Instructions of the Experiment

Preamble

Welcome to our experiment and thank you for coming. You are going to participate in an economic experiment. Please read carefully the instructions, they are going to help you to understand better the topic of the experiment and what you are asked to do. You are going to earn money for your participation in the experiment and you will be paid immediately after the completion of the experiment.

The Experiment

Your task is to decide the optimal timing of the disinvestment decision in 15 different problems. The future cash flows follow an uncertain path. The disinvestment decision can be taken in one of the periods of the problem. More specifically, your task is to answer in each of the 15 problems if you want to continue the project in the next period of the problem or you want to stop the project in the current period and move to the next problem. Each of the problems has the following parameters: an initial cash flow X1, an increment on the cash flows h, a probability p that the cash flows move up and a probability (1-p) that the cash flows move down, a specific number of periods T during which you can liquidate, a liquidation value L and an interest rate of return on the liquidation value r.

The Interface of the Experiment

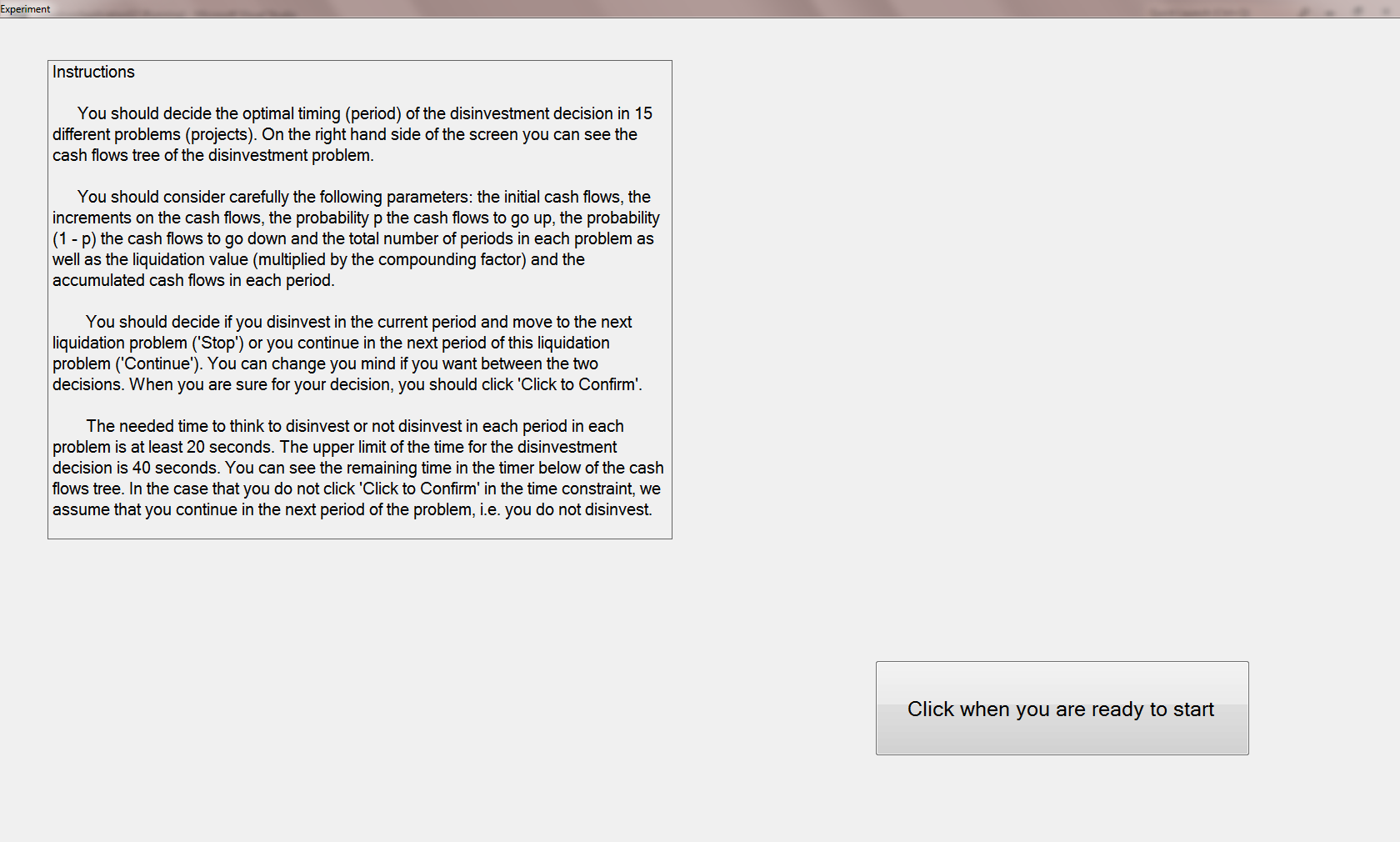


Figure 1

At the beginning of the experiment you will see a brief description of the instructions. After reading the summary of the instructions on the screen and being ready to start, you just click “Click when you are ready to start” (Figure 1).

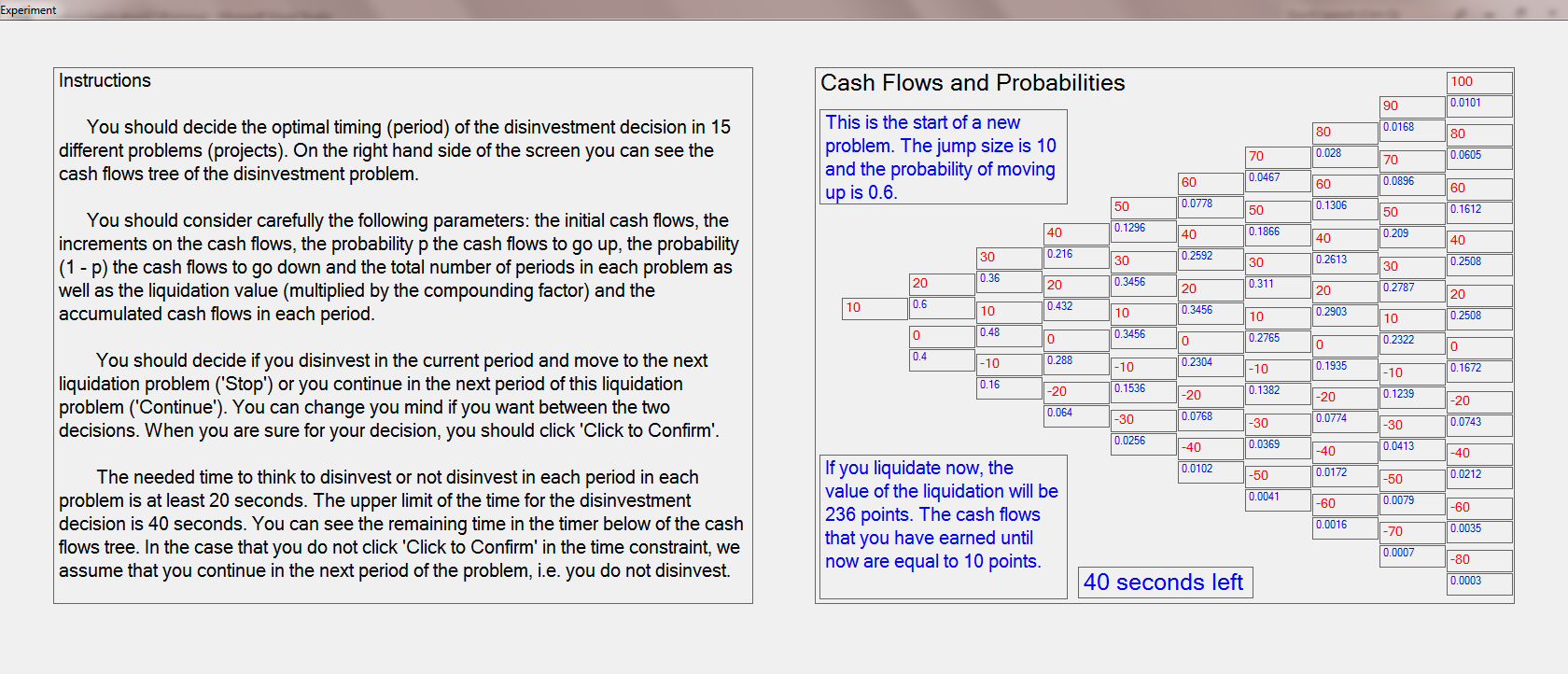


Figure 2

When you start the experiment a picture like the Figure 2 will appear. On the left of the screen is a summary of the instructions while on the right appears the decision tree. The red numbers on the decision tree are the possible cash flows of the disinvestment problem during each of the periods. The blue numbers indicate the probabilities the cash flows (red numbers) to appear. Above the tree is a box. In the initial period the box informs you if you are in a new problem as well as which is the exact jump (increment) of the cash flows h and their probability p of moving up. In the next periods the box shows the current period, the decision of the nature about the cash flows and the exact amount of cash flows earned in this period. Under the tree are two boxes. The first one lets you know the liquidation value multiplied by the compounding factor[[1]](#footnote-1), if you liquidate in this period as well as the total cash flows earned until the current period in this problem. The second box shows the available seconds that you have to decide if you disinvest in this period and you move in the next liquidation problem (“Stop” decision) or if you move in the next period of the problem (“Continue” decision).

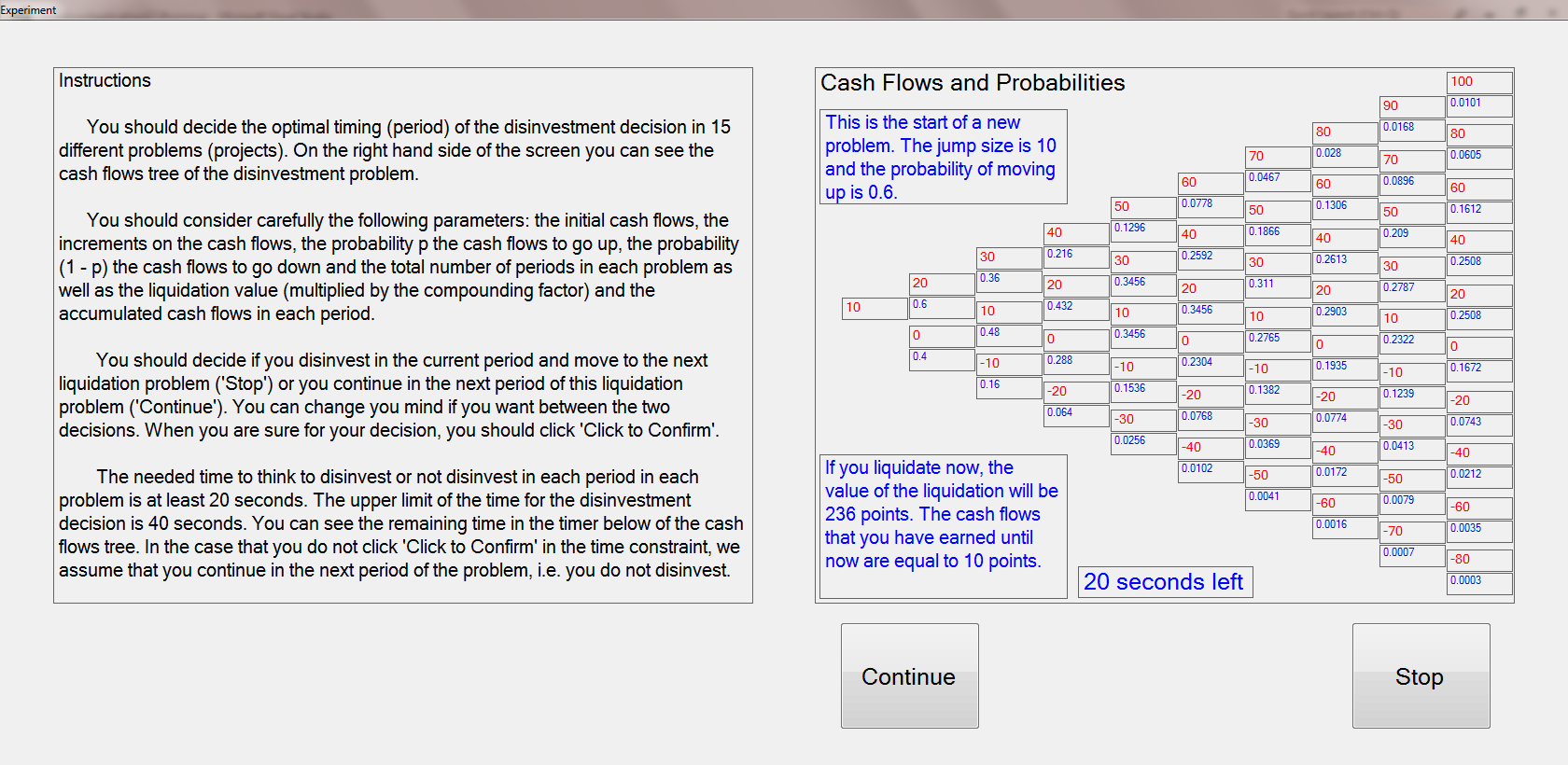


Figure 3

In each period you have 40 seconds to decide. You should think carefully which is going to be your decision. This is the reason that you can submit your answer after the first 20 seconds. The buttons Continue and Stop appears then (Figure 3).

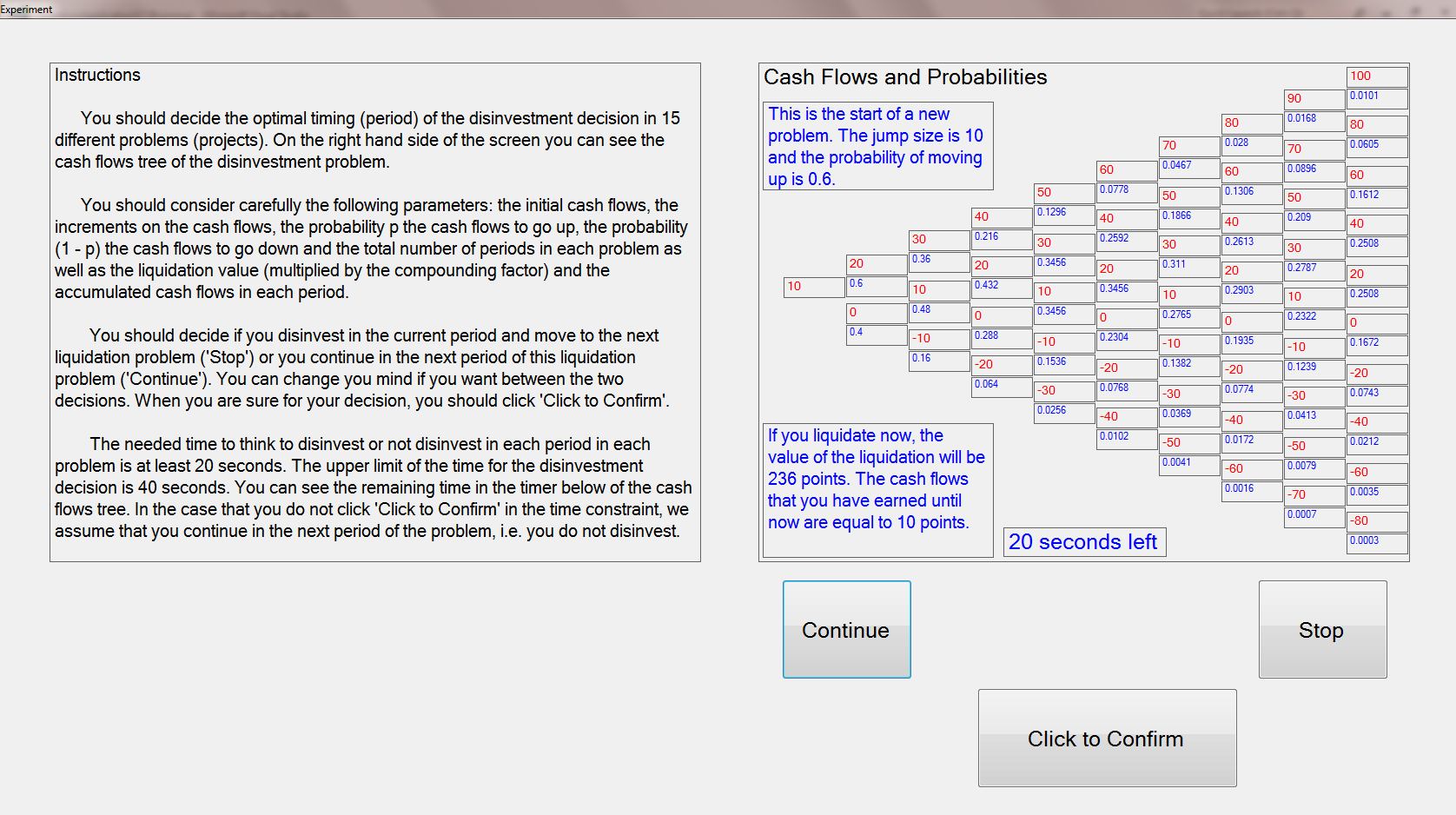


Figure 4

You should click Continue or Stop and when you are sure about your answer you should click “Click to confirm” as it is shown in Figure 4. You can change your mind between the decisions of stopping and continuing the project as many times as you want, as long as you have not clicked “Click to confirm” and you still have time. Notice that if you continue until the final period the disinvestment decision is taken compulsory then.

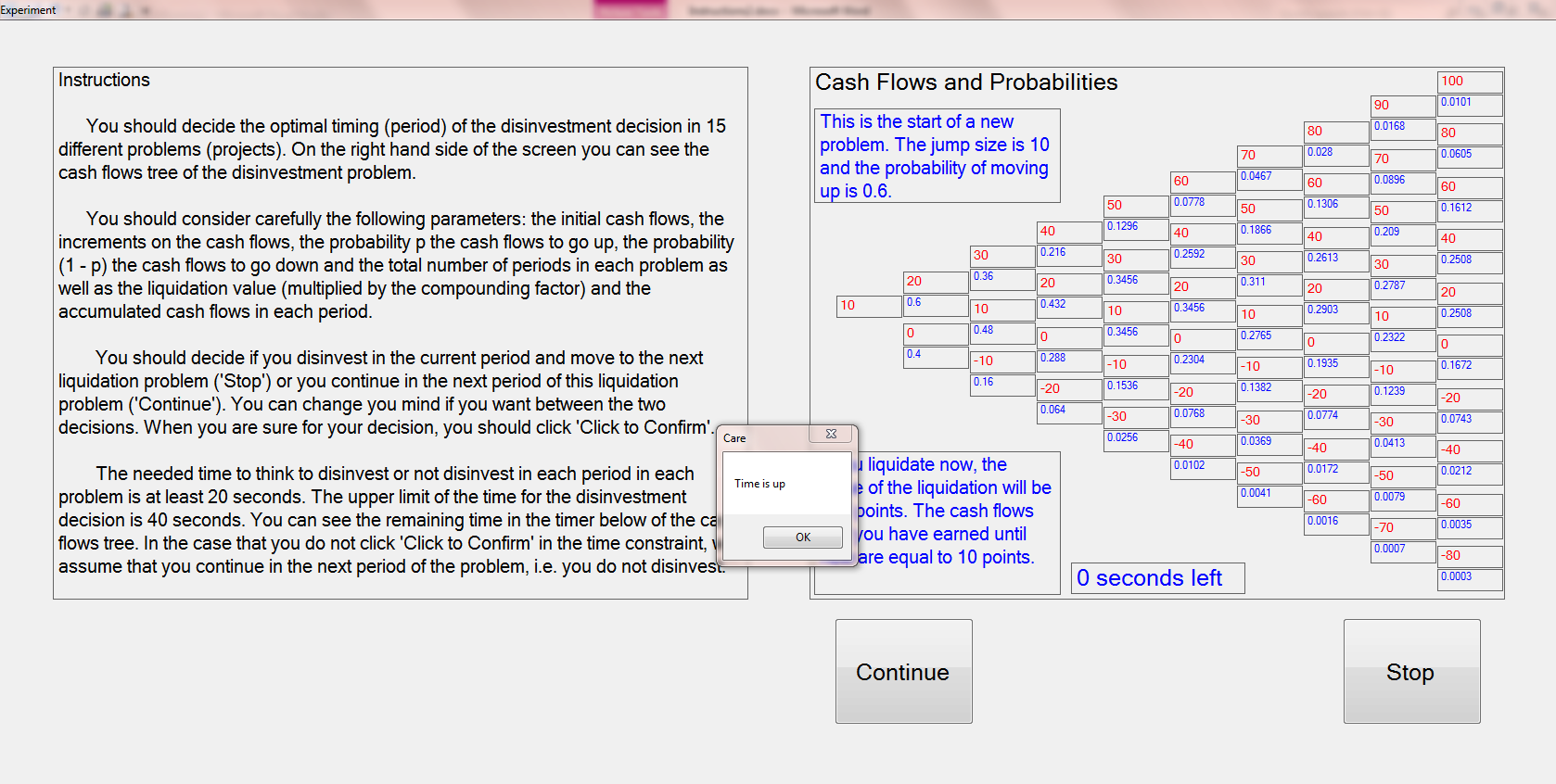


Figure 5

Be careful!

You should answer during the 40 seconds. In the case that you run out of time a message box appears (like in Figure 5) that the time is up. In this case that you have not submitted your answer in the first 40 seconds, the program will assume that you continue in the next period of the problem.

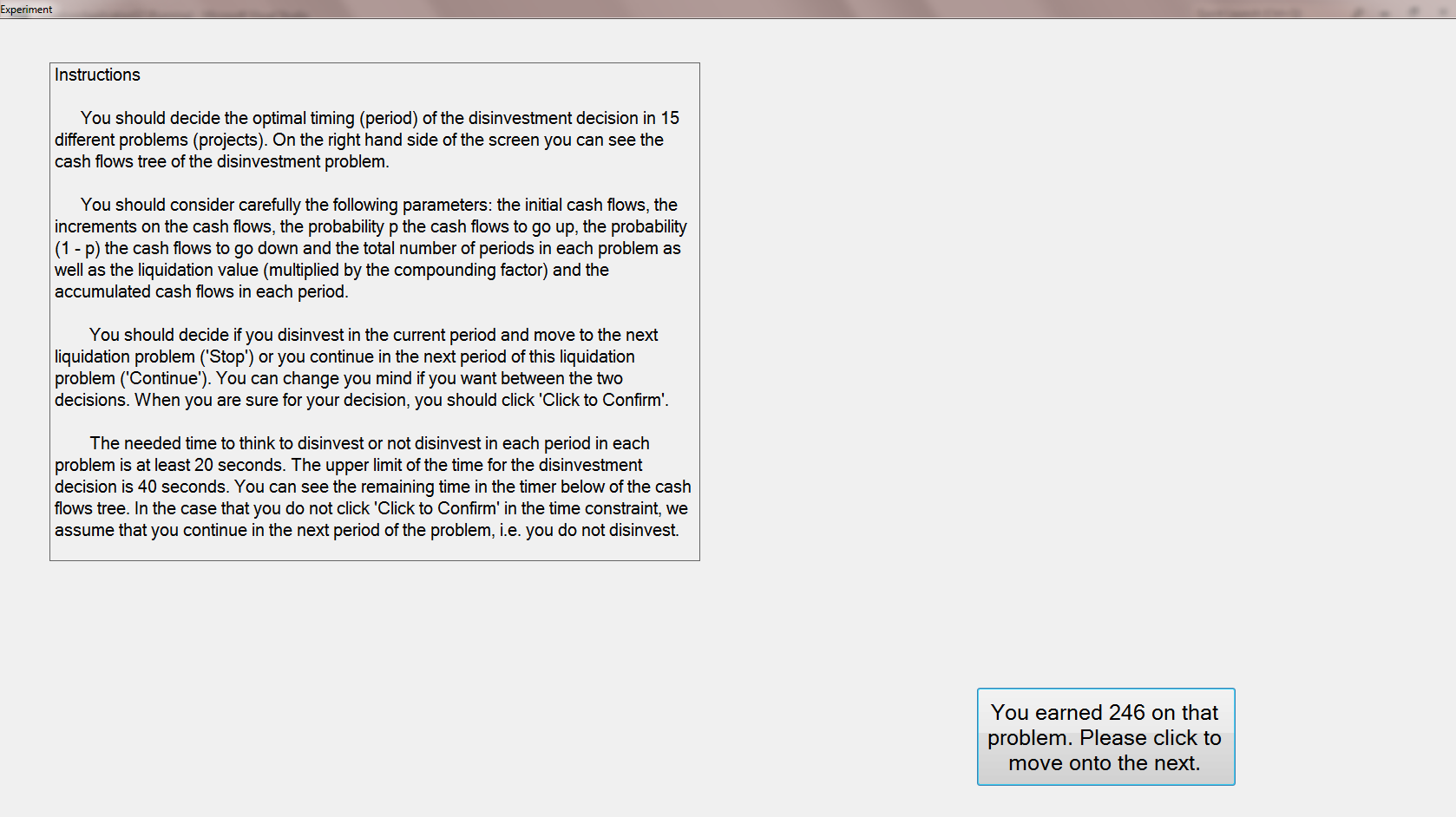


Figure 6

At the time that you decide to disinvest, either by clicking “Stop” and “Click to confirm” or by clicking “Continue” and “Click to confirm” until the pre-final period, a picture like in Figure 6 will appear to inform you about the total earnings in this liquidation problem.

At the end of the experiment a message will appear to call the experimenter to let you know your payment.

Liquidation value and Interest rate

The liquidation value is multiplied by the compounding factor:

Compounding factor= (1+i) (total periods – current period)

, where: i is the interest rate on the liquidation value and the bracket (total periods – current period) represents the periods left in the disinvestment problem from the point of time of the current period for earning interest on the liquidation value.

The explanation behind of this is that a pound today is worth more than a pound tomorrow, given that the pound today has the opportunity to earn interest. For example, in a 10 period disinvestment problem which has a *positive* liquidation value, a decision maker who decides to disinvest in period 2 can deposit the liquidation value in a bank account and earn interest. However, cases with *negative* liquidation values are considered as debts or loans, so the decision maker does not earn but pays the interest.

Example

How long the experiment will last

You should consider the problems very carefully. You should know that you will be able to answer in the first 40 seconds from the time the new picture will appear. However, you will be able to confirm your answer after the first 20 seconds. We expect you to be in the laboratory no more than 1 and half hour.

Payment   
You are going to get a payment at the end of the session. Your payment has two compounds: 1) the show-up fee (2 pounds) and 2) your performance in one random[[2]](#footnote-2) problem of the experiment.

The performance payment for positive returns will be based on the following exchange rate of the experimental money:

100 experimental points = £0.60.

In the case that you obtain negative cash flows your performance payment will be based on the following:

* From 0 to -1000 experimental money: £3
* From -1001 to -2000 experimental money: £2.5
* From -2001 to -3000 experimental money: £1.5

Do you have any questions?

1. Compounding factor= (1+interest rate)(total periods – current period) [↑](#footnote-ref-1)
2. You will choose a small paper from a bag which includes 15 papers. Each of these papers has a number from 1 to 15 representing the 15 problems. All the numbers appear once. [↑](#footnote-ref-2)