

### welcome

All participants in this session have these same instructions.

The experiment is in two Parts:

Part 1 will take around 40 minutes (including these instructions).

Part 2 is a questionnaire which will take 20 minutes.

It is possible that you will not stay for Part 2.

### societies and dictators

Participants have been randomly grouped into **societies** each containing four people.

You will not know who are the other three members of your society, or be able to communicate with them.

During Part 1, one member of your society will be randomly selected by the computer.

This member we call your society's **dictator**.



a society

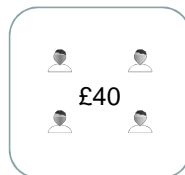
### dividends

For each society, there is a fixed total of £40 to be divided between the four members.

We call each member's share of the £40 his or her **dividend**.

But this dividend is only one part of a member's payment.

The other part we call an **income**.



### dividend rules

Each member's payment for the experiment will be the sum of two separate amounts:

$$\text{payment} = \text{income} + \text{dividend}$$

Usually, incomes will not be equal for all four members. This will be explained soon.

There are two possible **dividend rules**, for dividing the £40 between the four members:

- **Equality of Dividends**  
members receive equal dividends
- **Equality of Payments**  
members receive unequal dividends which offset their income differences, to give them equal payments



### dividend rules

- **Equality of Dividends**

or

- **Equality of Payments**

One of these two rules will be the default rule for your society.

You will be informed which is the default, at the start of Part 1.

But your society can change to the other rule, if the dictator has chosen to do this.

In fact, *each* member of your society will make a choice of dividend rules, before one member is selected as dictator, and before members' incomes have been determined.



### outline sequence of events in Part 1

- Stage 1 Each member of your society makes a choice of dividend rules.
- Stage 2 Your society's dictator is randomly selected. The probability of this being you is 25%.  
The dictator's choice of dividend rules will apply to the four members of your society.
- Stage 3 The income for each member is determined.
- Stage 4 The dividend for each member is determined, according to the dictator's chosen dividend rules.

The next screens give further information about Stage 3.

Stage 3

The income for each member will depend on:

- whether that member has **Bad Luck** or **Good Luck**
- and
- whether that member **Leaves** after Part 1, or **Stays** for Part 2 of the experiment.

A member's Luck will be determined randomly, by the computer.

Whether a member Leaves or Stays for Part 2 will in some cases be determined randomly, but in other cases will be for that member to decide.

All of this will be determined at Stage 3.

Stage 3

So each member of your society will be in one of four **income-positions**, with £ income as shown in this table:

	Leave after Part 1	Stay for Part 2								
Bad Luck	<table border="1"> <tr><td>Bad/Leave</td><td></td></tr> <tr><td>Income</td><td>0.0</td></tr> </table>	Bad/Leave		Income	0.0	<table border="1"> <tr><td>Bad/Stay</td><td></td></tr> <tr><td>Income</td><td>?</td></tr> </table>	Bad/Stay		Income	?
Bad/Leave										
Income	0.0									
Bad/Stay										
Income	?									
Good Luck	<table border="1"> <tr><td>Good/Leave</td><td></td></tr> <tr><td>Income</td><td>?</td></tr> </table>	Good/Leave		Income	?	<table border="1"> <tr><td>Good/Stay</td><td></td></tr> <tr><td>Income</td><td>10.0</td></tr> </table>	Good/Stay		Income	10.0
Good/Leave										
Income	?									
Good/Stay										
Income	10.0									

For example, each member who has Good Luck and Stays for Part 2 will receive an income of £10.

The Bad/Stay and Good/Leave income values will be revealed at the start of Stage 3.

Each of these values will be at least £0 and at most £10.

Stage 3

At the start of Stage 3, the computer will randomly select one of these **scenarios** for your society:

- Scenario 1a All members Leave after Part 1.  
Members individually have Bad or Good Luck
- Scenario 1b All members Stay for Part 2  
Members individually have Bad or Good Luck.
- Scenario 2a All members have Bad Luck  
Members individually choose to Leave or Stay.
- Scenario 2b All members have Good Luck  
Members individually choose to Leave or Stay.
- Scenario 3 Members individually have Bad or Good Luck  
Members individually choose to Leave or Stay.

Scenario 1a

In this scenario, all members of your society will Leave after Part 1.

So there are only two possible income-positions.

Equality of Dividends	
Bad/Leave	
Income	0.0
Good/Leave	
Income	8.0

The dictator's chosen dividend rule for this scenario is now revealed. Here, for example, the dictator had chosen Equality of Dividends.

The Good/Leave income value is also revealed. Here, for example, it is £8.

Scenario 1a

Luck is determined randomly by the computer, separately for each member.

Equality of Dividends	
Bad/Leave	
Income	0.0
Good/Leave	
Income	8.0

For each member it is equally (50%) likely to be *Bad* or *Good*. Each member discovers his or her Luck by clicking the button.

Scenario 1a

Here, for example, three members had Good Luck.

Equality of Dividends	
Bad/Leave	
Income	0.0
Dividend	10.0
Payment	10.0
Good/Leave	
Income	8.0
Dividend	10.0
Payment	18.0

The dividends for your society are now calculated (Stage 4), according to the dividend rules chosen by the dictator.

Here, the £40 is divided equally. Each member's dividend is £10.

### Scenario 1b

In this scenario, all members of your society will Stay for Part 2.  
So there are only two possible income-positions.

Equality of Payments	
Bad/Stay	
Income	2.0
Good/Stay	
Income	10.0

The dictator's chosen dividend rule for this scenario is now revealed.  
Here, for example, the dictator had chosen Equality of Payments.  
The Bad/Stay income value is also revealed.  
Here, for example, it is £2.

### Scenario 1b

Luck is determined randomly by the computer, separately for each member.

Equality of Payments	
Bad/Stay	
Income	2.0
Good/Stay	
Income	10.0

Bad or Good?

For each member it is equally (50%) likely to be *Bad* or *Good*.  
Each member discovers his or her Luck by clicking the button.

### Scenario 1b

Here, for example, two members had Good Luck.

Equality of Payments	
Bad/Stay	
Income	2.0
Dividend	14.0
Payment	16.0
Good/Stay	
Income	10.0
Dividend	6.0
Payment	16.0

The dividends for your society are now calculated (Stage 4),  
according to the dividend rules chosen by the dictator.  
Here, the £40 is divided unequally, to give equal payments.

### Scenario 2a

In this scenario, all members of your society have Bad Luck.  
So there are only two possible income-positions.

Equality of Dividends	
Bad/Leave	
Income	0.0
Bad/Stay	
Income	9.0

The dictator's chosen dividend rule for this scenario is now revealed.  
Here, for example, the dictator had chosen Equality of Dividends.  
The Bad/Stay income value is also revealed.  
Here, for example, it is £9.

### Scenario 2a

Each member then decides whether to Leave or Stay for Part 2 ...

Equality of Dividends	
Bad/Leave	
Income	0.0
Bad/Stay	
Income	9.0

Leave Stay

... by clicking one of the two buttons.

### Scenario 2a

Here, for example, one member decided to Leave.

Equality of Dividends	
Bad/Leave	
Income	0.0
Dividend	10.0
Payment	10.0
Bad/Stay	
Income	9.0
Dividend	10.0
Payment	19.0

The dividends for your society are now calculated (Stage 4),  
according to the dividend rules chosen by the dictator.  
Here, the £40 is divided equally.

Scenario 2b

In this scenario, all members of your society have Good Luck.  
So there are only two possible income-positions.

Equality of Payments	Good/Leave	Income	4.0	Good/Stay	Income	10.0

The dictator's chosen dividend rule for this scenario is now revealed. Here, for example, the dictator had chosen Equality of Payments. The Good/Leave income value is also revealed. Here, for example, it is £4.

Scenario 2b

Each member then decides whether to Leave or Stay for Part 2 ...

Equality of Payments	Good/Leave	Income	4.0	Good/Stay	Income	10.0
				Leave		Stay

... by clicking one of the two buttons.

Scenario 2b

Here, for example, three members decided to Leave.

Equality of Payments	Good/Leave	Income	4.0	Good/Stay	Income	10.0
		Dividend	11.5		Dividend	5.5
		Payment	15.5		Payment	15.5

The dividends for your society are now calculated (Stage 4), according to the dividend rules chosen by the dictator. Here, the £40 is divided unequally, to give equal payments.

Scenario 3

In this scenario, all four income-positions are possible. And each row and column has its own dividend rule.

Equality of Payments for all members with Bad Luck	Bad/Leave	Income	0.0	Bad/Stay	Income	6.0
Equality of Dividends for all members with Good Luck	Good/Leave	Income	2.0	Good/Stay	Income	10.0

The dictator's chosen dividend rules for this scenario are now revealed. Here, for example, the dictator had chosen a mixture of rules. The Bad/Stay and Good/Leave income values are also revealed. Here, for example, they are £6 and £2 respectively.

Scenario 3

Luck is determined randomly by the computer, separately for each member.

Equality of Payments for all members with Bad Luck	Bad/Leave	Income	0.0	Bad/Stay	Income	6.0
Equality of Dividends for all members with Good Luck	Good/Leave	Income	2.0	Good/Stay	Income	10.0
				Bad or Good?		

For each member it is equally (50%) likely to be *Bad* or *Good*. Each member discovers his or her Luck by clicking the button.

Scenario 3

Having discovered his or her Luck, each member then decides whether to Leave or Stay for Part 2 ...

Equality of Payments for all members with Bad Luck	Bad/Leave	Income	0.0	Bad/Stay	Income	6.0
Equality of Dividends for all members with Good Luck	Good/Leave	Income	2.0	Good/Stay	Income	10.0
				Leave		Stay

... by clicking one of the two buttons.

### Scenario 3

Here, for example, three members had Bad Luck, and two of those three then decided to Leave.  
The other member had Good Luck, and then decided to Stay.

	Equality of Payments for all members who decide to Leave	Equality of Dividends for all members who decide to Stay
Equality of Payments for all members with Bad Luck	Income	0.0
	Dividend	13.0
	Payment	13.0
Equality of Dividends for all members with Good Luck	Income	2.0
	Dividend	10.0
	Payment	17.0

The dividends for your society are now calculated (Stage 4), according to the dividend rules chosen by the dictator.  
Notice that if one position is empty (Good/Leave, in this case), then two of the dividend rules are irrelevant.

### Scenario 3

In this example, the members with Bad Luck all then decided to Stay. And the member with Good Luck decided to Leave.  
Here, all four dividend rules are irrelevant.

	Equality of Payments for all members who decide to Leave	Equality of Dividends for all members who decide to Stay
Equality of Payments for all members with Bad Luck	Income	0.0
	Dividend	9.0
	Payment	15.0
Equality of Dividends for all members with Good Luck	Income	2.0
	Dividend	13.0
	Payment	15.0

In such cases, the default dividend rule for your society will apply. Here, the default is assumed to be Equality of Payments.

You will be told which rule is the default at the start of Part 1.

### choosing the dividend rules for your society

Stages 3 and 4 will take only a couple of minutes to complete.

Most of the time will be required for Stage 1, when you make your choice of dividend rules ...

... which will apply to the four members of your society, if you are then selected as the dictator.

You will make a separate choice for each of the five possible scenarios.

For each scenario, before making your choice, you will have some time to experiment with the rules ...

... by seeing what their implications are with different possible Bad/Stay and Good/Leave income values, and different possible positions of the four members of your society.

### Scenario 1a

This is the first screen at Stage 1. Here you make your choice of dividend rule for Scenario 1a.

The screen shows two members with Bad Luck and the other two with Good Luck ...

... and a Good/Leave income value of £5.

In this scenario, all members will Leave after Part 1.

Initially, the default rule for your society is selected.

The screen shows the implications of all this for the dividend and payment of each member.

You can experiment with the implications of each dividend rule, by changing the members' positions and the Good/Leave income.

As you do so, look at the implications for dividends and payments.

You can change the positions of individual members (labelled A-D to help you).

You can change the dividend rule.

You can change the Good/Leave income.

The RePosition button randomly moves all four members to new positions.

But remember it is only the *dividend rule* you will be choosing.

### Scenario 1a

You can *experiment* with members' positions and the income values.

But you cannot choose the *actual* positions and incomes at Stage 3.

Here is a clock.

After 2 minutes the **Submit your choice** button will become active.

You then have a further 30 seconds to experiment.

At any time during the 30 seconds you can click the Submit button, to record the currently-selected dividend rule as your choice.

If you do not do so, then at the end of the 30 seconds the currently-selected dividend rule will be automatically recorded as your choice.

### choosing the dividend rules for your society

The screens for all five scenarios are similar.

In each case you can experiment by changing:

- the selected dividend rule
- the positions of the members
- the Bad/Stay and Good/Leave income values

Our advice is to concentrate mainly on experimenting with the dividend rules and the members' positions, rather than the income values.

This will probably be more useful for gaining an understanding of each rule and its implications.

### Scenario 3

Scenario 3 is more complex than the other scenarios.

Here, all four income positions are possible.

And there is a separate dividend rule for each row and column.

So for Scenario 3 you will have more time to experiment.

You will have 8 minutes before the **Submit your choice** button becomes active.

You then have a further 2 minutes to experiment.

At any time during the 2 minutes you can click to Submit.

If you do not do so, then at the end of the 2 minutes the currently-selected dividend rules will be automatically recorded as your choice.

### Scenario 3

There is one further complication in Scenario 3.

In this example there is one member in each position, and a mixture of dividend rules.

	Equality of Payments for all members who decide to Leave	Equality of Dividends for all members who decide to Stay																				
Equality of Payments for all members with Bad Luck	<table border="1"> <tr><td>Bad/Leave</td><td></td></tr> <tr><td>Income</td><td>0.0</td></tr> <tr><td>Dividend</td><td></td></tr> <tr><td>Payment</td><td></td></tr> <tr><td>Good/Leave</td><td></td></tr> </table>	Bad/Leave		Income	0.0	Dividend		Payment		Good/Leave		<table border="1"> <tr><td>Bad/Stay</td><td></td></tr> <tr><td>Income</td><td>4.0</td></tr> <tr><td>Dividend</td><td></td></tr> <tr><td>Payment</td><td></td></tr> <tr><td>Good/Stay</td><td></td></tr> </table>	Bad/Stay		Income	4.0	Dividend		Payment		Good/Stay	
Bad/Leave																						
Income	0.0																					
Dividend																						
Payment																						
Good/Leave																						
Bad/Stay																						
Income	4.0																					
Dividend																						
Payment																						
Good/Stay																						
Equality of Dividends for all members with Good Luck	<table border="1"> <tr><td>Income</td><td>8.0</td></tr> <tr><td>Dividend</td><td></td></tr> <tr><td>Payment</td><td></td></tr> </table>	Income	8.0	Dividend		Payment		<table border="1"> <tr><td>Income</td><td>10.0</td></tr> <tr><td>Dividend</td><td></td></tr> <tr><td>Payment</td><td></td></tr> </table>	Income	10.0	Dividend		Payment									
Income	8.0																					
Dividend																						
Payment																						
Income	10.0																					
Dividend																						
Payment																						

The two Equality of Dividends rules require Bad/Stay and Good/Leave *dividends* to be equal.

The two Equality of Payments rules require Bad/Stay and Good/Leave *payments* to be equal.

But their *incomes* are different (£4 and £8), so this is impossible.

### Scenario 3

In any situation where there is currently:

a *mixture* of rules in place, i.e. one or more **Equality of Dividends** and also one or more **Equality of Payments** and one member in each of the four positions

Then unless the income values just happen to coincide, in general those dividend rules will be incompatible.

Any *three* of the four rules can be satisfied. But in doing so, the fourth must be dropped.

So, in your experimenting for Scenario 3, whenever such a situation arises you will be asked to select one of your four current rules as *Droppable*...

... i.e. the rule you want to be dropped in any such situation.

### Scenario 3

Here, for example, the rule selected as droppable is Equality of Dividends for all members who decide to Stay.

	Equality of Payments for all members who decide to Leave	Equality of Dividends for all members who decide to Stay																				
Equality of Payments for all members with Bad Luck	<table border="1"> <tr><td>Bad/Leave</td><td></td></tr> <tr><td>Income</td><td>0.0</td></tr> <tr><td>Dividend</td><td>15.0</td></tr> <tr><td>Payment</td><td>15.0</td></tr> <tr><td>Good/Leave</td><td></td></tr> </table>	Bad/Leave		Income	0.0	Dividend	15.0	Payment	15.0	Good/Leave		<table border="1"> <tr><td>Bad/Stay</td><td></td></tr> <tr><td>Income</td><td>4.0</td></tr> <tr><td>Dividend</td><td>11.0</td></tr> <tr><td>Payment</td><td>15.0</td></tr> <tr><td>Good/Stay</td><td></td></tr> </table>	Bad/Stay		Income	4.0	Dividend	11.0	Payment	15.0	Good/Stay	
Bad/Leave																						
Income	0.0																					
Dividend	15.0																					
Payment	15.0																					
Good/Leave																						
Bad/Stay																						
Income	4.0																					
Dividend	11.0																					
Payment	15.0																					
Good/Stay																						
Equality of Dividends for all members with Good Luck	<table border="1"> <tr><td>Income</td><td>8.0</td></tr> <tr><td>Dividend</td><td>7.0</td></tr> <tr><td>Payment</td><td>15.0</td></tr> </table>	Income	8.0	Dividend	7.0	Payment	15.0	<table border="1"> <tr><td>Income</td><td>10.0</td></tr> <tr><td>Dividend</td><td>7.0</td></tr> <tr><td>Payment</td><td>17.0</td></tr> </table>	Income	10.0	Dividend	7.0	Payment	17.0								
Income	8.0																					
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Dividend	7.0																					
Payment	17.0																					

As you can see, the dividend values are indeed different between Bad/Stay and Good/Stay.

The other three rules, however, are satisfied.

### Completing Part 1

It will take around 20 minutes for you to experiment and choose dividend rules for all five possible scenarios.

After you have done so, you may have to wait a couple of minutes for any participants using the full time allowance.

When all participants have completed their choices of dividend rules, Stage 1 will be complete.

You will then see screens guiding you through the remaining stages of Part 1, which should take only a couple of minutes.

The final screen in Part 1 will show your payment.

At that point, wait for further instructions from the experimenter.