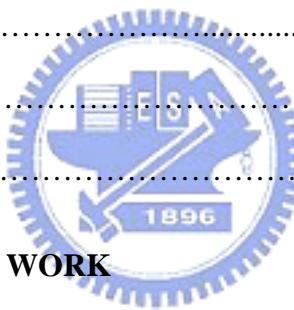


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## Notations

- $Q$  = Inventory level  
 $w$  = wholesale price per item  
 $w_0$  = baseline wholesale price per item, that is, the price when no option premium is offered  
 $\Delta w$  = Option premium, the difference between  $w$  and  $w_0$ , defined as  $(w - w_0)$   
 $m$  = production cost per item  
 $p$  = retail price per item  
 $u$  = salvage value per item  
 $s$  = shortage cost per item  
 $D$  = market demand, stochastic variable  
 $F(\cdot)$  = distribution function of the market demand  
 $f(\cdot)$  = density function of the market demand

