

1. It is not true that any inventory is a sign of waste because companies need to have some inventory so goods are available to customers when they want/need them. Do you want to arrive at a hospital, needing blood, only to hear that the hospital has implemented a “zero inventory” policy? That said, there does need to be a balance between ensuring demand is met and holding inventory. Holding too much inventory ties up capital, and companies lose flexibility in the chain. Managers need to make the customers happy by having goods in stock, but they do not want to have so much inventory that it costs too much to hold.
2. An inventory driver is something that causes companies to hold more inventory than they usually would. Controllable inventory drivers, as the name suggests, are those that can be managed or addressed by firm actions. For example, improving manufacturing flexibility can reduce the mismatch between downstream demand requirements and manufacturing’s capability, thereby reducing the need for cycle stock. On the other hand, some drivers, such as demand uncertainty, may or may not be controllable.
3. Independent demand inventory are items whose demand is determined by outside parties (typically the final customer). Examples include items A, C, and D in the list. Dependent demand inventory is under “complete control” of the company because the demand level is directly tied to the planned production of another item. Items B and E are good examples of demand dependent items—how many bicycle wheels or hamburger buns are needed depends completely on how many bicycles or hamburgers are produced.
4. A good reason to push inventory downstream is to have inventory positioned where customers need it. A con of having the inventory downstream is that it is often very difficult to “reverse” the supply chain and reposition goods to a new point, and a product positioned at a decentralized demand point is inherently less flexible than the same product positioned at a centralized demand point. Modular designs help break the process down into chunks, making it easier to pull together the key pieces to make a final configuration. This allows lower inventory costs and also provides more final product flexibility.

5. According to the EOQ, lowering ordering cost would result in lower order quantities and hence lower inventory levels. With regard to the ROP formula, reducing variability in demand and/or lead times, as well as reducing average lead times, would result in lower safety stock levels.
6. Lowering the ordering costs would result in a lower EOQ. Stabilizing the demand level means lower demand variability and therefore, less safety stock needed for a given service level. Shrinking lead times would have a similar impact on safety stock. Finally, assigning a higher holding cost would result in lower EOQ values.