
CASE STUDIES

“Case Studies” presents a case pertinent to contemporary issues and events in investment management. Insightful and provocative questions are posed at the end of each case to challenge the reader. Each case is an invitation to the critical thinking and pragmatic problem solving that are so fundamental to the practice of investment management.

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WHEN PLANT WEARS OUT—A CASE

Thruway King was an interstate trucker. One of its major expense items was maintenance. With a few exceptions, trucks are like cars: they do not wear out if they are maintained. But for trucks, as for cars, technological progress is inevitable: sooner or later a truck becomes marginal, with operating costs that eat up all the revenues.

“Spats” Luciano, the vice president for operations, made three points about maintenance:

1. It was a big enough cost item that a marginal truck’s *economic* life could be prolonged by suspending it.
2. If Thruway suspended maintenance the truck would wear out, ending the truck’s *physical* life.
3. Demand for interstate trucking was sensitive to prosperity, and future prosperity was uncertain. A truck that was marginal today might be profitable tomorrow.

A worn-out truck would not be profitable, no matter how prosperous tomorrow was. Luciano argued that a marginal truck was an option on the level of future demand for interstate trucking. On the other hand, he conceded that some trucks were so old that the option they represented was too far out of the money to justify continued maintenance. When they consequently wore out, he would consign them to the scrapyard.

Discussion

Presumably, idle trucks do not wear; their technological inferiority to new trucks depends instead on time. On the other hand, the maintenance issue does not arise, as long as a truck is idle.

Is there any economic advantage to using the marginal trucks for occasional peak demand? For shorter trips?

Should only worn-out trucks be scrapped?

Does Luciano's reasoning apply to other kinds of industrial machinery?

How will uncertainty about future manufacturing margins affect the life of such machinery?

What role should the scrap value of machinery play in the maintenance decision?

How will the level of prosperity affect the supply of scrap?

Does industrial machinery "wear out?"