (gain) loss on exchange rate	425,560	(77,495,243)	(46,386,441)	249,370,473	26,899,952
Realised gain on exchange from amendment of LT Loan Agreement	-	-	-	(28,988,684)	-
(Gain) loss on sales of equipment and vessel	(8,366,101)	(26,364,266)	(2,761,185)	(8,318,007)	6,748,277
Loss from write-off of equipment	-	10,909,175	-	-	-
Loss from claim under bank guarantee	5,313,374	-	-	-	-
Impairment loss of assets held for sales	-	-	4,800,298	-	-
Impairment loss of investment properties	-	198,935,174	4,767,500	-	-
Impairment loss of land	-	1,182,718	-	-	-
Impairment loss of equipment and vessel	-	-	20,834,537	1,756,500	7,966,784
Share of profit from investment in joint venture	-	-	-	-	-
Share of profit from investment in associate	(5,069,659)	(33,952,035)	(35,323,425)	(46,207,339)	(48,851,296)
Share-based payment transactions	-	4,644,652	8,496,085	10,114,202	15,177,992
Provision for long-term employee benefits	-	10,136,168	10,269,170	9,397,208	14,092,171
Change in fair value of forward exchange contracts	(35,467,665)	35,996,904	(17,216,444)	13,485,397	(6,597,878)
Change in fair value of price hedging contracts	1,348,787	34,350,997	25,143,876	(129,263)	58,086,125
Unrealised (gain) loss on price hedging contracts	103,311,836	(183,430,156)	-	-	-
Change in fair value of interest rate swap contract	(12,705,544)	(9,934,060)	22,637,827	3,550,518	3,114,567
Interest expenses	254,559,473	212,688,620	250,515,438	179,624,390	203,017,945
Profit from operating activities before changes in NWC	1,837,120,233	1,394,905,111	1,503,800,870	1,789,491,212	2,630,437,609
Less: Change in Net Working Capital	1,472,740,993	(6,336,258,843)	(1,839,006,275)	(666,384,091)	5,359,476,119
(Increase) decrease in operating assets	1,297,650,580	(3,818,922,488)	(3,198,159,949)	(1,102,968,043)	4,888,809,397

Table 2.16 Statement of cash flow including projections (cont.)

	<i>Unit: Baht</i>				
	2010	2011	2012	2013	2014
<i>Trade and other receivables</i>	282,865,881	(1,617,595,903)	(1,737,761,316)	1,415,991,486	(215,078,259)
<i>Inventories</i>	1,086,407,065	(2,211,019,168)	(1,293,721,153)	(2,308,969,227)	4,964,282,921
<i>Other current assets</i>	(58,912,243)	6,331,101	(73,572,920)	(210,018,640)	140,002,398
<i>Other non-current assets</i>	(12,710,123)	3,361,482	(93,104,560)	28,338	(397,663)
<i>Increase (decrease) in operating liabilities</i>	(175,090,413)	2,517,336,355	(1,359,153,674)	(436,583,952)	(470,666,722)
<i>Trade and other payables</i>	(197,025,311)	2,642,242,318	(1,280,789,497)	(631,176,805)	(271,414,413)
<i>Other current liabilities</i>	21,934,898	(124,905,963)	(78,364,177)	194,592,853	(199,252,309)
<i>Cash flows from operating activities</i>	2,959,680,400	93,318,978	(3,053,512,753)	249,939,217	7,048,580,284
<i>Cash paid for interest expenses</i>	(255,072,130)	(214,252,553)	(260,374,184)	(165,736,319)	(211,339,132)
<i>Cash paid for corporate income tax</i>	(125,322,689)	(110,008,915)	(38,476,765)	(162,329,515)	(73,529,835)
<i>Net CF from Operating Activities</i>	2,579,285,581	(230,942,490)	(3,352,363,702)	(78,126,617)	6,763,711,317
Investing Activities CF					
<i>Decrease in restricted bank deposits</i>	(8,305,208)	56,133,919			
<i>Cash receipts from redemption of investment in amortising debentures</i>	2,467,240	1,341,120			
<i>Cash receipts from business transfer to subsidiary</i>			66,065,220	-	-
<i>Cash paid for investment in subsidiary</i>				-	-
<i>Cash receipts from disposal of investment in subsidiary</i>				-	-
<i>Dividend received from subsidiaries</i>				-	-
<i>Dividend received from associate</i>		18,920,803	16,789,105	-	32,569,417
<i>Increase (Decrease) in short-term loans to related party</i>				-	-
<i>Increase in long-term loans to related party</i>				-	-
<i>Acquisition of equipment</i>	(514,421,880)	(624,843,912)	(725,051,764)	(842,195,847)	(852,238,448)
<i>Acquisition of computer software</i>	(12,453,809)	(1,721,100)	(17,212,991)	(4,369,546)	(9,340,297)
<i>Acquisition of leasehold rights</i>					-
<i>Proceeds from sales of equipment and vessel</i>	12,376,220	32,932,298	6,612,691	57,957,383	14,925,939
<i>Cash received from claim under bank guarantee</i>	492,453,117				
<i>Net CF from Investing Activities</i>	(27,884,320)	(517,236,872)	(652,797,739)	(788,608,010)	(814,083,389)
Financing Activities CF					
<i>Cash paid to acquisition of non-controlling interests of subsidiaries</i>					(727,065,000)
<i>Increase (decrease) in short-term loans from banks</i>	(3,270,339,075)	1,520,708,943	4,483,942,513	937,729,804	(5,344,207,626)
<i>Decrease in short-term loans from financial institutions</i>	-				

Table 2.16 Statement of cash flow including projections (cont.)

	<i>Unit: Baht</i>				
	2010	2011	2012	2013	2014
<i>Increase in short-term loan from related party</i>	-	-			
<i>Cash paid under finance lease agreements</i>	(12,696,525)	(9,376,057)	(9,452,812)	(8,674,693)	(7,816,035)
<i>Cash receipt from long-term loans</i>	1,868,982,850	799,432,164	700,128,119	488,288,300	826,642,317
<i>Repayment of long-term loans</i>	(888,602,013)	(841,287,735)	(1,244,331,016)	(622,410,446)	(706,974,360)
<i>Cash receipts from increase in share capital</i>		25,187	-	2,039,832	35,396,865
<i>Cash receipts from shares subscription</i>			-	-	7,748,118
<i>Dividend paid to shareholders</i>			(190,644,272)	(152,466,060)	(153,140,945)
<i>Dividend paid to non-controlling interests of subsidiaries</i>	(36,921,215)	(33,802,320)	(6,220)	(22,750,000)	(22,750,240)
Net CF from Financing Activities	(2,339,575,978)	1,435,700,182	3,739,636,312	621,756,737	(6,092,166,906)
Exchange differences on translation of f/s in foreign currencies	(19,382,655)	14,377,680	3,303,437	815,738	(75,907,860)
Net Increase in Cash	192,442,628	701,898,500	(262,221,692)	(244,162,152)	(218,446,838)
Cash Balance: Beginning	107,477,606	299,920,234	1,001,818,734	739,597,042	495,434,890
<i>Add: Net Increase in Cash</i>	<i>192,442,628</i>	<i>701,898,500</i>	<i>(262,221,692)</i>	<i>(244,162,152)</i>	<i>(218,446,838)</i>
Cash Balance: Ending	299,920,234	1,001,818,734	739,597,042	495,434,890	276,988,052

	<i>Unit: Baht</i>					
	2015F	2016F	2017F	2018F	2019F	2020F
Operating Activities CF						
<i>Net Profit (Loss)</i>	<i>4,420,343,724</i>	<i>5,006,186,193</i>	<i>6,027,509,538</i>	<i>7,251,000,048</i>	<i>8,716,743,588</i>	<i>10,472,648,921</i>
<i>Add: Depreciation & Amortization</i>	<i>467,341,439</i>	<i>747,726,195</i>	<i>837,054,016</i>	<i>919,304,662</i>	<i>924,162,481</i>	<i>855,372,429</i>
<i>Less: Change in Net Working Capital</i>	<i>(1,096,149,056)</i>	<i>1,077,775,186</i>	<i>1,251,798,458</i>	<i>1,491,092,447</i>	<i>1,785,177,132</i>	<i>2,183,942,481</i>
<i>Change in Current Asset</i>	<i>(1,534,359,752)</i>	<i>1,277,677,929</i>	<i>1,531,249,710</i>	<i>1,834,733,571</i>	<i>2,144,582,339</i>	<i>2,591,167,319</i>
<i>Change in Current Liabilities</i>	<i>(438,210,696)</i>	<i>199,902,744</i>	<i>279,451,252</i>	<i>343,641,124</i>	<i>359,405,207</i>	<i>407,224,839</i>
Net CF from Operating Activities	5,983,834,219	4,676,137,203	5,612,765,096	6,679,212,264	7,855,728,937	9,144,078,868
Investing Activities CF						
<i>Add Borrowing</i>	<i>448,625,000</i>					
<i>Less: Investment in PPE</i>	<i>(4,012,502,000)</i>	<i>(1,874,500,000)</i>	<i>(1,874,500,000)</i>	<i>(977,250,000)</i>	<i>(50,000,000)</i>	<i>-</i>
Net CF from Investing Activities	1,971,332,219	2,801,637,203	3,738,265,096	5,701,962,264	7,805,728,937	9,144,078,868

Table 2.16 Statement of cash flow including projections (cont.)

	<i>Unit: Baht</i>					
	2015F	2016F	2017F	2018F	2019F	2020F
Financing Activities						
CF						
<i>Less: Dividend on Common</i>	(871,826,728)	(987,372,747)	(1,188,808,890)	(1,430,118,569)	(1,719,207,942)	(2,065,526,078)
Net CF from Financing Activities	(871,826,728)	(987,372,747)	(1,188,808,890)	(1,430,118,569)	(1,719,207,942)	(2,065,526,078)
<i>Net Increase in Cash</i>	<i>1,099,505,491</i>	<i>1,814,264,456</i>	<i>2,549,456,206</i>	<i>4,271,843,694</i>	<i>6,086,520,995</i>	<i>7,078,552,790</i>
Cash Balance:				5,740,214,205	10,012,057,899	16,098,578,894
Beginning	276,988,052	1,376,493,543	3,190,757,999	5	99	894
<i>Add: Net Increase in Cash</i>	<i>1,099,505,491</i>	<i>1,814,264,456</i>	<i>2,549,456,206</i>	<i>4,271,843,694</i>	<i>6,086,520,995</i>	<i>7,078,552,790</i>
Cash Balance: Ending	1,376,493,543	3,190,757,999	5,740,214,205	10,012,057,899	16,098,578,894	23,177,131,684

2.14 Financial Ratios

Table 2.17 Summary of Key Financial Ratios

TASCO					
Financial Ratios	2010	2011	2012	2013	2014
Efficiency Ratio					
ROA	12.33%	7.98%	6.36%	6.05%	8.78%
ROE	31.92%	17.87%	14.25%	15.76%	19.26%
DuPont					
ROE	31.92%	17.87%	14.25%	15.76%	19.26%
= Profit Margin	3.93%	3.13%	1.76%	2.53%	2.50%
x Assets Turnover	2.26	1.75	2.25	1.75	2.61
x Equity Multiplier	3.59	3.25	3.60	3.56	2.95
Interest Burden %	0.80	0.77	0.74	0.83	0.86
Tax Burden %	0.90	0.89	0.84	0.88	0.87
WACC(%)	9.94%	8.39%	5.63%	6.51%	6.65%
ROIC(%)	16.01%	10.48%	10.87%	10.76%	13.64%
NOPAT(%)	4.36%	3.64%	2.27%	2.76%	2.69%
Profitability Ratios (%)					
Sales Growth	85.29%	-12.47%	66.72%	-11.16%	35.51%
Operating Growth	50.13%	-26.95%	3.83%	8.30%	32.03%

Table 2.17 Summary of Key Financial Ratios (cont.)

Operating EBITDA growth	32.87%	-19.46%	3.90%	6.74%	28.05%
Net profit growth	85.83%	-30.31%	-6.26%	27.49%	34.30%
EPS	6.78	4.73	4.43	5.65	7.55
Liquidity Ratio (x)					
Current Ratio	1.76	4.15	3.01	2.46	1.87
Quick Ratio (x)	0.67	1.83	1.39	0.99	0.78
Turnover Ratios					
Assets Turnover	2.26	1.75	2.25	1.75	2.61
Accounts Receivable Turnover	12.51	8.13	8.50	7.32	11.57
Inventory Turnover	5.94	4.55	5.72	3.93	6.64
Fixed Asset Turnover	5.21	4.75	7.46	5.98	7.22
Accounts Payable Turnover	38.61	9.96	12.85	16.88	29.88
Cash Conversion Cycle (CCC)	81.19	88.53	78.42	121.19	74.29
= Inventory Conversion Period (ICP)	61.47	80.27	63.85	92.95	54.96
+ Receivable Collection Period (RCP)	29.18	44.89	42.97	49.86	31.54
- Payable Deferral Period (PDP)	9.45	36.63	28.40	21.62	12.21
Leverage Ratio					
Debt Ratio	66.25%	71.37%	72.99%	70.94%	59.56%
Debt to Equity Ratio	1.963	2.493	2.702	2.441	1.473
Dividend Payout	0.00%	0.00%	28.21%	17.71%	13.25%
Times Interest Earned (TIE)	5.10	4.40	3.85	6.05	7.01
Operating Performance (%)					
Gross Margin	8.07%	8.39%	4.74%	5.57%	5.36%
Operating Margin	5.45%	4.55%	2.83%	3.46%	3.37%
EBITDA Margin	6.68%	6.15%	3.83%	4.60%	4.35%
D/E (incl. minor)(x)	1.96	2.49	2.70	2.44	1.47
BV (bt)	2.38	2.91	3.31	3.86	4.00
Current Ratio(x)	1.76	4.15	3.01	2.46	1.87
Gearing Ratio(x)	0.66	0.71	0.73	0.71	0.60
Interest Coverage (x)	5.10	4.40	3.85	6.05	7.01

Petronas Dagangan Bhd					
Financial Ratios	2010	2011	2012	2013	2014
Efficiency Ratio					
ROA	14.51%	12.54%	13.30%	11.44%	7.27%
ROE	17.20%	14.97%	17.93%	16.96%	10.50%
DuPont					

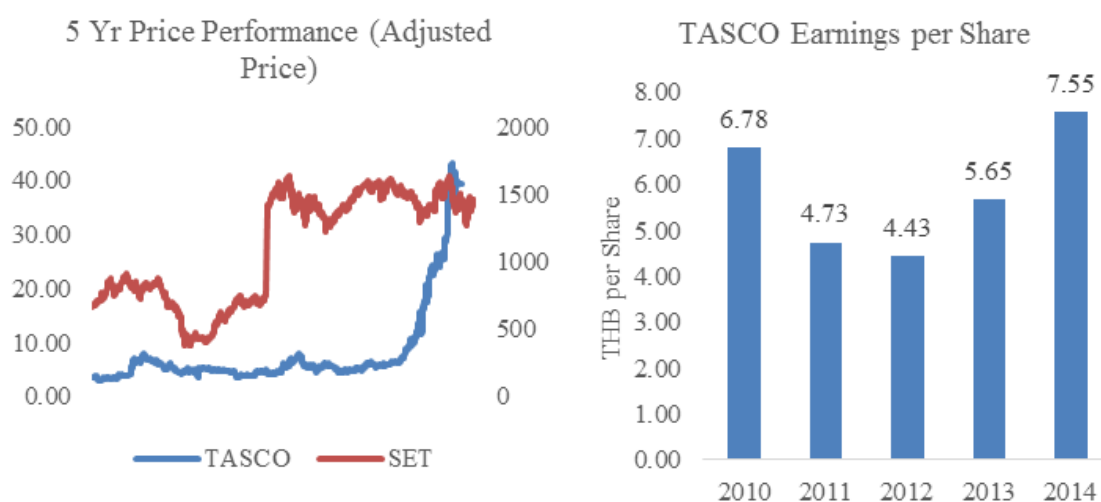
Table 2.17 Summary of Key Financial Ratios (cont.)

ROE	17.20%	14.97%	17.93%	16.96%	10.50%
= Profit Margin	3.66%	2.96%	2.86%	2.53%	1.57%
x Assets Turnover	2.86	3.08	3.34	3.28	3.22
x Equity Multiplier	1.64	1.64	1.88	2.04	2.08
Interest Burden %	1.00	0.99	0.99	0.98	0.97
Tax Burden %	0.72	0.73	0.72	0.74	0.72
WACC(%)			5.34%	5.97%	6.50%
ROIC(%)	17.82%	14.48%	18.40%	17.72%	11.56%
NOPAT(%)	3.96%	3.18%	3.11%	2.72%	1.76%
Profitability Ratios (%)					
Sales Growth	-15.10%	7.64%	32.55%	9.58%	0.00%
Operating Growth	29.17%	-13.57%	29.64%	-4.01%	-35.29%
Operating EBITDA growth	25.30%	-17.59%	30.23%	-1.63%	-25.91%
Net profit growth	30.21%	-12.97%	27.90%	-2.88%	-37.95%
EPS	0.76	0.66	0.85	0.82	0.51
Liquidity Ratio (x)					
Current Ratio	2.12	2.98	3.10	2.42	2.40
Quick Ratio (x)	1.74	2.45	2.52	1.93	1.89
Turnover Ratios					
Assets Turnover	2.86	3.08	3.34	3.28	3.22
Accounts Receivable Turnover	10.28	11.07	9.03	7.68	7.70
Inventory Turnover	34.62	37.26	32.52	27.61	26.17
Fixed Asset Turnover	5.30	5.71	7.42	7.85	7.51
Accounts Payable Turnover	8.03	8.64	8.94	8.19	7.32
Cash Conversion Cycle (CCC)					
= Inventory Conversion Period (ICP)	10.54	9.80	11.22	13.22	13.95
+ Receivable Collection Period (RCP)	35.50	32.98	40.41	47.50	47.41
- Payable Deferral Period (PDP)	45.46	42.23	40.82	44.59	49.85
Leverage Ratio					
Debt Ratio	41.73%	50.90%	51.17%	52.50%	49.77%
Debt to Equity Ratio	0.716	1.037	1.048	1.105	0.991
Dividend Payout	16.00%	15.00%	31.00%	126.00%	0.00%
Times Interest Earned (TIE)	307.84	112.18	110.57	58.77	34.76
Operating Performance (%)					
Gross Margin	9.57%	7.58%	7.51%	6.91%	5.90%
Operating Margin	5.07%	4.07%	3.98%	3.49%	2.26%
EBITDA Margin	6.62%	5.07%	4.98%	4.47%	3.31%
D/E (incl. minor)(x)	0.72	1.04	1.05	1.11	0.99

Table 2.17 Summary of Key Financial Ratios (cont.)

BV (bt)	45.89	48.18	48.79	48.48	45.40
Current Ratio(x)	2.12	2.98	3.10	2.42	2.40
Gearing Ratio(x)	0.42	0.51	0.51	0.52	0.50
Interest Coverage (x)	307.84	112.18	110.57	58.77	34.76

2.15 TASC0's Performance vs. Share Prices

**Figure 2.16 Performances vs. Share Prices**

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