

Impact of IFRS-16 Lease Standard on Financial Statements of Transportation and Storage Companies: Evidence from Bist

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Abstract

The International Financial Reporting Standards (IFRS) have been implemented by firms around the globe to make financial information internationally consistent and comparable. The newly established international financial reporting standard (IFRS-16, "Leases") requires recognition of certain old off-balance-sheet assets and liabilities resulting from operating leases under the International Accounting Standard 17 (IAS 17).

The objective of this research aims to employ financial statement items and ratios to investigate how the new leasing standard IFRS-16 affected financial statements following its first implementation in January 2019. The transportation and storage sector, which the IASB's impact analysis identifies as one of the industries that would be impacted the most has been looked into in this context. This study covers firms included in the transportation and storage sector that are traded in BIST (Borsa İstanbul) as of 2020.

Keywords: Bist; financial lease; financial ratios; Ifrs-16; Ias-17; operating lease; transportation and storage sector;

INTRODUCTION

Leases are classified as either financial as well as operational. All risk and revenue are passed towards the lessee in financial leasing, meanwhile, the risk and return maintain with the lessor in operating leasing. As a result, IAS 17 Leasing Transactions Standard stated that assets and liabilities connected to financial leasing transactions should be accounted for in financial statements, however operating lease transactions ought not to be demonstrated in the financial statements (Gökgöz, 2019, p.320). Furthermore, because operational leasing contracts are not reported in the financial statements, consumers frequently are unable to obtain comprehensive and accurate accounting records (ISMMMO, 2019, p. 20).

The overarching function of IFRS / IAS (International Financial Reporting Standards /International Accounting Standards) seems to be to improve the accuracy and consistency and quality of financial information, while also attempting to present accurate information to shareholders, creditors, and other users in order for them to make sound economic judgments (KGK, 2018, p. 5). The IASB (International Accounting Standards Board) carried out research in 2015 to assess the influence of operating lease contracts on the financial statements of 30,000 companies, and it has been obtained that now the total liability of 2.86 trillion dollars associated here to an operating lease wasn't really recognized in the financial statements. Similar fashion, the SEC (American Securities and Exchange Commission) assessed in 2005 that the obligations for operating leases that have not been represented in the financial statements of American business corporations were 1.25 trillion dollars (Magli, et al., 2018, p. 77). Operating leases can indeed be a considerable amount, and the truth of the matter is that these obligations are not reflected in the financial statements allowing the firms' liabilities to be incorrectly analyzed for investors. Furthermore, significant assets that may produce revenue for renters are not documented in the financial statements (Gökgöz, 2019, p. 320; ISMMMO, 2019, p. 23).

Following criticism among corporations, particularly airlines, transportation corporations, chain stores, and service-intensive organizations, the IASB launched an initiative to address weaknesses in the IAS 17 Standard and consider replacing it with the IFRS 16 Leasing Standard. The new standard went into effect in January 2019. (ISMMMO, 2019, p.20). Accordingly, on January 1, 2019, the IAS 17 Leases Standard was replaced by the

IFRS 16 standard (Gökgöz, 2019, p. 320). Irrespective of whether a lease is a financial or operating lease, according to IFRS 16 Leases Standard, financial leasing agreements must be disclosed in the lessee's financial statements. In conformity with the newly in-use standard, the right-to-use will be accounted for in the company's current financial statement as an asset itself, while liabilities resulting from the right-to-use will be reported in the financial statement as lease credit (Diaz and Ramirez, 2018, p. 106; ISMMMO, 2019, p. 23). This inclusion of operating leasing transactions as new assets and liabilities in the financial statements under IFRS 16 is anticipated to result in significant financial disparities (Diaz and Ramirez, 2018, p. 106). In particular, customers who commonly use financial leasing as a financing strategy may find the information about the potential financial effects of the new standard to be helpful.

The objective of this research aims to employ financial statement items and indicators to investigate how leasing transactions affect financial statements following the implementation of IFRS 16. The transportation and storage industry, which the IASB's impact analysis identifies as one of the industries that would be most financially impacted, has been looked into in this context. This study covered firms from the transportation and storage industry that are traded in BIST (Borsa İstanbul)

Related Literature

Uygun, in his master's degree thesis, concluded that as a result of the studies carried out within the scope of thesis research, the effect of TFRS-16 on the liquidity ratios is in the course of decreasing; the effect on the financial structure ratios is increasing in terms of leverage ratio and long-term liabilities-to-liability ratio, and decreasing in terms of short-term liabilities-to-liability ratio; its effect on turnover ratios speed is in the direction of decreasing; its effect on the operating profit ratio is in the direction of increasing; the effect of financing expenses on the ratio of net sales is increasing; It has been determined that the result on other profitability ratios is two-way, the size of the operating lease transactions of the sector and companies is important in terms of the ratio/amount in terms of the direction of the effect, and the effect on the borrowing coefficient is in the direction of increase (Uygun,2019).

(Arslan, 2020) in their thesis found that it is expected that huge changes will arise in the financial statements of the companies that present their financial statements in line with IFRS for the 2019 accounting period, which will be published for the first time in 2020. For this reason, the financial statements of the companies picked from the aviation sector, in which operating leases are intense, for the 2019 accounting period with IFRS 16 applied and 2018 financial statements for which IFRS 16 has not been applied have been analysed comparatively. In addition, the changes in the financial statement ratios in the same years were examined. With the implementation of IFRS 16 Leases Standard, it has been determined that the fixed assets and liabilities amounts in the financial statements of the enterprises in general increase, their working capital decreases and the financial statement ratios are negatively affected (Arslan,2020).

Dogus, (2020) in their study, the effects of the implementation of the IFRS 16 Standard and the changes on the financial statements have been tried to be clarified. The objective of the study is to reveal the growth in the assets and liabilities stated in the financial statements of the lessee companies that use their foremost assets through operating leases with the implementation of IFRS 16, and to reveal the degree to which this increase changes the financial indicators of the lessees through financial ratios. As an outcome of the study, it was realized that the IFRS 16 Standard affected the assets and liabilities the greatest, and in this situation, there was an increase in the fixed assets and long-term liabilities. In addition, while the IFRS 16 standard did not produce any change in the revenue and inventories of the sample enterprises, it was observed that there was a general decrease in the ratios presenting the liquidity of the enterprises (Dogus, 2020).

Some other recent research on the influence of new standards found that as long as the present structure of lease agreements is sustained, the basic financial ratios would not completely alter. In other circumstances though, ROA and ROE will rise. Furthermore, it was determined that the effect of operational lease agreements may be kept acceptable by shortening the rental durations (Giner et al.,2019).

Spanberger and Rista (2020) attempted to investigate the repercussions of IFRS 16 for 279 publicly listed corporations in multiple industries in Sweden, utilizing financial

information and annotations published in 2020 for the period of 2019, because when the standard began to be put in place. They discovered a median of 4.7 percent (average) in total assets in their study. 10.1 percent rise; 9.5 percent (average 21.7 percent) rise in overall liabilities; 11.2 percent (mean 39.6 percent) expansion in EBITDA; 9.6 percent (average 22.3 percent) growth in debt/equity ratios; as well as 6.4 percent (average 9.9 percent) decline in firm value/EBITDA ratio. Spanberger & Rista started to look there at developments in some of these measurements by sector, and ended up finding that perhaps the retail, hospitality industry, food, as well as education sectors, which had been categorized as consumption businesses, experienced much more shake-up, whereas the financial services, banking and property investment sectors, which have been grouped as financial services, realized the lowest rate (Spanberger and Rista 2020).

According to Akdogan and Erhan (2020), financial leverage climbed in conjunction with the increasing in the company's current liabilities, as well as the asset turnover rate was higher as a consequence of the rise in total assets (Akdogan and Erhan 2020).

Scope of the Study

The financial data of the firms in the BIST index from the transportation and storage sector were used in the scope of the investigation. The transportation and storage sector consists of 10 firms as of May 2020 which will be all included in this research according to their suitability. To assess the impact of IFRS 16 on all of the firms from the transportation and storage sector, enterprises evaluation is done on their financial statements and footnotes for the year 2019 when the new leases standard came into effect and a comparison is made between when IFRS 16 is applied and when IAS 17 is applied.

Limitations of the Study

1. Financial statements are acquired from publicly traded Turkish firms listed here on BIST.
2. Companies that have no lease transactions are excluded from the research.
4. The data collected for the study is restricted to firms operating in the "Transportation and Storage" sector on KAP as of May 2020.
5. The research includes companies whose shares are traded in BIST and have reported the essential information on the impact of IFRS 16 in respective 2019 year-end (full year) financial information.
6. Data and results are just as reliable and accurate as of the financial statements themselves.

Research Data and Method

The purpose of this study is to demonstrate the impact of the IFRS 16 standard on the financial statements and financial ratios of firms in the transportation and storage sector from publicly listed firms in Turkey. The IFRS 16 standard became effective on 16 April 2018 by just being released in the Official Gazette under the number 29826, to be applicable for accounting periods commencing after 31 December 2018, and lessee firms used this standard in producing their financial statements for 2019. The consequence of the

standard has been highlighted in this study by evaluating the results of firms' financial statements in 2019 produced under IFRS 16 and then comparing in a case where IAS 17 was used.

Research Data

Within the scope of the research, the data to be analyzed were examined in two categories:

- Financial Statement Items
- Financial Ratios

To assess the impact of the standard on financial statements items, the below indicators have been chosen from among the major items:

- Total Assets
- Total Liabilities
- Total Equity
- Period Net Profit

Though since right-of-use assets and lease liabilities would be displayed in financial statements, the standard will now have a significant influence on total assets and total liabilities. It would be another measure that should be directly influenced by the separation of lease expenditures, which were earlier reflected as operational expenses in EBIT, as depreciation and interest expenses, and even the premise that certain depreciation expense is included during this stage. The change in net income amount might vary depending on the lease portfolio arrangement and tax rate. As a logical consequence, because the term profit is the primary consideration that could trigger a change in total shareholders' equity, the change in total shareholders' equity could also be around the same as the variation in net profit value. These metrics were chosen for the study because they are widely acknowledged as primary measures in financial statements.

The below primary financial ratios have been proposed in order to monitor the influence of the standard on financial ratios, including at a minimum a single financial ratio among each performance category (liquidity, profitability, efficiency, and indebtedness).

- Current Ratio (Current Assets / Current Liabilities)
- Asset turnover (Revenue/ Assets)
- Debt/Equity Ratio (Total Liabilities / Total Equity)
- Return on Equity (Net Profit / Average Total Equity)
- Return on Assets (Net profit / Total Assets)
- EBITDA

Though since alterations will emerge in the related metrics in the financial accounts, these calculations on financial ratios will also shift. As a result, financial ratios had been added to the original scope of the effect analysis in the study, and above selected financial ratio elements were derived mostly from areas of liquidity, efficiency, indebtedness, and profitability.

Sample Selection

The study's area comprises of firms from transportation and storage listed on BIST. The reason for selecting these corporations as the study set is to have exposure to thoroughly examined financial statements with the implementation of IFRS 16 as well as the sectoral representative qualities of these corporations.

The financial statements, disclosures, and footnotes of 6 businesses in the Transportation and storage sector in the BIST, which also formed the study's scope, have been analyzed for the year 2019 - which was the first year of IFRS 16 implementation - through the use of the public disclosure platform www.kap.org.tr, and the implications of IFRS 16 when excluded and included are examined.

As an outcome of the sector inspections, it was concluded that there is 6 firms of the total 10 firms had lease transactions and those firms did demonstrate the effect of IFRS 16 on the financial position statement and profit or loss statement in an understandable manner and clarity. Also, 2 firms from the sector did not have lease transactions while one of the remaining two firms is a lessor and the other one did not apply IFRS-16 at all, so they are kept out of the research scope.

Table 1 transportation and storage sector firms

ÇELEBİ HAVA SERVİSİ A.Ş.
PEGASUS HAVA TAŞIMACILIĞI A.Ş.
TÜRK HAVA YOLLARI A.O.
GSD DENİZCİLİK GAYRİMENKUL İNŞAAT SANAYİ VE TİCARET A.Ş.
TRABZON LİMAN İŞLETMECİLİĞİ A.Ş.
DO & CO AKTIENGESELLSCHAFT

Analysis of Data

In the studies conducted in the literature, it has been estimated that one of the sectors that will be most affected by the IFRS 16 standard will be the retail sector. For this reason, in this study, an analysis was made on 10 firms that were classified as operating in the "Transportation and Storage" sector in KAP as of May 2020. As a result of the examinations made in the financial statements of the year 2019, in which IFRS 16 was applied for the first time, 6 companies have been identified that have disclosed the necessary detailed information about the effect of TFRS 16 regarding the analyzes to be made. Content analysis was applied to the 2019 reports of the 6 enterprises in question, the necessary information was classified, summarized and made suitable for analysis.

RESULTS

Comparative Analysis of Financial Statements of Sample Firms in the Scope of IAS 17 and IFRS 16

When we look at the comparison of IAS 17 and IFRS 16 Standards of sample businesses operating in the Transportation and Storage sector, it is seen that there are changes in many financial statement items. With the implementation of the IFRS 16 Standard, the “assets” and “liabilities” reflected in the financial statements have increased. In addition, depreciation expense and interest expense related to lease liabilities, which occur with the right-of-use assets, have replaced rent expenses, which are included in a single item in operating expenses. The increase in liabilities caused the liquidity ratios to decrease and the financial structure ratios to increase.

To begin the analysis with, assets of all companies have shown an increase in different levels. There was an increase of 24% for Çelebi Hava Servisi A.Ş., 130% increase for Pegasus Hava A.Ş., 123% increase for Turk Hava Yollari, an increase for GSD Denizcilik A.Ş., 2% increase for Trabzon Liman İşlet. A.Ş. and lastly 14% increase for Do & Co Aktiengesellschaft. From the above data is seen that the assets of airline companies have increased much higher when compared to the rest of the companies in the sample which supports the notion that airline firms have greater off-balance sheet activities.

Similarly, liabilities of all companies have shown an increase to different extents. There was an increase of 39% for Çelebi Hava Servisi A.Ş., 175% increase for Pegasus Hava A.Ş., 125% increase for Turk Hava Yollari, 1% increase for GSD Denizcilik A.Ş., 5% increase for Trabzon Liman İşlet. A.Ş. and lastly 18% increase for Do & Co Aktiengesellschaft. Again, airline companies have shown greater increase from the other companies which indicates that they had much more off-balance sheet activities.

For equities of the firms, the picture varied from one company to another where there was a decrease of 6% for Çelebi Hava Servisi A.Ş., 56% increase for Pegasus Hava A.Ş., 117% increase for Turk Hava Yollari, a decrease for GSD Denizcilik A.Ş., also a small increase for Trabzon Liman İşlet. A.Ş. and lastly 2% increase for Do & Co Aktiengesellschaft. Equities picture is less obvious than the assets and liabilities since a decrease or increase is not a uniform for all firms. However, attention must be given the fact that airline firms have shown a considerable increase in equities after the standard.

When it comes to the net profits of the companies, all the companies have experienced decrease in net profit apart from Pegasus Hava A. Ş. There was a decrease of 15% for Çelebi Hava Servisi A.Ş., 5% increase for Pegasus Hava A.Ş., 28% decrease for Turk Hava Yollari, 11% decrease for GSD Denizcilik A.Ş, 2% decrease for Trabzon Liman İşlet. A.Ş. and lastly 36% decrease for Do & Co Aktiengesellschaft.

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Figure 1 Comparison of Financial Statements Prepared in accordance with IAS 17 and IFRS 16 Standard (31.12.2019)

Financial Statements	ÇELEBİ HAVA SERVİSİ A.Ş.		Difference		Change
	With IFRS 16	Without IFRS 16	Number	%	
TL					
Total Assets	2,219,589,688	1,796,137,272	423,452,416	24%	Increase
Total Liabilities	1,647,152,724	1,188,470,168	458,682,556	39%	Increase
Total Equity	572,436,964	607,667,104	(35,230,140)	-6%	Decrease
Revenue	1,877,885,618	1,877,885,618	-	0%	
Net Profit	195,463,901	230,601,088	(35,137,187)	-15%	Decrease
Financial Statements	TÜRK HAVA YOLLARI A.O.		Difference		Change
	With IFRS 16	Without IFRS 16	Number	%	
TL					
Total Assets	146,871,000,000	65,977,000,000	80,894,000,000	123%	Increase
Total Liabilities	106,076,000,000	47,156,000,000	58,920,000,000	125%	Increase
Total Equity	40,795,000,000	18,821,000,000	21,974,000,000	117%	Increase
Revenue	75,118,000,000	75,118,000,000	-	0%	
Net Profit	4,536,000,000	6,324,000,000	(1,788,000,000)	-28%	Decrease
Financial Statements	TRABZON LİMAN İŞLET. A.Ş.		Difference		Change
	With IFRS 16	Without IFRS 16	Number	%	
TL					
Total Assets	138,602,501	136,500,716	2,101,785	2%	Increase
Total Liabilities	46,282,491	44,195,070	2,087,421	5%	Increase
Total Equity	92,320,010	92,305,646	14,364	0.016%	Increase
Revenue	60,097,964	60,097,964	-	0%	
Net Profit	52,046,845	53,097,738	(1,050,893)	-2%	Decrease

Figure 2 Comparison of Financial Statements Prepared in accordance with IAS 17 and IFRS 16 Standard (31.12.2019)

Financial Statements	PEGASUS HAVA TAŞ. A.Ş.		Difference		Change
	With IFRS 16	Without IFRS 16	Number	%	
TL					
Total Assets	21,059,321,198	9,152,566,233	11,906,754,965	130%	Increase
Total Liabilities	15,717,151,991	5,719,770,247	9,997,381,744	175%	Increase
Total Equity	5,342,169,207	3,432,795,986	1,909,373,221	56%	Increase
Revenue	11,025,224,523	11,025,224,523	-	0%	
Net Profit	1,334,567,915	1,275,362,905	59,205,010	5%	Increase
Financial Statements	GSD DENİZCİLİK A.Ş.		Difference		Change
	With IFRS 16	Without IFRS 16	Number	%	
TL					
Total Assets	248,931,000	248,005,000	926,000	0.4%	Increase
Total Liabilities	108,469,000	107,444,000	1,025,000	1.0%	Increase
Total Equity	140,462,000	140,561,000	(99,000)	-0.1%	Decrease
Revenue	41,285,000	41,285,000	-	0%	
Net Profit	(5,745,000)	(5,120,000)	\$ (625,000)	-11%	Decrease
Financial Statements	DO & CO AKTIENGESELLSCHAFT		Difference		Change
	With IFRS 16	Without IFRS 16	Number	%	
TL					
Total Assets	7,853,600,000	6,874,840,000	978,760,000	14%	Increase
Total Liabilities	6,366,820,000	5,417,530,000	949,290,000	18%	Increase
Total Equity	1,486,780,000	1,457,310,000	29,470,000	2%	Increase
Revenue	6,740,550,000	6,740,550,000	-	0%	
Net Profit	(112,590,000)	(71,980,000)	(40,610,000)	-36%	Decrease

Comparative Analysis of Financial Ratios of Sample Firms in the Scope of IAS 17 and IFRS 16

After analyzing how financial ratios were impacted by the new lease standard, it is seen that there are some significant changes in key financial ratios where there was increase in some while others have decreased.

Current ratio is one of the ratios where there was a decrease in all of the companies from the sector. There was a decrease of 11.6% for Çelebi Hava Servisi A.Ş., 32% decrease for Pegasus Hava A.Ş., 23% decrease for Turk Hava Yollari, almost 1% decrease for GSD Denizcilik A.Ş., 2.7% decrease for Trabzon Liman İşlet. A.Ş. and lastly 54% decrease for Do & Co Aktiengesellschaft.

Also, return on asset ratio has shown mainly a falling pattern apart from two companies. There was a decrease of 31% for Çelebi Hava Servisi A.Ş., 54% decrease for Pegasus Hava A.Ş., 67% decrease for Turk Hava Yollari, 11% increase for GSD Denizcilik A.Ş., 3% decrease for Trabzon Liman İşlet. A.Ş. and finally 36% increase for Do & Co Aktiengesellschaft.

Again, asset turnover ratio is one of the ratios that has shown a decrease in all of the firms in the sample. There was a decrease of 19% for Çelebi Hava Servisi A.Ş., 56% decrease for Pegasus Hava A.Ş., 55% decrease for Turk Hava Yollari, 0.3% decrease for GSD Denizcilik A.Ş., 1.5% decrease for Trabzon Liman İşlet. A.Ş. and finally 12% increase for Do & Co Aktiengesellschaft.

Debt/Equity ratio on the other hand, is one of the ratios that has shown a increase in all of the firms in the sample. There was an increase of 47% for Çelebi Hava Servisi A.Ş., 76% increase for Pegasus Hava A.Ş., 4% increase for Turk Hava Yollari, 1% increase for GSD Denizcilik A.Ş., 4.7% decrease for Trabzon Liman İşlet. A.Ş. and finally 15% increase for Do & Co Aktiengesellschaft.

Return on Equity ratio has decreased in all of the firms contrary to the above ratio. There was a decrease of 10% for Çelebi Hava Servisi A.Ş., 32% decrease for Pegasus Hava A.Ş., 66% decrease for Turk Hava Yollari, 10% decrease for GSD Denizcilik A.Ş., 1% decrease for Trabzon Liman İşlet. A.Ş. and finally 34% increase for Do & Co Aktiengesellschaft.

Lastly, EBITDA is also analyzed to understand if the expected changes occurred. EBITDA of the firms in the sector has increased in all of them. There was an increase of 5% for

NOTE: This preprint reports new research that has not been certified by peer review and should not be used as established information without consulting multiple experts in the field.

Çelebi Hava Servisi A.Ş., 16% increase for Pegasus Hava A.Ş., 28% increase for Turk Hava Yollari, 6.4% increase for GSD Denizcilik A.Ş, 3% increase for Trabzon Liman İşlet. A.Ş. and finally 65% increase for Do & Co Aktiengesellschaft.

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Figure 3 Comparison of Financial Ratios Calculated Using IAS 17 and TFRS 16 Applied Statements (31.12.2019)

Financial Ratios	ÇELEBİ HAVA SERVİSİ A.Ş.		Difference		Change
	With IFRS 16	Without IFRS 16	Number	%	
Current Ratio	0.759	0.859	-0.100	-11.60%	Decrease
Return on Asset Ratio	0.088	0.128	-0.040	-31.41%	Decrease
Asset Turnover Ratio	0.846	1.046	-0.199	-19.08%	Decrease
Debt/Equity Ratio	2.877	1.956	0.922	47.12%	Increase
Return on Equity Ratio	0.341	0.379	-0.038	-10.02%	Decrease
EBITDA	291,145,667	276,207,583	14,938,084	5.41%	Increase
Financial Ratios	TÜRK HAVA YOLLARI A.O.		Difference		Change
Ratio	With IFRS 16	Without IFRS 16	Number	%	
Current Ratio	0.800	1.040	-0.240	-23.05%	Decrease
Return on Asset Ratio	0.031	0.096	-0.065	-67.78%	Decrease
Asset Turnover Ratio	0.511	1.139	-0.627	-55.08%	Decrease
Debt/Equity Ratio	2.600	2.505	0.095	3.78%	Increase
Return on Equity Ratio	0.111	0.336	-0.225	-66.91%	Decrease
EBITDA	6,830,000,000	5,334,000,000	1,496,000,000.00	28.05%	Increase
Financial Ratios	TRABZON LİMAN İŞLET. A.Ş.		Difference		Change
Ratio	With IFRS 16	Without IFRS 16	Number	%	
Current Ratio	2.73	2.81	-0.076	-2.71%	Decrease
Return on Asset Ratio	0.38	0.39	-0.013	-3.47%	Decrease
Asset Turnover Ratio	0.43	0.44	-0.007	-1.52%	Decrease
Debt/Equity Ratio	0.50	0.48	0.023	4.71%	Increase
Return on Equity Ratio	0.56	0.58	-0.011	-1.99%	Decrease
EBITDA	32,927,670	31,876,777	1,050,893	3.30%	Increase

Figure 4 Comparison of Financial Ratios Calculated Using IAS 17 and TFRS 16 Applied Statements (31.12.2019)

Financial Ratios	PEGASUS HAVA TAŞ. A.Ş.		Difference		Change
	With IFRS 16	Without IFRS 16	Number	%	
Current Ratio	1.278	1.886	-0.608	-32.25%	Decrease
Return on Asset Ratio	0.063	0.139	-0.076	-54.52%	Decrease
Asset Turnover Ratio	0.524	1.205	-0.681	-56.54%	Decrease
Debt/Equity Ratio	2.942	1.666	1.276	76.57%	Increase
Return on Equity Ratio	0.250	0.372	-0.122	-32.76%	Decrease
EBITDA	2,111,494,306	1,815,928,212	295,566,094	16.28%	Increase
Financial Ratios	GSD DENİZCİLİK A.Ş.		Difference		Change
	With IFRS 16	Without IFRS 16	Number	%	
Current Ratio	0.178	0.180	-0.001	-0.81%	Decrease
Return on Asset Ratio	-0.023	-0.021	-0.002	11.79%	Increase
Asset Turnover Ratio	0.166	0.166	-0.001	-0.37%	Decrease
Debt/Equity Ratio	0.772	0.764	0.008	1.03%	Increase
Return on Equity Ratio	-0.041	-0.036	-0.004	-10.94%	Decrease
EBITDA	6,539,000	6,142,000	397,000	6.46%	Increase
Financial Ratios	DO & CO AKTIENGESELLSCHAFT		Difference		Change
	With IFRS 16	Without IFRS 16	Number	%	
Current Ratio	1.41	3.07	-1.657	-54.03%	Decrease
Return on Asset Ratio	-0.01	-0.01	-0.004	36.92%	Increase
Asset Turnover Ratio	0.86	0.98	-0.122	-12.46%	Decrease
Debt/Equity Ratio	4.28	3.72	0.565	15.19%	Increase
Return on Equity Ratio	-0.08	-0.05	-0.026	-34.78%	Decrease
EBITDA	505,250,000	305,940,000	199,310,000	65.15%	Increase

After comparing financial ratios of the same year with IFRS-16 and without IFRS-16, trend analysis of financial ratios over four years is conducted to gain full picture and see how the financial ratios have changed over the 4-year period.

In the above comparison, we observed that Current Ratio has decreased for all the firms from the sample. Instead, if we look at the trend of Current Ratios for firms over the years, we can see that current ratios of all firms have decreased in year 2019 when compared to their preceding years in 2017 and 2018 apart from Trabzon Liman Islet.A.s. and Pegasus

Hava Tas. A.S. This is consistent with the results from the comparison analysis where only Trabzon Liman Islet.A.s. and Pegasus Hava Tas. A.S. are outliers.

Again, Return on Assets ratio has shown a decrease for the most companies in the above comparison. After further looking at the trend of the Return on asset ratio over four-year period, it can be seen that Return on Asset ratio has decreased in 2019 when compared to the previous years in 2017 and 2018 apart from one company. This result is also in line with our above results from comparison analysis where there was an overall a decrease for firms.

Asset Turnover ratio has shown a decrease in the above comparison analysis where with IFRS-16 and without IFRS-16 are compared. Also, the same has happened where a decrease has happened in 2019 compared to the preceding years in our trend analysis over the four-year period for all the companies from the sample. This further strengthens the results from the comparison analysis.

For Debt/Equity ratio, it is one of the ratios that the effect of IFRS-16 has resulted in an increase for all the companies from our sample when compared in 2019. Also, when looked at the trend analysis, the situation is not clear as it is in the above comparison. It seen that while three of the firm's Debt/Equity ratio has increased in 2019 compared to the preceding years and on the other hand three companies has shown a decrease in 2019.

Finally, in the above comparison of effect of IFRS-16 on Return on equity, there has been a decrease for all the firms from the sample. Similar to the Debt/Equity ratio, Return on Equity ratio in trend analysis over the four years has shown an increase in 2019 for some firms when compared to the preceding 2017 and 2018 while the was a decrease in other.

Overall, financial ratios of the firms from the sample in the trend analysis over the four years has increased or decreased in consistent with comparison analysis where financial ratios in 2019 are compared when IFRS-16 applied and when not applied.

Figure 5 Trend of Financial Ratios of the Sample Companies

ÇELEBİ HAVA SERVİSİ A.Ş.	2017	2018	2019
Current Ratio	1.39	1.18	0.80
Return on Asset Ratio	0.10	0.14	0.09
Asset Turnover Ratio	1.10	0.88	0.85
Debt/Equity Ratio	1.89	6.92	2.88
Return on Equity Ratio	0.24	1.23	0.34
TÜRK HAVA YOLLARI A.O.	2017	2018	2019
Current Ratio	0.85	0.87	0.80
Return on Asset Ratio	0.01	0.04	0.03
Asset Turnover Ratio	0.58	0.58	0.51
Debt/Equity Ratio	2.40	2.49	2.60
Return on Equity Ratio	0.03	0.13	0.11
TRABZON LİMAN İŞLET. A.Ş.	2017	2018	2019
Current Ratio	2.14	2.55	2.73
Return on Asset Ratio	0.24	0.31	0.38
Asset Turnover Ratio	0.55	0.67	0.43
Debt/Equity Ratio	1.04	0.62	0.50
Return on Equity Ratio	0.48	0.50	0.56

Figure 6 Trend of Financial Ratios of the Sample Companies

PEGASUS HAVA TAŞ. A.Ş.	2017	2018	2019
Current Ratio	1.67	1.24	1.28
Return on Asset Ratio	0.06	0.04	0.06
Asset Turnover Ratio	0.66	0.61	0.52
Debt/Equity Ratio	2.25	2.68	2.94
Return on Equity Ratio	0.20	0.14	0.25
GSD DENİZCİLİK A.Ş.	2017	2018	2019
Current Ratio	1.01	0.95	0.18
Return on Asset Ratio	-0.04	0.12	-0.02
Asset Turnover Ratio	0.16	0.26	0.17
Debt/Equity Ratio	3.14	1.27	0.77
Return on Equity Ratio	-0.17	0.27	-0.04
DO & CO AKTIENGESELLSCHAFT	2017	2018	2019
Current Ratio	1.66	1.95	1.36
Return on Asset Ratio	0.06	0.06	-0.01
Asset Turnover Ratio	1.50	1.44	0.86
Debt/Equity Ratio	1.31	1.29	4.28
Return on Equity Ratio	0.13	0.14	-0.08

DISCUSSION

Today, the leasing mechanism has evolved into a significant financing instrument for companies, and its effectiveness has rapidly expanded even more in the fast-booming and developing corporate sector. Because companies frequently undertake leasing to acquire assets, the accounting and reporting process of leasing transactions has indeed evolved into one of the key tasks undertaken by companies.

IAS 17 Lease Transactions Standard, which had been in application since 2006, was abolished in January 2019 and substituted with IFRS 16 Leases Standard. The implications of this shift on the financial ratios of firms in designated industries traded on BIST were looked into in this research.

IAS 17 distinguishes between financial and operational leases for the lessee and keeps track off-balance-sheet transactions resulting from operational leases. IFRS 16, on the opposite side, has ended this separation in the context of the lessee and has acknowledged all lease transactions as financial leasing transactions (with the sole exception of leases with such a duration of 12 months or less and small-value leases) and that it has tried to bring the assets and liabilities emerging from this transaction further into the balance sheet.

Many factors contributed to the successful replacement of IFRS 16 from IAS 17. As a result, the reality that firms with operational leases manage their assets and liabilities originating from this transaction off-balance sheet presented a stumbling block to analyzing companies' true liability. Furthermore, depreciation and financial expenses associated with these transactions are not shown in the income statement. These circumstances lead firms with operating leases to be viewed differently than they would otherwise be. With the implementation of IFRS-16, organizations will be able to produce more transparent and accurate financial information. As a result, appropriate users will be able to achieve more accurate performance criteria.

With the implementation of IFRS 16, formerly off-balance-sheet assets and liabilities would be recognized in the balance sheet and, in consequence, indirectly in the comprehensive income. This will bring about significant shifts, particularly in industries that rely heavily on leasing transactions (both financial and operational).

For quite a long period, the IASB has been assessing which industries may be strongly affected. It has published the findings of its impact study report. As an outcome, it has been predicted that the aviation, retail, travel, and transportation sectors will be the most impacted. Telecommunications, energy, media, distribution, information technology, and health care will also be affected, albeit to a lesser extent compared to the first category.

In this study, an analysis was made on 10 firms that were classified as operating in the "Transportation and Storage" sector in KAP as of May 2020. As a result of the examinations made in the financial statements of the year 2019, in which IFRS 16 was applied for the first time, 6 companies have been identified that have disclosed the necessary detailed information about the effect of TFRS 16 regarding the analysis to be

made. Content analysis was applied to the 2019 reports of the 6 enterprises in question, the necessary information was classified, summarized, and made suitable for analysis.

Financial statement items such as total assets, total liability, total equity, and net profit were chosen for the analysis along with financial ratios including current ratio, asset turnover, debt/equity, return on equity, return on assets and EBITDA. The study will contribute to the effect of the new standard IFRS 16 on this specific sector in the literature

CONCLUSION

In the study, it was concluded that after the application of IFRS 16 the financial statement items of transportation and storage sector firms were impacted as follows; an increase in the total assets, an increase in the total liabilities, total equity varied as it increased in the most of the examples, while there was a decrease in the net profit of the companies. Additionally, financial ratios were impacted as follows, after the new standard IFRS 16, debt/equity and EBITDA ratios have shown an increase in all of the firms. While on the contrary, liquidity and profitability ratios such as current assets, return on asset, asset turnover and return on equity have decreased for all examples.

Above finding are largely consistent with studies in the literature about this topic as companies' indebtedness may increase as a result of the implementation of IFRS-16. Considering right-of-use assets include operational leases, total non-current assets would then start rising. In another phrase, both the assets and liabilities of businesses will expand. Nevertheless, there won't be any impact on the asset's current assets component. The increase in the total equity in some cases is parallel to that increase in the total assets. An increase EBITDA and decrease in net profit is expected after the implementation of IFRS 16.

Once IFRS-16 is viewed properly, treating all leasing agreements as financial leasing for the lessee might pose a hardship for firms in the immediate term, but should bring convenience in the long run. On the opposing aspect, this arrangement is crucial for the purpose of delivering a financial statement to users with more transparent and accurate information.

REFERENCES AND NOTES

- Akbulut, D. H. (2017). faaliyet kiralaması işlemlerinin aktifleştirilmesinin finansal tablolara ve finansal oranlara etkisinin borsa istanbul şirketleri üzerinde incelenmesi. *World of Accounting Science*, 19(2).
- Akdoğan, N., & Erhan, D. U. (2020). tfrs 16 kiralama standardinin finansal tablolar üzerine etkisi ve perakendecilik sektörü üzerine bir araştırma. *Muhasebe Bilim Dünyası Dergisi*, 22(1), 164-191.
- Akgüç, Ö. (1998). Finansal Yönetim (7. Baskı). *İstanbul: Avcıol Basım Yayın*, 753.
- Aksoy, A., & Yalçın, K. (2008). İşletme Sermayesi Yönetimi, Gazi Kitabevi, 4. Baskı, Ankara.
- Altop, A. (1990). Özellikle Taşınır Yatırım Mallarına İlişkin Finansal Kiralama (Leasing) Sözleşmesi. *Banka ve Ticaret Hukuku Araştırma Enstitüsü*.
- Arslan Kurnaz, G. (2020). IFRS 16 kiralama standartlarının finansal tablolar üzerine etkisi: Seçilmiş hava yolu işletmelerinde bir inceleme (Master's thesis, Başkent Üniversitesi Sosyal Bilimler Enstitüsü).
- Aydoğdu, T. (2017). Finansal kiralama sisteminde satış ve geri kiralama işlemleri (Master's thesis, Finans Enstitüsü).
- Beattie, V., Edwards, K., & Goodacre, A. (1998). The impact of constructive operating lease capitalisation on key accounting ratios. *Accounting and Business Research*, 28(4), 233-254.

- Beattie, V., Goodacre, A., & Thomson, S. J. (2006). International lease-accounting reform and economic consequences: The views of UK users and preparers. *The International Journal of Accounting*, 41(1), 75-103.
- Bennett, B. K., & Bradbury, M. E. (2003). Capitalizing non-cancelable operating leases. *Journal of International Financial Management & Accounting*, 14(2), 101-114.
- Canarslanlar, I. (2018). Türkiye'De Finansal Kiralama İşlemleri Ve Finansal Kiralama İşlemlerinin Vergisel Yönleri (*Doctoral dissertation, Anadolu University (Turkey)*).
- Cengiz, S. (2017). finansal kiralama işlemlerinin mevzuat boyutu ve muhasebe uygulamaları: tms 17 ve vuk kapsamında incelenmesi. *Global Journal of Economics and Business Studies*, 6(11), 43-56.
- Clark, T. (1980). *The World of Leasing, Leasing Finance. Euromoney Publication, London.*
- Döğüş, Y. UFRS 16 Kiralamalar Standardının Finansal Etkileri: BİSTte Perakende Ticaret Sektörü Üzerine Bir Araştırma (*Master's thesis, Lisansüstü Programlar Enstitüsü*).
- Duke, J. C., Hsieh, S. J., & Su, Y. (2009). Operating and synthetic leases: Exploiting financial benefits in the post-Enron era. *Advances in Accounting*, 25(1), 28-39.
- Egemen, K. (2007). Türkiye'de finansal kiralama (leasing) işlemleri ve vergilendirilmesi (*Master's thesis, Kırıkkale Üniversitesi*).

- Ergül, N. (2003). Finansal kiralama: finansal kiralamada yasa deęişikleri, muhasebe işlemleri, gider kayıtları. *Der Yayınları*.
- Ergül, N., & Dumanoęlu, S. (2003). Finansal kiralama. İstanbul: *DER Yayınevi*.
- Ernst and Young, Wiley. (2014), The International Financial Reporting Group of Ernst & Young LLP, *International GAAP 2014*.
- Erol, A. (2008). Tüm yönleriyle finansal kiralama (leasing) içtihatlı & gerekçeli. *Yaklaşım. 2.Baskı, Ankara, Yaklaşım Yayıncılık, S.42*
- Erol, Ahmet. A. Ercan Yıldırım. M. Vefa Toroslu. (2011), Tüm Yönleriyle Finansal Kiralama (Leasing), *Ankara: Yaklaşım Yayıncılık*.
- Fülbier, R. U., Silva, J. L., & Pferdehirt, M. H. (2008). Impact of lease capitalization on financial ratios of listed German companies. *Schmalenbach Business Review, 60(2)*, 122-144.
- Giner, B., Merello, P., & Pardo, F. (2019). Assessing the impact of operating lease capitalization with dynamic Monte Carlo simulation. *Journal of Business Research, 101*, 836-845.
- Gökgöz, A. (2019). TFRS 16 kiralama standardı çerçevesinde kiralama işlemlerinin muhasebeleştirilmesi. *Journal of Accounting, Finance and Auditing Studies, 5(1)*, 318-332.
- Gritta, R. D. and Lippman, E. (2010), "Aircraft Leasing," *Journal of the Transportation Research Forum 49 (3) (Fall): 101 - 110*.

Grossmann, A. M., & Grossmann, S. D. (2010). Capitalizing lease payments: Potential effects of the FASB/IASB plan. *CPA Journal*, 80(5), 6-11.

IASB Chairman Hans Hoogervorst introduces the new Leases Standard. (13 Ocak, 2016)
Çevrimiçi, www.ifrs.org/news-and-events/2016/01/iasb-chairmanintroduces-the-new-leases-standard/

IFRS 16 Leases vs. IAS 17 Leases: How the lease accounting changed. (t.y) Çevrimiçi, 1 Ocak, 2021, www.cpdbox.com/ifrs-16-ias-17-leases/

IFRS Foundation (2016a). IFRS 16 Project Summary and Feedback Statement. London: IFRS Foundation Publications Department.

IFRS Foundation (2016b). IFRS 16 Effects Analysis. London: IFRS Foundation Publications Department.

Imhoff Jr, E. A., & Thomas, J. K. (1988). Economic consequences of accounting standards: The lease disclosure rule change. *Journal of Accounting and Economics*, 10(4), 277-310.

Imhoff Jr, E. A., Lipe, R. C., & Wright, D. W. (1991). Operating leases: Impact of constructive capitalization. *Accounting Horizons*, 5(1), 51.

Imhoff Jr, E. A., Lipe, R. C., & Wright, D. W. (1997). Operating leases: Income effects of constructive capitalization. *Accounting Horizons*, 11(2), 12.

KARASIOĞLU, F. (2001). İşletme kaynaklarının etkin kullanılması açısından finansal kiralama ve muhasebe uygulaması. *Muğla Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, (3).

Karataş, M. (2019). TFRS 16 kiralamalar: Yenilenen kiralama muhasebesi, açıklama ve örneklerle işletmelere olası etkileri. *İSMMM Yayınları*, (177).

Karisman Dinçer, H. (2006). Leasing Yöntemiyle İşletme Finansmanı (*Doctoral dissertation, Marmara Üniversitesi (Turkey)*).

Koç, M. (2004). Finansal kiralama (leasing). *Beta Basım Yayım*.

Korkmaz, R.(2001). Finansal Kiralama (Leasing), Gümrük Teftiş Kurulu Seminerleri I, *Ankara: Gümrük Müfettişleri Derneği Yayını*

Kostolansky, J., & Stanko, B. (2011). The joint FASB/IASB lease project: Discussion and industry implications. *Journal of Business & Economics Research (JBER)*, 9(9), 29-36.

Köteli, A. (1991). Karşılaştırmalı hukuk ve türk hukukunda finansal kiralama: leasing sözleşmeleri. *Kazancı kitap ticaret AŞ*.

Magli, F., Nobolo, A., & Ogliari, M. (2018). The effects on financial leverage and performance: The IFRS 16. *International Business Research*, 11(8), 76-89.

Morales-Díaz, J., & Zamora-Ramírez, C. (2018). The impact of IFRS 16 on key financial ratios: A new methodological approach. *Accounting in Europe*, 15(1), 105-133.

Nuryani, N., Heng, T. T., & Juliasta, N. (2015). Capitalization of operating lease and its impact on firm's financial ratios. *Procedia-Social and Behavioral Sciences*, 211, 268-276.

Özerhan, Y., & Yanık, S. (2015). Açıklamalı ve Örnek Uygulamalı TMS-TFRS. *Üçüncü Baskı, Ankara, TÜRMOB Yayınları*.

- Öztürk, C. (2016). Ufrs 16 kiralama işlemleri standardinin eski ums 17 standardi ile karşılaştırılması ve almanya ve türkiye'de hisse senetleri halka açık olan hava yolu şirketlerinin finansal durumuna etkisi. *Muhasebe Bilim Dünyası Dergisi*, 18(1), 1-50.
- Sarı, E. S., & Güngör, N. (2019). Investigation of The Effect of IFRS 16 on BIST 100 Companies' Financial Indicators. *Press Academia Procedia (PAP)*, 9(20), 90-94.
- ŞENAY Ertuğrul: "Finansal Kiralamaya Genel Bakış", *İş Dünyası Dergisi*, S.75, Ocak 1986.
- Şoğur, M. (1989). Finansal kiralama ve uygulaması, İstanbul: İstanbul Üniversitesi Sosyal Bilimler Enstitüsü, Doktora Tezi.
- Spånberger, J., & Rista, M. (2020). Implications of IFRS 16 adoption: Evidence from Swedish publicly listed firms.
- Suiçmez, N. (2017). 6098 Sayılı Türk Borçlar Kanununda Kiracının ve Kiraya Verenin Yükümlülükleri. *Dokuz Eylül Üniversitesi HFD*, 19, 1597-1622.
- Tang, O., & Fiedler, B. (2010). Lease accounting and US transportation industry. In *International Forum on Shipping, Ports and Airports (IFSPA)* (pp. 462-469).
- Toraman, C. (2000). Finansal Kiralamanın Türkiye Uygulamasında Ortaya Çıkan Sorunlar ve Bir Çözüm Önerisi. *Muhasebe ve Finansman Dergisi*, 7, 30-37.
- Toroslu, Vefa. (2000). Leasing İşlemleri ve Muhasebesi, *Beta Basım Yayım Dağıtım A.Ş. Basım İstanbul*

Tuđlu, Ali. Özkan Atila. (2005), Finansal Kiralama Kanunu ve Vergi Kanunlarına Göre Finansal Kiralama İşlemleri, *Ankara: Yaklaşım Yayıncılık*.

Tyson, T. (2011). The convergence of IFRS and US GAAP. *The CPA Journal*, 81(6), 26.

Ulga, Ezgi. "Finansal Kiralama Sözleşmesinde Tarafların Borçları." *Terazi Hukuk Dergisi* 10, no. 109 (2015).

Uyanık, S. (1990). Proje finansmanında finansal kiralamanın rolü: Türkiye örneđi. *Türkiye, Ticaret, Sanayi, Deniz Ticaret Odaları ve Ticaret Borsaları Birliđi*.

Uygun, U. Yeni kiralama standardı TFRS 16'nın işletmelerin finansal durumuna etkileri; Bist şirketleri üzerine bir uygulama (*Master's thesis, Sosyal Bilimler Enstitüsü*).

Vural, A. (2006). Türkiyede Leasing işlemlerinin karşılaştırmalı bir analizi. *Ankara: Atılım Üniversitesi Sosyal Bilimler Enstitüsü Yüksek Lisans Tezi*.

Wong, K., & Joshi, M. (2015). The impact of lease capitalisation on financial statements and key ratios: Evidence from Australia. *Australasian Accounting, Business and Finance Journal*, 9(3), 27-44.

Yalçın, İ., Murat, A. K. I. N., & Şeker, M. (2011). Kamu hastanelerinde dış kaynak kullanımı: Kayseri Eğitim ve Araştırma Hastanesi örneđi. *Karamanođlu Mehmetbey Üniversitesi Sosyal ve Ekonomik Araştırmalar Dergisi*, 2011(1), 83-92.

Yalcin F. Yalçın, F. (2006). Finansal Kiralama (*Doctoral dissertation, Marmara Üniversitesi (Turkey)*).