



WHAT KIND OF (SOCIAL) SCIENCE IS ECONOMICS?

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Welcome to the land of the Econ...

LIFE AMONG THE ECON*

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The Econ tribe occupies a vast territory in the far North. Their land appears bleak and dismal to the outsider, and travelling through it makes for rough sledding; but the Econ, through a long period of adaptation, have learned to wrest a living of sorts from it. They are not without some genuine and sometimes even fierce attachment to their ancestral grounds, and their young are brought up to feel contempt for the softer living in the warmer lands of their neighbours, such as the Polscis and the Sociogs. Despite a common genetical heritage, relations with these tribes are strained—the distrust and contempt that the average Econ feels for these neighbours being heartily reciprocated by the latter—and social intercourse with them is inhibited by numerous taboos. The extreme clannishness, not to say xenophobia, of the Econ makes life among them difficult and perhaps even somewhat dangerous for the outsider. This probably accounts for the fact that the Econ have so far not been systematically studied. Information about their social structure and ways of life is fragmentary and not well validated. More research on this interesting tribe is badly needed.

(1973)

...where “modls” rule

A comparison of status relationships in the different “fields” shows a definite common pattern. The dominant feature, which makes status relations among the Econ of unique interest to the serious student, is the way that status is tied to the manufacture of certain types of implements, called “modls.” The status of the adult male is determined by his skill at making the “modl” of his “field.” The facts (a) that the Econ are highly status-motivated, (b) that status is only to be achieved by making “modls,” and (c) that most of these “modls” seem to be of little or no practical use, probably accounts for the backwardness and abject cultural poverty of the tribe. Both the tight linkage between status in the tribe and modl-making and the trend toward making modls more for ceremonial than

... and determine status

While in origin the word “modl” is simply a term for a concrete implement, looking at it only in these terms will blind the student to key aspects of Econ social structure. “Modl” has evolved into an abstract concept which dominates the Econ’s perception of virtually all social relationships—whether these be relations to other tribes, to other castes, or status relations within his caste. Thus, in explaining to a stranger, for example, why he holds the Sociogs or the Polscis in such low regard, the Econ will say that “they do not make modls” and leave it at that.

... though even the natives cannot agree which “modl” to use

two largest of the Econ castes, the “Micro” and the “Macro.” Each caste has a basic modl of simple pattern and the modls made by individual members will be variations on the theme set by the basic modl of the caste. Again, one finds that the Econ define the social relationship, in this instance between two castes, in terms of the respective modl. Thus if a Micro-Econ is asked why the Micro do not intermarry with the Macro, he will answer: “They make a different modl,” or “They do not know the Micro modl.” (In this, moreover, he would be perfectly correct, but then neither, of course, would he know the Macro modl.)

Argument

- Models are key to the “scientific” nature of economics
 - understand complex social reality by laying bare a very large variety of causal relationships, one at a time
- Economics advances not by settling on “the model,” but by generating useful collection of models
 - an inventory of partial explanations
 - non-universality and context-specificity
- This view of economics counters typical critiques of economics
 - as well as many economists’ own practice
- Economists are good at making models, but poor at navigating among them

Two meanings of “economics”

- A social science devoted to understanding the economy
- A way of doing social science
 - answers the question: “what happens when such and such is the case” (Gibbard and Varian 1978)
 - built around explicit models that identify a cause (the what) and a causal mechanism (the how)
 - by definition false, since simple
 - typically starts from specification of individual behavior, constraints, environment, and aggregates up (individuals + structures)
 - (often) relies on mathematics for deductive analysis, statistics for verification/testing
 - can be applied to politics, society, history, ...
- Will focus on the latter...

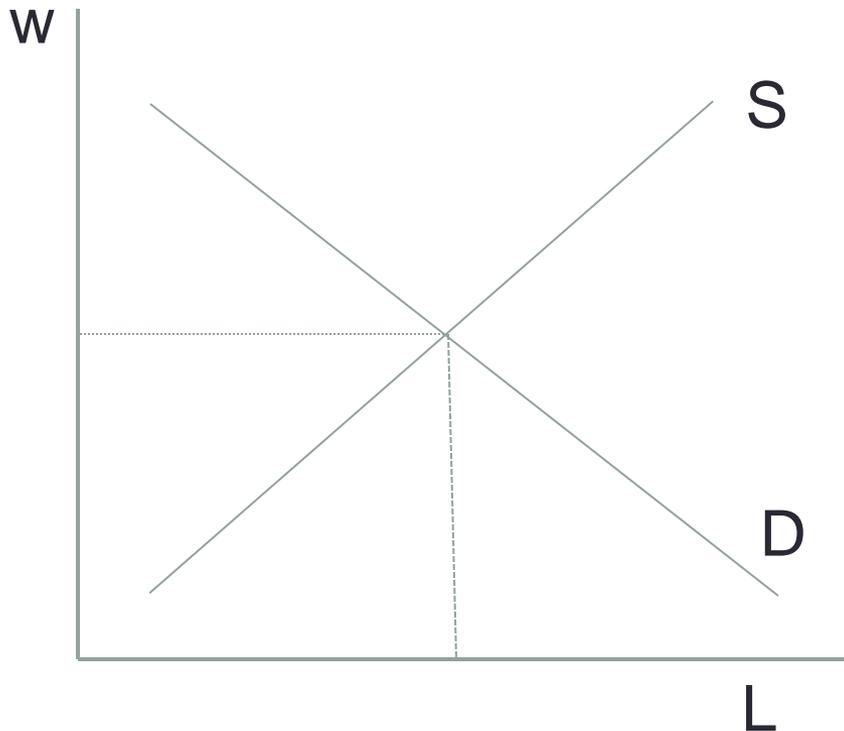
Models at work: what does economics have to say on:

- minimum wages
 - depends...
- capital inflows
 - depends...
- expansionary fiscal policy
 - depends...

Example: minimum wages

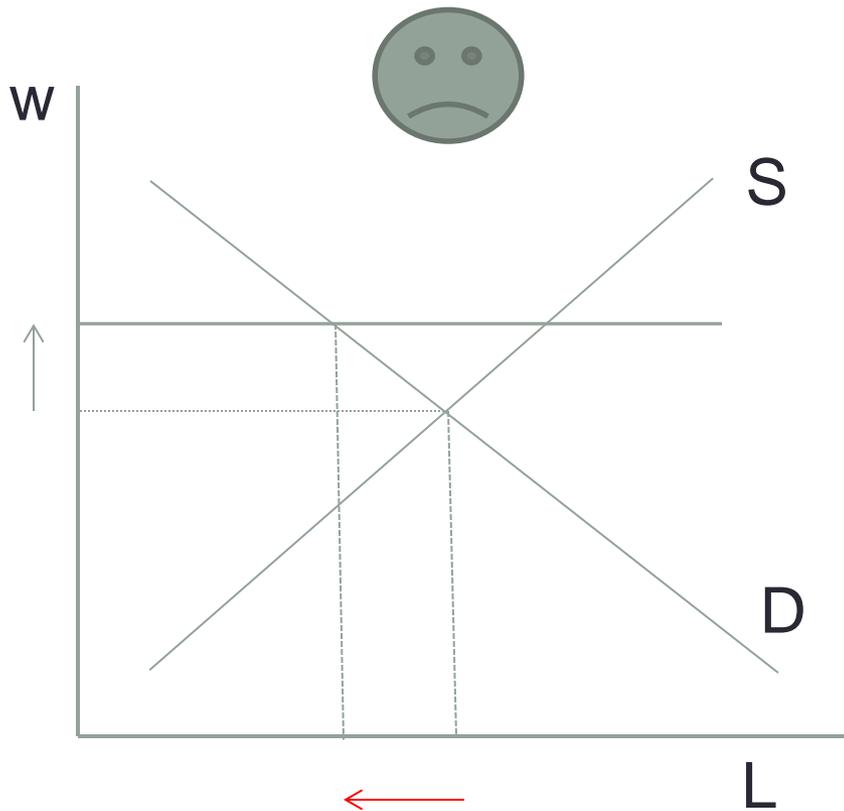
- What are the employment consequences of a minimum wage imposed by the government?

Effects of minimum wage under two different kinds of market structure



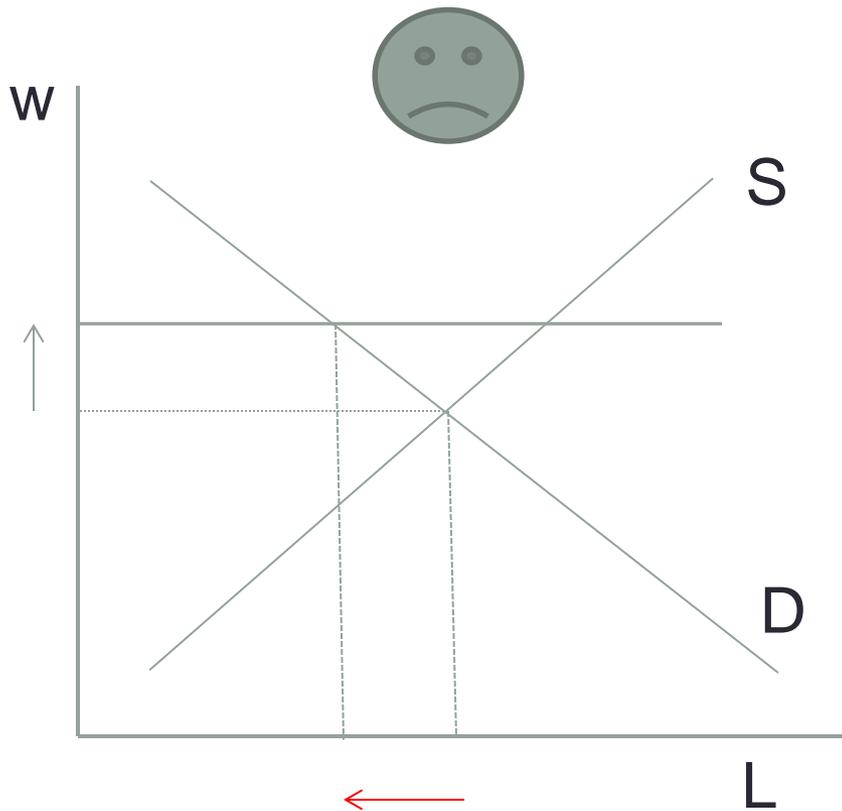
A competitive market

Effects of minimum wage under two different kinds of market structure

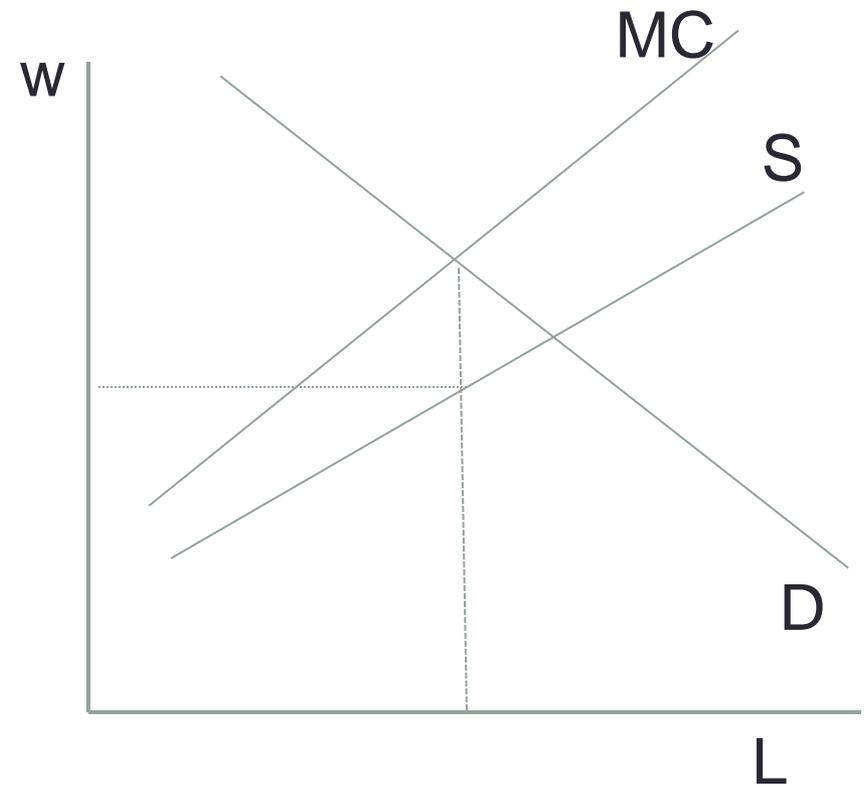


A competitive market

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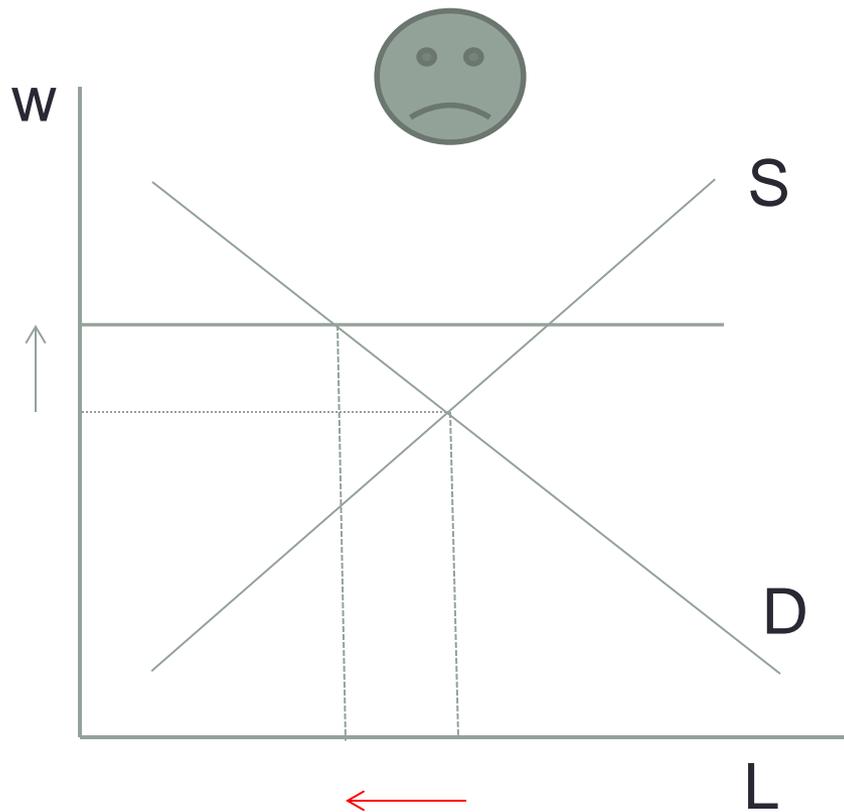


A competitive market

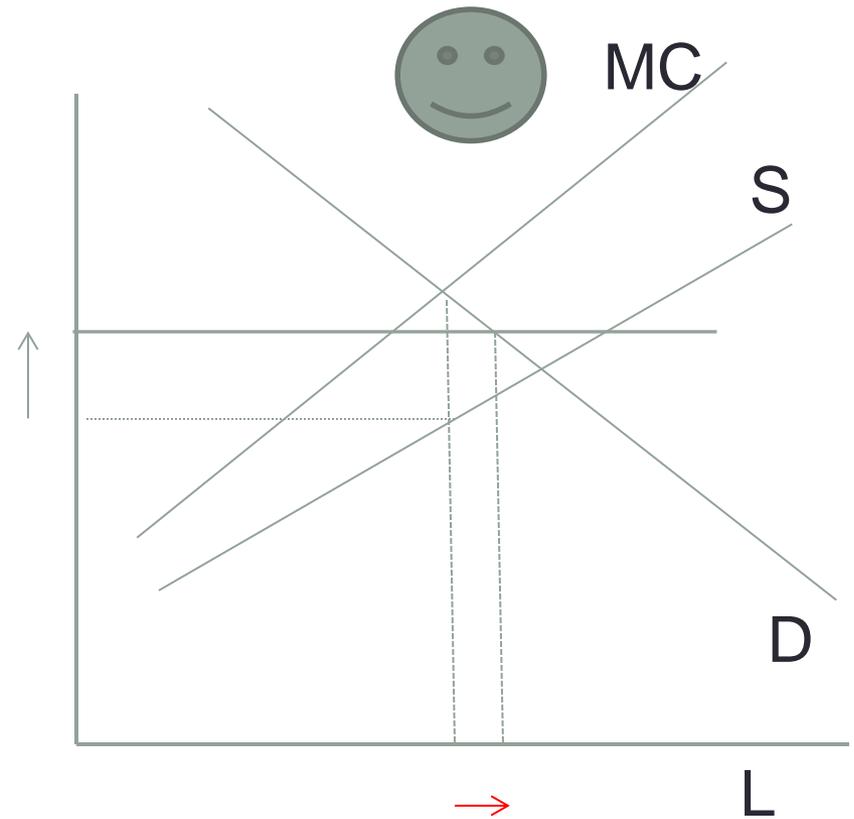


A monopsonistic market

Effects of minimum wage under two different kinds of market structure



A competitive market

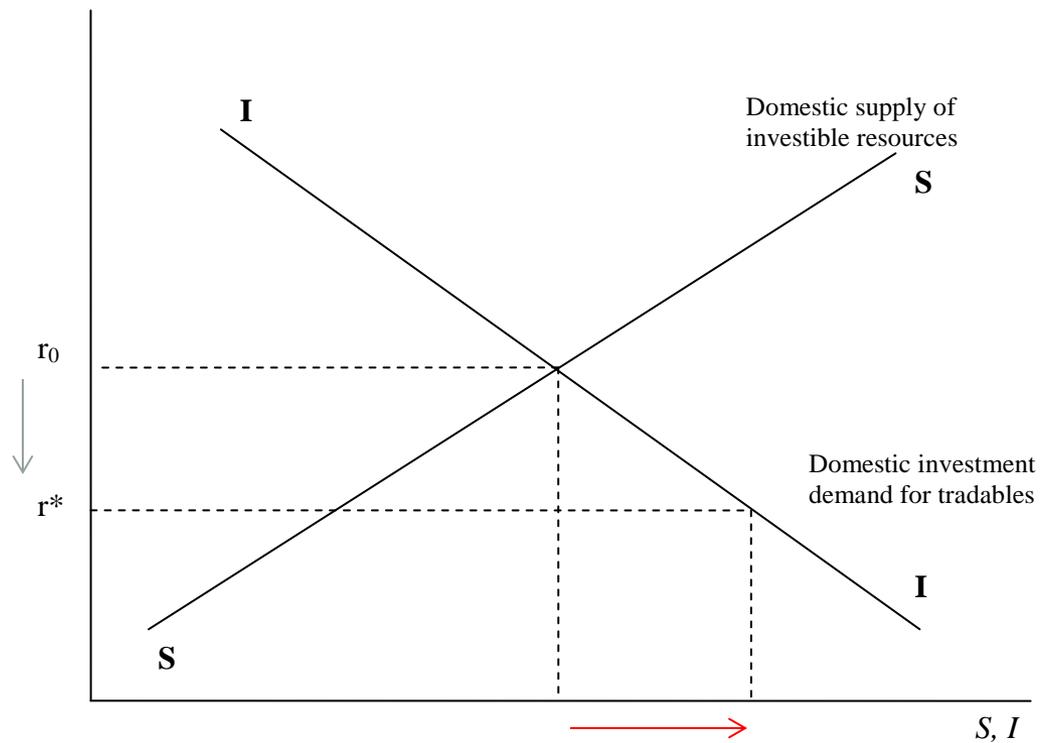


A monopsonistic market

Example: capital inflows

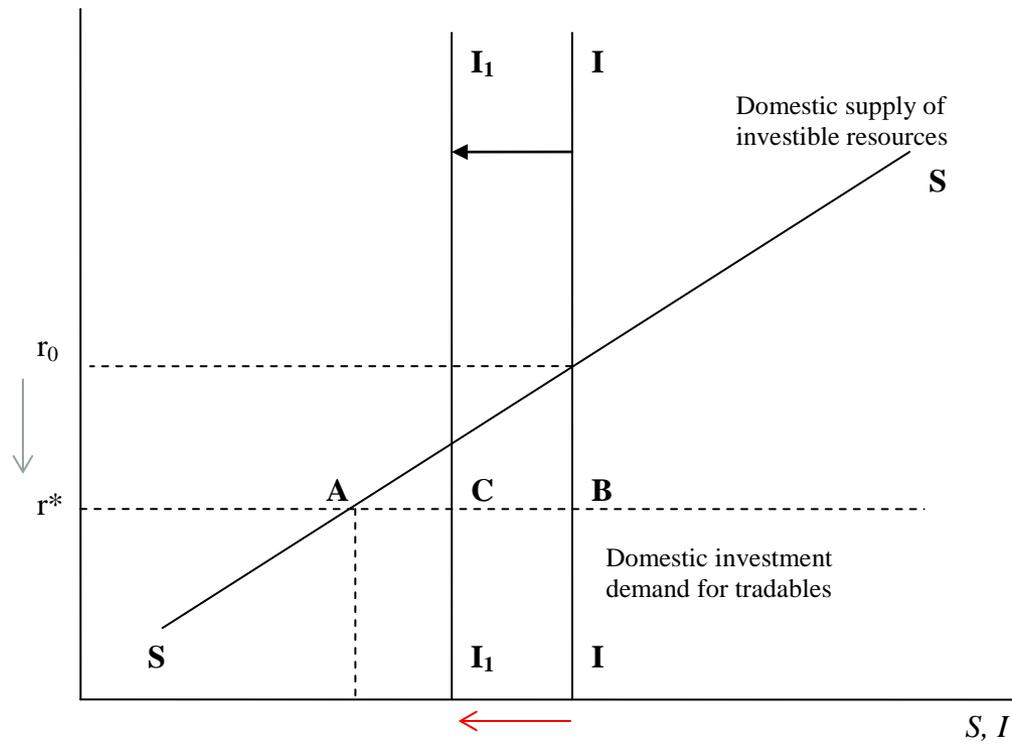
- What are the effects of an economy opening itself to capital inflows from abroad?

Saving-constrained economies



(a)

Investment-constrained economies



(b)

Economic models as ... fables

Fables

- are simple
- are not real
- have clear storyline
- have characters that can be animals or objects
- typically have a moral
- provide interpretive short-cuts
- are multiple, one for every situation

Economic models

- simplicity: *ceteris paribus* assumption
- reality: stylized abstractions, untrue assumptions
- storyline: clear cause-and-effect, if-then relationships
- characters: random shocks, exogenous structural parameters, “nature” ...
- moral: policy implication
- interpretation: analytic shortcut
- multiplicity: context-specificity

(cf. Rubinstein 2006; Cartwright 2008)

Economic models as ... experiments

Experiments

- isolate effects of specific cause/intervention
- can be replicated by anyone
- experiments produce dissimilar results in diverse settings
- lab experiments do not pretend to represent “real world”
- field experiments need to be extrapolated to other settings
- in both cases, external validity not assured and has to be argued and supplied from outside

Economic models

- clarify causal links by simplifying
- can be reproduced by anyone
- different models for different contexts
- do not claim to be representations of real world
- relevance of a model depends on “extrapolation”
- additional techniques needed to sort out the usefulness/relevance of available models (see below)

Side note 1: the role of math in economic models

- Models do not require math, in principle
 - any causal statement contains an implicit model
- In practice, math often useful to
 - clarify (and make explicit) the nature of assumptions, relationships, conclusions
 - ensure conclusions follow logically from assumptions
 - “economists use math not because they are smart, but because they recognize they are not smart enough”

Side note 2: the role of rationality and self-interest in economic models

- Rationality, self-interest, or material motives are not essential, or required ingredients of models
 - though they are typically assumed
- Other variants can, and have been, accommodated in economic models
 - other-regarding behavior versus “self-interest”
 - considerations such as status versus “material motives”
 - endogenous preferences
 - behavioral economics versus “rationality”
- In real-world applications, the rationality postulate is as contestable as any other feature of an economic model
- Purposive, rather than rational, behavior is essential to models

What makes models “scientific”?

- Explicit causal chains
 - simplification both a necessity and a virtue: isolation => what precisely does an explanation depend on?
 - “a model is an experiment, and vice versa” (Mäki; Gilboa et al.)
- Model selection
 - after the fact
 - in real time



Can we figure out which of the previous models is the relevant one?

- Verify critical assumptions (cf. M. Friedman)
 - entry, size of firms, technology, etc...
 - insensitive investment, adequate domestic finance/savings
 - (note: always need to ask if omitted real-world features would alter conclusions)
- Verify mechanisms
 - do firms behave in posited way?
 - does exchange rate respond to capital inflows?
- Verify conclusions
 - does employment really respond negatively to (exogenous) increases in wages?
 - does investment rise with capital-account liberalization?
- Verify incidental implications (comparative statics)
 - e.g., do firms pass on cost increases in full?
 - e.g., does investment respond to exogenous flows from abroad (aid, remittances)?
- Note parallels to external validity in field experiments

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- Model selection
 - after the fact
 - in real time
 - illustrations (slide)
- A method for sorting out disagreements
 - “arguments that can be shown to be wrong” vs. those that are “not even wrong” (W. Pauli)
 - we can agree on what we disagree on, even when empirical evidence is too weak to discriminate among models
- Accumulation of knowledge
 - how economics advances (slide)

Advances in economics

- Theoretical advance rarely occurs by one theory succeeding the other
 - not like physics
- It occurs through a richer set of models
 - a larger range of models on what is feasible and possible in economic life
- Better understanding of the conditions under which they apply
 - e.g., Adam Smith versus Arrow-Debreu
 - discriminating among competing theories
- Better testing
 - from anecdotes to econometrics to randomized evaluations

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- Accumulation of knowledge
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- Nature of “authority”
 - rests on “quality” of models (judged by principles widely shared by practitioners), not on reputation/status/network

Two types of theories (1)

“What if” questions:

- what is the effect of an increase in the minimum wage on employment?
- what is the effect of capital inflows on a country's rate of economic growth?
- what is the consequence of an increase in government spending on inflation?

These are *ceteris paribus* questions

- which does not mean ignoring the role that other factors play

and hence not same as prediction

Two types of theories (2)

“Why” questions:

- why did inequality rise in the U.S. after the 1970s?
- why are some countries rich and others poor?
- why did we have the global financial crisis of 2008?

Answering these requires that we have an exhaustive list of potential causes

“what” type theories are a key input here,
and a way of parsing/weighting their relative
contributions

Still, much harder

“causes of effects” rather than “effects of causes”

(Gellman and Imbens 2013)

Re-evaluating critiques of economics

- Simplistic/reductionist theories
- Inappropriate universalistic claims
- Reification of markets and material incentives
- “Conservative bias”
- Disregard of social/political embeddedness
- Failure to predict
- Methodological biases
 - that crowd out new ideas
- Loss of ambition
 - from a program to transform society to merely understanding how a particular form of market society works
- ...

Is change possible in economics?

are, historically speaking, rather recent phenomena. The rise of the Math-Econ seems to be associated with the previously noted trend among all the Econ towards more ornate, ceremonial modls, while the low rank of the Devlops is due to the fact that this caste, in recent times, has not strictly enforced the taboos against association with the Polscis, Sociogs, and other tribes. Other Econ look upon this with considerable apprehension as endangering the moral fiber of the tribe and suspect the Devlops even of relinquishing modl-making.

Counter-examples

- Rise of ...
 - development economics
 - RCTs, borrowed from medicine
 - behavioral economics
 - borrowed from psychology
 - institutional economics
 - political science, history
- In each case, happened because these were cast in terms of models/new empirical techniques

Real failings originate from behavioral and sociological aspects of profession

- Mistaking a model for reality
 - over-confidence, hubris
- Mistaking a model for *the* model
 - expecting the same model works all the time
 - overlooking alternative models with different implications
- Categorical preference for certain axioms
 - assumption of rational, forward-looking individuals operating in perfectly competitive markets
- Preference for questions that are amenable to available tools of analysis
 - substantive implications of common tractability assumptions
 - neglect of issues involving scale economies until analytical tools were developed
- Implicit political-economy theorizing in policy discussions
 - economists' training endows them with no way to evaluate alternative social states other than through lens of allocative efficiency

Final word

Recognition of economics as portfolio of models:

- forces economists to be more humble about how much they really know
 - financial crisis
 - Washington Consensus
- enables greater understanding of the variety of social phenomena
 - where such understanding is possible
- closes some of the gap with other traditions in social sciences (cultural, humanist, constructivist, interpretive)
 - an economist's answer to "what about x which you left out of your model...?" is/should be "OK, let's write down a model of it..."