Instructions

You are now taking part in an economic experiment. If you read the following instructions carefully, you can, depending on your decisions, earn a considerable amount of money. It is therefore very important that you read these instructions with care.

The instructions which we have distributed to you, are solely for your private information. **It is prohibited to communicate with the other participants during the experiment.** Should you have any questions please ask us. If you violate this rule, we shall have to exclude you from the experiment and from all payments.

During the experiment we shall not speak of Euros. During the experiment your entire earnings will be calculated in tokens.

The experiment is divided into different periods. In all, the experiment consists of 5 periods. In each period the participants are divided into groups of three. You will therefore be in a group with 2 other participants. The composition of the groups will change at random after each period. **In each period your group will therefore consist of different participants.**

Detailed Information about the Experiment

At the beginning of each period each participant receives 20 tokens. In the following we call this his or her endowment. Your task is to decide how to use your endowment. You have to decide how many of the 20 tokens you want to contribute to a project and how many of them to keep for yourself. The consequences of your decision are explained in detail below.

You have to decide how many points you want to contribute to the project by typing a number between 0 and 20 in the input field. This field can be reached by clicking it with the mouse. As soon as you have decided how many points to contribute to the project, you have also decided how many points you keep for your self: This is (20 - your contribution) tokens. After entering your contribution you must press the Next button (either with the mouse, or by pressing the Enter key). Once you have done this your decision can no longer be revised.

After all members of your group have made their decision, the results screen will show you the total amount of points contributed by all three group members to the project (including your contribution). Also this screen shows you how many tokens you have earned in the current period.

Your income consists of two parts:

1. the tokens which you have kept for yourself;

2. the "income from the project". This income is calculated as follows:
   Your income from the project = 0.4 x the total contribution of all 3 group members.

Your income in tokens in each period is therefore:

(20 - your contribution to the project) + 0.4*(total contribution to the project)

The income of each group member from the project is calculated in the same way, this means that each group member receives the same income from the project. Suppose the sum of the contributions of all group members is 45 points. In this case each member of the group receives an income from the project of: 0.4*45 = 18 tokens. If the total contribution to the project is 7 points, then each member of the group receives an income of 0.4*7 = 2.8 tokens from the project.

For each point, which you keep for yourself you earn an income of 1 token. Supposing you contributed this point to the project instead, then the total contribution to the project would

rise by one point. Your income from the project would rise by 0.4*1=0.4 points. However the income of the other group members would also rise by 0.4 points each, so that the total income of the group from the project would rise by 1.2 points. Your contribution to the project therefore also raises the income of the other group members. On the other hand you earn an income for each point contributed by the other members to the project. For each point contributed by any member you earn 0.4*1=0.4 points.

In each period, you have 90 seconds to decide on the distribution of your points and 30 seconds to view the results screen. If you are finished before the time is up, please press the Next button (again by using the mouse or pressing the Enter key).

When the experiment is over, your final income will be determined as the sum of your incomes from each period.

Do you have any further questions?

We will now repeat this experiment with one change. As before, the experiment consists of five periods and in each period you have to make a decision how many of the 20 tokens at your disposal you want to contribute to the project (and, implicitly, how many you keep for yourself).

Each period now has a second stage. The first stage remains identical to the decision situation before.

After the end of these 5 periods, the whole experiment is definitely finished.

At the second stage you now see how much each of the other group members contributed to the project. At this stage you can also **reduce or leave equal** the income of **each** group member by **distributing points**. The other group members can also reduce your income if they wish to.

Your contribution will be displayed in the first column, while the contributions of the other group members will be shown in the remaining two columns. Please note that the composition of the groups is renewed in each period. Besides the absolute contributions, the contribution in percent of the endowment will also be displayed.

You must now decide how many points to give to each of the other two group members. You must enter a number for each of them. If you do not wish to change the income of a specific group member then you must enter 0. For your decision you have 90 seconds. You can move from one input field to the other by pressing the Tab key ($\rightarrow |$) or by using the mouse.

If you distribute points, you have costs in tokens which depend on the amount of points you distribute. You can distribute between 0 and 10 points to each group member. The more points you give to any group member, the higher your costs. Your total costs are equal to the sum of the costs of distributing points to each of the other two group members. The following table illustrates the relation between distributed points to each group member and the costs of doing so in tokens.

points	0	1	2	3	4	5	6	7	8	9	10
cost of these points	0	1	2	4	6	9	12	16	20	25	30

Supposing you give 2 points to one member this costs you 2 tokens; if you give 9 points to another member this costs you a further 25 tokens. In this case your total costs of distributing points would be 27 tokens (2+25).

If you choose 0 points for a particular group member, you do not change his or her income. However if you give a member 1 point (by choosing 1) you reduce his or her income from the first stage by 10 percent. If you give a member 2 points (by choosing 2) you reduce his or her income by 20 percent, etc. The amount of points you distribute to each member determines therefore how much you reduce their income from the first stage.

Whether or by how much the income from the first stage is totally reduced depends on the total of the received points. If somebody received a total of 3 points (from all other group members in this period) his or her income would be reduced by 30 percent. If somebody received a total of 4 points his or her income would be reduced by 40 percent. If anybody receives 10 or more points their income from the first stage will be reduced by 100 percent. The income from the first stage for this member would in this case be reduced to zero. Your total income from the two stages is therefore calculated as follows:

Total income (in tokens) at the end of the 2nd stage = period income =

= (income from the 1st stage)*(100% - received points*10%) - costs of your distributed points
if received points < 10

= - costs of your distributed points
if received points ≥ 10

Please note that your income in tokens at the end of the second stage can be negative, if the costs of your points distributed exceeds your (possibly reduced) income from the first stage. **You can however evade such losses with certainty through your own decisions!**

After all participants have made their decision, your income from the period will be displayed on the results screen.

Do you have any further questions?