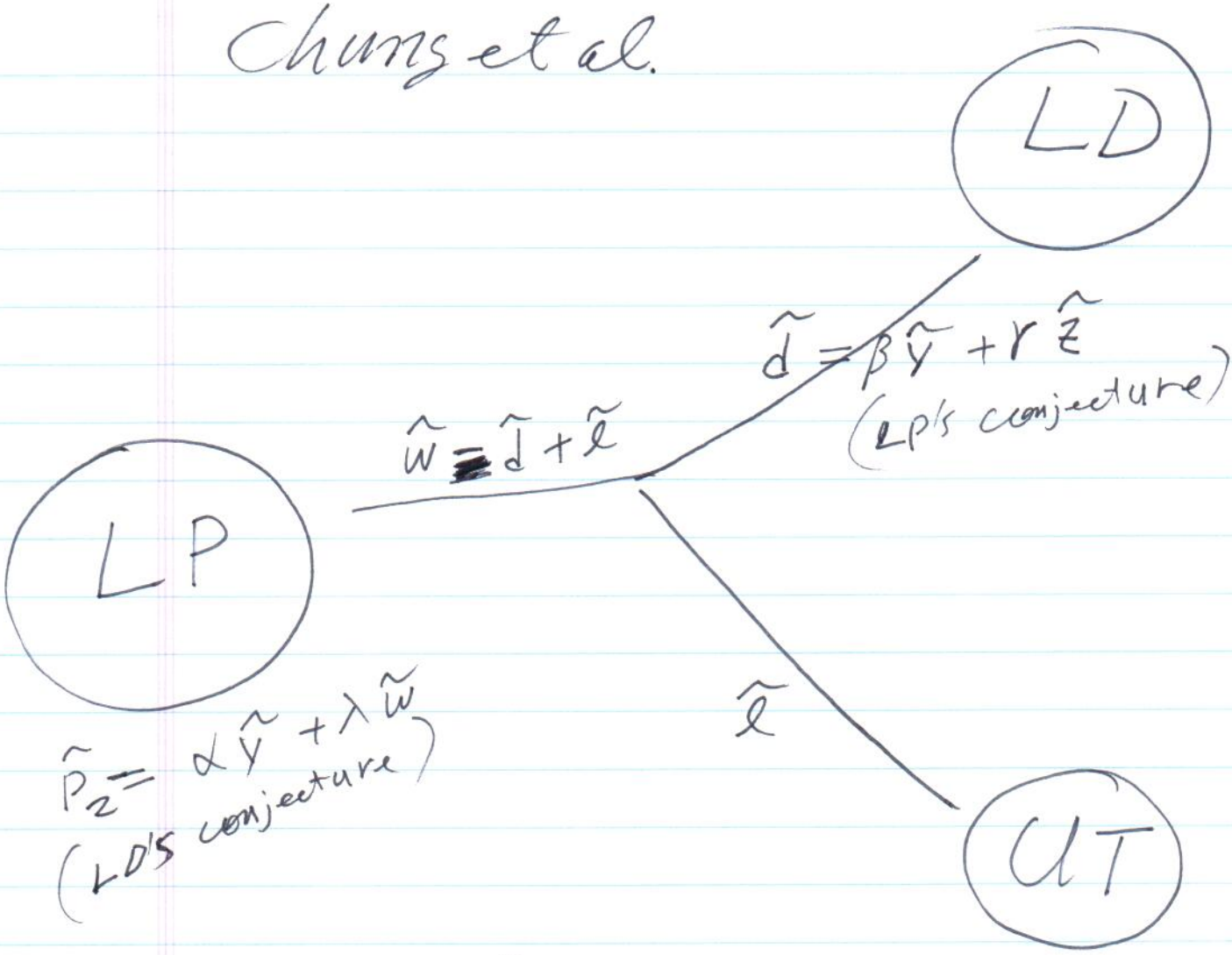
Chung et al.



$\tilde{p}_2 = E[\tilde{u} / \tilde{y}, \tilde{w}]$

(LP's pricing decision)

Kyle

Chung et al

$\lambda = \lambda$

Informed trader's conjecture on pricing

$$p = y \cdot \lambda + M$$

$$y = u + x$$

$$\tilde{P}_2 = \alpha \tilde{y} + \lambda \tilde{\omega}$$ ($\tilde{y}$: public, $\tilde{\omega}$: public)

$$\tilde{\omega} = \tilde{d} + \tilde{e}$$

$\tilde{e} \equiv u$

$\tilde{d} \equiv x$

$\tilde{\omega} \equiv y$

MM's conjecture on Informed trading

$$x = \alpha + v \cdot \beta$$ (v: private)

$$\tilde{d} = \beta \tilde{y} + \tilde{z}$$ ($\tilde{y}$: public, $\tilde{z}$: private)

MM's pricing

$$p = E_{v/y}(y)$$ (y: public; $v \equiv \tilde{u}$)

$$\tilde{P}_2 = E[\tilde{u} / \tilde{y}, \tilde{\omega}]$$

$$\tilde{x} = \frac{m}{m+s} \tilde{y} + \frac{s}{m+s} \tilde{z}$$

$$ERC \equiv \frac{cov(\tilde{P}_2, \tilde{x})}{var(\tilde{x})}$$

$$= k \cdot \frac{2 - (1+k)\theta}{2 - 2k\theta}$$

$$PEAD \equiv \frac{cov(\tilde{u} - \tilde{P}_2, \tilde{x})}{var(\tilde{x})}$$

$$= k\left[\frac{\theta}{2} \cdot \frac{1-k}{(1-k\theta)}\right]$$