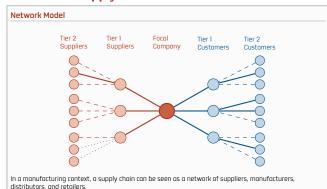
# SCMx1

# TITLE 1

## What is a Supply Chain?



## What is Supply Chain Management?

SCM Activities

Product-Process Matrix/Cube

Customer Order Decoupling Point

## **Flows**

### **Materials Flow**

Subsubtitle 2

# Inventory: Concepts & Methods

### Inventory

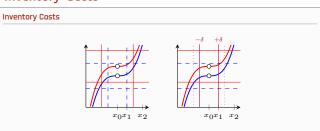
Accouting PoV vs. Logistics/SCM PoV

Why hold inventory?

- Cover process time

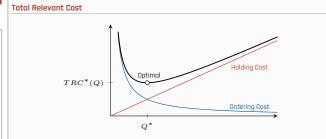
Inventory decisions

## **Inventory Costs**

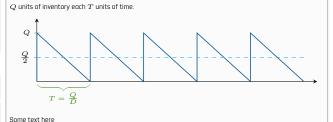


# Inventory: Deterministic Models

### **EOQ**



#### EOQ plot



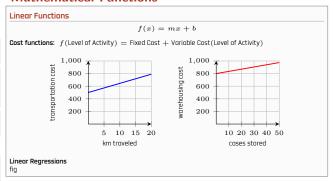
## EOQ formula derivation

EOQ formula:

$$Q^* = \sqrt{\frac{ABC}{D}}$$

# Appendix 1

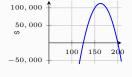
### **Mathematical Functions**



#### Quadratic Functions

$$f(x) = ax^2 + bx + c$$

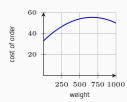
#### Profit:



$$\begin{split} V(p) &= 20,000 - 80p \\ R(p) &= (20,000 - 80p)p \\ C(p) &= 500,000 + 75(20,000 - 80p) \\ P(p) &= R(p) - C(p) \end{split}$$

### price

#### Parcel trucking



$$f(w) = 33 + 0.067w - 0.00005w^2$$

