# CS206 Week 6 Reflection

Voting Reform Reflection: UN Security Council Case and Nobel Perspectives

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## Part 1. Design a Voting Issue (Case-Based)

**Figure (descriptive):** United Nations Security Council meeting in session, where resolutions require at least 9 votes in favor and no veto from any of the five permanent members. At present, each permanent member (P5: US, UK, France, Russia, China) can unilaterally block substantive decisions with a *veto.* This power was intended as a safeguard to ensure great powers' cooperation, but it often stymies collective action even when an overwhelming majority agrees. For example, as of 2025 Russia (including the former USSR) has cast 159 vetoes – the most of any nation – while the United States has used its veto 93 times (frequently to shield Israel). China has used 21 vetoes (often alongside Russia), whereas the UK and France have not vetoed any resolution since 1989. Supporters of the veto argue that the UN might "break down" if it tried to enforce actions against a great power, claiming the veto preserves stability and prevents one bloc's domination. Russia and China specifically view their veto as a check on what they see as excessive military interventions by others. Critics, however, deem the veto "the most undemocratic element" of the UN, blaming it for paralysis in the face of war crimes – since P5 members or their allies can avoid accountability by simply vetoing any punitive resolution. This controversy has led to widespread calls for reform, including proposals to abolish or limit the veto and use supermajority voting instead.

**Case Selection.** In this context, a timely case is the United Nations Security Council reform – specifically, exploring what would happen if the P5's veto right were removed (hypothetically). This case exemplifies a fundamental governance dilemma: efficiency vs. inclusivity. The UN Security Council's veto rule often leads to deadlock (inefficient outcomes) but was designed to keep powerful states on board (ensuring their buy-in). By removing the veto, we can illustrate how decision-making might become more majority-driven and agile, yet also raise concerns about legitimacy and fairness in the eyes of those who lose special privileges. The case is inspired by real debates on UN reform (e.g., some states argue that global crises like humanitarian disasters should not be halted by a single nay vote). It provides a simplified microcosm of broader challenges in collective choice: balancing the voice of powerful stakeholders versus the principle of equal representation and action for the common good.

**Simplified Scenario.** Imagine the Security Council confronting a major crisis – for instance, a humanitarian intervention in a conflict zone – under a reformed system without any vetoes. There are 3 policy options on the table for the Council's response:

- **Option A: Strong Intervention** – e.g., authorize a robust peace-enforcement mission or military intervention to stop violence.
- **Option B: Limited Sanctions & Mediation** – e.g., impose targeted sanctions and dispatch mediators, but no armed intervention.
- **Option C: No Action / Status Quo** – issue statements of concern but avoid any concrete intervention or sanctions.

Now consider 4 key stakeholders (voting blocs) among the 15 Council members, each with distinct ranked preferences:

- **Western Bloc (e.g., US, UK, France)** – Prefers bold action. Rank $A \succ B \succ C$; strong intervention is necessary to uphold international peace and human rights.
- **Opposing Bloc (e.g., Russia, China)** – Prefers non-interference. Rank $C \succ B \succ A$; favoring no action (sovereignty concerns, fear of interventionist precedents).
- **Non-P5 Emerging Powers (e.g., India, Brazil)** – Prefers a balanced solution. Rank $B \succ A \succ C$; support some action (sanctions/mediation) as compromise.
- **Affected Region & Allies** – Urgently want help. Rank $A \succ B \succ C$; decisive intervention seen as most effective; sanctions/talks second-best; inaction unacceptable.

These rankings encapsulate the clash between interventionists and sovereigntists, as well as those seeking a middle ground. Under the current veto system, Option A could be thwarted by a single powerful dissenter. Indeed, with the preferences above, Option A would garner most blocs' top approval – potentially well over the required 9 votes – yet in the real UN it would fail if any one P5 objects. This illustrates the tension between majority rule and consensus: majority voting (without vetoes) could enable decisive action reflecting the preference of most stakeholders, addressing global problems more swiftly. However, removing veto power raises legitimacy questions: will powerful states accept outcomes where they are outvoted? Could this lead to disengagement or undermining of the institution?

# Part 2. Nobel Insights → Innovation

## Arrow (1972): Impossibility of Perfect Voting Rules

Kenneth Arrow's Impossibility Theorem shows no voting system can satisfy all fairness criteria when there are 3+ options. Paradoxes (e.g., Condorcet cycles) can arise. In our simplified scenario, a clear majority favored A, so no cycle emerged. But Arrow warns any system can "work badly" under some profiles. Computational tools (e.g., Condorcet methods, instant-runoff, optimization to minimize dissatisfaction) can detect or mitigate cycles; runoffs among top options can ensure decisiveness when preferences are aligned.

## Buchanan (1986): Institutions (Unanimity vs. Majority)

Buchanan's public choice lens (with Tullock) highlights the trade-off between unanimity (protects minorities; high decision costs) and majority rule (efficient; imposes external costs on losers). The P5 veto is akin to unanimity among great powers: it minimizes external costs for the P5 but raises decision costs, producing gridlock. Removing the veto flips the trade-off. A calibrated design (graded thresholds: simple majority for routine matters; supermajority for high-stakes enforcement) plus side-payments/log-rolling can balance efficiency with protection against tyranny of a narrow majority.

### Hurwicz–Maskin–Myerson (2007): Mechanism Design and Incentives

Mechanism design asks how to structure rules so self-interest aligns with the common good. Under vetoes, incentives can be perverse (threaten veto to extract concessions). Without vetoes, strategic voting remains. Mechanisms with side-payments/credits (VCG-inspired ideas) can elicit honest preferences and internalize externalities (e.g., stronger obligations for blocking popular actions). Accountability requirements (e.g., written justifications) and efficiency criteria (choose welfare-maximizing options, compensate disproportionately harmed members) operationalize incentive compatibility.

### Shapley–Roth (2012): Matching, Stability, and Alternative Allocations

Stable outcomes are those with no coalition that prefers a different implementable arrangement. Removing vetoes risks instability if powerful dissenters defect. Rotations/issue-linking, package deals, or split decisions can create stability so every key actor gets something across issues. Shapley values can guide compensations proportional to sacrifices, discouraging defections and fostering resilient coalitions.

### Acemoglu–Johnson–Robinson (2024): Institutions, Power, Legitimacy

Inclusive institutions enhance legitimacy and long-run success; extractive ones breed fragility. Abolishing the veto increases inclusivity for most members but may trigger backlash by traditional power holders. Strengthening norms (a "social contract" to accept majority decisions), embedding transparency/accountability, and offering safeguards on vital interests help preserve compliance and institutional durability.

## Part 3. Forward-Looking Design Challenge

**Proposal: Quadratic Voting with Veto Credits.** Each member receives a yearly/issue-based budget of credits to express intensity. Casting multiple votes grows quadratically costly (e.g., 1 credit = 1 vote; 4 credits = 2 votes; 9 credits = 3 votes). Outcomes are based on weighted yes/no tallies. This yields:

- **Fairness:** Equal budgets give small states voice; intensity is expressible.
- **Stability:** Powerful states can win on truly vital issues but must prioritize, reducing blanket obstruction.
- **Efficiency:** Broadly supported measures pass; frivolous blockage is discouraged.
- **Legitimacy:** Transparent, rules-based influence; intensity is costly and observable.

**Computational Implementation.** A permissioned blockchain records credit allocations; smart contracts implement quadratic tallying and provide tamper-evident auditability. Algorithmic assistants can suggest stabilizing amendments (matching-inspired tweaks) and simulate strategic behavior to tune parameters (credit budgets, carryover caps).

**Testing Plan.** (i) Classroom/Model UN simulations; (ii) open-source code experiments; (iii) expert lab studies comparing current-vs-proposed rules; (iv) blockchain testnet pilot; (v) iterative refinement and dissemination. (Detail on this to be decided and finalized)

# Sources

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