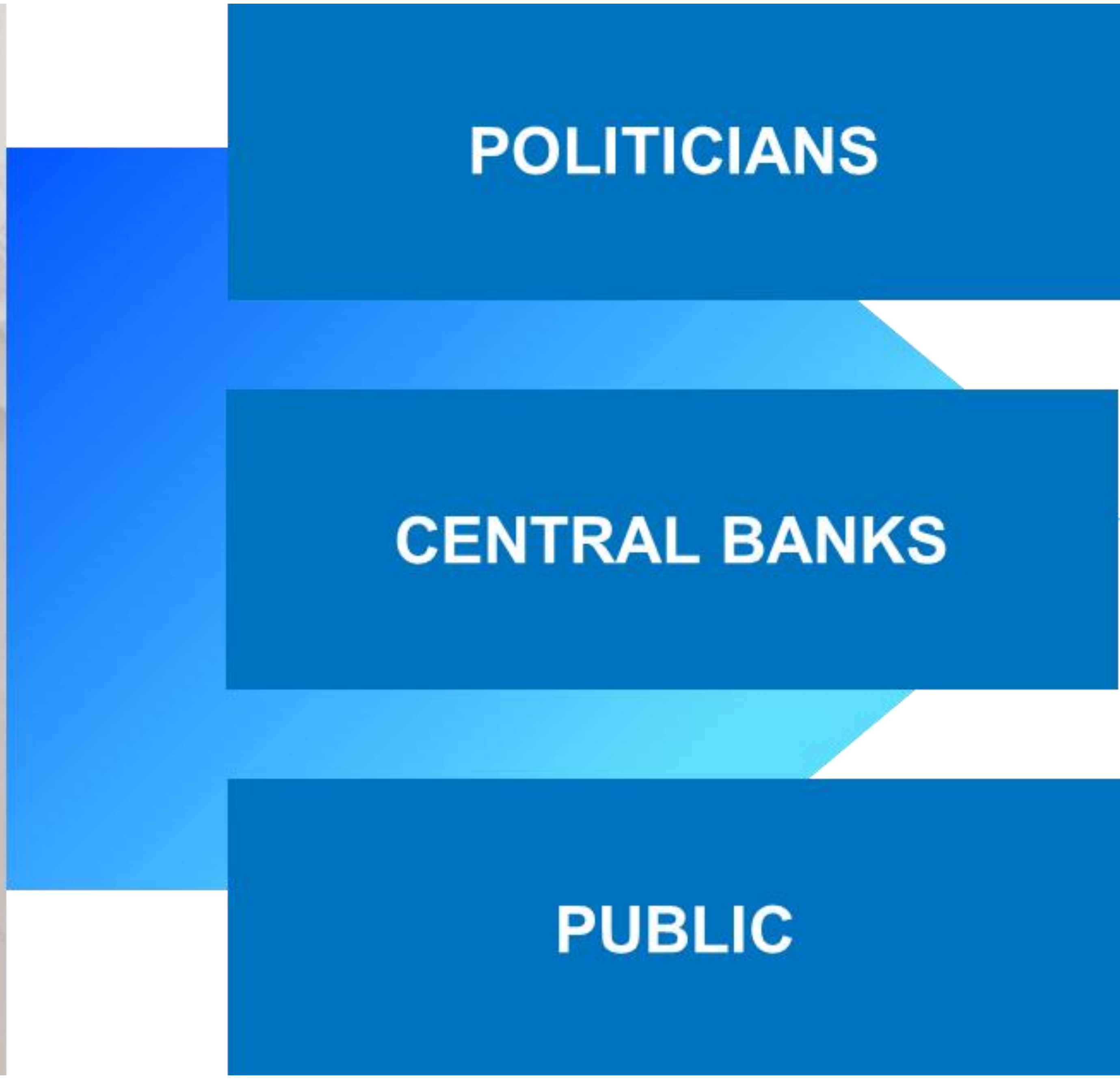
BEYOND THE COST DEBATE

Measuring the Societal and Economic Value of Cash

Andreas von Loeper, Frane Maroevic, Julia Pitters & Franz Seitz

Who shapes the narrative on cash?

Card companies see mobile payments as weapon in war on cash



The information asymmetry between the value of cash and the cost of cash is significant.

Cost-of-cash studies

Two decades of work (2003–2024): widely quantified, standardized across central banks and industry.

Value-of-cash studies

Same period: dispersed across topics, largely qualitative, rarely aggregated.

Ratio: approximately 5 : 1

For every published study on the value of cash, roughly five have been published on its cost.

BINDSEIL

Dominant players with deep pockets and vested interest

OBSERVED ASYMMETRY

5 : 1 · 2003–2024

If value is not measured, it is not considered.

Policy proceeds on ***what is measurable***

WHAT IS MEASURED	WHAT IS NOT
Cost of cash	*Value of cash*

"What we can measure dominates what we decide."

Research contribution:

Independent empirical analysis

on the value of cash.

An aggregation of cash's societal value —based on evidence

Initiative members and research partners

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MEASURING THE VALUE OF CASH FOR SOCIETY

IMPACT FACTORS

National security and resilience	Freedom and privacy	Inclusion & access	Societal significance, cost control & financial discipline	Competition and independence

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MONETARY BENEFITS				
• Avoiding panic value	• Data protection value	• Access value	• Local economy value • Value of debt decrease	• Fee regulation value

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MONETARY BENEFITS	• Avoiding panic value	• Data protection value	• Access value	• Local economy value • Value of debt decrease	• Fee regulation value
PSYCHOLOGICAL BENEFITS	• Trust in state value	• Reduced surveillance anxiety value	• Inclusion value of non-online target groups	• Financial literacy value • Identity and tradition value	• Freedom of choice value

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RESEARCH FRAMEWORK – PILOT FOR GERMANY

A coordinated design that triangulates macro statistics, expert judgment, and consumer perception.

STATE LEVEL

Research workshops & literature review

Analyzing macro data, discussing calculation methods and working toward a final formula.

BUSINESS LEVEL

In-depth expert interviews

Central banks, consumer protection, trade, commercial banks, regulation, logistics, entrepreneurs, security representatives.

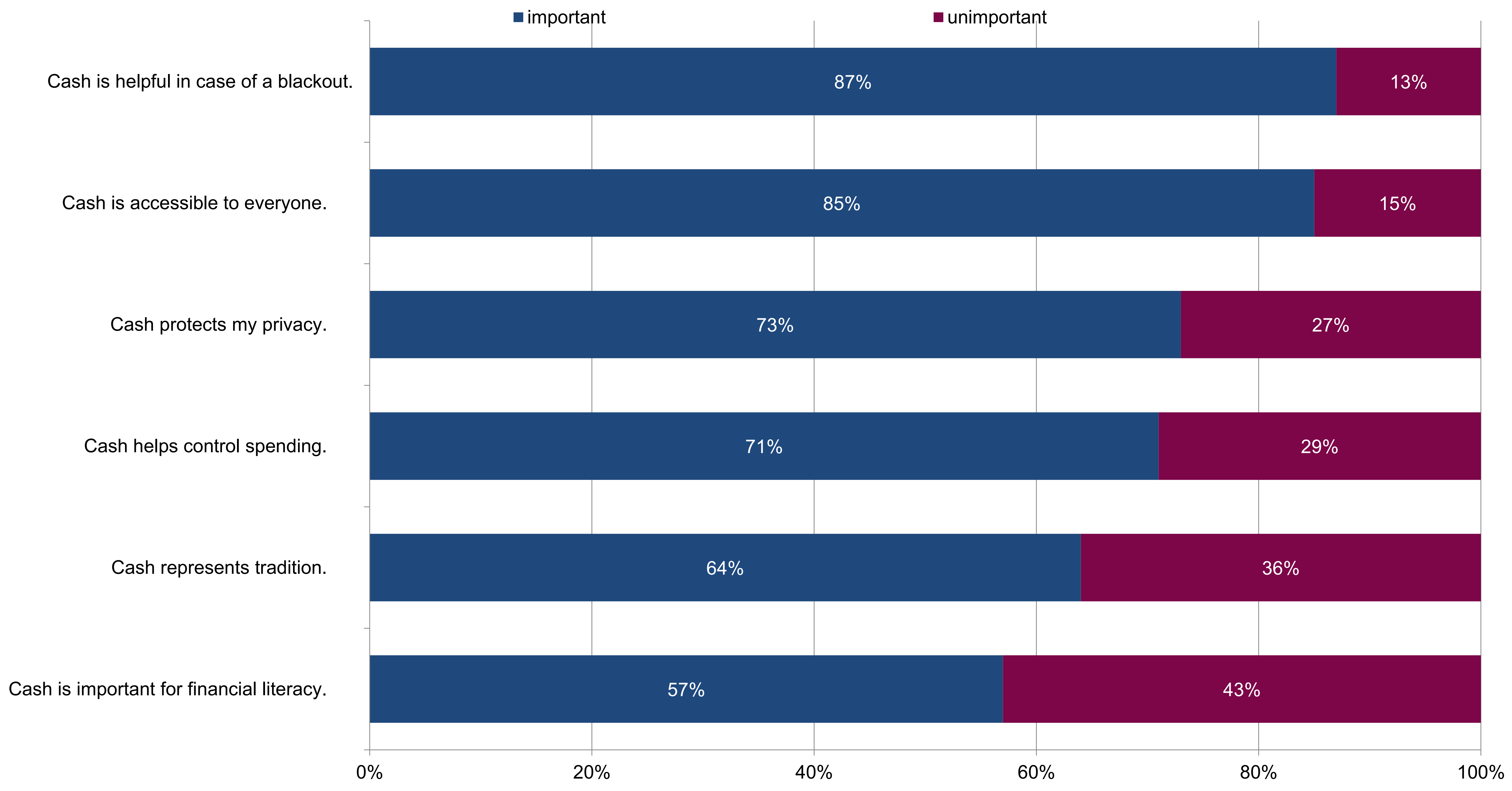
CONSUMER LEVEL

Representative online survey · N = 2,000

Quantitative instrument capturing the five topics across the population.

Calculating cash values for each impact factor

CASH IS PERCEIVED AS IMPORTANT IN ESSENTIAL CATEGORIES



Question: When you think of cash – which aspects are personally important to you?

RESILIENCE

AVOIDING PANIC VALUE

When power fails, networks fail, or trust in systems falters — cash still works. People know it, and they hold reserves accordingly.

€ 995 (SD = 1273) **recommended to others**

€ 759 (SD = 1259) **keep themselves**

8 days Median estimated days of survival with reserve

3 days = € 210 (De Nederlandsche Bank, 2025)

Survey question: How much cash do you keep at home for emergencies? How much would you recommend others keep?

PRIVACY

DATA PROTECTION VALUE

Every digital payment leaves a data trail. When asked, consumers reveal what it would be worth to delete that trail — per transaction.

€ 0.20

Median willingness-to-pay per transaction
for data to be deleted immediately

€ 1.35 (SD = 2.41) Mean willingness-to-pay per transaction

€ 0.43 (Bundesbank study: Knümann, Krüger & Seitz, 2025)

Survey question: How much would you pay per digital transaction to ensure your data is not stored or immediately deleted?

INCLUSION

ACCESS VALUE

Even in developed economies, a small but consistent share of the population relies on cash because the banking system is not open to them.

1.15 %

Share of Germans with no bank account

€ 64 (SD = 62.87) Midpoint-coded responses for annual bank-account fees

€ 66 (Bundesbank study, 2023)

Survey question: How many bank accounts do you have? How much do you pay annually in account fees?

COST CONTROL

DECREASING DEBT VALUE

82% attribute debts to buy now, pay later offers. Cash reduces temptation to click.

+11.31% (SD = 33.21)

Estimated increase in online spending without cash for consumers under 50

+5.6% Total population mean

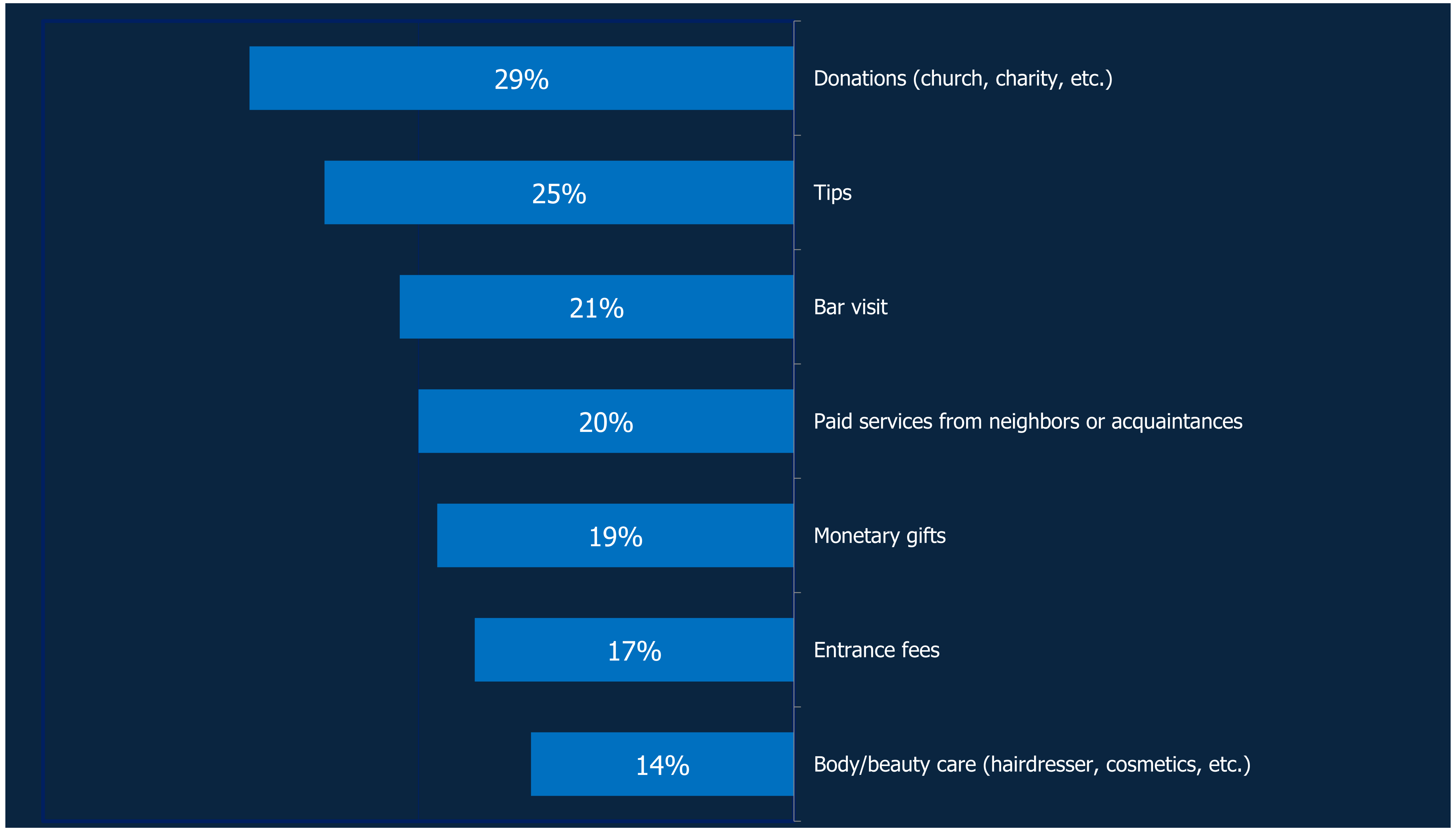
+1% Total population median

Survey question: Suppose cash no longer existed. How much more or less would you spend online than you do today?

SOCIAL SIGNIFICANCE

LOCAL ECONOMY VALUE

Without the option to pay cash many local sectors would lose revenues.



Survey question: Imagine that cash would not be accepted in the following situations. How would this affect your spending behavior?

INDEPENDENCE

FEE REGULATION VALUE

The credible option to pay in cash is what keeps digital payment fees in check. Take it away — and prices rise.

+23% (SD = 34.3)

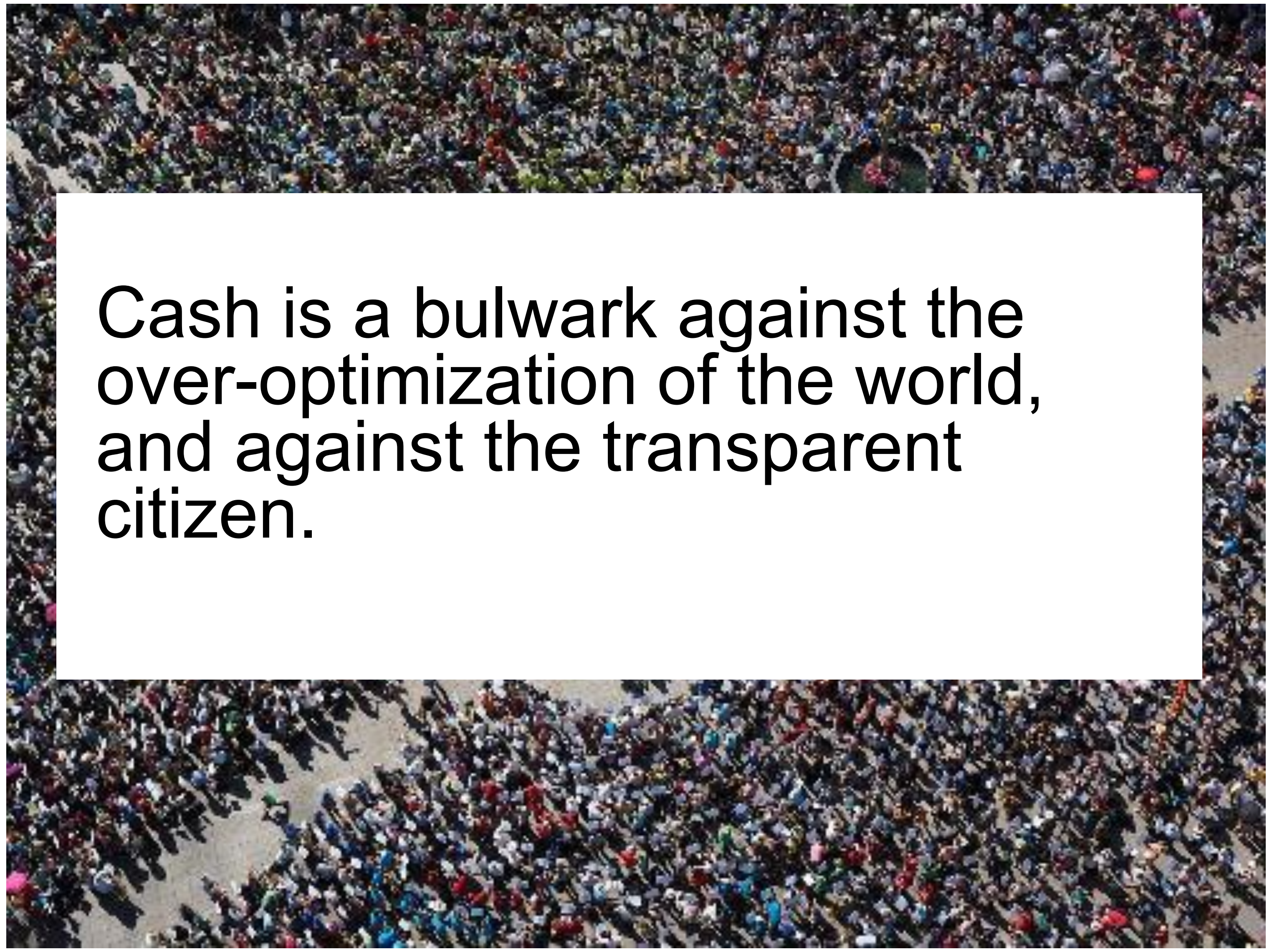
Expected increase in digital payment fees
if cash were abolished

+20% Median expected fee increase

Survey question: If cash were abolished, how would this affect the fees of digital payment providers?

GENERAL PERCEPTIONS

SIGNIFICANCE OF CASH



“Cash is a bulwark against the over-optimization of the world, and against the transparent citizen.

66%

see more advantages of cash for society than disadvantages

36%

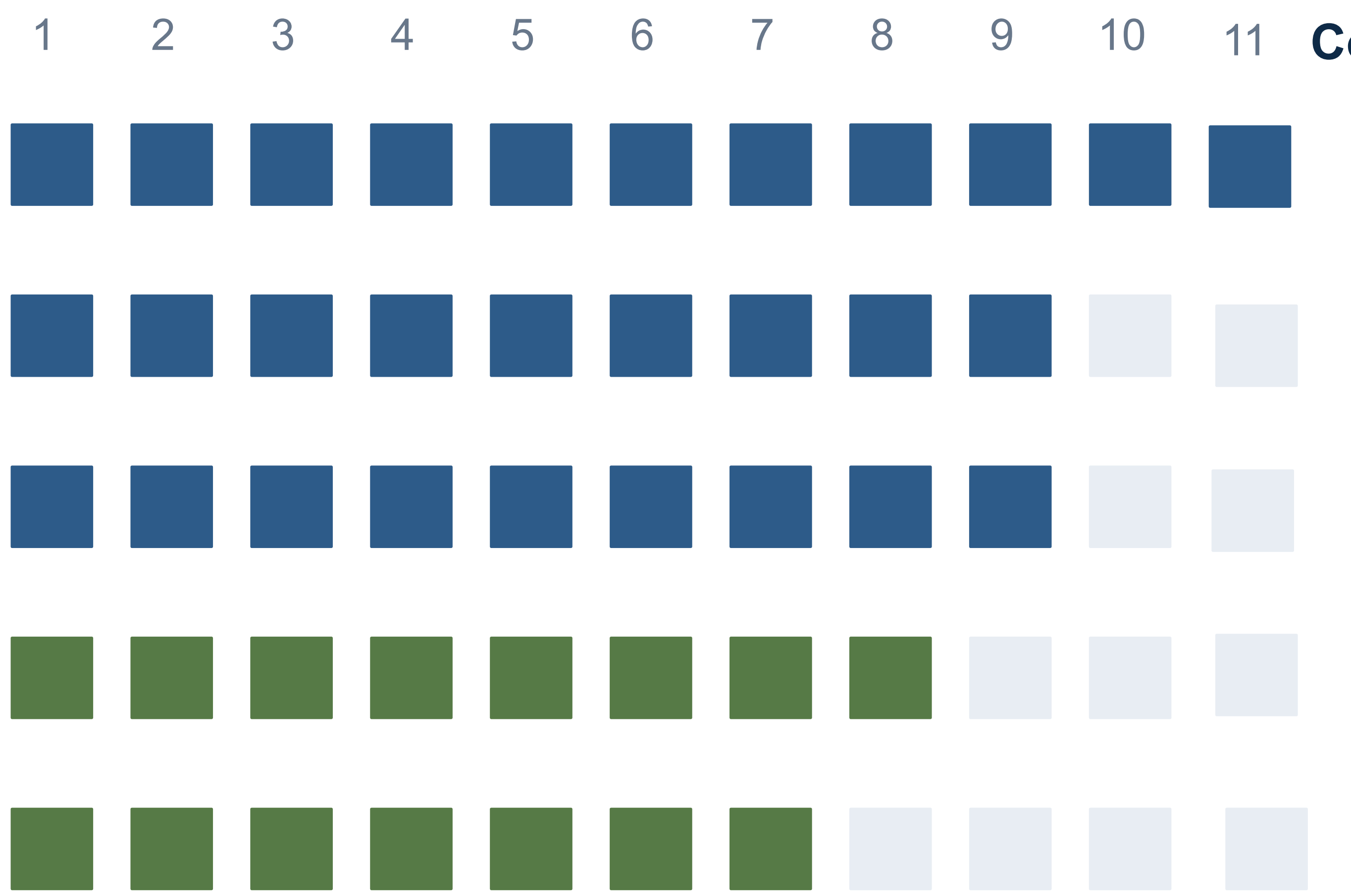
say central bank cash supply strengthens their trust in government

Survey questions: Does cash have more advantages or disadvantages for society?
Does the central bank's cash supply influence your trust in the government?

EXPERT CONSENSUS HEAT MAP

Not: Who mentioned the topic? But: On which statements is there a broad consensus?

Statements	Consensus
Cash is a crisis backup in payment transactions	11/11
Cash protects privacy / anonymity	9/11
Cash makes it easier to control spending	9/11
Cash has an inclusion function	8/11
Cash limits market power / fees	7/11



The more fields are filled, the broader the consensus. The strongest and most stable arguments lie in resilience, data protection and spending control.

CASH VALUE CALCULATION

DOMAIN	IMPACT FACTOR	FORMULA	DATA SOURCE	% OF GDP
Resilience	Avoiding panic value	Cash reserve recommended × population	Survey / Central bank	**0.43**
Privacy	Privacy value	WTP for privacy × number of cash txns	Survey	**0.07**
Inclusion	Access value	% Unbanked adults × annual account fees	Survey	**0.001**
Cost control & social sign.	Debt decrease value	Debt rate × increased online spending	Survey / debt stats	**0.0002**
	Local economy value	% Cash per sector × spending decrease × revenue	Survey / proxies	**0.49**
Independence	Fee regulation value	Card fees × expected fee increase	Survey	**0.03**
Seigniorage value		Banknote cumulation × long-term IR	Central bank	**0.25**
TOTAL VALUE		*Sum across all monetary dimensions*		**≈ 1.28**

CASH VALUE CALCULATION IN RELATION TO COSTS

DOMAIN	IMPACT FACTOR	FORMULA	DATA SOURCE	% OF GDP	COSTS
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TOTAL VALUE		*Sum across all monetary dimensions*		≈ 1.28	≈.45

TAKE-AWAYS

SUMMARY - DISCUSSION

1
Cash can be quantified

Its value to society is measurable — using survey data and central bank statistics.

2
Psychology will be captured

A survey-based index translates intangible benefits into comparable numbers.

3
Any country can be measured

The procedure is validated and replicable.

4
Cross-country dashboard

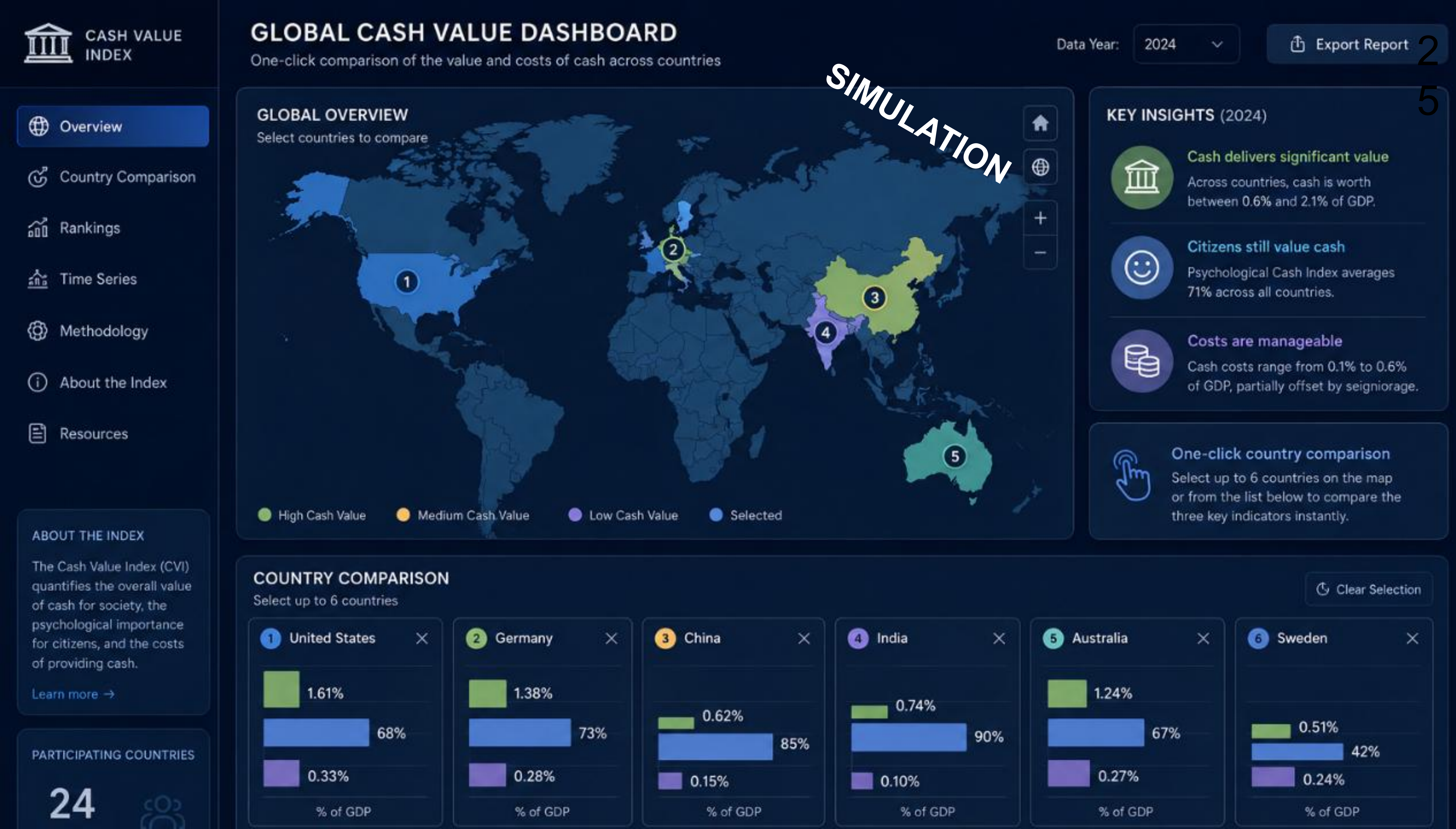
An international dashboard enables comparisons and time-series analysis.

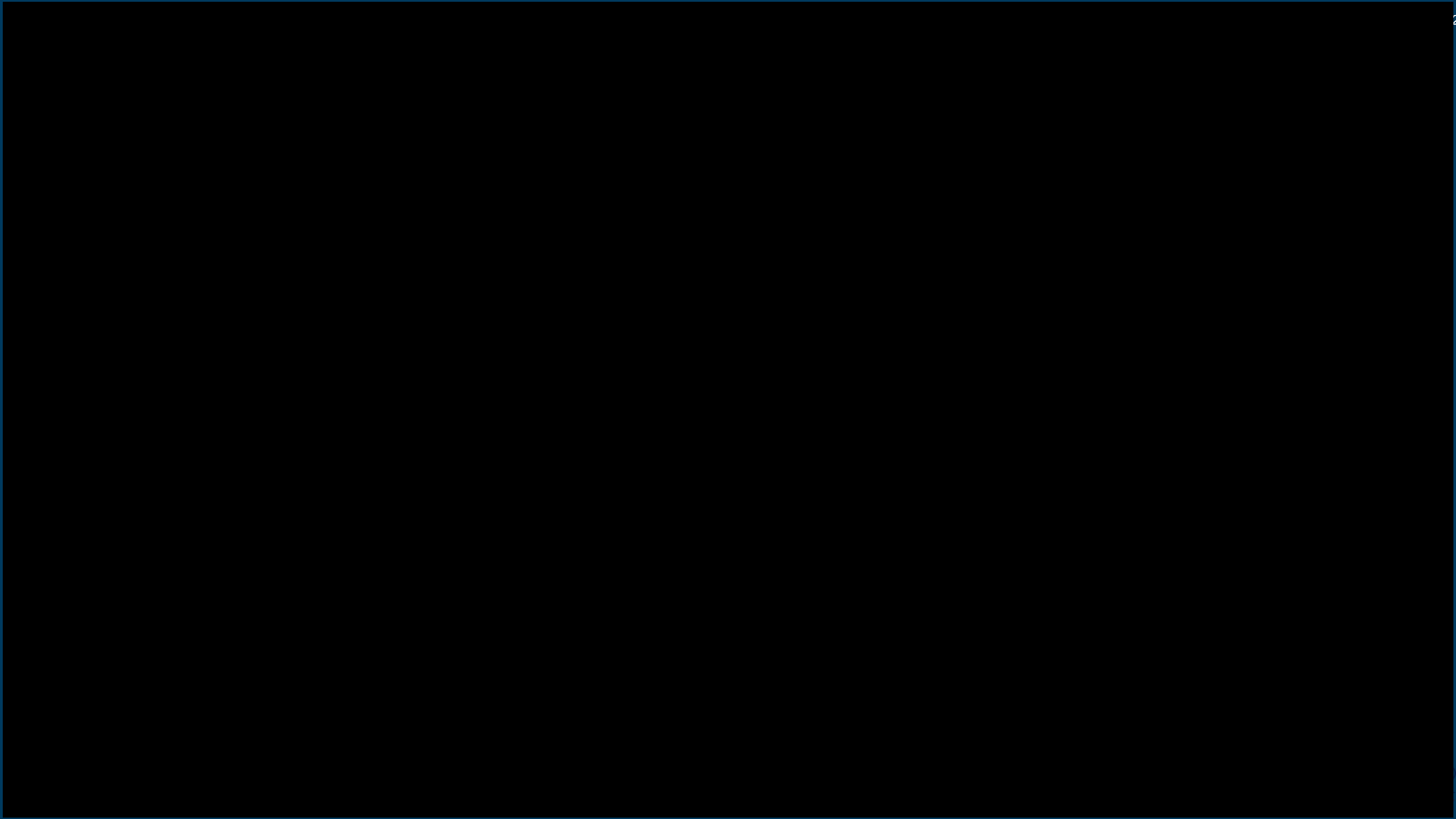
5
Evidence-led policy

Value-framing significantly strengthens the case policymakers can make.

6
Cash with public good properties in value contribution

Awareness must be strengthened — central banks should take an active role.


CASH VALUE INDEX
GLOBAL CASH VALUE DASHBOARD
One-click comparison of the value and costs of cash across countries
Data Year: 2024
Export Report
SIMULATION
Overview
Country Comparison
Rankings
Time Series
Methodology
About the Index
Resources
GLOBAL OVERVIEW
Select countries to compare
High Cash Value
Medium Cash Value
Low Cash Value
Selected
KEY INSIGHTS (2024)
Cash delivers significant value
Across countries, cash is worth between 0.6% and 2.1% of GDP.
Citizens still value cash
Psychological Cash Index averages 71% across all countries.
Costs are manageable
Cash costs range from 0.1% to 0.6% of GDP, partially offset by seigniorage.
One-click country comparison
Select up to 6 countries on the map or from the list below to compare the three key indicators instantly.
ABOUT THE INDEX
The Cash Value Index (CVI) quantifies the overall value of cash for society, the psychological importance for citizens, and the costs of providing cash.
Learn more →
PARTICIPATING COUNTRIES
24
COUNTRY COMPARISON
Select up to 6 countries
Clear Selection
1 United States 1.61% 68% 0.33% % of GDP
2 Germany 1.38% 73% 0.28% % of GDP
3 China 0.62% 85% 0.15% % of GDP
4 India 0.74% 90% 0.10% % of GDP
5 Australia 1.24% 67% 0.27% % of GDP
6 Sweden 0.51% 42% 0.24% % of GDP



GET INVOLVED

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THANK YOU!