

Credit Risk or Business Intelligence.

When financials don't provide the full picture.

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This article is in two sections. Section 1 explores the current leasing market, while section 2 explores the steps to take when analysing a new, or riskier, operator.

Section 1

By October 2017, there have been numerous high profile airline failures in what is generally thought to be one of the safest jurisdictions for doing business - Europe. Monarch, VIM, airberlin, and Alitalia have all filed for bankruptcy this past year. Monarch might be the least surprising failure but airberlin : an Etihad backed, long-time favourite amongst lessors for its ease to work with, and Alitalia: a flag carrier with a history of government support that many thought would continue ad infinitum were more surprising. Each of these airlines suffered for three main reasons: heavy competition, a lack of adaptation to competition and the removal of financial support from their investors.

It comes as no surprise that some airlines are failing, in particular within Europe's competitive market. While benign in operating terms, consolidation has been overdue as there are too many airlines operating in Europe. Those that are slow to change or occupy a grey area in terms of business model are those that have struggled financially.

Along with weak financials, a number of other warning signs were also present upon deeper research: utilisation and aircraft parked, murmurs from maintenance shops or forums, all which IBA was feeding back to lessors where appropriate.

How can lessors and investors alike feel confident in placing aircraft, when even airlines in one of the most stable and aviation friendly regions of the world are susceptible to failure?

IBA maintains that financial analysis alone is not enough to fully understand the risks associated with operators. Annual accounts don't always identify upcoming, or even current, issues. Similarly, operators display a wide range of values when benchmarking ratios. IBA tracks over 100 airlines as part of its IBAS airline risk service score. The table below highlights fixed charge cover variances across both the whole dataset and each tier, with a 22x variance for our tier 1 operators alone.

Fixed charge cover spread

	Tier 1	Tier 2	Tier 3	Tier 4
Min	1.0	0.3	-0.3	0.1
Max	22.2	11.1	1.9	0.7
Avg	4.1	2.2	1.1	0.3

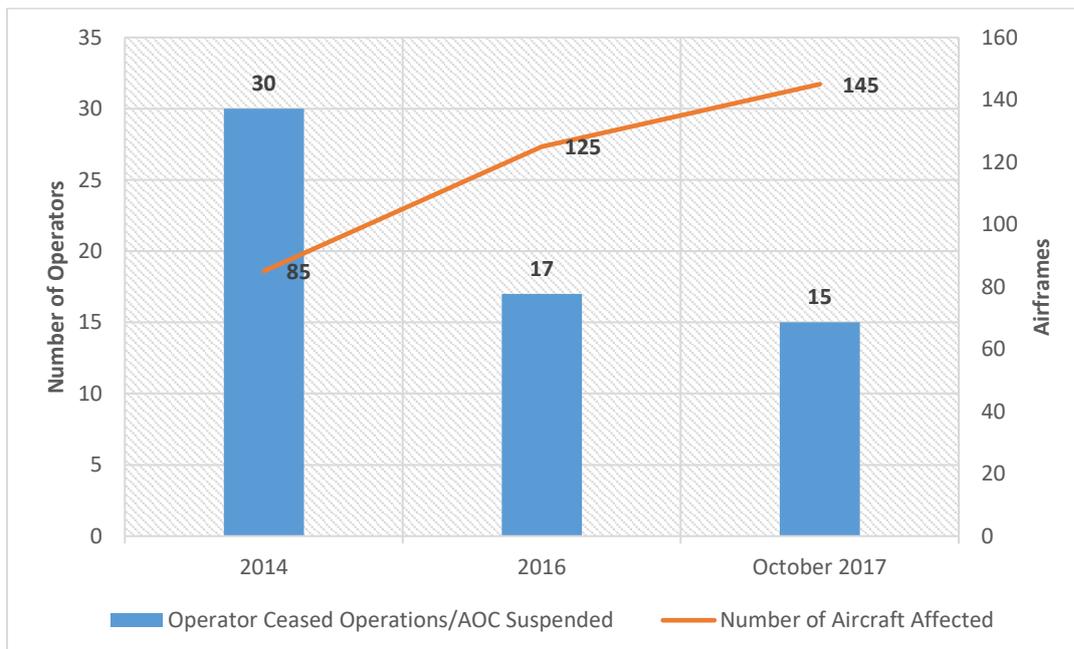
IBA has noticed recently, clients have been taking a more defensive position and are asking more questions about an operator’s access to additional funds rather than earning or leverage.

In the recent airline failures, aircraft returns to lessors were largely carried out efficiently and amicably. However, these still resulted in high costs for lessors, which IBA estimates at around US\$ 800k per aircraft, hopefully not causing more expenditure than the security deposit provided.

So the headline “good news” story from most affected lessors has been that aircraft that have been or are in the process of being placed rapidly, it is inevitable that the ensuing new lease rates will be lower than the previous lease. Likewise the associated details of delivery/redelivery conditions will have swung in favour of the new lessee than in favour of the lessors.

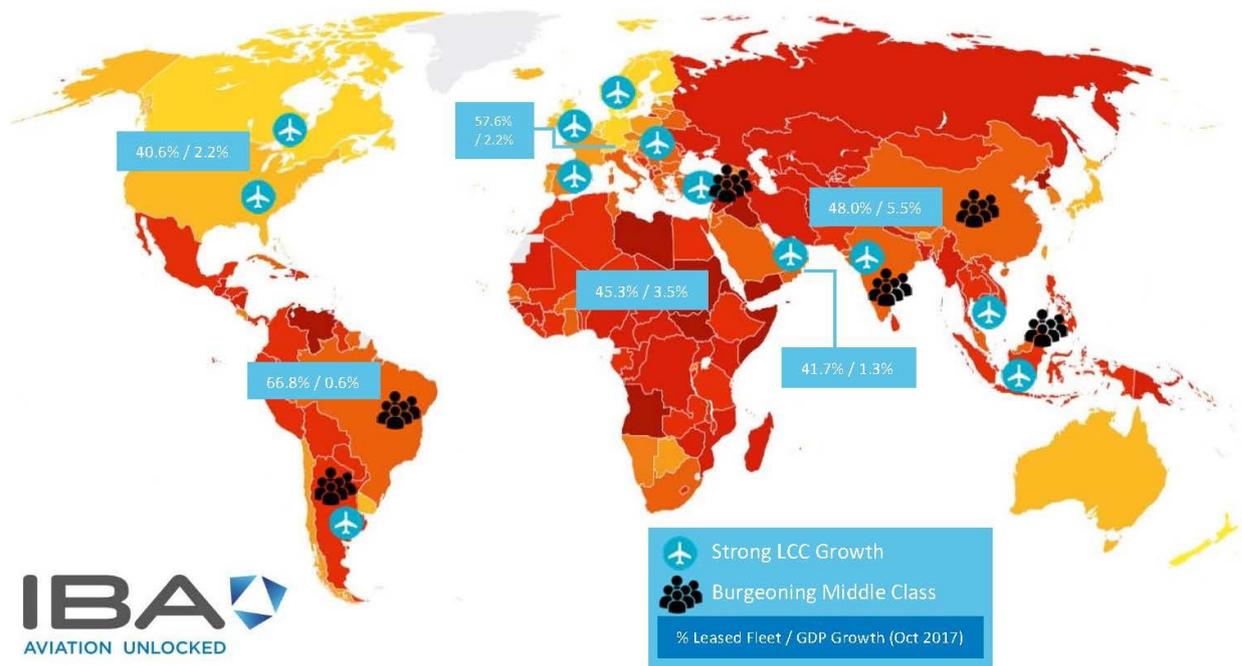
Analysing the airline failures, we were expecting to see a ramping up for 2017 but as the graph below shows, this is only true of aircraft numbers, not operators.

Ceased & Suspended Operators and Affected Fleet



To IBA, the world felt a more volatile place in 2017 than 2016, given events in North Korea, plus the Qatar situation, the return of Argentina after previous defaults, the return to Turkey, plus closer scrutiny from regulators upon OEMs, lessors, banks and investors.

When we analysed World Bank and Transparency International data, more countries had declined than improved on the latest release of results, however the results were marginal. What was striking was the correlation between GDP growth, LCC development and propensity for corruption. Outside of Western Europe and North America, the rest of world is, on paper a potentially tricky place to operate.



(Sources: Transparency International Corruption Perception Index 2016, IBA.iQ November 2017, IMF October 2017)

The new US administration is making waves, including a ban on Personal Entertainment Devices (PEDs) from a number of Middle East and African countries. This saw Emirates scaling back some of its North American services and led to further accusations of protectionism.

The most recent political storm which may affect the aviation market is President Trump’s push to withdraw the United States from the Iran nuclear deal. The move still needs to be approved by congress, however if the motion were to pass all deals with Boeing would be at risk, totalling circa US\$ 19 billion.

Another political dispute involving Gulf carriers is the blockade of Qatar by a number of Arab nations (Saudi Arabia, UAE, Bahrain and Egypt). This has seen a number of flights operated by Qatar Airways axed, whilst other flights have had to make significant diversions, adding time to flights and increasing costs. Qatar Airways has also found itself with excess capacity, in particular for its fleet of Airbus A320 family aircraft which are primarily operated on regional routes.

In Europe, the debate over how the UK will leave the EU continues and at the time of writing, there is still no clarity on an agreement for aviation. Airlines based in the UK and EU need some sort of clarity soon, as the way the industry works means that a long build up is needed. For example, fleet and route planning as well as the associated sales and marketing of the holidays/flights/hotac that the tour operators need in place means around 15 months lead time so unless there is clarity before March 2018 schedules will be left in abeyance.

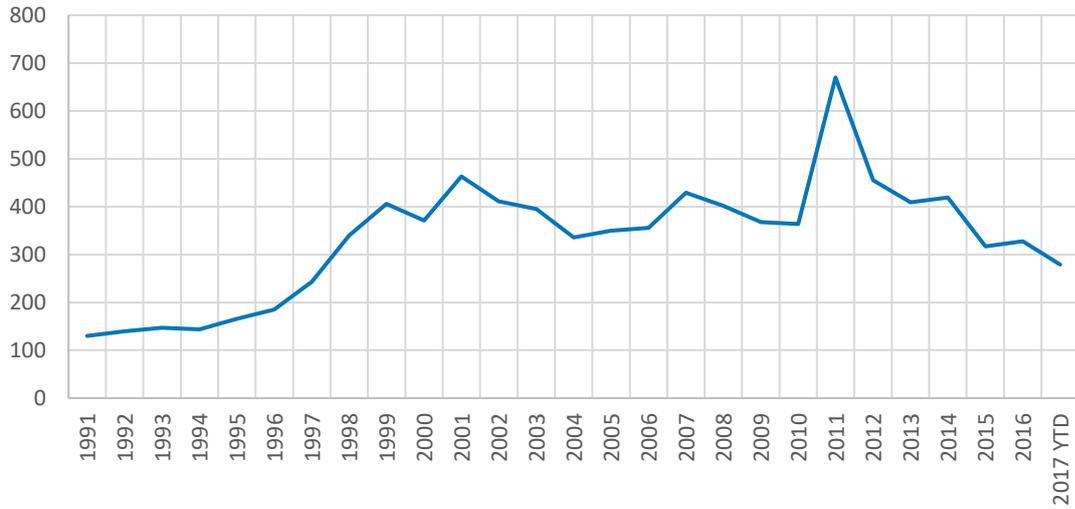
To see the result of terrorism, one only has to look at the collapse of Monarch, a carrier which was largely dependent on tourism in Egypt and Turkey. An IATA study has showed that terrorism related incidents which occurred in late 2015 and early 2016 reduced traffic by 1.6% with reduced revenues by US\$ 2.5 billion for the worldwide aviation industry. But for Monarch the percentage impact was much higher (circa 20-25% of its programme) given the exposure it had to the previously popular Tunisian, Egyptian and Turkish destinations. It became a “perfect storm” with revenues and costs up due to the high level of US Dollar exposure that Monarch had from its all leased fleet and fuel costs. On a positive note, whilst 2016 was a poor year for Turkish Airlines due to the failed coup, and terrorism incidents, Turkish traffic for 2017 has almost seen a full return to form. Ironically, Monarch would have posted a much better result if it had remained steadfast to its UK-Turkish routes for the summer season.

At IBA we have seen an uptick in riskier-credit deals, likely on the back of the competitiveness of the sector driving the search for yield.

The market has witnessed an unprecedented surge in aircraft leasing over the past few years triggered by low interest rates, an above average rise in passenger traffic, high oil pricing, and attractive returns. New arrivals have since entered the space in large numbers, mostly from China, and the demand for deals has reached an all-time high.

The lessor market is so competitive currently that Lease Rate Factors (LRFs) are coming under continued pressure in particular for new types. The low lease rates have dissuaded a number of lessors from the sale and leaseback market as can be seen from the chart below.

Sale and Lease Back Transactions 1991 - 2017



Source: IBA.iQ

With competition for deals fiercer than ever and investors and lessors hunting further afield for yield, how best to assess your risk as you enter a new deal? In the next section we highlight IBA's approach to best mapping and managing risk.

Section 2

IBA provides robust intelligence gathering and analysis in relation to assessing risks related to operating leases. In this section we have highlighted the typical areas we address across the asset, the operator and the jurisdiction, plus we provide some mitigation factors which can be deployed to further reassure.

The Asset

What can impact asset liquidity and values? Assuming the operator has selected aircraft on parameters such as: payload range, operating economics and costs, position in the production cycle, availability and price, then the next key decisions will revolve around macro factors such as:

- ▶ New technology and new aircraft – what is on the horizon that will impact value
- ▶ Macro-economic factors: GDP, inflation and interest rates all impact demand. None more so than oil price. Forecast to creep up in 2018, few people expect a return to \$100+ a barrel

Once comfortable with performance, price and external risks, influencers of residual value should be assessed. In terms of desirable traits, IBA would highlight the following to look out for:

- ▶ Large market share
- ▶ Lots of operators
- ▶ Good geographic spread
- ▶ Popular among lessors
- ▶ Large and consistent orders,
- ▶ Deliveries and backlog
- ▶ Strong performance from operator base
- ▶ Numerous end of life options, including freighters

Riskier characteristics include:

- ▶ Four engined aircraft,
- ▶ Niche aircraft – either by type or by subset, for example low MTOW.
- ▶ Small operator base
- ▶ OEM-influenced aftermarket
- ▶ Lots parked or available

The above list is excellent at the generic level. For specific aircraft, there is then a further list of considerations and determinants of value. These include:

- ▶ Age
- ▶ Utilisation
- ▶ Maintenance record and status
- ▶ Internal and external condition
- ▶ Lease quality and length
- ▶ Reserves and return conditions
- ▶ Number in service/on order
- ▶ Reliability

In summary:

- ▶ Narrowbodies are lower risk given the volumes in service, the large operator bases, the relative ease of remarketing and relatively low cost of reconfiguration and transition. For instance, to our knowledge the recent collapses
- ▶ Widebodies offer larger rentals, fewer maintenance events and often better credits – but higher risk in relation to a default or handback, given the much greater costs in relation to transitions and reconfiguration

The Operator

Financing the most attractive assets is of little consequence if the operator is struggling and perhaps here, when understanding risk, is where the greatest focus is given the range of qualitative and quantitative factors in play.

Operators come in many strategic shapes and sizes. We're aware, for example of at least four different strategies in play in the burgeoning LCLH sector. To that end, there are some high level traits that, all other things equal, are less risky – For example:

Less risky characteristics

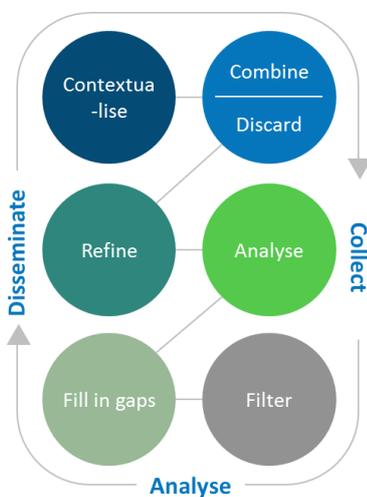
- ▶ Robust backing from markets, states, or large shareholders familiar with aviation
- ▶ Proven and understood strategy across operations and marketing
- ▶ Access to capital to fund expansion or opportunities

Riskier characteristics

- ▶ Targeting a niche, especially one tried previously without success
- ▶ Poor marketing impacting load factors
- ▶ Unclear and/or shifting strategies
- ▶ Established player not adapting to change

At IBA, we take an alternative view to operator risk. We combine key financial information to understand the operator’s revenue, profitability, balance sheet and cash position. However, we feel financials tell part of the story given the dated nature of some, the spread of key ratios and the speed with which situations can change. Key flags we look out for when analysing financials include:

- ▶ Patchy and seasonal earnings
- ▶ Poor margins, despite the near halving of oil over the last three years
- ▶ Reliance on exceptionals
- ▶ Poor FX position
- ▶ Very highly leveraged; and
- ▶ Unclear level of access to additional capital



Alongside financial information, we’d recommend casting the research net much wider. Each of our assessments is a little different depending on specific risks, but we start by looking at:

- ▶ **Operational efficiency:** Here we combine data around traffic, pax and load factors with our view on the operator plus the views of other stakeholders. From these discreet discussions we aim to build a picture of how the lessee truly operates, as data can only tell you so much, plus we look to gather specific insight around four areas: records, maintenance, payments and redelivery track record, where there is one. Well executed, this type of intelligence drives decisions and on numerous occasions has enabled lessors to confidently lend to lessees at premium rates when the risk was otherwise too great.
- ▶ **Strategy:** is it clear? If not why not? If is it clear but ostensibly riskier, (LCLH, premium positioning in cost sensitive jurisdictions, etc. what evidence is there of successful execution.
- ▶ **Ownership:** Unclear shareholders or owners are always a concern, as is appetite. For one, loss-making operator relying on JV partners, assessing their appetite for funding was critical.
- ▶ **Access to capital:** tied to the above, we assess whether the operator has access to capital markets, or other private debt or equity.
- ▶ **Management team.** Today, it’s less the credibility of management teams themselves as most are excellent. We look more at the execution of strategy, who really calls the shots in subsidiaries, JVs and government backed airlines, and how long they are in position. In one example, we highlighted the CEO was replaced every 18-24 months and suggested this was less than ideal, given 18 months about the period needed to oversee significant change.
- ▶ **Fleet:** Using IBA *iQ*, we research fleet size, composition and percentage of owned fleet to feed opinion on the importance of your assets to the fleet and the efficiency of the spread of asset types.

Jurisdiction

At this stage we now have a robust, independent view of the operator and need to better understand the jurisdiction. Turkey and Egypt are unfortunate examples of some lessors getting caught out, whereas Argentina and India are two regions where we a little surprised by the speed of market entry give previous challenges.

When we conduct country analysis, we look to answer a series of questions:

- ▶ What is the likelihood and impact of regime change. In numerous countries, state owned carriers would be privatised or even abandoned under new government.
- ▶ How robust and bureaucratic is the legal system. Capetown is useful but not a panacea. Supplementing legal expertise, we look at practical aspect of disputes – are overseas judgements enforced for example.
- ▶ How straightforward are repossessions. As above, we work with lawyers to assess the complexity of a friendly or hostile repossession.
- ▶ Is corruption a concern. Bags of cash are rarer these days but being aware you might be asked for payments is useful in terms of planning a response.
- ▶ What economic or political factors might impact growth.

As with the operator research, we supplement desktop research with a number of conversations with people close to the immediate situation.

Mitigation

When a deal looks attractive but risky, there are further steps to take to mitigate risk. If there is a trend here, it's that less reserves are being paid and that less monitoring is being done. We believe lessors will be caught short as a result. There are three main ways to mitigate your risk:

Financial: your own, or IBA's, analysis can be used in negotiations around reserves, lease rates, and security deposits. When the lessee is considered riskier, we might also recommend more frequent inspections or access to quarterly management accounts.

Technical: In addition to the financials, especially when red flags are raised, we also explore the operator's technical competence. This is especially important when taking on a new lessee or delivering new-gen aircraft.

In a technical DD, the team will assess the operator's ability to maintain the aircraft to the standards required of the lease. We might also assess:

- ▶ Location and condition of records. While digitisation of records has reduced the risk of loss of damage, we are a long way from universal digital records and loss or language concerns can still have a significant impact on value or transition time.
- ▶ Condition of aircraft and storage facilities.
- ▶ Location and condition of spares, engines in particular

Inspections then continue on an annual or semi-annual basis, depending on results.

Monitoring

As we explained in a [previous article](#), we expanded the areas we monitor or advise clients to monitor in response to rapid change in Turkey.

We had previous success at spotting concerns early when conducting operator audits but even these would not address well-performing operators impacted by external circumstance beyond their control. As such we expanded our program from reviewing:

- ▶ Records management
- ▶ Maintenance records
- ▶ Utilisation trends
- ▶ Payment delays
- ▶ Employee unrest and departures
- ▶ The increase of contract disputes
- ▶ Route changes and/or cancellations
- ▶ Rumours and reports of deferrals

To also including:

- ▶ Economic concerns: inflation or currency issues, production slowdowns, national strikes
- ▶ Political concerns: regime change or instability, military interventions, civil unrest
- ▶ Regulatory concerns: fleet age legislation, EASA bans
- ▶ Reputational concerns: information around suspicions of fraud or corruption around stakeholders, or news on management's credibility or activities.

IBA is able to deliver actionable intelligence around the value of an asset, the operator's ability to retain that value, the political and economic direction of key jurisdictions, and both the likelihood and the impact of default.

Whether considering the transaction risk, assessing an investment opportunity, setting deposits rentals and reserves, or informing negotiation around second leases – IBA's analysis can deliver greater transparency around decision-making, resulting in:

- ▶ Higher margins
- ▶ Improved contract terms
- ▶ Reduced risk
- ▶ A more efficient spread of credits

If you have any questions, comments or feedback, please contact:

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