Errata

Chapter 1

- 1. Page 11, five lines from the bottom of the page: should read "...offered to savers..."
- 2. Page 19, three lines from the bottom of the page: should read "...as described in Section 1.3."
- 3. Page 24, eight lines from the top of the page: should read "...a complete understanding of Section 1.5."

Chapter 2

- 1. Page 33, second line from the top of the page: should read "... one dollar tomorrow discounted at the risk-free rate."
- 2. Page 36, fourth to the last line of the second paragraph: should read "...in the sense discussed in Section 1.5."
- 3. Page 43, in the table: first line index in the table should be a lower-case t.
- 4. Page 47, final equation on the page: replace the $(1+\tau)$ term with $(1-\tau)$.
- 5. Page 47, third formula from the top: add parenthesis around the D/E; should be $Er_L^e = Er_U^e + (1 \tau)(D/E)(Er_U^e r_f),$

- 1. Page 62, footnote 6: should be written $u: \mathbb{R}^N \to \mathbb{R}$
- 2. Page 66, item (ii): the strict inequality > should be relaxed to \ge .
- 3. Page 67, Figure 3.3, left side: the expression defining (x, y, π) should be $((x_1,x_2,\tau_1),(y_1,y_2,\tau_2),\pi)$

- 4. Page 70, first line of indifference contains a redundant right parenthesis adjacent to the term (b, w, π) .
- 5. Page 71, second equation in the middle of the page: replace everywhere in the equation \mathbb{U} with V and \mathbb{V} with V.
- 6. Page 71, third line from the bottom of the page: should read "...may achieve in state θ_i , given his income..."
- 7. Page 73, mathematical expression two-thirds down the page: the right most terms should read "... yet y > x."
- 8. Page 75, footnote 10: beginning here the name Reiff should be spelled Rieff. This error occurs several times in the text but we only mention it here, where it first occurs.
- 9. Page 80, second line of item 4: should be punctuated "... observation (iii). One interpretation..."
- 10. Page 81, Figure 3.10: in the vertical scale measuring U, the 500 should be replaced by 50.
- 11. Page 81, first line of the final paragraph should read "laboratory observations (i) (iii).
- 12. Page 84, second line of the equation at the top of the page: $\pi(\theta_1)$ should be replaced by $\pi(\theta_i)$ in the first (from left to right) summation term.
- 13. Page 84, second line of the final paragraph: the reference is to Montiel (2007), not Monitor (2007); same error in the chapter references. Also, in footnote 17, the author Kern (1986) should be Keren (1986).

1. Page 123, Theorem 5.6: there is a small notational inconsistency: in the sentence immediately following the theorem statement, and in footnote 4, the term v should be

written as ν.

2. Page 125, equation (5.6): this should read:

$$U'(Y_0 - s) = \delta E\{U'(sR)R\}$$

- 3. Page 126, footnote 9: the reference is to Eqn. (5.7)
- 4. Page 127, middle of the page: the phrase should read "...which by Eq. (5.7) implies..."
- 5. Page 128, first line of the Proof of Theorem 5.8: should be written "From Eq. (5.7), this means..."
- 6. Page 128, second line of the Proof: the right side of the inequality should be "-2" not "s-2".
- 7. Page 128, section 5.6.2, second line of second paragraph: should read "... labor income and Y measures deviations from the mean..."
- 8. Page 128, section 5.6.2, maximization problem: rightmost] should be a }.
- 9. Page 128, eight lines from the bottom: Replace \overline{Y} with Y
- 10. Page 129, preceding Theorem 5.9, the term $\psi(\overline{Y}, Y, s_{ii})$. This occurs in two places. In part (i) of the statement of Theorem 5.9, the expression should read

$$\psi(\bar{y}, \tilde{y}, s) \approx \left(\frac{1}{2}\right) \sigma_{\tilde{Y}}^2 \mathbf{P}(s + \bar{y})$$

- 11. Page 132, six lines down from the top: replace $W(P_1, \bullet)$ with $W(P_1, \bullet)$.
- 12. Page 132, eleven lines from the top: should read "...in particular, assume $W(P_1, EU_1) = EU_1^{1.5}$."
- 13. Page 132, in equations [1a], [1b], and [1c], $P_2(\theta)$ should be replaced by $P_2(\tilde{\theta})$ to denote uncertainty.

14. Page 132, in footnote 12 there is a typo: should read "...(convex),

$$EU_0^{1a,1b}\left(P_1, P_2(\tilde{\theta})\right) = Eg(x) > g(Ex) = EU_0^{1c}\left(P_1, P_2(\tilde{\theta})\right)...$$

15. Page 138, equation (5.13): a \sim is missing atop C_{t+1} , and C_{t+2} ; should be \tilde{C}_{t+1} , \tilde{C}_{t+2} to denote uncertainty.

Chapter 6

- Page 147, un-numbered equation in the middle of the page: the left-most max should be take only over C₀, not over C₀ and w₁,...,w_n.
 Also, on page 147, in equation (6.7), the H₃ on the right-hand side of the equation should
- 2. Page 147, footnote 7 should end with: "...alone determine $EU(\tilde{r}_p)$."
- 3. Page 149, end of second to final paragraph of Section 6.2: the reference is to Appendix 6.1.
- 4. Page 150, there are several typos here that should be corrected:

be written \widetilde{H}_3 to denote uncertainty.

- a. Middle of the page, final sentence in the paragraph following the mathematical expression should end as: "... and a variance of $e^{(2\mu_i + \sigma_i^2)}(e^{\sigma_i^2} 1)$."
- b. Footnote (9); the definition of $S(\tilde{r}_{it}) = E(\tilde{r}_{it} \mu_i)/\sigma_i^3$
- c. Conclusion of footnote (10); the expression should read $E(\tilde{r}_{it} \mu_i)^4 / \sigma_i^4$.
- 5. Page 152, Box 6.1, final line: the phrase to the right of the comma should read "..., where $\sigma_{F^1 F^J}^2$ denotes the aggregate factor risk.
- 6. Page 152, expression for $\ln (1 + \tilde{r}_p)$ should read "... $\ln (1 + \tilde{r}_p) = \ln (1 + w_1 \tilde{r}_1 + \cdots w_N \tilde{r}_N) \neq \dots$ "

- 7. Page 153, middle of the page, after the expression for σ_p^2 , the sentence should read "... w_i is the proportion of the wealth allocated to asset i."
- 8. Page 153, final two equations on the page, σ_R should be replaced by σ_P and μ_R with μ_P .
- 9. Page 155, Figure 6.5: the expressions associated with the two segments of the efficient frontier should both conclude with σ_P replacing σ_M .
- 10. Page 156, Figure 6.6: the expression representing the efficient frontier should be

$$\mu_1 + \left(\frac{\mu_2 - \mu_1}{\sigma_2}\right) \sigma_p$$

NOT

$$\frac{\mu_2 - \mu_1}{\sigma_2}$$

11. Page 161, the definition of μ_P ' should read:

$$\mu_P, = \pi_A \mu_A + \pi_B \mu_B$$

- 12. Page 161, four lines from the bottom: replace the word "Lemma" with "Theorem". Same replacement in the first line of Page 162.
- 13. Page 162, second line of second paragraph: replace the reference to Proposition 6.1 with Theorem 6.1. The same substitution should be made in the statement of Corollary 6.1.
- 14. Page 163, last line of the second paragraph: the reference to Theorem 4.2 should be to Theorem 4.3.
- 15. Page 164, last line before the statement of Theorem 6.5: this should read "...analogous to Theorem 6.4..."
- 16. Page 164, line immediately following equation (6.10): the subscripts Y_1^P and $Y_1^{P^*}$ should have a \sim on them; i.e., they should be \tilde{Y}_1^P and $\tilde{Y}_1^{P^*}$, respectively, to denote uncertain quantities.

- 17. Page 168, middle of the page: the section title should read "The Distribution of R is Normal"
- 18. Page 169, the caption to Figure A6.3 should read: "The marginal utility for negative values of Z is higher than for positive ones."
- 19. Page 172, 7 lines from the top should read: " $\sigma_P = \pm [w_1 \sigma_1 (1 w_1) \sigma_2] = \cdots$ "; i.e., the first w should be removed.
- 20. Page 173, Table A6.1: the first minimization is only over $\{w_1, w_2, w_3\}$ (only three assets are being chosen).

- 1. Page 186, caption to Figure 7.2: since the text does not have color our identifications in the caption are meaningless. As an alternative, one could write: "The dashed line represents the estimated frontier while the solid line denotes the true frontier and the combination dash-dot line represents the operative frontier; ..."
- 2. Page 189, left side of the legend to Figure 7.4 should read: "G10: 10 years of historical data"
- 3. Page 190, second paragraph: the second sentence should better read "... the subsample where the absolute value of excess returns in either country exceeded the absolute value of the indicated levels (numbers..."
- 4. Page 194, footnote 7 should read: "...per footnote (6) by ..."
- 5. Page 197, equation (7.2): this equation should be (RHS): " = $\mu \Delta t + \sigma \sqrt{\Delta t} \tilde{\epsilon}_{t+\Delta t}$ "
- 6. Page 198, From the paragraph beginning with the word "While", wherever the term $\tilde{\varepsilon}_t$ appears, it should be changed to $\tilde{\varepsilon}_{t+\Delta t}$. Also, in order to be consistent with the notation of

- equation (7.1), the $^{\text{c}}$ s above the μ and σ in expression (7.5a) and (7.5b) should be removed (though in practice these qualities will be estimates and deserving of the $^{\text{c}}$ notation).
- 7. Page 199, On this page as well the $^{\text{s}}$ about the μ and σ symbols, whenever they appear, should be removed, again to be consistent with equation (7.1)'s notation. But in actual practice, they will be estimates.
- 8. Page 199, second paragraph from the bottom (a one-sentence paragraph) should read "If the reader sees a regularity in these..."
- 9. Page 200, caption to Figure 7.9: change " P_0 " to " q_0^e " to be consistent with the notation of Figure 7.8's caption.
- 10. Page 202, equation (7.9a): this equation should be written as: $\tilde{r}_{t,t+1} = \mu_t + \tilde{\varepsilon}_{t+1}$
- 11. Page 205, Reference: the reference to "Riberio, R, Veronesi, P..." should be corrected to "...Ribeiro, R..."
- 12. Page 205, table A.7.1 and A.7.2: the titles to those two tables are reversed: i.e., Table A.7.1 should have the title: "Portfolio proportions where $\sigma_P = 5\%$ and short sales are permitted."

- 1. Page 212, the second equation under (8.4), change $(\rho_{jM}\sigma_{M})$ to $(\rho_{jM}\sigma_{j})$. Should read $\sigma_{M} = \sum_{i=1}^{J} w_{j} \left(\rho_{jM}\sigma_{j}\right)$
- 2. Page 215, line 11: The equation in the text, \bar{r} should be \tilde{r} . Should read:

$$r_{j,t+1} = (CF_{j,t+1} - p_{j,t}) / p_{j,t}$$

3. Page 216, 2nd equation from the top of the page: Should read:

$$E\left(\frac{CF_{j,t+1}}{p_{j,t}}-1\right) = r_f + \frac{1}{p_{j,t}}cov(CF_{j,t+1},r_M)\left[\frac{E(r_M)-r_f}{\sigma_M^2}\right].$$

4. Page 216, fourth equation from the top: The pricing expression could also read:

$$p_{j,m} = \frac{E(CF_{j,t+1}) - \rho_{j,m}\sigma_{j} \left[\frac{E(r_{M}) - r_{f}}{\sigma_{m}}\right]}{1 + r_{f}}$$

where σ_j denotes $SD(CF_{j,t}, r_m)$ and $\rho_{j,m}$ denotes $corr(CF_{j,t}, r_m)$.

Alternatively, since $\beta_j = \frac{cov\left(\frac{CF_{j,t+1}}{p_{j,t}}, r_m\right)}{\sigma_m^2}$, then

$$\beta_j = \frac{1}{p_{j,t}} \frac{\operatorname{cov}(CF_{j,t+1}, r_m)}{\sigma_m^2} \qquad .$$

Thus,
$$\operatorname{cov}\left(CF_{j,t+1},r_{m}\right) = \beta_{j} p_{j,t} \sigma_{m}^{2}$$
.

With this substitution, the fourth equation is correct, but defines the price in terms of itself.

In this case, isolating $p_{j,t}$ gives:

$$p_{j,t} = \frac{E\left(CF_{j,t+1}\right)}{1+r_f} - \frac{p_{j,t}\beta_j \left[E\left(r_m\right) - r_f\right]}{1+r_f}$$

$$p_{j,t}\left(1+\frac{\beta_{j}\left[E\left(r_{m}\right)-r_{f}\right]}{1+r_{f}}\right)=\frac{E\left(CF_{j,t+1}\right)}{1+r_{f}}$$

$$p_{j,t}\left(\frac{1+r_f+\beta_j\left[E\left(r_m\right)-r_f\right]}{1+r_f}\right) = \frac{E\left(CF_{j,t+1}\right)}{1+r_f}$$

$$p_{j,t} = \frac{E(CF_{j,t+1})}{1 + r_f + \beta_j, \left[E(r_m + r_f)\right]}$$

Which is our old familiar formula of page 215.

- 5. Page 223, 2^{nd} line of the Proof of Proposition 8.3, should read "...and α_i , i = 1,..., N"
- 6. Page 223, line 11: \bar{r} should be \tilde{r} . The formula should read $E(r) = \sum_{i=1}^{N} \alpha_i E(r_i)$.
- 7. Page 223, three lines from the bottom, add a parenthesis around $\frac{A}{c}$:

$$\sum_{i=1}^{N} \alpha_{i} E(r_{i}) \geq \sum_{i=1}^{N} \alpha_{i} \left(\frac{A}{C}\right) = \frac{A}{C}$$

- 8. Page 225, 2^{nd} line from the top: r should be \tilde{r} . Should be: $E(r_{ZC(p)}) < \frac{4}{C}$
- 9. Page 233, line 18: The sentence should read: "... is the average of the $\sigma_{\varepsilon_{j,l-1}}$ "
- 10. Page 233, 2^{nd} line of final paragraph: Replace $\hat{\gamma}_2$ with $\frac{1}{\hat{\gamma}_2}$
- 11. Page 241, the 2nd line of formula, the equation should read:

$$\sigma_n^2 = \alpha^2 \sigma_M^2 + (1 - \alpha)^2 \sigma_i^2 + 2\alpha (1 - \alpha) \sigma_{iM}$$

- 1. Page 273, the expressions for $U_0^A(c_0^A)$ and $U^A(c_0^A)$ should more correctly be written as: $U_0^A(c_0^A) = \sum_{k=1}^N \lambda_k \, U^k(c_0^k), \text{ and } U_0^A(c_\theta^A) = \sum_{k=1}^N \lambda_k \, \delta^k U^k(c_\theta^k).$
- 2. Page 276, agent problem description two thirds of way down the page: remove the "+1" from the first constraint; it should read: $c_t + q_t^e z_{t+1} \le z_t Y_t + q_t^e z_t$
- 3. Page 277, line 10 from the top: the sum of the terms $(q_{t+1}^e + y_{t+1})$ should more properly be written as the sum of terms $(\tilde{q}_{t+1}^e + \tilde{y}_{t+1})$ to denote next period's uncertainty.

- 4. Page 278, second line from the top should read: "...substitution of Eq. (10.4) ..."
- 5. Page 280, equation (10.12): this equation appears twice in succession to no point.
- 6. Page 280, formula in 3rd line from the top: There are too many parentheses; should read: $\operatorname{cov}_t \left(U_1(c_{t+1}) / U_1(c_t), r_{i,t+1} \right)$
- 7. Page 281, first paragraph of Section 10.3.3 should conclude with "... its rate of return for the period t to t+1 by $\tilde{r}_{c,t+1}$."
- 8. Page 282, line 15: Replace s' with s' (prime).
- 9. Page 283, line 8: Replace the word "bound" with "bond"
- 10. Page 284, equation (10.18): everywhere in this expression $Y_{t+\tau}$ should be written as $\tilde{Y}_{t+\tau}$ (one place the \sim is missing).
- 11. Page 285, line 2 from the top: the expression $cov(U'(c_{t+\tau}), Y_{t+\tau})$ should be written as $cov(U'(\tilde{c}_{t+\tau}), \tilde{Y}_{t+\tau})$.
- 12. Page 285, final line of equation (10.21), last line of the page: replace " $E_{t+\tau}^{RN}$ " with " E_t^{RN} ".
- 13. Page 288, second to last line: the reference to Eqn. (10.19) should be to Eq. (10.23).
- 14. Page 291, Box 10.2 continued: the first equation should be noted (i) on the RHS of the box.
- 15. Page 291, first line following the Box should read: "...that $\left(\frac{\tilde{Y}_{t+1}}{Y_t}\right) = \tilde{g}_{t+1}$, thus..."
- 16. Page 292, the first term in the sequence of equalities should be:

$$\frac{\ln(ER) - \ln\left(R_f\right)}{\sigma_g^2}$$

- 17. Page 294, last inequality on the page should read: $\frac{\sigma_m}{E\tilde{m}} > \frac{|ER_M Er_f|}{\sigma_{r_M r_f}} = \frac{0.062}{0.167} = 0.37$
- 18. Page 294. Six lines from the bottom of the page, the expression $\widetilde{m}(\widetilde{c}_{t+1}, c_t) = \delta(g_{t+1})^{-\gamma}$ should more accurately be written as $\widetilde{m}(\widetilde{c}_{t+1}, c_t) = \delta(\widetilde{g}_{t+1})^{-\gamma}$.

- 19. Page 294, three lines up from the bottom: Replace the word "bound with "bond"
- 20. Page 295, in the first six lines of Section 10.7, \tilde{m}_t should be everywhere replaced by \tilde{m}_{t+1} , and \tilde{X}_t should be everywhere replaced by \tilde{X}_{t+1} .
- 21. Page 296, last line of the \Rightarrow portion of the proof should have $q(\widetilde{W}) = aq(\widetilde{X}) + bq(\widetilde{Z})$.
- 22. Page 296, proof of Theorem 10.2: the creator of the theorem's name is misstated; it is the "Riezs Representation Theorem."
- 23. Page 297, in the second line of text of Section 10.8.1: The sentence should read, "Recall our original pricing Eq. (10.11) ..."
- 24. Page 297, Section 10.8.1, in the three lines of pricing equations at the bottom of the page there are two errors. First, \tilde{m}_t should be everywhere replaced by \tilde{m}_{t+1} . Second, there is a (minus sign) preceding the δ on the RHS of the first equation.
- 25. Page 299, first line of the text of Section 10.8.2: here and many places to follow the name Reitz (1988) is misspelled; it should be Rietz(1988). We mention this misspelling only here.
- 26. Page 301, twelve lines from the bottom: "Barrow" should read "Barro" (as other examples on page).
- 27. Page 301, seven lines from the bottom of the page: The reference is to Chapter 5.
- 28. Page 307, drop the line number (10.39); this equation is never referred to in the text. Keep the equation but don't number it.
- 29. Page 310, immediately following equation (10.42), the identification should read " $\tilde{\delta} = -\ln \delta$, where δ ..."
- 30. Page 312, the missing value in Table 10.5 should be (from Bansal and Yaron (2004)); $\sigma_{re} = 19.42\%$.

- 31. Page 314, equation (10.43): replace the μ with λ .
- 32. Page 314, second line below equation (10.43): the reference is to equation 9.3.
- 33. Page 315, first paragraph: Consistent with correction 31, the μ term should be everywhere replaced by λ .
- 34. Page 315, line before equation (10.44) should read: "Assets in this economy..., with Eq. (10.3) becoming..."
- 35. Page 315, first line following (10.44) should read "...differences between Eqs. (10.3) and (10.44).
- 36. Page 316: Weitzman quote at the bottom of the page, third line: should read ".... shows a rigorous sense in which.... "
- 37. Page 318, references: a missing reference is:Cochrane, J., "Presidential Address: Discount Rates," *Journal of Finance* 66(2011), 1047-1108.
- 38. Page 320, the third line of the first equation should be:

$$=\frac{g_j(\nu_j^*+1)}{\nu_j^*}-1$$

- 39. Page 320, in the last equation (line) before Appendix 10.2, remove the ", etc." term
- 40. Page 321, middle of the page: sentence should read "... We can directly use these values to solve Eq. (10.24):"
- 41. Page 321, four lines from the bottom: the reference is to equation (10.25).
- 42. Page 321, three lines from the bottom should read "... $m_t = \delta g_t^{-\gamma}$..."

1. Page 411, 7 lines from the bottom: add a / after $q(\theta_0, \theta_t(s))$ to denote the statement is a

fraction; i.e. it should be $q(\theta_0, \theta_t(s)) / \pi(\theta_0, \theta_t(s))$.

Chapter 14

1. Page 423, second equation from the bottom. The right-hand side should read:

$$= (b_{j1}\beta_{P_1} + b_{j2}\beta_{P_2})(\overline{r}_M - r_f)$$

2. Page 424, second line under point i: the initial f should be bolded, i.e., it should read:

$$f = \left[f^1, f^2, f^3, \dots f^K \right].$$

- 3. Page 424, second line under point ii: the f should be bolded, i.e.: f. Should read: $E\varepsilon_i f = 0$
- 4. Page 439, second equation: \mathbf{w}^{T} should be written as \mathbf{w}^{T} (bolded "w") $\sum_{i=1}^{N} w_{i} \beta_{i} = 0 = \mathbf{w}^{\mathrm{T}} \cdot \boldsymbol{\beta}$.

Chapter 15

- 1. Page 450, 11 lines from the top: Replace w = ey with $w = e^y$ [same as in two lines down]
- 2. Page 467. Formula (15.52) is not correct. From Mehra and Sah (2002): The formula should

read:
$$q_t = Y_t \frac{\delta e^{(1-\gamma)\left(\mu - (1/2)\gamma\sigma^2\right)}}{1 - \delta e^{(1-\gamma)\left(\mu - (1/2)\gamma\sigma^2\right)}}$$

Chapter 16

1. Page 479, Equation 16.6: the left-hand side of the equation should read: $\frac{Y_{t+1}}{Y_t}$.

Chapter 17

1. Page 509, the formula listed under item 4 defining investor k's preferences should be:

$$U_0^k(c_0^k) + \delta^k \sum_{\theta=1}^N \pi_\theta U^k(c_0^k) = \alpha c_0^k + E \ln c_0^k$$

2. Page 511, Table 17.3: under t=1, consistency of notation requires replacing θ_1 with θ =1

and θ_2 with θ =2. Note that this change should be similarly implemented in Tables 17.4, 17.7, 17.8, 17.9, 17.10, and 17.11. As stated, the context is clear, however: either convention is acceptable.

Page 511, the first order condition for Z_2 must rather be:

$$z_2$$
: $\frac{q^e}{10} = \left[\frac{1}{5 + 2z_2} + \frac{1}{1 + 2z_2} \right]$

.

- Page 511, first and second lines of the second paragraph should be corrected to read:
 ... a large proportion of their period 0 consumption in order to increase period 1 consumption."
- 4. Page 511, four lines down in the second to final paragraph, the fraction should be

$$\frac{\frac{1}{6}}{\frac{1}{2}} = \frac{1}{3}$$

5. Page 512, agent 2's problem should read:

$$\max\left(\frac{1}{10}\right)(4 - q_x z_x^2 - q_w z_w^2) + \left[\frac{1}{2}\ln(5 + 2z_x^2) + \frac{1}{2}\ln(1 + 2z_w^2)\right]$$
s.t. $q_x z_x^2 + q_w z_w^2 \le 4$

6. Page 512, the first order conditions for agent 2, equations (iii) and (iv), should read:

(iii)
$$\frac{1}{10}q_x = \frac{1}{2} \left(\frac{1}{5+2z_x^2}\right) 2$$

(iv)
$$\frac{1}{10}q_w = \frac{1}{2} \left(\frac{1}{1+2z_w^2}\right) 2$$

7. Page 516, third line of the 2nd paragraph has omitted parenthesis; it should be "... (because this is...across-state income redistribution) ..."

- 8. Page 518, paragraph beginning with Example 17.1, second line from the bottom should read "...for every k unit of period zero consumption..."
- 9. Page 519, first maximum problem, in section 17.5.1 should read $\max \ln(3-k) + \frac{1}{2}\ln(5+\sqrt{k}) + \frac{1}{2}\ln(1+\sqrt{k})$
- 10. Page 520, Agent 1's problem: the maximization should be taken over k, z_1^1 , z_2^1 .
- 11. Page 520, last equation on the page should read: $EU(c_0, c_\theta) = \frac{1}{12}c_0 + \frac{1}{2}\ln(c_1) + \frac{1}{2}\ln(c_2)$
- 12. Page 522, last line of section 17.5.3 should read: "total investment is $q(z_1 + z_2) = (3.3)(3i3) = \dots$ "
- 13. Page 523, three lines up from the bottom of the page should read "... $z_1^1 = z_1^2 = -z_2^2$."
- 14. Page 526, in Equation (17.8) the first (left-most) term should be:

$$\frac{-1}{3 - k_1 - q_1 z_1^1 + q_1 z_1^1}$$

- 15. Page 526, middle of the page, the text should read: "Solving for k_1 , Z_1^1 yields from Eq. (17.9)
- 16. Page 526, near to but below the middle of the page, the equation

$$\frac{1}{3-k_1} = \frac{1}{4} \frac{1}{\sqrt{k_1}} \left\{ \frac{1}{3+\sqrt{k_1}} \right\}$$

Should have $\left\{\frac{2}{3+\sqrt{k_1}}\right\}$ as its rightmost term.

- 1. Page 528, first line of the third paragraph should read: "The importance of..."
- 2. Page 534, the argument of the maximization problem in the middle of the page should be written: "... $maxE(\tilde{p} / p^f)(g(x) f) x p^f f ...$ "

- 3. Page 537, last line on the page should read: "... random variable \tilde{v} , were $\tilde{v} = \eta + \tilde{\omega}$ and $\tilde{\omega}$ is $N(0, \sigma_{\omega}^2)$."
- 4. Page 538, second line from the bottom: in the formula for F, the first term in the denominator should be $(N\chi + n\varepsilon)$ not $(N_{\chi} + n\varepsilon)$.
- 5. Page 538, in equations (18.10) and (18.11) replace σ_W^2 with σ_ω^2 ; also in the definition of L.
- 6. Page 540, in the last line of the first paragraph: the reference is to Eq. (10.4).