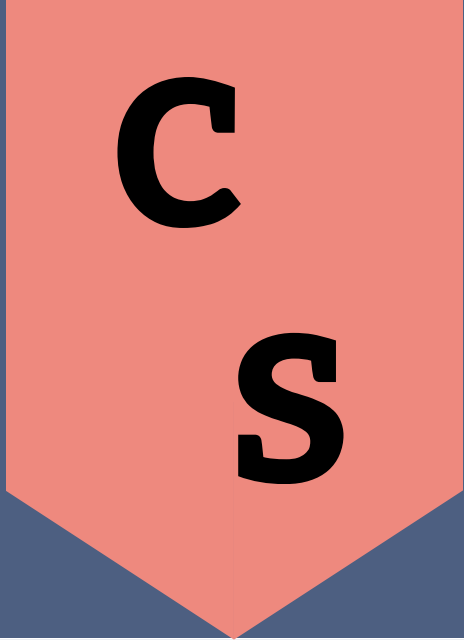


VOTING FOR SOLIDARITY: DESIGNING FAIR MECHANISMS FOR REFUGEE ALLOCATION

The Future of Voting for Sustainable Development Goals

PEILIN WU



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

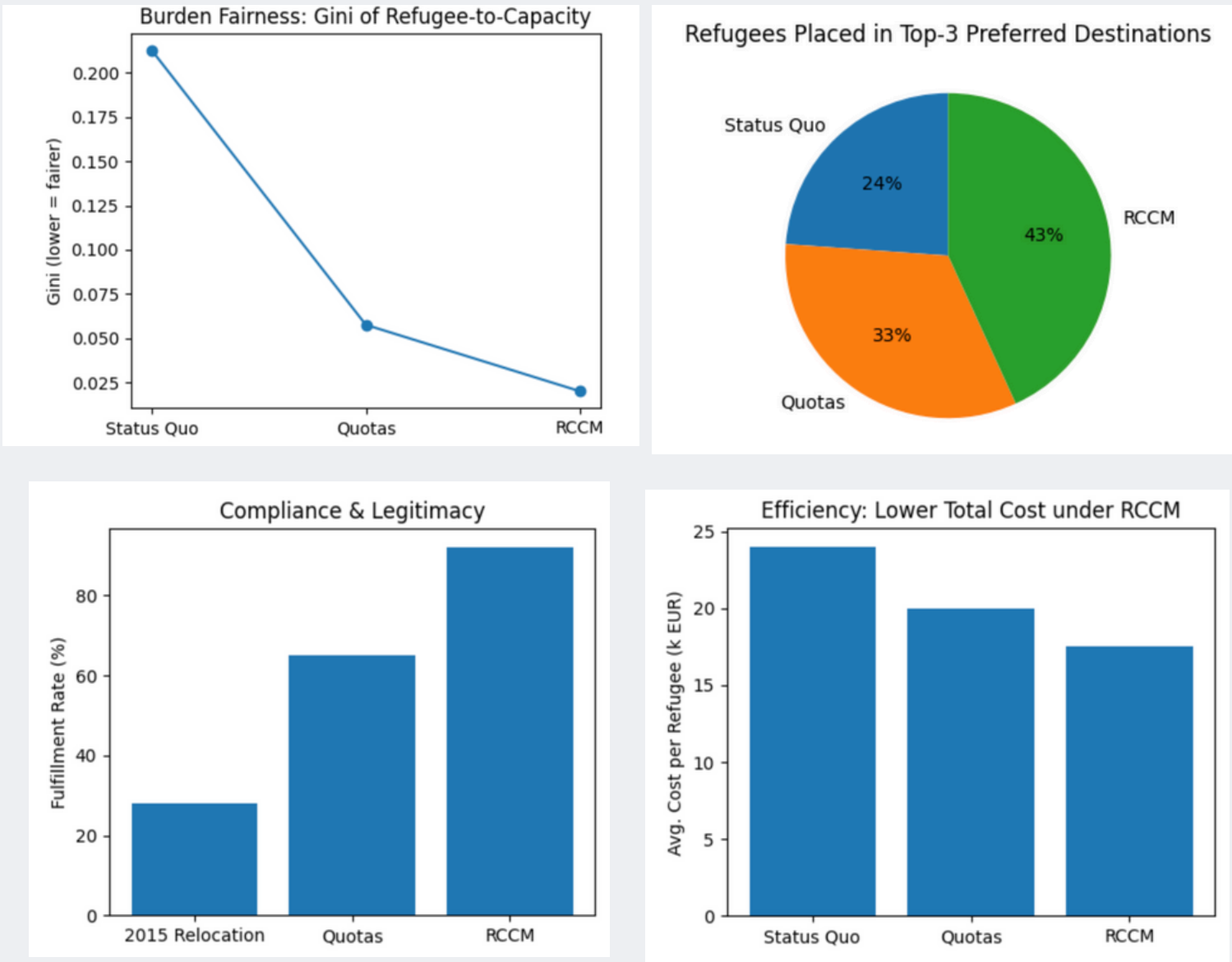
Robust Condorcet + Credit Matching

- Condorcet voting → stable collective choice.
- Solidarity credits → host refugees or pay contributions; auction clears.
- Stable matching → align refugee preferences with host capacities.
- 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



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