

$$UC(\theta, \phi) = \frac{f_+(y, \theta) - f_-(x, \theta)}{y - x} = \frac{ay - bx}{y - x} = a + (a - b) \frac{x}{y - x}$$

Since  $a > b$ , if  $y - x$  remains the same, then as  $x$  increases, the contraction ratio with uncertainty increases; if  $x$  remains the same, then as  $y$  increases, the contraction ratio with uncertainty decreases.

