Bundle 1 q_1^*
Bundle 2 q_2^*

$V_L(q_L)$ $V_H(q_H)$ P_L P_H

Λ_L Λ_H $c(n_L q_L + n_H q_H)$

$\pi = \Lambda_H P_H + \Lambda_L P_L - c(n_L q_L + n_H q_H)$

1) $CS_L(q_L) \geq 0$, $V_L(q_L) - P_L \geq 0$ } Participation constraints
2) $CS_H(q_H) \geq 0$, $V_H(q_H) - P_H \geq 0$
3) $CS_L(q_L) \geq CS_L(q_H)$, $V_L(q_L) - P_L \geq V_L(q_H) - P_H$ } Incentive Compatibility constraints
4) $CS_H(q_H) \geq CS_H(q_L)$, $V(q_H) - P_H \geq V_H(q_L) - P_L$

1) $P_L = V_L(q_L)$ $CS_L(q_L) = 0$
2) $V_H = (q_H) - P_H = V_H(q_L) - P_L$ $V_H(q_H) - V_H(q_L) = P_H - P_L$
               $P_H = V_H(q_H) - V_H(q_L) + V_L(q_L)$ ↵

$\pi = \Lambda_L q_L + \Lambda_H q_H - c(\Lambda_L q_L + \Lambda_H q_H)$

$\hookrightarrow = \Lambda_H [V_H(q_H) - V_H(q_L) + V_L(q_L)] + \Lambda_L V_L(q_L) - c(\Lambda_H q_H + \Lambda_L(q_L)$