

# Notation Index for

## *Wakker (2010) “Prospect Theory: for Risk and Ambiguity”*

$\cup$ : union of sets

$\cap$ : intersection of sets

$\subset$ : subset

$\supset$ : superset

$\emptyset$ : empty set; vacuous event

$\succsim$ : p. 14 (weak) preference over prospects; p. 290 for events

$\precsim$ : p. 14 reversed preference

$\succ$ : p. 14 strict preference

$\prec$ : p. 14 strict reversed preference

$\sim$ : p. 14 equivalence or indifference

$\sim^t$ : p. 108 t-indifference

$\sim^{\dagger}$ : p. 183, p. 295 t-indifference

$\sim_{cs}^t$ : p. 262, p. 345 t-indifference

$\ominus$ : p. 108, 107 tradeoff

$\sum_{j=1}^0 x_j$ : p. 169 (= 0)

$\circ$ : p. 411 (function composition)

$\alpha, \beta, \gamma, \delta$  (Greek letters): p. 13 outcomes (p. 14, 47: or constant/degenerate prospects)

$\alpha_E \beta$ : p. 13, p. 298 binary prospect

$\alpha_{EX}$ : p. 102 (changing one outcome)

$\alpha_{ERX}$ : p. 294, p. 345 (changing one outcome)

$\alpha_{ELX}$ : p. 345 (changing one outcome)

$\alpha_p \beta$ : p. 47 binary prospect

$\theta$ : p. 78, p. 80 power/exponent parameter of utility

$\lambda$ : p. 46 Lebesgue measure

$\lambda$ : p. 239 loss aversion parameter

$\pi$ : p. 170, p. 171, p. 283 (decision weight)

$\pi(E_j)$ : p. 285 (decision weight of  $x_j$ )

$\pi_j$ : p. 171, 284 (decision weight of  $x_j$ )  
 $\pi(p_j)$ : p. 171 (decision weight of  $x_j$ )  
 $\pi(x_j)$ : p. 171, p. 285 (decision weight of  $x_j$ )  
 $\mathbb{R}$ : p. 13 set of real numbers (is outcome set)  
 $\rho$ : p. 250 reference point  
 $\rho$ : p. 311 complete ranking  
 $[A, B]$ : p. 290 ( $\{E: A \preceq E \preceq B\}$ )  
 $A, B$ : p. 318 (sources)  
 $b_{rb}$ : p. 223 best-rank boundary  
 $B_{rb}$ : p. 290 best-rank boundary  
 $E, E_1, E_j, F, A, B, C, D$  p. 13 events  
 $(E_1:x_1, \dots, E_n:x_n)$ : p. 13 prospect  
 $E_1x_1, E_2x_2, E_3x_3$ : p. 13 prospect  
 $E_1x_1 \cdots E_nx_n$ : p. 13 prospect  
 $E^b$ : p. 285  $E^\emptyset$   
 $E^c = S - E$ : p. 13 complementary event (negation)  
 $E^G$ : p. 283, p. 343 (gain-)ranked event  
 $E_j$ : p. 13 (outcome event of outcome  $x_j$ )  
 $E_j - E$ : p. 103 (set-difference)  
 $E_L$ : p. 305, p. 343 loss-ranked event  
 $E^R$ : p. 283 (gain-)ranked event  
 $E^w$ : p. 285  $E^{E^c}$   
 $g$ : p. 253 gain-rank  
 $G$ : p. 283 gain-rank  
 $I$ : p. 238 (initial wealth)  
 $k$ : p. 253, p. 343 ( $x_k \geq 0 \geq x_{k-1}$ )  
 $\ell$ : p. 219 loss rank  
 $L$ : p. 304, p. 343 loss rank  
 $P$ : p. 17, p. 100 (subjective) probability  
 $(p_1:x_1, \dots, p_n:x_n)$ : p. 47 prospect  
 $p_1x_1, \dots, p_nx_n$ : p. 47 (prospect)  
 $p_1x_1 \cdots p_nx_n$ : p. 47 (prospect)  
 $p^b$ : p. 171  $p^0$   
 $p_b$ : p. 222  $p_{1-p}$   
 $p^g$ : p. 253 (gain-)ranked probability

$p_j$ : p. 45 (probability of outcome  $x_j$ ); p. 19 (probability of event  $E_j$ )  
 $p_\ell$ : p. 219 loss-ranked probability  
 $p_{\ell}$ : p. 219 loss-ranked probability  
 $p^+$ : p. 170 (gain-)ranked probability  
 $p^r$ : p. 170 (gain-)ranked probability  
 $p^w$ : p. 171  $p^{1-p}$   
 $p_w$ : p. 222  $p_0$   
 $r$ : p. 170 (probability) rank  
 $R$ : p. 283 (event-)rank  
 $s$ : p. 12 state (of nature)  
 $S$ : p. 12 state space  
 $U$ : utility function –  
 $w$ : p. 169, p. 170 (probability) weighting function  
 $w^+$ : p. 252, (probability) weighting function for gains  
 $w^-$ : p. 252, (probability) weighting function for losses  
 $W$ : p. 282-284, 170 (probability) weighting function  
 $W^+$ : p. 342, p. 343, (probability) weighting function for gains  
 $W^-$ : p. 342, p. 343, (probability) weighting function for losses  
 $w_{rb}$ : p. 223 worst-rank boundary  
 $W_{rb}$ : p. 290 worst-rank boundary  
 $x, y$  (f,g,h, a,b,c,d): p. 13 prospects  
 $(x_1, \dots, x_n)$ : p. 14 prospect with events suppressed  
 $x^-$ : p. 254, p. 344 (loss-part of  $x$ )  
 $x^+$ : p. 254, p. 344 (gain-part of  $x$ )  
 $x_i$  (roman letters with subscripts): p. 13 outcome of prospect  $x$  under event  $E_i$   
 $x_\lambda y$ : p. 59 (probabilistic) mixture of prospect  
 $z$ : p. 220 dual weighting function  
 $Z$ : p. 304 dual weighting function