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**اندازه‌گیری کارایی نسبی شرکت‌های حاضر در بورس  
اوراق بهادار با رویکرد تحلیل پوششی داده‌ها  
(شاخص‌های تکنولوژی اطلاعات)**

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(PIp)	(DIp)
$\min \theta_0$ $\theta_0, \lambda$ بطوریکه : $Y\lambda \leq Y_0$ $\theta X_0 - X\lambda \geq 0$ نامفید $\theta, \lambda \geq 0$  CCR :PI0 $\lambda$ $e^t \lambda \leq 1$ (CCR-BCC):PI1 $e^t \lambda \geq 1$ (BCC-CCR):PI2 $e^t \lambda = 1$ (BCC):PI3	$MaxZ = \mu^t Y_0 + u_o$ $\mu, V$ بطوریکه : $V^t X_0 = 1$ $u_o e - \mu^t Y + V^t x \leq 0$ $\mu^t \geq 0$ $V^t \geq 0$  (CCR ) $U_o = 0$ :DI0 (CCR - BCC ) $U_o \leq 0$ :DI1 (BCC-CCR ) $U_o \geq 0$ :DI2 (BCC ) $U_o = 0$ :DI3

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(POp)	(DOp)
$Max \Phi_0$ $\phi_0, \lambda$ بطوریکه : $X\lambda \leq X_0$ $\phi Y_0 - Y\lambda \leq 0$ آزد $\theta, \lambda \geq 0$  $\lambda$ :PO0 $e^t \lambda \leq 1$ :PO1 $e^t \lambda \geq 1$ :PO2 $e^t \lambda = 1$ :PO3	$\min q = v^t x_0 + V_o$ بطوریکه : $\mu^t Y_0 = 1$ $V_o e^t - \mu^t Y + V^t x \geq 0$ $\mu^t \geq 0$ $V^t \geq 0$  (CCR ) $V_o = 0$ :DO0 (CCR - BCC ) $V_o \geq 0$ :DO1 (BCC-CCR ) $V_o \leq 0$ :DO2 (BCC ) $V_o$ :DO3

DEA

$$\theta^* = \text{Min} \theta - \varepsilon \sum_{i=1}^m s_i^- - \varepsilon \sum_{r=1}^s s_r^+ \quad : \text{ST}$$

$$\sum_{j=1}^n \lambda_j x_{ij} + s_i^- = \theta x_{io}$$

$$i = (1 \ 2 \ \dots \ m)$$

$$\sum_{j=1}^n \lambda_j y_{rj} + s_r^+ = y_{ro}$$

$$r = (1 \ 2 \ \dots \ s)$$

$$\lambda_j, s_r^+, s_i^- \geq 0$$

$$j = (1 \ 2 \ \dots \ n)$$

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