

## **FINANCIAL PERFORMANCE ASSESSMENT OF PT ANGKASA PURA II IN COMPARISON WITH OTHER AIRPORT COMPANIES LOCALLY AND GLOBALLY**

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### **Abstract**

*In relation to the magnitude of migration on population growth is causing many residents Indonesia, especially Jakarta, who was traveling out of town after another. It cause the number of users of transportation between the city / country is becoming increasingly high, especially aircraft. PT Angkasa Pura II is a monopolistic market, where they have no competitor in its country. Growth in passenger numbers continued to move up to 18.5% since 2010. Development of airport development depends on economic growth in the country. In accordance with the type of market is monopolistic market segments, the airport is quite focused on the stability of their internal performance. This final project presents the reader about how important analyzing the performance assessment in order to reach the best performance. The final project will talk about the performance assessment of PT Angkasa Pura II, through several frameworks, compared to other companies in same industry locally and globally. Then ended by conclusions and recommendation for PT Angkasa Pura II in order to reach a better performance. As a conclusion, PT Angkasa Pura II almost compete the global competition even been a leader in several assessments, with maximum firm value of IDR 11,304,648,783,186.*

*Keywords: airport area economic development, financial statements analysis, airport industry, passenger movement.*

### **Introduction**

Economic growth in Indonesia is the fastest in Southeast Asia. Thus, this could affect the airports because the airport is in a monopolistic market, where the company largely owned by

the state. Economic growth and development of production in Indonesia is directly parallel to the airport, which is simultaneously moving upward. Angkasa Pura II operating income tends to increase since five years ago.

The impact of those phenomena lead to the quota provided by the airport in Indonesia is less accommodating existing passenger quantity. Disputes of the quota were increasing every year and had risen high in recent years. Growth in passenger numbers continued to move up to 18.5% since 2010. Development of airport development depends on economic growth in the country. In accordance with the type of market is monopolistic market segments, the airport is quite focused on the stability of their internal performance.

From the above situation, the authors would like to know the condition and performance of airport industries in Indonesia and firstly over the world. Is the company meets all customer demands? Moreover, to answer that question, the author will identify, analyze, and compare PT Angkasa Pura II to the local airport company, PT Angkasa Pura I. Furthermore, to compare globally, there are airports from Malaysia Airports Holdings Berhad, Airport of Thailand, Australia Pacific Airports, Schiphol Airport (Europe), and Beijing Capital International Airport.

The author wants to analyze the performance of PT Pelabuhan Indonesia II compared with other port companies in Indonesia and global competition.

1. How does the performance of PT Angkasa Pura II compare to other port companies in Indonesia?
2. How does the performance PT Angkasa Pura II compared with other global port companies in the world?
3. What is the recommendation to PT Angkasa Pura II in order to improve their performance?

## Theoretical Foundations

### Financial Statement Analysis

Financial statement analysis is the process of understanding the risk and profitability of a firm through analysis of reported financial information, particularly annual and quarterly reports. Financial statements are mainly prepared for decision making purposes. There are two statements for financial statements, *Income Statement* and *Balance Sheet*. These are prepared at the end of a give period of time. Those are the indicators of profitability and financial soundness of the business concern. The term of financial analysis refers to the establishing meaningful relationship between various items of the two financial statements. It determines the financial strength and weakness of the firm. The

### Income Statement

Income statement provides a financial summary of firm's operating results during a specified period. Also known as the profit and loss statement. Consisted by two elements, inflow and outflow, to indicate how the revenue becomes into the net income.

### Balance Sheet

Balance sheet presents a summary statement of the firm's financial position at a given point in time.

### Statement of Cash Flow

The statement of cash flow is a summary of the cash flows over the period. This statement contains the firm's performance in operating, investment, and financing cash flows. Those aspects then harmonized with changes in its cash.

#### A. Financial Ratio Trend Analysis

The trend analysis is used to estimate the company's financial position's growth and company's past performance from several

indicators that related to the operational and market activity. In order to know the growth of the company, Compound Annual Growth Rate (CAGR) is used over a period of time. CAGR methods calculated using financial ratio.

This can be written as follows:

$$CAGR(t_0, t_n) = \left( \frac{V(t_n)}{V(t_0)} \right)^{\frac{1}{t_n - t_0}} - 1$$

Where,

V(tn) = ending value

V(t0) = beginning value

tn – t0 = number of years

To assess performance trend of the company, the ratios will be classified with five main categories that have the relation to the performance of airports industries. It classified as liquidity, activity, debt, profitability, and market ratios..

#### B. DuPont System of Analysis

First, the DuPont system brings together the net profit margin, which measures the company's operating efficiency, with its total asset turnover which indicates how effectively the company used its assets to generate sales.

$$ROA = \text{Net Profit Margin} \times \text{Total Assets Turnover}$$

The ROA developed by DuPont now used by many firms to evaluate how effectively assets are used. It measures the combined effects of profit margins and asset turnover.

A firm with low net income has a high total asset turnover, which results in a reasonably good return on total asset.

The second step in the DuPont system used the modified DuPont formula. This method is breakdown the ROE into ROA and Equity Multiplier.

$$ROE = \frac{\text{Net Income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Total Equity}}$$

$$ROE = \text{Profit Margin} \times \text{Total Asset Turnover} \times \text{Equity Multiplier}$$

DuPont analysis tells us that ROE is affected through three primary levers, which are operating efficiency (as measure by profit

margin), asset use efficiency (as measure by total asset turnover), and financial leverage (as measured by the equity multiplier). The DuPont system helps to identify sources of strength and weakness in current performance.

### C. BUMN Financial Scoring

As the one of State-Owned Company, the regulation in the company will be regarded to the Decision Regulation of State-Owned produced by the Ministerial Decree BUMN Indonesia.

The assessments of BUMN companies are classified into:

TABLE I. BUMN ASSESSMENTS

<b>HEALTHY</b>	
AAA	TS ≥ 95
AA	80 < TS ≤ 95
A	65 < TS ≤ 80
<b>LESS HEALTHY</b>	
BBB	50 < TS ≤ 65
BB	40 < TS ≤ 50
B	30 < TS ≤ 40
<b>LESS HEALTH</b>	
C	20 < TS ≤ 30
CC	10 < TS ≤ 20
CCC	TS ≤ 10

PT Angkasa Pura II is classified as a non-financial service company that categorized in BUMN Infrastructure in the transportation field. There are several indicators used in Decision of Ministry State-Owned Company (*Keputusan Menteri Badan Usaha Milik Negara*) No. KEP-100/MBU/2002.

TABLE II. BUMN FINANCIAL INDICATOR

Financial Indicators	Score
Return on Equity (ROE)	15
Return on Investment (ROI)	10
Cash Ratio	3
Current Ratio	4

Collection Periods	4
Inventory Turnover	4
Total Asset Turnover	4
Total Equity/Total Assets	6
<b>TOTAL SCORE</b>	<b>50</b>

### D. Moody's

Moody's rating methodology helps the issuers and investors to understand about its credit ratings for operational airports. This method explains what quantitative and qualitative risk factors map to specific rating outcomes.

TABLE III. MOODY'S FACTOR WEIGHTING

No	Broad Rating Factors	Broad Rating Factor Weighting	Rating Sub-Factor	Sub-Factor Weighting
1	Governance and Rate Setting	15%	Legal Status / Corporate Objectives	5.00%
			Rate Setting Methodology	5.00%
			Nature of Ownership	5.00%
2	Market Position	15%	Size of Service Area	5.00%
			Robustness & Diversity of Service Area	5.00%
3	Passenger & Airline Base	10%	Competition for Medium to Long Distance Travel	5.00%
			Passenger Mix (O&D / Transfer)	3.33% (*)
			Standard Deviation of Long Term Average Annual Passenger Growth Rate	3.33% (*)
			Carrier Base (Transfer Traffic)	3.33% (*)
4	Operating Environment & Capital Programme	10%	Operational Restrictions	5.00%
			Complexity of Airport Capital Expenditure Programme	5.00%
5	Stability of Business Model and Financial Structure	10%	Ability & Willingness to Pursue Opportunistic Corporate Activity	3.33%
			Ability & Willingness to Increase Leverage	3.33%
			Targeted Proportion of Revenues outside of Owned Direct Airport Services	3.33%
6	Key Credit Metrics	40%	Cash Interest Coverage	10.00%
			FFO / Debt	10.00%
			Moody's Debt Service Coverage Ratio	10.00%
			Moody's Concession Life Coverage Ratio	10.00%

Rating Category	Aaa	Aa	A	Baa	Ba	B	Ca
Weighting	1	1	1	2	3	4	5

After identifying the criteria for each sub factor, then provide a specific alpha rating categories (Aaa, Aa, A, Baa, Ba, B, or Caa). Next is to identify the overall grid-indicated rating by converting the indicated rating category for each sub-factor into a numeric weighting based on the scale above.

The numeric weighting then multiplied with the sub-factor weighting. The percentage score in each category is then multiplied by a value determined from the table below in order to produce a final rating.

The result then summed to produce a weighted-average score. The composite of weighted average score then mapped to an alphanumeric rating based on the ranges in the scale below.

TABLE IV. MOODY'S RATING SCORE

Indicated Rating	Aggregate Weighted Factor Score
Aaa	1.49 or lower
Aa1	2.50 - 2.49
Aa2	2.50 - 3.49
Aa3	3.50 - 4.49
A1	4.50 - 5.49
A2	5.50 - 6.49
A3	6.50 - 7.49
Baa1	7.50 - 8.49
Baa2	8.50 - 9.49
Baa3	9.50 - 10.49
Ba1	10.50 - 11.49
Ba2	11.50 - 12.49
Ba3	12.50 - 13.49
B1	13.50 - 14.49
B2	14.50 - 15.49
B3	15.50 - 16.49
Caa1	16.50 - 17.49
Caa2	17.50 - 18.00

#### E. Capital Structure

The company capital consists of two components, which are debt capital and equity capital. Debt capital from the long-term liabilities, which is company lend from the bondholders.

#### Cost of Debt

Cost of Debt is the money that company pays from their decision of raising capital through leveraging. Cost of debt each company describes the company's ability to doing the payment. The formula for cost of debt after tax is:

$$r_i = r_d \times (1 - T)$$

Where,

$r_d$  = Cost of debt

$T$  = Company Tax

Rating Category	Aa a	Aa	A	Baa	B a	B	C aa
Value	1	3	6	9	12	15	18

TABLE V. INDONESIA ADJUSTED MARKET INTEREST RATE

Bond Rating	Interest Coverage Ratio	Indonesia Market Interest Rate
AAA	(>12,5)	6.4%
AA	9,5 – 12,5	6.9%
A+	7,5 – 9,5	7.05%
A	6 – 7,5	7.15%
A-	4,5 – 6	7.4%
BBB	4 – 4,5	8.25%
BB+	3,5 – 4	9.5%
BB	3 – 3,5	10.5%
B+	2,5 – 3	11.25%
B	2 – 2,5	11.75%
B-	1,5 – 2	12.5%
CC	0,8 – 1,25	14.5%
C	0,5 – 0,8	15.25%
D	(< 0,5)	16.25%

#### Cost of Equity

Issuing equity either proffered stock or common stock both make company pay interest in form of dividend to the shareholders it is called cost of equity.

Bottom up beta theory use for calculating beta for private company.

The leverage beta could be found with this calculation

$$\beta_l = \beta_u \times [1 + (1 - \text{Tax}) (\text{Debt to equity company})]$$

CAPM is the method that describes the relationship between required return and the nondiversifiable risk of the firm as measured by the beta coefficient. The calculation for CAPM model is

$$r_s = R_f + [b \times (r_m - R_f)]$$

where,

$R_f$  = risk-free rate of return

$b$  = beta

$r_m$  = market return, return on the market portfolio of assets

### Weighted Average Cost of Capital (WACC)

$$WACC = \frac{E}{V} \times R_e + \frac{D}{V} \times R_d \times (1 - T_c)$$

Where,

$R_e$  = cost of equity

$R_d$  = cost of debt

$E$  = market value of the firm's equity

$D$  = market value of the firm's debt

$V$  =  $E + D$

$E/V$  = percentage of financing that is equity

$D/V$  = percentage of financing that is debt

$T_c$  = corporate tax rate

### Firm Value

$$\text{Value of Firm} = \text{EBIT} \times \frac{(1 - \text{Tax})}{WACC}$$

Where,

EBIT = earnings before interest and taxes

WACC = weighted average cost of capital

### II. METHODOLOGY

In this project, the case study that will be taken is the PT Angkasa Pura II. To analyze and examine the company's financial performance, there are several steps that will be implemented as the process on doing this final projects.

- Research Design
- Problem Identification
- Literature Review
- Methodology
- Data Collection
- Data Analysis
- Conclusion

The comparison data between PT Angkasa Pura II with other airport company will be used to compare the performance from each company. From the scoring rating, the author will analyze which companies that have good financial performance.

### Data Analysis

#### A. Trend Analysis

Sales growth rose nearly twofold in 2009. Might be caused by the economic crisis in 2008. Then continued to decline thereafter.

#### Liquidity

The overall liquidity of the company seems relatively stable with the exception for the year 2008. From the year 2008 the ratios seemed lower that indicates the reduction of company management. It decreased from 7.6% into 5.2% in current ratio, and 5.3% into 3.7% in cash ratio. Actually, the current asset increased, however the current liabilities grown up over the year. In 2008, the current debt value was IDR 363,968,000, while rose into IDR 584,291,000 in the end of 2011. CAGR tend to fall, indicated a negative movement in this aspect. It indicates that the company has lack ability to meet its short-term obligation.

Compared with the liquidity average industry, PT Angkasa Pura II tends to be weak among the others. There was an average 4.8% and 2.6% decline in liquidity between 2007 and 2011. It was far below the average industry, which is 6.9%. Overall, it implies that the company is less efficient in utilizing short-term assets. Beside that, based on 2011 data, PT Angkasa Pura II had the highest ratio in liquidity aspects among others.

#### Activity

As shown in the table, most of the activity ratios have positive CAGRs and better than the industry average ratios. CAGR of inventory turnover seemed positive due to the rose ratios over the year.

The average collection period tend to lower over the year indicates the effectiveness of the company to collect on its account receivables. The average collection period ratio between 2007-2011 was far below the average industry, indicated the better movement among the others. The robust change happened since 2008 due to the average collection period ratios surged from 56.3 to 30.9.

Total asset turnover seemed stable even rose in 2011. It indicates the company's operations have been financially efficient evident from the comparison with industry average growth.

In exception at equity/asset, it seemed stable but inflict a negative average. However, it generates the better average than the overall industry. Also evidently with the equity to asset ratios in

2011, which PT Angkasa Pura II had the highest ratio compared with other six companies. The proportion of equity used to finance a company's asset seemed efficient as indicated from the activity.

### Debt

The company has bad ability in control the debt proportion in the past. The growth tends to rise over the years but ended with slight declining in 2011. Due to debt payments had been paid in part that year. Nonetheless, PT Angkasa Pura II remains a better control compared to the average industry with evidence of far lower CAGR. In 2011, PT Angkasa Pura II had the lowest debt ratio compared to the other companies. It assessed as a good performance.

### Profitability

From profitability aspect, the ratios did not make any significant growth. Moreover, ratios increased over the year. In terms of profit margin, PT Angkasa Pura II has managed to succeed in the overall industry. The operating profit margin increased in 2009 from 33% to 40%, due to the raise sales that being impacted to its net income, according to sales growth rose in that year also. The company seemed managed it well, implied by the complete stable ratio over the year. The percentage of return earned by investors has ascend over the years, and a slightly decline in 2011. However, significant differences seen in the ROE, which the industry average ROE is 11.1% and PT Angkasa Pura II only 5.7%. PT Angkasa Pura II become the fourth position in ROE growth ratios over 5 years compared with 6 other companies. Moreover, PT Angkasa Pura II is below Australia Pacific Airports Corporation and Malaysia Airports Holdings Berhad for ROE ratio in 2011.

### Market

The price earning consider to lower over the year which decline in the growth of the 5 year in -13.2%. This value is slightly below the industry average ratio which is -10.5% , while the market to book growth ratios in 5 years is far better from the industry average. It implies that the investors view the firm had a good performance. In 2011, the market ratios of PT Angkasa Pura II was defeated by Beijing Capital International Airport and PT Angkasa Pura I.

### B. DuPont Analysis

The objective is to diagnose the company's performance through the ROA and ROE components. The ROA components used to DuPont Analysis includes operating efficiency (Net Profit Margin) and asset utilization (Total Asset Turnover). To evaluate the company performance the author will analyze the relationship between the both components. In ROE, the components will be added then more concern in equity multiplier (financial leverage).

TABLE IV. PT ANGKASA PURA II ROA DUpONT ANALYSIS

ROA DuPont Analysis			
ROA	Net Profit / Sales	Sales / Total Asset	ROA
PT ANGKASA PURA II	29%	35%	10.1%
PT ANGKASA PURA I	20%	26%	5%
AIRPORT OF THAILAND	9%	19%	1.7%
AUSTRALIA PACIFIC AIRPORTS CORPORATION	36%	19%	7%
MALAYSIA AIPORTS HOLDINGS BERHAD	15%	37%	5.4%
SCHIPHOL GROUP	11%	22%	2%
BEIJING CAPITAL INTERNATIONAL AL AIRPORT	17%	19%	3%

From the table above, PT Angkasa Pura II resulted the highest ROA amongst the others. It implies the effectiveness of PT Angkasa Pura II in generating profits with its available assets. As described above, the ROA broke down into two components, which are Net Profit Margin and Total Asset Turnover.

Total Asset Turnover represents the efficiency asset utilizations. Based on the 2011 data, PT Angkasa Pura indicates that the company was only utilizing 35% its assets to generate sales. Generally, this can be considered as a low value

to company that has not maximized its asset's utilization. However, PT Angkasa Pura II had the second highest value in term of total asset turnover compared to the overall industry. Implied that PT Angkasa Pura II has effectively used its assets to generate sales. Thus, the positive value of total asset turnover affected the net profit margin into a similar value that indicates a good relationship between the both components. Nonetheless, PT Angkasa Pura II gained the second highest in net profit margin aspect. In the end, PT Angkasa Pura II had the highest ROA among others.

It was concluded that PT Angkasa Pura II was nearly the most profitable company in percentage amongst the others.

TABLE V. PT ANGKASA PURA II  
ROE DuPONT ANALYSIS

ROE DuPont Analysis				
ROE	Net Profit / Sales	Sales / Total Asset	Total Asset / Total Equity	ROE
PT ANGKASA PURA II	29%	35%	0.9	11.1%
PT ANGKASA PURA I	20%	30%	1.1	6%
AIRPORT OF THAILAND	9%	19%	0.5	3.5%
AUSTRALIA PACIFIC AIRPORTS CORPORATION	36%	19%	4.3	30%
MALAYSIA AIRPORTS HOLDINGS BERHAD	15%	37%	2.1	11.7%
SCHIPHOL AIRPORT	11%	20%	1.8	4%
BEIJING CAPITAL	17%	19%	2.3	8%

INTERNATIONAL AIRPORT				
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After analyzing the ROA, then the author wants to analyze the company performance by the ROE value. As described above, ROE also break down into 3 components, which are operating efficient, asset utilization, and financial leverage. Due to the operating efficiency and asset utilization has been diagnosed above, the author will focuses on financial leverage. Based on the data above, the ROE of PT Angkasa Pura II considered as a low value, it impacted by low equity multiplier. However, PT Angkasa Pura II was the third highest in ROE rating value compared to the other companies.

In the final, by using the DuPont Analysis, it can be concluded that ROA and ROE have a strength relationship. The ROE value affected by the equity multiplier that engaged assets' proportion effectiveness. The ROA and ROE of PT Angkasa Pura II were quite good. Although, in the future, the company can develop in maximizing asset in order to generate more profits, in other hands to lead a good performance on ROE value.

### C. BUMN Financial Scoring Framework

After calculating each financial indicator of each company using BUMN financial scoring, the author combined the result of the local airport and global airport companies, then it can be known the ranked of the company from comparison in global.

TABLE VI. BUMN SCORING RANKING COMPARISON

Rank	Company	Total Score
1	PT. ANGKASA PURA II	36
2	MALAYSIA AIRPORTS HOLDINGS BERHAD	35
3	BEIJING CAPITAL INTERNATIONAL AIRPORT	30
4	AUSTRALIA PACIFIC AIRPORTS CORPORATION	27.4
5	PT. ANGKASA PURA I	27
6	AIRPORT OF THAILAND	26

7	SCHIPHOL GROUP	23
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Based on the BUMN Financial Scoring Framework, it can be concluded that PT Angkasa Pura II was the healthiest company among the others company with total score 36 out of 50. PT Angkasa Pura II has evidently performed best in this framework scoring. Slightly below, there was Malaysia Airports Holdings Berhad with total score 35, as the second position. Moreover, Beijing Capital International Airport was in third position with total score 30. In the fourth position, there was Australia Pacific Airports Corporation with total score of 27.4. PT Angkasa Pura I become the fifth position and followed slightly below of Airport of Thailand as the sixth position with total score 27 and 26 respectively. In this framework scoring, Schiphol Group had the worst performance among the others, and ranked lowest with total score 23 out of 50.

#### D. Moody's Global Operational Airports Rating

TABLE VII. MOODY'S RANK RESULT

Rank	Airports	Aggregate Weighted Total Score	Indicated Rating
1	APAC PT	6.88	A3
2	Angkasa Pura II	9.58	Baa3
3	Airport of Thailand	24.08	Caa2
4	BCIA	25.17	Caa2
5	Schiphol Group PT	29	Caa2
6	Angkasa Pura I	29.78	Caa2
7	MAHB	30.35	Caa2

Based on the assessment of Moody's global operational airports, it can be concluded that Australia Pacific Airports Corporation (APAC) has the highest score, which make the company in position number 1 and achieved A3 rating. APAC obtained a relatively high score for each category. The only lack they had is in the key credit metrics on the sub-factors of Moody's debt service coverage ratio and Moody's concession life coverage ratio. Indicated the

ability of the Issuer's cash flows in servicing and ultimately repaying its debt burden tend to low.

PT Angkasa Pura II becomes the second position out of 7 companies, which achieved Baa3 rating with weighted total score of 9.58. In detail, the upmost score of PT Angkasa Pura II obtained in terms of key credit metrics factor while the other companies dropped in this aspect. The key credit metrics encompass cash interest coverage, FFO/debt, Moody's debt service coverage ratio, and Moody's concession life coverage ratio. PT Angkasa Pura obtained the higher score of FFO/debt than the other companies. It assumed by PT Angkasa Pura obtained over 40% FFO proportion to its debt, where FFO is cash flow from operations.

In third position, there is Airport of Thailand (AOT), which gained 24.08 weighted total score and achieved Caa2 indicated rating. Slightly below AOT, there is Beijing Capital International Airport (BCIA) in the fourth position. Schiphol Group, PT Angkasa Pura I, and Malaysia Airports Holdings Berhad (MAHB) had similar weighted score, which are 29, 29.78, and 30.35 respectively, which lead them into the lowest rate of Caa2. The overall companies are considered had low score of key credit metrics factors. It concluded that they had less ability in repay its debt and to service the debt prior to repayment.

#### E. Capital Structure

##### Key Assumption

To calculate the optimum capital structure, there are several assumption data needed as follows:

- Risk premium for PT Angkasa Pura II is 6.68% based on country total risk premium Damodaran (January 2012).
- Tax rate is 25% based on Indonesia regulation on company tax rate.
- Risk free rate is 6.5% based on Bank Indonesia rate for 2011.

There are two public listed port company to benchmark beta of PT Angkasa Pura II. The company are:



TABLE VIII. BETA OF BENCHMARK COMPANY

Company	Beta	D/E
AOT	1.23	1.06
MAHB	1.17	0.846
BCIA	1.04	1.17
<b>Average</b>	<b>1.15</b>	<b>1.03</b>

Then the bechmark beta must be unleverage so the beta for PT Pelabuhan Indonesia II can be calculate each debt level.

TABLE IX. COST OF EQUITY

Equity	Debt Ratio	D/E Ratio	Unlevered Beta	Levered Beta	Cost of Equity
100.00%	0.00%	0.00%	0.67	0.67	10.96%
95.00%	5.00%	5.26%	0.67	0.69	11.14%
90.00%	10.00%	11.11%	0.67	0.72	11.34%
85.00%	15.00%	17.65%	0.67	0.76	11.55%
80.00%	20.00%	25.00%	0.67	0.79	11.80%
75.00%	25.00%	33.33%	0.67	0.84	12.08%
70.00%	30.00%	42.86%	0.67	0.88	12.40%
65.00%	35.00%	53.85%	0.67	0.94	12.77%
60.00%	40.00%	66.67%	0.67	1.00	13.20%
55.00%	45.00%	81.82%	0.67	1.08	13.70%
50.00%	50.00%	100.00%	0.67	1.17	14.31%
45.00%	55.00%	122.22%	0.67	1.28	15.06%
40.00%	60.00%	150.00%	0.67	1.42	15.99%
35.00%	65.00%	185.71%	0.67	1.60	17.18%
25.00%	75.00%	300.00%	0.67	2.17	21.01%
20.00%	80.00%	400.00%	0.67	2.67	24.35%
15.00%	85.00%	566.67%	0.67	3.51	29.93%
10.00%	90.00%	900.00%	0.67	5.18	41.09%
5.00%	95.00%	1900.00%	0.67	10.19	74.57%
0.00%	100.00%	-	0.67	-	-

The company EBIT will remain the same at each debt ratio for the calculation of cost of debt. We assume that the proceeds from debt to buy back stock

$$\begin{aligned}
 \text{Maximum Tax Benefit} &= \text{EBIT} \times \text{Marginal Tax Rate} \\
 &= \text{IDR } 13,625,870,000 \times 25\% \\
 &= \text{IDR } 1,362,587,000,000
 \end{aligned}$$

TABLE X. COST OF DEBT

Debt Ratio	Debt	Interest Rate on Debt	Interest Expense	EBIT
0.00%	-	6.40%	-	Rp1,362,587,000,000
5.00%	Rp220,123,550,000	6.40%	Rp14,087,907,200	Rp1,362,587,000,000
10.00%	Rp440,247,100,000	6.40%	Rp28,175,814,400	Rp1,362,587,000,000
15.00%	Rp660,370,650,000	6.40%	Rp42,263,721,600	Rp1,362,587,000,000
20.00%	Rp880,494,200,000	6.40%	Rp56,351,628,800	Rp1,362,587,000,000
25.00%	Rp1,100,617,750,000	6.40%	Rp70,439,536,000	Rp1,362,587,000,000
30.00%	Rp1,320,741,300,000	6.40%	Rp84,527,443,200	Rp1,362,587,000,000
35.00%	Rp1,540,864,850,000	6.40%	Rp98,615,350,400	Rp1,362,587,000,000
40.00%	Rp1,760,988,400,000	6.90%	Rp121,508,199,600	Rp1,362,587,000,000
45.00%	Rp1,981,111,950,000	6.90%	Rp136,696,724,550	Rp1,362,587,000,000
50.00%	Rp2,201,235,500,000	7.05%	Rp155,187,102,750	Rp1,362,587,000,000
55.00%	Rp2,421,359,050,000	7.05%	Rp170,705,813,025	Rp1,362,587,000,000
60.00%	Rp2,641,482,600,000	7.15%	Rp188,866,005,900	Rp1,362,587,000,000
65.00%	Rp2,861,606,150,000	7.15%	Rp204,604,839,725	Rp1,362,587,000,000
70.00%	Rp3,081,729,700,000	7.15%	Rp220,343,673,550	Rp1,362,587,000,000
75.00%	Rp3,301,853,250,000	7.40%	Rp244,337,140,500	Rp1,362,587,000,000
80.00%	Rp3,521,976,800,000	7.40%	Rp260,626,283,200	Rp1,362,587,000,000
85.00%	Rp3,742,100,350,000	7.40%	Rp276,915,425,900	Rp1,362,587,000,000
90.00%	Rp3,962,223,900,000	7.40%	Rp293,204,568,600	Rp1,362,587,000,000
95.00%	Rp4,182,347,450,000	10.50%	Rp439,146,482,250	Rp1,362,587,000,000
100.00%	Rp4,402,471,000,000	11.25%	Rp495,277,987,500	Rp1,362,587,000,000

(CONTINUED.. TABLE X. COST OF DEBT)

Interest Cov. Ratio	Bond Rating	Max. Tax Benefit	Adj. Tax Rate	After Tax Cost of Debt
		Rp340,646,750,000	25%	<b>4.80%</b>
96.72	AAA	Rp340,646,750,000	25%	<b>4.80%</b>
48.36	AAA	Rp340,646,750,000	25%	<b>4.80%</b>
32.24	AAA	Rp340,646,750,000	25%	<b>4.80%</b>
24.18	AAA	Rp340,646,750,000	25%	<b>4.80%</b>
19.34	AAA	Rp340,646,750,000	25%	<b>4.80%</b>
16.12	AAA	Rp340,646,750,000	25%	<b>4.80%</b>
13.82	AAA	Rp340,646,750,000	25%	<b>4.80%</b>
11.21	AA	Rp340,646,750,000	25%	<b>5.18%</b>
9.97	AA	Rp340,646,750,000	25%	<b>5.18%</b>
8.78	A+	Rp340,646,750,000	25%	<b>5.29%</b>
7.98	A+	Rp340,646,750,000	25%	<b>5.29%</b>
7.21	A	Rp340,646,750,000	25%	<b>5.36%</b>
6.66	A	Rp340,646,750,000	25%	<b>5.36%</b>
6.18	A	Rp340,646,750,000	25%	<b>5.36%</b>
5.58	A-	Rp340,646,750,000	25%	<b>5.55%</b>
5.23	A-	Rp340,646,750,000	25%	<b>5.55%</b>
4.92	A-	Rp340,646,750,000	25%	<b>5.55%</b>
4.65	A-	Rp340,646,750,000	25%	<b>5.55%</b>
3.10	BB	Rp340,646,750,000	25%	<b>7.88%</b>
2.75	B+	Rp340,646,750,000	25%	<b>8.44%</b>

TABLE XI. COST OF CAPITAL

Debt Ratio	Cost of Debt	Equity Ratio	Cost of Equity	WACC	Firm Value
0%	4.80 %	100%	10.96 %	10.96 %	Rp9,324,272,354,0 15
5%	4.80 %	95%	11.14 %	10.82 %	Rp9,444,919,131,2 38
10%	4.80 %	90%	11.34 %	10.69 %	Rp9,559,777,829,7 47
15%	4.80 %	85%	11.55 %	10.54 %	Rp9,695,827,798,8 61
20%	4.80 %	80%	11.80 %	10.40 %	Rp9,826,348,557,6 92
25%	4.80 %	75%	12.08 %	10.26 %	Rp9,960,431,286,5 50
30%	4.80 %	70%	12.40 %	10.12 %	Rp10,098,223,814, 229
35%	4.80 %	65%	12.77 %	9.98% 9.99%	Rp10,239,882,264, 529
40%	5.18 %	60%	13.20 %		

	%		%		Rp10,229,632,132, 132
45%	5.18 %	55%	13.70 %	9.87%	Rp10,354,004,559, 271
50%	5.29 %	50%	14.31 %	9.80%	Rp10,427,961,734, 694
55%	5.29 %	45%	15.06 %	9.69%	Rp10,546,339,009, 288
60%	5.36 %	40%	15.99 %	9.61%	Rp10,634,133,714, 880
65%	5.36 %	35%	17.18 %	9.50%	Rp10,757,265,789, 474
70%	5.36 %	30%	18.78 %	9.39%	Rp10,883,282,747, 604
75%	5.55 %	25%	21.01 %	9.42%	Rp10,848,622,611, 465
80%	5.55 %	20%	24.35 %	9.31%	Rp10,976,801,825, 994
85%	5.55 %	15%	29.93 %	9.21%	Rp11,095,985,342, 020
90%	5.55 %	10%	41.09 %	9.10%	Rp11,230,112,637, 363
93%	5.55 %	7%	55.44 %	9.04%	Rp11,304,648,783, 186
95%	7.88 %	5%	74.57 %	11.21 %	Rp8,675,214,346,3 50

With the WACC approach, the capital structure of PT Angkasa Pura II will be at 93% cost of debt and 7% cost of Equity.

The lowest WACC output, similarly the lowest cost of capital, produce a high firm value, which means could maximizing the shareholders wealth.

An optimal capital structure exists if the WACC minimized at 93% of debt and 7% of equity, PT Angkasa Pura II reached the maximum firm value IDR 11,304,648,783,186. It indicates that PT Angkasa Pura II should manage its financial to have 93% of debt ratio to its equity.

## Conclusion & Recommendation

### Conclusion

After doing several assessment frameworks in the final project, the author finally came to the conclusion of some analysis. Airport industry performance is not very good compared to the other airport. Seen from Moody's rating methodology that almost the entire airport value tends to be low. Moody's rating methodology is different from other assessment framework as Moody's are more prone to assess qualitative

factors, which for many companies only concerned with financial statement only.

The economic crisis in 2008 did not adversely affect the airport industries. In fact, the majority of the seven airports had a good performance in 2008. Some of the company has increased the revenue even better in liquidity during the year, such as PT Angkasa Pura II, PT Angkasa Pura I, Airport of Thailand, Australia Pacific Airports Corporation, and Beijing Capital International Airport.

Each company has strengths and weaknesses. The strengths of PT Angkasa Pura II are revenue, asset efficiency, operating activities, and return, while weaknesses are liquidity, and financial structure that determined by targeted proportion of revenues outside of owned direct airport service. PT Angkasa Pura I's strengths are its revenue, liquidity, and operating activities, with the weakness of key credit metrics. The strengths of Airport of Thailand are its asset efficiency, return, and passenger mix, and weaknesses are revenue, liquidity, and key credit metrics. The main strengths of Australia Pacific Airports Corporation is liquidity with the weakness of return and key credit metrics. Schiphol Group got revenue, liquidity, and nature of ownership as its strengths, and return and key credit metrics as its weaknesses. Beijing Capital International Airport has return and financial structure as the strengths of the company while liquidity, asset efficiency, and key credit metrics become its weaknesses.

In trend analysis, PT Angkasa Pura II has the best performance against the other companies. Mostly for the positive trend are asset efficiency, debt, and profit margin.

In DuPont analysis, PT Angkasa Pura II achieved the highest rank in ROA analysis among the others while in ROE analysis the company achieved the third position. This caused by the low equity multiplier.

In BUMN framework, PT Angkasa Pura II is the healthiest company among others. The company achieved the highest rank since the company has the highest ROI value. The ROI indicator has total weight of 10 where PT Angkasa Pura II obtained 6 of ROI value. Beside that, the other companies tend to achieve

a low score, such as PT Angkasa Pura I, Australia Pacific Airports Corporation, and Malaysia Airports Holdings Berhad, which generate value of 3.5 respectively. The rest of companies got lower score afterwards.

In Moody's rating methodology, PT Angkasa Pura II ranked in the second place. Australia Pacific Airports Corporation (APAC) has the highest score with A3 indicated rating. APAC obtained a relatively high score for each category. The only lack they had is in the key credit metrics on the sub-factors of Moody's debt service coverage ratio and Moody's concession life coverage ratio. Indicated the ability of the Issuer's cash flows in servicing and ultimately repaying its debt burden tend to low.

PT Angkasa Pura II becomes the second position out of 7 companies, which achieved Baa3 rating with weighted total score of 9.58. In detail, the upmost score of PT Angkasa Pura II obtained in terms of key credit metrics factor while the other companies dropped in this aspect. Nonetheless, the company had decline in passenger & airline base factor. Moreover, PT Angkasa Pura II has already had a quite strong financial fundamental that could be used as the competitive advantage.

In Indonesia, PT Angkasa Pura II is a monopoly company in which all aviation market dominated by the company. The only local competitor that they had is only PT Angkasa Pura I. However, in this case PT Angkasa Pura II has a better performance than PT Angkasa Pura I.

The weakness of PT Angkasa Pura II is not categorized as an Initial Public Offering (IPO). In the global aspects, PT Angkasa Pura II still has some serious competitors. The best international competitors are Australia Pacific Airports Corporation and Malaysia Airports Holdings Berhad. It can be pronounced by their strength in DuPont framework and Moody's rating methodology.

### **Recommendation**

PT Angkasa Pura II has to make some improvements in several factors to maintain its performance in order to compete in the global industry. In order to improve the performance

of PT Angasa Pura II, the author will give some recommendation in order to be a better airport company. The recommendation suggested could be used as the strategy to reach more opportunities. This also included all aspect of the company, which are financial, operational, and market strategy.

## **A) Reduce ROE ratio & liquidity**

### **1. Debt Management**

Seen by the low level of ROE, PT Angkasa Pura II is suggested to increase the debt. Increasing leverage means that the firm uses more debt financing relative to equity financing. Thus, a higher proportion of debt in the firm's capital structure leads to higher ROE. Increased debt will make a positive contribution to a firm's ROE only if the matching ROA of that debt exceeds the interest rate on the debt. In fact, the debt ratio and return are slightly decline in the last year.

In other hand, based on optimum capital structure assessment, PT Angkasa Pura II would get its maximum firm value of IDR 11,304,648,783,186 if the company has 93% debt ratio to its equity. Thus, the company suggested to increases their leverage into that proportion in order to reach a maximum firm value.

### **2. Asset Management**

Actually, asset is the most important element in company performance. A good utilization of asset will lead to a greater Return on Asset (ROA), Return on Equity (ROE), liquidity, and company profitability also.

Management of asset will improve the performance of ROE also. Since the ROE value affected by the equity multiplier that engaging assets' proportion effectiveness. In the future, the company must develop in maximizing asset in order to generate more profits, in other hands to lead a good performance on ROE value. Similarly, if the asset turnover increases, the firm generates more sales for every unit of asset owned, again resulting in a higher overall ROE. This suggests that asset has an important role in company profits. In addition, cost effectiveness should also be done in order to the cost saving and ease the expense.

Moreover, the failure of managing assets and liabilities will impact on liquidity aspect, where

a non liquid company will lead to a financial distress and bankruptcy due to the lack of the solvency of the firm's financial position. The current asset should higher than the current liabilities in order to pay short-term obligations.

Companies must manage their assets well in order to generate its profits. The maximize utilization of asset is needed in this aspect.

### **3. Increase Revenue & Net Profit**

Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. Implied by the low ROE, the company categorized as less profitable. PT Angkasa Pura II's sales growth is fairly unstable over the year. Movement in 2009 had jumped to double at 20.6% but dropped down continuously thereafter until the last year. As mentioned above, asset has a correlation with sales and profits. Therefore, the company should be reliable in allocating the supporting elements of income and profit, which are asset and expense that presented in detail above.

Thus, the company is suggested to increase sales in order to generate more profit and greater return. If the net margin increases, every sale brings in more money, resulting in a higher overall ROE.

Since PT Angkasa Pura II was a monopolistic company, they can increase sales followed by appropriate demands. The company must have a variety of initiatives to develop the service in order to produce passengers' appeasement.

#### **3.1 Increase Tax Service**

Several years ago, Jakarta airport, Soekarno-Hatta, was nominated as the airport with busiest passenger movement in the world. Similarly, the movement of tourist who entered Indonesia via Jakarta considers a big number, which are 11,599,931 passengers with 23.97% of growth in one year.

According to 2010 data, the number of International passengers was 22.7% of the total passengers.

In order to maximize the company profits, required an increased significant price. As the existing opportunity, PT Angkasa Pura II could raise the tax service price for International passengers which grown greater every year.

### 3.2 Increase Rent Price

As we know, the main income of the airport was a base lease by arrived and takeoff aircrafts. In recent year, air traffic reached 497,352 aircraft movements. PT Angkasa Pura II gets full opportunity to raise tax rates for a number of aircraft in order to raise profit. Supported by the monopoly status, aircraft companies will continue to participate in the policy of increases price by the airport.

#### B) Reduce Standard Deviation of Long Term Average Passenger Growth Rate

Based on the Moody's assessment, PT Angkasa Pura II got worst in passenger and airline base factor with sub-factor standard deviation of long-term average passenger growth rate. PT Angkasa Pura II has value of 9% and classified as "Ba" rating. In Moody's, a company with standard deviation above 10% has worst performance in this segment.

Percentage of standard deviation indicates the uncertainty passenger growth. In this case, PT Angkasa Pura II should pay more attention to what factors may affect the growth of passengers. It would be better if PT Angkasa Pura II to focus on the development of service airports which inadequate every year due to a robust passenger growth.

#### C) Targeted Proportion of Revenues outside of Owned Direct Airport Services

The lowest score also obtained from the stability factor of business model and financial structure. PT Angkasa Pura II less appropriate in allocating the revenues for other business.

In order to improve the company performance and compete the airport global competitive, PT Angkasa Pura II should minimized the utilization of revenue for activities outside direct airport services. The first step is to make profits as much as has been described above.

#### D) Cash Interest Coverage

PT Angkasa Pura II had less flexibility on financial base due to low ability to pay interest due on its debt. Thus, the company should have high liquidity ratios. To be a liquid company, PT Angkasa Pura must depend on current asset and cash equivalent. The more cash on hands, the more liquid the company is, leads to the more ability to pay the short-term obligations.

#### E) Moody's Debt Service Coverage Ratio

Cash flow from operational activities was not much greater than the amount of debt payments each year. Previously it said that the company is advised to raise debt, but must be accompanied by a significant pure income. PT Angkasa Pura II should have a variety of initiatives to develop profitable operational activities. Due to debt is suggested to be increased, then the FFO should be increased many times farther from the increase in debt

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