

## Chapter 6

### Quadratic functions

$$y = \beta_0 + \beta_1 x + \beta_2 x^2 + u$$

$$\frac{\Delta y}{\Delta x} = \beta_1 + 2\beta_2 x$$

$\Delta x$

$$\hat{\beta}_1 > 0, \hat{\beta}_2 < 0$$

Turning pt. (max.)

$$\text{at } x^* = \left| \frac{\hat{\beta}_1}{2\hat{\beta}_2} \right|$$

