Please sit on the scales Madam!

Journal of Revenue and Pricing Management (2013) **12**, 101–102. doi:10.1057/rpm.2013.6

Tony Webber, who worked as an economist for Qantas for 7 years, said that overweight passengers were pushing up airlines' fuel bills (Millward, 2012). Mr Webber, who now runs his own consultancy firm, said that costs were going up not just because of rising jet fuel prices but 'because the average adult passenger is carrying a bit more heft'. Writing in an Australian newspaper Mr Webber added: 'The rationale is simple. The fuel burned by planes depends on many things but the most important is the weight of the aircraft. The more a plane weighs, the more fuel it must burn'. Even Air New Zealand (Horton, 2011) talked about such a proposal and produced a weight price calculator for passengers (all in the humour of April's fool).

Although tobacco and alcohol are long-standing risk factors to health, levels of smoking and drinking are stable or even in decline in many of the most developed markets. Obesity, however, is spreading rapidly – and in emerging economies too. Worldwide, it has more than doubled in prevalence between the early 1980s and late 1990s, and WHO estimates that almost half of the global diabetes burden can be attributed to people being overweight or obese. What does this mean for the airline industry?

A recent article in the *Economist* (2012) says:

travelling while obese can be stressful and humiliating. Many American airlines ask overweight passengers to buy extra seats or wait for the next flight if they can't be accommodated. Requesting a seat-belt extender can draw stares. And sitting next to someone who doesn't really

fit in their seat can be uncomfortable for all concerned Perhaps this is only fair. We all subsidise the costs of providing on-board defibrillators for patients who suffer cardiac events on planes. We all subsidise the added medical costs of obese people. Why not airline tickets, too? But I suspect that some Americans would not be overly happy about paying more to fly so that obese people could get free second seats. American popular culture is still very accepting of mockery (and worse) of fat people, and such policies could fuel resentment.

Putting aside ethical considerations, an article published in this issue by Bhutta (2013), a *pay-as-you-weigh model*, postulates passenger's weight as a major determinant of a fare arguing economic justification for such an approach. For example, a 120 kg person pays the same fare as a 40 kg person for a flight *ceteris paribus*. Bhutta call this fare an average fare. The situation can be even worse for the 40 kg person if they carry a checked-in baggage weighing, for example, 30 kg because they had to pay extra charge for 10 kg implying that airlines charge more for 78 kg than for 148 kg for a flight. The reason it works that way is that the 40 kg person pays for the extra weight of the 120 kg one, although the airline is indifferent about the distribution of costs among the passengers.

As the airline industry is fraught with financial difficulties, marginally profitable and seen exponential growth in the last decade, is the future of Revenue Management more closely aligned with a passenger's weight? Should we have scales at check-in? Ancillary revenue such

as credit card fees and meals are an important source of revenue nowadays. Michael O'Leary of Ryan Airways has often talked about charging passengers using the toilet. What else is left to charge them for? As Bhutta (2013) notes:

Cost is the major determinant in supplying a product or service in general and in transporting goods or people in particular. Weight and space are the major two key limitations in transporting goods and people by any means of transportation. Weight and space are even more critical binding constraints in air transportation because a plane has a strictly limited capacity with respect to space and weight given the make and model of the aircraft. It is the weight of people (and plane) that costs to move. Weight matters because the heavier the load, the stronger an engine is needed to carry it, thus requiring more fuel. Space is important because the heavier a person, the more space that person takes. Currently transportation services are priced according to weight or volume or length or piece. Therefore charging for air travel must be based on weight and space taken by a passenger Ceteris paribus.

To make the model work, a number of factors would have to be modelled including:

- Fare according to actual weight: This option assumes that a fare for a flight entirely depends on weight, that is, how much passengers and their belongings weigh.
- Base fare minus (or plus) an extra charge: This option includes charging a fixed 'base fare' for average-weight passengers in order to cover fixed costs.
- Same fare if a passenger has an average weight of ± 25 per cent (or a proportion agreed by stakeholders and experts) but extra fare for excess weight above the upper limit and reduced fare for passenger below the lower limit.

All in all, airline revenue management moves to a space and weight calculation as if people were cargo. The point of Bhutta's paper is not to suggest but inform and debate, hence why the article has been published in the *Journal of Revenue & Pricing Management*.

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