

# Changing consumer preferences for single-use cups

## Regulation, persuasion, or motivation?

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### Introduction

- Single-use disposable cups represent a significant source of single-use plastic because they are used in large quantities and are not easily recycled.
- Switching to reusable cups for takeaway drinks would be an effective way to reduce the environmental impact of this type of packaging.
- The Scottish Government has recently launched a consultation on charging for single-use disposable cups<sup>1</sup>.
- This study provides evidence on the effectiveness of charging versus other measures.

#### Research Questions

- How effective is a charge compared to a discount and how do different types of consumer respond?
- Which type of reusable cup do consumers prefer?
- Does raising awareness help?
- What motivations are associated with higher reusable cup use?

### Methods

We conducted a choice experiment with a representative sample (age, gender, employment) of 1200 Scottish consumers who regularly purchase non-alcoholic drinks in takeaway cups. Table 1 shows an example choice card. In addition to participating in the choice experiment respondents were asked about their current takeaway drink purchasing habits, level of environmental concern, confidence in their own ability to make a switch to reusable cups as well as the perceived advantages and disadvantages of different cup types. Respondents were randomly assigned to two experimental and treatment conditions (Figure 1).

Table 1 – Example Choice Experiment Card Offering Four Options

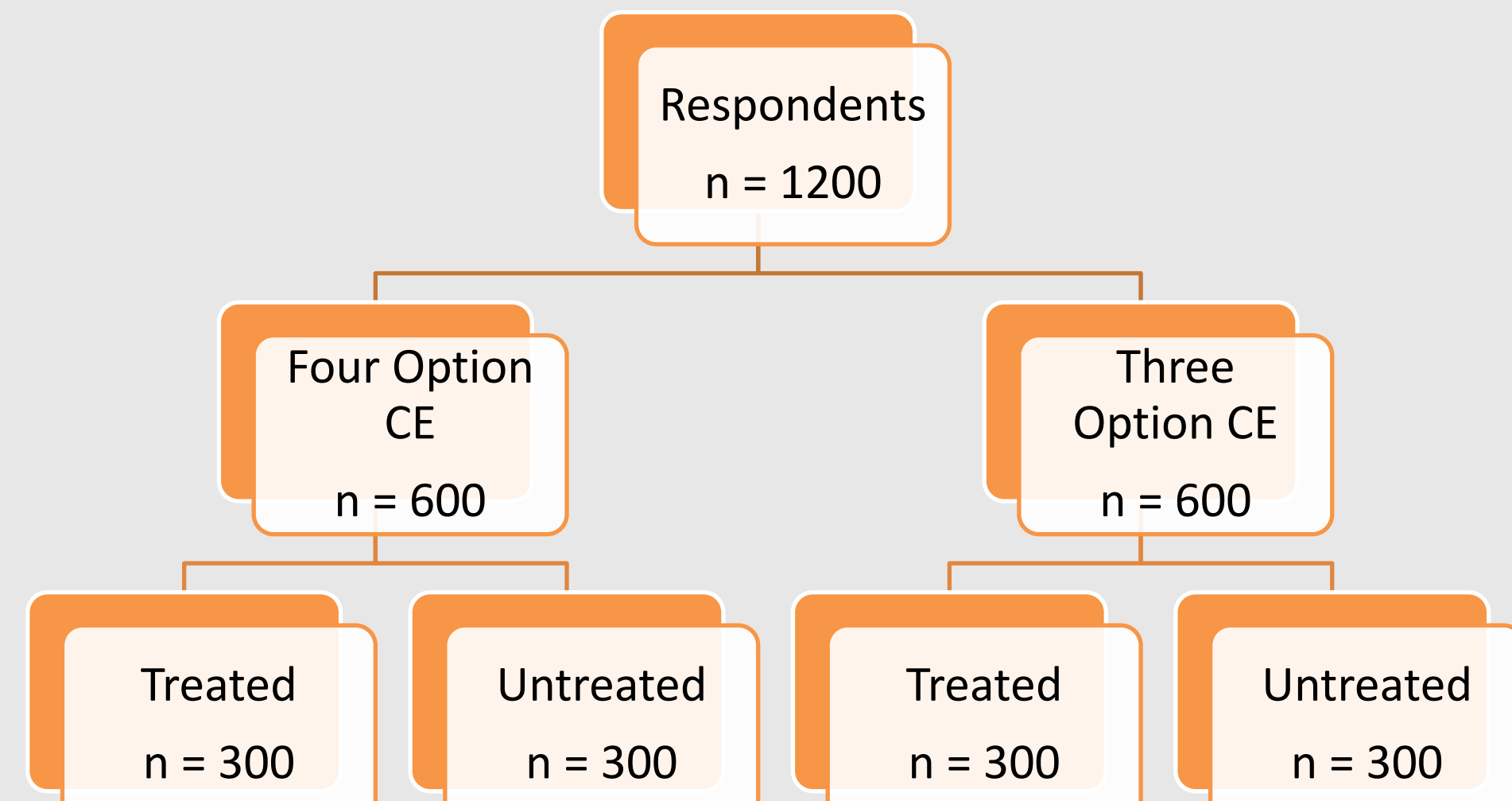
Attributes	Level
Cup Type	Single-Use, Returnable, Refillable
Charge	£0, £0.15, £0.25, £0.35, £0.45
Discount	£0, £0.15, £0.25, £0.35, £0.45
Scheme	Deposit paid upfront, Charge for none return

**Returnable cups** are owned by the shop and borrowed by you. You return it to the shop after use. The shop is responsible for washing and sanitising the cup. It may then be used by other people.

**Refillable cups** are owned by you, and you take it to the shop to fill up. You keep it after use. You are responsible for washing and sanitising the cup. Only you use this cup

**Disposable cups** are single-use plastic cups that are discarded after use.

Figure 1 – Choice experiment (CE) assignment and treatments



#### References

i. <https://consult.gov.scot/environment-forestry/charging-for-single-use-disposable-beverage-cups/>

### Results

We found that when four options were offered (disposable, refillable, returnable plus opt out), a charge of around 25 pence reduced the likelihood of single-use disposable cup selection by 50% with all other attributes held at baseline level while a discount of nearly £1 was required to achieve the same effect (Figure 2).

Figure 2 – Simulated probability of selecting a disposable, refillable or returnable cup based on our model at different charge and discount levels

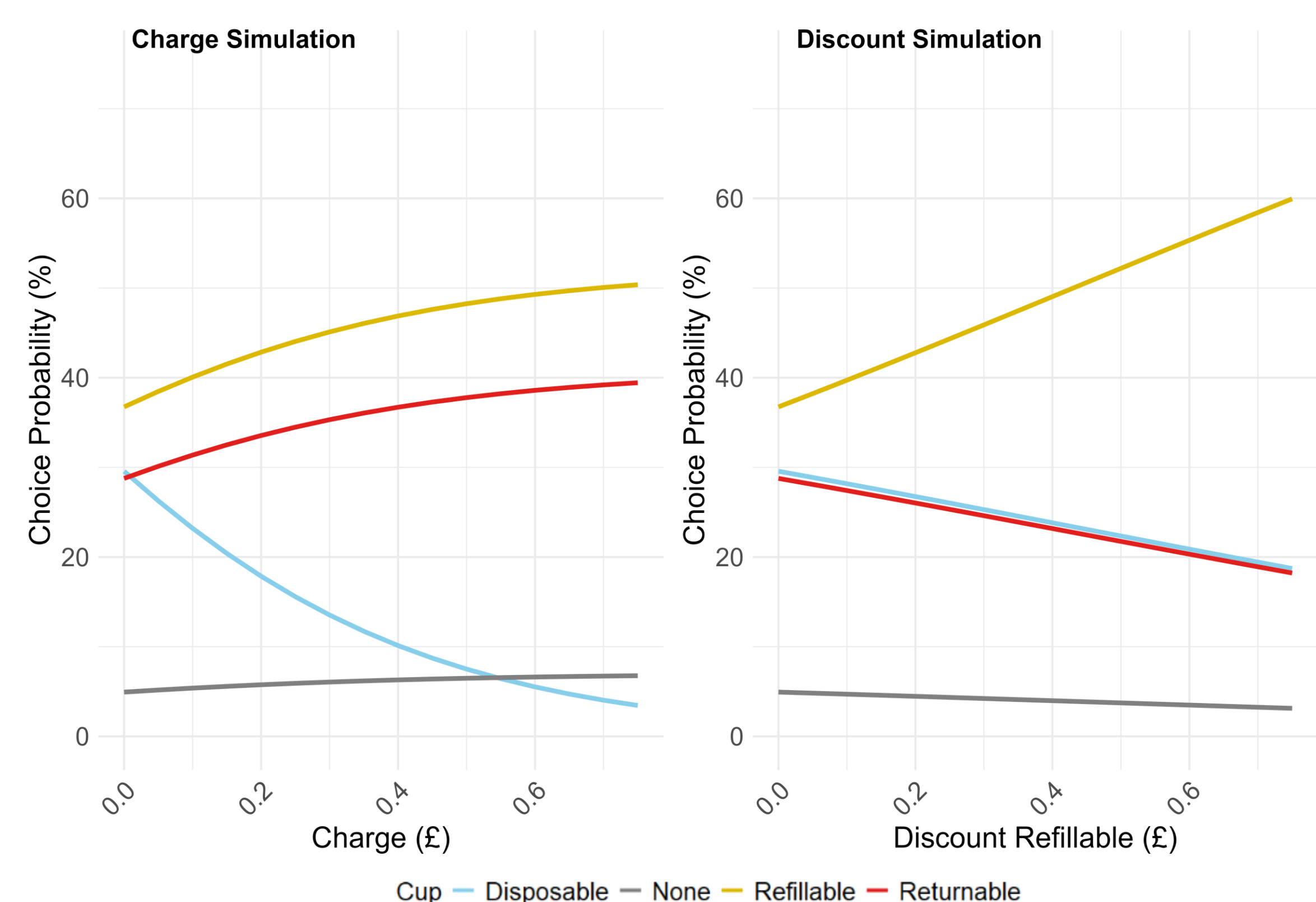
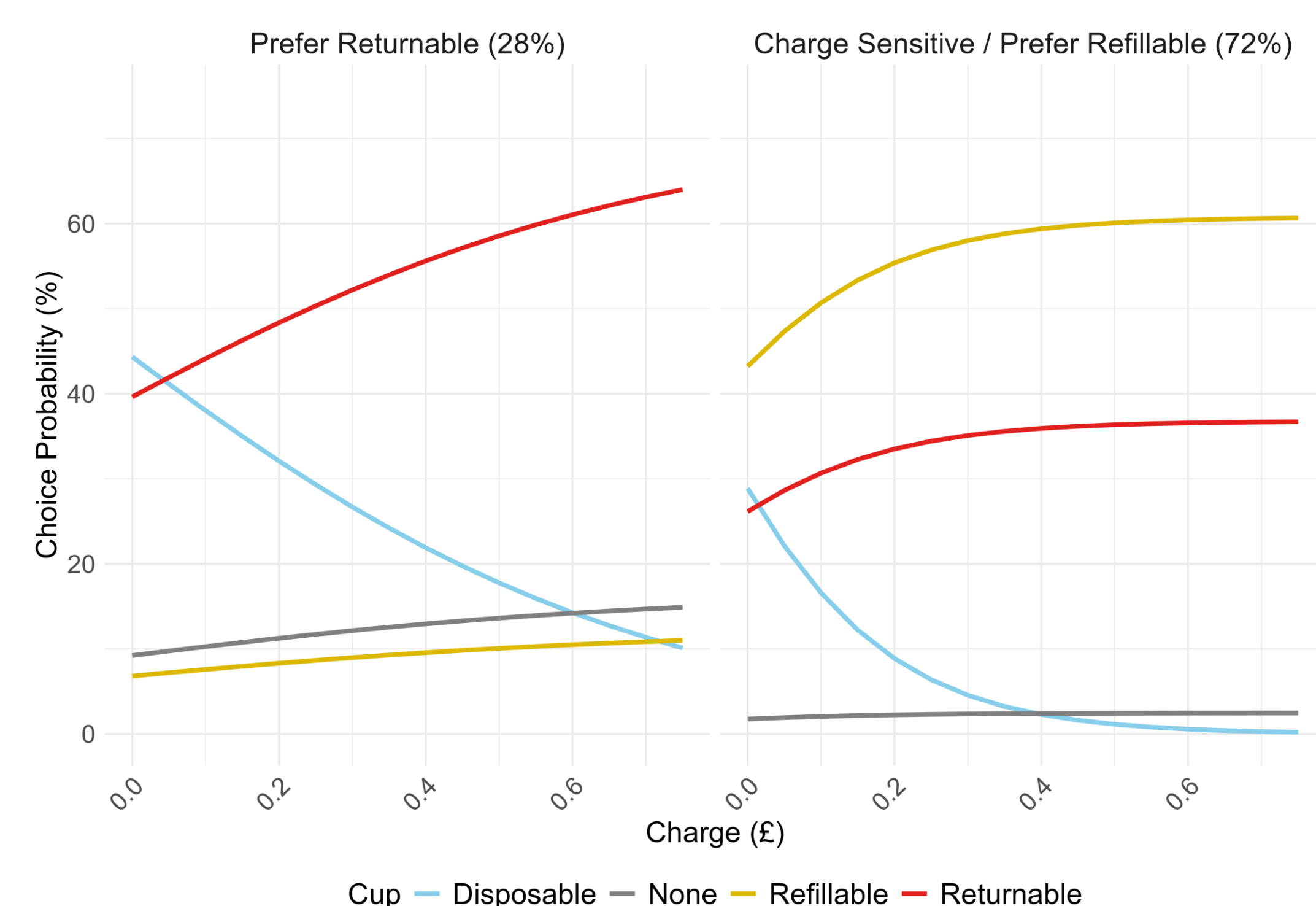


Figure 3 – Simulated probability of selecting a disposable, refillable or returnable cup at different charge levels by consumer group



Follow link for interactive models

### Conclusions

- Charges were around four times more effective than discounts at increasing reusable cup selection.
- Most consumers preferred refillable cups to returnable cups, but a notable segment prefer returnable therefore offering them could support behaviour change (Figure 3).
- We did not detect a significant effect for the environmental impact awareness raising treatment.
- Consumers, vary in their sensitivity to charges and underlying preferences for reusable cup type. Notable associations with age and current behaviour.
- Practical rather than motivational or informational support is key to supporting this behaviour change.

#### Acknowledgement

This project was funded under "Building the circular economy: sustainable technologies, green skills and upscaling behaviours – C4" part of the Scottish Government's Environment Natural Resources and Agriculture Strategi Research Programme 2022-27. Special thanks go to Robert McMorran and Tom Collins at RESAS for their input to the study design and survey.



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