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Debt Per Enplanement As A Measure Of An Airport's Debt Burden

How much debt is appropriate for an airport? How does airport size or credit rating affect debt? What about airports with significant cargo activity? These are essential questions for airport executives and boards, affecting the size of capital programs, financial policies and the airport's cost of capital.

In this Measure of the Month, we assess what an appropriate debt burden is for an airport by looking at average debt per enplaned passenger (EPAX) by hub size, by credit rating category, and level of cargo activity. Debt/EPAX is one of the important criteria rating agencies use in assigning ratings, in addition to *debt service coverage ratio*, defined as the ratio of cash flow available to pay debt service to debt service payments, and *debt service as a percentage of operating revenues*.

Surprisingly, the data show that the larger the hub size, the higher the average debt/EPAX. Furthermore, stronger credit ratings correlate with higher average debt/EPAX. Finally,

the data reveal that regardless of hub size or credit rating, airports with more cargo activity usually exceed average debt/EPAX compared with other commercial service airports.

Methodology: Identifying passenger-intensive and cargo-intensive airports

We examined debt levels for 2003, 2004 and 2005 for passenger traffic-intensive commercial service airports based on data from FAA's Compliance Activity Tracking System (CATS). This group comprises approximately 100 primary airports with passenger traffic that meet the FAA definition of small, medium and large hub (with between 0.05 percent and 0.25 percent of total passenger boardings in the U.S., between 0.25 percent and 1 percent, and 1 percent or more, respectively). In addition, from this group, we identified airports that are rated by Standard and Poor's (S&P), which comprises 50 airports.

Furthermore, we identified cargo intensive airports as those airports where the proportion of cargo defined

as enplaned workload unit (EWLU) exceeded 25 percent of the sum of EPAX and EWLU using 2005 data. An EWLU is intended to be the cargo equivalent of an enplaned passenger and is calculated by taking cargo in kilograms, dividing by 100 kg to get WLU, and then dividing again by two to get EWLU. The total sample size of cargo intensive airports used comprised 47 airports. Cargo data were obtained from Airports Council International.

Large hubs take on more debt

As summarized in Figure 1, large hubs show the highest debt/EPAX (\$93) followed by medium (\$67) and then small hubs (\$47) based on 2005 data. This is the same in 2004 and 2003.

Higher ratings, higher debt levels

When debt/EPAX is examined for S&P rated airports by credit rating, the highest rated airports (S&P AA) show the highest average debt/EPAX (\$127) based on 2005 data. As credit ratings

Fig. 1 Average Debt/EPAX by Hub Size, 2003-2005

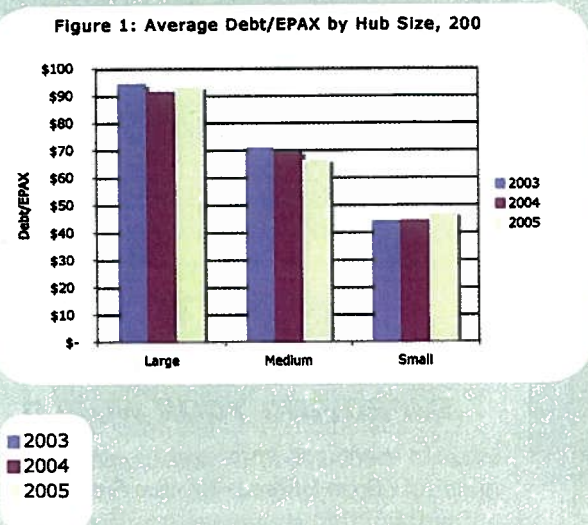


Fig. 2 Average Debt/EPAX by S&P Credit Rating, 2003-2005

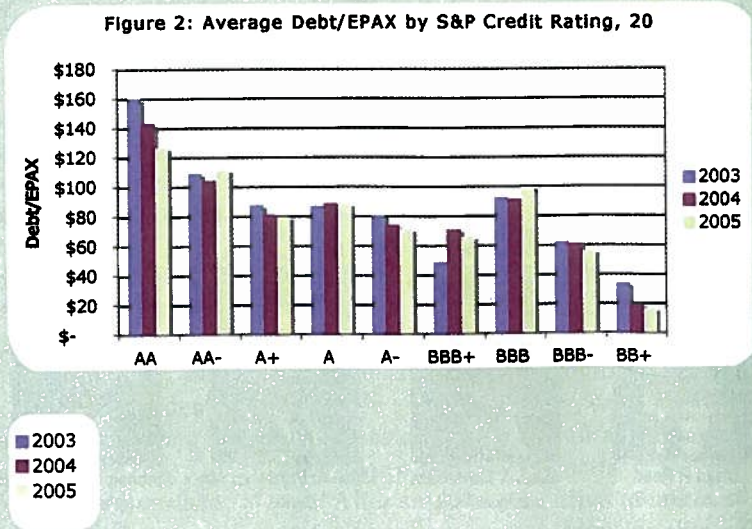


Fig. 3 Debt/EPAX vs. Debt/EWLU by Hub Size, 2005

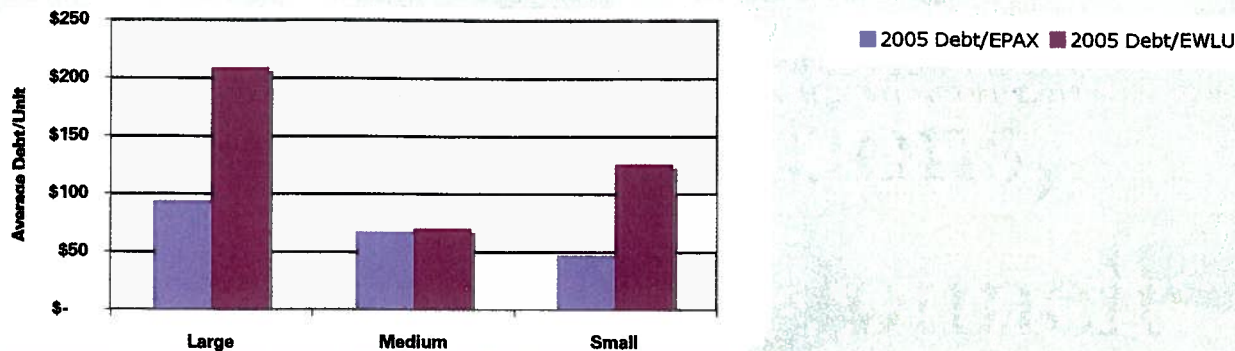
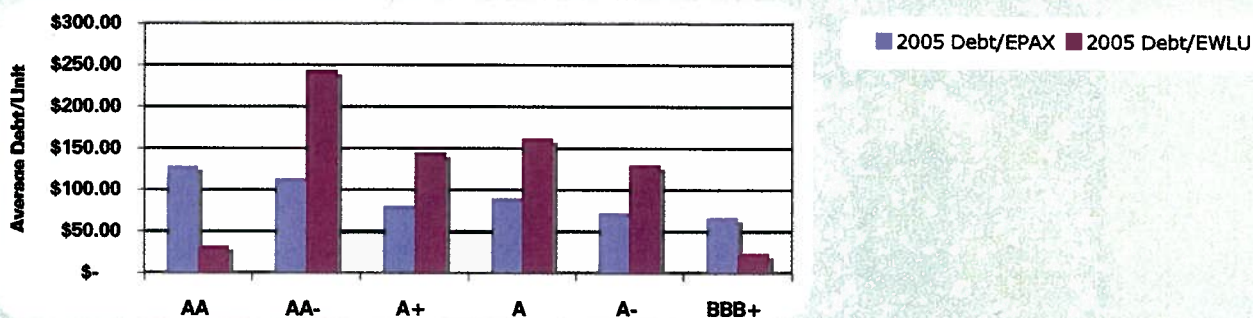


Fig. 4 Debt/EPAX vs. Debt/EWLU by Credit Rating, 2005



deteriorate, the average debt/EPAX generally decreases as displayed in Figure 2. The lowest rated airports (S&P BB+) show the lowest average debt/EPAX (\$17). This is the same relationship in 2004 and 2003.

More cargo = more debt?

Large hubs showed the highest debt/EWLU (\$208) followed by small (\$125) and then medium hubs (\$69) based on 2005 data. Moreover, in each category, average debt/EWLU for cargo intensive airports is higher than debt/EPAX for passenger traffic airports. These data are summarized in Figure 3.

When 2005 debt/EWLU is examined for cargo-intensive airports by credit rating, the second highest rated airports (S&P AA-) showed the highest average debt/EWLU (\$242). The lowest rated airports (S&P BBB+) of this set showed the lowest average debt/EWLU in 2005 (\$22), followed by the highest rated airports (S&P AA) at \$31. Furthermore, in most categories, average debt/EWLU for cargo intensive airports is higher than debt/EPAX for passenger traffic airports. This is not true for the highest and lowest rated airport categories,

however. These data are summarized in Figure 4.


Deliberating debt decisions

From the data analyzed, it appears that larger hubs and airports with strong credit ratings carry a higher debt burden per EPAX than smaller hubs and airports with weaker credit ratings. This is contrary to causal observations that higher rated airports have more conservative debt policies or can spread their debt burden over a greater number of passengers. Rather other factors are likely to be present. Large hubs tend to have greater international traffic, serve as “transfer airports”—or hubs—for certain airlines, play a strategic role that makes them more unique among other airports, or have higher growth rates.

Moreover, cargo intensive airports probably can carry a greater debt burden because they have a greater diversity of activity and likely correlate with some of the characteristics of large hubs, such as more international traffic or a strategic role.

So where does this leave the dozens of other non-large hub, non-cargo intensive airports?

As credit rating analysts will usu-

ally say, there are no hard and fast rules about ratings and debt levels. However, it is highly likely that airports with debt/EPAX levels that exceed levels of similarly-sized airports will get extra scrutiny in the ratings process. On the positive side, airports that are growing and expanding their capital facilities, should feel comfortable with taking on more debt, everything else being equal; this is a natural evolution as an airport matures. Finally, a diversity of activity, such as cargo, appears to be a credit plus—or least the data suggests that cargo intensive airports are generally not penalized for the additional debt that these airports require to operate. A pursuit of this type of traffic and other ways to diversify airport revenue streams, can be a financial positive, despite the initial challenges of developing this business. 

How does this experience compare to your airport? If you would like to share your ideas, please e-mail smukherji@imggroup.com or spage@imggroup.com.

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