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Abbreviations

a.s.:	almost surely
cond.:	condition
const.:	constant
CSDE:	controlled stochastic differential equation
determ.:	deterministic
ed.:	1. edition 2. editor
e.g.:	for example
EAPO:	elasticity approach to portfolio optimization
f:	following page
ff:	following pages
i.e.:	that is
HJB:	Hamilton-Jacobi-Bellman equation
KTC:	Kuhn-Tucker condition
LP:	liquidity premium
p.:	page
ODE:	ordinary differential equation
PDE:	partial differential equation
RP:	risk premium
SDE:	stochastic differential equation
syn.:	synonym
stoch.:	stochastic
w.r.t.:	with respect to

Notations

$\ \cdot\ $:	Euklidian norm or operator norm
$\ \cdot\ _\infty$:	row-sum norm
$a \wedge b$:	minimum of the real numbers a and b
\bar{U} :	closure of the set U
M' :	transpose of the matrix M
\arg :	argument
$\mathcal{B}(U)$:	Borel- σ -algebra over the set U
$C^{1,2}$:	space of the continuous functions which are continuously differentiable with respect to the first variable and two-times continuously differentiable with respect to the second variable
∂U :	boundary of the set U
$\text{diag}(a_1, \dots, a_n)$:	diagonal matrix with diagonal elements a_1, \dots, a_n
$\text{diam}(U)$:	diameter of the set U
\exp :	exponential function
$e(X)$:	expected value of the random variable X
$\inf(U)$:	infimum of the set U
\ln :	logarithm to base e
\mathbb{N} :	natural numbers
$\max(U)$:	maximum of the set U
$\min(U)$:	minimum of the set U
\mathbb{R} :	real numbers
\mathbb{R}_+ :	$\{y \in \mathbb{R} : y > 0\}$
\mathbb{R}_+^0 :	$\mathbb{R}_+ \cup \{0\}$
$\sup(U)$:	supremum of the set U

Given some function $f \in C^{1,2}$ depending on t and x and some stochastic process Z , throughout this thesis f_t, f_x, f_{xx} denote the partial derivatives of f and $Z(t)$ denotes the value of Z at time t .