Airline Disclosure Guide

Aircraft acquisition cost and depreciation

In association with

KPMG

Purpose of Airline Disclosure Guides

These Airline Disclosure Guides (ADGs) have been compiled by the IATA Industry Accounting Working Group (IAWG), which consists of senior finance representatives from IATA member airlines. This working group's mandate is to promote consistency in the application of International Financial Reporting Standards (IFRS) and to lobby accounting standard setters to take into consideration the interests of airlines globally.

The ADGs cover the latest accounting practices, principally from airlines reporting under IFRS related frameworks, to highlight key issues, judgements and disclosures made by airlines. They are designed to help in the development and analysis of airlines annual reports. The sample for the disclosures used in the ADGs comes mainly from annual reports of members of the IAWG and of IATA's Financial Committee.

The ADGs are not intended as critical assessments of specific disclosures or accounting policies nor as a guide of best practice. Furthermore, they do not provide accounting advice or detailed analysis of the underlying standards, including relevant disclosure requirements, and they should not be used as a substitute for referring to the standards and interpretations of IFRS.

KPMG is a global network of member firms, providing audit, tax and advisory services and has provided the IATA IAWG with assistance in compiling the ADGs. The views expressed in the ADGs are not necessarily the views of KPMG.

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Introduction

The airline industry is capital intensive and the accounting for aircraft assets has a significant impact on the financial results of airlines. Aircraft are high-cost, long-life assets and contain many individual components. Orders for aircraft are often made several years in advance of delivery at prices that may include complex mechanisms for discounting the list price, including 'credits'. Payments to aircraft manufacturers may include payments for options (amounts paid in advance to secure an aircraft purchase), purchase rights, deposits and progress payments. These payments in advance of delivery can give rise to significant financing costs. In the aircraft industry, transactions are typically denominated in US Dollar and can therefore expose non-US airlines to currency risk.

For the above reasons the accounting for aircraft acquisition and subsequent depreciation is complex. IAS 16 *Property, Plant and Equipment* provides clear accounting principles, but the application of these principles to aircraft and aircraft related assets often requires judgement by airlines. Judgements relating to useful economic life and residual value must be revisited each reporting period.

The high value of aircraft assets carried on balance sheet coupled with earnings volatility in the industry has historically exposed airlines to potential asset impairments. This creates further accounting complexity and requires judgement in estimating the recoverable value of assets.

Scope

The disclosures made by airlines in their Annual Reports provide insight into the relevant accounting judgements made including the determination of acquisition cost and the identification of individual components, their useful economic lives and their residual values. Airlines also disclose their approach to asset impairment testing. This ADG details the accounting guidance and examples of observed practice under International Financial Reporting Standards (IFRS) in relation to:

Initial recognition of aircraft costs

Identification of individual components

Recognition of other associated assets

Depreciation policies for individual components

Aircraft asset impairment and accelerated depreciation

1. Initial recognition of aircraft costs

What acquisition costs should be capitalised?

Generally, all costs incurred in bringing aircraft into working condition should be capitalised. This will include the purchase price paid for the aircraft, any related costs to making the acquisition and any adjustments to these costs or prices made as part of the purchase agreement.

The purchase price

Typically the manufacturer's list price is not the price that is negotiated and paid for the aircraft and the purchase will include a number of other elements. There are a wide range of fleet acquisition terms existing across the airline industry and as a result a detailed assessment of the specific purchase agreement will be required in order to determine the final cost to be capitalised.

The determination of the purchase price may be affected by the fact that manufacturers grant aircraft or engine credits to airlines as an incentive to purchase a particular aircraft or engine. These are commonly granted as part of the purchase deal with no conditions or requirements attached. To the extent that these credits are in substance rebates or discounts from the purchase price they are commonly deducted against the acquisition cost of the asset capitalised on the balance sheet.

Costs related to the purchase

Additional costs that can be capitalised can include payments for purchase rights or purchase options. These are distinct from manufacturer credits, and include amounts paid to secure the right to buy a certain aircraft at a certain time.

Aircraft costs may also include capitalised borrowing costs where funds are borrowed specifically, or there is a notional allocation of general indebtedness, for aircraft acquisition payments up to the point at which the aircraft asset is substantially complete. Due to the nature of pre-delivery payments, capitalisation of these costs is common industry practice. IAS 23 *Borrowing Costs* provides the relevant accounting guidance.

Aircraft costs may also include the hedge gains or losses resulting from effective hedging relationships, most commonly those entered into to cover foreign exchange exposures by non-USD functional currency airlines. Guidance on hedge accounting is not covered as part of this ADG as it is the subject of a separate ADG 'Hedge accounting under IFRS 9'.

In addition, other costs associated with acquiring the asset and bringing it to working condition may be capitalised if they meet the thresholds of IAS 16. Examples of costs that might meet this criteria could include cabin fit-outs, assembly works, etc.

Dealing with components of a purchase

When an asset comprises several components, each having a cost significant in relation to the overall cost of the item, IAS 16 requires that each of these components be separately identified and depreciated. This typically applies for example to: airframes; engines; modifications; heavy maintenance; seats and landing gear.

1. Initial recognition of aircraft costs (cont.)

Key accounting judgements and estimates

Option payments and refundable deposits

Airlines frequently acquire options to purchase aircraft in the future, the commercial rationale being to keep aircraft acquisition capacity as flexible as possible as well as establishing a position in the manufacturer's production queue. These types of arrangements are widely referred to in the industry as options, which can provide a variety of rights, including in particular the timing of delivery or the price to be paid.

If the option secures a purchase price, it would be necessary to consider if this constitutes a derivative. This ADG only covers the type of option where a deposit has been paid to "reserve" the plane and the ultimate price paid will be as per the market. This will here after be referred to as an 'option'.

If the option is exercised, it is appropriate to capitalise the option expenditure as part of the total cost of acquiring the aircraft. Conversely the cost should be written off to the income statement at the earlier of:

- The date the option lapses
- The date a decision is taken not to exercise the option

Common place today is the payment of refundable deposits, where cash deposits are paid to the manufacturer and held against future aircraft purchases. These allow for acquisition flexibility, providing the ability to transfer deposits over individual aircraft types and obtain a refund on amounts deposited where a decision is made not to take delivery. These amounts should be capitalised into the aircraft acquisition costs when the relevant aircraft is acquired.

Capitalisation of interest on advance payments

The capitalisation of interest on advance payments to manufacturers is relatively common practice in the airline industry. Given the interrelationship between the level of any advance payment and the ultimate purchase price, the interest can be regarded as a cost directly attributable to bringing the asset to working condition in line with IAS 23 viewing the advance payment as a qualifying asset. The actual interest cost can be capitalised in the case of specific borrowings for the advance payment. If no borrowing is specifically incurred, the cost of other borrowings that could have been repaid if expenditure on the asset had not been incurred can be capitalised. Using the weighted average of costs of general borrowings notionally applied to the advance payments is acceptable to achieve this.

The point at which the capitalisation of interest under IAS 23 ceases should be the date on which the asset is substantially complete. Certain airlines might interpret this as meaning that capitalisation should cease at the date of delivery, whilst others would select the date the aircraft comes into service (assuming that work is required post delivery to prepare the asset for its intended use). The appropriate date will be impacted by the level of work required post delivery to bringing the aircraft into service. However, where an airline delays bringing an aircraft into service, it would not be appropriate to continue capitalising interest beyond the date the aircraft is physically complete and able to be brought into service.

Delivery dates are subject to change due to the requirements of both buyer and seller. The reasons for deferral will determine the appropriate date at which interest capitalisation ceases. For example, a delay in the manufacturing process would usually indicate it is appropriate to continue to capitalise interest as under IAS 23 the capitalisation ceases when the activities to prepare the asset for its intended use are completed. However, the nature of the delay and all contract terms require consideration in determining the appropriate accounting.

1. Initial recognition of aircraft costs (cont.)

Manufacturer's credits

It is common for airlines to receive credits from aircraft or engine manufacturers to incentivise the purchase. These credits come in various forms including guaranteed trade-in values, spare parts support, marketing support, training support or introduction costs support. The accounting treatment will depend on the substance of the credit given. The vast majority of airlines indicate in their financial statements that they offset these credits, where they are in substance rebates of discounts, against the aircraft cost capitalised and do not recognise them in revenue in the income statement.

There may be additional complexity when credits are given to be used on future aircraft purchases based on a current purchase. Whether the credit is more accurately considered related to the current or future purchase needs to be evaluated. Credits may also be offered on future maintenance or other services, in these situations reducing the price of the aircraft may not be the appropriate treatment. The contract terms offered should be reviewed and the substance of the transaction considered to determine the appropriate accounting.

Credits may be monetary, such as a discount or reduction to the purchase price or non-monetary, such as services or future maintenance and both forms should be considered and recognised. Non-monetary credits are typically harder to value and allocate to components. How to allocate credits is discussed further in the *Identification of individual components* section.

Observed practice

Where the purchase price is reduced by manufacturers' credits or when the purchase price is in a currency other than the functional currency of the entity and these are significant to a particular airline, disclosure is made in the financial statements. Airlines may also disclose information on the accounting treatment of pre-delivery or advance payments.

Example disclosure:
Air New Zealand 2015 Annual Report

Where the Group receives credits and other contributions from manufacturers in connection with the acquisition of certain aircraft and engines, these are either recorded as a reduction to the cost of the related aircraft and engines, or offset against the associated operating expense, according to the reason for which they were received.

Example disclosure:
Air France-KLM Group 2014 Annual Report

The purchase price of aircraft equipment is denominated in foreign currencies. It is translated at the exchange rate at the date of the transaction or, if applicable, at the hedging price assigned to it. Manufacturers' discounts, if any, are deducted from the value of the related asset.

Example disclosure:
International Airlines Group 2014 Annual Report

All aircraft are stated at the fair value of the consideration given after taking account of manufacturers' credits.

Example disclosure:
EasyJet Plc 2014 Annual Report

Pre-delivery and option payments made in respect of aircraft are recorded in property, plant and equipment at cost. These amounts are not depreciated.

2. Identification of individual components

Examples of the main typical components of an aircraft include, but are not limited to:

- Airframe
- Engines
- Modifications
- In-Flight Entertainment (IFE) and Buyer Furnished Equipment (BFE)
- Rotable assets – parts which are normally maintained and reused
- Repairables – parts which are capable of being repaired and reused but which can only be repaired a limited number of times
- Embedded maintenance (engine overhaul)

How do you identify and separate components?

The fair value of the aircraft can be determined from the total price agreed as part of the purchase agreement. The agreement or purchase invoices may show the breakdown of items included within the purchase price and attribute cost values to them. The attributed values still need to be analysed to ensure they accurately reflected the fair value of the component.

Given the complexity of aircraft purchase negotiations it is common for the contract or purchase invoices not to provide this level of information, but instead state the total aircraft purchase price or make more general adjustments for discounts or credits. In this case, a detailed analysis would need to be undertaken using available information to allocate the purchase price between the components purchased. This is also likely to be the case for second hand aircraft when a single price is paid and the components have not been agreed or purchased separately.

IAS 16 requires an asset to be separated into components, however, it may be for aircraft that there are multiple layers of components to consider. The level to which individual components should be separately identified depends on the extent to which they have similar useful lives or consumption profiles. There is no set criteria for the separation of an asset into components.

Manufacturer credits and discounts may be split between components on the invoice or be obviously attributable to a particular component. However, when general credits are given against the total purchase price, an allocation between components is typically made. Any allocation process would first identify specific credits for components e.g. engine manufacturer credits being allocated against the engine. The remaining credits would then be allocated across the components using an appropriate method such as a weighted average cost or the fair value of the component.

Key accounting judgements and estimates

Embedded maintenance

IAS 37 prohibits recognition of a provision for future operating losses and future expenditure that can be avoided. Provisions arise from legal or constructive obligations arising from a past event. Therefore, the cost of future maintenance of owned assets should not be provided for in advance of a maintenance event as it can be avoided by either not flying the aircraft or by selling the aircraft.

Major inspections and overhauls are identified and accounted for as an asset under IAS 16 if that component is used over more than one reporting period. When a major inspection or overhaul cost is embedded in the initial purchase cost of an aircraft, it is necessary to estimate the carrying amount of the component. Component accounting for overhaul costs is intended to be used only for major expenditure that occurs at regular intervals over the life of the asset. Costs associated with routine repairs and maintenance are expensed as they are incurred.

These initial embedded maintenance assets are depreciated over the time until the first maintenance event is performed. The cost of the new event is then capitalised and depreciated over the period until the next overhaul event. Further guidance on the accounting for maintenance is included in the separate ADG 'Maintenance Accounting'.

2. Identification of individual components (cont.)

Observed practice

Although individual components are accounted for separately in accounting records, the financial statements often disclose a single asset category in their numerical reconciliations of plant and equipment. Some airlines disclose significant individual asset components identified such as airframe, engine, cabin interior equipment and modifications.

Example disclosure:
Air China 2014 Annual Report

Where parts of an item of property, plant and equipment have different useful lives, the cost of that item is allocated on a reasonable basis among the parts and each part is depreciated separately.

Example disclosure:
Air Canada 2014 Annual Report

Aircraft and flight equipment are componentized into airframe, engine and cabin interior equipment and modifications.

3. Recognition of other associated assets

The accounting treatment for other assets associated with the aircraft purchased should also be considered such as spare parts, rotables and repairables. Sometimes these can include 'other assets' received from suppliers at no charge such as additional spares provided as part of the original purchase deal. A cost needs to be allocated to these additional spares, this may be done by dividing part of the purchase price between other assets and the spares.

What is the accounting treatment for 'other assets'?

The main consideration for the accounting treatment of these assets, which include spare parts, rotables and repairables, is whether these meet the criteria for capitalisation as equipment or whether they should be treated as inventory. The principal difference is normally whether the items are consumed within the following period or will generate sales or cash directly for the business, in which case this would suggest they are classed as inventory, while items which will be used over more than one period and meet the criteria of IAS 16 would be considered fixed assets.

Example disclosure:
International Airlines Group 2014 Annual Report

Aircraft and engine spares acquired on the introduction or expansion of a fleet, as well as rotable spares purchased separately, are carried as property, plant and equipment and generally depreciated in line with the fleet to which they relate.

Major overhaul expenditure, including replacement spares and labour costs, is capitalised and amortised over the average expected life between major overhauls. All other replacement spares and other costs relating to maintenance of fleet assets (including maintenance provided under 'pay-as-you-go' contracts) are charged to the Income Statement on consumption or as incurred respectively.

Example disclosure:
Lufthansa Group 2014 Annual Report

Repairable spare parts for aircraft are held at continually adjusted prices based on average acquisition costs. For measurement purposes, spare parts are assigned to individual aircraft models and depreciated on a straight-line basis depending on the life phase of the fleet models for which they can be used.

How are costs relating to modifications to aircraft recognised?

Modifications to aircraft subsequent to purchase may be capitalised if they meet the recognition criteria of IAS 16: it is probable that future benefits associated with the item will flow to the entity and the cost of the item can be measured reliably; otherwise the costs are deemed as relating to routine maintenance and are recognised in the income statement as they are incurred.

Examples of modifications that could qualify for recognition as assets include:

- In-Flight Entertainment (IFE)
- Retro-fitting of Wi-Fi or other technology on existing aircraft
- Cabin refurbishment
- Enhancements to airframe or engine
- Retro-fitting of winglets and sharklets

The existing assets being replaced or upgraded should be reviewed to ensure that they are either written off or their useful lives revised or maintained at current values depending on the underlying facts.

3. Recognition of other associated assets (cont.)

Key accounting judgements and estimates

The nature of the expense incurred should be reviewed to determine if it meets the definition of an asset (i.e. whether it represents simply maintenance expense or instead an improvement to the asset which meets the criteria for capitalisation). It is important to consider what has previously been capitalised in relation to the asset and the remaining net book value (NBV) in order to avoid double counting of assets on the balance sheet. This should also include ensuring any assets no longer in use are written off. For example, with a cabin reconfiguration or modification, it is necessary to review the carrying value of existing assets to determine if they are being replaced (and should be written off) or improved by the work.

Any existing asset NBV should be written down to zero if no longer in use and the new asset capitalised. This analysis should be performed at the component level. In the case of an engine overhaul, depreciation policies would normally be set to depreciate any capitalised value over the expected period until the next overhaul and as such the NBV of the asset at the time of the next overhaul is zero. Where the overhaul was undertaken earlier than planned the remaining NBV is written off to the income statement before the new component is capitalised.

Observed practice

The useful life of the new assets capitalised resulting from modifications is typically the shorter of the normal useful life of that type of component or the remaining life of the aircraft. These are relatively short-term periods based on the expected replacement periods.

The table below shows the useful life for some aircraft component modifications:

Figure 1: Example depreciation rates used for modifications to aircraft components

Airline	Type of modification	Useful Life
Air China	Overhaul of airframe and cabin refurbishment	5-12 years
	Overhaul of engine	2-15 years
Cathay Pacific Airways	All	Up to 10 years
Qatar Airways	Cabin interior	Lower of 7 years or the remaining life
	Major overhaul	12 years

Example disclosure:
International Airlines Group 2014 Annual Report

Cabin interior modifications including those required for brand changes and relaunches, are depreciated over the lower of five years and the remaining life of the aircraft.

Example disclosure:
Air Canada 2014 Annual Report

Cabin interior equipment and modifications are depreciated over the lesser of eight years or the remaining useful life of the aircraft.

4. Depreciation policies for individual components

Accounting standards require an asset to be depreciated on a systematic basis over its useful life to its residual value and that the estimates of useful life and residual value are reviewed at least at the end of each annual reporting period. For aircraft these estimates may have a significant impact on the amount of depreciation recognised in the income statement.

Each aircraft component should be categorised and depreciated separately using its specific useful life and residual value. This results in a range of useful lives and residual values for different aircraft components. For example an airframe is likely to have a longer useful life than IFE systems and often the airframe will have a residual value but IFE will not.

Disclosures in the financial statements reviewed indicate that airlines generally adopt the 'straight-line' depreciation method as the pattern of future economic benefits to the airline is typically consistent throughout the aircraft's life notwithstanding that the fair market value may not diminish on a straight-line basis. Other airlines included in our sample use alternative methods of depreciation dependent on the use of the aircraft with the depreciation charge based on cycles or flight hours.

What factors affect the depreciation rate determined?

Effective depreciation rates for individual components are determined by the estimated useful life and residual value. Determining an appropriate depreciation rate is dependent on a number of factors including:

- Intended life of the fleet type being operated by the airline
- Estimate of the economic life from the manufacturer
- Fleet deployment plans including timing of fleet replacements
- Changes in technology
- Repairs and maintenance policies
- Aircraft operating cycles (long-haul aircraft may have a different depreciation profile to high cycle short-haul aircraft)
- Prevailing market prices and the trend in price of second hand and replacement aircraft (which impact the estimate of residual value)
- Aircraft-related fixed asset depreciation rates, for example, rotables and repairables may reflect the airline's ability to use common components across different aircraft types
- Treatment of idle assets
- Distinction between fleet types

Key accounting judgements and estimates

As discussed above in the *Identification of individual components* section, there may be multiple layers of components within an asset. The useful life of a sub-component within a larger component should not exceed that of the larger component. For example, airframe maintenance should not have a longer useful life than the airframe itself as it cannot be physically separated. The interrelationship of the components should be taken into consideration. This may be different for a repairable asset for example which may be used in other aircraft.

External factors may affect accounting judgements made about the depreciation rates used on different classes and types of aircraft, e.g. new technologies and where the aircraft industry is within the current technology cycle. Advances such as the introduction of new materials which improve fuel efficiency or are at a lower cost may make it hard to predict the future useful life of the aircraft.

Useful lives and residual values of existing aircraft fleets are increasingly being impacted by 'new generation' aircraft. These aircraft have reduced operating costs and are adversely impacting the values of older aircraft in the secondary market. Where decisions are being made to retire an aircraft earlier than anticipated depreciation may need to be accelerated prospectively to appropriately reduce the carrying value of the aircraft to its residual value over a shorter remaining useful life.

4. Depreciation policies for individual components (cont.)

Key accounting judgements and estimates (cont.)

The speed of technological development is increasing rapidly resulting in shorter periods between the replacements of new generations of equipment such as IFE. This affects the depreciation rate of related components and will likely reduce estimated useful lives. It may also impact the residual value of the assets, which should be reviewed at least annually. Indicators of a change in residual value may arise from recent sales by the airline or from wider market pricing information.

Observed practice

There is a significant divergence in useful life and residual value assumptions used across airlines reflecting differing fleet plans and intentions of how long aircraft fleet types will be utilised by different airlines.

Depreciation should be charged to the income statement in order to reflect the consumption of an airline's investment in aircraft assets over the period of their useful lives. With aircraft-related asset depreciation policies and residual value assumptions varying across airlines this can cause significant differences in depreciation expense and impact the comparability of businesses within the industry.

Depreciation methods and residual value estimates are disclosed in financial statements. Generally aircraft assets are depreciated over 15 to 25 years with residual values of between 0 to 20 percent. The straight-line method of depreciation is the most commonly used. Small changes in useful economic life and residual value estimates can have a significant impact on the profit or loss in a period.

Example disclosure:
EasyJet Plc Annual Report 2014

Residual values, where applicable, are reviewed annually against prevailing market rates at the balance sheet date for equivalently aged assets and depreciation rates adjusted accordingly on a prospective basis.

Example disclosure:
Cathay Pacific Airways Annual Report 2014

Depreciation of fixed assets is calculated on a straight line basis to write down cost over their anticipated useful lives to their estimated residual values as follows

Passenger aircraft over 20 years to residual value of the lower of 10% of cost or expected realisable value

Freighter aircraft over 20-27 years to residual value of between 10% to 20% of cost and over 10 years to nil residual value for freighters converted from passenger aircraft

Aircraft product over 5-10 years to nil residual value

Other equipment over 3-4 years to nil residual value

The depreciation policy and the carrying amount of fixed assets are reviewed annually taking into consideration factors such as changes in fleet composition, current and forecast market values and technical factors which affect the life expectancy of the assets

4. Depreciation policies for individual components (cont.)

Observed practice (cont.)

Some airlines use comparatively higher useful lives than others, but at the same time apply lower residual values compared with other airlines. Overall this results in a similar depreciation expense over the life of the aircraft. Alternatively some airlines apply an approach to assign a zero residual value at initial capitalisation and then adjust this rate accordingly when a reasonable estimated scrap value can be estimated.

Airlines may apply different depreciation rates to different types of aircraft, for example passenger and freighter aircraft. As mentioned before, there are other methods of depreciation used for aircraft and their individual components such as engines where depreciation is based on cycles or in-flight hours depending on the use.

Some airlines assume one depreciation rate for all aircraft, one such example in practice of this is where the airline has a single type of aircraft such as low cost carriers serving predominantly short-haul European destinations.

Example disclosure:
Air France-KLM Group Annual Report 2014

Aircraft are depreciated using the straight-line method over their average estimated useful life of 20 years, assuming no residual value for most of the aircraft of the fleet. This useful life can, however, be extended to 25 years for some aircraft.

During the operating cycle, and when establishing fleet replacement plans, the Group reviews whether the amortizable base or the useful life should be adjusted and, if necessary, determines whether a residual value should be recognized.

Example disclosure:
Lufthansa Group Annual Report 2014

Since 2013, new commercial aircraft and reserve engines have been depreciated over a period of 20 years to a residual value of 5 per cent.

Assets acquired second-hand are depreciated over their expected remaining useful life.

Example disclosure:
EasyJet Plc Annual Report 2014

Aircraft are depreciated using the straight-line method over their average estimated useful life of 20 years, assuming no residual value for most of the aircraft of the fleet. This useful life can, however, be extended to 25 years for some aircraft.

Observed practice (cont.)

The table shows the different depreciation rates used by airlines for different with the asset types split where the is information is provided in the notes to the financial statements given:

Figure 2: Typical depreciation rate information for different aircraft types

Airline	Aircraft/Fleet Type	Useful life (UL)	Residual Value (RV)	Depreciation Rate (DR = (100%-RV)/UL)
Air Astana	Flight equipment	10-20 years	-	5%-10%
	Rotable spare parts	5-10 years	-	10%-20%
Air China	Core parts	15-30 years	5%	3%-6%
	Airframe and cabin – refurbishment	5-12 years	-	8%-20%
	Overhaul of engine	2-15 years	-	7%-50%
	Rotable parts	3-15 years	-	7%-33%
Air France-KLM Group	Not specified	20-25 years	-	4%-5%
Cathay Pacific	Passenger	20 years	10%	5%
	Freighter	20-27 years	10%-20%	3%-5%
	Aircraft product	5-10 years	-	10%-20%
	Freighters converted from passengers	10 years	-	10%
EasyJet	Aircraft	23 years	-	4%
	Aircraft spares	14 years	-	7%
Emirates Group	New	15 years	10%	6%
	Used	5 years	10%-20%	16%-18%
	Engines and parts	5-15 years	0%-10%	6%-20%
Kenya Airways	Boeing 787, 777, 737-300, 737-700	17 years	-	6%
	Boeing 767*	3 years	-	33%
	Simulator	20 years	-	5%
Korean Airlines	Aircraft fuselage	6-15 years	-	7%-17%
	Aircraft engines and parts	15 years	-	7%
Lufthansa Group	New commercial	20 years	5%	5%
Qatar Airways	Passenger	12 years	15%	7%
	Executive	10 years	60%	4%
	Freighter	7 years	20%	11%
Singapore Airlines	Passenger	15 -20 years	5%-10%	5%-6%
	Freighter	20 years	5%	5%
	Used freighter	20 years less age of aircraft	5%	5%
	Training	5-15 years	10%-20%	5%-18%
	Simulators	5-10 years	-	10%-20%
South African Airways	Aircraft and simulators	5-20 years	-	5%-20%
Turkish Airlines	Aircraft	20 years	10%-30%	4%-5%
	Cargo aircraft	20 years	10%	5%
	Components	7 years	-	14%

*This aircraft has special circumstances resulting in an adjusted useful life

5. Aircraft asset impairment and accelerated depreciation

The airline industry is highly capital intensive. The majority of airlines have significant levels of tangible assets capitalised on their balance sheet including aircraft, related infrastructures and support assets.

Whilst capital investment is high, earnings have historically been volatile. The airline industry is vulnerable to economic recession and other factors such as high fuel prices. Asset impairment reviews may be necessary where a triggering event occurs and for a CGU including goodwill are performed at least annually, although this could be more frequent depending on circumstances.

Aircraft asset impairment may be seen either as the result of a wider cash generating unit (CGU) level review under IAS 36 or alternatively as part of the process of classifying an asset as held for sale under IFRS 5.

If there are events which suggest that the carrying value of an asset may be lower than its recoverable amount, it will not necessarily mean that an airline will recognise an impairment of this asset. This is the case for airlines where the CGUs identified include several assets and therefore the recoverable amount of those CGUs will continue to support the carrying value of the group of assets contributing to those cash flows.

It is more likely to see impairment of aircraft assets as a result of the application of IFRS 5 whereby an airline has entered into a plan to dispose of an asset or group of assets. Where these plans meet the specific criteria of IFRS 5, the asset is tested for impairment before classification as held-for-sale (HFS). On initial classification as HFS, the asset is measured at the lower of its carrying value and fair value less costs to sell.

Management is required to reassess the appropriateness of its depreciation policy at each reporting date, whether there is an impairment or not. If residual values or useful economic lives have changed airlines should amend their policies such that the depreciation charge to the profit and loss account is adjusted in line with the revised expectations.

What are the factors that could trigger aircraft impairment or accelerate depreciation?

Airlines assess aircraft assets for impairment or consider the appropriateness of their current depreciation policies based on a number of difference factors including:

- Idle assets
- Making decisions to dispose of aircraft or related assets in advance of their original retirement date
- Planned fleet replacement or retirement of a class of assets
- Changes or volatility in resale markets or expected resale value
- A CGU impairment where aircraft in the CGU may be impaired as a result
- Changes in technology
- Economic and market factors

For spare parts classified as fixed assets, which relate to a specific type of aircraft for which an impairment has been recognised, it is normally necessary to also review these for impairment to ensure their carrying value is appropriate, as it is likely they will have limited other uses. For any spare parts held in inventory, IAS 2 applies, therefore the assets will be measured at the lower of cost and net realisable value.

Key accounting judgements and estimates

Evaluation of the asset carrying value and possible impairment involves judgement over future variables such as resale market activity or forecast capital expenditure and cash inflows of a particular cash generating unit.

Observed practice

Under IAS 36 for each class of asset any impairment loss recognised or reversal of a previous impairment, must be disclosed with the events and circumstances that led to the recognition or reversal of the impairment loss. The value of the loss and whether this has been recognised in the income statement or other comprehensive income in the case of revalued assets.

5. Aircraft asset impairment and accelerated depreciation (cont.)

Observed practice (cont.)

Additionally, extra detail is required detailing the nature of the asset, the recoverable amount of the asset and whether the revised value represents its fair value less costs of disposal or its value in use.

Airlines typically recognise impairments for groups of aircraft assets with the most common reason given being the upgrade of the existing fleet. Where this forms a significant impairment in line with the requirements outlined above, the airline disclosed the reason for the impairment in their financial statements.

Example disclosure (General):
International Airlines Group 2014 Annual Report

The carrying value is reviewed for impairment when events or changes in circumstances indicate the carrying value may not be recoverable and the cumulative impairment losses are shown as a reduction in the carrying value of property, plant and equipment.

Example disclosure (IFRS 5):
Lufthansa Group 2014 Annual Report

Impairment losses of EUR 137m were recognised the previous year. EUR 124m of the total was recognised for a total of 44 aircraft either available for sale or to be decommissioned successively in line with current corporate plans and which were written down to fair value less costs to sell.

Other operating expenses included additional write-downs of EUR 8m on aircraft and repairable spare parts for aircraft, which were shown in the balance sheet as of 31 December 2013 under assets held for sale.

Sources

The following sources have been used in this ADG:

Air Astana 2014 Annual Report

Air China Limited 2014 Annual report

Air France-KLM Group 2014 Annual report

Cathay Pacific Airways Limited 2014 Annual Report

EasyJet Plc 2014 Annual Report

Kenya Airways 2014 Annual Report

Korean Air lines co. Ltd. 2014 Annual Report

Qatar Airways Q.C.S.C. 2013 Annual Report

Singapore Airlines Limited 2015 Annual Report

South African Airways Group 2014 Annual Report

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