



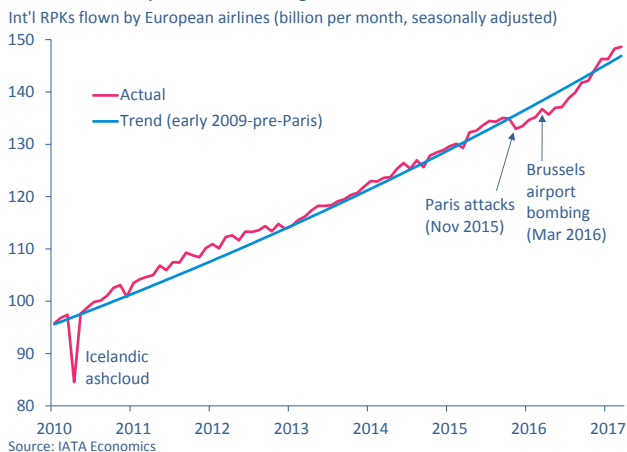
Estimating the impact of recent terrorist attacks in Western Europe

- The terrorist attacks in Western Europe in late-2015 and early-2016 reduced European airlines' international passenger traffic by an estimated 1.6% in the following year compared to what would otherwise have happened.
- We estimate that this reduced European airlines' 2016 revenues by around US\$2.5bln.
- Nonetheless, by contrast to previous major shock events such as after 9/11, the impact has been only temporary.

European carriers were hit the hardest

- The most visible impact of the terrorist attacks in Western Europe in late-2015 and early-2016 was on international RPKs flown by European carriers; such traffic fell below its trend level following the Paris attacks in November 2015. Int'l RPKs started to rise again immediately afterwards in seasonally adjusted (SA) terms, but the upward trend was interrupted following the Brussels bombing in March 2016. (See Chart 1.)
- Given that European airlines' international traffic accounts for around 24% of industry-wide RPKs, this impact was felt at a global level too: the SA upward trend in industry-wide RPKs moderated during H1 2016.

Chart 1 – European airlines 'lost' around 1.6% of int'l RPKs in the year following the Paris attacks



- European airlines' international traffic only started recovering fully from June 2016 onwards, when it began growing faster than its trend pace. This was helped by a pick-up in global and regional economic conditions, as well as broader stimulus from lower airfares. All told, European airlines' international traffic had recovered above its trend level by the end of 2016.
- At a route-level, there is still a lingering impact on the Europe-Asia market (outbound travel from Asia is known to be particularly sensitive to shock events); while recovering, RPKs flown between Europe and Asia are still not back to where they would have been if they had followed the SA trend in place ahead of the terrorist events. By contrast, the level of international travel within

Europe has since fully recovered back to its 'pre-attacks' trend level.

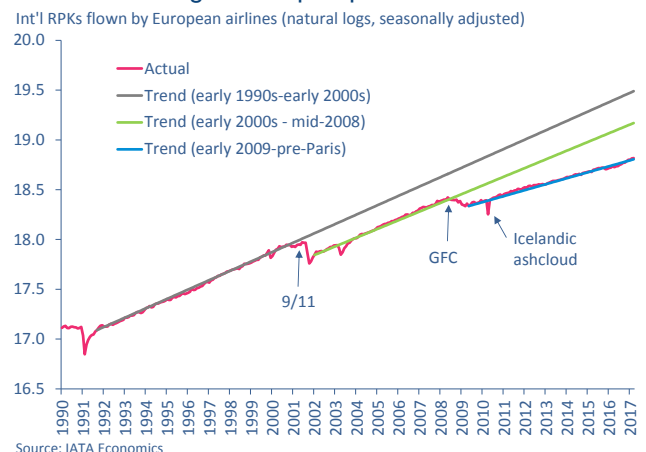
A negative, but temporary, impact on passenger traffic, revenues, and profits

- Overall, we estimate that European airlines' international traffic was around 1.6% lower in the year following the attacks than it would have been in the absence of such events. All else equal, we estimate that this reduced European airline revenues in 2016 by around US\$2.5 billion.
- It is difficult to judge what impact this had at a global level because at least some travel would have been displaced. But in the absence of the disruption caused by terrorist attacks, industry-wide RPK growth may have been up to 0.4 percentage points faster than the 7.4% pace registered in 2016.

Providing some longer-term context

- Nonetheless, as was the case during the SARS pandemic in 2003 and the Icelandic ashcloud in 2010, the impact on European international passenger traffic has been temporary. This underlines the resilience of air passenger demand to short-lived shock events.
- By contrast, as shown in Chart 2, European international traffic has been subject to two much larger and crucially *permanent* shocks over the past 25 years or so: one following 9/11 and the dot-com bust in the early-2000s, and another following the global financial crisis (GFC).

Chart 2 – A longer-term perspective



- European air travel recovered to its pre-9/11 trend growth rate between 2002 and 2008 (ie, the slope of the green line is similar to the slope of the grey line). However, there was a permanent loss of traffic relative to trend, and the pre-9/11 peak was not passed until October 2004.
- By contrast, the experience following the GFC is associated not only with a permanently lower level of traffic relative to trend, but also a permanently slower pace of trend *growth*. The latter could relate to a range of reasons, both on the demand and the supply side – not least the very weak and fragile economic backdrop seen in the region in the years since the GFC. (It is possible that the trend pace of growth seen in the early 2000s was unsustainable too.)
- Nonetheless, the key point is that the impact on European carriers' international traffic following the GFC has been permanent, and far exceeds the estimated temporary impact following the recent terrorist attacks. In fact, international RPKs flown by European airlines remain around 30% lower than where they would have been if they had followed the trend growth path that they were following during the early to mid-2000s.

Conclusion

- We estimate that the terrorist attacks in Western Europe in late-2015 and early-2016 reduced European airlines' international passenger traffic by around 1.6% in the following year, compared to what would otherwise have happened. We estimate that this reduced European airlines' 2016 revenues by around US\$2.5 billion.
- Nonetheless, as was the case during the SARS pandemic in 2003 and the Icelandic ashcloud in 2010, the impact on European international passenger traffic has been only temporary. This underlines the resilience of air passenger demand to short-lived shock events. By contrast, events such as 9/11 and the global financial crisis are associated with permanent impacts on both the trend RPK level and growth rate for European international traffic.

David Oxley
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