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The mutation from IAS 17 to IFRS 16: an analysis of the motivations which brought to the change and the related implications.

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TABLE OF CONTENTS

INTRODUCTION……………………………………………………………………………………3

CHAPTER 1…………………………………………………………………………………………4

1.1 IAS 17 a brief introduction……………………………………………………………………..4

1.2 Classification of operating leases from lessor's perspective……………………..………………..6

1.3 Classification of finance leases from lessor's perspective……………………………….……..7

1.4 Classification of operating leases from lessee's perspective……………………………….……..10

1.5 Classification of finance leases from lessee's perspective………………………………………..13

CHAPTER 2……………………………………………………………………………………..…16

2.1 IAS 16: an overview………………………………………………………………………………16

2.2 Classification of both finance and operating leases from lessee's perspective……………………....17

2.3 Lessor and leasing……………………………………………………………………………....20

2.4 Classification of finance leases from lessor's perspective……………………………………...…20

2.5 Classification of operating leases from lessor's perspective………………………………………22

CHAPTER 3………………………………………………………………………………………..26

3.1 Main history and comparison from lessor and lessee point of view………………………………26

3.2 Problems in transparency…………………………………………………………………………..28

3.3 The classification of leases and banks concerns……………………………………………………...28

3.4 Leverage ratios and earnings alterations…………………………………………………………...29

3.5 Challenges from the revision in different industries………………………………………………30

3.6 Analysis on changes in Net Debt and EBITDA……………………………………………………....33

3.7 The effect on Risk Weighted Assets and on Credit Institutions more in depth……………………34

CHAPTER 4………………………………………………………………………………………..36

4.1 Leasing in the aviation industry…..……………………………………..………………………36

4.2 Emirates Financial Report……..……………………….…………………..……..………………38

CONCLUSION……………………………………………………………………..……….……….…44

BIBLIOGRAPHY…………………………………………………………………..…………….……46

Introduction:

International Accounting Standards are constantly analyzed by the members of the board (IASB) in order to decrease the probability as more as possible of misinterpretations. It is fundamental to comprehend clearly all of the papers the International Accounting Standard Board produces, as they are the regulations to prepare financial statements. Financial statements are produced by every firm and adjusted yearly in order to give a frame of how the firm is operating and what it has in possession and utilizes throughout its business operations. Shareholders and banks regularly vision the financial positions of firms: the former mainly to process an idea of how the firm is working, they analyze assets, liabilities, net income etc., instead, the latter typically scrutinizes financial positions of customer or potential customers in order to understand if they are able to repay loans.

The use of International accounting standards throughout the world also by small and medium-size firms is growing. Before, most small firms and firms which are not listed, opted for accounting regimes of their country and not the international one. For example, in Italy most small firms adopt the OIC standards released by the Organismo Italiano di Contabilità. One of the main reasons why the use of the International Accounting Standard regulation is growing is due to the fact that it makes it easier to for anyone to look at the financial position of the firms, thus making it simpler also to compare with other firms. For example, if an hypothetical American investor was thinking of investing in a firm in Italy and the entity accounts under OIC, it would be more difficult for the investor to understand the financial position of the firm, as it would need to ask an accountant for information about how the firm is doing and possibly a translation.

With the introduction of the new account standard by the IASB known as IFRS 16 which superseded IAS 17, SIC 15, SIC 27 and IFRIC 4, entities will have to modify drastically their financial positions especially if they have many operating leases which are not low in value and do not have a duration of less than 12 months. Even though, when new standards are issued generally they do not create many large changes to the accounting processes of firms, IFRS 16 will alter many variables, as leverages and other accounting variables which I will mention later in my analysis.
For such reasons, I believe it is relevant to analyze in depth the main difference between IAS 17 and IFRS 16 from both the perspective of the lessor and the lessee and the implications and changes which will occur throughout the world to firms' financial positions.

Chapter 1 – Leases and how they are accounted according to IAS 17

1.1 IAS 17 a brief introduction

The International Accounting Standard number 17 is part of the 41 accounting standards which were initially issued starting from 1973, when the International Accounting Standard Committee was established. Starting from 2003, when the IASC committee was modified and a permanent board based in London was constructed which took the name of International Accounting Standard Board, most IAS were revised and all new accounting standards which are issued since then by the IASB are named IFRS. During 2003, specifically in December 2003, a modified version of IAS 17 was issued.

The International Accounting Standard Number 17 is the accounting standard which originally was utilized to classify leases into the financial statement of firms. The objective of this standard is to prescribe the rules and regulations which have to be followed by the lessors and the lessees when they enter a leasing. A leasing is an agreement where the lessor transmits to the lessee, in return for a payment or a series of payments, the right to use an asset for an agreed period of time. A leasing could be of two forms either operational or financial depending on the asset. What is highlighted clearly is that the classification of the lease has to be done with the respect to the substance of the of the contract and not in relation to the contract itself. This is due to the fact that a single contract may include more than one asset which have to be classified differently and separately. IAS 17 had to be applied to all leases except for:

1. leases of machinery or other equipment needed to search for or for the use of "minerals, oil, natural gas and other similar non-regenerative resources[1]".
2. leases related to "motion picture films, video recording, plays, manuscripts, patents and copyrights"[2].
3. "property held by lessees that is accounted for an investment property"[3] or investment property provided by lessors under operating leases, which have to be accounted according to IAS 40 which deals with Investment Property.
4. biological assets which are categorized under IAS 41, which can be either agriculture "held by lessees under finance leases or provided by lessors under operating leases"[4].

The first step when classifying a lease according to such standard is the distinction between finance leases and operating leases. In order to proceed correctly with the classification, IAS 17 highlights how the categorization of a lease as operational or financial has to be carried out by analyzing the substance of the contract and not the contract itself. Such two types of lease differ significantly as highlighted by the

[1] IAS 17 paragraph 2
[2] IAS 17 paragraph 2
[3] IAS 17 paragraph 2
[4] IAS 17 paragraph 2

definition on the risk and reward incidental to ownership, and are treated in two very distinct ways. A lease is considered a finance lease if the "lease transfers substantially all the risks and rewards incidental to ownership even though the title may or may not be eventually transferred"[5], in contrast, a lease is classified as an operating lease if it a "lease other than a finance lease"[6]. This therefore means that if the lease taken into consideration does not follow in any way the definition of a finance lease provided by the International Accounting Standard Board, meaning that it cannot be categorized as a finance lease, then the lease by exclusion is an operating lease. To add to this, a subsequent section adds a notation to the definition of an operating lease stating that a lease is operating, "if it does not transfer substantially all the risks and rewards incidental"[7]. Such addition, clarifies further how the classification of a lease as financial or operating depends primarily on the risk and reward incidental to ownership.

For such reason in order to classify appropriately a lease, the first thing which accountants have to understand properly are what risks and rewards actually mean in IAS 17. As stated by the section which regards the classification of leases, risks englobe the probability of losses from "idle capacity or technological obsolescence and of variations in return because of changing economic conditions"[8], and reward expressed to mean any possibility of "profitable operations during the asset's economic life and of gain from appreciation in value or realisation of residual value"[9].

In addition to such two the lease agreement has to include the lease term and the minimum lease payment. The lease term defines the minimum period for which a lessee has decided to lease the asset and includes also the maximum periods it can decide to prolongate the lease, on the other hand, the minimum lease payment is the payments which the lessee is obliged to pay by contract with the exception of contingent rents, service costs and taxes and in addition for what regards the lessee, any amounts which are guaranteed by the lessee or its related parties and the exercise price of any option only if the exercise is certain, on the other hand for what regards the lessor any guaranteed residual value has to be added. The last two important notations which have to be understood when analysing IAS 17 are the gross investment and the net investment in the lease. The former is described as being the "minimum lease payments plus any unguaranteed residual value", whereas the latter, by definition is "the present value of the gross investment discounted at the implicit interest rate of the lease"[10].

[5] IAS 17 paragraph 4
[6] IAS 17 paragraph 4
[7] IAS 17 paragraph 8
[8] IAS 17 paragraph 7
[9] IAS 17 paragraph 7
[10] "IAS 17 Leases." *PKF International*, www.pkf.com/media/10031236/ias-17-leases-summary.pdf

1.2 Classification of operating leases from lessor perspective

The lessee are the users and demanders of the assets from the leasing company. It registers the asset in prime entry, as it is recognised as an expense utilizing the straight-line method over the lease term[11], unless other methods such as the double-declining balance method or the units of production method, are better representative of the user's benefits. The straight-line method, most commonly used, provides the same amount of depreciation expense for each year of the assets useful life. The annual straight-line depreciation is computed as below:

Annual depreciation = (Cost[12] – Residual Value[13]) / Useful life[14]

Example of how an operating lease is accounted by the Lessee:

1. At the time at which the contract is closed

1st January 2017

Balance Sheet

Assets	Liabilities
NO EFFECT	NO EFFECT

Income Statement

NO EFFECT

2. After one fiscal year

31st December 2017

Balance Sheet

Assets	Liabilities
Current Assets Bank account (-)	

Income Statement

[11] The lease term is the minimum period for which a lessee has decided to lease the asset in addition to the maximum period which the lessee can prolongate the lease

[12] Cost is the amount of cash or cash equivalent paid or fair value to acquire all asset at the time of its acquisition.

[13] The residual value of an asset is the estimated amount that the entity would currently obtain from disposal of the asset, after deducting the estimated cost of disposal, if the asset were already of the age and in the condition

[14] The useful life it the period over which an asset is expected to be available for use by an entity or the number of production or similar units expected to be obtained from the asset by an entity.

Rental expenses (+)

As it can be seen, with the exclusion of the decrease in the bank account by the same amount of the rental expenses (royalty), nothing else is recorded on the balance sheet of the lessee. When a lease is classified as operating, then it is treated only as a rental agreement. At the end of the year, the lease payment from the lessor to the lessee are recorded off-balance sheet as expenses.

The journal entries would be as follows:

1/01/2017	-	-
	-	-
31/01/2017	Rental expenses	D
	Bank account	C

The lessee has to disclose also some additional information related to the operating lease:

1. The total value of the future minimum lease payments in relation only to non-cancellable leases for three different time period: firstly, at a time not later than one year, at a time later than one year but not later than five years and at a time later than five years.
2. The total value of the future minimum sublease payments which are predicted to be gained and which are resembling to non-cancellable subleases.
3. All payments conferred both in relation to leases and subleases, including the minimum lease payments, contingent rents and sublease payments.
4. A description of the leases the lessee has, in particular, the lessee has to describe: how did it calculate the contingent rent payable, the terms it has on whether it can renewal the lase buy the asset at the end of the lease contract and any restrictions relates to the lease arrangement.

1.3 Classification of finance leases from lessor perspective

On the other hand, if a lease was scrutinized, and by its nature it appeared to be a finance lease, as it did not transfer substantially the risk and reward incidental to ownership to the lessee, then the lease has to be recorded as an asset and having therefore a corresponding liability. In this case the lessee has to record the lease as an asset, which as defined by IAS 16 which states the standard for recording property, plant and equipment, the cost of an item is defined as such if and only if: it is probable that future economic benefits associated with the item will flow to the entity and the cost of the item can be measured reliably the lessee will have to show on its financial statement, the carrying amount, the depreciation and the impairment losses or according to IAS 38 if it is an intangible asset. The amount at which the lease has to be recognised as an

asset and liability in the financial position has to be equal to the "fair value or if it is lower, the present value of the minimum lease payment[15]"[16]. The discount rate which has to be utilized is the interest rate implicit in the lease if it can be determined in a reasonable way, otherwise, the lessee's incremental borrowing rate has to be used. Any initial direct costs which are faced by the lessee have to be added directly to the value of the asset. In order to show how a finance lease has to be recorded according to IAS 17 from the point of the lessee, I have decided to show a fictious transaction a fictious transaction of a lease contract containing a finance lease of a tangible asset from the financial position of the lessee.

Example of how a finance lease is accounted by the Lessee:

1. At the time at which the contract is closed. (for sake of simplicity I will assume that the lease commenced on the 1st of January)
1st January 2017

Balance Sheet

Assets	Liabilities
Non-Current Assets Leased Asset (+)	Non-Current Liabilities Debt towards leasing company (+)

Income Statement

As the substance of the lease is a tangible asset, the accounting treatment which has to be followed in addition to IAS 17 it has to comply with IAS 16 which deals with property, plant and equipment (generally speaking 'fixed assets').

2. After one fiscal year,
31st December 2017

Balance Sheet

Assets	Liabilities

[15] Minimum lease payment are the payments over the lease term that the lessee is or can be required to make, excluding contingent rent, costs for services and taxes to be paid by and reimbursed to the lessor together with for what regards the lessee, any amounts guaranteed by the lessee or by a party related to the lessee.
[16] IAS 17 paragraph 20

Current Assets	Non-Current Liabilities
Bank Account (-) Non-Current Assets Leased Asset (-)	Debt towards leasing company (-)

Income Statement

Depreciation (+)| Interest expenses (+)

The journal entries would be as follows:

1/01/2017	Leased Asset	D
	Debt towards leasing company	C
31/01/2017	Depreciation	D
	Debt towards leasing company	D
	Interest expenses	D
	Leased Asset	C
	Bank Account	C

At the end of the fiscal year, adjustments have to be made on the leased asset. As shown from the financial position and explained further by the journal entries, the asset depreciates and the depreciation is shown as a debit position. As debit positions always has to have a corresponding credit position, the credit position in such case is the decrease in value of the leasing asset, as it has decreased therefore depreciate in value over the year. In addition, at the end of the first year the lessee will have to pay the leasing company which is shown by the credit position in the bank account and which will decrease the debt towards the leasing company in the liabilities side (debit position), as it implies future obligations for the remaining time of the lease plus interest expenses which the lessee will have to pay to the lessor for the leasing, which is also a credit position and it is shown in the income statement as a cost for the firm. The value of the asset which is left in the balance sheet after the adjustments is also known as the carrying amount[17].

Moreover, the lessee will have to provide some disclosure material at the end of the year. In particular it will have to provide:

1. The net carrying amount of each asset at the end of the year
2. The total value of the future minimum lease payments and its present value for three different period of time: a time not later than one year, not later than one year and not later than five years and later than five

[17] Carrying amount is the amount an item is recognized after deducting accumulated depreciation and accumulated impairement losses. Can also be thought of as the net value of the asset.

years.

3. The contingent rents which during the reporting period have been paid (classified as expenses).

4. The total value of future minimum sublease payments if it the case of a sublease which cannot be cancelled at the end of the reporting period.

5. A description of the leases the lessee has, in particular, the lessee has to describe: how did it calculate the contingent rent payable, the terms it has on whether it can renewal the lase buy the asset at the end of the lease contract and any restrictions relates to the lease arrangement.

1.4 Classification of operating leases from lessee perspective

The lessor who has entered a leasing contract with the lessee will have to show on its financial statement, when it has started the lease and all costs which it has incurred including also the depreciation which are considered expenses for the lessor. Any direct costs which have been pursued by the lessor at the time at which the two parts were negotiating the lease, have to be "added to the carrying amount of the leased asset and recognised as an expense over the lease term on the same basis as the lease income"[18]. The depreciation policies which have to be used as shown before are the same as the one for similar assets; for tangible assets the depreciation has to be calculated in accordance to IAS 16, and similarly for intangible assets it has to be measured in accordance to IAS 38. In order to examine if the leased asset has become impaired IAS 36 has to be followed.

Some differences occur when the lessor entering into the leasing contract is a manufacturer or a dealer lessor. In such case, the lessor cannot account any profit for selling the lease, due to the fact if it concludes a contract which comprises an operating lease, the risk and reward incidental to ownership associated with the leased asset remain with the lessor. Thus, such transaction cannot be compared to a situation in which the lessor sells the asset.

Example of how an operating lease is accounted by the Lessor:

1. At the time at which the contract is closed

1st January 2017

Balance Sheet

Assets	Liabilities
Current Assets Bank Account (-) Non-Current Assets	

[18] IAS 17 paragraph 52

Property, plant and equipment (+)	

Income Statement

2. After one fiscal year

31st December 2017

Balance Sheet

Assets	Liabilities
Current Assets Bank Account (+) Non-Current Assets Property, plant and equipment (-) Lease receivable (-)	

Income Statement

Interest revenues (+) Unearned interest revenues (-) Depreciation expenses (+)

The journal entries would be as follows:

1/01/2017	Property, plant and equipment	D
	Lease receivable	D
	Unearned interest revenues	C
	Bank Account	C
31/01/2017	Bank Account	D
	Depreciation expenses	D
	Unearned interest revenues	D
	Interest revenues	C
	Lease receivable	C
	Property, plant and equipment	C

The figures above describe what is recorded by the lessor if it were to start a contract of an operating lease. At the time at which the contract is closed the lessor shall account on its financial statement the transaction

when the lease is bought or made. At this time therefore the value of property, plant and equipment held by the lessor will increase which is known as a debit position and in parallel the bank account will decrease by the same amount (credit position). The property, plant and/or equipment bought has to be accounted as an asset for the lessor as the main difference which has already been described and explained above in my thesis is that, if a leasing contract is closed and by the substance of the contract it appears to be an operating lease then the risk and reward incidental to ownership remains with the lessor. The lessor will also have to record the total amount of money defined under the contract which it will receive by the lessor and record it under lease receivable and unearned interest revenue.

For such reason, at the end of the first leasing period, the lessor would have to show on its financial statement the decrease in value of the property, plant and equipment and therefore a credit position due to the depreciation expenses it has incurred. In addition to such transaction, the lessor would have to show an increase in the bank account and interest revenues and a decrease in unearned interest revenue and lease receivable, as the lessee at the end of the leasing period would have to pay for the time it has taken in lease the asset.

At the end of every reporting period, in accordance to IAS 17, the lessor will have to disclose some information:

1. The sum of the future minimum lease payments related to non-cancellable lease payments. The value of the future minimum lease payments for three specific time frames: a time frame not later than one year, later than one year but not later than five years and later than five years.

2. The total value of the income gained from contingent rents in the reporting period.

3. A description of the leasing arrangements.

1.5 Classification of finance leases from lessee perspective

When the lessor enters into a leasing contract with the lessee of a finance lease, the lessor has to present the asset in its financial position "as a receivable at an amount equal to the net investment of the lease"[19]. The risk and reward incidental to ownership is transferred substantially to the lessee and the lease payment receivable which the lessor has to receive from the lessee "is treated by the lessor as repayment of principal and finance income to reimburse and reward the lessor for its investment"[20]. The inclusion of initial direct costs incurred, such as commissions, legal fees and internal costs which are "incremental and directly attributable" to the time in which the lease is negotiated and formalized, depends on the type of lessor.

[19] IAS 17 paragraph 36
[20] IAS 17 paragraph 37

If the lessor is a manufacturer or dealer lessor, then the costs associated with the negotiation and arrangement of the lease are excluded from the initial direct costs, thus they are recognised as an expense at the time at which the selling profit is recognised (for finance lease it occurs usually at the start of the lease term).

In contrast, if the lessor is a person or firm other than manufacturer or dealer lessor then the initial direct costs which are incurred have to be included in the initial measurement of the finance lease receivable and reduce the amount of income the lessor is going to gain through the lease term. The interest rate implicit in the lease, is defined in a way that the initial direct costs are included automatically in the finance lease receivable, therefore they do not have to be added separately.

The recognition of the finance income which is one of the subsequent measurements which have to be completed, according to IAS 17, has to be "based on a pattern reflecting a constant periodic rate of return on the lessor's net investment in the finance lease"[21]. One of the lessor's main at the inception date of the lease contract, is to allocate the finance income over the lease term utilizing a pattern which reflects the constant periodic return on the lessor's net investment in the finance lease. The lease payment which the lessor receives, with the exclusion of services costs, are applied against the gross investment in the lease, so that the principal and the unearned finance income can both be reduced. Unguaranteed residual values[22], which are used to calculate the gross investment, are also estimated with a certain periodicity so that if it differs, the income allocation over the lease terms and any amount which are accrued have to be modified.

If the lessor is either a manufacturer or dealer lessor, then there some different measurements occur. Usually, before such type of lessor enters into a finance leasing contract with the lessee, it gives the possibly to the customer of buying the asset. For such reason the income which the lessor gains is defined as being divided into two distinct categories: the first is defined as being either the profit or loss which has to be the same as the profit or loss which would have occurred if the asset was sold rather than leased, and secondly the finance income over the period of time stated in the contract. Any costs carried out by the lessor at the time at which the contract is negotiated, including also costs related to the preparation of the lease have to be accounted as expenses at the inception date.

<u>Example of how a finance lease is accounted by the lessee:</u>

1. At the time at which the contract is closed
1st January 2017

[21] IAS 17 paragraph 39
[22] Unguaranteed residual value is that portion of the residual value of the leased asset, the realisation of which by the lessor is not assured or is guaranteed solely by a party related to the lessor.

Balance Sheet

Assets	Liabilities
Current Assets	
Bank account (-)	
Lease receivable (+)	
Non-Current Assets	

Income Statement

2. After one fiscal year

31st December 2017

Balance Sheet

Assets	Liabilities
Current Assets	
Bank account (+)	
Lease receivable (-)	
Non-Current Assets	

Income Statement

Interest revenues (+)

The journal entries would be as follows:

1/01/2017	Lease receivable	D
	Bank Account	C
31/01/2017	Bank Account	D
	Interest revenues	C
	Lease receivable	C

At the start of the leasing contract the lessor will pay for the asset which has to be leased. As it is a finance lease, according to IAS 17, the risk and reward incidental to ownership are both on the lessee, thus the lessor

shall not record an asset in non-current assets. The lease receivable will be the only thing which will be present at the commencement of the contract, as the lessee has the obligation to pay a royalty for the asset it is renting. At the end of the first year, the lessor shall adjust its financial position. The lessor will record a debit position in current-assets on the bank account. To balance this debit position it will record two credit positions: a decrease in lease receivable, as the amount of money that the leases is obliged to pay and which the lessor has the right to receive has decreased and an increase in interest revenues as the lessee pays an interest equal to an amount specified in the contract.

The lessor will have to disclose some additional information for each class of assets:

1. The total value of the future minimum lease payments and its present value for three different period of time: a time not later than one year, not later than one year and not later than five years and later than five years.
2. The unearned finance income.

3. The unguaranteed residual values.

5. Income gained from contingent rents.

6. A description of the leasing arrangements.

Chapter 2 – The introduction of IFRS 16

2.1 IFRS 16 a brief introduction

In January 2016, the international accounting standard board released a new accounting standard on which it had been working from as early as 2006. Such new standard known as IFRS 16, was published to replace IAS 17, IFRIC 4, SIC -15 and SIC-27. IFRS 16, "sets out the format and principles for the recognition, measurement, presentation and disclosure of leases"[23]. The objective is to ensure that both sides involved in leasing transactions: lessees and lessors "provide relevant information in a manner that faithfully represents those transactions". The word faithfully already depicts how there had been several concerns and conflicts with the standards which were set out before and which had to be followed when accounting a leasing transaction.

One of the main differences which has changed is on the lessee part of accounting. Before with IAS 17 the lessee would account differently a leasing depending on the substance of the contract. Moreover, with the new accounting principle there is no distinction from the lessee point on whether a lease is a finance or operating lease, implying that in both cases it has to report on the balance sheet an asset and a corresponding liability. Lessees cannot report anymore off-balance sheet as an expense an operating lease, meaning that as a result, fiscal year adjustment occur also for operating lease leading to an increase in debt ratios, depreciations expenses and EBITDA.
At the time at which the contract is made, an entity has to examine if the contract contains a lease. The contract is defined to contain a lease depending on its substance, more precisely "if the contract conveys the right to control the use of an asset which can be identified of a period of time in exchange of consideration"[24]. The time-period can be defined in different ways depending on the asset which is leased as for example the units of production.

Such new standard has to be applied to all leases except for:

1. Leases for the exploration or the utilization of "minerals, oil natural gas and other non-regenerative resources"[25].

2. Leases of biological assets which can be categorized as being "within the scope of IAS 41 Agriculture"[26].

[23] IFRS 16 paragraph 1
[24] IFRS 16 paragraph 9
[25] IFRS 16 paragraph 3
[26] IFRS 16 paragraph 3

3. “Services and concession arrangements within the scope of IFRIC 12 Service Concession Arrangements”[27].

4. Licenses of intellectual property conceded from the lessor and which are “within the scope of IFRS 15 Revenue form Contracts with Customers”[28].

5. “Rights held by the lessee under a licensing agreement within the scope of IAS 38”[29] which deals with Intangible Assets. Lessee can decide not to apply IFRS 16 on leases of intangible assets.

It can occur that the contract contains more leased or non-leased components. In this case, IFRS 16 states that each lease and non-lease component has to be separated. Moreover, the lessee shall allocate a consideration to each lease component by taking into consideration the relative stand-alone price and the aggregate stand-alone price of the non-lease component if there are. Such relative stand-alone price shall be calculate by utilizing the price a lessor would charge an entity for each component separately if they were sold.

2.2 Classification of both finance and operating leases from lessee perspective

As already mentioned before, at the commencement date of the lease the lessee shall recognize a “right-of-use asset and a lease liability”[30], meaning an asset and a corresponding liability for each tangible or intangible asset leased. The right-of-use asset has to be initially measured as at a cost which has to comprise all of the following:

1. The initial measurement of the lease liability, which has to be measured according to the present value of the lease payments that have not been paid by the lessee at the date. The lease payment have to be discounted using the interest rate implicit in the lease, if it can be determined, if this is not the case, the lessee’s incremental borrowing rate has to be used to discount the payments.

2. Any lease payment which have occurred before or at the time in which the lease is commenced less lease incentives[31] if they have been collected.

3. All initial direct costs which the lessee has sustained.

[27] IFRS 16 paragraph 3
[28] IFRS 16 paragraph 3
[29] IFRS 16 paragraph 3
[30] IFRS 16 paragraph 22
[31] Lease incentives are payments made by the lessor to the lessee associated with the lease, or the reimbursement or assumption by a lessor of costs of a lessee.

4. An estimate of the costs which the lessee will have, in the moment in which the asset has to be removed or dismantled and the costs for the restoration of the place in which the asset is now located. In addition to this any costs which the lessee will have to take in order to restore the asset to the conditions which are required in the contract under terms and conditions, unless the costs incurred are to produce inventories.

Therefore, at the time at which the contract is made the lessee shall record on its balance sheet an asset with a corresponding liability with no distinction between operating or finance lease.

Example of how leases are accounted by the lessee:

1. At the time at which the contract is closed
1st January 2017

Balance Sheet

Assets	Liabilities
Current Assets Non-Current Assets Right-of-use asset (+)	Non-Current Assets Lease liability (+)

Income Statement

At the commencement date, the lessee has to record the right-of use of the asset and the corresponding lease liability as stated by IFRS 16. In this way by recording a liability in the balance sheet, this shows that the lessee has a future obligation on the asset, which has to be recorded on the asset side.

2. After one fiscal year
31st December 2017

Balance Sheet

Assets	Liabilities
Current Assets Non-Current Assets Right-of-use asset (-)	Non-Current Assets Lease liability (-)

Income Statement

Interest expense (+)
Depreciation expense (+)

After one year from the commencement date of the leasing, the lessee will have to pay the lessor for having used the asset (if the contract states that it has to pay an annual fee as in my example). The adjustment which is made at the end of the fiscal year, has to show that the right-of-use of the asset has decreased as the asset will have depreciated. This is shown as a credit position in non-current assets and a debit position in depreciation expense. In addition to this, the lease liability is lower (debit position) as the lessee has a lower amount of future obligation to the entity/lessor and the lessee will also pay interest expenses to the lessor for the leasing which is shown as a debit position on the cost side of the income statement.

The journal entries would be as follows:

1/01/2017	Right-of-use asset	D
	Lease liability	C
31/01/2017	Lease liability	D
	Interest expense	D
	Depreciation expense	D
	Right-of-use asset	C

In addition to such adjustment at the end of the year in addition to the statement of financial position, statement of profit or loss and statement of cash flows, the lessee shall disclose some information for the financial period:

1. The amount of depreciation charge for right-of use assets distinguishing each class of assets/.2. “interest expenses of the lease liability”[32].

3. The expense which refers to short-term leases, excluding expenses which are related to a lease term with a time-frame equal to or smaller than one month.

4. Expenses which refer to leases of low-value assets and which are not included in 3.

5. Expenses associated to variable lease payments and which are not comprised in the lease liability measurement.

6. “Income from sub-leasing right-of-use assets.

7. Total cash outflows for leases.

8. Additions to right-of-use assets.

9. Gains or losses emerging from the sale or leaseback transaction of the right-of-use assets”[33].

[32] IFRS 16 paragraph 53
[33] IFRS 16 paragraph 53

10. the carrying amount of the right-of-use assets with a separation of each class of assets.

2.3 Lessor and leases

From the lessor perspective, not many amendments have occurred when accounting a lease according to IAS 17 or IFRS 16. According to IFRS 16 the lessor will still have to classify whether it is an operating or a finance lease depending on whether it transfers or not substantially the risk and rewards incidental to ownership. Again, in order to be sure that the lease is being classified according to its real nature (whether operating or financial), the substance of the transaction has to be analyzed and understood carefully. The classification of the lease is made at the inception date of the lease and it can be reassessed only if there have been modification of the lease other than changes in estimates or changes of the circumstances.

2.4 Classification of finance leases from the lessor's perspective

If at the inception date of the lease, the lessor classifies the lease as a finance lease, as a consequence, it will have to record the finance lease in its financial position as a receivable which has to be equal to the net investment in the lease. A main difference is present whether the lessor is or not a manufacturer or dealer lessor.

If the lessor is not a manufacturer or dealer lessor, then in order to initially measure the lease it will have to use the interest rate which is implicit in the lease in regards to the net investment. Any initial direct costs are already included and do not have to be added separately by the lessor in accordance to how the interest rate implicit is defined. All direct costs which, are already integrated in the initial measurement of the net investment, decrease the income which is gained across the lease term.

The lease payments include:

1. "Fixed payments with the deduction of incentives payable"[34].
2. "Variable lease payment which are base on an index or a rate"[35].
3. Any residual value guarantees to the lessor on behalf of the lessee.
4. The exercise price of a purchase option in the case that the it is reasonably certain that the lessee will exercise the option.
5. "Payments of penalties if the lease was terminated before the end of the lease term, if the lease term reflects the lessee exercising an option to terminate the lease"[36].

[34] Paragraph 70 IFRS 16
[35] Paragraph 70 IFRS 16
[36] Paragraph 70 IFRS 16

If instead the lessor of a finance lease is a manufacturer or dealer there are some modifications with how the initial measurement of the lease occurs. At the inception date of the lease, the lessor will have to recognize:
1. the revenue which has to be equal to the fair value of the asset, or if it is lower in value, the present value of the lease payments discounted by the market rate of interest
2. the cost of sale which can be either the cost or the carrying amount, more precisely, the carrying amount of the asset with the deduction of unguaranteed residual value discounted.
3. the change between the revenue and the cost of sale, which is the selling profit or loss.

According to IFRS 16, any costs which are related to when the finance lease is obtained are part of the initial direct costs and therefore do not have to be included in the net investment of the lease.

Example of how a finance lease is accounted by the lessor:

1. At the time at which the contract is closed
1st January 2017

Balance Sheet

Assets	Liabilities
Current Assets Bank account (-) Lease receivable (+) Non-Current Assets	

Income Statement

A finance lease from the point of a lessor is accounted in a similar way according to IFRS 16 to how it was accounted under IAS 17. The balance sheet at the inception date of the lease (1st January 2017), show that a lease receivable will have to be recorded on the asset side, as the lessor has the right to receive money from the lessee.

2. After one fiscal year
31st December 2017

Balance Sheet

Assets	Liabilities

Current Assets	
Bank account (+)	
Lease receivable (-)	
Non-Current Assets	

Income Statement

Interest revenues (+)

After one year and at the end of the fiscal year, the lessor will have to make adjustments on its financial position to show a decrease in the right to receive money from the lessee, the lease receivable as it has received a royalty, finance income (bank account has increased). The finance income which the lessor will receive throughout the lease term will have to be the same (a pattern) over a constant periodic of time in relation to the net investment of the lessor in the lease.

The journal entries would be as follows:

1/01/2017	Lease receivable	D
	Bank Account	C
31/01/2017	Bank Account	D
	Interest revenues	C
	Lease receivable	C

For the reporting period, the lessor of a finance lease will have to disclose:

1.” The selling profit or loss.

2. The finance income regarding the net investment in the lease”[37].

3. Income associated to the variable lease payments and which is not included in the measurement of the net investment in the lease

2.5 Classification of operating leases from the lessor’s perspective

On the other hand, if at the inception date of the lease the lessor classifies, by analyzing the substance of the contract, the lease to be operating then a different procedure for accounting will have to be followed. At the time at which the contract is closed any lease payment which it gains on behalf of the lessee will have to be accounted for as income either utilizing the common straight-line method or another systematic method if it

[37] IFRS 16 paragraph 90

is more representative. Any costs contracted by the lessor, such as depreciation which are also considered costs, will have to be recorded as an expense. For what regards instead initial direct costs which are defined as being the costs incurred in obtaining the operating lease, such costs will have to be added to the carrying amount of the asset leased and over the time period of the lease term will have to be deducted as an expense in concomitance with the lease income. The depreciation of the asset will have to be accounted for and calculated utilizing IAS 16 if it is a tangible asset, or IAS 38 if instead it is an intangible asset. Moreover, to verify if the operating lease is impaired and to account for any impairment losses IAS 36 will have to be followed.

If the lessor is a manufacturer or a dealer then there are some differences. The lessor cannot recognize selling profit at the inception date, due to the fact that an operating lease is not equal to a sale (the risk and reward incidental remain to the lessor).

Any modifications which occur after the commencement of the lease will have to be accounted as a new lease from the date in which the amendments have been made and in such new lease, the lessor will have to include also any prepaid or accrued lease payments which were related to the original lease.

Example of how an operating lease is accounted by the lessor:

1. At the time at which the contract is closed

1st January 2017

Balance Sheet

Assets	Liabilities
Current Assets Bank Account (-) Non-Current Assets Property, plant and equipment (+)	

Income Statement

2. After one fiscal year

31st December 2017

Balance Sheet

Assets	Liabilities
Current Assets Bank Account (+) Non-Current Assets Property, plant and equipment (-) Lease receivable (-)	

Income Statement

Interest revenues (+) Unearned interest revenues (-) Depreciation expenses (+)

The journal entries would be as follows:

1/01/2017	Property, plant and equipment	D
	Lease receivable	D
	Unearned interest revenues	C
	Bank Account	C
31/01/2017	Bank Account	D
	Depreciation expenses	D
	Unearned interest revenues	D
	Interest revenues	C
	Lease receivable	C
	Property, plant and equipment	C

As the contract closed in such fictious example contains an operating lease, the asset which the lessor lease is still present and accounted in its balance sheet as property, plant and equipment. At the end of the first accounting period, the lessor will adjust its financial statements to account for depreciation expenses (calculated according to IAS 16 as it is a tangible asset) and interest revenues which are paid by the lessee to the lessor for having the leased asset. To balance the depreciation expenses the lessor will record a decrease in value of the asset, and similarly, to balance that it has received interest revenues from the lessee it will decrease the amount of unearned interest revenue. In accordance to the increase in the bank account, the lease receivable will also decrease as the lessor has the right to receive a lower amount of money now from the lessee.

The lessor will have to disclose the reporting period:

1. lease income, disassociating income which is related to variable lease payments which do not depend on an index or a rate[38].

[38] Paragraph 90 (b) IFRS 16

Chapter 3 – Main motivations which brought to the restyling

3.1 Main history and comparison from lessor and lessee point of view

Before the international accounting standard 16 was issued by the IASB, both IFRIC and SIC were developed to help with misleading interpretations which were occurring in reference to the text of IAS 17. IFRIC 4 came into force starting from the 1st January 2006 in order to clarify concerns on whether an arrangement contains a lease. Such interpretations elucidated how, even though there are arrangements which depending on their legal form are not classified as a lease, if they convey the right-of-use of an asset in return of a payment or a series of payments then they should be accounted in reference to IAS 17. SIC 15 instead which was effective as early as on the 1st of July 1999, introduced clarification with incentive recognitions in operating lease, as it was not very clear how rent-free period and contributions which were made by the lessor had to be accounted. The text delineated how rent-free periods or contributions by the lessor had to be considered as either decrease in lease income or lease expense. Additionally, on the 31st December 2001, another SIC came into force to deal with the challenges which were occurring in the relation between an enterprise and an investor if a lease was signed. A list was published in SIC 27 with examples of occasions in which an arrangement did not necessarily include a lease as described in IAS 17. All of such related interpretations were superseded with IAS 17 at the time in which IFRS 16 came into force on the 1st January 2019 and therefore from then are null in validity.

In order to start a thorough analysis on why the International Accounting Standard Board introduced IFRS 16, I will first make a schematic recap of the two standards.

Brief schematic comparison between IAS 17 and IFRS 16

<table>
<tr><th></th><th></th><th>IAS 17</th><th>IFRS 16</th></tr>
<tr><td rowspan="2">Lessee</td><td>Operational lease</td><td>No asset is accounted at the end of the fiscal year, rental expenses are recorded in the Income Statement.</td><td rowspan="2">At the inception of the lease, the lessee has to record in the balance the right-of-use of the leased asset, whether it is a financial or an operating lease with no major difference. At the end of the fiscal year, the lessee has to provide adjustments decreasing the value of the right-of-use asset, along with an increase in interest expenses and depreciation expenses in the Income Statement.</td></tr>
<tr><td>Financial lease</td><td>The lease asset is recorded on the asset side of the balance sheet along with the debt recorded in liabilities, as the lessee has a debt obligation to repay to the lessor. At the end of the fiscal year depreciation expenses, along with interest expenses, are also accounted.</td></tr>
<tr><td rowspan="2">Lessor</td><td>Operational lease</td><td>The asset is recorded in the balance sheet of the lessor, as according to such accounting standard it has to be recorded by the lessor, as the risk and reward incidental to ownership remain to the lessor.</td><td>The lessor has to record the asset in the balance sheet and at the end of the financial year it will have to provide on its balance sheet a decrease in value of the asset due to depreciation.</td></tr>
<tr><td>Financial lease</td><td>The lessor accounts in the asset side a lease receivable in the balance sheet, as it has the right to receive money for the leased asset to the lessee.</td><td>Similarly to IAS 17, according to IFRS 16 the lessor will record a lease receivable in the balance sheet and at the end of the year when it will have to provide an adjustment for the lease, a decrease in the amount of the lease receivable</td></tr>
</table>

3.2 Problems in transparency

Today leasing contracts are widely common throughout the whole world. Most companies decide to lease not only small assets, yet they utilize leasing contracts to lease assets which are used in core parts of their primary business. One of the fundamental reasons why leasing have become so popular is due to the fact that they do not require to pay immediately big portions for the asset, which would have been the case if the firms had to buy all the assets required in their business. They allow firms to allocate their liquidity differently and to pay for each asset they lease on a periodic basis a rent to the leasing companies. With IAS 17, one of the major problems which was highlighted by all members of the board was in particular how lessees accounted for the leased assets. According to such standard, firms who leased assets which were categorized as being operational, as the risk and reward incidental to ownership were not transferred and remained to the lessor, would record such operations off-balance sheet. This meant that at the end of the year the only thing that the lessee would record are rental expenses for the leased asset in the income statement. Therefore, when the next reporting period initiated and the income statement was recommenced in relation to the next year, the fact that the company had a leased asset and what type of asset did not appear. This brought to situations in which, even potential shareholders could not thoroughly understand the financial position of the company. With the new accounting standard which superseded IAS 17, all leasing will have to be recorded by the lessee on the balance sheet. This means that anyone who wants to analyze the balance sheet of the firms can vision all leasing contracts which the firms has and utilizes in the activities in their business. The firms will have to record an asset and a corresponding liability for each leasing separately, resulting in a debit and a credit position for each leased asset. Operating leases will now be recorded on-balance sheet, with the exclusion of a very small category of operating leases which are very short term or low in value, and therefore will be capitalized. In such way, the financial position of firms will be more reasonable, as their balance sheet will show any obligation to repay the leasing company. IFRS 16, not only will increase the transparency of operations and of the financial statement as a whole, as it will oblige firms to show any financial commitments it has, in addition it will simplify the vision and examination of firms financial statement.

3.3 The classification of leases and banks concerns

Another motivation which is of tremendous important and which brought to the implementation of IFRS 16 is the classification of a lease as operational or financial. According to IAS 17, the categorization of a lease as financial or operating lease depended on the substance of the contract, more in depth on whether the risk and reward incidental to ownership remained with the lessor or was transferred to the lessee. A list of fictious leasing activities was provided so that accountants of different firms could scrutinize each leasing activity and decide what type of leasing category each lease belonged to. Accountants were left, to an extent,

to personal judgement on the scrutinization of a lease as operational or financial. The classification of a lease as operational or financial, could be described as being a sort of elimination process. If the lease did not appear to be similar to any of the financial leases in the list, then it was categorized as being operational. Such degree of personal interpretation gave rise to many issues and complaints which had to be solved. According to IAS 17, if a lease was classified to be operational, as a result any measure which was accounted was recorded off-balance sheet. Not only in such way it was simpler and less time-consuming for accountants, in addition, firms who had operating leasing did not have to show any obligation to lease payment which instead they had. Such accounting procedure was therefore seen as kind of contradicting, as in nearly all cases, operating leases did create assets for the firms and were also utilized in their activities or production. For such reason, it was very confounding not to include operating leases on-balance sheet, as the lessor had conveyed to the lessee the right to use an asset. With the introduction of the new accounting standard, all leases will have to be recorded on-balance sheet: both type of leases will be accounted on-balance sheet of the lessee according to a right-of-use model with a corresponding obligation to the lease payments. As a consequence of such shift from IAS 17 to IFRS 16, the asset turnover which measures the efficiency with which the company is utilizing its assets to produce sales will decrease.

$$\text{Asset Turnover Ratio} = \text{Net Sales} / \text{Average Total Assets}$$

This means that firms which once could seem very efficient as they had not many assets of property and not many financial leases, are now affected 'negatively' by the new way in which leases are accounted.

3.4 Leverage ratios and Earnings alterations

Leverage ratios were also a great problem when accountants accounted leases according to IAS 17. When lenders such as banks and other financial institutions provide firms with loans, the first step in the procedure is analyzing the credit risk of the firm. The credit risk is fundamental for banks, as it is the risk that the customer will not be able to repay the loan. Firms take loans which, in most cases, they will then repay employing future cash flows they expect. Of course, as it is not guaranteed that the firm which enters into a loan contract will be able to repay, the interest rate which lenders charge is based on both the time value of money and on the credit risk which is assumed. Hence, if the financial institution believes the firm to have a low credit risk, the interest rate it will charge will be significantly lower than the interest rate the firm would apply to a customer with a higher credit risk. In order to calculate, as more as possible a precise credit risk, lenders besides taking vision of the credit risk of the customer which is made available by the credit rating agency it works with, will examine the assets, liabilities, income and expenses which are provided in the financial statement of the customer and calculate several financial ratios. The leverage ratio is a fundamental

aspect which is calculated in order to measure the solvency of the customer and it is computed by dividing the liabilities over the equity.

Financial Leverage Ratio = Liabilities / Equity

Of course having that according to IAS 17, operating leases do not have lease liabilities on balance sheet and no interest expenses are registered, both the leverage ratio and the associated credit-risk of the lessee could be misleading as they are not picturing realistically the financial position.

Last but not least of importance to mention, are the earnings before tax, depreciation and amortization (EBITDA) and Net Income. Unalike earnings before interest, tax, depreciation, amortization and rental expenses (EBITDAR) which will remain unchanged, EBITDA will increase for most firms. In alignment with IAS 17, such value would have been calculated by taking into consideration all rental expenses of operating leases, thus the conclusive value of such earning would have been lowered. Instead, under IFRS 16, EBITDA will increase due to the fact that rental expenses are not considered and accounted in long-term leases, as they were utilized only when operating lease were off-balance sheet. Similarly, net income will decrease in relation to the fact that both EBITDA and interest expenses have increased. Overall, the increase in EBITDA and the decrease in net income, along with the other changes with the implementation of IFRS 16, will bring a significant change to the financial statement of firms.

To summarize all the main changes to the financial statement of firms when applying IFRS 16, I have created a simple chart:

Asset turnover	Decrease
Financial Leverage Ratio	Increase
Interest expenses	Increase
Depreciation expenses	Increase
Rental expenses	Decrease
EBITDA	Increase
Net Income	Decrease

3.5 Challenges from the revision in different industries

With the implementation of IFRS 16, accountants and firms will possibly face also many problems related to the differences with the accounting techniques. The liabilities of leases will have to be measured according to the lease term comprising also optional x periods. Contingent rents and residual value obligations will

also have to measured and lessees will have to reassess the lease term, the contingent rent and residual value obligations at every reporting date. Such reassessments and changes will be very time-consuming and costly for firms. It will necessitate firms to assemble more information and to judge more in depth the actions which have to be taken yearly. Accountants of the entity will now have to catalogue every lease the firm has along with all the data on the lease term, the renewal options and the payments to the lessor in order to follow accurately the new standard. Of course, the extent to which the implementation of IFRS 16 will be time-consuming and will require a lot of work depends also on the amount of leases the firms has and the inception dates, and the data it has available. Many large leases, may have been singed more than 10 years ago, resulting in harder work for accountants to gain all the information in needs and possibly find all papers (10 years ago it is more probable that firms did not have electronic documents of lease, as they were primarily handwritten).

Moreover, as there will be a significant effect on financial ratios and metrics and on accounting processes and systems, it is possible that lessees will now examine more in-depth whether it is more suitable for the entity to lease or to buy the assets. Lessees could also ask for a re-negotiation or a restructuring to the lessor of leases it already has. Therefore IFRS 16, could also impact greatly lessors, which will have to modify some leases contracts to align with the changes which such standard will bring to their customers.

PricewaterhouseCoopers conducted an examination a few years ago, by taking a diversified sample of 3,000 listed companies form various different industries and locations to scrutinize which sectors will be harmed the most by the introduction IFRS 16. The main focus of the investigation was to determine the minimum impact which would occur with the capitalization of operating leases. As also contingent rents, guaranteed residual values and lease extension options were also included, the eventual impact calculated may be greater and may also influence the amounts which are recognized to finance leases. PWC concluded that interest bearing debt of the entities will increase by as high as 58% on average.

In % except for leverage	Average increase in interest bearing debt	% companies with over 25% increase	Average increase in leverage (percentage points)	Average increase in EBITDA
Retail and Trade	213	71	64	55
Other Services	51	35	34	25
Transportation and Warehousing	95	38	31	44
Telecom	23	21	20	16
Professional Services	158	52	19	27
Amusement	25	18	19	13
Accommodation	101	41	18	30
Wholesale Trade	34	28	17	21
All companies	**58**	**24**	**13**	**18**
Manufacturing	50	21	9	13
Construction	68	20	8	14
Oil, Gas and Mining	30	16	7	10
Financial services	27	11	6	15
Utilities	3	3	2	6

(Figure 3.1. Source: PWC)

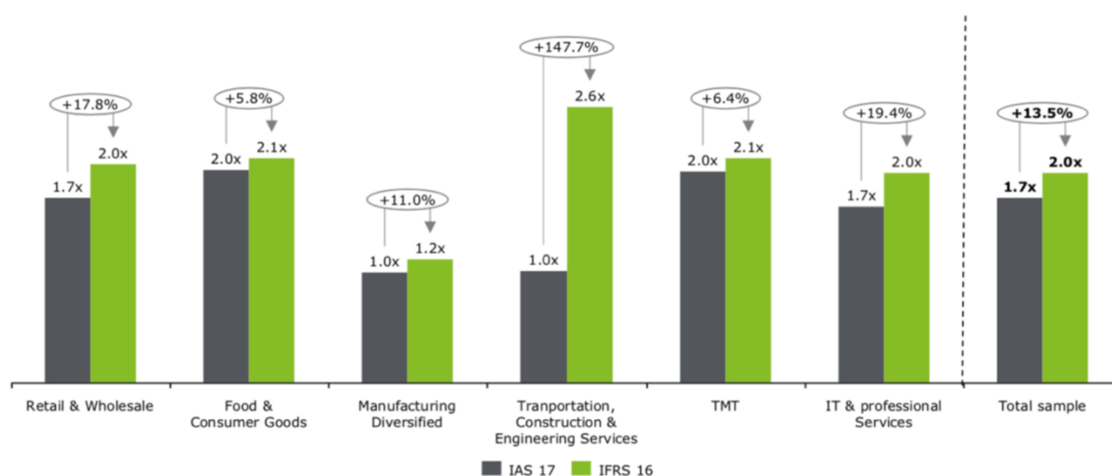
The table above illustrates the average increase for each industry of interest bearing debt, leverage and EBITDA. Retail companies and trade will be the industries with the most increase in interest bearing debt of 213% more than twice the double amount of today. The average increase in leverage and EBITDA will be respectively of 64% and 55%. Such data shows that the entities working in such industries will see an impressive change in their management and in their financial statements. Oher two very important industries to mention which have the second largest expected percentage increase in EBITDA after Retail companies and Trade are Transportation and Warehousing companies. The average increase in EBITDA is predicted to be equal to 44, 11% lower than the one of the firms in Retail and Trade industries. The companies average interest-bearing debt will be 95% higher than today and leverage will increase by 31 percentage points.

On the other hand, there are companies which do not expect a high impact on reported financial rations with the implementation of IFRS 16 such as Oil, Gas and Mining and Utility industries. For Oil, Gas and Mining companies it is predicted that their interest-bearing debt will increase by 30% and their leverage and EBITDA will increase respectively by 7 and 10 percentage points. As it can be spotted also by viewing the table, such values delineate a much lower effect compared to the average. Utility companies are the companies which are affected the lowest according to PWC by the new way leasing have to accounted. The interest-bearing debt is predicted to increase to a value as low as 3%, the leverage by 2% and their earnings before tax, depreciation and amortization are expected to grow by 6%. Therefore, even though there are industries which will be affected largely and therefore the implementation of IFRS 16 is perceived as an enormous change in their financial statements and in the way they run their businesses, there are some industries which can be described as not being even touched by the new standard.

3.6 Analysis on changes in Net Debt and EBITDA

With the implementation of IFRS 16 entities with a large value of their assets being operational leases, will incur in large differences in their financial statements. Linking to chapter 3.5 it is important to further discuss how Net Debt and EBITDA will be modified more in detail. Even though accounting standards should not alter economic valuations, what I have concluded until now shows that indirectly IFRS 16 will alter many valuations which and lead to possibly changes in how firms invest their resources form now onwards.

An analysis carried out on 50 Dutch listed companies with a large amount of operational leases, showed that on average their net debt will increase by 45 billion euros. Such value which already by itself is high, when compared to the financial statements of the same entities from the antecedent reporting period, delineates a percentage increase in just under 20% of the firms of 50%. Of course, the firms will be affected the most are the firms with operation leases who have long durations. The main reason behind this is the fact that logically when the lease is started the lease liability will be large at first and progressively decrease until zero as the entities repay their debt towards the leasing companies.



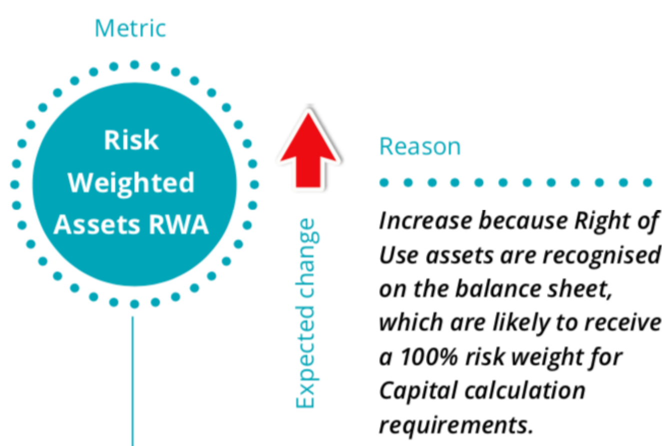
(Figure 3.2: Graph illustrating the ratio between Net debt and EBITDA with IAS 17 and IFRS 16. Source: Deloitte)

Under such analysis carried out by Deloitte, it is visible how the firms which will see the largest change in the ratio by comparing their financial statement of the reporting period which covers all 2016, the transportation, construction and engineering services industries will be the sectors mostly affected by the

implementation of IFRS 16. The three industries will incur in a difference of the ratio between the utilization of IAS 17 which is used as an index and IFRS 16 of 147.7% which is more than double the amount. In contrast, the industries which will be affected the less by the change in how leases are accounted are the industries part of the food and consumer goods. Such industries will se a change in the ratio of Net debt over EBITDA of only 5.8 percentage points. One of the reason for which the percentage increase is so much lower than compared to the transportation industry is linked to the assets they lease. Food and consumer goods industries due to the nature of the are in which they work, do not tend to need large operational assets which have to be leased. Thus, they may have leases but of low value compared to the transportation industry and possibly not many operational leases, rather they may have more financial leases.

3.7 The effect on Risk Weighted Assets and on Credit Institution more in depth

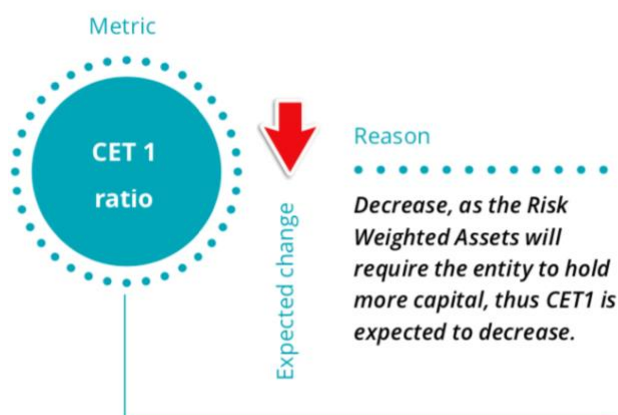
With the shift from IAS 17 to IFRS 16, operating lease assets will be accounted on balance sheet. This will therefore increase the risk weighted assets. Having operating lease assets off balance sheet, which was the procedure followed under IAS 17, no risk weighting was associated with the lease assets. In contrast with IFRS 16, operating assets will be accounted on the balance sheet of the lessees as Right-of-Use Assets and the same procedure of adjustment and accounting will be followed as the one for similar assets. This will lead to a full risk weighting and therefore lead to some difficulties for banks.



(Figure 3.3a: Expected change in RWA. Source: Deloitte)

Having operating assets on balance sheet, as a result, will lead to an increase in risk-weighted assets for banks. Such augmentation will imply that banks will have to hold large proportions of capital to decrease the risk of insolvency, as the potential risk associated with creditors not paying is greater (even though in reality it has not changed). Therefore even though theoretically, the risk that creditors will not be able to pay ahs

not changed substantially, due to how metrics are calculated and the procedures which have to be followed by banks, credit institutions will have to increase their minimum capital requirements.



(Figure 3.3b: Expected change in CET 1 ratio. Source: Deloitte)

As a result of the increase in risk-weighted assets, the Common Equity Tier 1 (CET 1) which is inversely proportions to the risk-weighted assets, will decrease. The main reason why this is the case is the alteration of capital holdings. As credit institution will have to hold more capital to balance the increase in risk associated with the assets leased. The CET-1 metric main scope is "to determine the ability to withstand financial distress"[39]. Thus, as a result of the increase in risk-weighted the Common Equity Toer-1 measure will decrease, implying that banks travail time.

To conclude, there are many drawbacks by the implementation of IFRS 16 on behalf of credit institutions. Banks will have to restructure deeply and change their working strategies. They will have to invest in market research and review (possibly also decreasing the number) of leasing contracts which increase the tension in their minimum capital requirements.

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[39] "Common Equity Tier 1 (CET1)- Overview, How It Works, CAR." *Corporate Finance Institute*, 28 Apr. 2020, corporatefinanceinstitute.com/resources/knowledge/finance/common-equity-tier-1-cet1/.

Chapter 4 – The aviation industry

4.1 Leasings in the aviation industry

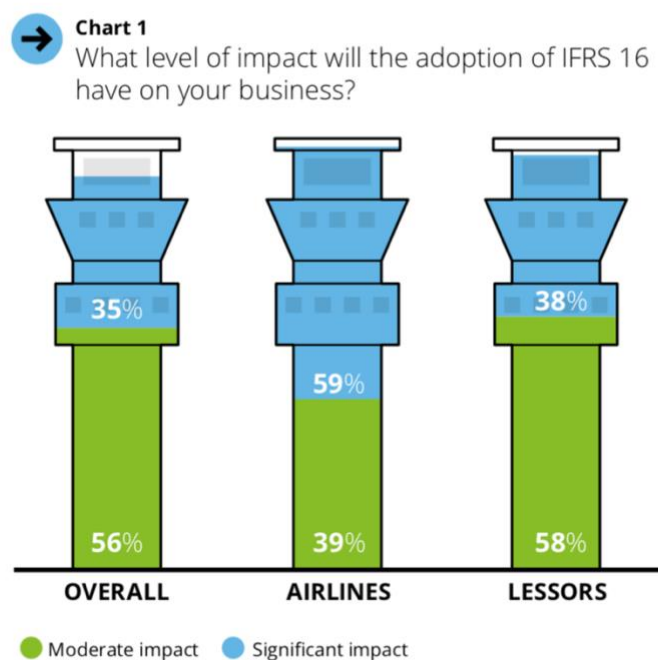
As seen by the data analysed in chapter 3, in particular in the sub-chapter 3.5, the transportation industry is one of the sectors which will perceive the most change in the financial statement from the implementation of IFRS 16. For such reason in this chapter, I decided to examine further specifically the aviation industry and how and why it will be affected largely.

The aviation industry is one of the industries with the greatest amount of large value operational leases. The airplanes which airlines use for their business operations, are in large quantities leased. About 38% of the aircrafts present in the whole world (which is approximately 26,000 airplanes) are leased and such number is predicted to be in continuous growth, as leasing provide large amount of advantages which in most case offset the disadvantages. One of the primary reasons why airlines decide to lease the majority of the airplanes, is linked to the fact that airplanes are very costly thus they require large cash outflows. By leasing the vehicles firms can opt to pay periodically for the airplanes, thus having more airplanes with no large initial outflows of capital. Additionally, leasing operations allow airlines to diversify and decrease risk whilst alleviating operational conflicts and tension.

With the adoption of IFRS 16, lessees will see a greater change in accounting than lessors. Airlines with large proportions of operational leases, will have to adjust their balance sheet and provide right-of use assets and liabilities for each asset. Of course, the impact of IFRS 16, depends largely on whether the airline companies do have or not large amounts of operational leases. In reality, most large airlines tend to have a mix of both leased and owned airplanes, whilst low-cost airlines are more propense toward leasing airplanes. The major reason why low-cost airlines tend to lease more is linked to the fact that they usually have less capital available and are relatively younger than most dominant firms already existing in the market, therefore in order to grow rapidly and successfully they lease airplanes as lessor's provide, in a quicker and less-time and effort consuming, the most popular aircrafts.

In a study carried out by Deloitte and the Euromoney Institutional Investor Thought Leadership, investigating the implication of IFRS by interviewing both lessors and airline executives, 59% of airlines in the sample thought that the change in accounting conditions with IFRS 16, will affect significantly their business. The main reason for such change is that with the adoption of the new accounting standard, firms will have to readjust all of their financial position. Airplanes which are large value assets, when leased risk and reward incidental to ownership remained with the lessor, as by the nature of the contract they were categorized as operational leases. This meant that according to IAS 17 they were recorded off-balance sheet

of the airline companies: rental expenses were recorded at the end of the year. With the shift to IFRS 16, operational leases will have to be recorded on-balance sheet as assets with corresponding liabilities. All leased airplanes will appear on balance sheet of the firms as right-of-use assets, and the payments they will have to undertake toward lessor will be registered as liabilities, as airlines have an obligation to repay their debt towards the leasing companies. Such modification of accounting all aircraft on-balance sheet, is expected to increase by more or less $325 billion[40] aircraft assets.



(Figure 4.1: Bar chart depicting impact of implementation of IFRS 16 on the airline industry (both from lessor and lessee perspective). Source: Deloitte)

In contrast with airlines which the majority believe that the adoption of IFRS 16 will generate a significant impact on their activities, the vast majority of lessor as recorded by the chart above 58% of the sample suppose that the implementation of IFRS 16 will have a modest impact. This, as already delineated above, is linked to the fact that the International Financial Reporting Standards 16 in comparison to the International Accounting Standard 17, does not imply several changes from the lessors perspective. The only 'large' changes it implies are some modifications to the information the standards requires the lessor to disclose, as it requires a more extended and thorough disclosure to be presented at the end of the fiscal year.

[40] O'Callaghan, Brian. "Balancing the Books IFRS 16 and Aviation Finance." *Deloitte*, Dec. 2017, www2.deloitte.com/content/dam/Deloitte/ie/Documents/FinancialServices/ie-Balancing-the-Books-IFRS-16-and-Aviation-Finance-Report_Dec2017-5.pdf.

IFRS 16 will also lead to more volatility which will have to be managed by the airlines. The major reason why this is case is due to the payments which have to payed to the lessor on a regular basis. Such remunerations in most cases are represented and have to be paid by the lessee in dollars. On the other hand, the lessee when recording the payments in its financial position will have to convert the amount paid in dollars in their local currency. This will therefore give rise to extra volatility resulting from the foreign exchange market which will affect significantly the firm's statements of profit and loss.

As airline companies will be affected substantially by the implementation of IFRS 16, most entities will examine the leases it already and ask for renegotiations. The main adjustments which will be asked by lessees is to decrease the lease term, as the larger is the lease term the larger is the liability which will have to be recorded by the lessee on the financial statement at the inception date. If the value of the liabilities held by airline companies, as analyzed also before in depth in chapter 3, is high which for operating lease of aircraft it is the case, this will lead to considerable alterations of the financial ratios, the EBITDA and Net Income of the firms. Operational aircraft leases can have a duration of also 15 years, meaning that the liability recorded by the lessee on the balance sheet for each aircraft is rather large.

(Figure 4.2: Aircrafts - leasing vs. purchasing Source: Deloitte)

Before the implementation of IFRS 16 was made mandatory starting from the 1st of January 2019, 44% of the sample, composed both of airline executives and lessor, believed that operating leases and sale-leaseback deals will decrease, and similarly 48% considered that airlines will increase the number of fleet purchased. Thus, in order to avoid lessors being affected harshly, the leasing companies will have to agree to renegotiate existing contracts in order to decrease the alterations and the burdens.

4.2 Emirates Financial Report

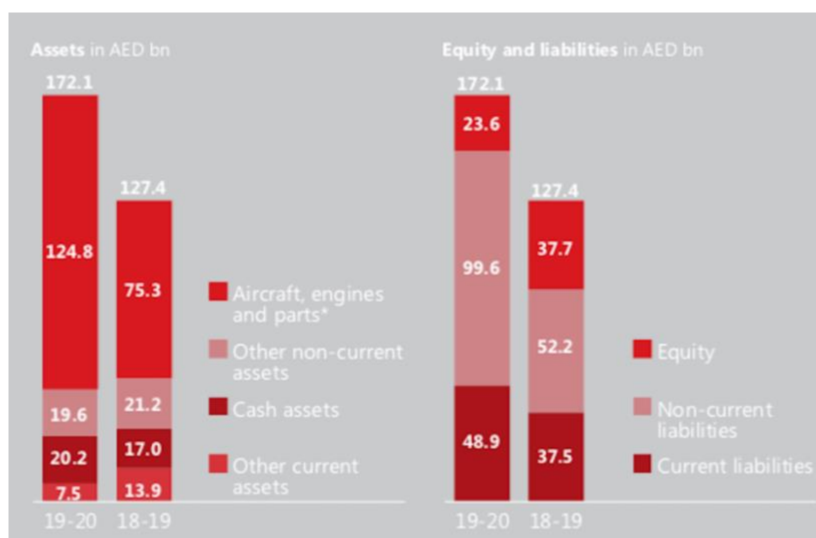
Emirates is one of the leading airlines worldwide with 157 different destinations, a global hub based in Dubai and 270 airplanes. Most aviation industry firms account following the International Accounting Standards as it makes it easier for investor located all over the world to analyze the financial reports and increases the comparability with both other firms from the same sector and other firms in general. The Financial Report released in June 2020, which accounts for the fiscal year 2019, is the first financial statement which is adjusted to implement the new accounting standard for leases IFRS 16 which superseded IAS 17. As Emirates is an airline company with all very young airplanes and has several operating leases, comparing the two balance sheets from 2018 and 2019, a considerably greater amount of assets with corresponding liabilities will appear on the balance sheet.

Total costs in AED bn	**2019-20**	**2018-19**	**% change**	**2019-20 as % of total cost**
Jet fuel	26.3	30.8	(14.6)	29.1
Depreciation and amortisation	19.4	9.7	100.0	21.5
Employee	12.1	12.6	(4.0)	13.4
Aircraft operating leases	-	11.7	(100.0)	0.0
Direct operating costs	16.4	17.5	(6.5)	18.1
Other operating costs	11.4	13.0	(12.3)	12.6
Total operating costs	**85.6**	**95.3**	**(10.2)**	**94.7**
Net finance costs	**4.8**	**1.7**	**182.4**	**5.3**
Total	**90.4**	**97.0**	**(6.8)**	**100.0**

(Figure 4.3: Table segmenting all costs incurred by the firm. Source: Emirates)

Already, looking at the costs which are displayed in the table above, having that operating lease expenses do not appear anymore at the end of the year for assets which have a lease term greater than 12 months or are not low in value, the entity does not have any more operating lease expenses indicated as costs in the balance sheet. What can be pointed out at first sight, is that in contrast with the fiscal year 2018-2019, depreciation and amortization expenses have increased to be 19.4 AED, heading second in classification of the largest costs incurred by Emirates in the fiscal year 2019-2020. The main reason, for such change is the linked to the fact that also operating leases have to be adjusted at the end of the year, according to the method which is best suited with the nature of the asset such as the straight-line method and the depreciation and amortization expenses calculated have to recorded. The only cost which emirates undergoes which is greater than the depreciation and amortization expenses in the fiscal year is jet fuel, which was already the biggest cost for the firm in the preceding year.

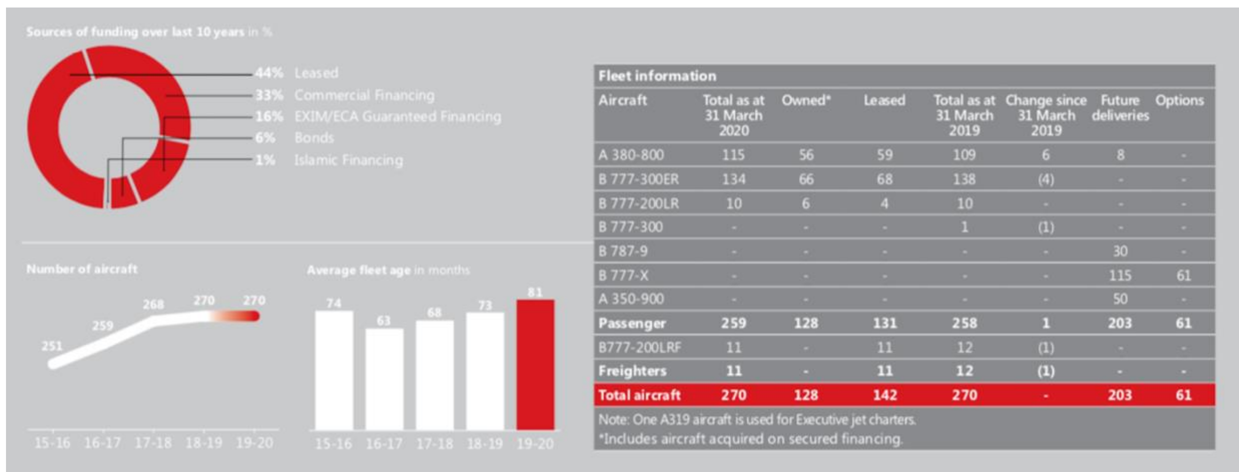
Moving to look at the assets and liabilities represented in the bar chart below, at first impact, looking at the two years, the assets and liabilities have increase drastically from 127.4 million AED to 172.1 million AED which is respectively an increase of 35,10%. Such change already reflects how the adjustments which have been made to comply with IFRS 16, have affected the firm. If we start looking more in depth at the sub-divisions of the bar chart we can spot that the major increase in assets as occurred in the class which covers the non-current assets of aircraft, engines and other parts. The increase in the category has been from 75.3 AED in the year 2018-2019 rising up to 124.8 AED in 2019-2020.



(Figure 4.4: Bar chart dissecting assets, liabilities and equity accounted by Emirates in the two fiscal years Source: Emirates)

Even though in the bar chart, we cannot see specifically what has increased in assets, such modification already implies that Emirates had several off-balance sheet operating leases with long periods durations. Such conclusion is also backed up by the increase in non-current liabilities from 52.2 AED to 99.6 AED in the fiscal year 2019-2020, which is majorly caused by the lease liabilities which before IAS 17 was superseded by IFRS 16, no obligations by the lessee towards the lessor were brought on the balance sheet. This already allows investors and banks to have more insights on the obligations the company has and how it is running its operations.

For the purpose of analyzing more thoroughly if the large change in assets and liabilities held by Emirates is primarily affected by the shift form IAS 17 to IFRS 16, I have inspected another chart which dissects all the different aircrafts held by the airline specifying all the different types both owned and leased and the related quantities of each.



Fleet information

Aircraft	Total as at 31 March 2020	Owned*	Leased	Total as at 31 March 2019	Change since 31 March 2019	Future deliveries	Options
A 380-800	115	56	59	109	6	8	-
B 777-300ER	134	66	68	138	(4)	-	-
B 777-200LR	10	6	4	10	-	-	-
B 777-300	-	-	-	1	(1)	-	-
B 787-9	-	-	-	-	-	30	-
B 777-X	-	-	-	-	-	115	61
A 350-900	-	-	-	-	-	50	-
Passenger	**259**	**128**	**131**	**258**	**1**	**203**	**61**
B777-200LRF	11	-	11	12	(1)	-	-
Freighters	**11**	**-**	**11**	**12**	**(1)**	**-**	**-**
Total aircraft	**270**	**128**	**142**	**270**	**-**	**203**	**61**

Note: One A319 aircraft is used for Executive jet charters.
*Includes aircraft acquired on secured financing.

(Figure 4.5. Source: Emirates)

From March 2019 to March 2020, there have been some changes on the fleet which have occurred, in particular, Emirates has both bought and leased several new airplanes and sold-out and terminated some leasing contracts. As of today, Emirates owns 4 types of different aircrafts: A 380-800, B 777-300ER, B 777-200LR and B 777-200LRF. During the year, the company has both bought and leased new aircrafts as shown by the graph, accomplishing to have a total of airplanes equal to 270. Of these 270, the greatest part approximately 55% are leased (142 airplanes), suggesting that the firm relies heavily on leasing contract for the purpose of running successively its business operations. Having 142 airplanes leased, which before were accounted off-balance sheet, as airplanes were considered operating leases in most cases, implies that the change in the accounting mechanism of operating leases, has affected the firm assets and liabilities as pointed out before and by now it can be proven with more figures. Moreover, from the data it emerges that the average fleet age of Emirates aircrafts this year is 81 which is approximately 6,75 years. This suggests that the company has a preponderance of relatively young airplanes, thus this affects greatly the largeness of the assets held. The main reason is that having 142 airplanes leased and the largest part are young leasing which have been initiated not too long ago, both assets and liabilities associated with the leasing will be substantial for two major reasons:

1. The contracts for airplanes have long durations
2. The value of each airplane is large

The leasing contracts containing airplanes are usually long in duration, as airplanes have a life spam of approximately 30 years, therefore the leasing contracts which involve airplanes last usually for long periods of time reflecting their life expectancy. In addition, as airplanes are very costly and Emirates has many airplanes leased with a young average fleet rate, this means that there are not many depreciation expenses as the airplanes have not still depreciated much, thus the value of the assets is relatively large.

Moving on to look at the latest statement of financial position, which refers to the last reporting period 2019-2020, we can see exactly to what extent the IFRS 16 has affected the companies' assets and liabilities. From 2019 to 2020 there has been a decrease in property, plant and equipment from 89,431 million AED to 86,084 million AED, which can be associated both by depreciation and amortization expenses incurred during the year and possibly the sellout of some of the firms assets. In addition, the right-of-use category under non-current assets has been added to the financial statement of this year to comply with the new accounting procedure for leasing which classifies all leasing (except for leasing with durations lower than 12 months or low in value) to be accounted as assets with the inclusion of operating leasing. As Emirates has 142 airplanes leased, the value for right-of-use assets which comprises all those assets that the company does not own directly, as the risk and reward incidental to ownership remain with the lessor, was recorded this year to be 52,992 million AED. Such assets are property, plant and equipment such as aircrafts for which the company has the right to use. Similarly, under the liabilities side, to comply with the fact that every debit position as a credit position borrowing and lease liabilities are accounted. Borrowing and lease liabilities are present in two different natures both as current liabilities and non-current liabilities in relation to the different leasing contracts and their repayment schemes. Non-current liabilities which include long term leasing obligations have increased more than current-liabilities: Emirates borrowing and lease liabilities on non-current liabilities have reached 90,728 million AED (increased by 45,395 m AED), whilst borrowing and lease liabilities in current liabilities have risen too, however by a smaller amount than non-current liabilities of approximately 12 million AED. Overall, summing up the two values liabilities due to the leasing accounting procedure modification have increased by more than 50 million AED, which is a significant difference from the preceding years, and I am very confident that such modification will affect undoubtedly future investments held by the firm not only on aircrafts, yet also on other assets.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION
AS AT 31 MARCH 2020

	Note	2020 AED m	2019 AED m
ASSETS			
Non-current assets			
Property, plant and equipment	12	86,084	89,431
Right-of-use assets	13	52,992	-
Intangible assets	14	4,373	1,574
Investments accounted for using the equity method	15	691	683
Advance lease rentals	16	-	4,619
Trade and other receivables	18	192	139
Derivative financial instruments	30	-	24
Deferred income tax assets	26	25	13
		144,357	**96,483**
Current assets			
Inventories	17	2,670	2,525
Advance lease rentals	16	-	602
Trade and other receivables	18	4,783	10,740
Derivative financial instruments	30	3	11
Short term bank deposits	19	12,017	11,974
Cash and cash equivalents	19	8,232	5,063
		27,705	**30,915**
Total assets		**172,062**	**127,398**

	Note	2020 AED m	2019 AED m
EQUITY AND LIABILITIES			
Capital and reserves			
Capital	20	801	801
Other reserves	21	(5,701)	(60)
Retained earnings		27,878	36,408
Attributable to Emirates' Owner		**22,978**	**37,149**
Non-controlling interests		609	594
Total equity		**23,587**	**37,743**
Non-current liabilities			
Trade and other payables	27	116	155
Borrowings and lease liabilities	22	90,728	45,433
Deferred credits	25	-	2,437
Derivative financial instruments	30	1,697	81
Provisions	23	7,039	4,081
Deferred income tax liabilities	26	3	3
		99,583	**52,190**
Current liabilities			
Trade and other payables	27	12,880	14,822
Deferred revenue	24	10,672	13,982
Borrowings and lease liabilities	22	19,429	7,606
Deferred credits	25	-	322
Derivative financial instruments	30	5,067	20
Provisions	23	786	678
Income tax liabilities		58	35
		48,892	**37,465**
Total liabilities		**148,475**	**89,655**
Total equity and liabilities		**172,062**	**127,398**

The consolidated financial statements were approved on 7 May 2020 and signed by:

Sheikh Ahmed bin Saeed Al-Maktoum
Chairman and Chief Executive

Timothy Clark
President

(Figure 4.6a: Emirates balance sheet 2019 and 2020. Source: Emirates)

The last accounting value which I will like to stress on is related to the net debt. According to my precedent examination, the value of net debt, as well as the value of debt ratios, should be affected negatively by the implementation of IFRS 16 if firms have a large amount of assets leased and which by nature of the contract are classified as operating lease. As this is the case for Emirates, the net debt of the airline should change drastically. Looking at the table which has an overview of the net debt of the fiscal years starting from 2010-2011 to 2019-2020 we can see that from 2013 to 2019, the net debt was more or less constant moving from 25, 870 AED to approximately 36,002. In contrast, in the last reporting period, year in which the International Accounting Standard 16 was first implemented by the firm, a drastic variation occurred and net debt which by 141%. Net debt reached nearly 90,000 AED, implying that Emirates has been affected by the change in the accounting procedure for leasing and possibly this will also influence new investments. Emirates might decide to buy a larger proportion of aircrafts and decrease the value of aircrafts leased if lessor do not revisit contracts of both new leases and of leases already 'owned' by the firm. Overall, even though some of the data gained might have been influenced also by external forces such as the COVID-19, IFRS 16 has impacted strongly and visibly Emirates and other similar firms with large value assets which are needed to run their business operations and large value of operational leases. Being Emirates one of the leading companies in the airline industry, especially in relation to the vast amount of young airplanes, a large amount of which are leased, its balance sheet and income statement have been affected significantly by the insertion of IFRS 16. Despite, such conclusions which are purely based on my analysis of the firm in order to deduct more accurately how the firm will change its financial investments and the way in which it operates more data from future financial statements will be needed.

EMIRATES TEN-YEAR OVERVIEW

Consolidated income statement		2019-20	2018-19	2017-18	2016-17	2015-16	2014-15	2013-14	2012-13	2011-12	2010-11
Revenue and other operating income	AED m	91,972	97,907	92,322	85,083	85,044	88,819	82,636	73,113	62,287	54,231
Operating costs	AED m	85,564	95,260	88,236	82,648	76,714	82,926	78,376	70,274	60,474	48,788
- of which jet fuel	AED m	26,260	30,768	24,715	20,968	19,731	28,690	30,685	27,855	24,292	16,820
- of which depreciation and amortisation	AED m	19,444	9,680	9,193	8,304	8,000	7,446	6,421	5,136	4,134	3,677
- of which employee costs	AED m	12,058	12,623	13,080	12,864	12,452	11,851	10,230	9,029	7,936	7,615
Operating profit	AED m	6,408	2,647	4,086	2,435	8,330	5,893	4,260	2,839	1,813	5,443
Profit attributable to the Owner	AED m	1,056	871	2,796	1,250	7,125	4,555	3,254	2,283	1,502	5,375
Other financial data											
Net change in cash assets	AED m	3,212	(3,383)	4,752	(4,320)	3,103	324	(8,011)	8,985	1,614	3,462
EBITDAR	AED m	25,852	23,977	24,970	21,248	24,415	20,259	17,229	13,891	10,735	13,437
Borrowings and lease liabilities	AED m	110,157	53,039	51,101	51,002	50,105	47,808	42,431	40,525	30,880	23,230
Less: Cash assets	AED m	20,249	17,037	20,420	15,668	19,988	16,885	16,561	24,572	15,587	13,973
Net debt	AED m	89,908	36,002	30,681	35,334	30,117	30,923	25,870	15,953	15,293	9,257
Capital expenditure	AED m	11,870	13,437	8,496	12,632	16,723	19,873	21,142	13,378	13,644	12,238

(Figure 4.6b: Emirates balance sheet 2019 and 2020. Source: Emirates)

Conclusion:

As the use of International Accounting Standards in alternative to the national accounting principles is growing rapidly, it is fundamental to understand all of the sections carefully. Through my research and analysis, I have concluded that even though when a standard is superseded and a new standard is published the main goal is to avoid altering the financial aspects of the firms and especially not to modify the financial statements data drastically, the implementation of IFRS 16 has significantly changed how the financial statement of firms is presented and several financial ratios. Being that the new international accounting standard modifies how leases are accounted in particular from the point of view of the lessee, as both financial and operating leases have to be recorded in the balance sheet having an asset and a corresponding liability, firms with large value assets or a large number of operating leases will be impacted drastically. I have decided to conclude my analysis with the study of the financial position of Emirates, as it is a leading firm in the airline industry with a high proportion of aircrafts leased. Being that in accordance to the nature of the contract all aircrafts leased were originally classified as operating lease, they did not appear on balance until this year, year in which the implementation of IFRS 16 became compulsory.

Looking at the disparities between IAS 17 and IFRS 16, it is clear why the former was superseded. IAS 17 gave rise to many problems especially in transparency from the point of view of investors and banks, due to the fact that it was not clear if the firm had any debts and obligations related to leasing contracts which were not scrutinized as financial lease. On one hand, shareholders were not given translucent information on exactly how the firms were investing their resources and thus its ability to generate liquidity, and on the other hand, banks generated distorted credit-risk and leverage ratios. When IAS 17 was followed, only financial lease appeared on balance, operating lease were recorded off-balance sheet periodically under the voice of rental expenses. With the new accounting procedure, it is inevitable that also the net debt calculated at the end of the year by accountants will be substantially different for firms with leasing contracts. By merging both materials produced by some of the most important consulting firms and personal interpretation, I have deduced that the sectors which will be mostly affected by the change are transportation, construction and retail industries as they rely heavily on leasing contracts. Over the years, the use of leasing contracts instead of buying machinery has been growing rapidly, as they allow firms to acquire machinery needed in their busines processes without large capital outflows. Even though not much has changed from the accounting perspective of lessor, I am confident that lessors will have to expect clients requests for renegotiations of existing contracts which lessors will have to accept and will have to be ready to modify the structure of new contracts they will form. I am also confident that inevitably the exponential augmentation of leasing agreements which we have seen until now will decrease and that firms which until now relied heavily on leasing, will if possible, opt for buying assets instead.

Moreover, in the following years entities such as the retail and transportation industry will perceive changes in capital available for new investments, which might also cause a restructuring of all of the investing activities carried out, with the inclusion of activities which did not operate utilizing equipment leased and were not touched by the shift to the new regulation. The substantial changes incurred in the financial procedure of firms with large amounts of operating leases, will lead to incomparable data between the years due to the different structures of the financial position and income statement. To conclude, even though the implementation of IFRS 16 has been costly for firms, as accountants had to be taught on how to provide the information according to the new norms, and time consuming, as many leasing contracts have been started many years ago and it will take time to find all the documents, the long-term oriented benefits which will be gained are vast and major.

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