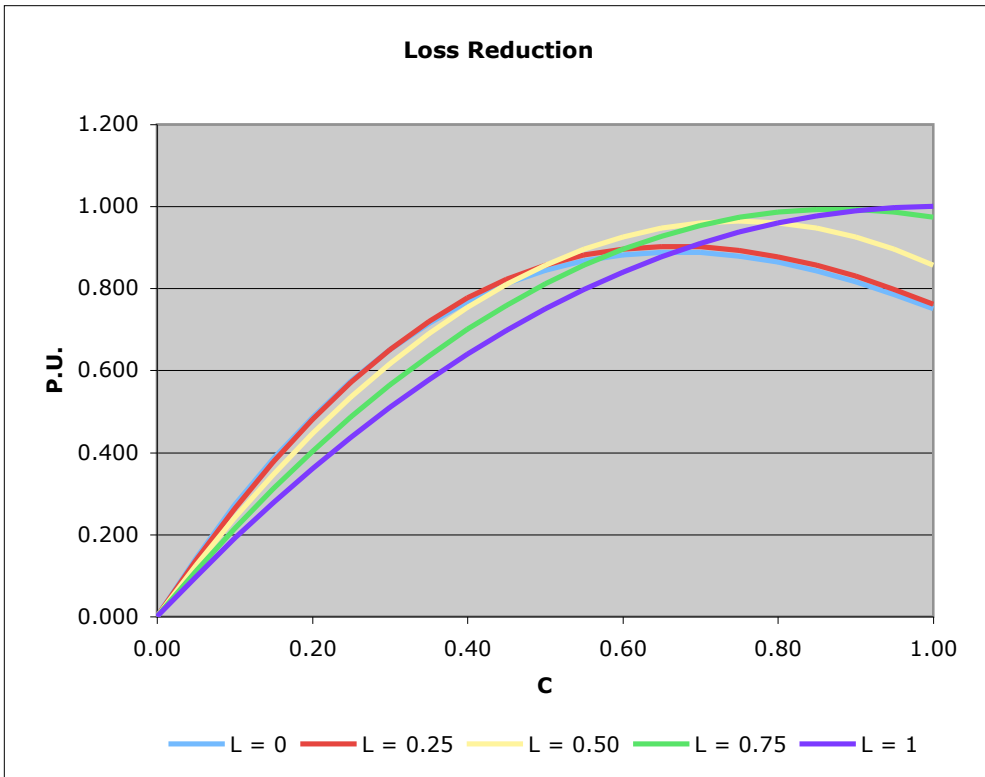


C	PLR L = 1		PLR L = 0.25		PLR L = 0.5		PLR L = 0.75		PLR L = 1	
	Xopt		Xopt		Xopt		Xopt		Xopt	
0.00	1.000	0.000	1.000	0.000	1.00	0.000	1.00	0.000	1.00	0.000
0.05	0.975	0.143	1.000	0.137	1.00	0.124	1.00	0.110	1.00	0.098
0.10	0.950	0.271	1.000	0.263	1.00	0.240	1.00	0.214	1.00	0.190
0.15	0.925	0.385	1.000	0.377	1.00	0.347	1.00	0.311	1.00	0.278
0.20	0.900	0.486	1.000	0.480	1.00	0.446	1.00	0.402	1.00	0.360
0.25	0.875	0.574	1.000	0.571	1.00	0.536	1.00	0.486	1.00	0.438
0.30	0.850	0.650	1.000	0.651	1.00	0.617	1.00	0.564	1.00	0.510
0.35	0.825	0.715	1.000	0.720	1.00	0.690	1.00	0.636	1.00	0.578
0.40	0.800	0.768	1.000	0.777	1.00	0.754	1.00	0.701	1.00	0.640
0.45	0.775	0.811	1.000	0.823	1.00	0.810	1.00	0.759	1.00	0.698
0.50	0.750	0.844	1.000	0.857	1.00	0.857	1.00	0.811	1.00	0.750
0.55	0.725	0.867	0.967	0.881	1.00	0.896	1.00	0.856	1.00	0.798
0.60	0.700	0.882	0.933	0.896	1.00	0.926	1.00	0.895	1.00	0.840
0.65	0.675	0.888	0.900	0.903	1.00	0.947	1.00	0.928	1.00	0.878
0.70	0.650	0.887	0.867	0.901	1.00	0.960	1.00	0.954	1.00	0.910
0.75	0.625	0.879	0.833	0.893	1.00	0.964	1.00	0.973	1.00	0.938
0.80	0.600	0.864	0.800	0.878	1.00	0.960	1.00	0.986	1.00	0.960
0.85	0.575	0.843	0.767	0.856	1.00	0.947	1.00	0.992	1.00	0.978
0.90	0.550	0.817	0.733	0.830	1.00	0.926	1.00	0.992	1.00	0.990
0.95	0.525	0.786	0.700	0.798	1.00	0.896	1.00	0.986	1.00	0.998
1.00	0.500	0.750	0.667	0.762	1.00	0.857	1.00	0.973	1.00	1.000



$$x_{OPT} = \left(\frac{2-C}{2(1-\lambda)} \right)$$

$$PLR = \frac{C \left[3(x_{OPT})^2 (\lambda - 1) + (6 - 3C)(x_{OPT}) \right]}{(\lambda^2 + \lambda + 1)} \quad \text{for } \lambda = \frac{3}{4}, \frac{1}{2}, \frac{1}{4}, 0$$

$$PLR = \frac{-3 \cdot c \cdot (c-2)^2}{4 \cdot (\lambda - 1) \cdot (\lambda^2 + \lambda + 1)} \quad \text{for } \lambda = 1$$

Lamda	1	0.75	0.5	0.25	0
X					
0	0.000	0.000	0.000	0.000	0.000
0.05	0.050	0.064	0.084	0.110	0.143
0.1	0.100	0.127	0.163	0.212	0.271
0.15	0.150	0.187	0.238	0.305	0.385
0.2	0.200	0.247	0.309	0.391	0.486
0.25	0.250	0.304	0.377	0.469	0.574
0.3	0.300	0.361	0.440	0.540	0.650
0.35	0.350	0.415	0.500	0.604	0.715
0.4	0.400	0.468	0.555	0.661	0.768
0.45	0.450	0.520	0.608	0.711	0.811
0.5	0.500	0.570	0.656	0.754	0.844
0.55	0.550	0.619	0.701	0.792	0.867
0.6	0.600	0.666	0.743	0.824	0.882
0.65	0.650	0.712	0.782	0.850	0.888
0.7	0.700	0.756	0.817	0.870	0.887
0.75	0.750	0.799	0.849	0.886	0.879
0.8	0.800	0.841	0.878	0.896	0.864
0.85	0.850	0.881	0.904	0.902	0.843
0.9	0.900	0.920	0.927	0.903	0.817
0.95	0.950	0.957	0.947	0.900	0.786
1	1.000	0.993	0.964	0.893	0.750

Problem #2 -

$$C_{OPT} = 0.5[(\lambda - 1) \cdot x_1 + 2]$$

Problem #3 -

$$PLR = \frac{0.75x_1[(\lambda - 1) \cdot x_1 + 2]}{\lambda^2 + \lambda + 1}$$

Problem #4 -

$$C_{OPT} = \frac{2}{3}$$

$$x_{OPT} = \frac{2}{3(1 - \lambda)}$$

$$PRL = \frac{8}{9(1 - \lambda)(1 + \lambda + \lambda^2)}$$

