IATA Economics’ Chart of the Week

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The Contrasting Impacts of Natural Disasters on Aviation

The disruptive impact of natural disasters – such as the Category 5 Typhoons Jebi and Mangkhut that hit East Asia earlier this month – on aviation can often be masked in the monthly data that we typically analyze: in many cases, much of the affected activity is recovered later in the month, leaving a muted net impact. However, this week’s chart uses data from the US FAA to highlight the differing daily impact profiles on aviation after large Hurricanes in North America.

The key point is that there is no typical pattern of the impacts from natural disasters. Hurricane Sandy was a very large shock, but flight operations got back to normal relatively quickly. Hurricanes Katrina and Harvey had more muted impacts on aviation, but the indirect impacts on oil refineries on the Gulf Coast pushed up the industry fuel bill (link). Finally, Hurricane Irma had both a large and long-lasting impact, first affecting Puerto Rico before moving up to Florida.

Unfortunately, we do not have detailed daily data for Asia. The impact of Typhoon Jebi in September was mainly confined to Kansai airport, although it disrupted activity there for more than two weeks. By contrast, Typhoon Mangkhut had a much shorter but more widespread impact, closing the major airports in Hong Kong and Guangzhou, for example. All told, despite their differing characteristics, we estimate that Typhoons Jebi and Mangkhut caused broadly similar-sized disruption to aviation during the month. (We will publish a full note on the impacts of these Typhoons next week.)

The lasting impacts of natural disasters on aviation depend on the extent to which they cause wider damage to economies and tourism infrastructure. In this regard, we think that the ongoing impacts of Jebi and Mangkhut should be comparatively small; while agricultural production in the north of the Philippines has been hit hard, most of the key tourism areas in the south appear less affected. Unfortunately, the same cannot be said in other episodes: indeed, having caused substantial damage to tourism infrastructure in the Caribbean, the impacts of Hurricanes Irma and Maria in 2017 are still being felt in parts of the region.