Consumer Preferences for a Digital Euro

Insights from a Discrete Choice Experiment in Austria

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ÖNB

Introduction

Motivation

Estimate ex-ante demand for a digital euro *before launch* using a representative Discrete Choice Experiment (DCE) aligned with ECB policy levers.

Goal—Measure intended adoption with a representative discrete-choice experiment mapped to policy-relevant features.

Why now?—Design choices are being set; we quantify how specific features shift adoption prior to launch.

Contributions

Policy-aligned attributes, mixed logit heterogeneity, and interpretable adoption elasticities.

- DCE mapped directly to policy levers (privacy, loss coverage, incentives, offline, form factor).
- Austrian sample with an explicit **status-quo** option.
- Mixed logit (random coefficients) captures heterogeneity.
- Report **percentage-point** effects on adoption, enabling policy interpretation.

The Survey at a Glance

- **Sample:** 1,421 residents of Austria, age ≥ 16 (randomly selected).
- **Mode:** 89% CAPI; 11% CAWI.
- **Fieldwork:** 3 Mar – 31 May 2024.

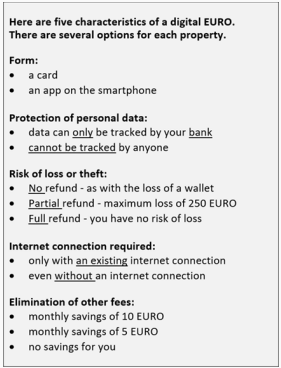
What is a Discrete Choice Experiment?

- Respondents make concrete choices between realistic product variants, forcing transparent trade-offs **before** launch.
- We vary five attributes aligned with the policy debate; all other aspects (e.g., speed, convenience) are held constant.

Important: we ignore interest on CBDC, the store of value function, and merchant acceptance as the proposal of the EC is clear on this points: no interest, only very limited store of value function, mandatory acceptance by merchants

Attributes & Choices

Experimental variation along five attributes aligned with ECB design decisions and EU proposals. In each task, respondents **choose** between **two digital-euro variants** or the **status quo**.

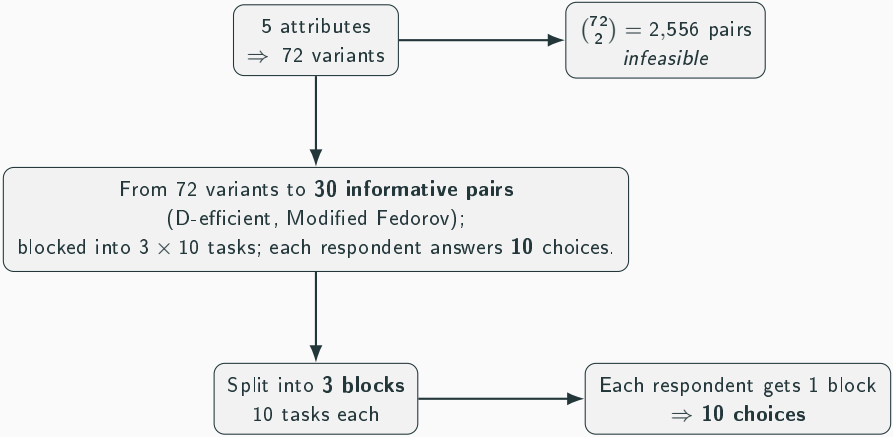


Example Showcard

Instruction (excerpt). Compare the two variants carefully; if you don't want to choose Variant1 or Variant2 you can also choose Neither of these variants.

	Variant 1	Variant 2	Neither of these variants
Form			
	Smartphone app	Smartphone app	
Protection of personal data	Data cannot be tracked by anyone	Data can only be tracked by your bank	
Risk of loss or theft	No refund – as with the loss of a wallet	Partial refund - maximum loss of 250 EURO	
Internet connection required	No	Yes	
Elimination of other fees	5 EURO monthly savings	no savings	

Design Compression — One-Slide Sketch



Sufficient variation to identify each attribute with a short, field-friendly survey.

The Model

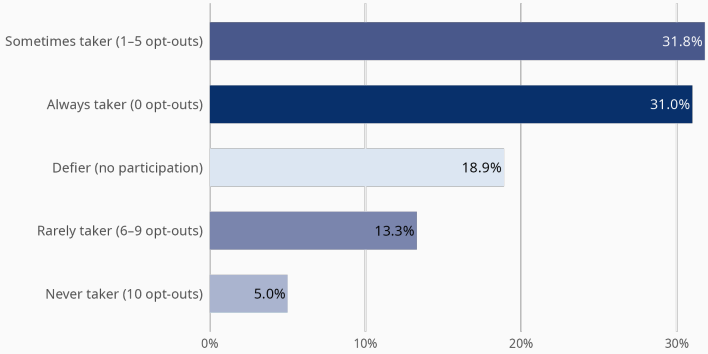
Model: What You Need to Know

Mixed logit with individual-level preference heterogeneity; status quo option included; Inverse probability weighting for non-participation.

- **Mixed logit (random coeffcients):** $U_{ij} = \beta_i' x_{ij} + \varepsilon_{ij}$; preferences vary across individuals. x_{ij} are the attributes of alternative j, status quo is characterized by a constant.
- **Alternatives:** two digital-euro variants vs. **status quo**.
- **Weights:** Inverse-probability weighting corrects for non-participation.
- **Reporting: percentage-point (pp)** changes in $P(\text{adopt})$ relative to a baseline design.

Results

Observed Choice Behaviour



- No experimental observations for Defiers.
- We apply inverse probability weighting to account for non-participation.

Which Attributes Matter? (pp effects)

Security (loss coverage) and monetary incentives dominate; card and offline help; average privacy effect ≈ 0.

Attribute change	**Δ adoption (pp)**
Security: full loss $\rightarrow$ no loss	+23
Security: full loss $\rightarrow$ €250 cap	+12
Incentives: +€10/month	+8
Form factor: app $\rightarrow$ card	+6
Incentives: +€5/month	+4
Offline: online only $\rightarrow$ also offline	+4
Privacy: limited $\rightarrow$ full	≈ 0

Values are percentage-point (pp) changes from the baseline design.

Expected adoption under realistic rollout: 45%

Baseline (realistic variant):

- No monetary incentives
- Full liability in case of theft/loss
- Limited privacy
- Offline functionality enabled
- Available as a payment card

Who Chooses the Digital Euro? (Heterogeneity)

Risk tolerance, trust, and unmet payment needs raise adoption; lower education and young age reduce it; older age slightly increases it.

Higher adoption

- High risk tolerance **(+28 pp)**
- Trust in central bank **(+15 pp)**
- Unmet payment needs **(+13 pp)**
- Being Younger: 60 $\rightarrow$ 50 **(+7 pp)**

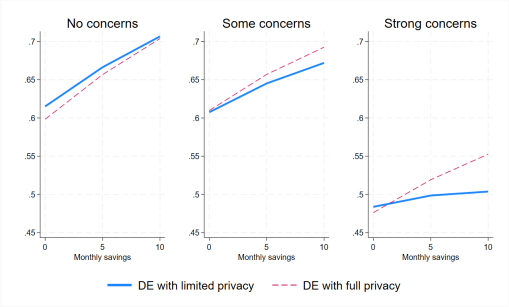
Lower adoption

- Lower education **(−14 pp)**
- Being Older: 20 $\rightarrow$ 50 **(−18 pp)**

Changes are relative to the noted comparison groups. pp = percentage points.

The Role of Privacy: Privacy against Monthly Cost Savings

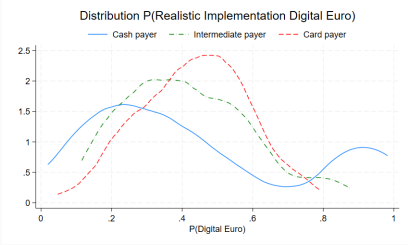
For a majority (≈70%) monetary savings dominate the privacy change; for a sizable minority (≈30%) stronger privacy binds.



For this analysis respondents are partitioned according to privacy concerns from the general part of the survey.

Variation in Payment Behavior: Cash vs. Card Users

Cash-heavy users are not uniformly anti-CBDC; a meaningful share shows strong demand despite current habits.



Policy Conclusions

Policy Takeaways

Adoption is significant; the big levers are security, incentives, and trust.

- Security and financial incentives **drive** adoption; trust in the issuer matters.
- Privacy (on average) and offline play **secondary** roles.
- Adoption patterns are broadly **similar** across payment behaviours.

Thank you very much !

Download link for the paper: