Results

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1 Results for the baseline model

	mean	sd	10% quant	90% quant
Total_return	200.00	0.00	200.00	200.00
Returns_P	100.24	11.69	84.00	114.40
Returns_NP	99.76	11.69	85.60	116.00
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.00	0.00	2.00	2.00
Share_P	0.50	0.06	0.42	0.57
Share_NP	0.50	0.06	0.43	0.58

Table 1: Summary statistics for baseline model with switching probability 50% and $\sigma_{NP} = 0$.

	mean	sd	10% quant	90% quant
Total_return	200.63	5.49	193.59	206.34
Returns_P	99.92	10.14	88.00	112.00
Returns_NP	100.71	11.26	88.95	117.08
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.01	0.11	1.86	2.14
Share_P	0.50	0.05	0.44	0.56
Share_NP	0.50	0.05	0.44	0.56

Table 2: Summary statistics for baseline model with switching probability 50% and $\sigma_{NP} = 1$.

	mean	sd	10% quant	90% quant
Total_return	205.52	30.79	170.12	246.75
Returns_P	101.30	9.73	89.80	112.20
Returns_NP	104.22	32.50	68.72	153.30
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.11	0.63	1.37	2.98
Share_P	0.51	0.05	0.45	0.56
Share_NP	0.49	0.05	0.44	0.55

Table 3: Summary statistics for baseline model with switching probability 50% and $\sigma_{NP} = 5$.

	mean	sd	10% quant	90% quant
Total_return	203.98	56.60	136.18	271.49
Returns_P	99.00	10.72	85.80	112.20
Returns_NP	104.98	56.06	40.22	179.03
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.10	1.13	0.79	3.44
Share_P	0.50	0.05	0.43	0.56
Share_NP	0.50	0.05	0.44	0.57

Table 4: Summary statistics for baseline model with switching probability 50% and $\sigma_{NP} = 10$.

	mean	sd	10% quant	90% quant
Total_return	200.00	0.00	200.00	200.00
Returns_P	49.04	7.50	40.00	58.20
Returns_NP	150.96	7.50	141.80	160.00
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.00	0.00	2.00	2.00
Share_P	0.25	0.04	0.20	0.29
Share_NP	0.75	0.04	0.71	0.80

Table 5: Summary statistics for baseline model with switching probability 25% and $\sigma_{NP} = 0$.

	mean	sd	10% quant	90% quant
Total_return	200.68	8.06	190.66	211.50
Returns_P	47.90	8.11	38.00	58.00
Returns_NP	152.78	11.05	137.72	165.00
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.01	0.11	1.88	2.14
Share_P	0.24	0.04	0.19	0.29
Share_NP	0.76	0.04	0.71	0.81

Table 6: Summary statistics for baseline model with switching probability 25% and $\sigma_{NP} = 1$.

	mean	sd	10% quant	90% quant
Total_return	194.90	33.05	155.39	239.87
Returns_P	49.62	8.82	40.00	60.00
Returns_NP	145.28	32.73	107.49	188.42
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	1.94	0.44	1.42	2.54
Share_P	0.25	0.04	0.20	0.30
Share_NP	0.75	0.04	0.70	0.80

Table 7: Summary statistics for baseline model with switching probability 25% and $\sigma_{NP} = 5$.

	mean	sd	10% quant	90% quant
Total_return	191.16	74.29	104.91	283.52
Returns_P	48.82	8.33	38.00	58.00
Returns_NP	142.34	76.87	60.64	236.92
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	1.87	0.99	0.76	3.11
Share_P	0.24	0.04	0.19	0.29
Share_NP	0.76	0.04	0.71	0.81

Table 8: Summary statistics for baseline model with switching probability 25% and $\sigma_{NP} = 10$.

	mean	sd	10% quant	90% quant
Total_return	200.00	0.00	200.00	200.00
Returns_P	149.84	9.58	138.00	162.00
Returns_NP	50.16	9.58	38.00	62.00
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.00	0.00	2.00	2.00
Share_P	0.75	0.05	0.69	0.81
Share_NP	0.25	0.05	0.19	0.31

Table 9: Summary statistics for baseline model with switching probability 75% and $\sigma_{NP} = 0$.

	mean	sd	10% quant	90% quant
Total_return	199.27	4.31	193.31	204.50
Returns_P	150.10	8.81	138.00	162.00
Returns_NP	49.17	9.66	37.24	61.02
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	1.97	0.17	1.75	2.18
Share_P	0.75	0.04	0.69	0.81
Share_NP	0.25	0.04	0.19	0.31

Table 10: Summary statistics for baseline model with switching probability 75% and $\sigma_{NP} = 1$.

2 Results for extension 1

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	mean	sd	10% quant	90% quant
Total_return	197.21	24.03	167.03	226.01
Returns_P	151.76	8.09	142.00	162.00
Returns_NP	45.45	24.36	14.63	75.52
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	1.89	1.00	0.59	3.20
Share_P	0.76	0.04	0.71	0.81
Share_NP	0.24	0.04	0.19	0.29

Table 11: Summary statistics for baseline model with switching probability 75% and $\sigma_{NP} = 5$.

	mean	sd	10% quant	90% quant
Total_return	200.82	39.80	149.52	253.99
Returns_P	148.86	7.54	139.80	158.00
Returns_NP	51.96	40.81	-2.26	102.25
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.03	1.61	-0.10	3.80
Share_P	0.74	0.04	0.70	0.79
Share_NP	0.26	0.04	0.21	0.30

Table 12: Summary statistics for baseline model with switching probability 75% and $\sigma_{NP} = 10$.

	mean	sd	10% quant	90% quant
Total_return	200.00	0.00	200.00	200.00
Returns_P	102.50	10.34	88.00	114.00
Returns_NP	97.50	10.34	86.00	112.00
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.00	0.00	2.00	2.00
Share_P	0.51	0.05	0.44	0.57
Share_NP	0.49	0.05	0.43	0.56

Table 13: Summary statistics for extension one with $k = 1$, $\delta_P = 50\%$, and decision making A.

	mean	sd	10% quant	90% quant
Total_return	200.00	0.00	200.00	200.00
Returns_P	99.62	9.95	88.00	112.00
Returns_NP	100.38	9.95	88.00	112.00
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.00	0.00	2.00	2.00
Share_P	0.50	0.05	0.44	0.56
Share_NP	0.50	0.05	0.44	0.56

Table 14: Summary statistics for extension one with $k = 1$, $\delta_P = 50\%$, and decision making B.

	mean	sd	10% quant	90% quant
Total_return	200.0	0.0	200.0	200.0
Returns_P	0.0	0.0	0.0	0.0
Returns_NP	200.0	0.0	200.0	200.0
Returns_P_pc	0.0	0.0	0.0	0.0
Returns_NP_pc	2.0	0.0	2.0	2.0
Share_P	0.0	0.0	0.0	0.0
Share_NP	1.0	0.0	1.0	1.0

Table 15: Summary statistics for extension one with $k = 1$, $\delta_P = 50\%$, and decision making C.

	mean	sd	10% quant	90% quant
Total_return	200.00	0.00	200.00	200.00
Returns_P	101.68	9.00	92.00	112.00
Returns_NP	98.32	9.00	88.00	108.00
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.00	0.00	2.00	2.00
Share_P	0.51	0.04	0.46	0.56
Share_NP	0.49	0.04	0.44	0.54

Table 16: Summary statistics for extension one with $k = 10$, $\delta_P = 50\%$, and decision making A.

	mean	sd	10% quant	90% quant
Total_return	200.00	0.00	200.00	200.00
Returns_P	99.58	10.55	88.00	112.00
Returns_NP	100.42	10.55	88.00	112.00
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.00	0.00	2.00	2.00
Share_P	0.50	0.05	0.44	0.56
Share_NP	0.50	0.05	0.44	0.56

Table 17: Summary statistics for extension one with $k = 10$, $\delta_P = 50\%$, and decision making B.

3 Results for extension 2

In this extension, the farmers compare their yields to make decisions.

	mean	sd	10% quant	90% quant
Total_return	200.0	0.0	200.0	200.0
Returns_P	0.0	0.0	0.0	0.0
Returns_NP	200.0	0.0	200.0	200.0
Returns_P_pc	0.0	0.0	0.0	0.0
Returns_NP_pc	2.0	0.0	2.0	2.0
Share_P	0.0	0.0	0.0	0.0
Share_NP	1.0	0.0	1.0	1.0

Table 18: Summary statistics for extension one with $k = 10$, $\delta_P = 50\%$, and decision making C.

	mean	sd	10% quant	90% quant
Total_return	200.00	0.00	200.00	200.00
Returns_P	100.72	9.46	90.00	112.20
Returns_NP	99.28	9.46	87.80	110.00
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.00	0.00	2.00	2.00
Share_P	0.50	0.05	0.45	0.56
Share_NP	0.50	0.05	0.44	0.55

Table 19: Summary statistics for extension one with $k = 50$, $\delta_P = 50\%$, and decision making A.

	mean	sd	10% quant	90% quant
Total_return	200.0	0.0	200.0	200.0
Returns_P	0.0	0.0	0.0	0.0
Returns_NP	200.0	0.0	200.0	200.0
Returns_P_pc	0.0	0.0	0.0	0.0
Returns_NP_pc	2.0	0.0	2.0	2.0
Share_P	0.0	0.0	0.0	0.0
Share_NP	1.0	0.0	1.0	1.0

Table 20: Summary statistics for extension one with $k = 50$, $\delta_P = 50\%$, and decision making B.

	mean	sd	10% quant	90% quant
Total_return	200.0	0.0	200.0	200.0
Returns_P	0.0	0.0	0.0	0.0
Returns_NP	200.0	0.0	200.0	200.0
Returns_P_pc	0.0	0.0	0.0	0.0
Returns_NP_pc	2.0	0.0	2.0	2.0
Share_P	0.0	0.0	0.0	0.0
Share_NP	1.0	0.0	1.0	1.0

Table 21: Summary statistics for extension one with $k = 50$, $\delta_P = 50\%$, and decision making C.

	mean	sd	10% quant	90% quant
Total_return	200.0	0.0	200.0	200.0
Returns_P	200.0	0.0	200.0	200.0
Returns_NP	0.0	0.0	0.0	0.0
Returns_P_pc	2.0	0.0	2.0	2.0
Returns_NP_pc	0.0	0.0	0.0	0.0
Share_P	1.0	0.0	1.0	1.0
Share_NP	0.0	0.0	0.0	0.0

Table 22: Summary statistics for extension one with $k = 100$, $\delta_P = 50\%$, and decision making A.

	mean	sd	10% quant	90% quant
Total_return	200.00	0.00	200.00	200.00
Returns_P	133.72	8.90	122.00	144.00
Returns_NP	66.28	8.90	56.00	78.00
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.00	0.00	2.00	2.00
Share_P	0.67	0.04	0.61	0.72
Share_NP	0.33	0.04	0.28	0.39

Table 23: Summary statistics for extension one with $k = 100$, $\delta_P = 50\%$, and decision making B.

	mean	sd	10% quant	90% quant
Total_return	200.0	0.0	200.0	200.0
Returns_P	0.0	0.0	0.0	0.0
Returns_NP	200.0	0.0	200.0	200.0
Returns_P_pc	0.0	0.0	0.0	0.0
Returns_NP_pc	2.0	0.0	2.0	2.0
Share_P	0.0	0.0	0.0	0.0
Share_NP	1.0	0.0	1.0	1.0

Table 24: Summary statistics for extension one with $k = 100$, $\delta_P = 50\%$, and decision making C.

	mean	sd	10% quant	90% quant
Total_return	200.00	0.00	200.00	200.00
Returns_P	97.90	9.42	84.00	110.20
Returns_NP	102.10	9.42	89.80	116.00
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.00	0.00	2.00	2.00
Share_P	0.49	0.05	0.42	0.55
Share_NP	0.51	0.05	0.45	0.58

Table 25: Summary statistics for extension two with $k = 50$ and $\delta_P = 25\%$.

	mean	sd	10% quant	90% quant
Total_return	200.00	0.00	200.00	200.00
Returns_P	97.90	9.42	84.00	110.20
Returns_NP	102.10	9.42	89.80	116.00
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.00	0.00	2.00	2.00
Share_P	0.49	0.05	0.42	0.55
Share_NP	0.51	0.05	0.45	0.58

Table 26: Summary statistics for extension two with $k = 50$ and $\delta_P = 25\%$.

	mean	sd	10% quant	90% quant
Total_return	200.00	0.00	200.00	200.00
Returns_P	97.90	9.42	84.00	110.20
Returns_NP	102.10	9.42	89.80	116.00
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.00	0.00	2.00	2.00
Share_P	0.49	0.05	0.42	0.55
Share_NP	0.51	0.05	0.45	0.58

Table 27: Summary statistics for extension two with $k = 50$ and $\delta_P = 25\%$.

	mean	sd	10% quant	90% quant
Total_return	200.00	0.00	200.00	200.00
Returns_P	97.90	9.42	84.00	110.20
Returns_NP	102.10	9.42	89.80	116.00
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.00	0.00	2.00	2.00
Share_P	0.49	0.05	0.42	0.55
Share_NP	0.51	0.05	0.45	0.58

Table 28: Summary statistics for extension two with $k = 50$ and $\delta_P = 25\%$.

	mean	sd	10% quant	90% quant
Total_return	200.00	0.00	200.00	200.00
Returns_P	97.90	9.42	84.00	110.20
Returns_NP	102.10	9.42	89.80	116.00
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.00	0.00	2.00	2.00
Share_P	0.49	0.05	0.42	0.55
Share_NP	0.51	0.05	0.45	0.58

Table 29: Summary statistics for extension two with $k = 50$, $\delta_P = 25\%$ and decision based upon comparison of all farmers' yield (case A).

	mean	sd	10% quant	90% quant
Total_return	200.00	0.00	200.00	200.00
Returns_P	101.06	8.94	90.00	112.00
Returns_NP	98.94	8.94	88.00	110.00
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.00	0.00	2.00	2.00
Share_P	0.51	0.04	0.45	0.56
Share_NP	0.49	0.04	0.44	0.55

Table 30: Summary statistics for extension two with $k = 50$, $\delta_P = 50\%$ and decision based upon comparison of all farmers' yield (case A).

	mean	sd	10% quant	90% quant
Total_return	200.00	0.00	200.00	200.00
Returns_P	99.96	9.26	88.00	112.00
Returns_NP	100.04	9.26	88.00	112.00
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.00	0.00	2.00	2.00
Share_P	0.50	0.05	0.44	0.56
Share_NP	0.50	0.05	0.44	0.56

Table 31: Summary statistics for extension two with $k = 50$, $\delta_P = 75\%$ and decision based upon comparison of all farmers' yield (case A).

	mean	sd	10% quant	90% quant
Total_return	200.0	0.00	200.00	200.00
Returns_P	101.0	9.71	89.80	114.00
Returns_NP	99.0	9.71	86.00	110.20
Returns_P_pc	2.0	0.00	2.00	2.00
Returns_NP_pc	2.0	0.00	2.00	2.00
Share_P	0.5	0.05	0.45	0.57
Share_NP	0.5	0.05	0.43	0.55

Table 32: Summary statistics for extension two with $k = 50$, $\delta_P = 25\%$ and decision based upon comparison of neighbors' yield (case B).

	mean	sd	10% quant	90% quant
Total_return	200.0	0.00	200.00	200.00
Returns_P	99.2	10.10	86.00	112.00
Returns_NP	100.8	10.10	88.00	114.00
Returns_P_pc	2.0	0.00	2.00	2.00
Returns_NP_pc	2.0	0.00	2.00	2.00
Share_P	0.5	0.05	0.43	0.56
Share_NP	0.5	0.05	0.44	0.57

Table 33: Summary statistics for extension two with $k = 50$, $\delta_P = 50\%$ and decision based upon comparison of neighbors' yield (case B).

	mean	sd	10% quant	90% quant
Total_return	200.00	0.00	200.00	200.00
Returns_P	101.40	10.94	85.80	114.20
Returns_NP	98.60	10.94	85.80	114.20
Returns_P_pc	2.00	0.00	2.00	2.00
Returns_NP_pc	2.00	0.00	2.00	2.00
Share_P	0.51	0.05	0.43	0.57
Share_NP	0.49	0.05	0.43	0.57

Table 34: Summary statistics for extension two with $k = 50$, $\delta_P = 75\%$ and decision based upon comparison of neighbors' yield (case B).