Fundamental Valuation of
PT. Indofood Sukses Makmur, Tbk Using Discounted Cash Flow and Residual Earning Model

STEFANIE WIJAYA
Sampoerna School of Business
dan
ADLER HAYMANS MANURUNG
PT Finansial Bisnis Informasi

Abstract

Investment has been said to be a commitment to finance one or more firm(s) and hold it for a period of time, for the purpose of capital gain. Investors can get capital gain by investing in firm that is mispriced in the market; ie. buying stock that is undervalued by the market. The quest that is left for investors is to find the right company to put their money in. Top-down approach will be used in this paper; it is done by analyzing macroeconomic condition, finding the best performing industry given macro condition, picking the desired sector, and finally gather the justification to pick a targeted company. Finding the true value for stocks can be done by doing fundamental valuation. There are various method that can be used for determining the intrinsic value of stocks, two of which are the Discounted Cash Flow Method and Residual Earning Model. This paper will elaborate the application of DCF method and RE model in order to find the true value of a firm. In this research, PT. Indofood Sukses Makmur, Tbk is found to be undervalue and provide potential upside gain for the coming 12 months. Hence, a buy recommendation is iterated for PT. Indofood Sukses Makmur, Tbk.

Keywords : Fundamental Valuation, Discounted Cash Flow, Residual Earning Model, Intrinsic Valuation, Financial Modelling.

1. Introduction

Indonesia is the 4th most populous nation in the world and is now undergoing a major structural shift in terms of demographics. More than half of the roughly 240 million people in 2012 were between 5 and 34 years of age. The emerging middle class and consumers from the Indonesian middle class broadly support domestic industry and imported goods, particularly for retail and consumer products, processed foods, and the automotive industry. In 2013, consumption accounted for 44% of the GDP.

In the world of consumer products, all eyes are on Indonesia. Indonesia's population of 245 million is Asia's third largest after China and India, while its economy is among the world's fastest growing. Indonesia's middle class, already almost four times the UK's entire population, is also gong richer with stronger purchasing power. Faced with such a potentially huge market, no multinational corporation (MNC) consumer products firms with global ambitions can afford to ignore Indonesia.

Household income in Indonesia has also been growing: in 2007, one-third of Indonesia's 60 million households had incomes above $5,000, up from fewer than 3 million households in 2000 (Euromonitor, 2009). Between 2000 and 2007, the proportion of households with disposable income under US$2,500 declined from two-thirds of the population to one quarter (Euromonitor, 2009). Broken into sectors, the most rapid growth of consumer spending is for the financial services sector as for investment and savings. Spending on food and beverage grows with a 5.2% CAGR, in line with the average Indonesian GDP growth. Referring to Indonesia's Central Bureau of Statistics, by 2030 the food and beverage spending is projected to be as large as $ 194 billion, the second largest spending after financial services.

The attractiveness of Indonesian consumer sector may not only benefit big firms who has been in the market and who are going into the market, but also particularly for investors too. Looking for the long term growth prospects, consumer sector is one of the most promising pick up. Looking closer into firms within the sector, PT. Indofood Sukses Makmur, Tbk (INDF) is the largest Indonesian consumer product producers with diversified products including instant noodles, flour, CPO edible oil (including plantations), sugar, milk, seasoning, baby food, snacks and distribution. Holding the top 3 ranks[1] among its peers for each division has positioned INDF as the market leader.

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[1] Based on Euromonitor Research, 2014

2. Background

2.1 INDONESIAN CONSUMER PRODUCT CONSUMPTION

The 2008-2009 credit crises did not do much to dent household spending and Indonesia battered the global downturn better than many of its more export-reliant neighbors. This consumer attitude adds to Indonesia's attraction as a market for FMCGs. It is expected that Indonesian real GDP gains to average 5.7% in 2014-15. A global survey[2] published in July 2013 showed that Indonesia came out on top in terms of consumer confidence and spending intentions. Optimism about future employment and income, relatively low indebtedness and political stability are keeping Indonesians happy to spend.

While Indonesian economy grew more than 6% since 2010, consumers spending also grew along rapidly. Major catalysts for the growth in consumer products sector are; 1) Rapid GDP growth that translates to higher disposable income per capita, 2) Higher purchasing power, and 3) government regulation.

Based on the research from Euromonitor, the largest portion of household spending in Indonesia is for food and non-alcoholic beverages consumption, which constitutes 41.7% of total spending. Regmi et al. (2008) presented evidence that food consumption patterns around the globe were moving toward more meats, dairy products, sugar, and caffeinated beverages. This phenomenon also happened in Indonesia as there were increased mobility and more modern lifestyle emerged. As starch-based food consumption have declined, meat, dairy, and egg consumption has grown strongly (Rada and Regmi, 2010). The prepared food and miscellaneous food categories have also grown very quickly; much of this consists of packaged foods. Both the decline in starch consumption and increase in packaged food consumption are consistent with global trends.

Figure 1 below indicates the rising packaged food sales in Indonesia, measured in index compared to 1998 figures. The increase in packaged-food purchases likely responds in part to urban consumers' need for time-saving convenience and desire for variety (Rada and Regmi, 2010).

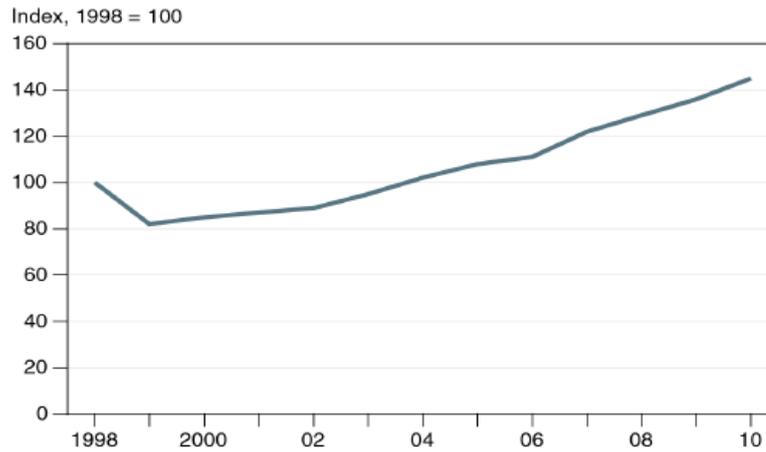[2]Global Consumer Confidence Survey, Nielson

Figure 1. Packaged Retail Sales. Source: Euromonitor, USFDA

INDF should benefit from the shift in consumers' food purchasing behavior. The percentage of consumption on packaged food increased by 0.81% yoy in 2013. The portion of expenditure spent on packaged food was 12.46% in 2013, compared to only 10.5% in 2007. Considering that GDP per capita rise by 85% during the same year span and the fact that INDF leads the market share for almost all of its product line, the increment in sales is big.

2.2 ACADEMIC LITERATURE

2.2.1 Fundamental Valuation

Investors are commonly put careful attention in their investment return and risk, but some are not; investors cope in different ways. According to Pennman (2013), some investors who rely on their own instinct can be classified as intuitive investors. Others are called passive investors as they trust in the 'market efficiency'; assuming market price is fairly quoted and market forces will drive the price to the appropriate point. Some investors are classified as fundamental investor if they buy investment only after thoroughly examining information about a firm and reaching conclusions about the underlying value that the information implies.

Through fundamental valuation, investors can know the intrinsic value of a firm; it is what an investment is worth based on forecasted payoff from the investment. The payoff of the investment itself is forecasted with available information, so that intrinsic value is said to be the value of investment justified by the information (Pennman, 2013).

2.2.2 Discounted Cash Flow Method

There are many ways to assess the present value of a firm, such as using the Discounted Earnings method, Relative Valuation Method and Factor Model Approach. Discounted earnings method is classified into two model such as earning approach and dividend approach. Nevertheless, Manurung (2011) asserts that the valuation method with discounted earnings approach lay on the principle of "going concern". Going concern principle believes that the company is assumed to operate its business in the foreseeable future and will always make earnings.

According to Damodaran (2006), the value of a firm's stock is the present value of its free cash flow to equity, discounted at the cost of equity. This approach for equity valuation is commonly known as Discounted Cash Flow (DCF) valuation. In this method, future free cash flow that will be discounted is what will be available for shareholders after all expense has been taken out, including operational expenses, investing expenses, and financing expenses.

2.2.3 Cost of Capital

To find the present value of a firm, cost of capital is required. For firm can acquired capital from issuing stock and issuing debt, the cost of capital calculated takes into account the cost of equity and the cost of debt. The weighted average cost of capital model takes into account the weight of debt and the cost of debt, and also the weight of capital with the cost of capital.

$$\textbf{Cost of Capital} = Weighted\ average\ cost\ of\ equity\ and\ cost\ of\ net\ debt$$

$$= \left(\frac{Value\ of\ equity}{Value\ of\ operation} \times Equity\ cost\ of\ capital\right) + \left(\frac{Value\ of\ debt}{Value\ of\ operation} \times Debt\ cost\ of\ capital \times (1 - tax)\right)$$

When capital is raised by issuing letter of debt or making loans, the cost is measured by the cost of debt. On the other hand, when capital is raised by issuing shares, cost of equity is used to measure the cost. Combination of these two using the WACC calculation gives the present value of the forecasted valuation model, and therefore the fundamental value of the firm.

2.2.4 Capital Asset Pricing Model (CAPM)

In the step of converting forecast to a valuation, by discounting source of revenue with a required return, and some valuation model is used. The model required a specification of the required return. Residual earning is the earning for equity holders and so is calculated and discounted using the cost of capital for equity, ρE. The cost of capital is the same as the required return for the shareholder, and it has two components:

$$Required\ return = Risk\ free\ rate + Risk\ premium$$

For risky investment in stock, additional risk premium is required by the investor to consequence their risk. The charge of risk for the investor varies, and the Capital Asset Pricing Model (CAPM) is used to determine it. According to CAPM model, the risk premium is dogged by the stock's beta and a market risk premium:

$$Required\ return = Risk\ free\ rate + (Beta \times Market\ risk\ premium)$$

The beta measures how a stock return reacts as the market moves, or in the other words, it measures the sensitivity of a stock to the market movement. The market risk premium is the amount that the market expected to yield to consequence market wide risk. This model gives the required return of an asset, which then will be used as a discount to determine the asset value. Valuation model that is used will show how required return derived from this asset pricing model will complete the asset pricing or the firm's value.

3. Data & Methodology

This research is a descriptive research of PT. Indofood Sukses Makmur, Tbk as the research object, conducted in the beginning of 2014. The study takes place in the beginning of 2014, with the object of PT. Indofood Sukses Makmur, Tbk. Historical data of financial performance of the firm is required, from the beginning of the firm went public. Forecasting will be made until approximately 10 years ahead, as it will best reflect the business cycle of the firm. Data that is used in the report are: Financial reports & annual reports of PT. Indofood Sukses Makmur for 7 years since it was publicly listed in 2007 as they will be used to measure historical performance of INDF since it went public, Industrial report & economic report in Indonesia; current and historical, financial variables data, such as risk free rate, BI rate, overnight loan rate,

and macroeconomics variable data, such as GDP growth, inflation rate, and some other variables.

According to Pennman (2013), the process of fundamental analysis comes with several steps. The first one is to understand the business. An important element is to understand the firm's strategy to add value. Once a strategy has been selected, the strategy becomes the one under which the business is valued as a going concern. The second step is then to analyze information presented in the firm's financial statement, and other source of valuable related information. This information is then built into forecasting model of valuation. There are some financial ratios that can be inferred and used in comparing firms.

The next step is to develop forecast. The first thing to be specified is how payoff can be measured, whether cash flow, earnings, book value, dividend, EBIT, or Return on Equity that is needed to be measured. Fourth step is to convert the forecast into valuation. As future payoff on a firm's share is uncertain, it must be discounted for the time value of money and risk consequence. Expected payoff is discounted by the required return or cost of capital. The final step is to make an investment decision and do trading based on the valuation.

The core basis used in this valuation is the Discounted Cash Flow (DCF) approach that is combined with a other valuation method, such as the Abnormal Earning Growth and Residual Earnings model as a comparation.

3.1 DISCOUNTED CASH FLOW

The DCF valuation is based on forecasting cash flows to firm, or the dividend. FCFF is forecasted then discounted to a present value. Under this valuation technique value of the firm is equal to present value of expected free cash flows.

$$Value\ of\ firm = \frac{FCFF_1}{\rho_1} + \frac{FCFF_2}{\rho_2} + \cdots + \frac{FCFF_T}{\rho_T} + \left(\frac{FCFF_{T+1}}{\rho - g}\right)/\rho^T$$

Where g is 1 plus forecasted perpetual growth rate of the firm. The last part of the formula implies the continuing value of the firm. Free Cash Flow of the firm can be measured by:

$$Free\ Cash\ Flow\ to\ Firm\ (FCFF)$$
$$= EBIT(1 - tax) - (Capex - Depreciation) - (Change\ in\ non$$
$$- cash\ working\ capital)$$

3.1 RESIDUAL EARNING MODEL

Residual earning is a measure that captures the value added to book value. The Residual Earning model measures value added from forecast of residual earnings.

$$Value\ of\ firm = Book\ value + Present\ value\ of\ expected\ residual\ earnings$$

$$Residual\ Earnings$$
$$= Comprehensive\ earnings - (Req.return\ for\ equity$$
$$\times beginning\ of\ period\ Book\ Value)$$

$$Value\ of\ firm = Book\ Value_0 + \frac{RE_1}{\rho_E} + \frac{RE_2}{\rho_E^2} + \cdots + \frac{RE_T}{\rho_E^T} + \frac{V_T^E - B_T}{\rho_T^E}$$

Residual earnings measures the earning in excess of those required if the book value were to earn at the required rate of return. This method is not affected by dividends, or by share issues and share repurchases at fair value. The calculation uses accrual accounting, hence captures value over cash flows.

4. Analysis

4.1 BUSINESS DESCRIPTION

PT. Indofood Sukses Makmur, Tbk is a major Indonesian company that provides Total Food Solutions with operations in all stages of food manufacturing from the production of raw materials and their processing through to consumer products in the market. It operates with 5 business subsidiaries: Indofood Consumer Branded Product, Bogasari, Agribusiness Group, Distribution Group, and Cultivation& Processed Vegetable Group. In each business group, INDF gains the top
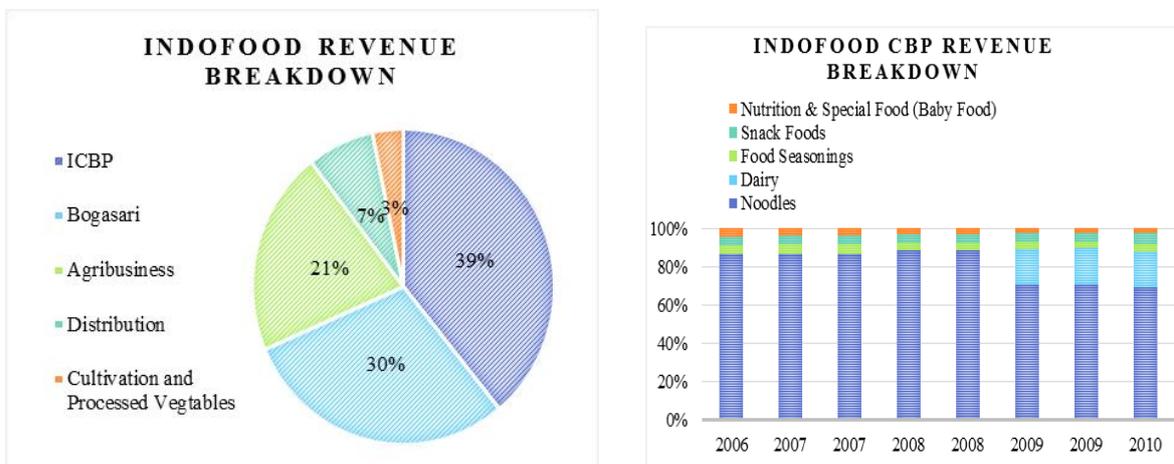

Figure 2 Indofood and ICBP Revenue Breakdown. Source: Company Update

position in market share. The company was founded in 1968 and went public in 2007.

INDF operates through four complementary divisions, including: (1) Consumer Branded Products (CBP), under listed company Indofood CBP (ICBP), (2) flour, under non-listed Bogasari, (3) agribusiness, under Singapore-listed company IFAR, (4) Cultivation and processed vegetables group , and (5) distribution, under non-listed Indomarco. Current size of INDF business is Rp 61,902 billion. ICBP is the major contributor for INDF business, with 39% share of revenue generated, and followed by Bogasari, Agribusiness, Distribution, and Cultivation business respectively. By 2013, the company records a 15% YoY revenue growth driven by all these business units.

PT. Indofood CBP Sukses Makmur, Tbk involves in all stages of food manufacturing; from raw material production and processing through to sale of a wide range of food products on the retailer's shelf. Product range of ICBP includes Noodles, Dairy products, Snack Foods, Food Seasonings, Nutrition& Special Foods, and Beverages. Many of these brands are well-established, enjoying the most significant mindshare in Indonesia for consumer food brands. Bogasari is primarily a producer of wheat flour as well as pasta, with business operations supported by its own shipping and packaging units. Cultivation and processed vegetables group activities are conducted by China Minzhong Food Corporation Limited ("CMFC") which is listed on the SGX and is an integrated vegetable processing company in the People's Republic of China ("PRC").

4.2 COMPETITOR ANALYSIS

Indofood has shown superior performance in terms of profitability and growth. Indofood revenue grew by 25.7% which is higher than the industry median of 15%. In terms of profitability, INDF give outstanding EPS of 77%, where its peers only can perform an average of 12% median EPS. From the stock pricing perspective, INDF trading at relatively cheap level of 2.2x book value and 5.8x EV/EBITDA; other peers and industry median trades at relatively higher prices. It indicates that currently INDF is not overpriced despite of its superb growth and profitability.

Table 1 Peer Comparison

	Revenue Growth	EPS (This Q, YoY)	EV/EBITDA	Price/Book	Dividend Yield	ROE	ROA	Inventory Turnover
Peer Median	*15%*	*12%*	*14.2*	*4*	*1.50%*	*25%*	*11.4%*	*3.30%*
INDF	**25.7%**	**77%**	**5.8**	**2.2**	**2.10%**	**11.2%**	**5%**	**6.10%**
UNVR	N/A	N/A	26.7	45.8	2.20%	130%	42%	7.20%
KLBF	16%	20%	20.7	7.5	1.20%	28%	19%	7.40%
GGRM	15%	10%	11.6	3	1.50%	16%	10%	1.70%
MAPI	-4%	-47%	8.6	3.1	0.80%	14%	5%	2%
ASII	N/A	6%	11.2	3	2.90%	25%	11%	11.40%

Nevertheless, INDF gave low ROA & ROE last year compared to its peers. Pressures in margin and commodity import cost has driven a 6% drop YoY on INDF net profit margin, thus bring lower ROA and ROE compared to its peers. However, solid fundamental position and promising performance in operations may bring INDF to healthier return level this year.

4.3 Investment Summary

Looking at its fundamental position and its major competitive point as the most integrated food producers in Indonesia, along with the positive sentiment from macro-economic condition and commodity prices, we target INDF prices to be at Rp 8,400 for the time span by the end of 2014. By the time the calculation is made (April 2014), INDF stock price was Rp 7,050/share. The estimate implies a 19% upside game, thus a strong buy recommendation is given.

Positive catalyst for revenue: Stable demand growth for ICBP, Stronger Bogasari, Weak Wheat Prices, and Excess Demand in CPO.

As an impact of stable consumption growth, we expect Indofood CBP to continue to bring stable revenue growth. Bogasari is expected to gain more net margin as weaker wheat price persists. Weather factor and biodiesel policy implementation will lead to excess demand that will pushes CPO prices up and become a positive driver for IFAR revenue. All these factors in to a 77% EPS growth in 2014, compared to -23% EPS growth in 2013.

Sustainable food products demand to support ICBP revenue:

Noodle - Sales Volume vs. ASP
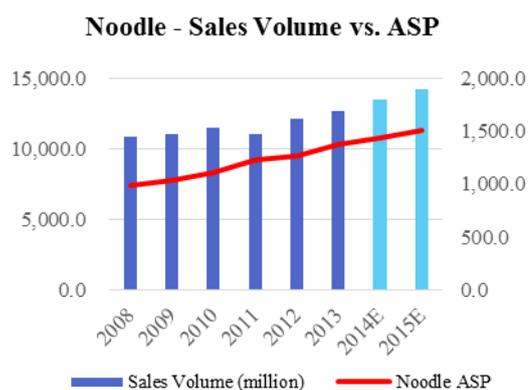
As Indonesian GDP per capita rises, and consumer spending for packaged foods keeps rising, ICBP products revenue will have sustainable growth. It is estimated that revenue from consumer brand product will grow above GDP growth by 10.2% CAGR for the year 2013-2020. The growth is mainly driven by noodles and snacks product where consumer spends the most.

Weak Wheat Prices Supports Bogasari Margins:

It can be seen from the chart below that Wheat price is estimated to be lower in 2014. Excess supply from 4Q2013 will continue to take effect in 2014, and slowly recover in 2015. This will contribute to higher margin that Bogasari can gain as COGS fall down along with the low wheat price. It is expected that Bogasari EBIT will grow by 13% CAGR for 2014-2020 period.
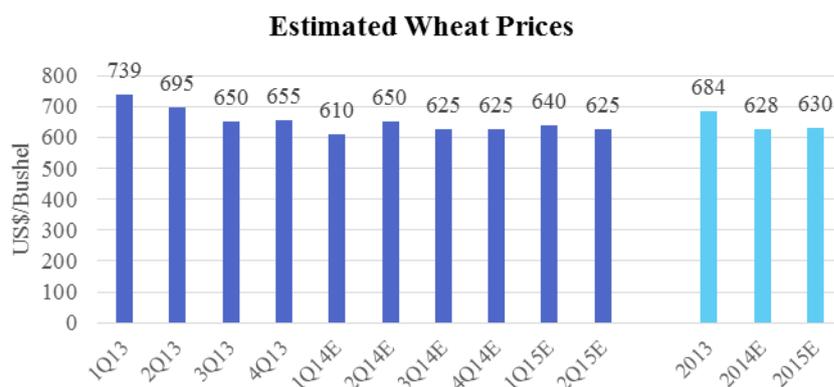
Estimated Wheat Prices

Figure 4 Estimated Wheat Price. Source: Company

Supply shortfall, weather disruption and rising demand for biodiesel will cater up CPO price:

New demand for biodiesel in Indonesia and Malaysia is able to absorb the bulk of new supplies. In addition, 2-3% demand growth is expected, fuelled by the global economic recovery and continuing growth in consumption per capita in developing countries. Palm oil demand is expected to grow 7.0% in 2014, slightly lower than 9.2% in 2013. Having said that, demand for CPO still remains robust.

From the supply side, supply growth is expected to be 4% for 2014 vs 7.1% for 2013. Lower 2014 supply growth will be mainly due to: a) low opening inventory – expecting a sharp 30% decline in opening inventory in Malaysia and Indonesia vs. 2013, and b) slight improvement in CPO production growth of 6.4% after revising down 2013 production growth to 4.3% (from 5.5% previously). The graph below explains how CPO price usually hikes up when demand surpass supply over the time.
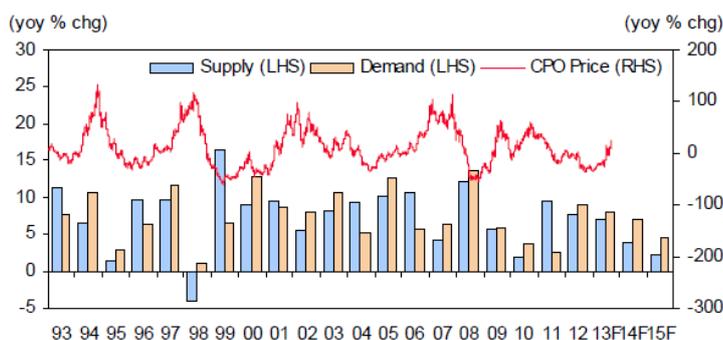
CPO PRICES MOVE HIGHER WHEN DEMAND GROWTH OUTPACES SUPPLY

Figure 5 CPO Price. Source:CPO Spot Index

4.4 Valuation

4.4.1 Discounted Cash Flow Method

Using DCF method, iterated target price of INDF is Rp 8,500 with 21% potential upside and buy recommendation.

Absolute Return		Market capitalisation	
Today's price	7,050	Total no. of issued shares	8,780,426,500
Target Price	8,500	Today's market value of equity (Rp b)	61,902
DPS 2013	185	*equity portion of capital*	*71.0%*
Upside	**21%**	Market value of debt per 12/31/00 (Rp b)	25,276
Figure 6 Indofood Market Caps & Potential Upside		*debt portion of capital*	*29.0%*
		Tax rate	25.0%
		Exchange rate	11,525

INDF valuation stems from discounted free cash flow

The first method on INDF valuation is using Discounted Cash Flow method. DCF can well value the ample cash flow that the company has and account for the future growth of the company in a long-term perspective.

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10 Years Revenue Forecast

The projected cash flow is based on the assumption of stable revenue growth for each INDF business division.
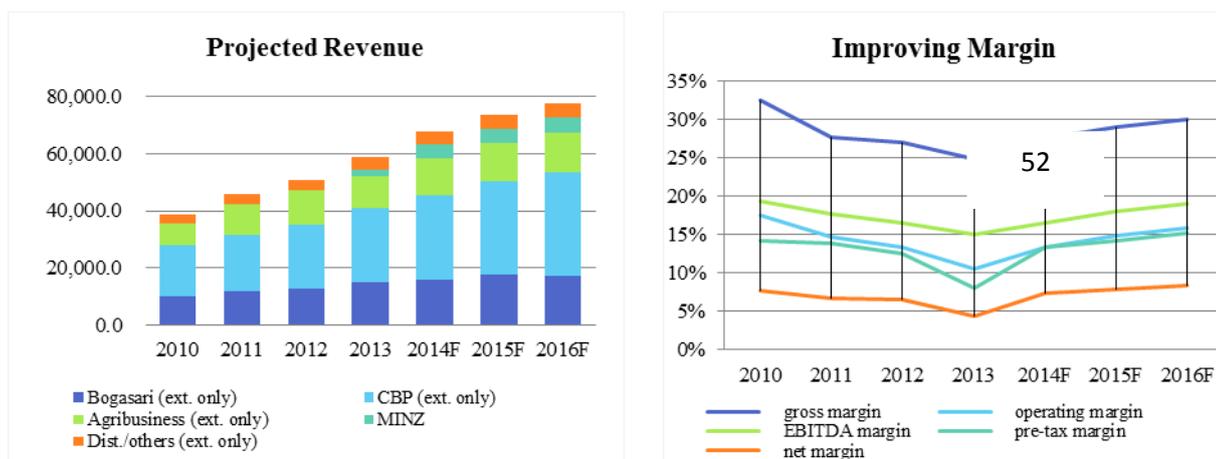
Figure 7 Projected Indofood Revenue & Margin

Indofood CBP is expected to grow at 10% CAGR for 2013-20 periods. Meanwhile Bogasari, Agribusiness, China Minzhong, and distribution is expected to grow by 3.25%, 3%, 15%, and 3% respectively. The projected revenue is based on historical cycle and limited by current factory capacity. Indofood CBP and MINZ is expected to be the engine of growth.

In 2013, there was margin pressure mostly caused by increment in COGS. Despite a 15% increase in revenue, COGS increase by 18%, hence giving pressure on gross margin until bottom line. For the coming years, as commodity price is expected to recover, especially on palm oil, revenue growth will outpaced the growth in COGS, hence margins will improve.

Cost of Fund

Below is the assumption for INDF cost of fund using the Weighted Average Cost of Capital:

Cost of equity	
Risk free rate (Rf)	10%
Market return rate (Rm) Rf + JCI CAGR 10y	13%
Beta (ß)	110%
Risk premium (Rm-Rf)	3%
Ke = Rf + ß(Rm-Rf)	13%

Table 2 Indofood Cost of Fund (WACC)

WACC (%)	
Equity portion of capital	71.0%
Ke	12.9%
Debt portion of capital	29.0%
Kd	7.2%
WACC	**11.26%**

WACC uses the proportion of debt and equity multiplied by cost of debt and cost of equity. Looking at INDF 2013 balance sheet, proportion of debt and equity is 29% and 71% respectively. Hence, the weighted average cost of capital that INDF has to bear is 11.26%.

The main component of DCF's assumption: 10-Year Projected Cash Flow, Free Cash Flow, Discount Rate, and Continuing Value or Terminal Value. Free cash flow projection is shown by the table below. Discount factor used is the WACC, and perpetual growth rate is 3%.

Table 3 Indofood DCF Valuation

Net present value (Rp b)	2013	2014F	2015F	2016F	2017F	2018F	2019F	2020F	2021F	2022F	2023F	2024F
Net present value estimate												
Cash flow multiple	1	2	3	4	5	6	7	8	9	10	11	12
Discount factor @ WACC 11.2%	0.899	0.808	0.726	0.653	0.587	0.527	0.474	0.426	0.383	0.344	0.309	0.278
Free cash flow												
Operating profit	6,089	9,064	10,954	12,314	9,489	10,220	11,179	12,385	14,093	15,859	17,970	19,592.4
Tax	(1,252)	(2,264)	(2,601)	(2,957)	(2,317)	(2,533)	(2,785)	(3,092)	(3,526)	(3,967)	(4,490)	(4,894.2)
Operating profit after tax	**4,837**	**6,800**	**8,353**	**9,356**	**7,172**	**7,687**	**8,394**	**9,292**	**10,566**	**11,891**	**13,480**	**14,698.1**
% growth	*-7.4%*	*40.6%*	*22.8%*	*12.0%*	*-23.3%*	*7.2%*	*9.2%*	*10.7%*	*13.7%*	*12.5%*	*13.4%*	*9.0%*
Amort & depreciation	1,838	1,445	1,579	1,679	1,762	1,836	1,910	1,928	2,052	2,189	2,207	2,264.8
Gross cash flow	**6,675**	**8,245.**	**9,933**	**11,036**	**8,934**	**9,523**	**10,304**	**11,220**	**12,618**	**14,080**	**15,687**	**16,963.0**
% growth	*-0.1%*	*23.5%*	*20.5%*	*11.1%*	*-19.0%*	*6.6%*	*8.2%*	*8.9%*	*12.5%*	*11.6%*	*11.4%*	*8.1%*
Capital expenditures	(9,872)	(3,496)	(3,006)	(3,011)	(2,675)	(2,406)	(2,180)	(2,179)	(2,000)	(1,841)	(1,700.5)	(1,574.8)
Incremental working capital	(552)	(3,337)	(821)	(547)	(1,280)	(735)	(853)	(618)	(864)	(939)	(1,016.2)	(572.3)
Free cash flow	**(3,749)**	**1,411**	**6,104**	**7,477**	**4,978**	**6,381**	**7,270**	**8,422**	**9,753**	**11,300**	**12,970**	**14,815.9**
% growth	*NM*	*NM*	*332.%*	*22.5%*	*-33.4%*	*28.2%*	*13.9%*	*15.8%*	*15.8%*	*15.9%*	*14.8%*	*14.2%*

Corporate value is calculated by summing the total present value of free cash flow along the projected period and the present value of terminal cashflow (perpetual). The shareholder value is obtained by subtracting ending cash 2013 to the corporate value. Hence, intrinsic value per share that can be

Net present value (Rp b)	2013
Total PV of free cash flow @ WACC 11.2%	36,151
PV of residual value @ WACC 11.2%	49,862
Corporate value @ WACC 11.2% (Rp b)	86,013
Ending cash	14,359
Shareholder value (Rp b) @ WACC 11.2%	75,096
Intrinsic value/share (Rp) @ WACC 11.2%	**8,553**
Implied 2014F PE	15

obtained is Rp8,500.

4.4.2   Residual Earning Method

Aside from the discounted cash flow model, as a comparison the residual earning valuation will be used. While discounted cash flow valuation is a cash basis valuation, the residual earning valuation is accrual basis.

Using accrual basis, the firm value that can be obtained is higher as under cash basis all accrual figures have been taken out. This hypothesis can be proven using the RE valuation below. The assumption of valuation that is used is the same with the assumptions in DCF. The result of valuation indicates that INDF target price is Rp 8,900 with 26% upside potential.

Absolute Return	
Today's price	7,050
Target Price	8,900
DPS 2013	185
Upside	**26%**

Figure 8 Potential Upside using RE Model

Table 4 Residual Earning Model

Residual Earning Model	2012	2013F	2014F	2015F	2016F	2017F	2018F	2019F	2020F	2021F	2022F	2023F	2024F
Net Income	3,261	2,504	5,021	5,770	6,560	6,352	6,970	7,694	8,585	9,852	11,138	12,668	13,839
Dividend	(1,537)	(1,624)	(985)	(1,975)	(2,270)	(1,968)	(1,906)	(2,091)	(2,308)	(2,575)	(2,955)	(3,341)	(3,800)
Book Value	21,206	25,334	31,341	39,086	47,915	56,235	65,110	74,895	85,788	98,215	112,308	128,318	145,957
WACC * Book Value t-1		2,388	2,852	3,529	4,401	5,395	6,332	7,331	8,432	9,659	11,058	12,645	14,447
Residual Earnings	-	116	2,169	2,241	2,159	957	638	363	152	193	80	23	(608)
Discount Rate (WACC)	11.26%	11.26%	11.26%	11.26%	11.26%	11.26%	11.26%	11.26%	11.26%	11.26%	11.26%	11.26%	11.26%
Projection Year	-	1	2	3	4	5	6	7	8	9	10	11	12
Discount Factor 1/((1+WACC)^Projection Year)	100%	90%	81%	73%	65%	59%	53%	47%	43%	38%	34%	31%	28%
Present Value of Residual Earning	-	104	1,752	1,627	1,409	561	337	172	65	74	27	7	(169)

Using residual earning model, the present value of residual earning is taken into account and then to be used to value the company. As residual earning is used, the model is not measuring the firm value based on future cash flow, but rather on future earnings.

Below is the calculation of intrinsic firm value per share based on Residual Earning model:

Terminal Value		PBR (Intrinsic Value) Calculation	
Sum of PV of RE (10 years)	6,129	**Book Value**	**89,556,301,038,379**
WACC	11.3%	- Debt	25,275,579,427,845
Long term growth rate in EBIT	3.0%	+ Cash	13,666,194,000,000
Present value of terminal Value	58,093	**Net Debt**	**11,609,385,427,845**
Terminal Value as % of Total Value	*90.5%*	**Equity Value (Market Capitalization)**	**77,946,915,610,535**
		Diluted Shares O/S	**8,780,426,500**
		Fair Value Per Share	**8,877**

Table 5 Fair Value Per Share using Residual Earning Model

4.5 Financial Analysis

Income Statement: Diversified Earnings with steady growth

Revenue of INDF is projected to have steady growth with 10% CAGR between 2013-2016. Revenue of INDF is well diversified through its division and not
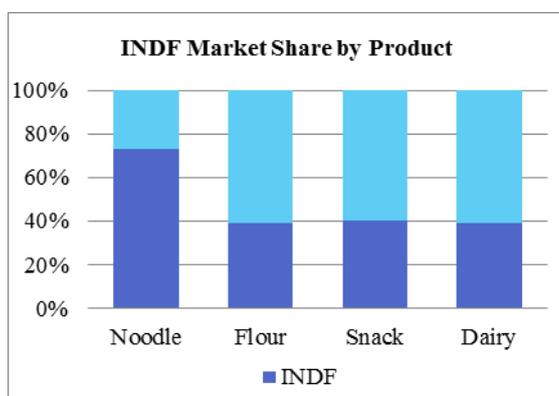
all divisions have the same sensitivity towards macro conditions. For instance, ICBP will be resilient towards macro disruptions as it produces basic foods and consumer needs, with noodle products as the backbone.

Bogasari is expected to have steady volume growth of 4% annually with the assumption that there is no additional milling capacity added. Bogasari margin will heavily depend on international wheat price and exchange rate. However, as the flour end products are majorly exported, any loss in foreign exchange when Rupiah weakened will be set off by revenue from flour export.

Figure 9 Indofood Market Share by Products

CPO and plantation business is also foreign exchange sensitive and dependent on global CPO price. Looking at the trade balance deficit that Indonesia have on May and the weaker Rupiah takes effect, CPO companies will benefit as the export revenue comes in US dollar meanwhile the cost is majorly in Rupiah. So far, from all division, operating expenses can be hold steady and efficient.

INDF also have good capacity to pay off its debt, shown its good interest coverage ratio. In 2013 proportion of debt hikes, as indicated by the net gearing ratio. INDF borrowed long term debt for the acquisition of China Minzhong and other expansion needs. Net Gearing is the Total Debt net of cash & equivalents as a percentage of the Total of Shareholders' funds and Debt funds.

As debt proportion reduced in the future, the interest coverage ratio will improve.
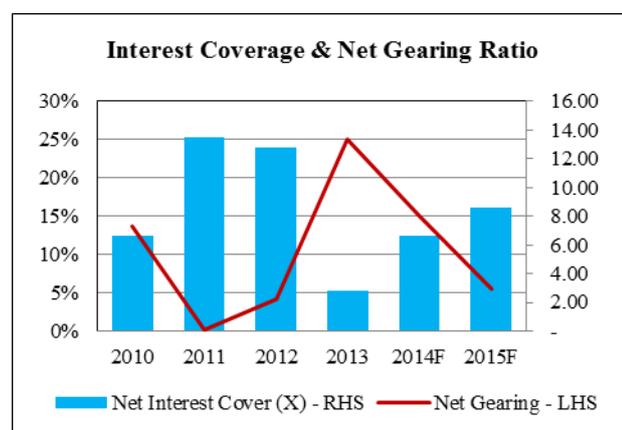
Figure 10 Indofood Interest Coverage & Net Gearing Ratio

Indofood is known for its ample cash condition, reflected historically in its BS, and it is expected to continue in the coming years. For a company as big as INDF, its inventory maintenance is considered good, with average of 9-10 weeks of inventory. Collection of receivables is averaged 3 weeks indicating fast receivable turnover. Asset size is expected to grow by 5% annually.

INDF's bonds rating reiterated at AA+, and one of its bond series will mature in 2014; these support smooth fund raising for the company. Return on equity and assets declined in 2013 due to the weak bottom line. However, this condition is expected to recover in 2014 going forward as there will be margin and bottom line improvement. ROE is considered superior compared to its industry peers.

Table 6 Profitability Ratios

	Peer Median	2012	2013	2014F	2015F	2016F
ROE (%)		16%	11%	20%	20%	20%
ROA (%)		6%	4%	6%	7%	8%
Current ratio (x)		2.05x	1.67x	1.80x	1.74x	1.78x
DER		0.72	1.16	0.92	0.71	0.51

Cash Flow – Healthy Dividend Policy

Cash from operation is expected to rise from time to time align with the increasing net profit that is projected. Capex in 2013 rise significantly due to the acquisition of new land rights (carrying value increased by 34% yoy), buildings (carrying value increased by 44% yoy) and transportation equipment for the distribution business (carrying value increased by 51% yoy). In total, carrying value of fixed assets increase by 35% yoy. As there were huge investment in 2013, for the coming year capex is expected to be at stable level. This investment and expansion is expected to generate more future cash flow for the company.

Historically, dividend payment in INDF is healthy, with average DPR of 39.3% annually. For the coming years, DPR is expected to remains paid out, especially as the business is expected to recover.

4.6 Investment Risk

Strategic Risks:

Intense pricing competition

Consumer product pricing competes very tightly to one another. Therefore, predatory pricing and new entrants pricing can be a threat to push down the volume sold for ICBP products.

Financial Risk:

Swing in commodity price

Bogasari margin and CPO products are dependent on commodity prices. When wheat price started to spike up, there will be margin pressure in Bogasari. Considering that its competitor paying close attention to pricing between each other, it does not necessarily implies that Bogasari can rise up selling price. Commodities producers like Bogasari and IFAR has weak power to set the price due to the uniformity of the final product.

The price of palm oil may be affected by a wide variety of factors, including weather, trade policy, currency movement, consumer preference, lobbying by environmental NGOs, the price of substitute vegetable oils and crude oil. Agri businesses and plantation companies may also be affected by regulatory changes.

Foreign Exchange Risk

INDF is exposed to foreign exchange risk as its raw materials are imported; wheat, seasoned oil, packaging materials, etc. Weakened rupiah may be a threat for INDF as its raw material cost will spiked up. The forex gain from ICBP products export may not surpass the forex loss in importing raw materials. In 2013, almost 10% of outstanding Long term debt is denoted is foreign currency. Therefore, the business is very sensitive to foreign exchange movement. Dairy products that has skimmed milk as its raw materials is also a threat, as the skimmed milk is imported and paid in US $.

Operation Risk:

Weather threat to CPO crop

In 2013, INDF business is pushed up to a good shape in support by its CPO division. However, the CPO production is also very prone to weather disruption. When the weather condition is not good, production and revenue will be at risk.

5. Conclusion

Based on the valuation above, INDF fair value per share is Rp8,500 using DCF valuation, and Rp 8,900 using residual earning valuation. Both approach is used in fundamental valuation, however the RE valuation is accrual basis and non-cash basis. These two results indicates that at the current price of Rp7,100, investor may gain 21% to 26% potential upside gain as within 12 months stock price will recorrect to its true firm value.

Residual earnings and discounted cash flow valuation are two different methods that are commonly used. However, in the market most analyst use DCF as it takes out accrual accounts and reflect the true liquid value of the firm.
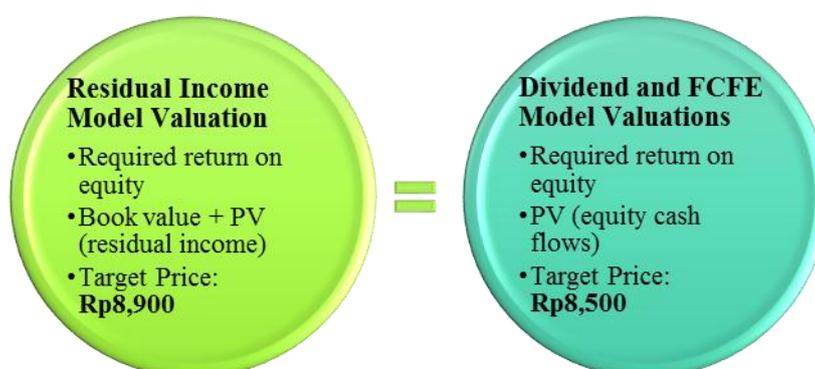
Residual income, dividend discount, and free cash flow to equity models all use the required return on equity to value common stock. The residual income model starts with book value and then discounts the income leftover (residual) for the equity holders. The dividend discount and free cash flow to equity models discount cash flows. In theory, the three approaches should result in the same valuation

However, the application in real company valuation, the target price result is rarely the same. The reason is that the residual income model places more weight on the current book value and less on later flows. In contrast, the dividend and free cash flow models typically discount the first few flows and then assume a large later terminal value. These models place more weight on later flows. In real-world applications, it is difficult to estimate later flows as there are so many assumptions variables that have to be plugged in, and thus model valuations will diverge.

Residual Income Model Valuation	Discounted Cash Flow Valuation
• Value = Book value + PV (residual income)	• Value = PV (Early cash flows + Terminal value)
• Large weight on current book value	• Large weight on later cash flows

Recommendation

After assessing the fundamental position of INDF, it can be concluded that its fundamental position mostly superior compared to its peers, as can be seen from the ratios comparison to its peers. The current price of INDF indicates that it is currently underpriced compared to its fair value.

Current market perspective is positive towards INDF as it is the largest food & consumer staples company in Indonesia. Nevertheless, full year 2013 result of ICBP is a little below expectation due to the margin pressures. Therefore revenue growth for coming forecasted years is not over pessimistic.

Considering the risks that are faced by the management, there are several mitigation actions that firm can takes. The first one to mitigate currency risk, the firm can use future contracts to secure commodity import purchase price. Secondly, for operational issue management can improve productivity and enhance its economics of scale in order to keep operating expense in track. For CPO end products selling price, the firm can also engage in forward contract of selling just in case the CPO selling price dropped.

In a package, the investment recommendation is buy with 21-26% upside gain for these major factors: 1) promising growth supported by diversified source of revenue, 2) Strong financial position backed by ample cash, and 3) established position amid the windfall.

References

Bloomberg Professional Database. (2008, August 09). Credit Derivates and Interest Rates. New York, New York, United States of America. Retrieved August 09, 2008

Damodaran, Aswath. (2001). *The Dark Side of Valuation: Valuing Old Tech, New Tech, and New Economy Companies*. New Jersey: Prentice Hall.

Damodaran, Aswath. (2002). *Investment Valuation: Tools and Technique for Determining the Value of Any Asset (2nd edition)*. New Jersey: John Wiley & Sons

Hull, J. C. (2008). *Options, Futures and Other Derivatives* (7th Edition ed.). Upper Saddle River: Pearson Prentince Hall.

Manurung, Adler Haymans (2011). *ValuasiWajar Perusahaan*. Jakarta: PT Adler Manurung Press.

Miles, D., & A. Scott. (2005). *Macroeconomics: Understanding The Wealth of Nations*. Southern Gate Chichester: John Wiley & Sons.

Mishkin, Federic S. (2009). *The Economics of Money, Banking, and Financial Markets* (2nd ed of the business ed.). Boston: Pearson Education, Inc.

NYU Stern. (2014). *Country Default Spread and Risk Premiums*. Retrieved from http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html

Penman, Steven H.(2004). *Financial Statement Analysis and Security Valuation* (5th ed.). New York, NY: McGraw- Hill Education.

Sentana, I Made. (2014, January 5). Bank of Indonesia- 2014 Outlook. *The Wall Street Journal*. Retrieved from http://blogs.wsj.com/economics/2014/01/05/bank-of-indonesia-2014-outlook/

White, Gerald I., Ashwinpaul C. Sondhi&Dov Field. (2003). *The Analysis and Use of Financial Statements (3rd edition)*.Massachussetts: John Wiley & Sons, Inc.