

Valuation of default-sensitive claims under imperfect information (Publisher's Erratum)

Delia Coculescu · Hélyette Geman ·
Monique Jeanblanc

Published online: 28 August 2009
© Springer-Verlag 2009

Erratum to: Finance Stoch (2008) 12: 195–218
DOI 10.1007/s00780-007-0060-6

Due to errors in the typesetting process, some parts of this article were rendered incorrectly in Finance and Stochastics 12(2): 195–218 (2008). The incorrect parts and their correct versions are given here.

(1) On page 199, the formula

$$dY_t = \mu(Y_t, t) dt + \sigma(Y_t, t) dB_t + s(Y_t, t) dB'_t \quad (2.1)$$

$$= \mu(Y_t, t) dt + \sigma_1(Y_t, t) dB_t, \quad (2.2)$$

The online version of the original article can be found under doi:[10.1007/s00780-007-0060-6](https://doi.org/10.1007/s00780-007-0060-6).

D. Coculescu (✉)

Department of Mathematics, ETH, Rämistrasse 101, 8092 Zürich, Switzerland
e-mail: Delia.Coculescu@math.ethz.ch

H. Geman

Birkbeck University of London, Malet Street, London WC1E 7HX, UK
e-mail: h.geman@bbk.ac.uk

M. Jeanblanc

Equipe d'Analyse et Probabilités, Université d'Evry Val d'Essonne, rue du Père Jarlan,
91025 Evry Cedex, France
e-mail: monique.jeanblanc@univ-evry.fr

M. Jeanblanc

Europlace Institute of Finance, Paris, France

should read

$$dY_t = \mu(Y_t, t) dt + \sigma(Y_t, t) dB_t + s(Y_t, t) dB'_t \tag{2.1}$$

$$= \mu(Y_t, t) dt + \sigma_1(Y_t, t) d\beta_t, \tag{2.2}$$

(2) On page 200, after Proposition 3.1, the passage

Proof If M is an (\mathcal{F}_t) -local martingale, there exist an (\mathcal{F}_t) -predictable process and a constant m such that $M_t = m + \int_0^t h_u dB_u$. Since the process β is a (\mathcal{G}_t) -Brownian motion, M is a (\mathcal{G}_t) -local martingale. \square

should read

Proof If M is an (\mathcal{F}_t) -local martingale, there exist an (\mathcal{F}_t) -predictable process and a constant m such that $M_t = m + \int_0^t h_u d\beta_u$. Since the process β is a (\mathcal{G}_t) -Brownian motion, M is a (\mathcal{G}_t) -local martingale. \square

(3) On page 200, the formula

$$M_t = \int_0^t \frac{\sigma_1(Y_u, u)}{\sigma(Y_u, u) + \eta(Y_u, u)} dB_u, \tag{3.4}$$

$$N_t = \int_0^t \frac{\sigma_1(Y_u, u)}{\sigma(Y_u, u) + \eta(Y_u, u)} dD_u. \tag{3.5}$$

should read

$$M_t = \int_0^t \frac{\sigma_1(Y_u, u)}{\sigma(Y_u, u) + \eta(Y_u, u)} d\beta_u, \tag{3.4}$$

$$N_t = \int_0^t \frac{\sigma_1(Y_u, u)}{\sigma(Y_u, u) + \eta(Y_u, u)} dD_u. \tag{3.5}$$

(4) On page 210, the passage

We choose a constant default barrier $b \in (0, x_0)$ and suppose for the observation process the form

$$dY_t = rY_t dt + \sigma_1 Y_t dB_t, \quad Y_0 = x_0,$$

where $\sigma_1 = \sqrt{\sigma^2 + s^2}$ and $\beta_t = \frac{\sigma B_t + s B'_t}{\sigma_1}$.

should read

We choose a constant default barrier $b \in (0, x_0)$ and suppose for the observation process the form

$$dY_t = rY_t dt + \sigma_1 Y_t d\beta_t, \quad Y_0 = x_0,$$

where $\sigma_1 = \sqrt{\sigma^2 + s^2}$ and $\beta_t = \frac{\sigma B_t + s B'_t}{\sigma_1}$.

(5) On page 214, the passage

We choose to define the observation process as

$$dY_t = \lambda(\theta - Y_t)dt + \sigma_1 dB_t, \quad Y_0 = x_0,$$

with $\sigma_1 = \sqrt{\sigma^2 + s^2}$ and $\beta_t = (\sigma B_t + s B'_t)/\sigma_1$. The processes defined in Remark 3.6 take here the particular forms

$$\begin{aligned} M'_t &= \frac{\sigma \sigma_1}{\sigma + \eta} \int_0^t e^{\lambda u} dB_u, \\ N'_t &= \frac{\sigma \eta}{\sigma + \eta} \int_0^t e^{\lambda u} dB_u + \frac{\sigma s}{\sigma + \eta} \int_0^t e^{\lambda u} dB'_u \end{aligned}$$

with $\eta = s^2/\sigma$.

should read

We choose to define the observation process as

$$dY_t = \lambda(\theta - Y_t)dt + \sigma_1 d\beta_t, \quad Y_0 = x_0,$$

with $\sigma_1 = \sqrt{\sigma^2 + s^2}$ and $\beta_t = (\sigma B_t + s B'_t)/\sigma_1$. The processes defined in Remark 3.6 take here the particular forms

$$\begin{aligned} M'_t &= \frac{\sigma \sigma_1}{\sigma + \eta} \int_0^t e^{\lambda u} d\beta_u, \\ N'_t &= \frac{\sigma \eta}{\sigma + \eta} \int_0^t e^{\lambda u} dB_u + \frac{\sigma s}{\sigma + \eta} \int_0^t e^{\lambda u} dB'_u \end{aligned}$$

with $\eta = s^2/\sigma$.

(6) On page 216, the formula

$$dY_t = \mu dt + \sigma_1 dB_t,$$

should read

$$dY_t = \mu dt + \sigma_1 d\beta_t,$$