Modelo QEE determinístico:

$$C = C_1 \frac{q}{2} + C_3 \frac{r}{q} \qquad q^* = QEE = \sqrt{\frac{2rC_3}{C_1}} \qquad (C_1 = i \cdot b)$$

Probabilidade e esperança de quebra (definições):

$$\mathrm{P}[DDLT > S] = \int_S^\infty p(x)dx$$

$$E[DDLT > S] = \int_S^\infty (x - S)p(x)dx = \int_S^\infty x \cdot p(x)dx - S \cdot \mathrm{P}[DDLT > S]$$

(Obs.1: no caso de distribuições discretas, usar somatórios em vez de integrais)

(Obs.2: no caso do modelo Ciclo de Encomenda, substituir DDLT por DDPP)

Política/modelo Nível de Encomenda (caso de "encomendas em carteira"):

$$C = C_1\left(\frac{q}{2} + S - \mu_{DDLT}\right) + C_2 \frac{r}{q}\mathrm{E}[DDLT > S] + C_3 \frac{r}{q}$$

$$q^* = \sqrt{\frac{2r\left(C_2\mathrm{E}[\mathrm{DDLT} > \mathrm{S}] + C_3\right)}{C_1}} \approx \sqrt{\frac{2rC_3}{C_1}} \qquad \mathrm{P}^*[DDLT > S] = \frac{C_1 q^*}{C_2 r}$$

Política/modelo Ciclo de Encomenda (caso de "encomendas em carteira"):

$$C = C_1(S - rl - r\,t/2) + C_2(1/t)E[DDPP > S] + C_3(1/t)$$

$$t^* \approx \sqrt{\frac{2C_3}{C_1 r}} \qquad P^*[DDPP > S] = \frac{C_1 t^*}{C_2}$$

Caso da Distribuição Normal:

Nível de Encomenda: $S = \mu_{DDLT} + Z\sigma_{DDLT}$ $\qquad E[DDLT > S] = 2^o\,integral \times \sigma_{DDLT}$

Ciclo de Encomenda: $S = \mu_{DDPP} + Z\sigma_{DDPP}$ $\qquad E[DDPP > S] = 2^o\,integral \times \sigma_{DDPP}$

Procura durante o prazo de entrega:	**Procura durante o período de planeamento:**
$\mu_{DDLT} = rl \qquad \sigma^2_{DDLT} = l\sigma_r^2 + r^2\sigma_l^2$	$\mu_{DDPP} = r(t+l) \qquad \sigma^2_{DDPP} = (t+l)\sigma_r^2 + r^2\sigma_l^2$

DISTRIBUIÇÃO NORMAL (0,1) – probabilidade e esperança de quebra

N	1º integral	*2º integral*	N	1º integral	*2º integral*
1	0.486684	*0.379760*	51	0.061658	*0.025002*
2	0.474728	*0.365339*	52	0.058030	*0.023207*
3	0.462794	*0.351276*	53	0.054568	*0.021518*
4	0.450892	*0.337570*	54	0.051266	*0.019931*
5	0.439032	*0.324222*	55	0.048122	*0.018440*
6	0.427226	*0.311228*	56	0.045129	*0.017041*
7	0.415484	*0.298587*	57	0.042283	*0.015730*
8	0.403815	*0.286298*	58	0.039580	*0.014502*
9	0.392230	*0.274357*	59	0.037014	*0.013353*
10	0.380739	*0.262762*	60	0.034580	*0.012279*
11	0.369350	*0.251511*	61	0.032275	*0.011276*
12	0.358074	*0.240600*	62	0.030093	*0.010341*
13	0.346918	*0.230025*	63	0.028029	*0.009469*
14	0.335893	*0.219783*	64	0.026079	*0.008657*
15	0.325005	*0.209869*	65	0.024238	*0.007903*
16	0.314264	*0.200280*	66	0.022502	*0.007201*
17	0.303676	*0.191011*	67	0.020866	*0.006551*
18	0.293249	*0.182057*	68	0.019325	*0.005948*
19	0.282989	*0.173414*	69	0.017876	*0.005390*
20	0.272903	*0.165075*	70	0.016515	*0.004874*
21	0.262997	*0.157037*	71	0.015236	*0.004398*
22	0.253277	*0.149293*	72	0.014036	*0.003959*
23	0.243747	*0.141837*	73	0.012912	*0.003555*
24	0.234413	*0.134665*	74	0.011859	*0.003183*
25	0.225277	*0.127770*	75	0.010875	*0.002842*
26	0.216346	*0.121145*	76	0.009954	*0.002530*
27	0.207620	*0.114786*	77	0.009094	*0.002244*
28	0.199104	*0.108685*	78	0.008292	*0.001983*
29	0.190800	*0.102836*	79	0.007544	*0.001746*
30	0.182710	*0.097234*	80	0.006848	*0.001530*
31	0.174836	*0.091871*	81	0.006200	*0.001334*
32	0.167178	*0.086740*	82	0.005597	*0.001157*
33	0.159737	*0.081837*	83	0.005037	*0.000998*
34	0.152514	*0.077153*	84	0.004518	*0.000854*
35	0.145509	*0.072683*	85	0.004036	*0.000726*
36	0.138721	*0.068419*	86	0.003590	*0.000611*
37	0.132150	*0.064356*	87	0.003177	*0.000510*
38	0.125793	*0.060487*	88	0.002795	*0.000420*
39	0.119651	*0.056805*	89	0.002443	*0.000342*
40	0.113720	*0.053305*	90	0.002117	*0.000273*
41	0.107999	*0.049979*	91	0.001817	*0.000214*
42	0.102485	*0.046822*	92	0.001540	*0.000164*
43	0.097175	*0.043827*	93	0.001286	*0.000122*
44	0.092068	*0.040988*	94	0.001051	*0.000087*
45	0.087158	*0.038300*	95	0.000836	*0.000058*
46	0.082443	*0.035756*	96	0.000638	*0.000036*
47	0.077920	*0.033350*	97	0.000457	*0.000020*
48	0.073584	*0.031078*	98	0.000291	*0.000009*
49	0.069431	*0.028932*	99	0.000139	*0.000002*
50	0.065457	*0.026909*	100	0.000000	*0.000000*

N.B.: $Z = {}^{3N}\!/_{100}$