

9.1: Types of Inventory

There are several types of inventory in any organization. Here are some that are more common:

- Raw materials or purchased parts are some of the very common types.
- Work in process (or progress) or WIP, which are the semi-finished or not completely finished items that you can find in the middle of assembly lines and manufacturing facilities.
- Finished goods or merchandise that we're all familiar with. We can find these in all the stores that we go to buy what we need.
- Spare parts or tools and supplies are also another type of inventory that companies may need basically

Reasons for Keeping Inventory

There are different reasons for keeping or holding inventory. Here are some examples:

- To hold inventory simply because that inventory is still in transit. In that case, it has not got to their facility yet and because they have paid for those items, they are counted as their inventory and this is something that we also call in transit inventory holding.
- To protect against the stock outs. This is a very common or probably the most common reason for keeping inventory. That is, when the customers come to ask us for a unit of product to purchase, we want to make sure that we have enough in stock.
- To take advantage of some quantity discounts that might be available to us by our suppliers. What happens is that our suppliers may tell us that if we purchase more, they will be able to give us some discounts. Note that we did not necessarily need the extra units at this time. As a result, we will need to keep them in stock and that will be our extra inventory to hold. We're going to talk about the discount model in this video as well and over there, you'll see what kinds of trade-offs are there and in which scenario it is better to take advantage of some discount versus not.
- To smooth out the production requirements. This simply means that from time to time, if the demand goes up and down, when the demand is down, you may want to produce a little bit more and keep it in inventory, so that later on, when the demand goes back up, you don't have to necessarily ramp up your production too much. But instead, you can use the inventory that you have piled up. This helps you keep a more steady production level at all times, which is usually a less costly way of doing the production.
- To cover for any disruption in the operations. This means if anything goes wrong in a certain part of a production process, you will have enough inventory around to cover you for that part of the operation. This way, you will most likely not have to shut down the whole production line, or you can at least delay the shutdown as much as possible, until the problem gets resolved.

Please note that in any of these scenarios, we will need to pay a close attention to the holding costs of the inventory versus the other costs. For example, if the inventory holding cost is very high, we may prefer to have a potential stockout sometimes as opposed to keeping a lot more inventory in stock. In another example, we may not use the discount option from our supplier if we know that the total savings (as a result of the discount) is not worth the additional inventory holding costs. We will discuss more about the inventory holding costs later in this chapter.

9.1: Types of Inventory is shared under a [CC BY-NC-SA 4.0](https://creativecommons.org/licenses/by-nc-sa/4.0/) license and was authored, remixed, and/or curated by Hamid Faramarzi and Mary Drane.