The Evidence-based Policy Path to Socialism

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Why Talk About Planning?

- Still in Moore's law regime of computational improvements, not yet hit Compton bound.
- Innovations in model architecture and optimization algorithms (e.g. stochastic gradient descent).
- Massive improvements in measurement of the economy at the individual transaction level.
  - Made foundation models of human behavior possible.
- Have these altered the parameters of the socialist planning debate? Should we care?
- My answers: yes and yes.

- Sketching planning debate as constrained optimization.
- From questions of planning to questions of democracy.
- Toward a society that can self-experiment transparently.
  - Good for making use of machine intelligence
  - Good to reduce power of administrative state and algorithms.

Where I'm headed

		Democratic Feedback	
		No	Yes
Active Data	No	Optimal Planning	Deliberative Democracy.
	Yes	Evidence-based Policy	Democratic Planning-by-Learning

$$\max_{Institutions} \quad \text{Social Good} \tag{1}$$

subject to:

- Private Decisions
- Political Constraints
- Lack of Knowledge

- What is social good? e.g. Utility, Justice, Non-Domination. Who decides....
- Which administrative apparatus is conducting the optimization?
- How are disagreements resolved? Can the planning apparatus be used against dissidents (cf. Chile and cybersyn)?
- But still some merit in posing the question?
  - Proposed solutions themselves ideological inputs that can change shape of political constraints.
  - Framework is a language for rigorous comparison of alternatives.

The planning debate, a recap

- e.g. Neurath: A government agency, however structured, directly choose allocations of labor and other inputs, can solve 1
- Von Mises: no, need prices and profit-maximization so that private decisions can reflect available knowledge.
- Lange/Lerner: fine, have agency set prices, tell firms to maximize profits.
- Hayek: no, prices need to be set by competition in markets, otherwise don't reflect local knowledge.
  - Actually existing socialism: soft budget constraints, hoarding, etc.
- In Austrian view: private property + market prices only institutions where private decisions solve lack of knowledge.
- Stiglitz: markets really spectacularly *bad* at revealing crucial private information, need mixed economy.
- Public choice: administrative agencies also spectacularly *bad* at responding to social demands.

A computational subthread

- Often posed as a question of "too hard to plan" because dimensionality of space too large, objectives/constraints too complex. (Shalizi 2012).
- Quite possibly true.
  - Real informational advantage of markets: mutually improving trades lets you decentralize a lot (Axtell 2006).
  - Decentralized trade in large populations with homogenous goods works really well: double auction experiments, computer simulations, etc.
- Possible there is lots of near-separability: means both markets and tree-like bureaucracies can work.
- Also possible that there is a low-rank approximation to the economic problem.
  - Performance of transformer models in social admin data encouraging.
- We can't know if or which without perpetual testing though, which I'll come back to later.

- In Arrow-Debreu model: Market allocation of resources maximizes wealth-weighted utility
- Could maximize social good, if you think market value of endowments reflects social priority ("just deserts").
- But anyway 2nd welfare thm says can implement any Pareto-efficient allocation if can redistribute endowments.
  - But not feasible, due to information/incentive constraints.
- Rawlsian Social Good: capitalism maximizes long-run well-being of even poorest due to high rate of innovation/growth, despite large inequality required IC constraints.

- Social Good = sum of (weighted) utilities $\implies$ Pareto-optimality
- Institutions = Multitude of social policies, plus flexible government tax and transfer schedule.
- Private Decisions = information revelation/incentive compatibility constraints.
- Political Constraints = Consistent with democratic policy making.
- Lack of Knowledge = Experts/administrative state
- Idealized social democratic policy making.

## Modern Capitalisms Already Have A Lot of State Intervention

- Consider US, EU, and CN (maybe India).
- All very large government footprints in economy, unlike advanced countries of 1920s.
- Modern tax and transfer systems quite sophisticated, can solve a lot of planning problems with suitably designed tax schedule.
- Directly set core prices (minimum wages, interest rates, healthcare), and influence markets with regulatory rules, competition policy, public employment, and public goods.
- Even United States spends upwards of 35% of income on government expenditures, more than the capital share of income.
- France spends close to 60%. Nordics around 50%, lots of public ownership, many margins of worker control.
- What would "planning" look like that would involve the state in the economy beyond this? Why would we want it?

Share of government goes up with economic development

Government spending as a share of GDP vs. GDP per capita, 2011

Total government expenditure including interest payments on debt as a share of GDP. GDP per capita is adjusted for inflation and differences in the cost of living between countries.
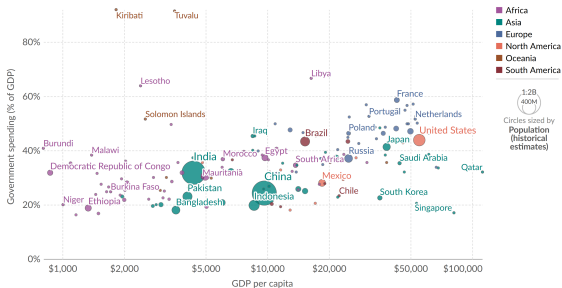
Data source: Data compiled from multiple sources by World Bank, IMF Fiscal Affairs Departmental Data, based on Mauro et al. (2015)
Note: GDP per capita is expressed in international-$[1] at 2017 prices.
OurWorldInData.org/government-spending | CC BY

1. International dollars: International dollars is a hypothetical currency that is used to make meaningful comparisons of monetary indicators of living standards. Figures expressed in international dollars are adjusted for inflation within countries over time, and for differences in the cost of living between countries. The goal of such adjustments is to provide a unit whose purchasing power is held fixed over time and across countries, such that one international dollar can buy the same quantity and quality of goods and services no matter where or when it is spent. Read more in our article: What are Purchasing Power Parity adjustments and why do we need them?

Social Democracy's Planning Metric: Marginal Value of Public Funds

- Hendren and Sprung-Keyser (2022)
- Take experimental/ quasi-experimental estimates of policy impacts (e.g. teacher pay, UI, or tax cut).
- Measure economic benefits/cost to recipients and net cost to government (including effects on tax income).
- Marginal Value of Public Funds ratio of benefits to costs.
- Transparent assessment of benefits/costs to policy recipients.
- Infinite MVPFs correspond to policies that pay for themselves

FIGURE III: MVPF Estimates by Age of Policy Beneficiary

Notes: This figure presents MVPF estimates for all policies in our baseline sample. For each MVPF, we plot them as a function of the average age of the policy's beneficiaries. In cases where both parents and children potentially benefit, we assign the age of the individuals with the highest willingness to pay. Where policies within a category have the same age, we stagger these ages around this common value for visual clarity. On the vertical axis, we report the MVPF estimates, capping these estimates at 5. We separately report cases where the MVPF is infinite on the uppermost line in green.

From Hendren and Sprung-Keyser 2022.

Social Democracy Contains Contradictions

- One marxist criticism of social democracy is that it maintains an economic class structure.
  - True! but extremely compressed and class doesn't matter nearly so much for life chances (IGE around .2)
- Another marxist criticism of social democracy is that it is not impervious to capture by capitalist class.
  - The threat of (human and physical) capital strike always looms, and puts a brake on what political democracy can deliver.
  - Flip side of this is extremely high investment in human and social capital that makes capitalists stay.
- Planning alone won't erode class structure (big role of public schools/families).

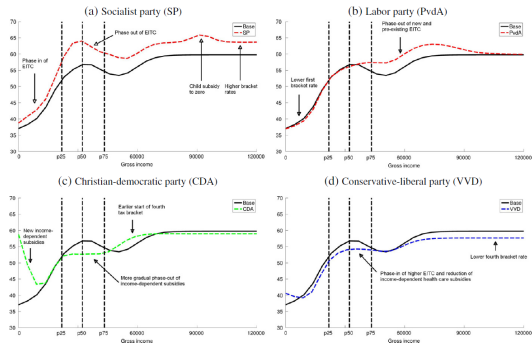# Danish parties compete on tax incidence, sorta

Fig. 3. Kernel estimate of marginal tax rates of proposed tax system by political party. Note: The dashed line gives a kernel estimate of marginal tax rates by income in the proposed tax system of each of political party. The solid line represents marginal tax rates in the baseline tax system.

From Jacobs et al. 2017

Do we need more than social democracy?

- Modern states have enormous fiscal powers, administrative capacity.
- Put that on top of the enormous logistical capacity of private sector.
- We have lots of planning capacity, just doesn't look like early 20th century debate.
- Happens with policies rather than price setting.
- Leaves firms and markets to "do their thing", with varieties of worker control.
- If economic left had all the political power in the world, would it just want a more perfect social democracy?
- Bernstein was right?!

- A) the space between decisions and data is too far, the experiments are too limited, the administrative capacity is too low, the scalability and external validity always in question. So policies never quite hem in capitalist markets.
    - The arrival of "foundation" models for human life trajectories means that if we don't get this capacity to collectively experiment we'll be really trapped in our algorithmic prisons.
- B) The technocratic administration of policies is too technocratic and surrenders too much political power to the administrator class. Hence Brahmin left.
- Could a different (not necessarily more) governmentality around the economy resolve these two limitations?

Adaptive Economic Regulation

- Suppose that instead of "policies" we have something much more adaptive.
- Example: NYC food delivery worker minimum wages.
- NYC subpoened all the data from the app companies, came up with estimates for feasible minimum wages.
- Apps responded by changing scheduling availability to ensure less idling on app, but lifts rationing during periods of high demand.
- One could imagine a minimum wage law (or sectoral bargaining agreement) that included dynamic "rent-sharing": increasing the wage with product demand.
  - But requires constant experimentation to determine demand: can't just use observed demand (endogenous to price).
- Depending on market composition, could switch from taxes to price controls (Akbarpour, Dworczak and Kominers 2020)

- Relentlessly data-driven social democracy.
- Would need to be able to run millions of high-stakes economic experiments, like Amazon/Uber.
- Would need to have a rich enough space of levers to learn structure of economy: price controls, taxes, public options, procurement.
- And willingness and legitimacy to experiment and gather detailed data.

- Entrepreneurship (and R&D) are the private sector's modes of social learning about structure of supply and demand curves.
- These are wasteful methods of generating information!
  - Size of intervention not scaled to lack of knowledge.
  - Results and data kept private, rather than open and public.
  - Acts of private domination that are subject to no countervailing power of reason (e.g. social media).

- Megan Stevenson has a recent essay, focused on criminology, arguing that "nothing works" in policy experiment land.
- Argues there is lots of built-in complex negative feedback loops: small interventions don't seem to move much.
- Forgetting about whether she is right, she assumes that the point of an experiment is to figure out the "right policy", audience is akin to an imperial state.
- Hence the subjects in social science RCTs are inevitably subordinate groups: global poor, domestic criminals.
- But what about if the audience of experiments are the experimented upon?

Back to Dewey

- Experiments (in principle) are able to persuade skeptics (over time).
- Experiments in social science push back against Austrian mysticism about markets. Encourages transparent rational debate about the underlying structure of the economy.
- Perpetual social experiments enables economic governance to adapt, and avoid Popper's problem of historicism.
- Finally, it enables a collaborative approach to collective problem solving, leveraging the Condorcet Jury theorem to help with economic policy.

Deliberation and economic democracy

- The other reason is that social democratic techniques of administration gives too much power to the managerial class.
- People who are good at school and "smart" get undue influence and power, the so-called "Brahmin left".
- Both in the public sector of administering and regulating the economy, and in the private sector of administering the capitalist firm.
- The Stevenson-esque view of experiments caters to this class of administrators.
- But the original Deweyan view of experiments had them as an input to democratic deliberation.

The rise of human foundation models
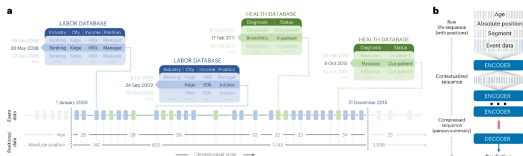
- Foundation models, like LLMs, learn extremely useful representations of human life histories.
- Now exist for Denmark (Savcisens et al 2024), only a matter of time until US.
- Predict a variety of life outcomes based on sequences of life-events observed in data.
- Gives us powerful tools for predicting labor market outcomes, lifespans, etc.

Planning experiments as a tool for liberation from algorithms

- Without some mechanisms for more deliberate and intentional collective design of our institutions we will wind up trapped by algorithms trained on patterns from the past.
- Deliberating experimenting, perturbing durable social patterns necessary for avoiding traps of algorithmic social reproduction.
- This is exactly the definition of "arbitrary interference", so unless conducted under aegis of democratic legitimacy will be extremely oppressive.
- People need to be ok being in the control group!

The Real Problem is (Economic) Democracy

- Democratic socialists interested in planning debates have focused on technical issues of complexity and economic design.
- But much less on the political design that would inform, constrain, and calibrate the planning bureau's algorithm.
- Need much more work on the "democratic" part of democratic socialism.
- Looking around, its difficult to be optimistic about democracy, even as it is easier to be optimistic about planning.
- But we might need the apparatus of planning, in order to collectively countervail machine intelligence.

- Social democracy in fact delivers all the things early planning advocates wanted from the planned economy.
- But we might have new demands: more experimentation, measurement and democracy, and less technocratic administration.
- What is a vision of economic planning that could deliver these things? To be seen.....