Errata in the second edition of

Stochastic Finance: An Introduction in Discrete Time

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page 10, second display: replace $\frac{d\widetilde{P}^*}{dP}$ by $\frac{d\widetilde{P}^*}{dP^*}$

page 11, third display: add minus signs to the right-hand sides of the equations

page 17, line 5: the risk-free investment should be $(1+\widetilde{r})/(1+r)$ instead of 1

page 20, last display in the proof of Theorem 1.31: replace $\pi_{\sup}(C)$ by m_n

page 21, line 8 in the proof of Corollary 1.34: define ξ^0 by $\xi^0 := \pi \cdot \xi - \pi_{\inf}(C)$

page 41, line -8: replace $L^0(\omega, \mathcal{F}_0, P; \mathbb{R}^d)$ by $L^0(\Omega, \mathcal{F}_0, P; \mathbb{R}^d)$

page 56, in Example 2.26: take $U(\mu)$ as $\lim_k k^2\mu(k)$ and let $\mathcal{M}$ be those μ for which this limit exists in $\mathbb{R}$

page 77, lines 10 to 12: replace $h(b)$ by $h(b)\mu((-\infty, b])$ in lines 10 and 11. In line 12, we must thus add the term $h(b)\big(\mu((-\infty,b]) - \nu((-\infty,b])\big)$. This term tends to zero as $b \uparrow \infty$, because $h(b)$ decays at most linearly as $b \uparrow \infty$, and both μ and ν have first moments.

page 120, last display in Example 3.23: replace $\cdots + \frac{\sigma^2}{\widetilde{\sigma}^2}$ by $\cdots + \frac{\widetilde{\sigma}^2}{\sigma^2}$

page 150, line 17: replace $\frac{E[\varphi]}{\varphi_0}$ by $\frac{\varphi_0}{E[\varphi]}$

page 163, line -1: swap $\mathcal{A}$ and $\mathcal{A}_\rho$

page 182, (4.38): replace $q^+_\lambda(X)$ by $q^+_X(\lambda)$

page 189, line 9: Remark ?? should be Example 4.13

page 204, first line in Proposition 4.93: replace $\mathbb{R}^d$ by $\mathbb{R}$

page 205, Theorem 4.95: Add the assumption that the cone generated by $\mathcal{S}$ is closed (compare comment on Theorem 9.9 below)

page 207: replace the identity in (4.59) by $\{\overline{\rho} < 0\} \subseteq \{\, X^{\mathcal{S}} + A \mid X^{\mathcal{S}} \in \mathcal{A}^{\mathcal{S}},\ A \in \mathcal{A}\,\} \subseteq \bar{\mathcal{A}}$. In the following line replace $X \in \bar{\mathcal{A}}$ by $\overline{\rho}(\overline{X}) < 0$. Three lines below (4.59) replace $X^{\mathcal{S}} + A + \xi \cdot Y \geq X \in \mathcal{A}$ by $X^{\mathcal{S}} + A + \xi \cdot Y \geq A \in \mathcal{A}$.

page 209, last line in the proof of Proposition 4.99: replace $E_{R^*}[\,Y\,]$ by $E_{R^*}[\,V\,]$

page 228, line -14: replace (b) by (5.8)

page 252, line -1: Wrtite $(1+r)$ instead of $(1+r)^t$

page 257, lines -1 and -6: replace $E^*[\,(S_T - \widetilde{K})^+; S_T < B\,]$ by $E^*[\,(S_T - \widetilde{K})^+; S_T < \widetilde{B}\,]$, where $\widetilde{B} := S_0^2/B$

page 258, line -10: replace $E^*[\,(S_T - \widetilde{K})^+; S_T < B\,]$ by $E^*[\,(S_T - \widetilde{K})^+; S_T < \widetilde{B}\,]$, where $\widetilde{B} = S_0^2/B$

page 263, line -3: the right-hand side of the display must be divided by $\sqrt{2\pi}$

page 264, line 3: $\Phi(x) = (2\pi)^{-1/2} \int_{-\infty}^{x} \cdots$

In Example 5.63: In the third line of the display in the middle of p. 274 and in the first display on p. 275, replace B by $\widetilde{B} = S_0^2/B$. The display in the middle of p. 275 should be corrected as follows:

$$e^{-rT}\left(\mathbb{E}\big[\,(S_T - K)^+;\, S_T \geq B\,\big] + \Big(\frac{B}{S_0}\Big)^{\frac{2r}{\sigma^2}+1} \mathbb{E}\big[\,(S_T - \widetilde{K})^+;\, S_T < \widetilde{B}\,\big]\right).$$

page 286, lines -6: replace T by $T-1$

page 291, line 12: the display should read $K/(1+b)^T \leq x^* < K$

page 295, line -1: replace $=$ by $\supset$. This does not effect the subsequent arguments since a priori $\Pi(H) \subseteq [1,2)$, due to the definition of $\Pi(H)$.

page 297, line 4 of Section 6.4: replace (6.17) by (6.19)

page 325, line 3 in the proof of Lemma 7.24: replace $=$ by $\geq$

page 331, line 4 in the proof of Theorem 7.31: delete "both sides are equal"

page 353, Theorem 9.9: As was kindly pointed out to us by Konstantinos Kardaras and Sven Lickfeld, we need to add the assumption that each cone $\mathcal{R}_t = \{\lambda\xi_t \,|\, \lambda \geq 0,\, \xi_t \in \mathcal{S}_t\}$ contains all bounded portfolios in its L^0-closure (which is automatically satisfied if $\mathcal{R}_t$ is itself closed in L^0. In turn, $\mathcal{R}_t$ is closed in L^0 as soon as $\mathcal{S}_t$ is itself a cone). This assumption is needed for the applicability of Lemma 9.12 in the proof of Lemma 9.13.

page 355, Lemma 9.13: Add the assumption that each cone $\mathcal{R}_t$ contains all bounded portfolios in its L^0-closure (compare comment on Thm. 9.9 above).

page 355, line -11: replace $\mathcal{F}_T$ by $\mathcal{F}_t$ and replace $-L^0_+$ by $-L^\infty_+$ in the next line

page 362, line -3: Assume $\mathcal{P}_{\mathcal{S}} \neq \emptyset$, which is stronger than the assumption that $\overline{\mathcal{S}}$ does not contain arbitrage opportunities (compare comment on Thm. 9.9 above).

page 371, Corollary 9.30: Add the assumption that each cone $\mathcal{R}_t$ contains all bounded portfolios in its L^0-closure (compare comment on Thm. 9.9 above).

page 391, Proposition 10.34: Recall that we work in $d = 1$

page 392, line 11: replace $\widetilde{V}_t$ by $\widehat{V}_t$

page 414, line 11: replace B^c by $B^c \cap \{X_1 = x_1, \ldots, X_n = x_n\}$

page 425, Theorem A.48: add the assumption that $\mathcal{L}$ contains the constants

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