2014 AIRLINE INSURANCE REVIEW

MARCH 2015

INTRODUCTION

We came into 2014 on the back of a market driven by a wealth of capacity and a lack of major losses, for both the airline and aerospace sectors.

In 2013, airline underwriters saw premiums decrease and claims increase, mainly due to high-value hull losses. Underwriting profitability depended on whether or not an individual insurer had participated on those risks that had suffered major losses.

The aerospace sector had benefitted from the airlines' improved safety levels, meaning fewer manufacturers were being brought into litigation. However, during 2014, a spate of accidents during test or demonstration flights did adversely impact renewals.

The year 2013 saw increased competition as insurers were looking to subsidize their airline income by increasing their share of aerospace risks and, in some cases, by deciding to participate in this class for the first time. The year 2014 began with the very same factors that had been driving the market for the previous few years (see opposite).

CAPACITY

There continues to be an abundance of capacity for airline risks across all aspects of the sector, from hull and liability to excess war liability. This is driven by a number of factors:

1. Most aviation underwriters are now part of a "composite" entity, which maintains a varied book of business across the entire property and casualty (P&C) sphere. Rating agencies tend to be far more comfortable with underwriters that have a spread of business across multiple classes. In the past, poor-performing portfolios were closed; however, this is rarely seen today.
2. While major losses have tended to involve large hull values, the majority of fatal accidents have involved less litigious regimes.
3. Airline risk is attractive to underwriters, due to the large premium levels generated. This premium assists underwriters in achieving their income targets.
4. Large losses are rare and impact relatively few underwriters; therefore, the potential profitability represented by this category of risk is extremely attractive to insurers.

As a result, 2014 saw a number of new aviation underwriting units, such as Altitude Risk Partners and Cathedral.

ADDITIONAL CAPACITY DRIVERS

Although there is an abundance of capacity in the airline market, the level of capacity available for each individual risk varies greatly at times, and is influenced by a number of factors, including:

- Maximum hull value required:

  The introduction of the Boeing B777 and Airbus A380 saw hull values reach new highs. Recently, with the launch of the Boeing B747-800, maximum hull values for commercial operations have, in certain cases, exceeded US$400 million. To a certain extent, such hull values will effectively reduce the amount of capacity by restricting the maximum potential line size of some insurers.

- Liability limit required:

  As an underwriter's maximum available line size diminishes, the higher the liability limit required. Some underwriters participate on a "maximum dollar" basis rather than a "maximum percentage line" basis; therefore, the lower the limit, the greater their line can be. Consequently, capacity for airlines with lower limits will be greater than that which is available for a major international carrier.

- Country of domicile:

  A number of underwriters have taken the decision not to participate on airline business domiciled in the US. This is generally due to the desire to avoid the litigious US environment and its perceived high award levels. Yet although this removes the direct exposure to US litigation, past claims from outside the US have still seen some litigation undertaken in the US courts. While US litigation is not entirely avoided, exposure to it is reduced, and reinsurers do give credit to direct underwriters in the pricing of their reinsurance programs.

  Some underwriters shy away from certain airline operating territories. Airlines operating in countries where the infrastructure is perceived to be below "normal" standards may find that capacity is restricted, as a number of underwriters may decide not to participate.

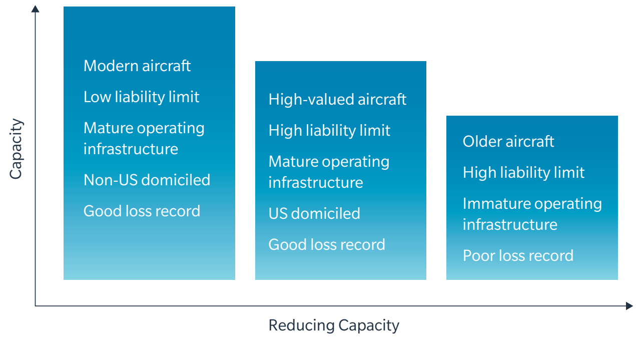
- Maximum seating:

  Underwriters have varying definitions of what constitutes a "general aviation" risk. One of the key factors is the number of passenger seats on an aircraft. For example, while one underwriter may define a general aviation risk as an aircraft having up to 75 seats, another may use 60 seats as its cut-off point. This is significant, as reinsurance structures typically allow underwriters to write a larger percentage of a general aviation risk.

- Safety record:

  An airline with a good safety record, and which has built up a positive credit balance with underwriters over the years, will be a far more desirable risk than an airline with a poor loss record.

CAPACITY MATRIX



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LOSSES

Airline safety has vastly improved over the last few years, as the following extract from the Flightglobal *Airline Safety & Losses – 2014 Review* confirms:

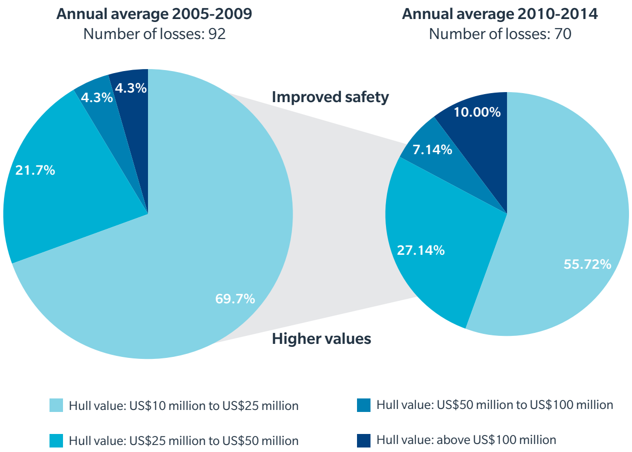
> *The number of fatal accidents decreased in 2014, going from 19 in 2013 to 16 last year. However, because three of these accidents happened over a short two-to-three week period immediately following the second Malaysia loss, this gave rise to the media's "worst year ever" scare stories. This underlines the belief that it is not the fatal accident rate but accident frequency that the industry's safety is judged by.*
>
> *2014 has continued the trend of improving safety but is unlikely to be thought of in those terms. The average annual number of fatal accidents for the last five years is 20.4. The annual average for the period 2000-2009 was 27.4 while the 1990s average was 37.9. The annual averages for the 1980s and 1970s were 33.1 and 40.0 respectively.*

In addition, Marsh's own loss analysis has made one issue very clear: although airline safety has improved in recent years, the value of the aircraft involved in these losses has increased — as has the number of passengers they carry.

The world's airline fleets have been getting younger and the majority of aircraft flying are newer and more expensive than in previous years. Today, lessors are leasing out newer aircraft and requiring airlines to carry much higher insured values in order to cover any potential losses.

FIGURE 1. DISTRIBUTION OF HULL CLAIMS BY VALUE

Source: Marsh



Our analysis shows that 70% of hull losses between 2005 and 2009 were valued between US$10 million and US$25 million, with just 4% being valued at more than US$100 million. These figures change significantly for the five years since 2010, during which time slightly more than 55% were valued between US$10 million and US$25 million, and more than 10% were valued at more than US$100 million.

Therefore, while loss frequency is improving – the year 2012 being a prime example – hull claims are higher on average and those that are not major losses tend to be net losses to insurers, as they fall below the level of claim required to activate an underwriter's reinsurance program.

FIGURE 2. ANNUAL FATAL ACCIDENTS (JET AND TURBOPROP AIRCRAFT) – 2005-2015

Source: *Airline Safety & Losses – 2014 Review*, Flightglobal

YEAR	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
FATAL ACCIDENTS	33	23	25	28	23	27	25	15	19	16

FIGURE 3. FATAL ACCIDENTS (JET AND TURBOPROP AIRCRAFT) – DECADE AVERAGES

Source: *Airline Safety & Losses – 2014 Review*, Flightglobal

PERIOD	1970 – 79	1980 – 89	1990 – 99	2000 – 09	2010 – 14
ANNUAL AVERAGE	40.0	33.1	37.9	27.4	20.4

MAJOR CLAIMS DURING 2014

FIGURE 4. (CLAIMS IN EXCESS OF US$10 MILLION)

Source: Marsh

DATE OF LOSS	AIRCRAFT TYPE	SEVERITY	FATALITIES/ INJURIES	BRIEF DETAILS
JAN 5	A320	MP	0 FATALITIES/ 0 INJURED	AIRCRAFT LEFT RUNWAY ON LANDING DUE TO POOR WEATHER CONDITIONS.
JAN 26	B737-300SF	CTL	0 FATALITIES/ 0 INJURED	AIRCRAFT DAMAGED AFTER UNDERCARRIAGE (U/C) COLLAPSED ON LANDING.
FEB 13	A320	MP	0 FATALITIES/ 0 INJURED	ENGINES DAMAGED BY ASH CLOUD.
MAR 8	B777-200ER	TL	239 FATALITIES	AIRCRAFT DISAPPEARED FROM RADAR OVER THE SEA; CAUSE UNKNOWN.
MAR 13	A320	CTL	0 FATALITIES/ 0 INJURED	AIRCRAFT DAMAGED AFTER U/C COLLAPSED ON TAKE OFF.
APR 14	A320	MP	0 FATALITIES/ 0 INJURED	AIRCRAFT DAMAGED FOLLOWING COLLISION WITH ANOTHER AIRCRAFT WHILE TAXIING AT AN INTERNATIONAL AIRPORT – NO INJURIES RESULTED.
JUN 3	IL96	MP	0 FATALITIES/ 0 INJURED	AIRCRAFT SUBSTANTIALLY DAMAGED BEYOND REPAIR BY FIRE WHILE PARKED WITH NO ONE ON BOARD.
JUL 14	VARIOUS	MP TO TL	—	A NUMBER OF AIRCRAFT WERE DAMAGED/ DESTROYED DURING ATTACK ON TRIPOLI AIRPORT.
JUL 17	B777-200ER	TL	298 FATALITIES	AIRCRAFT SHOT DOWN WHILE FLYING OVER UKRAINE.
JUL 20	VARIOUS	TL	—	AIRCRAFT DESTROYED DURING A FURTHER ATTACK ON TRIPOLI AIRPORT.
JUL 20	ATR72	MP	0 FATALITIES/ 0 INJURED	AIRCRAFT DAMAGED WHEN NOSE GEAR COLLAPSED ON LANDING.
JUL 23	ATR72	TL	48 FATALITIES/ 10 INJURED	AIRCRAFT CRASHED WHILE ATTEMPTING AN EMERGENCY LANDING DURING A TYPHOON.
JUL 24	MD83	TL	116 FATALITIES	AIRCRAFT CRASHED EN-ROUTE OVER MALI; A SANDSTORM IS BELIEVED TO HAVE CAUSED THE CRASH.
NOV 24	B747-800F	MP	0 FATALITIES/ 0 INJURED	AIRCRAFT SUSTAINED SUBSTANTIAL STRUCTURAL DAMAGE FOLLOWING HEAVY LANDING.
DEC 28	A320	TL	162 FATALITIES	AIRCRAFT CRASHED INTO THE SEA OFF THE COAST OF INDONESIA AS A RESULT OF BAD WEATHER.

NOTE: MP – MAJOR PARTIAL LOSS, CTL – CONSTRUCTIVE TOTAL LOSS, TL – TOTAL LOSS

2014 RENEWAL CALENDAR

FIGURE 5. FIRST QUARTER

Source: Marsh

MONTH	NO. OF RENEWALS	PREMIUM IN US$	PREMIUM % CHANGE	RATE % CHANGE	COMMENT
JANUARY	3	13,979,164	+15.5%	-19.8%	SOFT MARKET CONDITIONS
FEBRUARY	3	5,236,001	-21.7%	-33.2%	SOFT MARKET CONDITIONS
MARCH	6	14,072,164	-19.3%	-22.1%	SOFT MARKET CONDITIONS
1ST QUARTER	12	33,287,329	-8.1%	-23.1%	

Following three profitable years, 2013 saw insurers make an overall loss. However, there was a great degree of disparity between underwriters. Those that did not participate on the larger losses were more likely to have made a profitable return. Therefore, going into 2014, market conditions remained soft and renewals were expected to continue to experience premium and rate reductions.

The first quarter is traditionally a quiet period for airline renewals. Renewal result trends continued in-line with the final quarter of 2013. However, the average premium change was skewed by one particular airline, with a substantial premium increase resulting from its average fleet value growing by more than 150%. Also, another airline had its loss additional premium removed at renewal.

The market was shocked by the disappearance of MH370 on March 8, 2014, with the initial hull payment being split between the hull all risks market and the hull war market.

There was, however, no immediate effect on renewal results. High levels of capacity in the all-risks market meant that a number of major underwriters missed the loss and, consequently, were not seeking to increase their rates. For hull war underwriters, the 50% contribution to the MH370 loss eroded more than 70% of the estimated annual premium income. Despite this, there was no immediate push by them for rate and premium increases.

FIGURE 6. SECOND QUARTER

Source: Marsh

MONTH	NO. OF RENEWALS	PREMIUM IN US$	PREMIUM % CHANGE	RATE % CHANGE	COMMENT
APRIL	12	97,797,205	-3.3%	-10.7%	SOFT MARKET CONDITIONS
MAY	10	33,815,364	-16.4%	-16.6%	SOFT MARKET CONDITIONS
JUNE	19	57,888,319	-7.5%	-13.2%	SOFT MARKET CONDITIONS
2ND QUARTER	41	189,500,888	-7.2%	-12.6%	

April saw the first significant renewals of the year, with three major airlines renewing, each with fleet values exceeding US$10 billion. While rate reductions were still obtained, exposure growth on these renewals resulted in modest premium increases.

May saw renewal results resume to levels seen in the first quarter, while the June renewals included a number of airlines with substantial fleet growth, which offset rate reductions and saw the level of premium erosion slow down.

The setting of the liability reserve for MH370 in May had no effect on the market, although there was considerable talk about "another major loss pushing the market over the edge." What was most significant was the search and rescue quantum within the MH370 reserve, which represented the first time that the actual cost of searching for an aircraft had become a key factor in a loss. The Air France loss in 2009 resulted in only the cost of salvage being included in the overall claim. So underwriters concerned by the potential escalation of costs started to review and limit the level of search and rescue cover offered within the primary hull and liability policy.

FIGURE 7. JULY AND AUGUST

Source: Marsh

MONTH	NO. OF RENEWALS	PREMIUM IN US$	PREMIUM % CHANGE	RATE % CHANGE	COMMENT
JULY	33	106,765,212	-10.6%	-14.3%	SOFT MARKET CONDITIONS
AUGUST	7	20,745,788	-7.2%	-14.9%	HARDENING MARKET CONDITIONS TOWARDS END OF MONTH

July saw a spate of losses, including the attack on Tripoli Airport, the shooting down of MH17 over the Ukraine, and the Air Algerie (Swiftair) loss. The attack on Tripoli Airport saw a large number of aircraft damaged and/or destroyed during fighting between rebel and government forces. The majority of the aircraft were placed under the Libyan Airlines Holding Co. program, which includes Afriqiyah Airways and Libyan Arab Airlines. The overall loss is estimated to be around US$450 million, making it the second largest hull war loss in history (the largest resulting from the destruction of aircraft during the invasion of Kuwait in August 1990).

Three days after the attacks in Tripoli started, MH17 was shot down, killing all on board. This added a further high-valued aircraft to the total hull war losses for the year, as well as impacting the main liability placement, with 228 fatalities.

On July 23, another total loss occurred when a TransAsia ATR72 crashed while attempting to land at Taiwan's Songshan airport, resulting in 40 fatalities and 10 injuries. The following day, a Swiftair MD83 flying on behalf of Air Algerie disappeared over Mali, resulting in the death of all 116 on board.

The majority of renewals during July and August had been negotiated before these three losses occurred and, therefore the premium levels and rates of reduction were unaffected. However, leading underwriters involved in the losses stated that premium levels needed to increase as they believed that a base premium of US$2 billion was a prerequisite for the airline market to be viable going forward.

Nonetheless, those insurers that did not participate on these major losses were willing to be more competitive and, although agreeing with the need for US$2 billion premium, were looking to achieve this over a longer period of time.

The hull war renewals saw a much more marked response from underwriters, following the high number of hull war losses, with some insurers looking to increase premium levels by 300%. However, this was quickly tempered with new capacity from providers entering the market. Having not participated on the risks that suffered major losses in 2014, they were able to provide more competitive terms and premiums than those sought by incumbent insurers. As a result, the level of premium increases achieved by the market fell quite dramatically in a very short space of time.

FIGURE 8. SEPTEMBER AND OCTOBER

Source: Marsh

MONTH	NO. OF RENEWALS	PREMIUM IN US$	PREMIUM % CHANGE	RATE % CHANGE	COMMENT
SEPTEMBER	7	15,780,014	+10.1%	+4.0%	HARD MARKET CONDITIONS
OCTOBER	7	61,412,680	+22.7%	+22.5%	HARD MARKET CONDITIONS

September and October definitely saw the hardest of the 2014 market conditions. Given that the renewal negotiations that took place during this time were following this quick succession of major losses, they were naturally heavily impacted by these events, resulting in insurers imposing significant rate increases.

October saw the first of the airlines that had suffered a major loss in July renew, with a significant up-lift in premium and the introduction of a Loss Penalty Premium (Loss AP).

The remainder of the all risks renewals saw the continued fracturing of the market. All insurers sought premium increases, but those underwriters that were not impacted by the major losses accepted much smaller increases than those insurers that were. So while, in many cases, the incumbent lead was seeking relatively high premium increases, brokers had already placed a substantial portion of the risks with the more competitive insurers. As a result, some insurers that were holding out for large premium increases ended up missing out altogether.

Hull war insurers hit by the recent losses saw their desired premium increases being driven down by insurers that had missed them. This forced them to review their targets in order to maintain participation on risks.

FIGURE 9. NOVEMBER AND DECEMBER

Source: Marsh

MONTH	NO. OF RENEWALS	PREMIUM IN US$	PREMIUM % CHANGE	RATE % CHANGE	COMMENT
NOVEMBER	32	280,839,298	+11.1%	+4.0%	SOFTENING MARKET CONDITIONS
DECEMBER	56	681,484,065	+5.1%	+0.7%	SOFTENING MARKET CONDITIONS

November and December saw the level of premium and rate increases slow down. With nearly US$1 billion of premium income available during this period, underwriters were concerned with the possibility of missing their income targets and so became more competitive than in previous months.

There were exceptions; insurers with large participations on the airlines that suffered losses continued to seek significant premium increases but, once again these were tempered by other insurers who had not participated on the losses and were, therefore able to be more competitive.

2015 AND BEYOND

So far, little appears to have changed as a result of the events of 2014. At worst, underwriters are seeking to maintain premium levels, and will give rate reductions to airlines with growth. However, they are also seeking to increase rates for those airlines declaring reduced exposures or significant losses.

It should be noted that insurers remain concerned about the level of premium, and how much of it is eroded by attritional losses, leaving insufficient premium to cover a catastrophe. Those airlines with high attritional losses are being treated more conservatively than others, and this is set to continue during 2015.

The market continues to be driven by high levels of capacity and a lack of major losses. This means that for any given insurer that has been hit by losses and is seeking significant premium increases, there is another insurer that has missed these losses and is more than willing to take their place.

The current fractured nature of the market means that the US$2 billion of premium income currently desired seems out of reach for underwriters, and it will take an extraordinary run of events for things to change.

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MARSH

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