VOTING FOR SOLIDARITY: DESIGNING FAIR MECHANISMS FOR REFUGEE ALLOCATION

The Future of Voting for Sustainable Development Goals

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INTRODUCTION

The Problem

The EU refugee allocation system faces instability, fairness disputes, and legitimacy crises:

- Frontline states (Italy, Greece) are overburdened and demand solidarity.
- Others (e.g., Poland, Hungary) reject quotas, citing sovereignty.
- Unanimity rules often block reforms, entrenching the unpopular status quo.
- Even when agreements are adopted, compliance is weak, undermining credibility.

Core Research Question

How can we design a fair, stable, and legitimate voting mechanism that aggregates diverse preferences and overcomes the limitations of both majority rule and unanimity?

PROBLEM & CASE

- EU refugee crisis: frontline states overburdened, solidarity contested.
- Current system (Dublin) entrenches unfairness, blocked by unanimity rules.
- Policy options (A–D): Quotas, Flexible solidarity, Border control, Status quo.
- Stakeholders and their preferences:
  - Frontline (IT/GR): demand quotas.
  - Core (DE/FR): prefer flexible solidarity.
  - Visegrád (PL/HU): reject quotas, want border control.
  - Nordics/NL: rules-based, cautious on quotas.

	1st	2nd	3rd	4th
Frontline (IT/GR)	A	B	C	D
Core (DE/FR)	B	A	C	D
Visegrád (PL/HU)	C	D	B	A
Nordics/NL (SE/NL)	B	C	A	D

THEORETICAL INSIGHTS

- Arrow (1972): No perfect voting system → risk of cycles.
- Buchanan (1986): Unanimity → veto deadlock; majority rule needs safeguards.
- Hurwicz–Maskin–Myerson (2007): Mechanism design aligns incentives → fairness + efficiency.

INNOVATION: RCCM

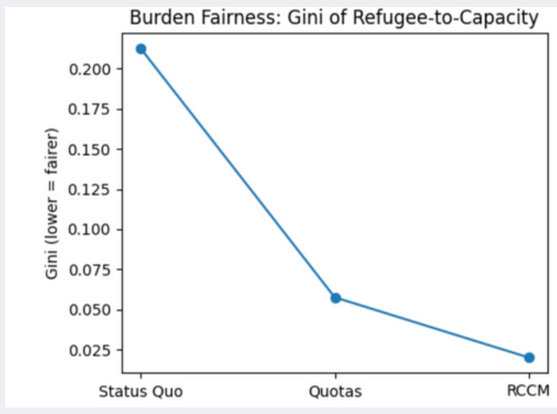
Robust Condorcet + Credit Matching

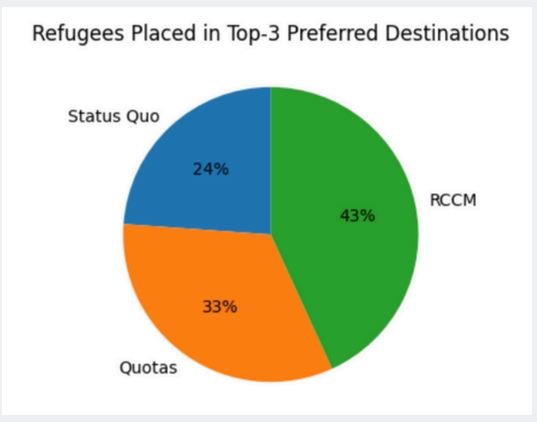
1. Condorcet voting → stable collective choice.
2. Solidarity credits → host refugees or pay contributions; auction clears.
3. Stable matching → align refugee preferences with host capacities.
4. Transparent ledger → track obligations, build legitimacy.

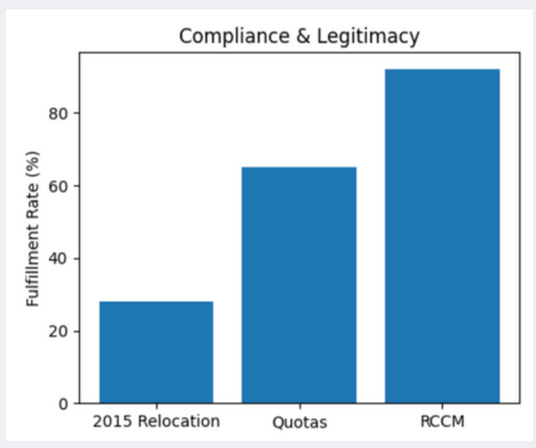
RESULT & TESTING

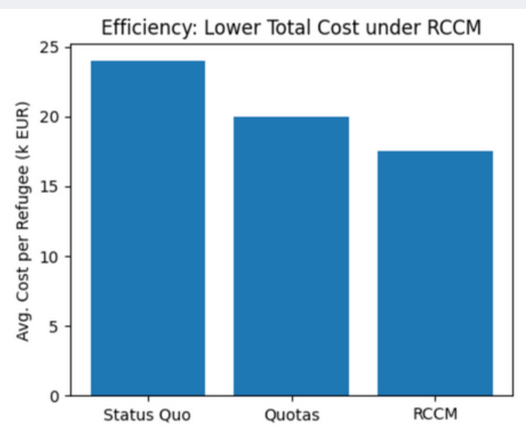
- Fairness: More balanced distribution (lower Gini of burden).
- Stability: Eliminates Condorcet cycles; clear winner.
- Efficiency: Lower total cost, flexible burden-sharing.
- Legitimacy: Higher compliance, refugees' preferences respected.
- Validation path: Classroom simulation → GitHub prototype → pilot with municipalities.

VISUALIZATION









CONTRIBUTION TO SDGS

REFERENCES

- ARROW, KENNETH J. 1972. GENERAL POSSIBILITY THEOREMS FOR SOCIAL WELFARE FUNCTIONS. IN PROCEEDINGS OF THE INTERNATIONAL CONGRESS OF MATHEMATICIANS 1970, 395–402.
- BUCHANAN, JAMES M. 1986. LIBERTY, MARKET AND STATE: POLITICAL ECONOMY IN THE 1980S. BRIGHTON: WHEATSHEAF BOOKS.
- COURT OF JUSTICE OF THE EUROPEAN UNION (CJEU). 2017. SLOVAKIA AND HUNGARY V COUNCIL OF THE EUROPEAN UNION, JOINED CASES C-643/15 AND C-647/15. JUDGMENT OF 6 SEPTEMBER 2017.
- EUROPEAN COMMISSION. 2015. COMMUNICATION: EUROPEAN AGENDA ON MIGRATION. COM(2015) 240 FINAL. BRUSSELS: EUROPEAN COMMISSION.
- EUROPEAN PARLIAMENT NEWS. 2024. PACT ON MIGRATION AND ASYLUM: NEW RULES FOR RESPONSIBILITY-SHARING. STRASBOURG: EUROPEAN PARLIAMENT.
- HURWICZ, LEONID, ERIC MASKIN, AND ROGER MYERSON. 2007. "MECHANISM DESIGN THEORY." NOBEL PRIZE IN ECONOMICS SCIENTIFIC BACKGROUND. STOCKHOLM: NOBEL FOUNDATION.