

**DISCOUNTED CASH FLOW VALUATION OF GFPT 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
2018**

COPYRIGHT OF MAHIDOL UNIVERSITY

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

was submitted to the College of Management, Mahidol University
for the degree of Master of Management

on
January 6, 2018



.....
Miss Chanjilar Panyakorn
Candidate

.....
Asst. Prof. Nareerat Taechapiroontong,
Ph.D.
Advisor

.....
Asst. Prof. Piyapas Tharavanij,
Ph.D.
Chairperson

.....
Duangporn Arbhasil,
Ph.D.
Dean
College of Management
Mahidol University

.....
Assoc. Prof. Tatre Jantarakolica,
Ph.D.
Committee member

ACKNOWLEDGEMENTS

This thematic paper would not have been possible without the support of the professors. I would like to take this opportunity to express my deep gratitude to Asst. Prof Dr. Nareerat Tachapiroontong, my research advisor for the valuable advice for my paper.

I am especially indebted to Asst. Prof. Dr. Piyapas Tharavanij for his patient guidance, enthusiastic encouragement and useful critiques of this research work. My grateful thanks are also extended to Ajarn Vasan Siraprapasiri, who have been supportive of my career goals. Without all the academic advisors, I would not have completed this paper.

I wish to thank Ms. Kamonchat Vonglodjanaporn and other classmates for their excellent support and knowledge-sharing. Their collaboration helped completing my study and paper.

Finally, nobody has been more important to me than the members of my family. I would like to thank my parents, whose love and guidance are with me in whatever I pursue.

Chanjilar Panyakorn

DISCOUNTED CASH FLOW MODEL: FREE CASH FLOW TO FIRM OF GFPT PUBLIC COMPANY LIMITED

CHANJILAR PANYAKORN 5949038

M.M. (FINANCIAL MANAGEMENT)

THEMATIC PAPER ADVISORY COMMITTEE: ASST. PROF. NAREERAT TAECHAPIROONTONG, Ph.D., ASST. PROF. PIYAPAS THARAVANIJ, Ph.D., ASSOC. PROF. TATRE JANTARAKOLICA, Ph.D.

ABSTRACT

This thematic paper demonstrated how to value the stock price of GFPT Public Company Limited (GFPT). The valuation of GFPT was derived from an adjusted present value method to determine the appropriated intrinsic stock value. The process starts with creating a forecast, calculating a reasonable valuation, and recommendation whether to buy, sell, or hold.

GFPT is one of the Thailand chicken processors and marketers which provides products and services to customers both domestic and international markets. With the aim to be a leading chicken meat exporter with its fully vertical integrated chicken production, it acts as a parent holding company of the group which operates a fully vertical integrated chicken production which includes feed mill, breeder farm, hatchery farm, broiler farm, chicken evisceration and processed food. Its main products of the group are cooked chicken products, fresh and frozen chicken meat, processed food, land animal feed, and aquatic animal feed.

The company show growth potential as the outlook for Thai frozen and processed chicken industry is strongly positive due to both domestic demand and growing demand from export markets. This method is suitable under the assume length of timeframe where GFPT was forecasted for ten years from Y2017 to Y2026. The adjusted present value method (APV) method arrived at the value per common share of THB 18.20. Therefore, the appropriated target price for GFPT under an adjusted present value method is THB18.20 with the recommendation of "BUY"

KEY WORDS: Valuation/ Discounted Cash Flow Model/ Poultry Business/ Chicken Meat/ Broiler Farm/ Feed Mill

70 pages

CONTENTS

	Page
ACKNOWLEDGEMENTS	ii
ABSTRACT	iii
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS	xi
CHAPTER I VALUATION	1
1.1 Highlights	1
1.1.1 Fundamentals and valuation are indicative of a BUY	1
1.1.2 Positive outlook for chicken demand consumption	1
1.1.3 Operational excellence from being a fully vertical integration	2
1.2 Business Description	2
1.2.1 Company Overview	2
1.2.2 Revenue Structure	2
1.2.3 Business Strategy	4
1.2.4 Corporate Governance	5
1.3 Macro Economics Analysis	6
1.3.1 Strong World Economic Outlook	6
1.3.2 Growth in Population and Poultry Consumption	7
1.3.3 Political Support Growth of Thai Economy	8
1.3.4 Volatility of Oil Price Raise Production Cost	9
1.4 Industry Analysis	9
1.4.1 Main Chicken Producers in the World	9
1.4.2 Lifted of Import Ban on Thai Frozen Chicken Meat	10
1.4.3 Export Market Recovering from Consumers Confidence	12
1.4.4 Volatility of Raw Materials Price	13

CONTENTS (cont.)

	Page
1.5 Competition Analysis	14
1.5.1 Domestic Market	15
1.5.2 International Market	15
1.6 Investment Summary	16
1.6.1 Cyclical Stock that Moves with the Markets	16
1.6.2 Strong Demand Accelerates Business Growth	17
1.6.4 Domestic Market	17
1.6.5 International Market	18
1.6.6 Operational Excellence	19
1.6.7 Pursuing Organic Growth by Investing in Capital Expenditure	19
1.6.8 Market Expansion through a Joint Venture Company	20
1.7 Valuation	20
1.7.1 Adjusted Present Value Method	20
1.7.2 Growth Assumption	21
1.7.3 Costs of Good Sold Assumption	23
1.7.4 Tax Assumption	24
1.7.5 Capital Expenditure Assumption	25
1.7.6 Dividend Policy Assumption	26
1.7.7 Discounted Factor Assumption	26
1.7.8 Discounted Cash Flow Model: Free Cash Flow to Firm	28
1.7.9 Impact and Application	30
1.8 Financial Analysis	31
1.8.1 Summary figures	31
1.8.2 Common Size Analysis	33
1.8.3 Trend Analysis	36
1.8.4 Financial Ratios	40

CONTENTS (cont.)

	Page
1.8.5 Short Term Liquidity Risk	42
1.8.6 Long Term Solvency Risk	43
1.9 Investment Risks and Downside Possibilities	44
1.9.1 Environmental Risk	44
1.9.2 Regulatory Risk	45
1.9.3 Market Risk	45
1.9.4 Operational Risk	45
1.9.5 Financial Risk	46
CHAPTER II DATA	48
2.1 Company History	48
2.1.1 1981-1989: - The early years	48
2.1.2 1990-1999: - The company expansion	48
2.1.3 2000-2010: - The company expansion	49
2.1.4 2010-2015: - Recent years	49
2.2 Management and Organizational Chart	50
2.3 Income Statement	53
2.4 Statements of Financial Position	54
2.5 Statement of Cash Flows	57
2.6 SWOT Analysis	59
2.6.1 Strengths (S)	59
2.6.2 Weakness (W)	60
2.6.3 Opportunities (O)	60
2.6.4 Threats (T)	62
2.7 Five-Force Model Analysis	63
2.7.1 Threat of New Entrants (Low)	63
2.7.2 Threat of Substitutes (Moderate)	63
2.7.3 Bargaining Power of Customers (Low)	64

CONTENTS (cont.)

	Page
2.7.4 Bargaining Power of Suppliers (Low)	64
2.7.5 Industry Rivalry (Moderate)	65
2.8 Disclosures	65
REFERENCES	67
BIOGRAPHY	70



LIST OF TABLES

Table	Page
1.1 Financial Performance	5
1.2 Chicken Meat Production, Consumption and Export in Thailand	18
1.3 Global Chicken Meat Consumption by Country (in Thousand Tons)	18
1.4 Japan Chicken Meat Import (in Thousand Tons)	18
1.5 Share of Profit from Associates (in Million Baht)	20
1.6 Growth Assumptions	21
1.7 Growth Year 2 and 3 Assumptions	22
1.8 Tax Benefit and Privileges	24
1.9 Cost of Equity for Unlevered Firm	26
1.10 Cost of Equity for Terminal Value of Tax Benefit	27
1.11 Adjusted Present Value Valuation	29
1.12 GFPT Target Price	29
1.13 Sensitivity Analysis	30
1.14 Scenario Analysis	30
1.15 Common Size of Income Statement	34
1.16 Financial Position Comparison	35
2.1 Board of Directors	51
2.2 Executive Committee (EC)	52
2.3 Income Statement, Historical	53
2.4 Statements of Financial Position (Assets), Historical	54
2.5 Statements of Financial Position (Liabilities and Shareholders' Equity), Historical	55
2.6 Statement of Cash Flows, Historical	57
2.7 Chicken Meat Exports of Thailand 2016	59

LIST OF FIGURES

Figure	Page
1.1 Five-Force Model	1
1.2 Revenue Structure 2016	4
1.3 Global Real GDP Growth	6
1.4 Thailand Population and Chicken Consumption	7
1.5 Thailand GDP Growth	8
1.6 World Broiler Production	9
1.7 Broiler Meat Production by Countries	10
1.8 Thailand Exports Volume	11
1.9 Exports Volume	12
1.10 Broiler Meat Exports by Countries	12
1.11 Price for feed ingredients	13
1.12 GFPT's Revenue vs Thailand Real GDP	16
1.13 GFPT Consolidated Revenue Y2007 – Y2016	17
1.14 GFPT Gross Profit Margin	19
1.15 Capital Expenditure Assumptions	25
1.16 Cost of Debt	27
1.17 Formula for terminal value of tax benefit	28
1.18 Income Statement	32
1.19 Financial Position	33
1.20 Common Size of Financial Position	34
1.21 Trend Analysis of Income Statement	37
1.22 GFPT: Trend Analysis of Financial Position (Asset)	38
1.23 TFG: Trend Analysis of Financial Position (Asset)	38
1.24 GFPT: Trend Analysis of Financial Position (Liabilities and Equities)	39
1.25 TFG: Trend Analysis of Financial Position (Liabilities and Equities)	39
1.26 Financial Ratios: Return	40

LIST OF FIGURES (cont.)

Figure	Page
1.27 Financial Ratios: Return	41
1.28 Financial Ratios: Short term Liquidity Risk	42
1.29 Financial Ratios: Cash Conversion Cycle	43
1.30 Financial Ratios: Long term Solvency risk	43
1.31 Risk Matrix	44
2.1 Organizational Chart	50
2.2 Historical BRL/USD Exchange Rate (2012 – 2017)	61
2.3 Five-Force Model Analysis	63



LIST OF ABBREVIATIONS



BV	Book Value
CARG	Compound Annual Growth Rate
CAPEX	Capital Expenditure
CCI	Consumer Confidence Index
COGS	Cost of Goods Sold
D/E	Debt/Equity
EBIT	Earnings before Interest and Taxes
EBITDA	Earnings before Interest, Taxes, and Depreciations
EPS	Earnings per share
EU	European Union
EV	Enterprise value
GDP	Gross Domestic Products
Kd	Cost of Debt
Ke	Cost of Equity
NI	Net Income
NOPAT	Net Operating Profit after Taxes
NOWC	Net Operating Working Capital
P/E	Price/Earning
Rf	Risk free
ROA	Return on Assets
ROE	Return on Equity
SET	Stock Exchange of Thailand
SGA	Selling, General, Administrative Expense
SWOT	Strength, Weakness, Opportunity, and Threats.
YoY	Year on Year

CHAPTER I

VALUATION

1.1 Highlights

1.1.1 Fundamentals and valuation are indicative of a BUY

With the target price at THB 18.20 at the end of Y2017, there is an approximately 30% upside gain. As GFPT's business is based on commodity products; therefore, GFPT has low bargaining power of both suppliers and customers. Coupled with the advantage of being a fully vertical integration of chicken business, threat of new entrants is low.

1.1.2 Positive outlook for chicken demand consumption

The demand for chicken meat consumption has been increased from time to time in both domestic and international market, especially in Japan market. The underlying reasons for this raising are that the price for chicken meat is rather cheaper than other meats and the nutrition of chicken meat is preferred by health-conscious consumers rather than other meats. As a result, the revenue compound annual growth rate from Y2007 to Y2016 is 9% per annum, allowing GFPT to rank No.6 in Thai chicken production and No.3 in Thai chicken export.



Figure 1.1 Five-Force Model

Source: Company Form 56-1

1.1.3 Operational excellence from being a fully vertical integration

GFPT is a fully integrated poultry business which covers feed mill, grandparent chicken farm, parent chicken farm, broiler farm, chicken evisceration and processed food production. It continues to reducing production cost by expanding backward integration to improve cost efficiency, utilizing modern machinery to increase production efficiency, improving feed formula that contains high nutrition, developing chicken farming system to prevent outside germs, and implementing a traceability system in order to track and monitor the quality throughout the production process. With this integration, GFPT is enable to exploit the advantage of cost and quality control throughout the production process.

1.2 Business Description

1.2.1 Company Overview

GFPT Public Company Limited (“GFPT”) was incorporated on 25 November 1981 and listed in Thailand Stock Exchange (“SET”) on 27 March 1992 with a quoted symbol of “GFPT.” Currently, GFPT has registered capital of 1.4 billion Baht and already paid-up of 1.25 billion Baht.

GFPT is one of the Thailand chicken processors and marketers which provides products and services to customers both domestic and international markets. With the aim to be a leading chicken meat exporter with its fully vertical integrated chicken production, it acts as a parent holding company of the group which operates a fully vertical integrated chicken production which includes feed mill, breeder farm, hatchery farm, broiler farm, chicken evisceration and processed food. Its main products of the group are cooked chicken products, fresh and frozen chicken meat, processed food, land animal feed, and aquatic animal feed.

1.2.2 Revenue Structure

In 2016, the revenue of the company and its subsidiaries consisted of 43.19% from evisceration and processed chicken business, 23.41% from feed mill business, 29.03%

from chicken farms and day-old chicken's distribution business and 5.37% from processed foods business.

- **Food Segment:** Food segment is the largest portion of GFPT's consolidated sales, represented 48.56% of total sales in Y2016. The revenue from this segment consisted of revenue from chicken evisceration and processed chicken at 43.19% of total sales and revenue from processed foods at 5.37% of total sales.

Chicken evisceration and processed chicken's main products are fresh frozen chicken parts, cooked chicken products and chicken by-products. Under this sub-segment, 50.45% of total sales comes from (1) revenue from selling chicken meats to its subsidiaries for export, indirect export, at 43.36% of total domestic sales, (2) revenue from selling export quality products to local processed foods manufacturers for export, indirect export, at 8.45% of total domestic sales, and (3) revenue from selling chicken by-products to local wholesalers and retailers at 48.19% of total domestic sales. The remaining of 49.55% of total sales comes from direct export.

Chicken processed foods are being operated solely under GF Foods Company Limited ("GFF"), a subsidiary of GFPT. Its main products are sausages, chicken nuggets, and other products under GF Foods. Under this sub-segment, GFF sells solely to fresh market customers and provincial customers, local middlemen.

- **Farm Segment:** Farm segment is the second largest portion of GFPT's consolidated sales, represented at 29.03% of total sales in Y2016. The main products from this segment are (1) day-old-chick which are operated by GP Breeding Company Limited ("GP") and Krungthai Farm Company Limited ("FKT") and (2) live broiler which are operated by M.K.S. Farm Company Limited ("MKS"). All revenue in this segment comes from inter-company transactions, especially revenue from selling live broilers to GFPT Nichirei (Thailand) Company Limited ("GFN"), a joint-venture company. Since GFN has started its operation in 2010, the revenue from farm segment has been increasing continuously.

- **Feed Segment:** Feed segment represented 23.41% of consolidated sales in Y2016. Main products are animal feed, shrimp feed, and fish feed. 65% of total revenue in this segment comes from selling of chicken feed to its subsidiaries and 35% of total revenue in this segment comes from selling of non-chicken feed to local animal raisers both land & aquatic animals.

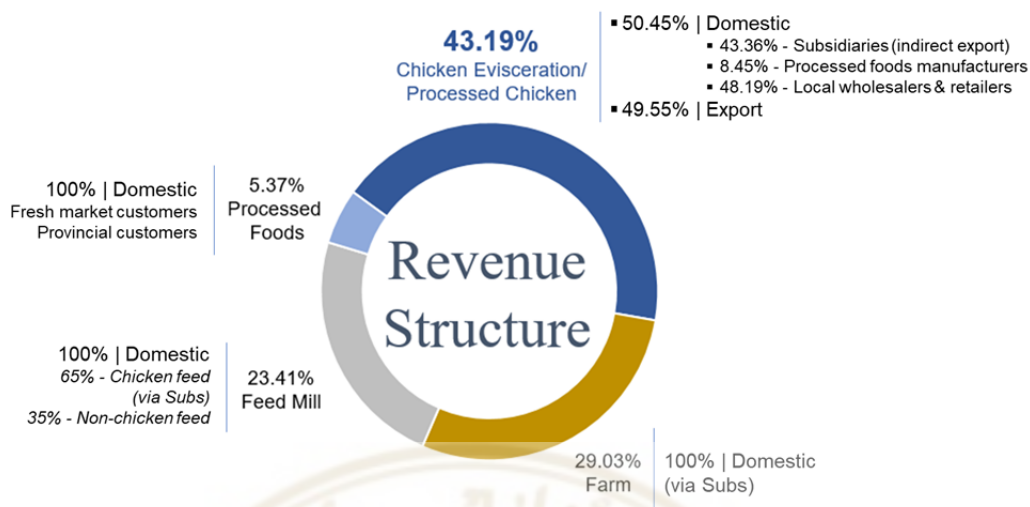


Figure 1.2 Revenue Structure 2016

- Domestic Market: GFPT's domestic revenue represented 77% of total revenue. The company maintains its position as one of the leading broiler companies in Thailand. Domestic consumption was the main supporting factor of GFPT's business achievement.
- International Market: In 2016, growth in export volume strongly supported the consolidated revenue from sales. International revenue represented 23% of total revenue. The company has expected growth of chicken meat in the export market will continue to rise as the import ban has been lifted in several countries and the ongoing low feed costs.

1.2.3 Business Strategy

Striving to be a leading chicken meat exporter with its fully vertically integrated chicken production and agriculture, GFPT has committed to enhance product quality to meet international standards of EN regulations on food safety and animal welfare. The company also emphasizes on the food safety by selecting the finest raw materials and placing strict control in all production processes to ensure that products are valued by both domestic and international customers and trying to achieve the traceability system.

Throughout the years, the company has significantly expanded its business vertically as well as expanded the production capacity in order to meet the excess demand in both domestic and international markets.

Nowadays, GFPT is the parent company of the group which operates chicken production and distribution of frozen chicken meat, processed chicken, and its by-products under the customers' and company brand names for both domestic and overseas markets. In 2016, GFPT had chicken processing capacity of 122,000 tons per year and cooked chicken products capacity of 32,000 tons per year from the plant located at Samutprakarn.

Resulting from the successful visionary management, GFPT's financial performance has been continuously developed as indicated by looking at EPS, ROA, ROE and Net Profit Margin as per below table.

Table 1.1 Financial Performance

Period	Y/E '13	Y/E '14	Y/E '15	Y/E '16	Q3 '17
as of	12/31/2013	12/31/2014	12/31/2015	12/31/2016	9/30/2017
Financial Data					
Assets	13,103	13,737	14,976	16,160	16,814
Liabilities	5,645	5,004	5,533	5,381	4,981
Equity	7,370	8,633	9,327	10,658	11,705
Paid-up Capital	1,254	1,254	1,254	1,254	1,254
Revenue	17,231	18,401	16,950	17,394	13,182
Net Profit	1,504	1,780	1,195	1,644	1,424
EPS (Baht)	1.20	1.42	0.95	1.31	1.14
Financial Ratio					
ROA(%)	13.21	14.17	9.17	12.59	13.67
ROE(%)	23.28	22.24	13.31	16.45	17.52
Net Profit Margin(%)	8.73	9.67	7.05	9.45	10.80

Source: The Stock Exchange of Thailand

1.2.4 Corporate Governance

GFPT is being held majority by Sirimongkolkasem family at 55.22% where 5.38% of total shares have significant influences on the business decision. The minor shareholders or free float is accounted for 44.88%.

According to the Thai Institute of Director ("IOD"), GFPT CG score has been improved from a 'Good' level during 2006 – 2015 to an 'Excellent' level in 2016 which is the highest level. GFPT also achieves the Top Quartile Award for being the first 25% highest CG score among listed companies with market capital more than 10 billion Baht.

1.2.4.1 Board Control: Even though there are 3 independent directors in the board members, the chairman and the managing director are from

Sirimongkolkasem family. In addition, most of members in board of directors and executive committee are denominated by Sirimongkolkasem family.

1.2.4.2 Good Corporate Governance Policy: To ensure a good corporate governance, GFPT has been implementing the Good Corporate Governance Policy throughout the organization and review on the annually basis. This policy covers various aspects as specified under SET such as Rights of Shareholders, Equitable Treatment for All Shareholders, Interests of Other Stakeholders, Disclosure and Transparency, Structure of the Board.

1.2.4.3 Qualified Auditor: Sam Nak-Ngan A.M.C. Company Limited has been appointed as the company's auditor for year 2016. This audit firm is qualified and approved by the office of the Securities and Exchange Commission ("SEC").

1.3 Macro Economics Analysis

1.3.1 Strong World Economic Outlook

Global economic outlook continues to expand as expected from major economies driven by accelerated growth from the United State. According to the Organisation for Economic Co-operation and Development, the global Real Gross Domestic Product (GDP) growth is expected to grow at a rate of 3.5%, compared to 3.1% in Y2016. The expected inflation is 0.7%.

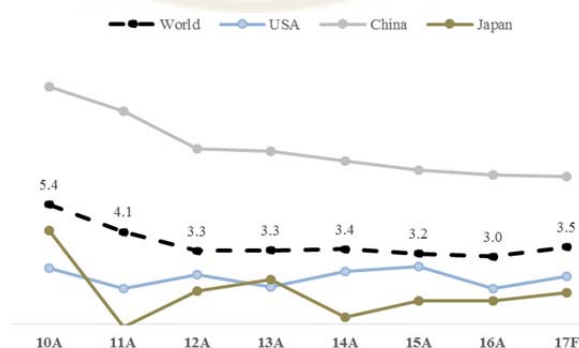


Figure 1.3 Global Real GDP Growth

Source: The Stock Exchange of Thailand

The United States' Real GDP growth is forecasted to increase by 2.1% with expected inflation at 2.1% in 2017, slightly better than real GDP growth in Y2016 at 1.6% with expected inflation at 2.2%. The economy is healthy, exports continue to expand and support industrial output while private consumption recovered even more. China's economy is going strong in both industrial and service sectors; however, export growth has slowed down partly due to the strong Chinese Yuan currency against US Dollar currency. The Real GDP growth is forecasted at +6.6% in Y2017, with expected inflation of 4.8%, slow down from last year at +6.7%.

The overall economy in Japan during the first four months of the year is still showing signs of relatively weak economic expansion. Although the export sector has improved but consumption in the country and production slowed down. Also a lack of wage growth in the economy leads to labor shortages problem and is likely to cause deflation. Though the economic direction is in good directions.

1.3.2 Growth in Population and Poultry Consumption

The increase in global population has led to a sharp increase in the demand of meat, especially in chicken meat. This is because chicken meat is cheaper and has lower fat content. In the year 2012-2016, there was an upward trend for the world chicken consumption approximately at 1.86% per annum. In 2016, world chicken consumption was 87.38 million tons, up from 86.96 million tons in 2015. The United States is the country with the highest consumption of chicken meat is consuming at 15.23 million tons, followed by China at 12.99 million tons and EU at 10.38 million tons.



Figure 1.4 Thailand Population and Chicken Consumption

Source: Indexmundi

Over the past century, the size of the Thai population has continuously increased. In 2010, there were 66.7 million people in the country. This number has jumped to 68.1 million people in 2016. Thai population has been growing approximately around 0.2-0.4% per annum for the 10 years. The growth rate is expected to continuously increase at 0.1-0.2% per annum in the next five years and the rate is expected to be even higher thereafter. With the growing population, the domestic consumption for poultry will surely upsurge and will increase the demand for the industry.

Considering the increasing trends in Thailand's population, the poultry consumption is expected to increase as well. The margin outlook for the global poultry industry is gradually improving after challenging conditions in the past. The main factors that are driving the recovery are increasing in demand, lower supply growth in key regions like USA, China, Thailand and Europe, and price support from recovering red meat markets. Globally, the market reports agree that the chicken production industry is remaining strong. Although, the overall trade between countries dropped by 5% per annum, the tight supply of the production can support the industry greatly.

1.3.3 Political Stable Support Growth of Thai Economy



Figure 1.5 Thailand GDP Growth

Source: Tradingeconomics

In 2014, the Thai army seized control over politics and this causes the Thai economy to grow steadily. According to the research, the earliest possible election date could be held in 2019. As a result, Thailand can expect a political stability in the coming years, which could help to support the growth of the economy. As shown in

the past three quarters of 2017, the GDP growth is sustained at 3.3%, 3.8%, and 4.3%. Although the GDP growth rate may grow insignificantly and fluctuated over the past 5 years. Domestic demand for chicken products is still expected to rise as chicken meat is cheaper than the other forms of meat and is considered as a good choice for consumers who prefer rich-nutrient diet. Thai economy is expected to grow at 3.9% for the year 2017. The growth mainly support by an increase in export value followed by private consumption.

1.3.4 Volatility of Oil Price Raise Production Cost

For decades, the global oil market has been volatile as suppliers could control supply and demand. Such a supplier could rise production when demand for oil is high and limit output when the market is saturated. The swings in the price of oil, both up and down, can cause an effects on companies, economies, and global situation. The spikes oil price can slow down economic growth and currently the oil market is unstable which is particularly challenging, for companies that rely on the price of oil. This is another obstacle and risk that may affect the production, the rising of oil price may lead to higher cost of raw feed materials so it'd has a direct effect on the cost of broiler.

1.4 Industry Analysis

1.4.1 Main Chicken Producers in the World

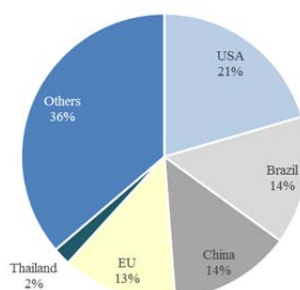


Figure 1.6 World Broiler Production

Source: USDA

In the year 2016, the world's quantity of broiler chicken production was around 89 million tons, growing at the rate of -0.03% from the year 2015. However, the global production is forecasted to grow at 1.2% in the year 2017-2018 to 90-91 million tons. The growth is mainly support the United States, Brazil, China, and the European Union. The combined output of the four major countries has accounted over 60% of the total global production. The United States was the largest producer, producing at 20 million tons, followed by Brazil at 15 million tons, and China at 12 million tons.

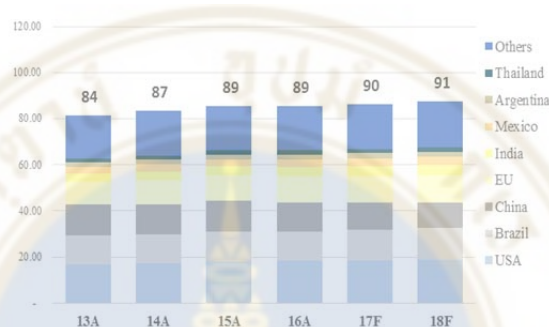


Figure 1.7 Broiler Meat Production by Countries

Source: USDA

Thailand's production of frozen and processed chicken ranked 9th in the global market at 2 million tonnes and this accounted for 2% of the total global production. Despite the overall global market dropped of -0.03%, Thailand's production increased in 2015 by 4.71% and is forecasted to increase by 6.7% to 2.2 million tonnes at the end of 2017 in response to the potential growth in the export (58% of the total consumption) and the domestic demand (42% of the total consumption).

1.4.2 Lifted of Import Ban on Thai Frozen Chicken Meat

The Avian flu problem back in 2004 that hit the poultry industries in Asian countries including Thailand impacted the export greatly. This incident had impacted over two million people in Thailand who were dependent on the poultry sectors. Thai frozen chicken and processed chicken industry was adversely hit by a ban on imports from major trading partners such as the EU, Japan, South Korea, Russia, Hong Kong, and South Africa.

After the hit of the flu, Thailand began to adopt a system called an evaporative air-cooling system, which help to contain the spread of the infectious disease by reducing the exposure of animals to diseases. Thailand has improved farming facilities and bio-security to ensure food safety and healthy animals. There has been no serious animal disease incidence for the Thai broiler industry in the recent years. After several years, the import ban was revoked and Thai products are accepted again with confidence in terms of quality and price. Countries continue to lift import ban on Thai frozen chicken meat after the EU lifted its ban on imports in July 2012, Japan in December 2013, and South Korea also lifted its longstanding ban on Thai uncooked chicken meat in November 2016. This helped to raise the export of chicken meat products. Other countries that have lifted their bans on Thai chicken meat include the EU, Japan, Hong Kong, South Africa, Bahrain, Russia, United Arab Emirates (UAE), and Qatar.

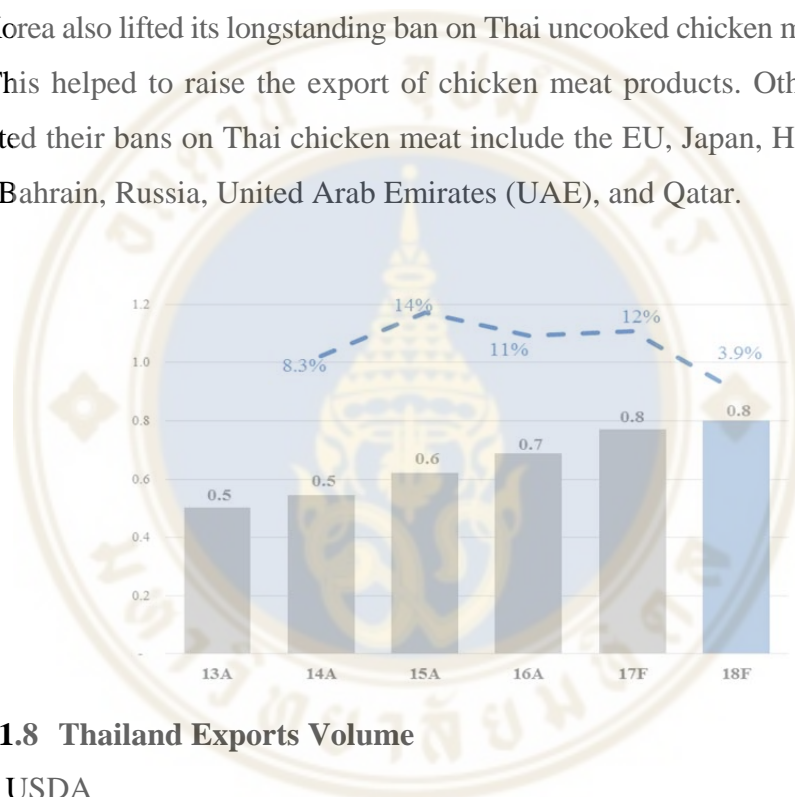


Figure 1.8 Thailand Exports Volume

Source: USDA

According to the United States Department of Agriculture reports that in 2017, bird flu is widespread in Asia (China, Myanmar and South Korea), Africa, Europe, Russia and the United States. The presence of bird flu in many main competitors' nations but its absence in Thailand constitutes an opportunity for Thai producers to expand their export markets significantly. Thailand export volume had a double-digit growth year on year. This volume is even higher in Japan, the number one importer, where the number had increased by 80% after the cancellation of the import ban.

1.4.3 Export Market Recovering from Consumers Confidence

Thailand ranked as 9th for the production of frozen and processed chicken in the world, Thailand has been the world's top 4th exporters since the year 2008 and the volume accounted for over 7% of the total exports volume. The export volume of chicken meat and Thai products has increased at over 10% per year.

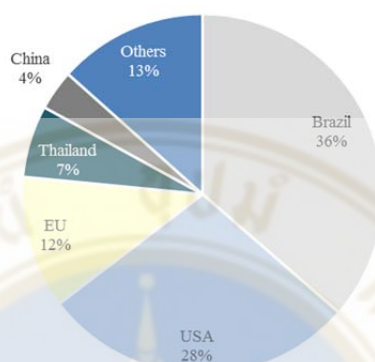


Figure 1.9 Exports Volume

Source: USDA

Thailand key markets are Japan. According to the data table below Brazil and EU are direct competitors to Thailand in both production and exports aspects. However the number one country that imports frozen chicken meat is Japan. Since Japan is closer to Thailand, Thailand has an advantage over Brazil and EU in terms of cost of manufacturing, and freight cost. As for USA and China, despite being the top producers, are not the direct competitors of Thailand since they mainly produce for their domestic consumptions.

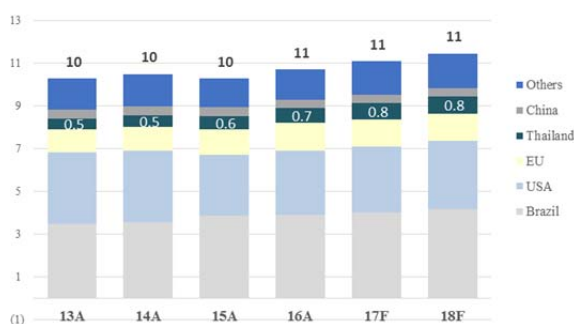


Figure 1.10 Broiler Meat Exports by Countries

Source: USDA

Thailand key markets are Japan. According to the data table below Brazil and EU are direct competitors to Thailand in both production and exports aspects. However the number one country that imports frozen chicken meat is Japan. Since Japan is closer to Thailand, Thailand has an advantage over Brazil and EU in terms of cost of manufacturing, and freight cost. As for USA and China, despite being the top producers, are not the direct competitors of Thailand since they mainly produce for their domestic consumptions.

1.4.4 Volatility of Raw Materials Price

Corn and soybean meals are the major feed ingredients for livestock production. The fluctuation in prices of commodities such as corn and soybean has a direct impact on the cost of broiler production. The commodity price changes according to the volume of output in each season and can be determined by the demand and supply of the market. In the past there was a quota on of import on some types of raw materials imposed by the government. As these ingredients are the main raw material parts used in the production of animal feeds in order to protect the prices of the domestic agricultural crops. These factors have affected the cost of production of animal feeds of the company.



Figure 1.11 Price for feed ingredients

Source: Thai Feed Mill Association. Unit: THB/kg

However, according to the forecast, Thailand's chicken production is expected to increase. Due to insufficiency of the domestic feed supply, the government has a policy to deregulate the import under the Special Economic Zone. As in Thai government regulation on imports of animal feed raw materials are clearer and more flexible. From this implementation, the chicken meat producers can efficiently enhance the production and benefit from lowers cost of animal feeds and overall cost of production. Therefore,

the poultry industry has benefited from lower feed costs in the mid of 2016 when the price was dropped by 6.3% to THB 8.7 per kg from THB 9.3 per kg during the beginning of 2016. We expect this trend to continue given the favourable weather to support plantation.

1.5 Competition Analysis

Currently, the demand for chicken meat consumption has been increased from time to time in both domestic and international market, especially in Japan market. The underlying reasons for this raising are that the price for chicken meat is cheaper than other meats and the nutrition of chicken meat is preferred by health-conscious consumers rather than other meats.

Key players in this industry are Charoen Pokphand Foods Pcl., Thaifoods Group Pcl., Betagro Pcl., Saha Farms Co., Ltd., Cargill Meats (Thailand) Co., Ltd., etc., where only Charoen Pokphand Foods Pcl. and Thaifoods Group Pcl are listed companies in which information are publicly available.

Charoen Pokphand Foods Pcl. (“CPF”) is a leading company in the market and fully vertical integrated business, covering animal feed, poultry producer, swine producer, and shrimp integrated business as well as retail and food outlet business. It is a number one chicken products exporter in Thailand.

Like CPF, Thaifoods Group Pcl (“TFG”) is a vertically integrated chicken and swine producer, covering animal feed, breeding, and slaughterhouse, in Thailand and Vietnam. Its main business can be classified in chicken business at 70% of total revenue and in swine business at 30% of total revenue. TFG mainly focuses on domestic market.

Unlike those two companies, GFPT is only focus on chicken business. It is a fully vertical integrated chicken producer, covering feed mill, chicken farm, and slaughterhouse. GFPT provides chicken products for both domestic and international markets at 77% and 23% respectively where most of its business transaction comes from inter-company transactions.

1.5.1 Domestic Market

The demand for chicken meat consumption in Thailand has been increasing from time to time and is expected to increase in 2017 at approximately 2.84% YoY. As chicken product is considered to be a commodity product, customer price sensitivity is relatively high. To compete in the market, most companies aim to reduce the cost in order to increase profit margin.

Fortunately, GFPT is a fully vertical integrated chicken producer, it has gained the advantage from quality control and cost control, especially the know-how from Japanese partner, Nichirei Corporation. In addition, half of domestic sales are from associated companies e.g. McKey Food Services (Thailand) Limited and GFPT Nichirei (Thailand) Company Limited. This could enable GFPT to secure certain portion of market share. As a result, GFPT is ranked number 6 in Thai chicken production.

1.5.2 International Market

Like domestic market, the demand for chicken meat consumption for international market has been increasing by 0.48% YoY in 2016 and is expected to increase by 1.18% YoY in 2017 where majority of the demand comes from USA, China, and the European Union respectively. Especially Japan market, the demand for chicken product import has been demanding aggressively by Japan at 2.03% YoY in 2016 due to the appreciation of Brazilian Real against US Dollar. Thus, Japan prefers chicken products from Thailand to Brazil.

In addition, many countries have lifted the import ban of Thai chicken products, previously caused from Avian Flu outbreak. As Thai chicken producers has developed the system to prevent the Avian Flu and gained the confidence back from customers, Thailand is able to increase its market of exporting chicken products worldwide and ranked number 4.

Due to the joint venture agreement with Nichirei Foods Inc., a subsidiary of Nichirei Corporation which is one of the leading poultry business in Japan, GFPT is able to exploit the opportunity in Japan market as well as Japanese know-how to improve its productivity and efficiency. As a result, 50% of total company export goes to Japan and GFPT is ranked number 3 in Thai chicken export.

In conclusion, with high capital requirement, cost advantage, quality product, brand image, strong relationship with customers, and competitive advantage, GFPT is being ensured for its bright future within the industry.

1.6 Investment Summary

With the team analysis and fundamental assumptions, the valuation suggests the target price of GFPT at 18.20 THB/share which is higher than the actual price as of 22 December 2017 at 14.00 THB/share, equivalent to an upside gain of 30%. Thus, the stock price is currently undervalued and therefore should BUY this stock.

1.6.1 Cyclical Stock that Moves with the Markets

The Real Gross Domestic Product (GDP) of Thailand's economy rose by 4.30% YoY in Q3/2017 which is higher than the growth of 3.8% YoY in Q2/2017. Thai economy is expected to continue in a positive momentum due to the improvement in private consumption, investment in infrastructure, and exports of goods and services. According to Figure 12, the regression of GFPT's annual revenue and Thailand GDP shows a positive correlation between two variables with a positive coefficient at 0.49, meaning that as GDP increases, GFPT's annual revenue tends to be increase in the same direction.

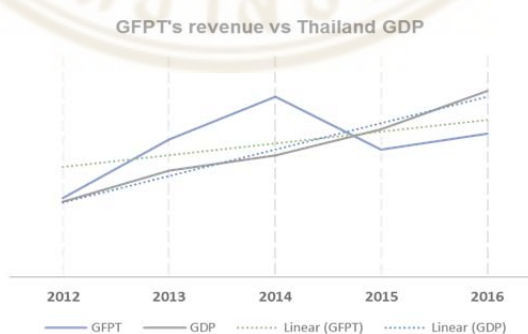


Figure 1.12 GFPT's Revenue vs Thailand Real GDP

Source: Company Financial Statement and Office of the National Economic and Social Development Board

As chicken product is considered to be a commodity product which tends to move along with the GDP growth; therefore, GFPT is considered to be a cyclical stock that offers growth potential as during the economic strength. As GDP is expected to increase, the performance of the company is also expected to increase as well.

1.6.2 Strong Demand Accelerates Business Growth

Currently, the demand for chicken meat consumption has been increased from time to time in both domestic and international market, especially in Japan market. As a result, the revenue compound annual growth rate from Y2007 to Y2016 is 9% per annum.

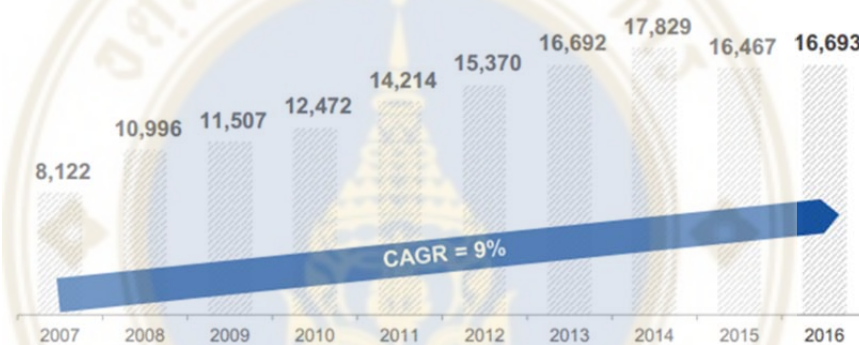


Figure 1.13 GFPT Consolidated Revenue Y2007 – Y2016

Source: Company Analyst Meeting Report

1.6.4 Domestic Market

There is an increasing trend for domestic chicken meat consumption in Thailand and the demand for Y2017 is expected to increase by approximately 2.84% YoY. The underlying reasons for this raising are that the price for chicken meat is rather cheaper than other meats and the nutrition of chicken meat is preferred by health-conscious consumers rather than other meats.

Table 1.2 Chicken Meat Production, Consumption and Export in Thailand

Year	Production (Tons)	Consumption (Tons)	Export (Tons)		
			Raw	Cooked	Total
2012	1,446,352	908,251	92,858	445,243	538,101
2013	1,512,418	1,008,012	91,242	413,164	504,406
2014	1,657,994	1,112,435	146,543	399,016	545,559
2015	1,847,742	1,225,968	175,758	446,016	621,774
2016	1,915,623	1,255,623	200,000	460,000	660,000
Growth	7.92%	8.80%	24.48%	1.43%	6.37%

Source: Office of Agricultural Economics, Thai Customs

1.6.5 International Market

Table 1.3 Global Chicken Meat Consumption by Country (in Thousand Tons)

Country	2012	2013	2014	2015	2016	Growth
USA	13,346	13,691	14,043	15,094	15,233	3.69%
China	13,543	13,174	12,830	13,267	12,985	-0.77%
EU	9,293	9,638	10,029	10,361	10,375	2.97%
Others	45,442	46,380	48,043	48,234	48,783	1.83%
Total	81,624	82,883	84,945	86,956	87,376	1.86%

Source: Office of Agricultural Economics

The demand for chicken meat consumption has been increasing by 0.48% YoY in 2016 and expected to increase by 1.18% YoY in 2017 where majority of the demand comes from USA, China, and the European Union respectively. In addition, the demand for chicken product import has been demanding aggressively by Japan at 2.03% YoY in 2016.

Table 1.4 Japan Chicken Meat Import (in Thousand Tons)

Year	Import
2012	877
2013	854
2014	888
2015	936
2016	955
Growth	2.66%

Source: Office of Agricultural Economics

1.6.6 Operational Excellence



Figure 1.14 GFPT Gross Profit Margin

Source: Team Analysis and Company Annual Report

GFPT is a fully integrated poultry business which covers feed mill, grandparent chicken farm, parent chicken farm, broiler farm, chicken evisceration and processed food production. With this integration, GFPT is able to exploit the advantage of cost and quality control throughout the production process. In addition, the company continues to improve its chicken meat production process in multiple aspects including (1) expanding backward integration to improve cost efficiency, (2) utilizing modern machinery in the production process to increase production efficiency, (3) improving feed formula that contains high nutrition, (4) improving chicken farming system to prevent outside germs, and (5) implementing a traceability system in order to track and monitor the quality throughout the production process. The company's past improvements have been focused on lowering production cost and preparing for price competition.

1.6.7 Pursuing Organic Growth by Investing in Capital Expenditure

To expand its business, GFPT plans to invest in capital expenditure in order to increase production capacity in broiler farm (capacity at 384,000 birds per day by 2020), slaughter house (capacity at 150,000 birds per day by 2020), and meat processing plant (capacity at 24,000 – 25,000 MT per year by 2022). Even though the investment requirement is high at approximately 800 – 1,000 million Baht per year, the company foresees the potential future growth in compliance with the growth in chicken demand, both domestic and international markets.

1.6.8 Market Expansion through a Joint Venture Company

Joining with business partners, GFPT is able to exploit the market expansion opportunity. As a result, the share of profit from associated companies has been increasing from time over time.

Table 1.5 Share of Profit from Associates (in Million Baht)

Year	Amount
2011	(111)
2012	(74)
2013	221
2014	326
2015	249
2016	371

Source: Company Annual Report

Importantly, as Japan is the most important market of chicken meat, GFPT has jointed venture with Nichirei Foods Inc. in order to produce and distribute processed foods and cooked chicken meats for both domestic and international markets, especially Japan. By having a Japanese firm as a business partner, it would allow GFPT to expand its market based in Japan market smoothly. Thus, GFPT Nichirei (Thailand) Co., Ltd., a joint venture company, has become one of the key exporters in the market.

1.7 Valuation

1.7.1 Adjusted Present Value Method

The valuation of GFPT was derived from an adjusted present value method to determine the appropriated intrinsic stock value. By using the discount cash flow approach, cost of capital assumes that the capital structure of the business will remain the same in perpetuity however for the GFPT the capital structure was unstable. Over the past five years, there was a fluctuated in the company capital structure as the company intended to reduce the leverage level. Therefore by using discount cash flow approach the effects of the leverage would show up in the cost of capital. Consequently our group

decided to use an adjusted present value method instead of discounted cash flow because the company has unstable capital structure and also tax benefit implications.

The company show growth potential as the outlook for Thai frozen and processed chicken industry is strongly positive due to both domestic demand and growing demand from export markets. This method is suitable under the assume length of timeframe where GFPT was forecasted for ten years from Y2017 to Y2026. The adjusted present value method (APV) method arrived at the value per common share of THB 18.20. Therefore, the appropriated target price for GFPT under an adjusted present value method is THB 18.20 with the recommendation of “BUY”

1.7.2 Growth Assumption

The projected revenue growth rate assumption for GFPT as follow.

Table 1.6 Growth Assumptions

Year	2017	2018	2019	2020	2021	2022 -2026
	1	2	3	4	5	6-10
Growth%	5.5%	6.5%	6.5%	4.8%	4.8%	3.0%

Source: Team Analysis

According to the Thailand Industry Outlook, the industry was forecasted to have high growth potential over the next three years. As the chicken is a commodity product which is not greatly prone to changes of the economy.

In the first year (Y2017), growth rate at 5.5% is align with the management’s target within range of 5-10%. Growth from domestic market at 3.7% and export market at 1.8%. The forecasted growth rate of the company dropped after Q3 performance as the sales of animal feed sharply declined due to the loss of market share to competitors. Also the decreased from share of profit from associates, mainly from McKey. The selling and administrative expense for McKey is forecasted to increase as the company needed to test run the new factory. Additionally slight declined in export volume as THB appreciated. On the other hand, the positive factors are that the domestic chicken prices recover after the Vegetarian festival from THB 31-32 per kilogram to 34-35 per kilogram and forecasted

to remain stable until the end of the year. Also the cost of feed materials still remained low therefore the company would be able to maintain the margin.

Table 1.7 Growth Year 2 and 3 Assumptions

Segment	% Revenue portion	Growth	Weighted Growth
Domestic	77%	3.5%	2.7%
Export	23%	16%	3.8%
Total growth rate			6.5%

Source: Team Analysis

In the second and third year (Y2018-2019), forecasted growth rate at 6.5%. Forecasted domestic growth rate at 3.5% per annum and export market at 16% per annum due to the following reasons. The domestic growth rate sustained approximately at the same level as last year and the assumption supported by Thailand Chicken Industry Research from Krungsri Bank. The research states that Thai chicken sector should experience solid at approximately 3% and the growth rate is expected to extend in the next two to three years. Also the company production capacity will increase from GFN (Slaughter house) to be at 150,000 birds per day and McKey (Processing plant) cooked product for export capacity at 25,000 million tons per year. These new plants will increase the production capacity to support an increase in future demand.

Furthermore the volume of chicken meat export in Y2015 was at 18% and in Y2016 was at 9.1%. The significant growth supported by the lifting of import ban on Thai frozen chicken meat mainly from the European Union and Japan. Therefore with the company extra capacity and the lifting of import ban, our group forecasted growth rate for export market at 16%. Lastly the weighted the growth rate with the revenue of each segment. As a result, we got growth rate for the Y2018 and Y2019 at 6.5%.

Even though the outlook for the industry is in a good trend, strong price competition and unpredictable climate will tend to destabilize and costs of animal feed may rise on climatic disruption. As well as the increase competition as a result of rising labour and production costs. Also Thai producers may also be exposed to risk as they rely on foreign suppliers and Thailand producers still have to monitor the risk of Avian Flu

outbreak. The projection growth rate of the Y2018-2019 is also supported by mean and median of thirteen analyst consensus firms.

In the fourth and fifth year (Y2020-2021) is our transition period, the forecasted growth rate at 4.8%. The growth rate obtained from 3% from the stable period combined with the 6.5% growth rate then divided by the years. The growth rate also supported by the combination of the forecasted Thailand consumption poultry meat and the forecasted Thai exports growth from the Thailand Industry Outlooks from The Organization for Economic Co-operation and Development is an intergovernmental economic organization with 35 member countries.

From the year sixth onwards (Y2022), the forecasted long term growth rate at 3.0% align with forecasted Thai's gross domestic product. As the chicken products are consumption goods that marked the largest GDP component therefore the long term growth rate is based on the economic performance. Also as the chicken is a product for consumption where inflation has least impact on the chicken price so we forecasted to have little impact on the company growth rate.

1.7.3 Costs of Good Sold Assumption

With the ASEAN Economic Community giving Thailand opportunity of free flow of goods throughout the region which reduce transaction costs and help to drive down the cost of goods produced in the region. The AEC will ease the flexibility to transfer resources, capital, labour and larger international trade which lower production cost including relocation of production base to the countries with lower wages.

Also the Company is preparing for price competition by developing technologies to produce the products that meet the needs of consumers and sufficient for the market demand. The Company has improved its chicken meat production process in multiple aspects including: expanding backward integration to become a fully vertical integrated chicken producer, utilizing modern machinery in the production process to increase production efficiency, using nutritious feed in order to obtain nutritious chicken meat, improving feed formula and having effective chicken farming system in order to lower production costs. These facts will impact the revenues and operations of the company.

1.7.4 Tax Assumption

The company, its subsidiaries, and joint ventures were granted investment promotional certificates from the Board of Investment (BOI) as follows:

Table 1.8 Tax Benefit and Privileges

<u>Tax Privileges</u>	<u>Certificate No.</u>	<u>Type of Promotional Activities</u>	<u>Year</u>
GFPT Public Company Limited	1699(3)/2547	Finished Chicken Products	2007-2015
	1329(2)/2552	Evisceration Chicken	2011-2019
	1051(3)/2553	Finished Chicken Products	2011-2019
Krungthai Food Public Company Limited	1850(2)/2548	Feed Mill Production and Premix	2009-2017
	1173(2)/2553	Feed Mill Production and Premix	2012-2020
Limited	1233(2)/2557	Primary Breeder Farm and Hatchery	2014-2022
Krungthai Farm Company Limited	1187(2)/2553	Chicken Farm	No Income yet
	1591(2)/2553	Chicken Farm	2013-2021
M.K.S. Farm Company Limited	1571(2)/2551	Broiler Farm	2010-2018
	2085(2)/2551	Broiler Farm	2010-2018
	1341(2)/2552	Broiler Farm	2011-2019
	1470(2)/2552	Broiler Farm	2011-2019
	1897(2)/2553	Broiler Farm	2011-2019
	1898(2)/2553	Broiler Farm	2014-2022
	2108(2)/2553	Broiler Farm	2014-2022
	1674(2)/2554	Broiler Farm	2014-2022
	2084(2)/2557	Broiler Farm	2015-2023
	2106(2)/2553	Broiler Farm	2016-2024
	1022(2)/2555	Broiler Farm	2016-2024
	2107(2)/2553	Broiler Farm	No Income yet
	2083(2)/2557	Broiler Farm	No Income yet
Mckey Food Services	2109(3)/a/2553	Finished Chicken Products	2010-2016
GFPT Nichirei Co., Ltd.	1977(2)/2552	Evisceration Chicken and Premix	2010-2018
	1978(3)/2552	Finished Products and Frozen Chicken	2010-2018
	2258(3)/2555	Frozen Cooked Chicken	2013-2021
	2225(3)/2557	Finished Products and Frozen Chicken	2015-2023

Source: Company 56-1 Report

The privileges granted the exemption of import tariff of machinery. It also granted the exemption of corporate income tax on net profits from investment of promotional activities not exceed 100 percent of total investment of the project excluded the value of land and working capital for eight years commencing from the first day when the Company starts to earn income from the operation of promotional operation. Therefore the company subjected to effective tax rate approximately at 11% as of the Y2017. The effective tax rate of the company is expected to increase accordingly with the expire of investment promotional certificates.

1.7.5 Capital Expenditure Assumption

The capital expenditure has a positive relation with the increase in sales as the company planned its future organic growth by emphasizing on the upstream chicken expansion of chicken farm areas with the investment budget of THB 800-1,000 million per year. As the demand for processed chicken meat increased and the production capacity of both GFPT and McKey are inadequate. The company has expanded its food processing plant on 700 rai in Tungkwang district. Phanat Nikhom District Chonburi province to increase production capacity to meet consumer demand. In the first five years (Y2017-2022), the forecasted according to the investment plan of the company which separated into two phrases.

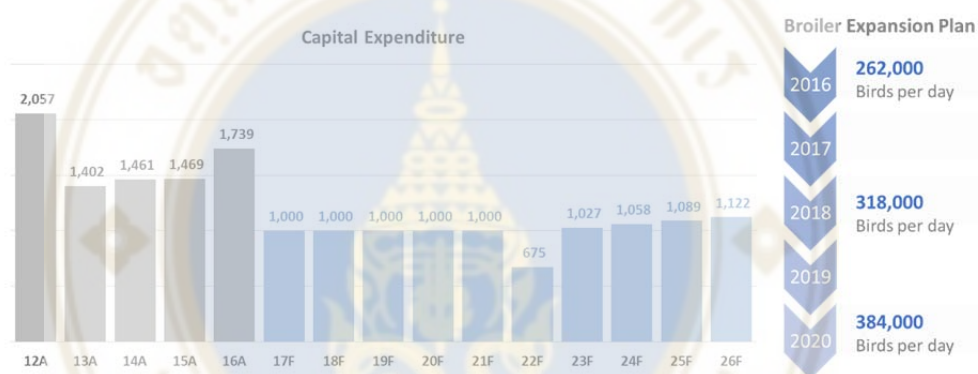


Figure 1.15 Capital Expenditure Assumptions

Source: Team Analysis and Company Annual Report

- **Phrase I:** Investment in chicken cutter and food processing plant to increase production capacity of 300,000 chickens per day, commencing in June 2017. It is expected to be completed in 2020 with a total investment of about 3,000 million baht.
- **Phrase II:** An investment in Phrase II will increase its processing capacity by 24,000 tons per annum. It will be completed in 2022 with a total investment of approximately 2,000 million Baht.

From the Y2022 onwards, forecasted an investment in capital expenditure according to the property, plant, and equipment needed to support sales by maintained at 40%. Lastly the investment will be paid mainly from cash flow from operation, short-term loans, and long-term loan

1.7.6 Dividend Policy Assumption

The dividend policy of GFPT is “to pay dividend at the rate of not more than 50% of net profit of the Company’s separate financial statement. The company historical pay-out ratio from Y2013-Y2016 were 28.9%, 28.2%, 26.2% and 22.9% respectively. According to the IR report as of Y2017 (Quarter 3) reported dividend pay-out ratio for the Y2017 is expected to be at 30%. Therefore our group forecasted 30% dividend pay-out ratio to be the same since Y2017 onwards.

1.7.7 Discounted Factor Assumption

1.7.7.1 Unleveraged Cost of Equity

- Cost of Equity for Unlevered Firm: In order to compute the unleveraged cost of equity, we obtained the leverage beta from the Stock Exchange of Thailand as of 9 November 2017 at 1.25x. Moreover for the effective tax rate, according to the IR Presentation as of quarter3 reported at 11% and the current debt/equity ratio of the company is at 28%. Therefore the unleveraged beta of the company is at 1.02x.

Table 1.9 Cost of Equity for Unlevered Firm

Unleveraged Cost of Equity	
Yield on 10y government bond rate	2.1%
Market Risk Premium	7.9%
Unleveraged beta	1.00
Unleveraged Ke of firm	10%

Source: The Stock Exchange of Thailand, Tradingeconomics, and NYU Stern.

Furthermore for the risk free rate, we obtained yield on 10-years government bond at 2.1% and also a market risk premium as of 2017 at 7.9%. As a result, we got unleveraged cost of equity at 10% using a capital asset pricing model

- Cost of Equity for Terminal Value of Tax Benefit: In order to compute cost of equity for terminal value of tax benefit, our group need to find a relevant peer with stable debt to equity ratio in order to compute the unleveraged beta. Our group decided to use NH Foods Ltd. Which listed in the Stock Exchange of Japan.

$$\beta_e = \left(1 + \frac{D}{E}\right) \beta_u$$

Table 1.10 Cost of Equity for Terminal Value of Tax Benefit

NH Foods Ltd		Unleveraged Cost of Equity	
Leverage beta	0.40	Yield on 10y government bond	2.14%
Debt to Equity ratio	0.34	Market Risk Premium	7.85%
Unleveraged beta	0.30	Unleveraged beta	0.30
		Unleveraged Ke of tax benefit	4.5%

Source: The Stock Exchange of Thailand, Tradingeconomics, and NYU Stern.

In order to find beta, we assumed to tax shields have same risk as operating assets and debt is risk free. Therefore our group used to formula above to compute the unleveraged beta at 0.30. As a resulted, the unleveraged cost of equity at 4.5%.

1.7.7.2 Cost of Debt

As the firm is trying to change to capital structure by lowering the leverage level and remain at around 25-30%. Therefore the forecasts after Y2017, the debt to equity ratios will remained quite stable.

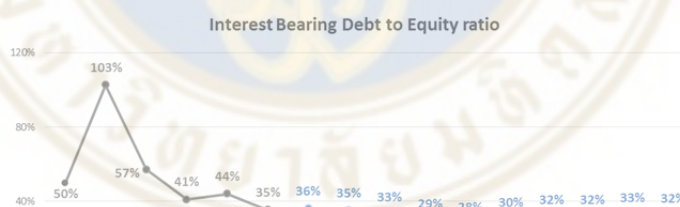


Figure 1.16 Cost of Debt

Source: Team Analysis and Company Annual Report

According to the company's analyst meeting as of quarter 3, reported that the financial cost will be charged at 2.5%. For that reason, the cost of debt since Y2017 onwards were forecasted to be the same at 2.5%.

1.7.8 Discounted Cash Flow Model: Free Cash Flow to Firm

Using APV method, we estimate the value of the firm in three steps: value of firm with no leverage, present value of the interest tax savings, and the expected cost of bankruptcy of the firm. According to the assumptions, the estimated free cash flow to firm is discounted using an unleveraged cost of equity by valuing the firm as if it has no debt. The value of unlevered firm is at THB 22,075 million.

The second step is finding the expected tax benefit from borrowing. We find the value of tax benefit from the forecasted interest expense and the effective tax rate. Also we find the terminal value of tax benefit using the formula below.

$$\text{Terminal value} = \frac{\text{Effective tax rate} * (\text{Interest expense})}{\text{Ku} - g}$$

Figure 1.17 Formula for terminal value of tax benefit

Source: Valuation 5th edition Mckinsey

Therefore we got the value of tax benefit according to the firm level of debt at THB 2,777 million. The third step is estimating probability of bankruptcy at the given level of debt of the firm and. The company was rating at “BBB+” until the year Y2015 with stable outlook. Consequently the cost of bankruptcy is at 2.3% while the probability of bankruptcy was estimated at 10% as chicken is a commodity product. As a resulted the expected bankruptcy cost is at THB 51 million.

The value of the operating assets of firm can now be estimated by combining the value of unlevered firm with the value of tax benefit and deduct with the expected bankruptcy cost. Adding the cash and non-operating assets, as a result the value of firm is at THB 26,628 million. Moreover the debt value of estimated to be at THB 3,814 million. The value of equity at THB 22,814 million. There are 1,254 shares of GFPT outstanding, we can derive the value per share at 18.20 THB.

Table 1.11 Adjusted Present Value Valuation

(Unit: Million Baht)	2017F	2018F	2019F	2020F	2021F	2022F	2023F	2024F	2025F	2026F
EBIT	1,989	2,318	2,466	2,581	2,701	3,007	3,096	3,187	3,282	3,379
<i>Effective tax rate</i>	<i>11%</i>	<i>11%</i>	<i>11%</i>	<i>11%</i>	<i>15%</i>	<i>15%</i>	<i>18%</i>	<i>18%</i>	<i>20%</i>	<i>20%</i>
Less: Taxes on EBIT	(219)	(255)	(271)	(284)	(405)	(451)	(557)	(574)	(656)	(676)
NOPAT (Net Operating profit after taxes)	1,770	2,063	2,194	2,297	2,296	2,556	2,538	2,614	2,625	2,703
Add: Depreciation	1,119	1,101	1,086	1,073	1,062	1,052	996	1,000	1,009	1,021
Add/Minus: Change in Net working capital	169	(360)	212	378	355	267	(103)	(110)	77	(50)
Add/Minus: Net Capital Expenditure	(1,536)	(1,587)	(1,639)	(1,622)	(1,608)	(1,521)	(1,528)	(1,542)	(1,560)	(1,583)
Free cash flow to firm	1,522	1,217	1,853	2,125	2,105	2,354	1,903	1,962	2,151	2,091
Terminal value of firm										30,922
Present value of Cash flow		1,007	1,393	1,453	1,309	1,331	979	918	915	12,770
Value of Unlevered Firm	22,075									
Interest expenses	203	217	228	326	370	456	470	537	553	646
Effective tax rate	11%	11%	11%	11%	15%	15%	18%	18%	20%	20%
Value of tax benefit	22	24	25	36	55	68	85	97	111	129
Terminal value										2,882
Present value of Cash flow		23	23	33	49	59	71	79	89	2,352
Value of tax benefit	2,777									
Cost of Bankruptcy	2.3%									
Probability of Bankruptcy	10%									
Value of Unlevered Firm	22,075									
Expected bankruptcy cost	51									
Value of the operating assets	24,802									
Add: Cash and Non-Operating assets	1,826									
Value of firm	26,628									
Value of firm	26,628									
- Value of interest bearing debt	3,814									
Value of Equity	22,814									
No. of shares	1,254									
Share Price	18.20									

Source: Team Analysis

Table 1.12 GFPT Target Price

Method	Price (THB)
DCF (APV)	18.20
Target Price	18.20
Actual Price	14.00
Difference	30%

Source: Team Analysis

The final target price is based on the Discounted Cash Flow method as the intrinsic value of an equity can be justified. In conclusion, the target price of GFPT is 18.20 THB/share which is higher than the actual price of 14.00 THB/share, suggesting investors to BUY.

1.7.9 Impact and Application

1.7.9.1 Sensitivity Analysis

The BUY recommendation is based on team analysis with the upside gain approximately 30%; however, the suggested target price at 18.20 THB/share is exposed to the valuation risk due to the changes in assumptions. In this case, the target price is vulnerable to a change in terminal growth rate and a change in terminal discount rate (terminal unlevered cost of equity of firm); thus, it would be necessary to construct a sensitivity analysis to identify the impact of these variables on the target price. As a result, the price ranges between 13.30 and 30.91 THB/share which still suggests the BUY recommendation.

Table 1.13 Sensitivity Analysis

Target Price		Terminal Unlevered Ke of Firm				
	18.20	8.0%	9.0%	10.0%	11.0%	12.0%
Terminal Growth	4.20%	30.91	24.51	20.31	17.34	15.13
	3.60%	27.87	22.71	19.15	16.56	14.58
	3.00%	25.57	21.27	18.20	15.89	14.09
	2.40%	23.76	20.09	17.39	15.31	13.67
	1.80%	22.31	19.11	16.70	14.81	13.30

Source: Team Analysis

1.7.9.2 Scenario Analysis

It is necessary to conduct a scenario analysis to evaluate the expected value of a target price in response to unexpected events.

Table 1.14 Scenario Analysis

Scenario Summary			
	Best	Base	Worse
Probability	20%	60%	20%
Terminal Growth	5.0%	3.0%	2.0%
Terminal %Cost	81%	83%	85%
Share Price	20.83	18.20	15.80
E (Share price)	18.24		

Source: Team Analysis

Assigning 60% probability to base case as there is a strong demand for chicken consumption, presuming that GFPT's revenue will not be fluctuated much. Also the company's terminal growth rate is aligned with the forecasted Thai's GDP because the demand for chicken consumption is considered to be a component part in GDP, in Consumption part. Therefore, the long term growth rate is based on the fundamental economic performance. Moreover, the company has improved its chicken meat production process in multiple aspects in order to utilize modern machinery in the production process and to improve production efficiency at lower production costs. Hence, the %Cost of goods sold is expected to remain steady.

Assigning 20% probability to best case with the underlying assumption that the company can maintain longer high growth period and enhance effectively lower the cost level.

Assigning 20% probability to worst case with the underlying assumption that the negative volatility in production cost e.g. oil price, feed raw material cost, minimum wage, etc. may cause the %Cost of goods sold.

1.8 Financial Analysis

1.8.1 Summary figures

1.8.1.1 Summary Figures

Income statement: Income statement for the year 2016 GFPT's revenue from sales was at THB 16,693 million with growth at +1.4% YoY. An increase in revenue mainly from chicken processing segment at +8.43% while revenue from feed segment declined at -12.33%. Comparing to TFG's revenue from sales at THB 20,626 THB with growth at +19% YoY, TFG's revenue is 1.2x of GFPT's revenue. For the cost of sales, GFPT was at THB 14,191 million accounted at 85% of sales, lower than last year at -1.88% mainly from lower cost of feed materials. On the other hand for TFG was at THB 18,005 million accounted at 87% of sales. The company spent SGA expenses at 7.4% of sales higher than TFG at 4.6%, the increased in SGA was from of higher export volume and increasing of miscellaneous cost. The company paid THB 98 million (0.6%) for finance cost while TFG paid at THB 245millions (1.2%) for business operation.

TFG paid higher finance cost as the company has higher interest bearing debt outstanding. By the end of 2016, GFPT earned THB 1,644 million at 9.8% of sales while TFG earned THB 1,447 million at 7.0% of sales. This can be implied that GFPT has a better cost management.

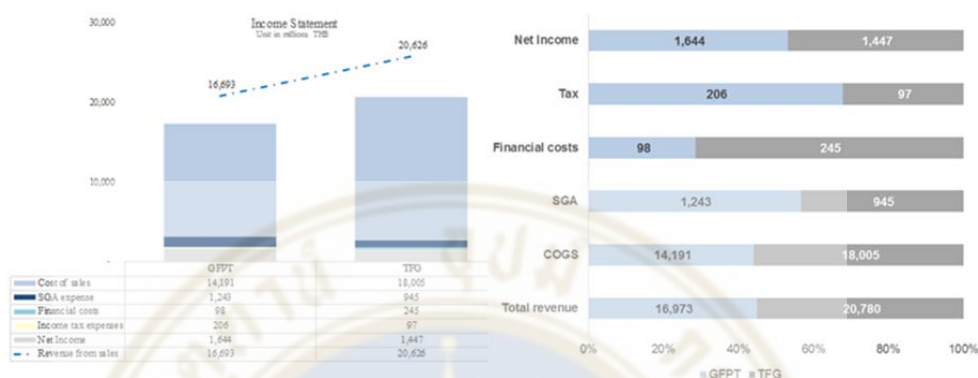


Figure 1.18 Income Statement

Source: Valuation 5th edition Mckinsey

Financial Position: In term size GFPT and TFG is relatively the same. Total assets of GFPT was around THB 16,160 million while TFG was around THB 15,596 million. Cash & equivalent and trade & other receivables of both companies also at the same level comparing to portion to sales. For GFPT's trade and other receivables, the company allowance for doubtful accounts was at 3.65% of total trade receivable. Inventories marked a significantly portion for both company, GFPT at 23% while GFT at 17%. Inventories of GFPT was high due to high stock level of feed material as the company build storage. Moreover for TFG has biological assets at THB 2,726 million as the company utilizes contract farming system to raise poultry and swine. As of 31 December 2016, the company has 489 poultry's farmers contracted and 341 swine farmers' contracts. The contract was around three years therefore the company recorded under the current asset.

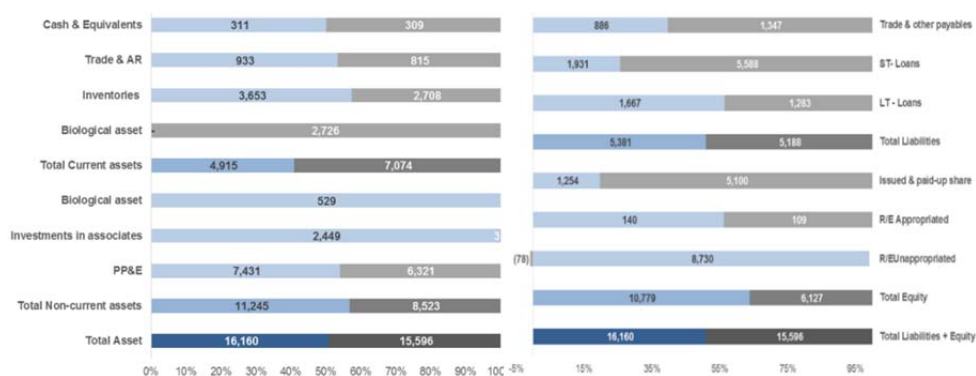


Figure 1.19 Financial Position

Source: GFPT and TFG Financial Statements

Furthermore for the liabilities and equity, GFPT mainly financed from equity while TFG mainly finance from short-term loans. For total liabilities of GFPT decreased from last year at -2.7% primarily from long-term loans from financial institutions however short-term loans from financial institutions increased at THB 144 million. All the loans of the company are in THB currency, the company has no exposure to the exchange rate risk. The shareholder's equity increased by +14.15% from last year, mainly from increased in retain earning.

1.8.2 Common Size Analysis

1.8.2.1 Income Statement

Overall, GFPT and TFG have managed equally portion in each item of income statement such as sales, others income, and cost of revenue. Others income of GFPT marked at THB 280 million, mainly from share of profit from associates. Administrative and selling expenses are 7.4% for GFPT and 4.6% for TFG. TFG paid large amount of financial costs at THB 245 million comparing to GFPT at THB 98 million as the company has large amount of short term loans outstanding. However, TGF was subjected to lower income tax expense as the company gained income tax benefit from operating loss carry forward from Y2015. Resulting in effective tax rate of only at 6.7% of EBT. GFPT also manage it tax right and exercise all their rights to get tax exempts in some project at effective tax rate of only 11% of EBT.

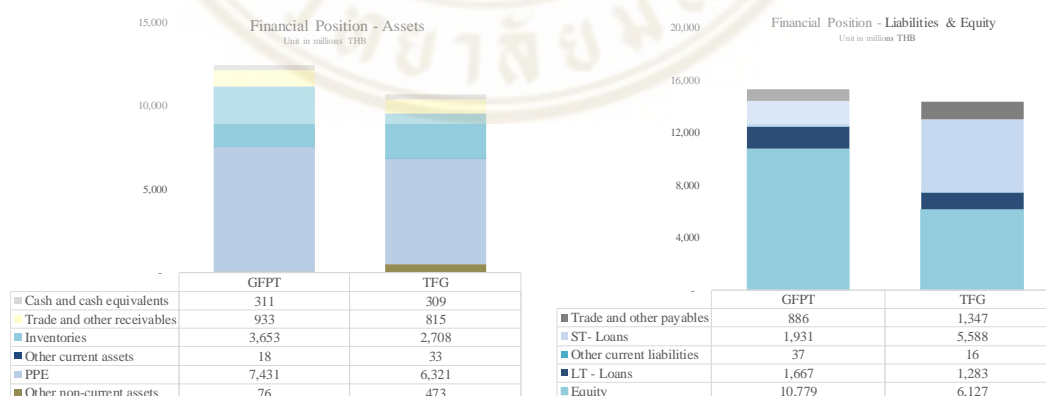
Table 1.15 Common Size of Income Statement

Common Size Income Statement	GFPT		TFG	
	Mil THB	%	Mil THB	%
Revenue from sales	16,693	100%	20,626	100%
Others income	280	1.7%	154	0.7%
Total revenue	16,973	102%	20,780	101%
Cost of revenue	14,191	85%	18,005	87%
Selling expenses	506	3.0%	421	2.0%
Administrative expenses	737	4.4%	525	2.5%
Total expenses	15,434	92%	18,950	92%
Financial costs	98	0.6%	245	1.2%
Income Tax Expense	206	1.2%	97	0.5%
Net Income	1,644	9.8%	1,447	7.0%

Source: GFPT and TFG Financial Statements

1.8.2.2 Financial Position

For GFPT's total assets composed of current assets at 30% and non-current assets at 70%. The major items in assets are inventories, investment in associates, and property, plant, and equipment representing 23%, 15%, and 46% respectively. For GFPT's total assets as of Y2016 increased in amount of THB 1,184 million of 7.91% from last year from an increase in property, plant, and equipment at THB 678 million, increased in inventories at THB 480 million, and increase in investments in associated of THB 323 million.

**Figure 1.20 Common Size of Financial Position**

Source: GFPT and TFG Financial Statements

For TFG's total assets composed of current assets at 45% and non-current assets at 55%. The major items in assets are inventories, and property, plant, and equipment representing 17%, and 41% respectively. Both companies property, plant equipment have been increasing, the reason for an increase due to the additional land, farm, and factory to support the increasing capacity, machinery for export product and more efficiency production. Moreover for a large portion of inventory due to an increased in raw material for increased feed mills production as the company increased the production capacity.

Table 1.16 Financial Position Comparison

Assets	GFPT		TFG		Liabilities and equity	GFPT		TFG	
	Mil THB	%	Mil THB	%		Mil THB	%	Mil THB	%
Cash & Equivalent	311	1.9%	309	2.0%	Short-term loans	1,931	12%	5,588	36%
Trade and other receivables	933	5.8%	815	5.2%	Trade and other payables	886	5.5%	1,347	8.6%
Inventories	3,653	23%	2,708	17%	Other current liabilities	37	0.2%	16	0.1%
Other current assets	18	0.1%	33	0.2%	Long term loans	1,667	10%	1,283	8.2%
Total current assets	4,915	30%	7,074	45%	Employee benefit obligations	366	2.3%	42	0.3%
Investments in associates	2,449	15%	3.0	0.0%	Others current portions	216	1.3%	-	0.0%
Property, plant and equipment	7,431	46%	6,321	41%	Other non-current liabilities	51	0.3%	3.4	0.0%
Other non-current assets	76	0.5%	473	3.0%	Total liabilities	5,381	33%	9,469	59%
Total non-current assets	11,245	70%	8,523	55%	Issued and paid-up share capital	1,254	7.8%	5,100	33%
Total Assets	16,160	100%	15,596	100%	Premium	525	3.2%	981	6.3%
					Retain earning	8,870	55%	31	0.2%
					Total Equity	10,779	67%	6,127	38%
					Total liabilities and equity	16,160	100%	15,596	97%

Source: GFPT and TFG Financial Statements

GFPT's total liabilities and equity composed of total liabilities at 33% and total equity at 67%. Short-term loans accounted over 12% as the company lowering the long-term loans from financial institutions and increased short-term loan from financial institution instead. The retained earning accounted at 55% from total liabilities and equities, large contribution come from an increased in retained earning amount.

TFG's total liabilities and equity composed of total liabilities at 59% and total equity at 38%. Short-term loans accounted over 36% and issued and paid-up share capital accounted over 33%. An interest-bearing debt of company increased by +12.85% from last year primary from an increased in short-term borrowing from financial institutions represented at 85.31% and long-term borrowing from financial institutions represented at 14.60%. An increased in interest-bearing debt due to the business expansion. An equity of the company increased by 31.7% due to the company has improved performance as a result of decreasing deficit.

1.8.3 Trend Analysis

1.8.3.1 Relative Level Income Statement

- GFPT: Revenue from sales of GFPT's main operation shown an increasing trend within the past five years. That was a dropped of sales in Y2015 as the company had lower revenue from chicken processing business mainly from decreasing in export volume of chicken meat products and lower price of chicken meat and parts in domestic market. However the company was able to pick up the sales in Y2016 mainly from the export volume growth from chicken processing segment which accounted over 43.19% of total revenue.

Despite the increased in revenue from sales in Y2016, the company was able to lower cost of sales -1.88% down from last year mainly from lower cost of feed materials. As the market price of feed materials including corn and soybean reduce approximately by 8-9%. The selling and administrative expenses of the company gradually increased in Y2011 as the company increased an export volume therefore the selling and administrative expenses increased since higher freight cost from higher export volume and increasing of miscellaneous cost.

Share profit from associated companies based on the equity method shown an increasing trend since 2012 mainly from profit contributed from GFN at THB 135 million and McKey at THB 236 million as of 2016.

The net profit was low in Y2012 due to the higher production costs mainly from higher raw material cost of animal feed. In the Y2016, the net profit increased by 38% from Y15. The EPS of 2016. Primarily driven from the increase in revenue from sales, lower cost of sales, and higher profit from associated companies from both McKey & GFN. The profit margin Y16 was 9.8% from last year at 7.26%.

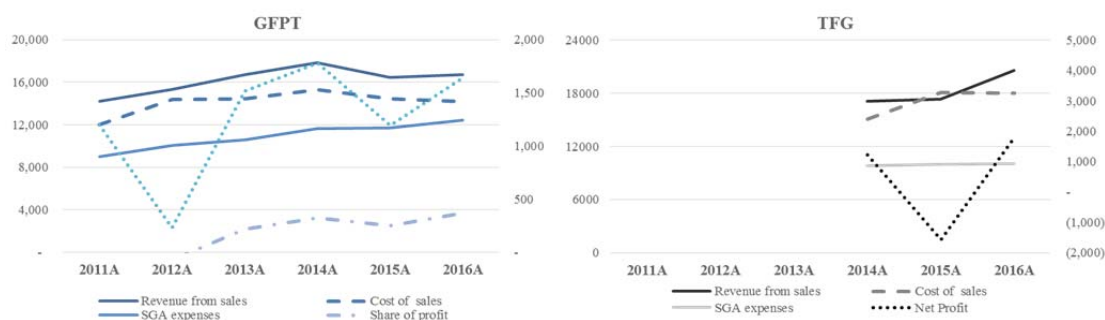


Figure 1.21 Trend Analysis of Income Statement

Source: GFPT and TFG Financial Statements

- TFG: As “Thai foods Group PCL.” was listed in the Stock Exchange of Thailand in 8 October 2015 therefore the provided publicly available information was only two years. TFG’s revenue from sales mainly come from poultry operation accounted over 64.29% of total business. Revenue from poultry operations of Y2016 increased by 20.97% from last year as a result of an increased in volume sold and the price increased. Revenue from swine and feed operation also increased at 18.73% and 4.71% respectively.

The cost of sales also increased related to increasing sales however in Y2016 the cost of sales decreased in -0.56% due to efficiency cost management. The selling expenses of the company gradually increased in as a result of the increased in sales of both exports sales starting in Y2015 and domestic sales to distribute sales area.

On the other hand administrative expense shown decreasing trend to due efficiency cost management. In the Y2015, the domestic chicken price reached the lowest point for the last three years. Therefore, the company was affected significantly, among others in chicken industry, and ultimately resulted as loss. However, the company’s pig and livestock business are growing continuously and showing positive gross profit in the Y2016.

1.8.3.2 Relative Level Financial Position (Asset)

- GFPT: The company total asset equals to THB 16,160 million shown continuously increased since Y2011 and increased from last year at 7.91% mainly from an increased in PP&E, inventories, and investments in associations. Current assets accounted 30.41% of the total asset, cash and equivalents and trade and other receivables increased in proportionally with sales. An increased in inventories due to increasing in

feed materials. Moreover for property, plant and equipment accounted over 45.98% of total assets. The Company invest in capital expenditure more than THB 1,000 million every years in order expand the capacity to support increasing domestic demand and export sales. The assets is forecasted to continue increasing due to the GFPT Group expansion vision to 2020.



Figure 1.22 GFPT: Trend Analysis of Financial Position (Asset)

Source: GFPT Financial Statements



Figure 1.23 TFG: Trend Analysis of Financial Position (Asset)

Source: TFG Financial Statements

- TFG: Total assets of the company were THB 13,206, THB 12,778, and THB 15,596 million respectively. Cash and cash equivalents of the company increased accordingly to sales while inventories of the company shown decreasing trend as a result of changing in accounting treatment because the company adopted new TFRS method. For the property, plant, and equipment continuously increase due to the additional land, farm, and factory to support the increasing capacity, machinery for export product and more efficiency product.

1.8.3.3 Relative Level Financial Position (Liabilities and equity)

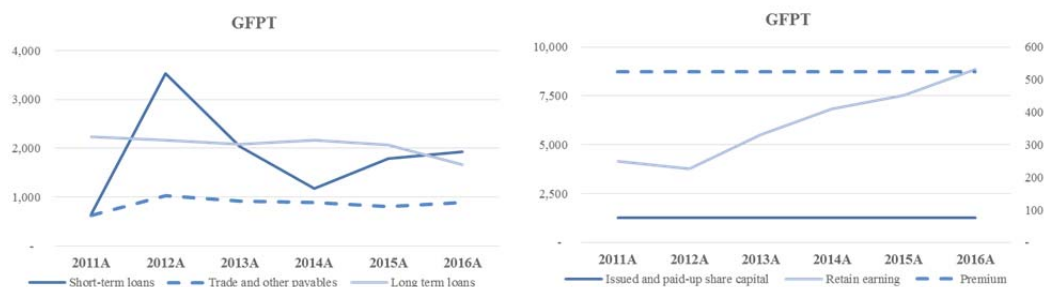


Figure 1.24 GFPT: Trend Analysis of Financial Position (Liabilities and Equities)

Source: GFPT Financial Statements

- GFPT: Total liabilities of the company decreased at -2.74% from Y2015 mainly from the long-term loans from financial institution decreased and turn to finance using the short-term loans from financial institutions instead. The short-term loan from financial institution increased by THB 144 million this year. The trade and other payables of the company increased by +8.96% from Y2015. The shareholders' equity shown significantly increased in trend since Y2012, increased by +14.15% from Y2015. The increase primarily from the increase in accumulated retain earnings.

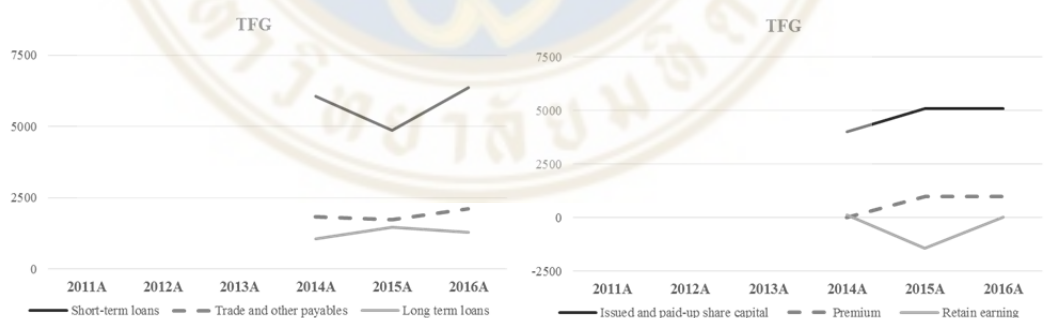


Figure 1.25 TFG: Trend Analysis of Financial Position (Liabilities and Equities)

Source: TFG Financial Statements

- TFG: Company's total liabilities mainly comprises of short-term borrowing from financial institutions, trade and other accounts payable and finance lease liabilities. The short-term loan dropped in the Y2015 as the company repaid a loan from funds generated from initial public offering. However in the Y2016 there was

increased in short-term borrowing due to the business expansion and the company was mainly finance using short-term borrowing represented 85.31% of interest-bearing debt and long-term borrowing at 14.69%. Trade and others accounts payables Y2015 (-0.92%) and Y2016 (+23.01%)

At the end of Y2015, total equity increased by +19.35% as the company issued new share through initial public offering in the amount of 1,100 million shares at THB 1.95 per share (Par value at THB 1 per share and premium on ordinary shares at THB 0.95 per share) as a result of an increase in issued and paid-up share capital of THB 1,100 million and premium on ordinary shares of THB 981.24 million while he Y2015 the company had deficit amount of THB 1,553 million. By the end of Y2015, the company was able to improve the performance and the deficit amount was reduced to THB 77.7 million.

1.8.4 Financial Ratios

1.8.4.1 Return

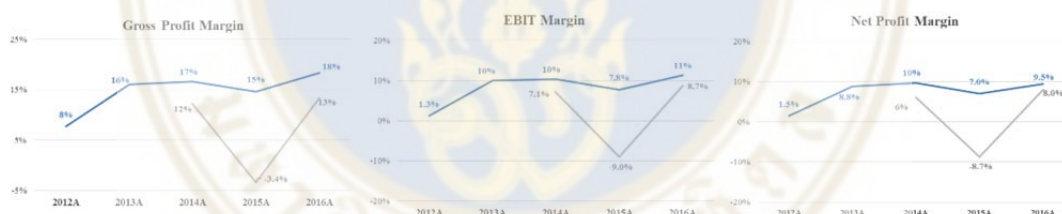


Figure 1.26 Financial Ratios: Return

Source: GFPT and TFG Financial Statements

- **Gross Profit Margin:** GFPT had average gross profit margin at 15% over the past five years, the margin gradually increased since the Y2013. Key driver same from higher export volume of cooked chicken product, improved selling price of chicken meat products, lower feed material cost, expansion of meat retail outlets in various provinces in Thailand and profit from associated companies.

Gross profit margin of TFG were unstable +12%, -3.4%, +13% respectively from the Y2013. The volatile came from the cost of sales as for the Y2015 the cost of sales increased by +19.75% related to increase in sales however in the Y2016 the company was able lower the cost due to efficiency cost management.

- EBIT Margin and Net Profit Margin: EBIT and profit for GFPT increased correspondingly with gross profit margin. Despite a slightly declined in the Y2015 primarily due to a loss in poultry operations for the decline in the chicken price and higher production cost of underutilized capacity of export production factors. The company was able to turn around and increased the profit due to additional higher profitability channels, efficiency cost management which comprised of raw material management, breeder efficiency, and administrative expense management.

For TFG, the company has to bear high selling and administrative expenses. The cost increased as a result of the increasing in sales of both export sales starting in Y2015 and distribute sales in domestic area. However in the Y2016, the company was able to efficiency control the cost. The company also has to bear high finance cost due to a higher amount drawn on banking facilities for purchase raw material to support the increased in production capacity. In the Y2016, the company was able to lower finance cost as the company repaid the loan from fund generated from initial public offering therefore the profit margin of the company increased.

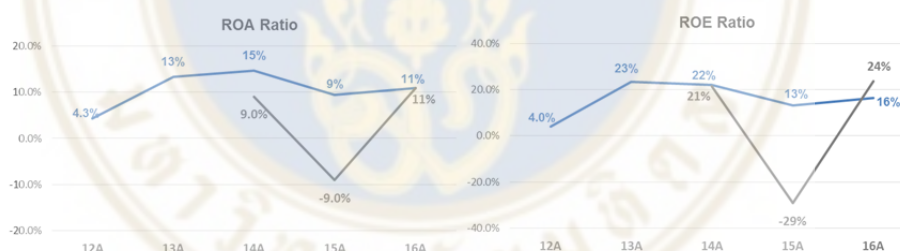


Figure 1.27 Financial Ratios: Return

Source: GFPT and TFG Financial Statements

In terms of ROA, GFPT was able to operate at a higher percentage return than its competitor. However in the Y2016, TFG was able to manage the business operation and increased the ROA at the same level as GFPT. Both companies successfully increased assets with align in an increased in return.

Trend of ROE, GFPT shown double digits return since the year Y2014 and was able to maintain the ratio TFG. This implies that GFPT has higher ability to generate return to shareholder. In the Y2015, ROE of TFG -29% as the company made losses.

1.8.5 Short Term Liquidity Risk

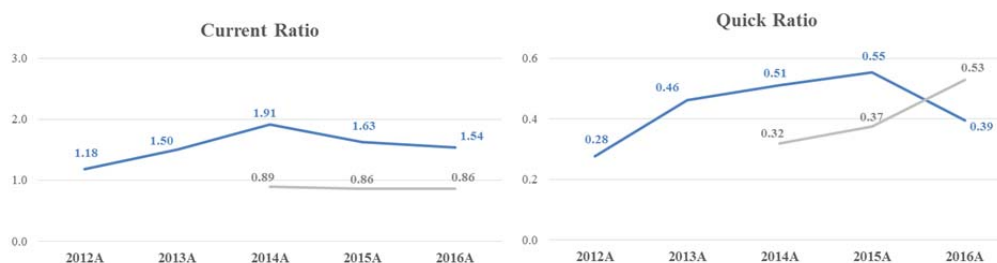


Figure 1.28 Financial Ratios: Short term Liquidity Risk

Source: GFPT and TFG Financial Statements

- Current Ratio and Quick Ratio: GFPT was able to maintain the ratio at appropriate level for its operation and had a strong financial position. As the Y2016 the current ratio was 1.54 times, slightly decreased from Y2015 at 1.63 times as the company inventories increased correspondingly to sales. The quick ratio in Y2016 was 0.37 times, decreased from Y2015 at 0.53 times

Current ratio of TFG were lower than GFPT and shown concerns as the current liabilities exceed the amount of the current asset. For a quick ratio, TFG was higher than GFPT in the recent year at 0.53x and 0.39x. The results shown that TFG has lower liquidity risk and the GFPT's ratio dropped as the company increased inventory and receivable.

- Cash Conversion Cycle: GFPT shown relatively high cash conversion cycle on average at 85 days comparing to TFG at 51 days. The number showing that TFG was able to effectively manage and implies a good overall health of the company. TFG was able to convert cash on hand to inventory and account payable, through sales and accounts receivables, and then back into cash fast than GFPT.

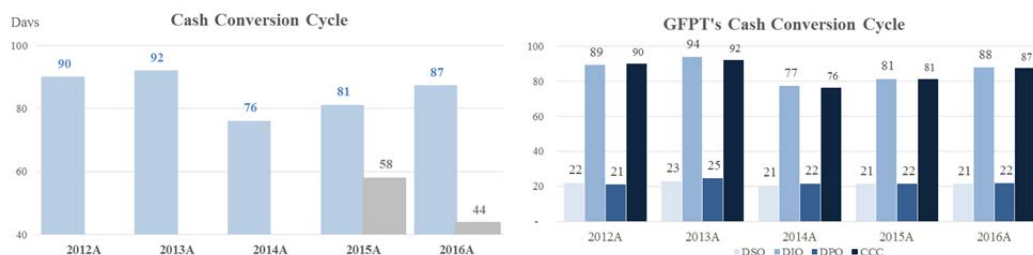


Figure 1.29 Financial Ratios: Cash Conversion Cycle

Source: GFPT and TFG Financial Statements

1.8.6 Long Term Solvency Risk

Debt to Equity Ratio and Interest Coverage Ratio: The Company has a strong financial position as of Y2016 the debt to equity ratio was 0.5, decreased from last year at 0.59. As a result of strong position of the company and subsidiaries of GFPT, the company was able to repay the debt obligations including trade payables and other payables, short term loans, and the current portion of long-term loans from financial institutions. Resulting in lower ratio and lower leverage level. The company still had available credit line including short-term borrowing (bank overdraft), letters of credits, and trust receipts. The company had appropriate capital structure.

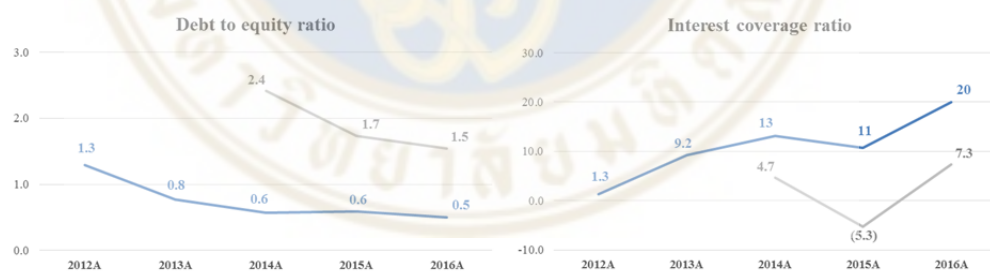


Figure 1.30 Financial Ratios: Long term Solvency risk

Source: GFPT and TFG Financial Statements

For TFG, the debt to equity ratio of the company is relatively high as the company mainly finance through debt. However the Y2015 the company issued new shares through initial public offering. Therefore the equity of the company increased by +31.7% from Y2015 and lowering the debt to equity ratio. By lowering the debt to equity ratio also lowering the financial distress.

1.9 Investment Risks and Downside Possibilities

GFPT's business performance can be affected by several potential risks which can be classified into 5 aspects. The risk matrix table below is being used to measure the level of risk by considering the likelihood and consequence severity of each risk.

Risk Matrix		Likelihood				
		Rare	Unlikely	Possible	Likely	Almost Certain
Consequence	Critical			ER1, MR1		
	Large			ER2		
	Medium				OR2	
	Small			FR1	OR1	RR1
	Insignificant			FR2		

Figure 1.31 Risk Matrix

Source: Team Analysis

1.9.1 Environmental Risk

1.9.1.1 Avian Flu Outbreak | ER1

As Avian Flu is occurred directly to poultry animals, the demand of chicken consumptions would be decreased significantly in both domestic and international markets. In the past, GFPT could not export fresh frozen chicken and processed chicken to Japan due to the outbreak of Avian Flu. Even though many countries have lifted the import ban of chicken product from Thailand, if there is an outbreak of the Avian Flu again, Thai chicken producers may be negatively affected by that circumstance.

Mitigation Approach: GFPT has been constantly monitoring the potential of any disease outbreak in both domestic and international markets in order to take action promptly. The company has also been improving chicken farm management system by using Evaporative Cooling System (EVAP) to prevent outside air that may contain germs. As a result, GFPT has been certified by the Department of Livestock, Ministry of Agriculture and Cooperatives for the good agricultural practices.

1.9.1.2 Natural Disaster | ER2

Any natural disaster such as flood, storm, earthquake, etc. would affect the company performance significantly. As GFPT's main raw materials are corn and soybean meal, these agricultural products can be affected directly from the natural

disaster which can reduce the production volume. As a result, the company's production cost and chicken production volume can be uncertain.

Mitigation Approach: Even though the natural disaster factor is uncontrollable, GFPT has been preparing and reviewing the contingency plan to cope with potential incidences constantly.

1.9.2 Regulatory Risk

Non-Tax Barrier | RR1

EU import quota allows Thailand to export cooked chicken meat products containing 25% - 57% of chicken meat at 14,000 MT per year and cooked chicken meat products containing less than 25% of chicken meat at 2,100 MT. The out-of-quota tariff is Euro 2,765/MT. As GFPT exports approximately 34% of total chicken meat production to the European Union, with this import quota, the company has limited access to Europe market.

Mitigation Approach: Even though the non-tax barrier factor is uncontrollable, GFPT has been monitoring and updating the international rules and regulations for further business decision and expansion.

1.9.3 Market Risk

Changes in Consumer Behaviour | MR1

Consumer behaviour nowadays favours GFPT's business; however, it is rather subjective. Consumer preference and lifestyle can change anytime and can affect GFPT's business performance in terms of sales volume and profitability.

Mitigation Approach: Even though the changes in consumer behaviour cannot be fully mitigated, GFPT has been focusing, studying, and analysing consumer trends and preferences in order to make sound business strategies in terms of production and sales and marketing to acquire new customers and maintain existing customers.

1.9.4 Operational Risk

1.9.4.1 Volatility on Raw Feed Materials Price | OR1

Agricultural commodities such as corn, soybean meal, etc. are major sources of animal feed mill of the company. Commodity price is varied depending

on the market demand and supply which is affected by the uncontrollable factors such as seasonality, natural disaster, and so on. Thus, the potential rising in commodity price tends to increase the company's cost of production.

Mitigation Approach: GFPT has been constantly monitoring the trends of raw feed materials as well as sourcing for the alternative inputs that meet its quality standard. In addition, GFPT builds a storage to store raw feed materials to prevent any shortage that may cause the business performance and business disruption. Nevertheless, GFPT also hedges the price volatility by using derivative financial instruments in order to stabilize business performance.

1.9.4.2 Volatility on Oil Price | OR2

Like the volatility on raw feed materials price, the volatility on oil price would affect the company's cost of production as well as cost of transportation. The potential rising in oil price would increase the cost of production and cost of transportation for GFPT.

Mitigation Approach: As the fluctuation of oil price is uncontrollable, GFPT has been constantly monitoring the trends of oil price in order to make a sound business decision. For example, GFPT has been reducing the production and transportation cost by improving its supply chain through establishment of new feed mill at prime location nearby its broiler farms.

1.9.5 Financial Risk

1.9.5.1 Foreign Exchange Rate Risk | FR1

As GFPT has engaged in international business transactions, the company can be affected by the uncertainty of foreign exchange rate. In terms of imports, the depreciation of Thai Baht currency would negatively affect the company's performance. Conversely, in terms of exports, the depreciations of Thai Baht currency would positively affect the company's performance when converting foreign currency back to home currency. However, this can have downside possibility to affect the company's export sales.

Mitigation Approach: GFPT mitigates the risk by using derivative financial instruments e.g. forward contracts to ensure its stability of earnings by having a control over the selling price and cost.

1.9.5.2 Interest Rate Risk | FR2

To expand the business, GFPT is required high investment on capital expenditures by using both debt and equity financing. The changes in interest rate may affect the company's cost of debt directly; as a result, GFPT's business and financial performance can be affected.

Mitigation Approach: GFPT mitigates the risk by using a fixed interest-rate on debt financing rather than using a floating interest rate. This can help the company to reduce the effects from the changes in interest rate and therefore its financial obligation.



CHAPTER II

DATA

2.1 Company History

The company was initially incorporated as a juristic person on 25 November 1981 under the name of General Foods Poultry (Thai) Company Limited. The company's major business is to manufacture and sell fresh frozen chicken meat and further processing chicken products in both of domestic and international market. Below shown the timeline of major development of the company.

2.1.1 1981-1989: - The early years

The company established in 1981 consisted of three parties of shareholders:

- 51% - P. Charoen Phan Feed mill Company limited (Thailand)
- 34% - General Foods Poultry Company Limited (New Zealand)
- 15% - United Trading Corporation (Luxemburg)

However in 1985, the other two parties of shareholders withdrawn their shares so P. Charoen Phan Group purchased all the shares and increased its share capital from THB 77.7 million to THB 100 million in order to expand the production capacity to eviscerate chicken at the rate of 6,000 birds/hour. Later on in 1989, The Company increased its registered share capital from THB 100 million to THB 150 million in order to expand the production capacity to eviscerate chicken at the rate of 7,200 birds/hour. And the company's name changed from "P. Charoen Phan Poultry Company Limited" to "GFPT Company Limited".

2.1.2 1990-1999: - The company expansion

During 1990-1992 the Company increased its registered share capital from THB 150 million to THB 420 million to expand the business as an integrated chicken farm and acquired shares of four subsidiary companies.

- 99.99% - Krungthai Farm Company (FKT)
- 99.99% - Farm Company Limited (MKS)
- 99.99% - GF Foods Company Limited (GFF)
- 65.00% - Krungthai Feed mill Public Company Limited (KT)

The Company continue to increase its registered share capital from THB 420 million to THB 1,000 million and was listed in the Stock Exchange of Thailand in 1991 with the registered share capital at THB 1,000 million and paid-up capital of THB 570 million.

Later on in 1993, the company joint-venture with a Keystone Foods Corporation (USA)

- 49.00% - McKey Food Services (Thailand) Limited (McKey).

2.1.3 2000-2010: - The company expansion

In 2000-2003, the Company increased its share registered capital from THB 1,000 million to THB 1,400 million and paid-up capital from THB 570 million to THB 1,253.82 million. The company also bought additional shares of Krungthai Feed mill Public Company Limited, share ownership increased from 65% to 96.5% and invested in subsidiary company.

- 96.50% - Krungthai Feed mill Public Company Limited (KT)
- 99.99% - GP Breeding Company Limited (GP)

Later on in 2008, the company joint-venture with a Nichirei Foods Inc. (Japan)

- 49.00% - GFPT Nichirei (Thailand) Company Limited (GFN)

The Company performed stock split from THB 10 per share to THB 1 per share. Therefore, the registered share capital of GFPT Public Company Limited was unchanged at 1,400 million Baht but the number of shares outstanding increased from 140 to 1,400 million shares in 2010.

2.1.4 2010-2015: - Recent years

The company increased its registered share capital by bought additional shares being offered amounted THB 903.56 million of GFPT Nichirei (Thailand) Company Limited to maintain its 49% share ownership. The Krungthai Feed mill Public Company Limited changed name to Krungthai Food Public Company Limited. The Company

also bought additional shares of Krungthai Food Public Company Limited, the share ownership increased from 96.5% to 98.06%.

- 98.06% - Krungthai Food Public Company Limited (KT)

2.2 Management and Organizational Chart

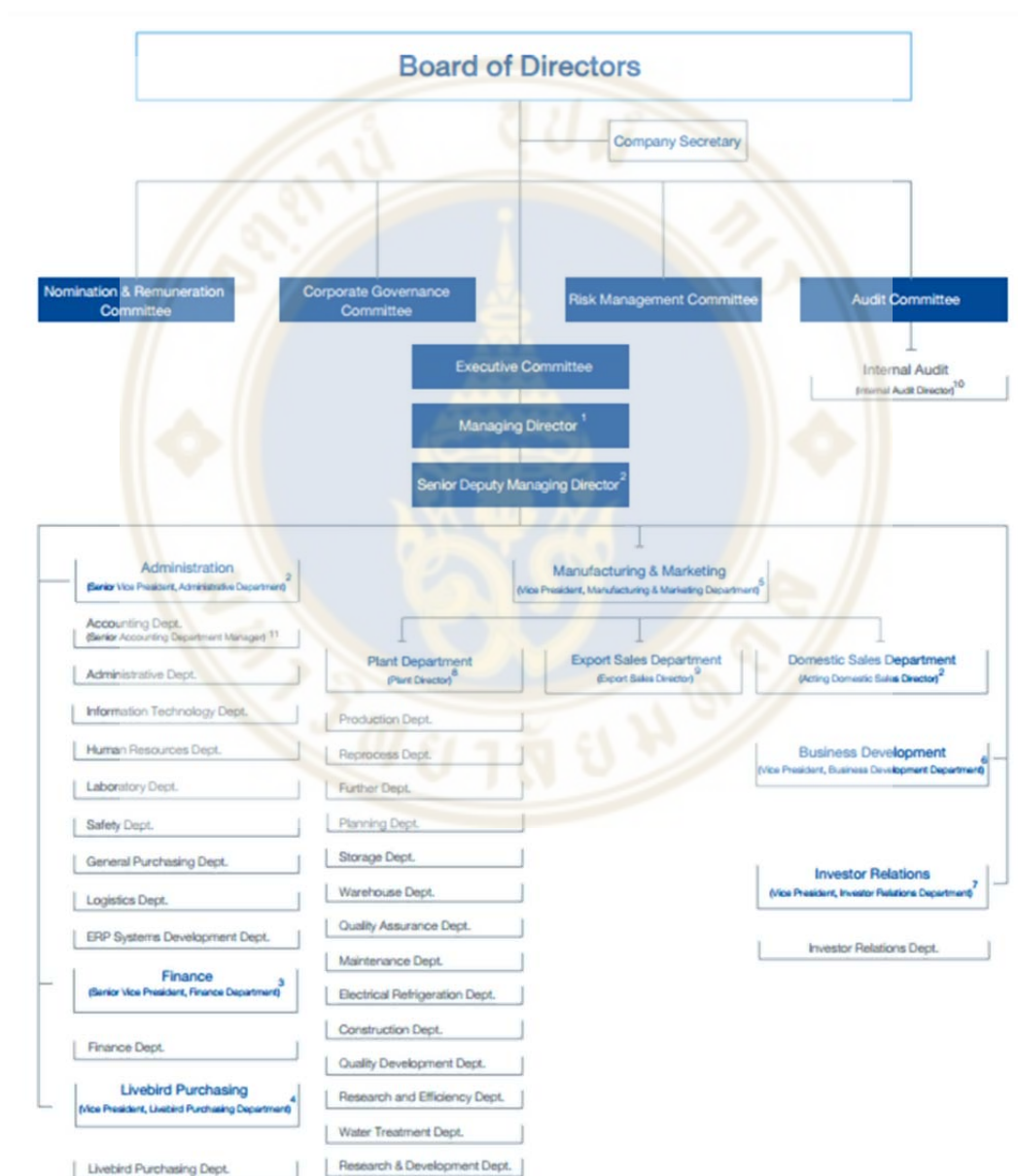


Figure 2.1 Organizational Chart

Source: Company Annual Report

Table 2.1 Board of Directors**1. Board of Directors**

As of 31 December 2016, the Board of Directors of GFPT Public Company Limited comprised of 9 directors as follows:

Name - Surname		Title
1. Mr. Prasit	Sirimongkolkasem ⁽¹⁾	Chairman
2. Mr. Virach	Sirimongkolkasem ⁽¹⁾	Vice Chairman Member of Executive Committee Managing Director
3. Dr. Anan	Sirimongkolkasem ⁽¹⁾	Director Chairman of Executive Committee Member of Nomination and Remuneration Committee Member of Corporate Governance Committee Member of Risk Management Committee Senior Deputy Managing Director Senior Vice President, Administration Department
4. Dr. Sathit	Karanes	Independent Director Chairman of Audit Committee Chairman of Nomination and Remuneration Committee Chairman of Corporate Governance Committee
5. Mr. Paramet	Hetrakul	Independent Director Chairman of Risk Management Committee Member of Audit Committee Member of Nomination and Remuneration Committee
6. Mr. Thanathip	Pichedvanichok	Independent Director Member of Audit Committee Member of Nomination and Remuneration Committee
7. Mrs. Somsiri	Ingpochai	Director Member of Risk Management Committee Member of Executive Committee
8. Ms. Wannee	Sirimongkolkasem	Director Member of Risk Management Committee
9. Mr. Sujin	Sirimongkolkasem	Director Member of Nomination and Remuneration Committee Member of Corporate Governance Committee Member of Risk Management Committee Member of Executive Committee Vice President, Livebird Purchasing Department

Source: Company Annual Report

Table 2.2 Executive Committee (EC)**Executive Committee (EC)**

As of 31 December 2016, the Executive Committee of GFPT Public Company Limited comprised of 7 directors as follows:

Name - Surname		Title
1. Dr. Anan	Sirimongkolkasem	Chairman of Executive Committee
2. Mr. Virach	Sirimongkolkasem	Member of Executive Committee
3. Mrs. Somsiri	Ingpochai	Member of Executive Committee
4. Mrs. Pranee	Parksook	Member of Executive Committee
5. Mr. Jedsada	Sirimongkolkasem	Member of Executive Committee
6. Mr. Sujin	Sirimongkolkasem	Member of Executive Committee
7. Mr. Wongsakorn	Sirimongkolkasem	Member of Executive Committee

3. The Executives

In 2016, GFPT has 11 executives* as follows:

Name - Surname		Title
1. Mr. Virach	Sirimongkolkasem	Managing Director
2. Dr. Anan	Sirimongkolkasem	Senior Deputy Managing Director ** Senior Vice President, Administration Department and Acting Domestic Sales Director
3. Mrs. Pranee	Parksook	Senior Vice President, Finance Department
4. Mr. Sujin	Sirimongkolkasem	Vice President, Livebird Purchasing Department
5. Mr. Kittichai	Sirimongkolkasem	Vice President, Manufacturing and Marketing Department
6. Ms. Wipawadee	Sirimongkolkasem	Vice President, Business Development Department
7. Ms. Jutamas	Ingpochai	Vice President, Investor Relations Department and Company Secretary
8. Mr. Thiti	Wanachate	Plant Director
9. Mr. Artorn	Uapopol	Export Sales Director
10. Mr. Theerasak	Piamsuphakphong	Internal Audit Director
11. Ms. Ratchaneegorn	Pavitrpok	Senior Accounting Department Manager

Note : * Definition of Executives is according to the Security and Exchange Act with the Company's criteria

** Senior Deputy Managing Director is responsible for Finance Department and Administration Department – Accounting Department, also serves as Chief Financial Officer: CFO.

Source: Company Annual Report

2.3 Income Statement

Table 2.3 Income Statement, Historical

GFPT PUBLIC COMPANY LIMITED AND ITS SUBSIDIARY COMPANIES						
Income Statement						
(Unit: Million Baht)	2011A	2012A	2013A	2014A	2015A	2016A
Revenue from sales	14,210	15,370	16,692	17,829	16,467	16,693
Cost of sales	11,985	14,374	14,451	15,334	14,463	14,191
Gross profit	2,224	996	2,241	2,495	2,003	2,502
Share of profit from associates	(111)	(74)	221	326	249	371
Other income	223	281	220	224	229	280
Gain from exchange rate	-	-	91	23	6	50
Other income	112	207	532	572	484	701
Selling expenses	421	490	494	533	484	506
Administrative expenses	480	515	564	632	686	737
Total SGA expense	900	1,005	1,058	1,165	1,170	1,243
Earning before interest and tax (EBIT)	1,435	197	1,716	1,902	1,317	1,960
Financial costs	136	147	186	145	123	98
Earning before tax (EBT)	1,299	50	1,530	1,756	1,194	1,862
Income tax expenses	77	(190)	-	(42)	(20)	206
Minority Interest	19.5	7.7	14.3	18.2	18.6	12.2
Profit (loss) for the year	1,203	232	1,516	1,780	1,195	1,644

GFPT PUBLIC COMPANY LIMITED AND ITS SUBSIDIARY COMPANIES										
Income Statement										
(Unit: Million Baht)	2017F	2018F	2019F	2020F	2021F	2022F	2023F	2024F	2025F	2026F
Revenue from sales	17,611	18,756	19,975	20,924	21,918	22,575	23,252	23,950	24,669	25,409
Cost of sales	14,972	15,757	16,782	17,579	18,414	18,740	19,303	19,882	20,478	21,093
Gross profit	2,639	2,998	3,193	3,345	3,504	3,835	3,950	4,068	4,190	4,316
Share of profit from associates	340	377	401	421	440	454	467	481	496	511
Other income	337	359	383	401	420	432	445	459	473	487
Gain from exchange rate	45	46	46	46	46	46	46	46	46	47
Other income	723	782	830	867	906	932	959	986	1,015	1,044
Selling expenses	554	590	628	658	690	710	731	753	776	799
Administrative expenses	819	872	929	973	1,020	1,050	1,082	1,114	1,147	1,182
Total SGA expense	1,373	1,462	1,558	1,632	1,709	1,760	1,813	1,868	1,924	1,981
Earning before interest and tax (EBIT)	1,989	2,318	2,466	2,581	2,701	3,007	3,096	3,187	3,282	3,379
Financial costs	98	97	93	87	85	89	95	97	102	103
Earning before tax (EBT)	1,891	2,221	2,372	2,494	2,616	2,917	3,000	3,090	3,180	3,276
Income tax expenses	171	203	217	228	326	370	456	470	537	553
Minority Interest	12	12	12	12	12	12	12	12	12	12
Profit (loss) for the year	1,708	2,006	2,143	2,254	2,278	2,536	2,532	2,609	2,631	2,711

Source: Company Annual Report; Team Analysis

2.4 Statements of Financial Position

Table 2.4 Statements of Financial Position (Assets), Historical

GFPT PUBLIC COMPANY LIMITED AND ITS SUBSIDIARY COMPANIES										
STATEMENTS OF FINANCIAL POSITION										
(Unit: Million Baht)	2017F	2018F	2019F	2020F	2021F	2022F	2023F	2024F	2025F	2026F
Assets										
Current assets										
Cash and cash equivalents	440	469	499	523	548	564	581	599	617	635
Trade and other receivables	1,002	1,068	1,137	1,191	1,248	1,285	1,324	1,363	1,404	1,446
Inventories	3,611	3,801	4,048	4,240	4,442	4,520	4,656	4,796	4,939	5,088
Other current assets	25	25	25	25	25	25	25	25	25	25
Total current assets	5,079	5,363	5,709	5,979	6,262	6,395	6,586	6,783	6,986	7,194
Non-current assets										
Investments in associates	2,655	2,655	2,655	2,655	2,655	2,655	2,655	2,655	2,655	2,655
Other long-term investments	-	-	-	-	-	-	-	-	-	-
Grandparent chickens	128	136	145	152	159	164	169	174	179	184
Parent chickens	429	457	487	510	534	550	567	584	601	619
During cultivation-rubber trees	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Investment property	356	356	356	356	356	356	356	356	356	356
Property, plant and equipment	7,312	7,211	7,126	7,053	6,991	6,614	6,645	6,702	6,783	6,884
Deferred tax assets	383	456	487	512	733	830	1,024	1,055	1,206	1,243
Intangible assets	23	24	26	27	29	29	30	31	32	33
Goodwill	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Other non-current assets	135	144	153	160	168	173	178	183	189	195
Total non-current assets	11,426	11,444	11,439	11,430	11,630	11,376	11,629	11,745	12,006	12,173
Total asset	16,505	16,807	17,149	17,410	17,892	17,771	18,215	18,528	18,991	19,368

Source: Company Annual Report; Team Analysis

Table 2.5 Statements of Financial Position (Liabilities and Shareholders' Equity), Historical

GFPT PUBLIC COMPANY LIMITED AND ITS SUBSIDIARY COMPANIES						
STATEMENTS OF FINANCIAL POSITION						
(Unit: Million Baht)	2011A	2012A	2013A	2014A	2015A	2016A
Liabilities and Shareholders' Equity						
Current liabilities						
Short-term loans from financial institutions	666	3,533	2,047	1,177	1,787	1,931
Short-term loans from related persons						
Trade and other payables	633	1,033	922	895	814	886
Current portion of rental income from associate	80	80	11.0	7.9	7.9	7.9
Current portion of long-term loans from financial institutions	-	-	80	230	283	208
Current portion of long-term loans from related persons	-	-	-	-	-	-
Current income tax payable	36	0.23	3.8	2.1	29.6	127.8
Other current liabilities	-	-	24	26	31	37
Short-term Provisions	12.01	9.61	-	-	-	-
Total current liabilities	1,427	4,655	3,088	2,339	2,953	3,198
Non-current liabilities						
Long-term loans from financial institutions	240	160	80	225	275	67
Long-term loans from related persons	2,000	2,000	2,000	1,942	1,800	1,600
Employee benefit obligations	253	271	292	315	339	366
Advance received for rental income from associate	148	141	123	115	107	99
Other non-current liabilities	16	22	62	68	59	51
Total non-current liabilities	2,657	2,594	2,557	2,665	2,581	2,183
Total liabilities	4,084	7,249	5,645	5,004	5,533	5,381
Shareholders' equity						
Share capital						
Authorized share capital						
1,400,000,000 ordinary shares @ Baht 1.00	1,400	1,400	1,400	1,400	1,400	1,400
Issued and paid-up share capital	-	-	-	-	-	-
1,253,821,000 ordinary shares @ Baht 1.00	1,254	1,254	1,254	1,254	1,254	1,254
Premium on ordinary shares	525	525	525	525	525	525
Retained earnings						
Appropriated						
Legal reserve	140	140	140	140	140	140
Unappropriated	3,998	3,625	5,366	6,707	7,400	8,730
Other components of shareholders' equity	2.69	2.92	3.01	7.25	8.32	8.97
Total shareholders' equity of company	5,919	5,546	7,288	8,633	9,327	10,658
Non-controlling interests	65	73	88	100	117	121
Total shareholders' equity	5,984	5,620	7,376	8,733	9,443	10,779
Total liabilities and shareholder's equity	10,068	12,869	13,022	13,737	14,976	16,160

Source: Company Annual Report

**Table 2.5 Statements of Financial Position (Liabilities and Shareholders' Equity),
Historical**

GFPT PUBLIC COMPANY LIMITED AND ITS SUBSIDIARY COMPANIES										
STATEMENTS OF FINANCIAL POSITION										
(Unit: Million Baht)	2017F	2018F	2019F	2020F	2021F	2022F	2023F	2024F	2025F	2026F
Liabilities and Shareholders' Equity										
Current liabilities										
Short-term loans from financial institutions	2,104	2,075	1,937	1,769	1,698	1,876	2,119	2,178	2,368	2,413
Short-term loans from related persons										
Trade and other payables	1,102	1,173	1,250	1,309	1,371	1,412	1,455	1,498	1,543	1,589
Current portion of rental income from associate	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
Current portion of long-term loans from financial institutions	100	100	100	100	100	100	100	100	100	100
Current portion of long-term loans from related persons	-	-	-	-	-	-	-	-	-	-
Current income tax payable	56	4.0	4.2	4.5	6.4	7.2	8.9	9.2	10	11
Other current liabilities	15	16	17	18	19	19	20	20	21	22
Short-term Provisions	-	-	-	-	-	-	-	-	-	-
Total current liabilities	3,385	3,376	3,316	3,208	3,202	3,423	3,710	3,813	4,050	4,143
Non-current liabilities										
Long-term loans from financial institutions	-	-	-	-	-	-	-	-	-	-
Long-term loans from related persons	1,700	1,700	1,700	1,600	1,600	1,600	1,600	1,600	1,600	1,600
Employee benefit obligations	453	483	514	539	564	581	599	617	635	654
Advance received for rental income from associate	94	94	94	94	94	94	94	94	94	94
Other non-current liabilities	55	64	67	68	71	73	76	78	80	82
Total non-current liabilities	2,302	2,340	2,375	2,301	2,329	2,348	2,368	2,388	2,408	2,430
Total liabilities	5,686	5,716	5,691	5,509	5,531	5,771	6,078	6,201	6,459	6,573
Shareholders' equity										
Share capital										
Authorized share capital										
1,400,000,000 ordinary shares @ Baht 1.00	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400
Issued and paid-up share capital	-	-	-	-	-	-	-	-	-	-
1,253,821,000 ordinary shares @ Baht 1.00	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,254
Premium on ordinary shares	525	525	525	525	525	525	525	525	525	525
Retained earnings										
Appropriated										
Legal reserve	140	140	140	140	140	140	140	140	140	140
Unappropriated	8,786	9,050	9,410	9,848	10,302	9,937	10,069	10,255	10,457	10,715
Other components of shareholders' equity	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Total shareholders' equity of company	10,714	10,978	11,338	11,775	12,230	11,865	11,997	12,183	12,385	12,642
Non-controlling interests	106	112	120	125	131	135	139	144	148	152
Total shareholders' equity	10,819	11,090	11,458	11,901	12,361	12,000	12,137	12,327	12,533	12,795
Total liabilities and shareholder's equity	16,505	16,807	17,149	17,410	17,892	17,771	18,215	18,528	18,991	19,368

Source: Team Analysis

2.5 Statement of Cash Flows

Table 2.6 Statement of Cash Flows, Historical

GFPT PUBLIC COMPANY LIMITED AND ITS SUBSIDIARY COMPANIES						
Statement of Cashflow						
(Unit: Million Baht)	2011A	2012A	2013A	2014A	2015A	2016A
Profit (loss) before income tax	1,299	50	1,530	1,756	1,194	1,862
<u>Adjustment to profit (loss) before income tax for cash</u>						
Depreciation-grandparent chickens	48	50	49	58	74	112
Depreciation-parent chickens	317	347	316	382	408	426
Depreciation-investment property	4.6	5.3	5.3	5.5	5.5	5.5
Depreciation	450	490	517	555	578	587
Amortization expenses	2.4	3.0	3.7	4.4	4.9	5.7
Total depreciation and amortization	822	895	892	1,005	1,070	1,137
Loss from assets dilapidation	0	0	0	1	5	3
(Reversal) Doubtful debts-trade and other receivables	(4)	0	5	2	(6)	7
Loss from sales of retired grandparent chickens	0	1	-	-	2	0
(Gain) Loss from sales of retired parent chickens	(5)	27	(20)	2	40	(7)
Loss from value of disposal of chicks	3.7	3.8	2.3	3.0	1.3	4.2
Bad Debts-Trade Receivables	0	-	-	-	-	-
(Reversal) Loss from decline in value of inventories	21	6	-	-	2	(14)
Gain from sales of property, plant and equipment	(6.5)	(3.4)	(3.4)	(3.8)	(0.9)	(1.4)
(Gain) loss from unrealized exchange rate	2.4	(2.3)	(3.6)	(0.4)	0.1	0.3
Employee benefit obligations	24	27	26	26	38	37
Advance received for rental income	(7)	(7)	(7)	(11)	(8)	(8)
Leasehold recognized as revenue	-	-	(0.2)	(1.3)	(1.3)	(1.3)
Interest income	(2.1)	(1.9)	(1.4)	(1.5)	(1.1)	(1.4)
Interest expense	136	147	186	145	123	98
Share of profit from associates	111	74	(221)	(326)	(249)	(371)
Profit (loss) from operating activities before changes in operating assets and liabilities	2,400	1,187	2,381	2,590	2,208	2,745
Cash flows from operating activities (continue)						
(Increase) decrease in operating assets						
Trade and other receivables	(29)	(145)	(141)	194	(115)	87
Inventories	(652)	(1,448)	945	(192)	(156)	(633)
Other current assets	(1)	(2)	5	3	5	(2)
Other non-current assets	(20)	(13)	(2)	(9)	(27)	8
Increase (decrease) in operating liabilities						
Trade and other payables	(65)	332	(176)	(57)	(127)	16
Other current liabilities	3	(2)	9	3	5	5
Employee benefit obligation	(2)	(10)	(4)	(3)	(8)	(10)
Other non-current liabilities	2	6	40	7	(7)	(7)
Cash received from operating activities	1,637	(94)	3,057	2,536	1,777	2,208
Cash received from construction in progress	-	-	-	-	-	0.3
Cash received from interest income	2.1	1.9	1.4	1.5	1.1	1.4
Cash received from income tax	4.3	-	26.7	0.0	3.6	5.1
Cash payment in income tax	(97)	(42)	(13)	(23)	(17)	(126)
Net cash received from operating activities	1,546	(135)	3,072	2,515	1,765	2,089
Cash flows from investing activities						
Cash received from dividend from investments in subsidiary	-	-	-	-	-	-
Cash received from dividend from investments in associate	-	29	34	29	29	49
Cash Received from Temporary Investments	-	0.0	-	-	-	-
Cash payment in investments in subsidiary	(0.2)	(904)	(0.1)	(2.6)	(0.4)	(1.6)
Cash received from sales of retired grandparent chickens	4.2	3.0	2.8	4.7	3.1	9.8
Cash payment in investments in grandparent chickens	(46)	(47)	(56)	(85)	(85)	(132)
Cash received from sales of retired parent chickens	97	64	90	108	84	95
Cash payment in investments in parent chickens	(375)	(363)	(400)	(491)	(460)	(452)
Cash payment in during cultivation-rubber trees	-	-	-	-	-	(0)
Cash received from sales of property, plant and equipment	23	24	19	20	8.8	25
Cash payment in purchase of property, plant and equipment	(702)	(782)	(946)	(886)	(924)	(1,145)
Cash payment in purchase of intangible assets	-	-	(6)	(6)	(6)	(19)
Cash payment in purchase of intangible assets awaiting installat	(4)	(3)	(16)	(10)	(7)	(6)
Cash payment in interest expenses capitalize to assets	(15)	(13)	(16)	(21)	(29)	(36)
Net cash from (used in) investing activities	(1,018)	(1,991)	(1,292)	(1,340)	(1,386)	(1,613)
Cash flows from financing activities						
Increase in trust receipt payables	340	1,058	(1,491)	(50)	0	129
Cash received from short-term loans from financial institutions	1,050	5,150	13,185	8,645	12,260	11,620
Cash payment in short-term loans from financial institutions	(1,180)	(3,340)	(13,180)	(9,465)	(11,650)	(11,605)
Cash received from short-term loans from subsidiary	-	-	-	-	-	-
Cash received from long-term loans from financial institutions	-	-	-	450	400	-
Cash payment in long-term loans from financial institutions	(238)	(80)	(80)	(155)	(297)	(283)
Cash received from long-term loans from related persons	2	3	49	318	127	-
Cash payment in long-term loans from related persons	-	(3)	(49)	(376)	(269)	(200)
Cash payment in interest expenses	(135)	(144)	(186)	(143)	(124)	(99)
Cash payment for dividend	(376)	(414)	-	(439)	(501)	(313)
Non-controlling interests of dividend	(3)	(0)	(0)	-	-	(6)
Net cash received from (used in) financing activities	(541)	2,229	(1,753)	(1,215)	(56)	(762)
Net increase (decrease) in cash and cash equivalents	(12)	104	28	(41)	323	(282)
Cash and cash equivalents at the beginning of the year	191	179	283	311	270	592
Cash and cash equivalents at the ending of the year	179	283	311	270	592	311

Source: Company Annual Report

Table 2.6 Statement of Cash Flows, Projection (cont.)

GFPT PUBLIC COMPANY LIMITED AND ITS SUBSIDIARY COMPANIES										
Statement of Cashflow										
(Unit: Million Baht)	2017F	2018F	2019F	2020F	2021F	2022F	2023F	2024F	2025F	2026F
Profit (loss) before income tax	1,891	2,221	2,372	2,494	2,616	2,917	3,000	3,090	3,180	3,276
Adjustment to profit (loss) before income tax for cash										
Depreciation-grandparent chickens	66	65	64	63	63	62	59	59	60	60
Depreciation-parent chickens	423	416	410	405	401	398	376	378	381	386
Depreciation-investment property	6.3	6.2	6.1	6.0	6.0	5.9	5.6	5.6	5.7	5.7
Depreciation	619	609	601	594	588	583	551	554	559	565
Amortization expenses	4.3	4.3	4.2	4.1	4.1	4.1	3.8	3.9	3.9	3.9
Total depreciation and amortization	1,119	1,101	1,086	1,073	1,062	1,052	996	1,000	1,009	1,021
Loss from assets dilapidation	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
(Reversal) Doubtful debts-trade and other receivables	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Loss from sales of retired grandparent chickens	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
(Gain) Loss from sales of retired parent chickens	(7.1)	(7.1)	(7.1)	(7.1)	(7.1)	(7.1)	(7.1)	(7.1)	(7.1)	(7.1)
Loss from value of disposal of chicks	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Bad Debts-Trade Receivables	-	-	-	-	-	-	-	-	-	-
(Reversal) Loss from decline in value of inventories	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)
Gain from sales of property, plant and equipment	(1.35)	(1.35)	(1.35)	(1.35)	(1.35)	(1.35)	(1.35)	(1.35)	(1.35)	(1.35)
(Gain) loss from unrealized exchange rate	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28
Employee benefit obligations	37	37	37	37	37	37	37	37	37	37
Advance received for rental income	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
Leasehold recognized as revenue	(1.32)	(1.32)	(1.32)	(1.32)	(1.32)	(1.32)	(1.32)	(1.32)	(1.32)	(1.32)
Interest income	(1.36)	(1.36)	(1.36)	(1.36)	(1.36)	(1.36)	(1.36)	(1.36)	(1.36)	(1.36)
Interest expense	98	97	93	87	85	89	95	97	102	103
Share of profit from associates	(340)	(377)	(401)	(421)	(440)	(454)	(467)	(481)	(496)	(511)
Profit (loss) from operating activities before changes in operating assets and liabilities	2,787	3,061	3,169	3,252	3,342	3,625	3,643	3,726	3,814	3,909
Cash flows from operating activities (continue)										
(Increase) decrease in operating assets										
Trade and other receivables	(70)	(65)	(69)	(54)	(57)	(37)	(39)	(40)	(41)	(42)
Inventories	42	(189)	(247)	(192)	(201)	(79)	(136)	(140)	(144)	(148)
Other current assets	(7.1)	-	-	-	-	-	-	-	-	-
Other non-current assets	(59)	(8.8)	(9.3)	(7.3)	(7.6)	(5.0)	(5.2)	(5.3)	(5.5)	(5.7)
Increase (decrease) in operating liabilities										
Trade and other payables	215	72	76	59	62	41	42	44	45	46
Other current liabilities	(22)	1.0	1.0	0.8	0.8	0.6	0.6	0.6	0.6	0.6
Employee benefit obligation	(88)	(29)	(31)	(24)	(26)	(17)	(17)	(18)	(19)	(19)
Other non-current liabilities	3.7	9.4	3.1	1.3	2.3	2.2	3.1	1.8	2.0	2.4
Cash received from operating activities	2,803	2,850	2,892	3,036	3,116	3,531	3,493	3,569	3,653	3,743
Cash received from construction in progress	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Cash received from interest income	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Cash received from income tax	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
Cash payment in income tax	(36)	(3)	(3)	(3)	(4)	(5)	(6)	(6)	(7)	(7)
Net cash received from operating activities	2,774	2,854	2,896	3,040	3,119	3,533	3,494	3,570	3,653	3,743
Cash flows from investing activities										
Cash received from dividend from investments in subsidiary	-	-	-	-	-	-	-	-	-	-
Cash received from dividend from investments in associate	45	50	53	56	58	60	62	64	65	67
Cash Received from Temporary Investments	-	-	-	-	-	-	-	-	-	-
Cash payment in investments in subsidiary	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)
Cash received from sales of retired grandparent chickens	10	11	12	12	13	13	14	14	15	15
Cash payment in investments in grandparent chickens	(133)	(141)	(149)	(151)	(162)	(167)	(172)	(177)	(182)	(190)
Cash received from sales of retired parent chickens	100	106	113	122	160	220	255	292	331	341
Cash payment in investments in parent chickens	(459)	(489)	(512)	(536)	(511)	(567)	(584)	(601)	(619)	(664)
Cash payment in during cultivation-rubber trees	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Cash received from sales of property, plant and equipment	24	24	24	24	70	66	66	67	68	69
Cash payment in purchase of property, plant and equipment	(1,536)	(1,587)	(1,639)	(1,622)	(1,608)	(1,521)	(1,528)	(1,542)	(1,560)	(1,583)
Cash payment in purchase of intangible assets	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
Cash payment in purchase of intangible assets awaiting installat	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Cash payment in interest expenses capitalize to assets	(36)	(36)	(36)	(36)	(36)	(36)	(36)	(36)	(36)	(36)
Net cash from (used in) investing activities	(2,010)	(2,088)	(2,160)	(2,157)	(2,042)	(1,957)	(1,949)	(1,945)	(1,945)	(2,008)
Cash flows from financing activities										
Increase in trust receipt payables	129	129	129	129	129	129	129	129	129	129
Cash received from short-term loans from financial institutions	16,509	15,067	21,772	20,777	29,234	27,350	39,379	37,250	53,074	50,216
Cash payment in short-term loans from financial institutions	(16,298)	(14,960)	(21,636)	(20,813)	(29,465)	(28,084)	(40,075)	(38,025)	(53,927)	(51,094)
Cash received from short-term loans from subsidiary	-	-	-	-	-	-	-	-	-	-
Cash received from long-term loans from financial institutions	-	-	-	-	-	-	-	-	-	-
Cash payment in long-term loans from financial institutions	(283)	(283)	(283)	(283)	(283)	(283)	(283)	(283)	(283)	(283)
Cash received from long-term loans from related persons	-	-	-	-	-	-	-	-	-	-
Cash payment in long-term loans from related persons	(213)	(213)	(213)	(200)	(200)	(200)	(200)	(200)	(200)	(200)
Cash payment in interest expenses	(98)	(97)	(93)	(87)	(85)	(89)	(95)	(97)	(102)	(103)
Cash payment for dividend	(376)	(376)	(376)	(376)	(376)	(376)	(376)	(376)	(376)	(376)
Non-controlling interests of dividend	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Net cash received from (used in) financing activities	(634)	(738)	(706)	(859)	(1,052)	(1,559)	(1,528)	(1,608)	(1,691)	(1,717)
Net increase (decrease) in cash and cash equivalents	129	29	30	24	25	16	17	17	18	19
Cash and cash equivalents at the beginning of the year	311	440	469	499	523	548	564	581	599	617
Cash and cash equivalents at the ending of the year	440	469	499	523	548	564	581	599	617	635

Source: Team Analysis

2.6 SWOT Analysis

2.6.1 Strengths (S)

2.6.1.1 Quality Control: As GFPT is a fully vertical integrated chicken producer, it has gained the advantage from quality control. GFPT can control the quality of its product throughout the production process. In the event of Avian Flu or Bird Flu outbreaks, GFPT seems less likely to be affected by such circumstance as it has developed the close-farming system to prevent such disease. Therefore, GFPT can ensure its business continuing without any disruption.

2.6.1.2 Cost Control: As GFPT is a fully vertical integrated chicken producer and majority of its business transaction comes from inter-company transactions, it has gained the advantage from cost control. GFPT can control the units produced to match with potential demands in order to reduce inventory carrying cost. Thus, GFPT is able to enhance production effectiveness and efficiency.

2.6.1.3 Price Control: As GFPT uses its own subsidiary to be a solely distribution channel, it has gained the advantage of price control. So, GFPT has flexibility to adjust price in order to match with customers' price elasticity and expectation while maintain certain level of margin.

2.6.1.4 Expand to International Market through a Joint Venture Company

Table 2.7 Chicken Meat Exports of Thailand 2016

	2016		Forecast 2017		Change
	MT	Mil. Baht	MT	Mil. Baht	16 / 17 (%)
Product					
- Raw	240,123	21,341	270,000	25,344	12.44
- Further (Cooked)	502,846	74,534	500,000	74,112	(0.57)
Total	742,969	95,875	770,000	99,456	3.64
Market					
- Japan	375,129	53,755	400,000	57,319	6.63
- EU	291,513	34,432	280,000	33,072	(3.95)
- Others	76,327	7,688	90,000	9,065	17.91
Total	742,969	95,875	770,000	99,456	3.64

Source: Company IR Report

Japan is the most important market of chicken meat, GFPT has jointed venture with Nichirei Foods Inc. in order to produce and distribute processed foods and cooked chicken meats for both domestic and international markets, especially Japan. By having a Japanese firm as a business partner, it would allow GFPT to expand its market based in Japan market smoothly. Thus, GFPT Nichirei (Thailand) Co., Ltd., a joint venture company, has become one of the key exporters in the market.

2.6.2 Weakness (W)

Limited Capacity: As the demand for chicken products tends to be positive in 2017 where expected demand for domestic market is approximately 1.29 million tons and international market is approximately 0.76 million tons in 2017, GFPT currently has limited production capacity of 154,000 tons per year. Due to this fact, GFPT may lose its opportunity cost as well as market share to its competitors especially CPF.

2.6.3 Opportunities (O)

2.6.3.1 High Demand for Chicken Meat

- **Domestic Market:** Currently, the demand for chicken meat consumption in Thailand has been increasing from time to time. There was an increase in demand at approximately 2.42% from 2015 to 2016 and is expected to increase in 2017 at approximately 2.84% from 2016 to 2017. The underlying reasons for this raising are that the price for chicken meat is rather cheaper than other meats and the nutrition of chicken meat is preferred by health-conscious consumers rather than other meats.

- **International Market:** The demand for chicken meat consumption has been increasing by 0.48% YoY in 2016 and expected to increase by 1.18% YoY in 2017 where majority of the demand comes from USA, China, and the European Union respectively. In addition, the demand for chicken product import has been demanding aggressively by Japan at 2.03% YoY in 2016. This would allow chicken exports to enjoy the increase in price due to Demand-Supply mechanism.

2.6.3.2 Limited Existing Players: While the demand for chicken import in Japan is expected to increase overtime, the current production in Thailand is limited as Thailand has to serve both domestic and international market. With limited

existing chicken producers in Thailand, there would be a room for chicken producers to consider business expansion.

2.6.3.3 The Lift of Import Ban on Thai Frozen Chicken Meat:

Due to the Avian Flu outbreak in Thailand during 2004, many countries especially Japan, the European Union, and South Korea had imposed the imported of Thai chicken products. However, as Thai chicken producers has developed the system to prevent the Avian Flu and gained the confidence back from both domestic and international markets, many countries has lifted the import ban on Thai chicken products.

2.6.3.4 Avian Flu Outbreak in the United States:

Due to the Avian Flu outbreak in the United States during December 2014, many countries imposed the chicken products from the United States allowing Brazil to be a leading exporter in the market where Thailand ranked number 4 of global chicken exporter. As a result from this incidence, Thailand is enable to increase its market of exporting chicken products worldwide.

2.6.3.5 Appreciation of Brazilian Real Currency against US Dollar Currency

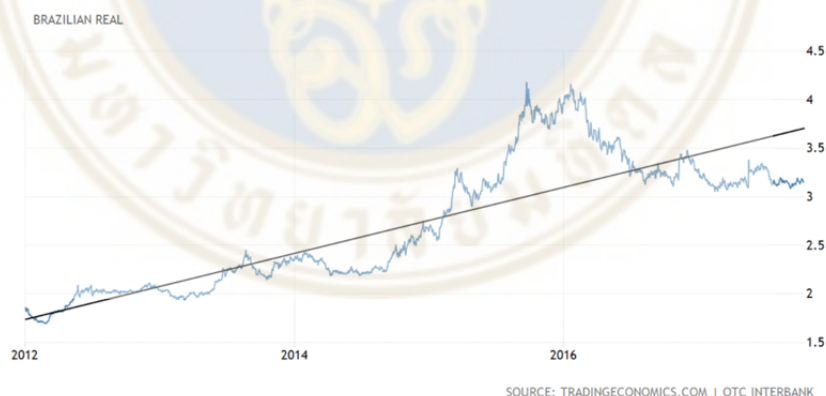


Figure 2.2 Historical BRL/USD Exchange Rate (2012 – 2017)

Source: Trading Economic

Due to the fact that Brazil has become a leading chicken exporter, Thailand has been competing with Brazil over Japan market. Basically, Japan perceives product between Brazil and Thailand to be substitute; thus, the appreciation of Brazilian

Real against US Dollar and is expected to continue in the same direction favors Thai chicken exporters due to cheaper price.

2.3.3.6 Less Competitive Intensity in China: China population has been increasing at the decreasing growth rate; thus, most of chicken producers are focusing on serving the domestic demand rather than international demand. It would be a great opportunity for Thai chicken exporters to gain more market share internationally.

2.6.4 Threats (T)

2.6.4.1 EU Import Quota: EU import quota allows Thailand to export cooked chicken meat products containing 25% - 57% of chicken meat at 14,000 MT per year and cooked chicken meat products containing less than 25% of chicken meat at 2,100 MT. The out-of-quota tariff is Euro 2,765/MT. Thus, Thai chicken exporters would have limited access to Europe market.

2.6.4.2 The Potential Increase in Corn and Oil Price: As corn is a major source of animal feed mill; thus, the potential rising in corn price tends to increase the cost of production for Thai chicken producers. In addition, the potential rising in oil price would increase the cost of production for Thai chicken producers. Thus, it would be necessary for producers to carefully monitor the trends and cost-control in order to increase their productivity and efficiency.

2.6.4.3 Potential of Avian Flu Outbreak: As Avian Flu is occurred directly to poultry animals, if there is an outbreak of the Avian Flu in Thailand, Thai chicken producers may be negatively affected by that circumstance.

2.7 Five-Force Model Analysis

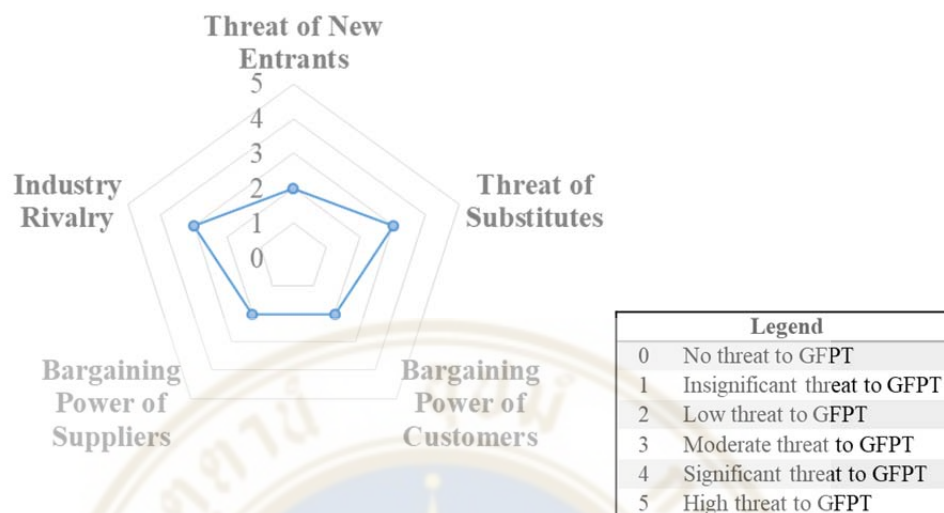


Figure 2.3 Five-Force Model Analysis

Source: Team Analysis

2.7.1 Threat of New Entrants (Low)

Again, as GFPT is a fully vertical integrated chicken producer as well as there are various key players which are Charoen Pokphand Foods Pcl., Thaifoods Group Pcl., Betagro Pcl., Saha Farms Co., Ltd., Cargill Meats (Thailand) Co., Ltd., etc., it would be difficult for new players to compete with the existing players especially in perspectives of economies of scales, access to distribution channels, and customer loyalty. In addition, it also required high capital investments to compete with existing players. Therefore, with economies of scale, product differentiation, capital requirements, access to distribution channels, and customer loyalty, degree of customer switching as key determinants, the threat of new entrants tends to be LOW threat to GFPT.

2.7.2 Threat of Substitutes (Moderate)

As chicken product is considered to be a commodity product, there are many substitute products available in the market. Even though there are low buyer's switching costs, moderate perceived level of product differentiation among substitute products, high number of substitute products and ease of substitution, the current consumer behavior,

preference, and price are still favorable for GFPT. Therefore, threat of substitutes tends to be MODERATE threat to GFPT.

2.7.3 Bargaining Power of Customers (Low)

GFPT main revenue comes from chicken evisceration/processed chicken which provides fresh frozen chicken parts, cooked chicken products and by product from chicken evisceration for both domestic and international markets at 50.45% and 49.55% respectively. Most of domestic sales come from wholesalers and retailers of chicken products in which half of domestic sales are from associated companies e.g. McKey Food Services (Thailand) Limited and GFPT Nichirei (Thailand) Company Limited.

Similarly, GFPT also sells products directly to customers in international market, especially Japan and the European Union. Moreover, GFPT main competitor in Japan market are Brazilian chicken meat exporters as Japan would import chicken from Thailand if the price is lower than the price in Brazil. Luckily, due to a joint venture with Nichirei Foods Incorporation, a subsidiary of Nichirei Corporation, GFPT is being supported by Nichirei Corporation on market order in Japan and know-how.

Even though a chicken consumption tends to increase overtime due mainly to consumer preference, there are low degree of customer switching costs and high price sensitivity as chicken product is considered to be commodity goods. However, the relationship between GFPT and customers is relatively strong due to its product quality and brand image. Thus, with degree of customer switching costs and price sensitivity as key determinants, the bargaining power of consumers tends to be LOW threat to GFPT.

2.7.4 Bargaining Power of Suppliers (Low)

As GFPT is a fully vertical integrated chicken producer, all animal feeds come from its subsidiaries companies. In this case, there is no threat to the chicken business. On the other hands, looking at the scope of a vertical integrated chicken business, the main suppliers would be mainly corn producers for animal feeds. As corn is considered to be a commodity product, degree of differentiation of corn would be low. In addition, due to limited supply of corn available in the market and limited import quota policy, GFPT would be exposed to the price volatility risk that could impact the production cost. However,

there are other substitute products available in the market such as soybeans, husks, etc. For crude oil as a commodity product, the volatility in oil price would affect all players within the same industry; thus, the change in crude oil price neither benefits one over the others. All in all, with low degree of differentiation of input and high presence of substitute inputs as key determinants, the bargaining power of suppliers tends to be LOW threat to GFPT.

2.7.5 Industry Rivalry (Moderate)

Due to the fact that chicken products are commodities, yet the demand of chicken is exceeding the supply. In addition, there is a clear market leader in the market and GFPT also has clear customer segment markets as well as a strong relationship with customers; thus, the industry rivalry tends to be MODERATE threat to GFPT.

2.8 Disclosures

1. Ownership and material conflicts of interest:

The author(s), or a member of their household, of this report [holds/does not hold] a financial interest in the securities of this company.

The author(s), or a member of their household, of this report [knows/does not know] of the existence of any conflicts of interest that might bias the content or publication of this report. [The conflict of interest is...]

2. Receipt of compensation: Compensation of the author(s) of this report is not based on investment banking revenue.

3. Position as an officer or director:

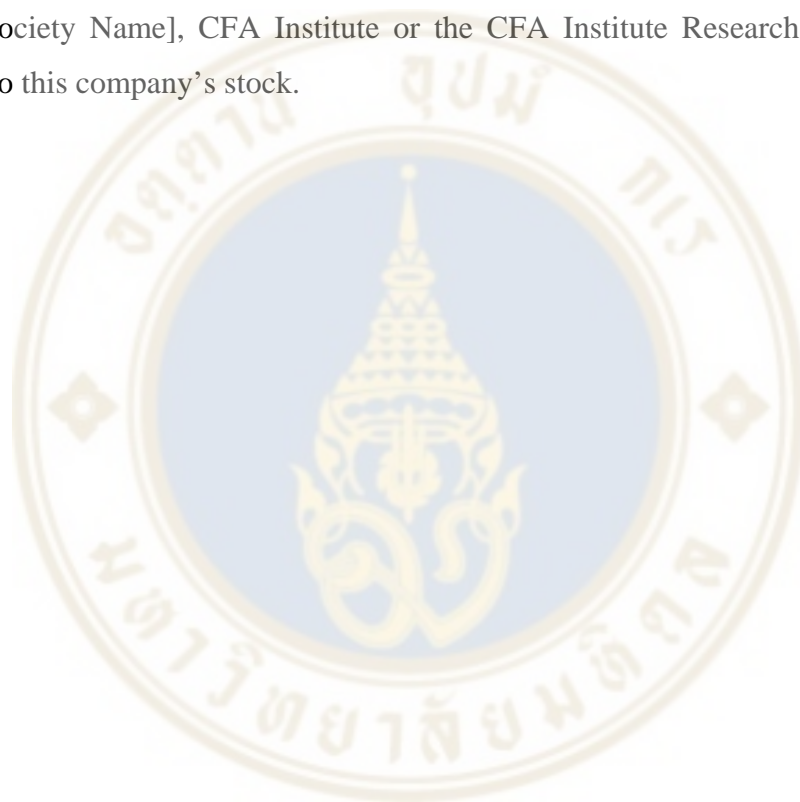
The author(s), or a member of their household, does [not] serves as an officer, director or advisory board member of the subject company.

4. Market making: The author(s) does [not] act as a market maker in the subject company's securities.

5. Ratings guide: The author(s) rate companies as either a BUY, HOLD or SELL.

6. Disclaimer:

The information set forth herein has been obtained or derived from sources generally available to the public and believed by the author(s) to be reliable, but the author(s) does not make any representation or warranty, express or implied, as to its accuracy or completeness. The information is not intended to be used as the basis of any investment decisions by any person or entity. This information does not constitute investment advice, nor is it an offer or a solicitation of an offer to buy or sell any security. This report should not be considered to be a recommendation by any individual affiliated with [Society Name], CFA Institute or the CFA Institute Research Challenge with regard to this company's stock.



REFERENCES

- Centers for Disease control and Prevention. (2017). *US Influenza (Flu)*. Retrieved from <https://www.cdc.gov/flu/avianflu/h5/index.htm>.
- CPF Annual Report. (2017). *Charoen Pokphand Foods Public Company Limited*. Retrieved from https://www.cpfworldwide.com/contents/investors/download/annual-report/CPF_Annual_Report_2016_ENG.pdf.
- Damodaran, A. (2018). *Country Default Spreads and Risk Premiums*. Retrieved from http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html.
- Department of International Trade Promotion, Ministry of Commerce. (2017). *Frozen & Processed Chicken Export Market*. Retrieved from http://www.ditp.go.th/contents_attach/165774/165774.pdf.
- Economies and Consumers Annual Data. (2017). *Uncover your next opportunity Actionable data and analysis driving business strategy*. Retrieved from <http://go.euromonitor.com/passport.html>.
- GFN About Us. (2017). *About Us Company background*. Retrieved from <http://www.gfn.co.th/about-us.html>.
- GFPT Annual Report. (2018). *Annual Report 2016*. Retrieved from http://www.gfpt.co.th/ir_annualreport.php?lang=en.
- GFPT Public Company Limited. (2018). *GFPT Form 56-1*. Retrieved from http://www.gfpt.co.th/ir_from56-1.php?lang=en.
- Indexmundi. (2018). *Thailand - Population Growth Rate - Historical Data Graphs per Year*. Retrieved from: <https://www.indexmundi.com/g/g.aspx?c=th&v=24>
- Indexmundi. (2018). *Thailand - Population - Historical Data Graphs per Year*. Retrieved from: <https://www.indexmundi.com/g/g.aspx?c=th&v=21>.
- Nichirei Foods Inc. (2017). *Nichirei Company Information*. Retrieved from <http://www.nichirei.co.jp/english/index.html>.
- OECD Data. (2018). *Real GDP Forecast*. Retrieved from <https://data.oecd.org/gdp/real-gdp-forecast.htm>.

- Office of Agricultural Economics. (2017). *Agricultural Industry Outlook 2017*. Retrieved from http://www.oae.go.th/download/document_tendency/agri_situation_2560.pdf.
- Petchseechoung, W. (2017). *Frozen & Processed Chicken Industry Outlook 2016-2018*. Retrieved from https://www.krungsri.com/bank/getmedia/547be15f-6d5d-44c3-ace7-996f3d03e4dc/IO_Chicken_2016_EN.aspx.
- Petchseechoung, W. (2017). *Frozen & Processed Chicken Industry Outlook 2017-2019*. Retrieved from https://www.krungsri.com/bank/getmedia/8a30d9ee-9f98-47f7-8088-2c85ae07a464/IO_Chicken_2017_EN.aspx.
- Preechajarn, S. (2018). *Poultry and Products Annual: Thailand*. Retrieved from https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Poultry%20and%20P%20roducts%20Annual_Bangkok_Thailand_9-1-2017.pdf.
- Thai Broiler Processing Exporters Association. (2017). *Thailand Chicken Meat Exports Statistics*. Retrieved from <http://www.thaipoultry.org/welcome.php?page=exportStatic>.
- Thai Feed Mill Association. (2018). *Monthly Raw Material Price*. Retrieved from: <http://www.thaifeedmill.com/%E0%B8%A3%E0%B8%B2%E0%B8%84%E0%B8%B2Price/tabid/78/Default.aspx>.
- Thai Institute of Directors Association. (2017). *Corporate Governance Report of Thai Listed Companies 2016*. Retrieved from [http://www.thai-iod.com/imgUpload/CGR%202016%20Report\(1\).pdf](http://www.thai-iod.com/imgUpload/CGR%202016%20Report(1).pdf).
- Thaifoods Group Public Company Limited. (2018). *TFG Annual Reports*. Retrieved from: <http://investor.tfg.co.th/ar.html>.
- Thaifoods Group Public Company Limited. (2018). *TFG Form 56-1*. Retrieved from http://investor.tfg.co.th/form_561.html.
- The Stock Exchange of Thailand. (2018). *GFPT Financial Highlight*. Retrieved from: <https://www.set.or.th/set/companyhighlight.do?symbol=GFPT&language=th&country=TH>.
- Thomson Reuters. (2018). *GFPT Pcl*. Retrieved from <https://www.reuters.com/finance/stocks/financial-highlights/GFPT.BK>.
- Tim K., Marc G., and David W. (2010). *Valuation: Measuring and Managing the Value of Companies*. 5th ed. NY: Wiley.

- Trading Economics. (2017). *Historical BRL/USD Exchange Rate (2012 – 2017)*. Retrieved from <https://tradingeconomics.com/brazil/currency>.
- Tradingeconomics. (2018). *Thailand GDP Growth Rate - Forecast*. Retrieved from: <https://tradingeconomics.com/thailand/gdp-growth/forecast>.
- Tradingeconomics. (2018). *Thailand Government Bond 10Y*. Retrieved from <https://tradingeconomics.com/thailand/government-bond-yield>.
- United States Department of Agriculture. (2017). *Livestock and Poultry: World Markets and Trade*. Retrieved from: https://apps.fas.usda.gov/psdonline/circulars/livestock_poultry.pdf.
- USDA Foreign Agricultural Service. (2017). *Thailand Poultry and Products Annual 2017*. Retrieved from https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Poultry%20and%20Products%20Annual_Bangkok_Thailand_9-1-2017.pdf.
- Worldometers. (2017). *China Population (2017, 2018)*. Retrieved from <http://www.worldometers.info/world-population/china-population/>.