Critiques of the Median Voter Model
Vote Cycling.

The median voter model is similar to many other economic theories, in that it predicts patterns of behavior, it does not predict winners and losers. This is fine for academics, but politicians (and businessmen) want to win elections (make money), this model doesn't necessarily get them there.

More importantly, the median voter model makes some strong assumptions, that are in fact not completely realistic.

The problem of vote Cycling (Condorcet)

> The median voter model assumes single peaked preferences along a single dimension
> This works for many allocative economic decisions, such as roads or bridges
> But non-economic decisions (or distributive ones) often can't be defined this way

For example, imagine the U.S. after a terrorist attack. Policy makers (and by extension, the voters they represent) would fall into one of three categories

Hawks: It is their fault, so lets make them pay....
> Conquer them, or if you can't, Nuke them, or if you can't, appease them.
 Doves: It is our fault, we need to understand them and show them we love them
> Appease them, or conquer them, but don't Nuke them.....
Isolationists: It is their fault, we must punish them, but who wants to run an Arab country?
> Nuke them, or appease them, or conquer them.

We have three voters, H,D and I
We have three policies, N, C, A

Our preferences for
H is C > N > A
D is A > C > N
I is N > A > C
Thus, a lower number is our preferred policy, higher numbers represent less preferred policies.

Vote Cycling in the Presence of Dual Peaked Preferences				
Policy/Voter	Hawks	Doves	Isolationists	Policy voted for
Nuke them	2	3	1	N will lose to C
Conquer them	1	2	3	C will lose to A
Appease them	3	1	2	A will lose to N

Q: In a pairwise vote, which policy will dominate?

Graphically, we can represent this in the graph to the Right. Note that our Isolationist has two policies that he prefers to conquest, either don't get involved, or Nuke 'em.
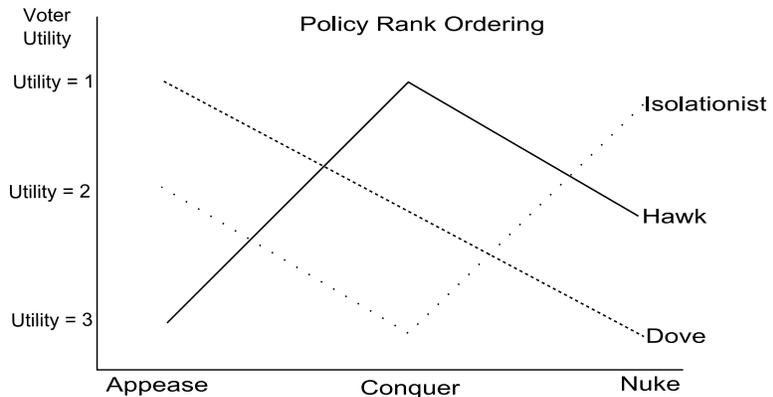
Brianburi = 23 Voters

The Problem of Condorcet Vote Cycling II: Votes about Distribution

Vote cycling also shows up when we are talking about distributive decisions, and note many decisions about providing a public good are in fact also distributive ones.

Imagine a Thai Ubon in the North, that needs to pay for roads that connect it to the main highway.
- The roads will be paid for out of general revenue.
- Each voter pays an equal share of the roads
- The road to each village costs 3 million Baht
- The expected benefit for each road is equal to the number of villagers it will serve
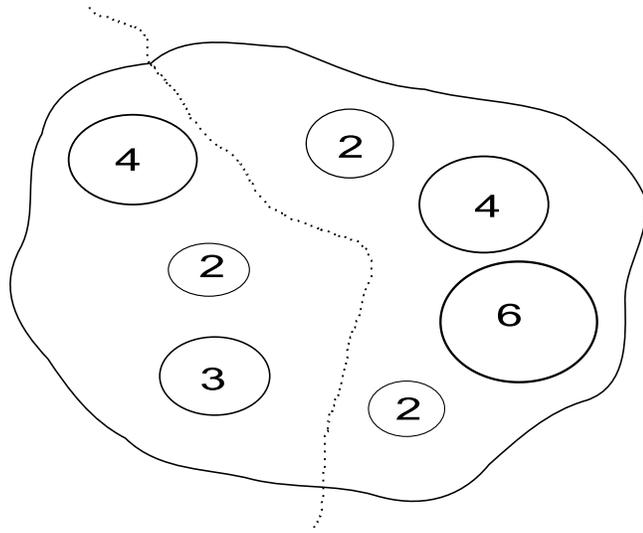
Question: How many roads, and where, will they be built?

Assume that no community can transfer money (Bribe) another community.

The Benevolent Despot: The three small villages get a benefit of 2 million baht, at a cost of 3 million, don't build there. Build all other roads. Benefits = 6 + 4 + 4 + 3 = 17, costs = 12

The Voters: 6 + 4 + 3 (2) OR 6 + 3 + 3 OR 6 + 4 + 4 OR (other possibilities) BUT NOT 4 + 2 + 2 + 2 + 3 (why not)
In this example: 6 will be part of any coalition. (Why?)

How will this change if communities can transfer money between each other?

For example: if 6, 4 and 3 have formed a coalition, can any other coalition defeat it, if they are allowed to pay for part of the cost of the road themselves?

Essentially, what have here is the provision of a Private Good through public finance. Each access road is a public good for the village associated with it, but it is a private good from the standpoint of the Ubon as a whole. The incentive is to create a coalition of 51%, to build roads, then to spread the cost out among 100% of the population. This will be expanded on when I discuss Log-Rolling (pork).

The Problem of Condorcet Vote Cycling III: Multi-dimensional voting, "Bundled Votes"

What happens when we extend our analysis into
two dimensions.

Imaging our indifference curve as being around an
Ideal Point. In this anaylsis, each voter has a single
ideal point (single peaked) and any deviation from
that point leads to a lower level of utility. Thus, we
can draw an indifference curve around the ideal
point for each voter.

Assume 3 voters, voting on two issues
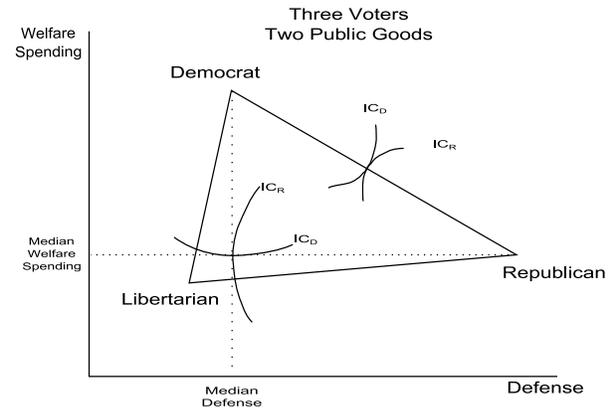
Case One: Sequential Voting, no strategic voting.
        In that case, we would get the median
voter outcome for each issue, per our single issue analyses
        These points are marked
        The median voter theorem holds
        Thus our final outcome is at the intersection of out two median voter outcomes
                We fund defense like the democrats want
                We fund welfare spending like the republicans want
                Libertarians don't get either of the spending levels they want
                        But we end up close to their ideal point

Three Voters
Two Public Goods

Case Two: We vote on the budget as a whole
        Assuming we begin close to the libertarian position, can republicans and democrats improve?
                Yes, they can. If we draw indifference curves around their ideal point, we see overlap
                        Within the area of overlap, deals can be made…..
                So they will cut a deal. But any deal they make, the can improve
                        Until they are on the "contract line", the straight line between D and R
                        On this line, they have reached a deal that they can't improve on.
                But can the Libertarian offer a deal of his own?
                        Yes, he can
                The area of the triangle represents our Pareto Optimal set.
                      Outside of the triangle, we can achieve Pareto improvement
                Within it, we can't.
                      But there is no point within the triangle, that can't be defeated by another vote
                      No stability, thus the problem of vote cycling.
                      In this case, even with single-peaked preferences, votes can cycle

Why is Vote cycling a problem?
        It implies no stability, there is no "equilibrium" point
        Politics is now a zero-sum game. Once allocative efficiency is achieved
                Everything else is about redistribution
        Note: Economists obsess about vote cycling, Poly Sci Majors don't see the big deal
        Buchanan: Is vote cycling really bad? Now everybody gets to be in the majority sometimes

The Empirics of Vote Cycling
        You don't actually see it all that often – the efficient Agenda Setter…..