Appendix: Experimental investigation of stationary concepts in cyclic duopoly games

A. Tables

Table A.1 Mean quadratic distances, overall and in both games

Concept	Mean Quadratic Distances		
	Overall	Game A	Game B
Nash	.0248505	.0195057	.0301953
Impulse-balance	.0092545	.00969	.0088191
Payoff-sampling $n = 2$	.0316524	.0169314	.0463734
Payoff-sampling $n = 3$	.006701	.0052205	.0081816
Payoff-sampling $n = 4$	.0070721	.0019872	.012157
Payoff-sampling $n = 5$	.0061583	.0018637	.010453
Payoff-sampling $n = 6$	.0055639	.0030141	.0081137
Payoff-sampling $n = 7$	.0069943	.0047624	.0092262
Payoff-sampling $n = 8$	.0072833	.0053404	.0092262
Payoff-sampling $n = 9$	.0082988	.0084861	.0081115
Payoff-sampling $n = 10$	.0085018	.0057124	.0112913

Table A.2 p-values of the two-sided Wilcoxon signed-rank test for the overall comparison and for Game A and Game B

Payoff-sampling equilibrium	Nash equilibrium			Impulse-balance equilibrium		
	Overall	Game A	Game B	Overall	Game A	Game B
$n = 2$	0.0495	0.5937	0.0033	0.0001	0.0033	0.0076
$n = 3$	0.0014	0.0164	0.0329	0.0284	0.0044	0.9292
$n = 4$	0.0001	0.0058	0.0076	0.1677	0.0058	0.1549
$n = 5$	0.0037	0.0033	0.1307	0.2768	0.0262	0.4769
$n = 6$	0.0002	0.0033	0.0208	0.0459	0.0329	0.7221
$n = 7$	0.0027	0.0033	0.0912	0.3896	0.0912	0.5937
$n = 8$	0.0067	0.0164	0.0912	0.1576	0.0044	0.5937
$n = 9$	0.0030	0.0619	0.0208	0.0768	0.0044	0.7221
$n = 10$	0.0142	0.0208	0.1549	0.4852	0.0044	0.4236

Table A.3 Frequency of entries into an empty market

Game A			
Observation	Market empty	Market entries	Relative frequency
1	103	99	0.9612
2	109	109	1
3	131	130	0.9924
4	129	129	1
5	124	123	0.9919
6	131	131	1
7	126	121	0.9603
8	140	138	0.9857
9	104	103	0.9904
10	133	131	0.9850
11	162	154	0.9506
Game B			
Observation	Market empty	Market entries	Relative frequency
1	324	320	0.9806
2	373	370	0.9943
3	356	355	0.9962
4	373	373	1
5	331	330	0.9960
6	366	364	0.9957
7	315	313	0.9921
8	352	348	0.9881
9	323	321	0.9929
10	348	346	0.9925
11	352	343	0.9727
Mean:			0.9798

Table A.4 Frequency of entries into an occupied market and the quadratic distances to the three concepts

Game A				
Observation	Relative	Mean quadratic distance		
	Frequency entry	Nash equilibrium	Impulse-balance equilibrium	Payoff-sampling equilibrium
1	.8068	.0046	.0240	.0008
2	.7841	.0083	.0174	.0000
3	.7292	.0213	.0060	.0023
4	.7325	.0203	.0065	.0020
5	.7479	.0161	.0092	.0009
6	.7271	.0219	.0056	.0026
7	.7447	.0170	.0086	.0011
8	.7065	.0284	.0030	.0051
9	.7963	.0062	.0208	.0003
10	.7259	.0222	.0054	.0027
11	.6552	.0483	.0000	.0151
Game B				
Observation	Relative	Mean quadratic distance		
	Frequency entry	Nash equilibrium	Impulse-balance equilibrium	Payoff-sampling equilibrium
1	.4222	.0221	.0007	.0000
2	.2262	.1189	.0496	.0391
3	.408	.0265	.0017	.0002
4	.3146	.0657	.0181	.0120
5	.4809	.0081	.0010	.0032
6	.3643	.0427	.0071	.0035
7	.5450	.0007	.0092	.0146
8	.4639	.0115	.0002	.0016
9	.4331	.0190	.0002	.0001
10	.4441	.0161	.0000	.0004
11	.5439	.0007	.0090	.0144

B. Screenshots

Fig. B.1 Enlarged cutout of screenshot for the decision screen

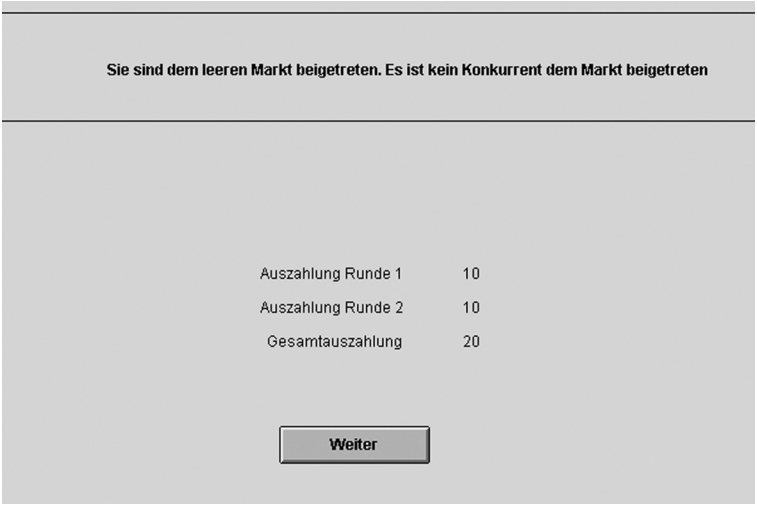

Fig. B.2 Enlarged cutout of screenshot for the payoff screen

C. Instructions

Thank you very much for participating in today's decision experiment. Please read the following instructions carefully. If you do not understand something and have questions you can ask them at the end of this introduction. As soon as the experiment has started no more questions will be answered. If you still have questions please take a look at these instructions. In order for us to conduct this experiment it is necessary that you do not communicate with other participants. Please do not talk with the other participants.

In this experiment you can earn money. Your payoff depends on your decisions and other participants' decisions.

The experiment

The experiment consists of 200 rounds. Decisions are made in alternation, i.e., that everyone decides every two rounds. To which half of the participants you belong is only known to you.

In the rounds in which you make your decisions you are assigned to a market. Then you will receive the status of the market, as the market is either free or occupied. Then you can decide whether you want to enter the market or not. If you enter the market you stay in the market for two rounds. If you do not enter the market you stay outside the market for two rounds. After these two rounds and as long as the 200 rounds of the experiment are not exhausted you can decide again. After your decision, the first round is over and the second round begins in which players from the other half of participants decide. After these players have decided the second round is over and you will again be allocated to a market (mostly a new one). This is repeated 100 times, thus there are 200 rounds to play.

Payoffs in the experiment

In every round you receive a payoff.

If you do not enter the market you receive 5 Taler in the first round and 0 Taler in the second round.

If you enter the market you receive an amount in the first round which depends on the status of the market. If the market is empty you receive in the first round a payoff of 10 Taler. If the market is occupied you receive a payoff in the first round of 2 Taler. In the second round your payoff depends on the decision made by the next participant from the other group randomly allocated to this market. If this participant enters the market you receive a payoff of 2 Taler, if he does not enter you receive a payoff of 10 Taler.

The payoffs from these rounds are summed up and form your round payoffs. These round payoffs are summed up over all rounds and form your total payoff at the end of the experiment. Your payoff of this experiment is payed to you in Euro, where 1 Taler is 1 EuroCent.

The following tables should illustrate your payoffs:

Your payoffs in an empty market:

		Next player	
		Enter	Not Enter
You	Enter	$10+2$	$10+10$
	Not Enter	5	5

Your payoffs in an occupied market:

		Next player	
		Enter	Not Enter
You	Enter	$2+2$	$2+10$
	Not Enter	5	5