

The Financial Impacts of Lease Capitalisation on an Airline's Financial Reporting: A Case Study of AirAsia Group Berhad

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ABSTRACT

Effective 1 January 2019, the International Accounting Standards Board (IASB) introduced IFRS 16 Leases to replace IAS 17 Leases. The aviation industry would be affected by the change in leases standard as IFRS 16 Leases will result in larger assets and liabilities being recorded in the balance sheet. In light of this, this study aimed to examine the financial impacts of lease capitalisation and IFRS 16 Leases on an airline through the constructive lease capitalisation method and financial ratio analysis. AirAsia Group Berhad (AirAsia) was selected because its aircraft are predominantly leased and it was predicted to be affected by IFRS 16 Leases. The financial data of AirAsia was analysed before and after the adoption of IFRS 16 Leases from 2017 to 2019. The results showed that the adoption of IFRS 16 Leases had led to an increase in the amount of AirAsia's assets and liabilities and caused adverse changes in AirAsia's D/E ratio, D/A ratio, ROE ratio and ROA ratio with the exception to its asset turnover ratio. This study contributes to literature and practice by addressing the concerns raised by the IASB on the impacts of lease capitalisation on financial reporting following the implementation of IFRS 16 Leases.

Keywords: IFRS 16, Off-balance Sheet, Leases, Financial Reporting, Airline

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INTRODUCTION

In January 2016, the International Accounting Standards Board (IASB) introduced a new leases standard, IFRS 16 Leases, to replace the old standard, IAS 17 Leases. IFRS 16 Leases supersedes IAS 17 Leases, IFRIC 4, SIC-15 and SIC-27. Reporting entities are obliged to apply IFRS 16 Leases effective from 1 January 2019. IAS 17 Leases was considered archaic and no longer meeting the needs of investors and users of financial statements. IAS 17 Leases enabled lessees to classify a lease as an operating lease or a finance lease. Leases classified as operating leases could be recorded off-balance sheet and were only being disclosed in the notes to the financial statements (IFRS Foundation, 2020). As such, lessees prefer to record leases as operating leases rather than as finance leases because operating leases enable their organisations to create a favourable financial picture due to the absence of lease liabilities (lease obligations) in the balance sheet. Lessees also did not have to bear any risk associated with the operating leases as lessors bore all the risks related to the leased assets. This situation led to investors and users of financial statements expressing their concerns that lessees' financial statements did not reflect the economic reality of their leasing transactions (ACCA, 2014; Tan, 2016).

To address the concerns, the IASB and the US national standard-setter, the Financial Accounting Standards Board (FASB), had collaborated to revise the leases standard. After 10 years of collaboration, the IASB issued IFRS 16 Leases on 13 January 2016, with an effective date of adoption from 1 January 2019 (Kostolansky & Stanko, 2011). The new leases standard would substantially change lessee accounting and is expected to have significant impacts on lessees' financial statements. IFRS 16 Leases would end the off-balance sheet accounting treatment of lessees by eliminating the classification of leases as either operating leases or finance leases. Instead, a single accounting model is introduced in which lessees could only recognise a lease under the right-of-use (ROU) approach, with the ROU assets and lease liabilities being recorded in the balance sheet. However, the new leases standard has little change on lessor accounting as lessors could continue to classify leases as either operating leases or finance leases (IASB, 2016b).

According to the IASB, IFRS 16 Leases promotes greater transparency in lessees' leasing transactions and financial leverage. IFRS 16 Leases is

also expected to improve the overall information available to investors and users of financial statements when making investment decisions (IASB, 2016b) as the old leases standard required investors and users of financial statements to adjust the balance sheet to estimate the effect of off-balance sheet operating leases (Tan, 2016). However, IFRS 16 Leases is expected to cause complications for some organisations and industries. For example, the key financial metrics (such as debt and leverage ratios) of organisations with many leased assets would be significantly affected. At the same time, industries with a high volume of operating leases, such as retailers, airlines, and professional services, would be more significantly affected by the change in the leases standard than other industries (IASB, 2016c; PwC, 2016).

In view of this, the IASB had called for research into examining the financial impacts of lease capitalisation on financial reporting with the implementation of IFRS 16 Leases (IFRS Foundation, 2020). Before the implementation of IFRS 16 Leases, Beattie *et al.* (1998), Öztürk and Serçemeli (2016), Sari *et al.* (2016), and Wong and Joshi (2015) had undertaken research to examine the possible financial impacts of the capitalisation of operating leases based on the constructive lease capitalisation model proposed by Imhoff *et al.* (1991) in different contexts and industries. Meanwhile, Alabood *et al.* (2019) and Baigutanova *et al.* (2023) had examined the impacts of IFRS 16 Leases on airlines' balance sheets and profitability in different regions. Nevertheless, within this stream of literature, limited research has examined the financial impacts of lease capitalisation before and after the implementation of IFRS 16 Leases on a single company. In addressing this gap, this research examined the financial impacts of the capitalisation of operating leases (reported according to IAS 17 Leases) and IFRS 16 Leases on the key financial ratios of AirAsia Group Berhad (AirAsia).

AirAsia was selected as the case organisation because it was one of the leading low-cost carriers in Malaysia and Asia with many leased aircraft. Analysts and commenters have forecasted that IFRS 16 Leases would impact AirAsia's financial performance and financial position as it had substantial leased assets (The Edge Markets, 5 December 2019; Zainoodin, 2019). In view of AirAsia's economic and social contributions to the aviation industry, there is a lack of research that has examined AirAsia's leases thoroughly. Therefore, a study on AirAsia's leases will be of great value to scholars who

seek to understand the financial impacts of lease capitalisation and IFRS 16 Leases on an airline's financial reporting.

LITERATURE REVIEW

The Rationales for the New Leases Standard

Historically, airlines bought or leased their aircraft from financial institutions for over 15 to 20 years. At the end of the lease term, the airlines would purchase the aircraft at a very low cost from the financial institutions. Over time, the demand for air transport has increased as people travel to other countries for business and leisure purposes. In meeting the increasing demand for air transport, airlines face increasing cost of equipping their new fleet of aircraft. As a result, airlines have started to search for alternative sources of financing to acquire their aircraft.

In 1973, Udvar-Hazy, Gonda and Gonda's father established International Lease Finance Corp in the US. They introduced the airline industry to the concept known as "operating lease" (Reed, 28 March 2005). Under operating leases, airlines and other entities could lease assets and keep the lease assets and lease obligations off the balance sheet (Imhoff et al., 1991). Subsequent to the introduction of operating lease concept, in 2014, the IASB reported approximately US\$3.3 trillion of off-balance sheet leases among listed companies worldwide using IFRS or US GAAP (IASB, 2016a). Lessees preferred to record leases as operating leases (off-balance sheet leases) rather than as finance leases (capitalised leases) because the capitalisation of leases under finance leases could exacerbate lessees' reported financial performance and leverage ratios. High leverage ratios may signal high financial risks to investors.

The findings of previous studies have shown that lessees prefer to classify leases as operating leases rather than finance leases if lessees could obtain contractual benefits such as in securing favourable debt covenant contracts and promising executive compensation (Lau, 2022; Spencer & Webb, 2015). For instance, leases recognise as operating leases enable lessees to lower their gearing ratio. Borrowers with a lower gearing ratio entitle to a lower borrowing cost and less stringent debt covenants due to

them having a better credit rating and a smaller probability of debt covenant violation (Lim *et al.*, 2017).

At the same time, lease assets are materially unrecorded under operating leases. The unrecorded lease assets will result in a lower amount of assets and a higher return on assets. A higher return on assets will give rise to a more favourable executive compensation, as executive compensation depends upon companies' profitability (Nulla, 2013). Thus, lessees prefer operating leases to conceal some of their assets and liabilities (Díaz *et al.*, 2019; Veverková, 2019), and to obtain greater contractual benefits for the best interests of the organisations and its managers (Lau, 2022).

To address the issues of off-balance sheet leases under IAS 17 Leases, the IASB in 2016 published the new leases standard, IFRS 16 Leases with an effective implementation date from 1 January 2019. IFRS 16 Leases ends the off-balance sheet treatments of operating leases for lessees. IFRS 16 Leases is expected to improve the transparency of lessees' leasing transactions and enhance the comparability of financial information between organisations (IASB, 2016b).

The Potential Impacts of IFRS 16 Leases for Lessees

Under IFRS 16 Leases, lessee accounting will have significant changes in which lessees can no longer classify leases as either operating leases or finance leases. Instead, IFRS 16 Leases introduces a single lease model for lessees known as the ROU approach requiring all leases be recognised as capitalised leases by lessees (IASB, 2016b).

The IASB believes that IFRS 16 Leases will benefit investors and analysts as IFRS 16 Leases ends the off-balance sheet treatments of operating leases for lessees. Assets and liabilities for all leases will be recorded in the balance sheet. Investors and analysts can better assess an organisation's financial performance and financial position without the need to adjust the financial statements. In essence, IFRS 16 Leases provides greater transparency of lessees' leasing transactions and enhances the quality of information available to investors and analysts when making investment decisions (IASB, 2016b, 2016c).

IFRS 16 Leases is also expected to improve the comparability of financial information between organisations that lease assets and organisations that borrow to buy assets. For instance, under IAS 17 Leases, the amounts of assets and liabilities recorded by an organisation that has leased its assets under operating leases are different from another organisation that has borrowed to buy its assets, even though the substance of the two transactions is similar. This is because IAS 17 Leases allows organisations to record their lease assets under operating leases as off-balance sheet items. In contrast, IFRS 16 Leases requires organisation to recognise all lease assets and lease liabilities in the balance sheet. Thus, the new single lessee accounting model under IFRS 16 Leases requires organisations to faithfully represent the economic reality of their leasing transactions. As such, the new leases standard has enabled the comparison of financial information between organisations that lease their assets and organisations that borrow to buy their assets (Ernst & Young, 14 June 2021; IASB, 2016a).

Nevertheless, IFRS 16 Leases is anticipated to affect the financial statements and financial ratios of companies with a high volume of operating leases. The capitalisation of off-balance sheet operating leases under IFRS 16 Leases will cause an increase in the amount of assets and liabilities reported in the balance sheet of lessees. The rental expense, previously recognised under IAS 17 Leases, is replaced by depreciation expense of lease assets and interest expense of lease liabilities in the income statement. Thus, for companies with material operating leases, their operating profit and earnings before interests, taxes, depreciation and amortisation (EBITDA) will increase under IFRS 16 Leases (IASB, 2016a, 2016b). The financial ratios such as debt-to-equity (D/E) ratio, debt-to-asset (D/A) ratio, return on equity (ROE) ratio, return on asset (ROA) ratio, and asset turnover ratio will also be affected (IASB, 2016b; Wong & Joshi, 2015).

BACKGROUND OF THE CASE STUDY

AirAsia was founded by DRB-Hicom, a state-owned company, in 1993 and it began its operation in 1996. In 2001, the then state-owned airline was bought over by Tony Fernandes and Kamarudin Meranun for a token of MYR1 (around US\$0.26 at the time) with around MYR40 million (around

US\$11 million at the time) of debts. Within two years of operation, the two co-founders had managed to turn the debt-ridden airline into a profit-making airline.

When AirAsia was first established, it had only two Boeing 737–300 series aircraft and 250 employees. Adhering to its tagline, “Now Everyone Can Fly”, AirAsia offers no-frill and affordable flights within the Southeast Asian region. In 2020, AirAsia was ranked as Asia’s fifth-largest airline by number of aircraft and passengers. AirAsia had been awarded many prestigious awards, such as Asia’s Leading Low-Cost Airline from 2013 to 2020 and World’s Best Low-Cost Airline for 10 years (AirAsia Group Berhad, 2020). By 2020, AirAsia had served over 344 routes and reached over 136 destinations through 247 fleets of aircraft it owned and leased (Statista, 2021).

AirAsia was selected as the case organisation because it is one of the leading low-cost carriers in Malaysia and Asia. Analysts have cautioned that the change in the leases standard would affect the aviation industry. Therefore, AirAsia would be affected too because like most other airlines, it has many leased aircraft. According to Tocci (2016), around 50% of aircraft flying with commercial airlines worldwide including AirAsia are on lease. As such, the implementation of IFRS 16 Leases would affect the airline industry and AirAsia as their aircraft are predominantly leased (The Borneo Post, 24 October 2019). Since an airline such as AirAsia has received limited attention from the research community, it is contended that the selection of AirAsia as the case organisation will enable the researchers to thoroughly analyse the financial impacts of lease capitalisation and IFRS 16 Leases on its financial reporting.

METHODOLOGY

Measurement Method

This study examined the financial impacts of lease capitalisation and the implementation of IFRS 16 Leases on AirAsia’s financial ratios. The data was obtained from the annual reports of AirAsia for FY2017, FY2018 and FY2019. The financial data for FY2017 and FY2018 (reported according to

IAS 17 Leases) were analysed to estimate the amounts of unrecorded lease liabilities and unrecorded lease assets before the implementation of new leases standard of IFRS 16 Leases through lease capitalisation method. The estimated amounts of unrecorded lease liabilities and unrecorded lease assets were then capitalised on AirAsia’s balance sheet. Subsequently, the financial ratios for FY2017, FY2018 and FY2019¹ were analysed and compared to determine the real impacts of lease capitalisation and the implementation of IFRS 16 Leases on AirAsia’s financial reporting and financial ratios.

Lease Capitalisation Method

This study applied the constructive lease capitalisation method developed by Imhoff *et al.* (1991) to estimate the amounts of unrecorded lease liabilities and unrecorded lease assets of AirAsia for FY2017 and FY2018. This method has been widely used in previous research by Beattie *et al.* (1998), Bennett and Bradbury (2003), Öztürk and Serçemeli (2016) and Wong and Joshi (2015) to estimate the amounts of unrecorded lease liabilities and unrecorded lease assets under operating leases that would have been recorded in the balance sheet, if they had been treated as finance leases.

Estimation of unrecorded lease liabilities

Table 1: Future Minimum Lease Payments of AirAsia

	2018	2017
	Amount of future minimum lease payments	Amount of future minimum lease payments
	RM'000	RM'000
The following financial year	2,065,071	776,747
The subsequent five financial years	6,901,653	2,609,430
From the seventh financial year till the end of the lease term	5,547,770	1,981,286
Total	14,514,494	5,367,463

(Source: AirAsia Group Berhad, 2017; AirAsia Group Berhad, 2018)

The amounts of unrecorded lease liabilities can be estimated by discounting the future minimum lease payments (see Table 1) to their present

¹ The financial data for FY2020 was excluded from the analysis as the aviation industry was greatly affected by the Covid-19 pandemic which may lead to significant changes in AirAsia’s financial ratios.

value using AirAsia's finance lease rates of 5% and 7% for FY2017 and FY2018, respectively. According to Imhoff *et al.* (1991), researchers could use the weighted average interest rate on the organisation's capital lease, if the implicit interest rate of the lease or the incremental borrowing rate of the organisation are not determinable. Since both rates are non-determinable from AirAsia's financial statements, the interest rates of 5% and 7% were used in the estimation of the unrecorded lease liabilities. These rates are AirAsia's weighted average interest rates for 'finance lease liabilities (Ijarah)' that have been rounded up from 4.64% to 5% (for FY2017) and from 6.28% to 7% (for FY2018) so that conservative measures were used in the estimation of the unrecorded lease liabilities (AirAsia Group Berhad, 2018).

This study followed the same assumptions made by Imhoff *et al.* (1991) in determining the remaining life of operating lease. When the exact average remaining life of AirAsia's operating lease was not determinable from its annual reports, the remaining life of the operating lease is assumed to be 15 years. Wong and Joshi (2015) concurred that this assumption used by Imhoff (1991) was still relevant for researchers in estimating the amount of lease capitalisation. Thus, 15-year was regarded as the remaining life of operating lease, and it was the number of years used in discounting the future minimum lease payments to the present values.

Estimation of unrecorded lease assets

In order to address the overall balance sheet impacts of lease capitalisation, the amounts of unrecorded lease assets must be estimated. The unrecorded lease assets were estimated based on the following assumptions made by Imhoff *et al.* (1991).

1. All cash flows are assumed to occur at end of the financial year and all assets are depreciated using the straight-line method.
2. The present value of lease assets will be equivalent to the present value of the lease liabilities at the inception date of the lease, and both will be equal to zero at the end of the lease term.
3. Unlike Imhoff *et al.* (1991) who assume that the useful life of the assets in their research is 30 years, this study assume that the useful

life of AirAsia’s assets is 25 years. This is because AirAsia’s lease assets are largely lease aircraft and it is stated in its notes to the financial statements that the useful life of AirAsia aircraft - engines, airframes and spare engines excluding service potential - is 25 years. The assumption of 25 years being the useful life of AirAsia’s assets is also consistent with the average useful life of commercial aircraft in the aviation industry, which is between 10 and 25 years (see e.g. KPMG, 2016).

These assumptions were used in the estimation of the amounts of unrecorded lease assets through the determination of the unamortised portion of the unrecorded lease assets as a percentage of the remaining amount of unrecorded lease liabilities at the various stages of the assets’ weighted average lease life using the formula below:

$$PV_a / (PV_l) = RL / TL \times PVAF_{(i,n,TL)} / PVAF_{(i,n,RL)}$$

where:

PV_a = Present value of unrecorded lease assets

PV_l = Present value of unrecorded lease liabilities

RL = Remaining lease life

TL = Total lease life

$PVAF(i,n)$ = Present value annuity factor at $i\%$ for n years

Examining the financial impacts of lease capitalisation and the new leases standard through financial ratios analysis

In examining the financial impacts of lease capitalisation and the change in the new leases standard, it is necessary to consider the change in the financial ratios before and after the lease capitalisation and the change in leases standard. As such, the analysis of D/E ratio (i.e., total liabilities/total equity) and D/A ratio (i.e., total liabilities/total assets) was to examine the impacts of AirAsia’s financial leverage. The analysis of the ROE ratio (i.e., net income/total equity) and ROA ratio (i.e., net income/total assets) was to examine the impacts on AirAsia’s investment returns. Meanwhile, the analysis of asset turnover ratio (i.e., sales/total assets) was to examine AirAsia’s assets efficiency in generating revenues or sales.

RESULTS AND DISCUSSION

The results of the study are categorised into four parts: (i) the estimates of unrecorded lease liabilities, (ii) the estimates of unrecorded lease assets, (iii) the financial impacts of lease capitalisation on balance sheet and financial ratios, and (iv) the financial impacts of IFRS 16 Leases on financial ratios.

The Estimates of Unrecorded Lease Liabilities

Table 2: Estimations of Unrecorded Lease Liabilities for FY2017 and FY2018

FY2017				
Year	Future minimum lease payments RM'000	5% present value factor	Note	PV of cash flow RM'000
2018	776,747	0.9524		739,774
2019-2023	521,886	4.1234	1	2,151,945
2024-2032	220,143	5.3040	2	1,167,638
Estimated amount of unrecorded lease liabilities				4,059,357
FY2018				
Year	Future minimum lease payments RM'000	7% present value factor		PV of cash flow RM'000
2019	2,065,071	0.9346		1,930,015
2020-2024	1,380,331	3.8320	3	5,289,428
2025-2033	616,419	4.3414	4	2,676,121
Estimated amount of unrecorded lease liabilities				9,895,564

Notes:

- 1 This factor represents the present value of a 5-year ordinary annuity at 5% being discounted at 5% for 1-year, i.e. $(PVIFA_{5\%,5}) \times (PVIF_{5\%,1}) = 4.3295 \times 0.9524 = 4.1234$.
 - 2 This factor represents the present value of a 15-year ordinary annuity at 5% less the present value of a 6-year ordinary annuity at 5%, i.e. $(PVIFA_{5\%,15}) - (PVIFA_{5\%,6}) = 10.3797 - 5.0757 = 5.3040$.
 - 3 This factor represents the present value of a 5-year ordinary annuity at 7% being discounted at 7% for 1-year, i.e. $(PVIFA_{7\%,5}) \times (PVIF_{7\%,1}) = 4.1002 \times 0.9346 = 3.8320$.
 - 4 This factor represents the present value of a 15-year ordinary annuity at 7% less the present value of a 6-year ordinary annuity at 7%, i.e. $(PVIFA_{7\%,15}) - (PVIFA_{7\%,6}) = 9.1079 - 4.7665 = 4.3414$.
- (Source: AirAsia Group Berhad, 2017; AirAsia Group Berhad, 2018)

Table 2 shows the amounts of unrecorded lease liabilities by AirAsia for FY2017 and FY2018. The amount of unrecorded lease liabilities for FY2017 was obtained by assuming that the future minimum lease payments in FY2018 is RM776.747 million, while the total amount of future minimum lease payments for the subsequent five financial years was RM2,609.430 million. Assume that equal lease payment is made throughout the five years, the annual future minimum lease payments for the subsequent five financial years was RM521.886 million (RM2,609.430 million ÷ 5). Meanwhile,

assume that equal lease payment was made throughout the nine financial years, the annual future minimum lease payments throughout the period was RM220.143 million (RM1,981.287 million ÷ 9).

On the other hand, in FY2018, the future minimum lease payment of AirAsia for FY2019 was RM2,065.071 million. The total amount of future minimum lease payments for the subsequent five financial years was RM6,901.653 million. With the assumption of making equal payment throughout the period, the annual future minimum lease payment for each financial year was RM1,380.331 million (RM6,901.653 million ÷ 5). Further, assume that equal payment was made from the seventh financial year till the end of the lease term, the annual future minimum lease payment for each financial year was RM616.419 million (RM5,547.77 million ÷ 9).

The amounts of unrecorded lease liabilities were estimated by discounting the future minimum lease payments to the present values. Table 2 shows that the estimated amounts of unrecorded lease liabilities of AirAsia for FY2017 and FY2018 are RM4,059.357 million and RM9,895.564 million, respectively. The greater estimated amount of unrecorded lease liabilities in FY2018 indicated that AirAsia entered into new operating lease agreements in FY2018, resulting in an increase in its future minimum lease payments. Thus, AirAsia had a greater estimated amount of unrecorded lease liabilities in FY2018 than in FY2017 after discounting the future minimum lease payments to the present values.

The Estimates of Unrecorded Lease Assets

Table 3: The Estimated Amounts of Unrecorded Lease Assets and Lease Expenses

Financial year	Total lease life (TL)	Marginal interest rate	Ratio of asset balance to liability balance	Note	The amount of unrecorded lease assets (RM million)	Lease expenses (RM million)
2017	25	0.05	81%	1	3,288.079	771.278
2018	25	0.07	77%	2	7,619.584	2,275.98

Notes:

$$1 \left[\frac{(15 + 25) \times (PVA_{(i=5\%, n=25)} + PVA_{(i=5\%, n=15)})}{2} \right] = 0.6 \times (14.094 + 10.380)$$

$$2 \left[\frac{(15 + 25) \times (PVA_{(i=7\%, n=25)} + PVA_{(i=7\%, n=15)})}{2} \right] = 0.6 \times (11.654 + 9.108)$$

Table 3 illustrates the estimated amounts of unrecorded lease assets by AirAsia based on its weighted average interest rate. This study assumed that the average useful life of lease assets is 25 years, and the remaining life of operating leases was 15 years. Thus, 40% (10 years ÷ 25 years) of the lease assets' life cycle had been consumed.

If 40% of the lease assets' life cycles had been consumed and the interest rate in determining the present value of the unrecorded operating lease liabilities was five percent in FY2017, the percentage of the unrecorded lease assets, according to Table 3, would be 81%. This meant that the amount of unrecorded lease assets of AirAsia in FY2017 is estimated to be RM3,288.079 million (81% x RM4,059.357 million). Meanwhile, the difference of 19% (RM771.278 million) denoted the lease expenses.

In FY2018, the interest rate used in the estimation of unrecorded lease liabilities was seven percent. Since 40% of the lease life had been consumed, the percentage of unrecorded lease assets, according to Table 3, would be 77%. Therefore, the amount of unrecorded lease assets of AirAsia in FY2018 was RM7,619.584 million (77% x RM9,895.564 million), while the remaining amount of RM2,275.98 million (23%) was the lease expenses.

The Financial Impacts of Lease Capitalisation on Balance Sheet and Financial Ratios

Table 4: The Financial Impacts of Lease Capitalisation on AirAsia's Balance Sheet

AirAsia Group Berhad Statements of Financial Position			
	FY2018 RM'000	Note	FY2017 RM'000
Unrecorded lease assets	7,619,584	1	3,288,079
Unrecorded lease liabilities	9,895,564	2	4,059,357
Tax deduction	(568,995)	3	(192,819.5)
Net liability effect	9,326,569		3,866,537.5
Equity	(1,706,985)	4	(578,458.5)
Net liability and equity	7,619,584		3,288,079

Notes:

- 1 See calculation in Table 3
- 2 See calculation in Table 2
- 3 FY2017: 25% x (RM4,059,357 million - RM9,895.564 million)
FY2018: 25% x (RM9,895.564 million - RM7,619.584 million)
- 4 FY2017: 75% x (RM3,288.079 million - RM4,059.357 million)
FY2018: 75% x (RM7,619.584 million - RM9,895.564 million)

The capitalisation of operating leases will affect AirAsia's total amounts of liabilities and assets in the balance sheet. As shown in Table 4, the capitalisation of operating leases had led to an increase in AirAsia's total liabilities by RM3,866.538 million and RM9,326.569 million in FY2017 and FY2018, respectively. AirAsia's total assets had also increased by RM3,288.079 million and RM7,619.584 million in FY2017 and FY2018, respectively. Meanwhile, its equity had reduced by RM578.459 million in FY2017 and RM1,706.985 million in FY2018. These differences were examined further with financial ratio analysis to determine the impacts on the financial performance and financial conditions of AirAsia.

Table 5: The Financial Impacts of Lease Capitalisation on AirAsia's Financial Ratios

Ratio	Financial ratios based on the amounts reported in audited financial statements (1)	Revised financial ratios after capitalisation of operating leases (2)	Percentage of change Note 1 (3)
2017			
Debt-to-equity (D/E)	2.2300	3.0711	38
Debt-to-asset (D/A)	0.6904	0.7544	9
Return on equity (ROE)	23%	26%	13
Return on asset (ROA)	7%	6%	-14
Asset turnover	0.4480	0.3890	-13
2018			
Debt-to-equity (D/E)	1.9990	4.8436	142
Debt-to-asset (D/A)	0.6666	0.8289	24
Return on equity (ROE)	27%	38%	41
Return on asset (ROA)	9%	7%	-22
Asset turnover	0.5735	0.4065	-29

Note:

Column 3 = (Column 2 – Column 1) / Column 1 x 100%.

It is noteworthy that AirAsia's D/E ratio, D/A ratio, ROE ratio, ROA ratio and asset turnover ratio were affected subsequent to the capitalisation of operating leases. Table 5 shows the D/E and D/A ratios were adversely changed after the capitalisation of the unrecorded lease liabilities and unrecorded lease assets. The capitalisation of operating leases had negatively impacted AirAsia's balance sheet because it had led to an increase in AirAsia's liabilities and a decrease in its equity. Consequently, AirAsia's D/E ratio increased by 38% and 142% in FY2017 and FY2018, respectively.

A high D/E ratio indicated that AirAsia was financing its operations more heavily through borrowings than through capital contributed by the shareholders. A high D/E ratio also meant that AirAsia had been aggressive in financing its operations and growth through borrowings, and this showed that AirAsia engaged in a risky way to finance its business operations.

The recognition of unrecorded lease assets subsequent to the capitalisation of operating leases had also caused an increase in AirAsia's D/A ratios by 9% in FY2017 and 24% in FY2018. A D/A ratio above 0.5 indicated that AirAsia was financing a significant portion of its assets through borrowings rather than equity. As a result, there was a greater likelihood that AirAsia may face the challenges of borrowing more money at a higher interest rate in the future and putting itself at the risk of insolvency.

Meanwhile, the ROE ratios of AirAsia grew by 13% in FY2017 and 41% in FY2018. The capitalisation of operating leases had led to a decrease in equity as the lease expenses belonging to the operating leases are no longer recognised in the income statement. Instead, depreciation expense of lease assets and interest expense on lease liabilities shall be recognised in the income statement. It is expected that the organisation's net income shall increase at the amount of the operating lease expenses and decrease along with the depreciation and interest expenses. However, Imhoff (1991) and Öztürk & Serçemeli (2016) assumed that the effect of the constructive lease capitalisation on the net profit was insignificant and that the focus of the study was to examine the impact of the capitalisation on the operating leases in the balance sheet. Thus, the ROE ratio increased after the capitalisation of the operating leases as the total equity decreased and the net income remained unchanged. The increase in ROE ratios indicated that AirAsia had been borrowing aggressively, resulting in the fall of its equity.

Furthermore, the ROA ratios and asset turnover ratios of AirAsia were affected following the capitalisation of operating leases. For instance, AirAsia's ROA ratios dropped by 14% in FY2017 and 22% in FY2018. Likewise, its asset turnover ratios had also decreased by 13% in FY2017 and 29% in FY2018. The decrease in the ROA ratio and asset turnover ratio was due to an increase in total assets, while net income and revenue remained unchanged. As such, the capitalisation of operating leases had caused the ROA ratios and assets turnover ratios of AirAsia to decline. A

lower ROA ratio and asset turnover ratio indicated that AirAsia might have excessively invested in assets to produce adequate revenue and income in the course of running its business.

The Financial Impacts of IFRS 16 Leases on the Financial Ratios

Table 6: Impact of the Change in IFRS 16 Leases on AirAsia's Financial Ratios

Ratio	2019	2018	2017	Impact of IFRS 16 Leases
Debt-to-equity (D/E)	7.7932	4.8436	3.0711	Increase
Debt-to-asset (D/A)	0.8863	0.8289	0.7544	Increase
Return on equity (ROE)	-9.7%	38%	26%	Decrease
Return on asset (ROA)	-1%	7%	6%	Decrease
Asset turnover	0.4634	0.4065	0.3890	Increase

The results in Table 6 show the D/E ratio, D/A ratio, ROE ratio, ROA ratio and asset turnover ratio of AirAsia for FY2017 and FY2018 (after capitalisation of operating leases with the recognition of unrecorded lease liabilities and unrecorded lease assets, but before the adoption of IFRS 16 Leases), and FY2019 (after the adoption of IFRS 16 Leases). From the results presented in Table 6, the D/E ratios and D/A ratios of AirAsia increased from FY2017 to FY2019. The increment stemmed from an increase in liabilities which had a relatively larger amount than the increase in assets and a decrease in equity following the adoption of the new leases standard by AirAsia.

The ROE ratios of AirAsia reduced from 26% in FY2017 to -9.7% in FY2019. A standard ROE ratio should be in between 10% and 15%. In the case of AirAsia, its ROE ratio in FY2019 was at -9.7%, which showed that AirAsia was operating at loss compared to the positive ROE ratios in FY2017 and FY2018. Likewise, the ROA ratios of AirAsia also declined from 6% in FY2017 to -1% in FY2019. The decline was due to the net loss suffered by AirAsia in FY2019. Meanwhile, the increase in the ROE and ROA ratios from FY2017 to FY2018 was due to the amount of net income in FY2018 being relatively greater than the amount of total equity and total assets.

AirAsia's asset turnover ratios had increased over the three financial years. In FY2018, the proportion of assets was greater than total revenue in FY2017. As such, the asset turnover ratio rose from 0.3890 in FY2017 to 0.4065 in FY2018. Then, in FY2019, AirAsia adopted IFRS 16 Leases. It is expected that the change to IFRS 16 Leases will lead to a decrease in asset turnover ratio as the ROU assets are recognised as part of total assets (IASB, 2016a). Nonetheless, the adoption of IFRS 16 Leases unexpectedly led to favourable asset turnover ratio for AirAsia as its total sales were relatively larger than total assets. As such, the asset turnover ratio grew from 0.4065 (in FY2018) to 0.4634 (in FY2019).

CONCLUSION

The issuance of the new leases standard, IFRS 16 Leases, ended the off-balance sheet operating leases under IAS 17 Leases. Under IFRS 16 Leases, all leases will be treated by lessees under the ROU approach, where lease assets are recognised as ROU assets and the corresponding liabilities are recognised as lease liabilities in the balance sheet. This study was undertaken to examine the financial impacts of lease capitalisation and the adoption of IFRS 16 Leases on an airline, AirAsia.

The results showed that lease capitalisation had an impact on the financial statements and financial ratios of AirAsia. The results are in line with the findings of Imhoff *et al.* (1991), Öztürk and Serçemeli (2016) and Wong and Joshi (2015), that there are changes in the total liabilities, total assets and total equity of reporting entities following the capitalisation of operating leases. Consequently, the D/E ratio, D/A ratio, ROE ratio and ROA ratio of AirAsia were adversely being affected. However, the results indicated that AirAsia's asset turnover ratio has improved (rather than deteriorated), which is in contradiction with the expectation of the IASB that the change in the leases standard will lead to a decrease in asset turnover ratio (IASB, 2016a). Therefore, the results presented in this paper have shown that the capitalisation of operating leases under the constructive lease capitalisation method proposed by Imhoff *et al.* (1991) and the new leases standard have adversely affected AirAsia's financial reporting and its leverage ratio and profitability ratio with the exception to asset turnover ratio.

This study is unlike previous studies of Beattie *et al.* (1998), Öztürk and Serçemeli (2016), and Wong and Joshi (2015) which solely focused on examining the impacts of lease capitalisation on companies' financial reporting via the constructive lease capitalisation method developed by Imhoff *et al.* (1991). Instead, this study has addressed the shortfall of previous studies by examining not only the financial impacts of lease capitalisation through the constructive lease capitalisation method but also the impacts of IFRS 16 Leases on AirAsia's financial reporting. Hence, this study has more to offer as it also shed some light on the changes in the financial ratios of AirAsia pre-and-post-implementation of IFRS 16 Leases, for FY2017, FY2018 and FY2019, using financial ratios that are netted-off the effect of lease capitalisation on liabilities, assets and equity which was lacking in past studies.

The results of this study have vital knowledge contributions and managerial implications. In particular, the study addressed the concern raised by the IASB on the financial impacts of lease capitalisation on companies' financial reporting. The results of this study have pointed out the impacts of lease capitalisation on lessees' financial reporting, including the change in the key financial metrics that may have implications on lessees' debt covenants and share prices. Therefore, the results of this study provide a richer insight into the impacts of the capitalisation of operating leases on lessees' financial reporting, which may be of interest to practitioners especially managers in deciding whether to lease or buy assets.

At the same time, the results of this study may be of great interest to investors and users of financial statements. The results of this study have highlighted the impacts and costs related to lease capitalisation and the implementation of IFRS 16 Leases, which may be useful to investors and users of financial statements in identifying the potential impacts of the new leases standard in making investment decisions. Thus, this study contributes to the literature by providing insights into the real financial impacts upon the implementation of IFRS 16 Leases on an airline and drawing the attention of the users of financial statements to the possible impacts of lessees' financial situations following the capitalisation of operating leases.

Similar to other studies, this study has limitations. The study was conducted on a single airline, AirAsia. In order to expand the analysis on

the financial impacts of the implementation of IFRS 16 Leases, it would be beneficial to conduct similar research on various companies from different industries. In addition, the study focused on quantitative data and historical data for FY2017, FY2018 and FY2019, neglecting managerial perspectives about the benefits and pitfalls of IFRS 16 Leases since its implementation in January 2019. It would be informative to conduct surveys and interviews with preparers, financial analysts, auditors and other users to assess how IFRS 16 Leases has impacted organisational leasing activities, leasing decisions and the overall business model.

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