ERRATA
TOPICS IN MICROECONOMICS
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ELMAR WOLFSTETTER
Dept. of Economics, Humboldt–Universität zu Berlin, Spandauer Str. 1,
10178 Berlin,Germany
wolf@wiwi.hu-berlin.de

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Please note that I maintain a website at

http://www.wiwi.hu-berlin.de/institute/wt1/topics/index.html

There you find many exercises and slides in pdf–format to support the adoption of the book.

Of course, I appreciate to be notified of further recommendations and corrections.

Acknowledgments

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Corrections

page 39; line 11 Replace equation (1.62) with

$$((1-2x_1)(1+\delta)-\delta 2x_2) \leq 0 \text{ and } (\cdots)x_1 = 0, \tag{1.62}$$

page 54; line 21 Also, since .... one has $\pi^* + rk = \rho k$ (instead of $\pi^* - rk$...)

pages 67 and 77 ... Cournot (1838) ...

page 103; line 15 ... in the form of a price hike, ... (instead of ... price reduction, ...)

page 131; line 12 Replace by:

To a certain extent ....

pager 138; footn. 4 Replace by:

Define $U^{-1}(z) := \sup\{x \mid U(x) = z\}$. This may seem ....

page 140; example 4.1 Replace the example by:

Consider the probability distribution functions over the three outcomes, x_1, x_2, x_3, stated in Table 4.1 and two monotone increasing utility functions: a) $U(x_1) = 0.5, U(x_2) = 1, U(x_3) = 2$ and b) $U(x_1) = 0.5$, $U(x_2) = 1.5$, $U(x_3) = 2$. Obviously, b) $\Longrightarrow E[U(Y)] > E[U(X)]$, and a) $\Longrightarrow E[U(Y)] < E[U(X)]$.

pager 141; Proposition 4.4 Omit the word "strictly".

page 142; footn. 6 Replace by:

Sketch of alternative proof (using integration by parts, twice): Let $Z(x) := \bar{F}(x) - \bar{G}(x) = G(x) - F(x)$. Then,

$$\begin{aligned} E[U(X)] - E[U(Y)] &= -\int_{\underline{x}}^{\bar{x}} U(x)dZ(x) \\ &= \int_{\underline{x}}^{\bar{x}} U'(x)Z(x)dx \\ &= U'(\bar{x})\int_{\underline{x}}^{\bar{x}} Z(y)dy - \int_{\underline{x}}^{\bar{x}} U''(x)\int_{\underline{x}}^{x} Z(y)dydx \\ &\geq 0. \end{aligned}$$

page 155, line 6 replace "... and risk-averse bidders" by "... and risk-neutral bidders".

page 156 in the middle of the proof of Proposition 5.9 ... – again by Lemma 4.2 - "X_1 would SSD dominate $P(\lambda)$" ... should be ... – again by Lemma 4.2 - "$P(\lambda)$ cannot SSD dominate X_1 ...".

page 157 in the proof of Proposition 5.10 In the chain of SSD relationships, the first one should be weak, i.e. $\succsim$ instead of $\succ$.

page 166 equations (6.1) and (6.2) Replace (6.1) by

$$(\forall x): \quad -\frac{U_A''(x)}{U_A'(x)} \geq -\frac{U_B''(x)}{U_B'(x)}$$

and equation (6.2) by

$$(\forall x): \quad -\frac{U_A''(x)}{U_A'(x)}x \geq -\frac{U_B''(x)}{U_B'(x)}x.$$

page 166 The example of constant relative risk aversion should be

$$U(x) := \alpha - \beta x^{-r+1}$$

page 168 line 7 Replace by

$$L_2 := [w_1 - \pi_u, w_2 - \pi_u; p]$$

page 168 in the second line of the expression for $EU(L)$ The last term should be

$$\frac{p}{2} U''(w_1)\epsilon^2$$

page 168 equation (6.5) Replace by

$$-\frac{U_A''(w_1)}{U_A'(w_2)} = a e^{a(w_2 - w_1)} < b e^{b(w_2 - w_1)} = -\frac{U_B''(w_1)}{U_B'(w_2)}.$$

page 170, line 19 Replace by

$$U_i(x) := x - \gamma_i x^2, \quad x < \frac{\gamma_B}{2}, \, i \in \{A, B\}$$

page 170, line 25 Replace by

$$G(x) := U_A(x) - U_B(x) = -(\gamma_a - \gamma_b)x^2.$$

page 171 line 5 Replace by

$$1 < \frac{\gamma_a}{\gamma_b} = \frac{\alpha_B E[(Y-X)^2] + E[X(Y-X)]}{\alpha_A E[(Y-X)^2] + E[X(Y-X)]}.$$

page 171 Definition 6.3 Replace the first inequality by

$$(\forall x, \forall y > 0): \quad \frac{U''(x+y)}{U'(x+y)} \geq \frac{U''(x)}{U'(x)}$$

and the second inequality by

$$(\forall x \forall y > 0)\,(\exists \lambda): \quad \frac{U''(x+y)}{U''(x)} \leq \lambda \leq \frac{U'(x+y)}{U'(x)}$$

page 177 Replace the Table by

	s_1	s_2	s_3	s_4
s_1		1		3
s_2			1	3
s_3	1			3
s_4				

page 195 Correct second last to last line: $\rho(x) := \Pr\{b^*(V_{(n-1)} < b^*(x)\} = \Pr\{V_{(n-1)} < x\} = F(x)^{n-1}$.

page 196, line 6 Replace $\rho^*(0) = 0$ by $b^*(0) = 0$.

page 200, 3-rd line from bottom Replace (??) by (8.40)

page 201, line 12 Replace (??) by (8.40)

page 222; first line of eq. (8.79) replace by

$$\pi(v_0, \hat{v}) = \hat{v} + \Pr\{b^*(V_{(n)}) \geq v_0\} \left(E[b^*(V_{(n)}) \mid b^*(V_{(n)}) \geq v_0] - \hat{v}\right)$$
$$= \ldots$$

page 255; figure 9.7 Replace Figure 9.7 by:

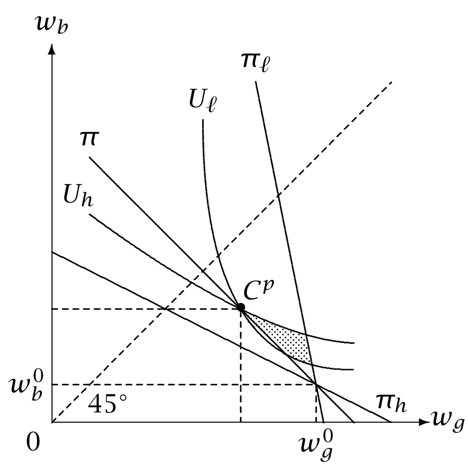

Fig. 9.7. Pooling Cannot Occur in Equilibrium

page 273; line 16 Replace $y^* \in [0, q^*]$ by $y^* \in [0, q_0]$.

page 283; equation (11.3)

$$\Pi(a_h) = 0.5(y_g + y_b - 144)$$

page 285; first paragraph Given s, the principal sets the smallest w_0 that assures participation by the principal; therefore,

$$w_0(s) = \frac{1}{2}s^2(r\sigma^2 - 1).$$

Finally, the principal solves $\max_s \pi^*(s, w_0^*(s))$ which gives

$$s^* = \frac{1}{1 + r\sigma^2}$$
$$w_0^* = \frac{r\sigma^2 - 1}{2(r\sigma^2 + 1)^2}.$$

and the principal's equilibrium payoff $\Pi^* := \pi^*(s^*, w_0(s^*))$ follows immediately.

page 286; equation (11.10)

$$U(a_i) := \sum_{s=1}^{n} p_s(a_i)u(w_s) - c(a_i). \tag{11.10}$$

page 288; example 11.2 Suppose $u(w) := \ln(w)$, $n = 3$ (three states) **...**

page 353 Cournot, A. A. (1838). **...**

page 356 The paper by Holmstrom and Milgrom (1990) was published in the *Journal of Law, Economics, and Organization*, *7*: 125-152.