

## An Analysis of Airline Pricing Economic Concepts (ECO-M019)

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**Full question:** *Explain why the price of a round-trip air ticket Frankfurt-Beijing, operated by Lufthansa, falls by over €200 after the end of school vacation in September. This happens despite the fact that generally worsening weather increases the cost of operating flights, and Lufthansa therefore reduces the number of flights at any given price.*

This article will focus on explaining the reason that Frankfurt-Beijing's round trip flight ticket goes down by €200 after the school vacation, in spite of the reduce of the Lufthansa's flights at any price due to the worsening weather which lead to an increase in operating cost.

McDowell, Thom et al. (2009) remarked that changes in demand will lead to a shift in the entire demand curve. In this case, it seems very clearly that there are some factors influence the demand quantity of the air tickets. In the first place, as the topic mentioned that the time was after the end of school vacation, therefore, the demand of the tickets obviously decreased. This is because students have already flight back to school and the number of traveling people declined. In the second place, when the weather becomes worsening, people are more likely to stay at home rather than going out. In the third place, the bad weather such as raining, thundering would increase the risk of taking a flight which also might lead to a decrease of demand quantity. Therefore, a decline in flight tickets will shift the demand curve from D to D' (Figure 1). Furthermore, if we model the market on basis that the supply side is not affected in this case, than we can see from the Figure2 that the new equilibrium price  $P_b$  is lower than the original price; and the new equilibrium quantity  $Q_b$  is lower than the original quantity as well.

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Figure 1

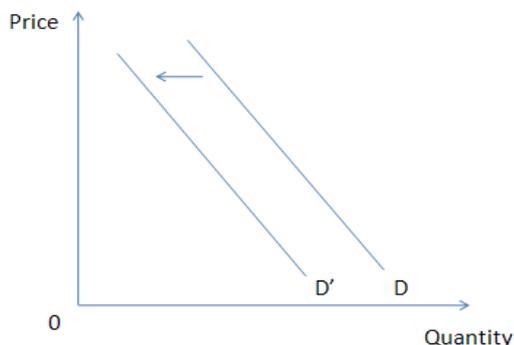
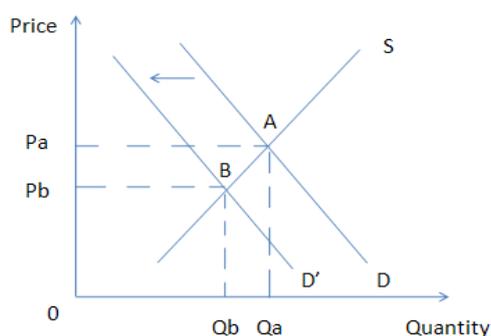
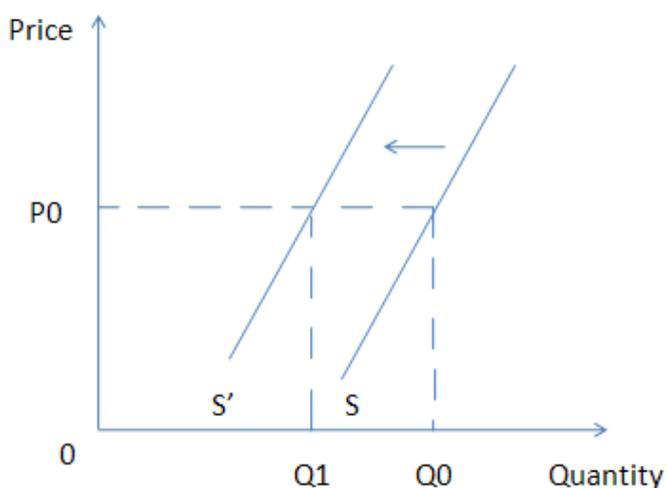


Figure 2



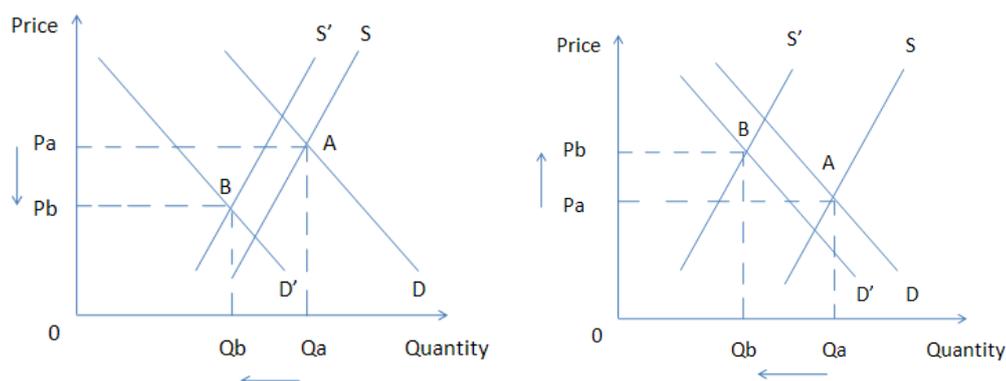
However, when the generally worsening weather increase the cost of operating flights, according to McDowell’s (2009) point of view that anything changes production costs will shift the supply curve. Therefore, the supply curve for flight up and to the left (from  $S$  to  $S'$ , please see Figure3). Moreover, the graph also indicates that at the particular price such as  $P_0$ , when the supply curve shift left the company wish to sell less.

Figure 3



As the ‘vacation effect’ influence and bad weather condition reduce the demand quantity, and increase cost lead company are more willing to reduce the number of flights. What will happen to the equilibrium price and quantity? Let us look at the Figure4 and 5 below, the original supply and demand curve are denoted by  $S$  and  $D$ , while the new curves are denoted by  $S'$  and  $D'$ . In both

panels, the shifts lead to a decline in the equilibrium quantity of flight numbers. However, the effect of the shifts on equilibrium price cannot be determined without knowing their relative magnitudes. Separately, the demand shift causes a decline in equilibrium price, whereas the supply shift causes an increase in equilibrium price. Hence, we can see that the net effect of the two shifts depends on which of the individual effects is larger. In Figure 4, the demand shift dominates, so the equilibrium price goes down. While in Figure 5, the supply shift dominates, so equilibrium price increase.



In the Lufthansa case, the ticket price falls €200 despite the fact that generally worsening weather increases the cost of operating flights, and Lufthansa therefore reduces the number of flights at any given price. This is because when the demand curve and supply curve both changed, and the demand shift dominates, the new equilibrium price and quantity are lower than the original ones. Hence, the company chooses to lower its flight tickets as well as decreasing the number of flights at any given price.

Furthermore, the quantity demand of flight ticket is very sensitive to changes in price. That means a small change in price will lead to a larger change in quantity. For instance, if the price of air ticket is to double, most people would alter their consumption of it. Therefore, the company's policy to decrease the price can be more efficient than reduce the number of flights.

In conclusion, the company chooses to fall its price not only because the new equilibrium price lower than the original one, but also changes in price can be more efficient.