NoteWorthy

Airport Capacity

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Our cover story explores the role that airports play in the region's economy. Airports play a two-sided role in regional growth. As an area grows, rising demand for air travel may run up against the limited capacity of existing facilities, which creates a demand for new capacity. In addition, the expansion of airport capacity may itself contribute to growth. Easier air access attracts new businesses, which allows an area to build and exploit what urban economists call economies of agglomeration: a stronger business community attracts even more businesses. While easing congestion and promoting agglomeration can be conflicting objectives, in the case of airports, expansion may satisfy both.

How do we determine the economic benefits of additional capacity, so as to weigh benefits against costs? A private business adds capacity when added revenues exceed the cost of expansion. In competitive markets, added revenues, which represent the buyers' willingness to pay for additional services, are a precise measure of social benefits. Hence, private capacity decisions are typically efficient.

The nature of airport capacity as infrastructure for a network service does not limit the effectiveness of private decisions. As with many network services, the ultimate beneficiaries of transportation services do not use airport infrastructure directly. Instead, they purchase services from carriers who, in turn, make decisions regarding the infrastructure's use. But carriers' willingness to pay for access to airport facilities is derived from the economic benefits the carriers provide to customers.

Airport capacity decisions, however, typically involve local governments. Governments often differ from private businesses in their assessment of the potential benefits of alternative choices. Nevertheless, carriers' willingness to pay for access remains the most significant reflection of the social benefits of expansion. The best way to measure this willingness – and the benefits it represents – would be through a market price for access to airport capacity. In this regard, some commentators have argued for making landing rights tradeable. In such a market, the relative economic value of new capacity at alternative locations would be indicated by the relative prices of landing rights. By the same token, when new capacity is built, new landing rights could be allocated through an auction.

In addition to sending useful signals regarding the value of new capacity, market prices for landing rights would make carriers and their customers bear the cost of congestion at the facilities they use. This allocation of costs would promote the efficient use of existing capacity by, for instance, directing more traffic to a region's secondary airports. More broadly, market prices would direct access to the highest-valued users and users to the lowest-cost facilities.

Admittedly, some aspects of airport investment decisions are not captured by the comparison of the cost of capacity to user benefits. Increasing the size of an airport may lead to road congestion and noise problems for the surrounding area. On the other hand, if airport construction contributes to a region's economic development, then some of the benefits may not be reflected in carriers' willingness to pay for access. A regional planning authority will want to consider such factors in addition to the direct benefit of capacity to users.

One risk in the market allocation of airport capacity would be the possible accumulation of monopoly power. If airport access were freely traded, a single carrier might be able to monopolize the landing rights at an airport. Hence, the market may need the assistance of rules that limit a carrier's share of landing rights at particular facilities. With such safeguards, a market for landing rights could provide valuable guidance in the growth of our air travel infrastructure.

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