1. Background

1.1. Brief summary of the research project

This data is the result of an experiment where we use an experiment showing that, if managers are deferential towards an authority, firms can induce more collusion by delegating production decisions to middle managers and providing suitable informal nudges. This holds not only with two but also with four firms. We are also able to distinguish compliance effects from coordination effects.

1.2. Process of data collection and structure of the data

This data stems from a lab experiment and contains in total 8544 observations of 356 participants. Each of the participants was exclusively assigned to one of ten treatments and made 24 subsequent decisions. Participants took the role of quantity managers of 'their' firm and had to choose a quantity [0-100] in every of the 24 periods.

In total there are ten treatments, i.e. five different information conditions both in a 2-firm and a 4-firm setting (5x2=10).

Baseline (B) – treatment dummy: baseline

In the Baseline treatment subjects simply repeatedly interacted in the Cournot market laid out above for 24 periods.

Authority (A) – treatment dummy: ask

In the Authority treatment the instructions were exactly the same as in B but one additional sentence was added, nudging subjects to produce a particular quantity. After the text of the Baseline instructions the following was added: "You are entirely free to produce as few or as many units of output as you like (from 0 to 100). That said, we would ask you (and your co-participants) to produce 12.4 units of output. We are telling this not just to you but also to your co-participants" (in the 2-firms setting 12.4 was replaced by 24.8). A reminder of this, and only one reminder, was given at the beginning of the second stage. The requested production quantity (either 24.8 or 12.4 units of output) was exactly equal to the collusive output level for the respective market size.

Explaining Authority (EA) – treatment dummy: ask_explain

In the Explaining Authority treatment, we used exactly the same instructions as in Authority, but explained why it would be beneficial for the subjects to obey the nudge by adding the following: "The reason you should do this is that, if you and your co-participants produce 12.4 units of output, the total profits of you and your co-participants will be the highest. You can use the profit calculator to check the profitability of producing 12.4 units of output per firm."[1] There was a corresponding reminder, and only one, at the beginning of the second stage.

Private Authority (PA) – treatment dummy: ind_ask

In contrast to the Authority treatment, in the Private Authority treatment, the number requested was not common information but subjects were asked to produce a specific number in private, i.e. they did not receive any information about the quantity we requested from any of their co-subjects.[2] Subjects were reminded on that quantity once, and only once, at the beginning of the second stage.

Private Authority Less (PAL) – treatment dummy: less_than

The Private Authority Less treatment was similar to the Private Authority treatment; however, we did not ask subjects to produce the collusive level, but simply to produce less than the Nash quantity (stated as a number). This request was communicated in private. Subjects were reminded of their number at the beginning of the second stage.

2. Publications

Axel Sonntag & Daniel John Zizzo. Institutional Authority and Collusion. Forthcoming in Southern Economic Journal.

[1] The experimental instructions can be found in Appendix 1.

[2] In the PA treatment no explanation similar to the EA treatment was provided.