Ideally, shortages should be avoided. However, in practice, inventory managers often encounter situations where they do not have enough inventory to satisfy the demand of downstream customers. In such a situation, it becomes essential to "manage" the shortages to maximize the profit.

Options

There are two ways in which the effect of a shortage can be mitigated :

Proactive Measures

As the name suggests, proactive measures try to anticipate shortages and plan inventory movements accordingly before the shortages actually occur. Such approaches minimize the actual shortage and thereby the cost implication is also less.

Examples:
Shortage prediction using AI/ML, Proactive transshipment, etc.

Reactive Measures

When shortages actually occur, managers need to make the most out of the available inventory. Such measures usually include certain "rationalization" of available inventory between different demand sources. Also, managers can opt for delayed delivery instead of completely cancelling orders.

Examples:
Inventory rationing
Delayed delivery