

Graduate Public Economics (ECO2601) Lecture 1*

January 15, 2019

I said various disparate-seeming things in the first lecture. Let me try to connect a few dots here, thereby drawing some strands together.

1. The Planning Approach

First, the general ‘planning’ approach – picking the policy parameter θ to maximize the social objective (whatever it may be) – is appealing. New variants of this are at the forefront of applied policy-oriented research (for instance, the ‘treatment choice under ambiguity’ research agenda initiated by Charles Manski).

We will see that in the classical formulation – Samuelson (1954), for example – the planner knows everyone’s preferences, and what the exact constraints faced by society are. It makes for a useful starting point, and one we should be comfortable working with. In the process, we will derive the ‘Samuelson Condition’ for the optimal provision of a pure public good – a classic result.

But, moving closer to the real world, there are issues. For instance, people (consumers and firms) might not wish to reveal their private information to the ‘centre,’ an informational constraint that has fuelled a sophisticated body of theory work in ‘mechanism design,’ which we will touch on. Further, the planner might not know what the true effects of policies are. In other words, (s)he needs to go out and do some cutting-edge econometrics, figure out how to use the estimates (presumably in a well-articulated model of reality), and make some prudent planning decisions – far from easy to do, folks! But let us not shy away from trying (or learning about how one would try) ...

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2. Neutrality (leading to Irrelevance?)

The idealized bureaucrat (the ‘social planner’) is a neutral entity without any personal agenda other than to serve the common good in a truly faithful way. The planner dispassionately implements optimal policies, given the objectives received ‘from above.’¹

There is something appealingly scientific about that perspective – “The View from Nowhere.” And talented bureaucrats have been valued in all functioning societies for their ability to implement useful policies.

From the perspective of humans, rather than bureaucratic automata, not all ends are created equal. Some demand more attention: they are more pressing, and/or interesting. We don’t have to apologise for seeking those out. Indeed, let us have license to do that in this course – it will naturally bring forth more energy (which, as William Blake put it, “is eternal delight”).

3. Research Agendas to be *energized* by!

One luxury as an academic is that you can choose what to do research ‘on.’ That can be something you find meaningful every day of your waking life.

Consider, for example, *trees*. To illustrate my theme here, let us consider how one might construct a research agenda around those wonderful living things! (I will say more in Lecture 2.)

4. Planet Earth in the Anthropocene epoch, and Public Policy

Atmospheric nuclear testing in 1945 marked the beginning of our current geological era. (That, by the way, was maybe not a great thing to be doing...)

We live in times where – and if you doubt this, check the current news – it is impossible for boredom to be all-consuming. Too much is going wrong; too much is in peril; such a lot is at stake. OK, *public economists to the rescue!* Lots of the problems we face are collective problems that involve uninternalized externalities. This is what public economics is designed to address.

Case in point: the latest IPCC (October 2018) report and the surrounding commentary made clear that we face quite a narrow window of time in which to try and rein-in climate change – I am *understating* it. The risks of not doing so are potentially catastrophic, with the climate system taking on a wild life of its own.

How to analyze (in a dispassionate way) this kind of collective decision-making problem? The recent work of Martin Weitzman provides a powerful attempt at a formalization. [All the PhD

¹In some phases of his remarkable career, Robert McNamara may have been like that. As JFK recognized, McNamara had talent and energy to burn...

students in the course *must* read his 2007 paper – see final exam...] Think of it like this: the Ramsey Equation is $r = \delta + \eta g$, where η is the Greek letter ‘eta’ – I checked(!), standing for the coefficient of relative risk aversion, a measure of the curvature of the intertemporal utility function that has consumption in successive periods as an argument.

What Weitzman notes is that g , the growth rate of consumption in future, is uncertain. For example, suppose we really *do* miss our chance to save something resembling the current climate – the chances are not zero, truth to tell. (Or, more starkly, suppose future consumption possibilities were extinguished in their entirety, because the atmosphere evaporates and we end up like Mars!) How should we make current decisions in light of that (non-zero) possibility?

Intuitively, the uncertainty over g should transmit to uncertainty over which discount rate to apply when discounting future costs and benefits – this is the fundamental challenge that Weitzman seeks to address. But there is more going on here: How should we weigh the (possible) prospects of a catastrophe? He shows, and it is somewhat technical, how to go about extending the Ramsey Equation to allow for what he terms ‘fat tail’ uncertainty associated with g – how a sensible decision maker (the person I was mentioning at the start of this note) should make decisions in the face of a small chance of a ruinous catastrophe caused by our Anthropocenic behaviour!

In a nutshell, such *heavy* considerations should lead the planner to pick a lower discount rate than otherwise, which leads us to do more now. (The logic is set out in a series of really fascinating papers that Weitzman has written subsequently. I commend those unto you – see his website.)