

Economics 1: Introduction to Economics

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Administrivia

March 16, 2016 8-9 AM
Wheeler Auditorium, U.C. Berkeley

Meta-Announcement

- We are moving announcements and administrivia out of lecture time and onto the “announcements” bCourses page...
- That is all...

In the near future...

- 2016-03-16 We: Public goods, public finance, and political economy...
- 2016-03-28 Mo: We start “macroeconomics” ...
- 2016-03-28/29 Mo/Tu: Short essay due...

Orientation

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To Your i>Clickers!

- Which of these is most important according to the economics taught at the University of Chicago?
 - A. That markets do not fail but rather are failed by governments that fail to properly structure and support them—or that break them via quotas or price floors/ceilings
 - B. That markets can be out-of-equilibrium
 - C. That markets can possess increasing returns to scale
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“The Market” as an Institution

- We start from what look like to us deep truths of human psychology
 - People are *acquisitive*
 - People engage in *reciprocity*—i.e., want to enter into reciprocal gift-exchange relationships in which they are neither cheaters nor saps
 - With those they *trust*...

“The Market” as an Institution II

- We devised property as a way of constructing expectations of trust...
- We devised money as a substitute for trust...
- And so, on the back of these human propensities for acquisition and for trusted gift-exchange, we have constructed a largely-peaceful global 7.4B-strong highly-productive societal division of labor:
 - Built on assigning things to *owners*—who thus have responsibility for stewardship and the incentive to be good stewards...
 - And on very large-scale webs of *win-win exchange*...
 - Regulated by *market prices*...
- This is a very valuable and important societal institution...
- Economics is the study of how it—what we usually call “the market”—works...

“The Market” as an Institution III

- In analyzing the market as an institution, we need to cover:
 - The success of the market
 - The failures of the market
 - The political-economic-sociological-historical context of the market
 - The impact of a market economy on the other institutions and practices of society
- Plus there is the peculiar domain of “macroeconomics”

The Market Balance Sheet: Pro

- The market failure-free competitive market in equilibrium, from the perspective of a utilitarian seeking to achieve the greatest-good-of-the-greatest-number, accomplishes these goals:
 1. It produces at a scale that exhausts all possible *win-win exchanges*—and is “efficient” in that sense.
 2. It allocates the roles of producers and sellers to those who can make and sell them in a way least costly to society’s overall resources—to those with the lowest *opportunity cost*.
 3. It rations the commodities produced to those with the greatest *willingness-to-pay*—to those who, by the money standard, need and want them the most.

The Market Balance Sheet: Con

- Markets can go wrong. We have covered how they can:
 1. not fail but be failed by governments that fail to properly structure and support them—or that break them via quotas or price floors/ceilings
 2. be out-of-equilibrium
 3. have market power
 4. be non-rival (increasing returns to scale; natural monopolies)
 5. suffer externalities (in production and in consumption, positive and negative; closely related to non-excludibility)
 6. suffer from information lack or asymmetry
 7. suffer from maldistributions
- Today we cover
 8. be non-excludible (public goods, etc.)
- We will cover
 9. suffer from miscalculations and behavioral biases

To Your i>Clickers...

- Amartya Sen's theory of famines is best summarized as: Famines occur because...
 - A. ...there is not enough food to feed everyone.
 - B. ...poor people do not have enough money.
 - C. ...the market system privileges the demands of the rich for food-as-a-luxury over the demands of the poor for food-for-survival
 - D. (A) and (C)
 - E. (A), (B), and (C)

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Within-America Inequality

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American Income Shares: The Top Tenth

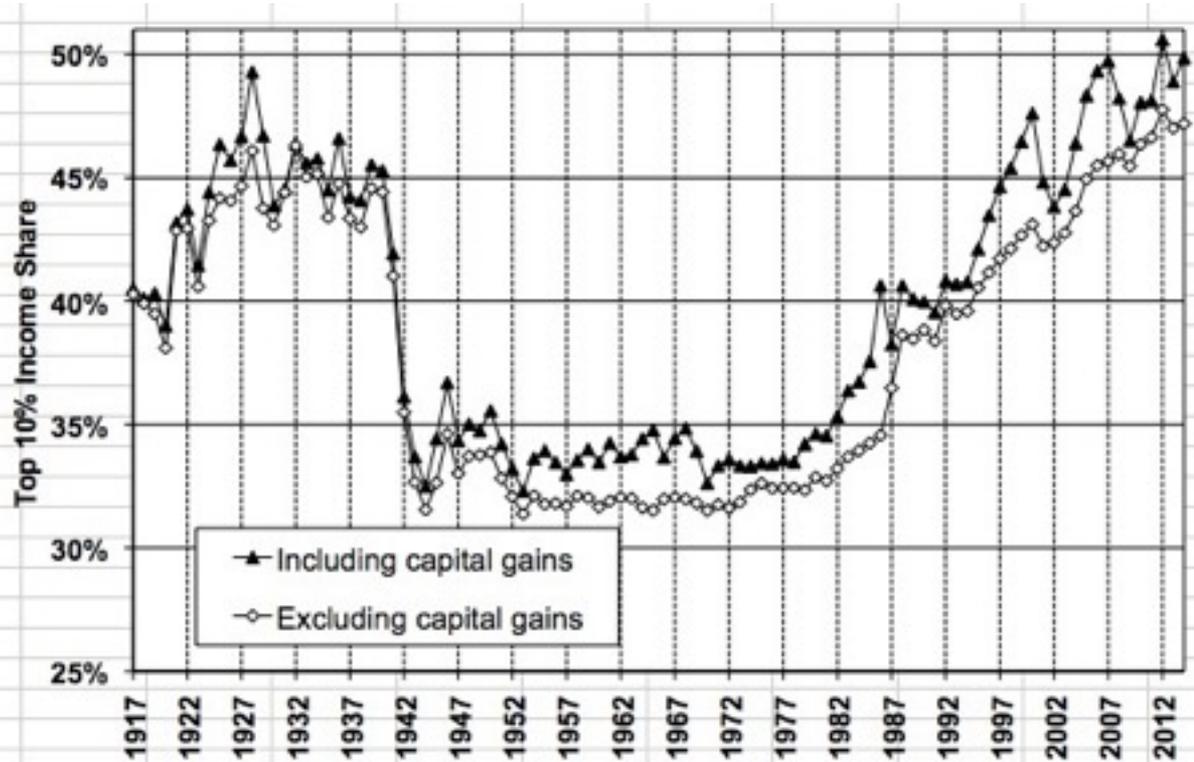


FIGURE 1

The Top Decile Income Share, 1917-2014

Source: Table A1 and Table A3, col. P90-100.

Income is defined as market income (and excludes government transfers).

In 2014, top decile includes all families with annual income above \$121,400.

The Top Tenth

- From 45% down to 34% with the end of the first Gilded Age, the Great Depression, and the coming of World War II
- From 34% back up to 50% today
- Is it going higher?
- What are the causes?
 - The vicissitudes of the plutocracy
 - Substantial swings in the college-high school wage premium
 - From 100% down to 30% as education wins the race between education and technology in the 1940s and 1950s
 - From 30% back up to 80% since 1975 as education loses the race against technology

The Top Tenth II

- “Power”
 - Market supply-and-demand, but also
 - Legal constraints and institutions
 - Patterns and expectations
 - John Dunlop

Economists' Theories of Wages

- There are a number of “factors”—all of which are rewarded by being paid their “marginal product”
- For example, some of these factors are:
 - Raw labor
 - Skills—practical, trained analytical, and cognitive
 - Flexibility in the sense of the trained capacity to learn
 - Patience
 - Reliability
 - The willingness to suck it up and do an unpleasant job

Economists' Theories of Wages II

- There are a number of “factors”, including: raw labor, skills—practical, trained analytical, and cognitive—flexibility in the sense of the trained capacity to learn, patience, reliability, the willingness to suck it up and do an unpleasant job, etc.
- Supply-and-demand rewards all of these factors in accord with their “marginal product”
 - That “marginal product” is the rational willingness-to-pay of the marginal employer
 - At the quantity of the particular factor supplied at which that willingness-to-pay meets the subjective psychological opportunity cost of the marginal worker.

How Good a Job Do Economists' Theories Do at Explaining the Distribution of Income?

- Not very well
- The changing college/high school education premium is one of the few places where supply-and-demand works tolerably well
- Otherwise? Lots of theories:
 - Compensating differentials, firm-specific human capital, human-specific firm capital, bonding, superstars
 - Which do not work terribly well: a lot of income differences, few of them credibly linked to what might be called true differences in worker productivity...

The Top 17,000 Taxpaying Units

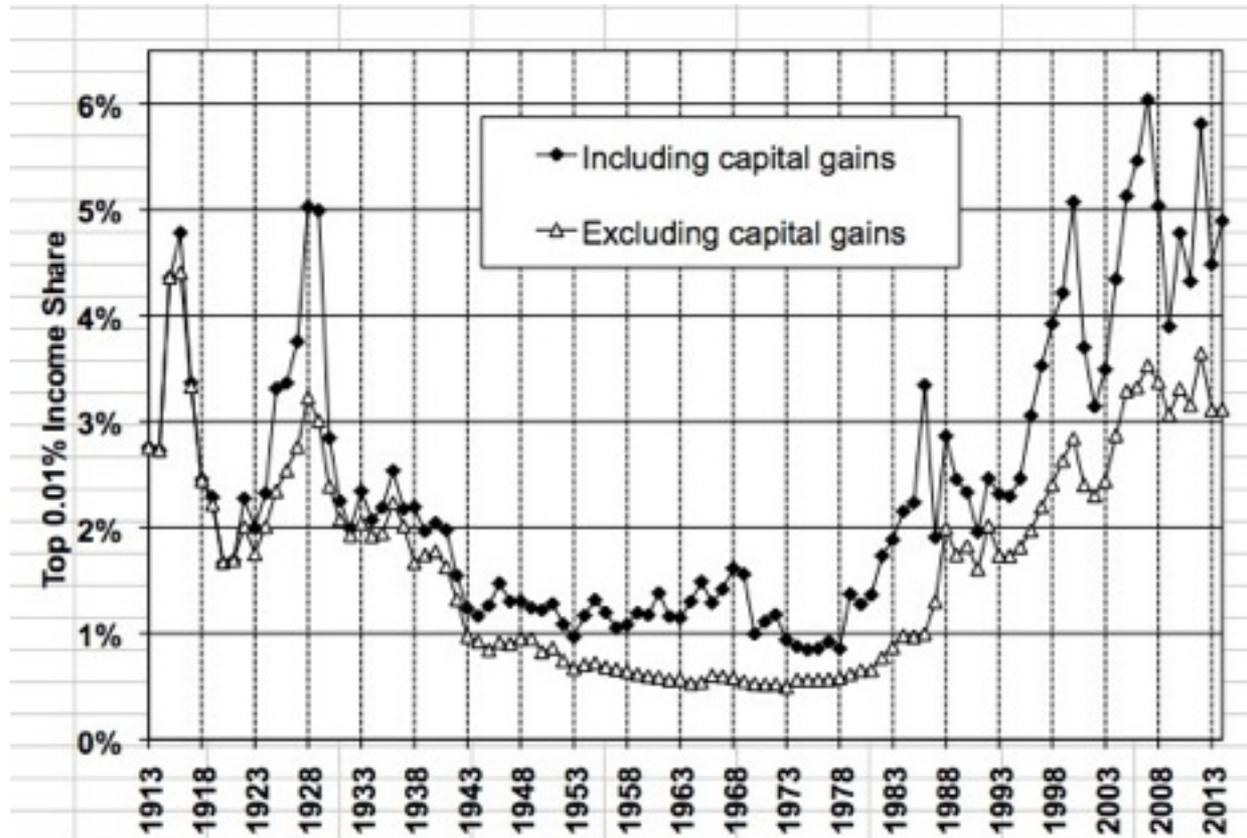


FIGURE 3

The Top 0.01% Income Share, 1913-2014

Source: Table A1 and Table A3, col. P99.99-100.

Income is defined as market income including (or excluding) capital gains.

In 2014, top .01% includes the 16,500 top families with annual income above \$9.75m.

The Top 17,000 Taxpaying Units

- The vicissitudes of the plutocracy
- From 3% of all income down to 1%...
- And from 1% up to 5%...
- More than \$10 million/year
 - Heirs and heiresses
 - Financiers
 - Corporate executives
 - Empire-builders

Public Goods

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Types of Commodities

- The market works well with **private goods**: goods that are both *rival* and *excludable*...
 - Even a degree of *non-rivalry*—increasing returns—causes problems
 - Either you charge more than marginal opportunity cost
 - Or you fail to cover your costs
 - And a lot of governmental energy goes to creating *excludability* for rival commodities
 - **Commons goods**: where you don't have excludability but do have rivalry, you have problems: an externality—the North Atlantic cod fishery, for example
 - Work hard to turn *commons goods* into *private goods*
 - Or impose Pivogian taxes
- **Public goods**: neither rival nor excludable
- **Collective goods**: excludable but non-rival—the domain of *natural monopoly*.

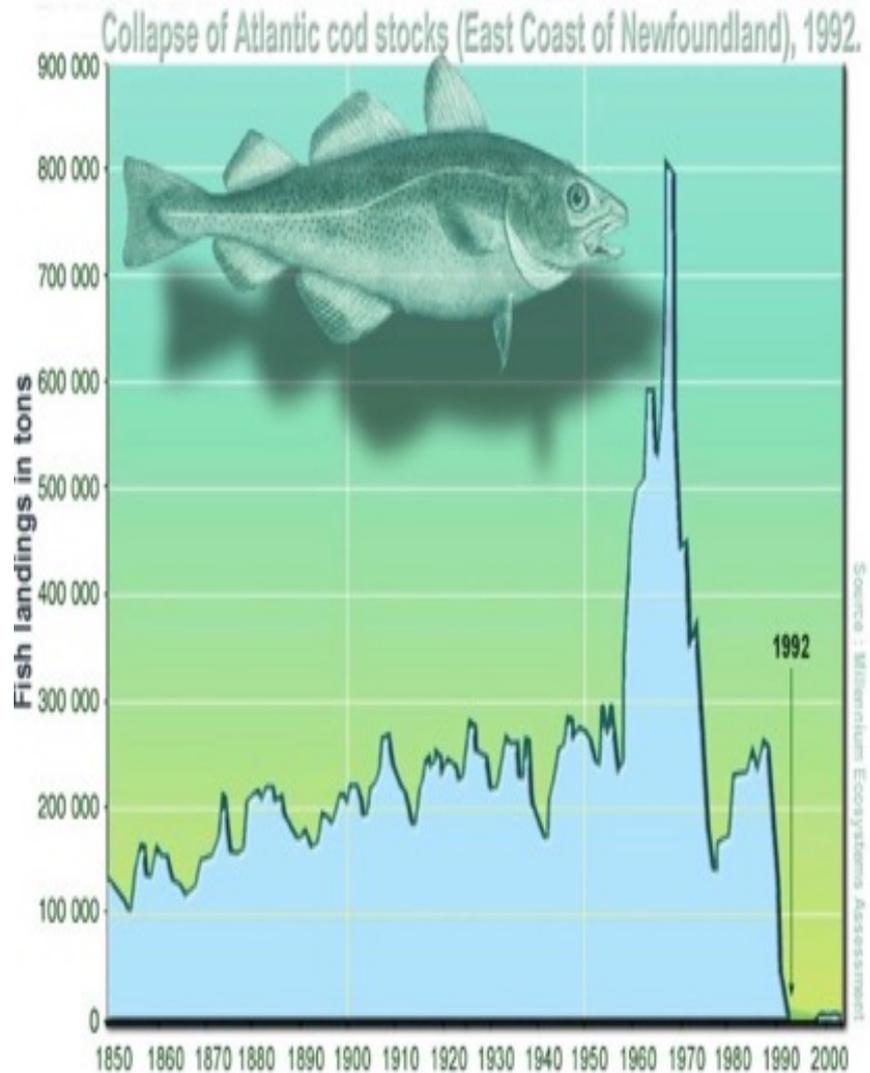
TABLE 14.1

Private, Public, and Hybrid Goods

		Nonrival	
		Low	High
Nonexcludable	High	Commons good (fish in the ocean)	Public good (national defense)
	Low	Private good (wheat)	Collective good (pay-per-view TV)

Commons Goods

- Work hard to assign and protect property rights
 - And so make them excludable...
- Or bring down the regulatory/command-and-control hammer
- Or impose the Pigovian tax
- Commons goods are a form of externality



Collective Goods

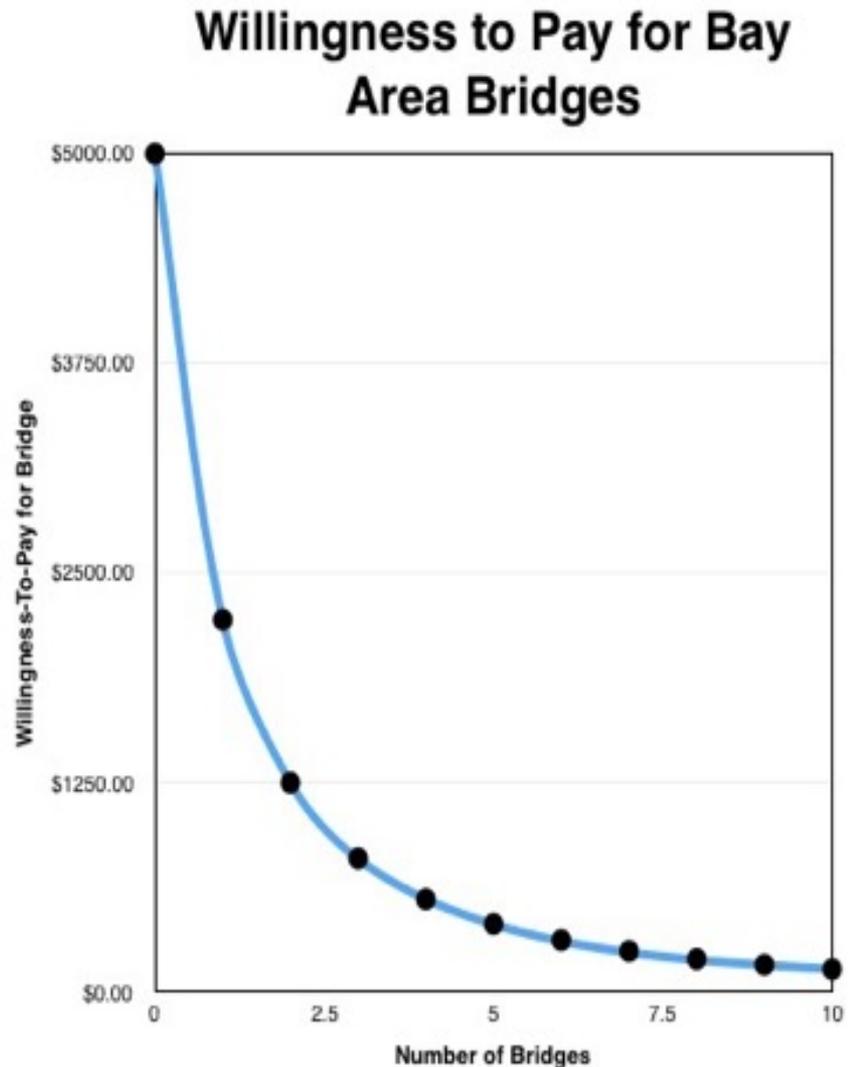
- The domain of natural monopoly
- Why are we charging for these again? Why aren't we turning these into public goods?
- Some belief that there is an economic logic of cost minimization
 - Different from political logic
 - And a good thing to try to harvest here...

Public Goods

- Neither rival nor excludable...
- There's no real point to wasting resources in trying to make excludable is there?
- Public provision
- Private provision
 - Via covering costs by selling ancillary services to users
 - Via covering costs by turning users into a product and selling them to others—via, for example, selling their eyeballs to advertisers...

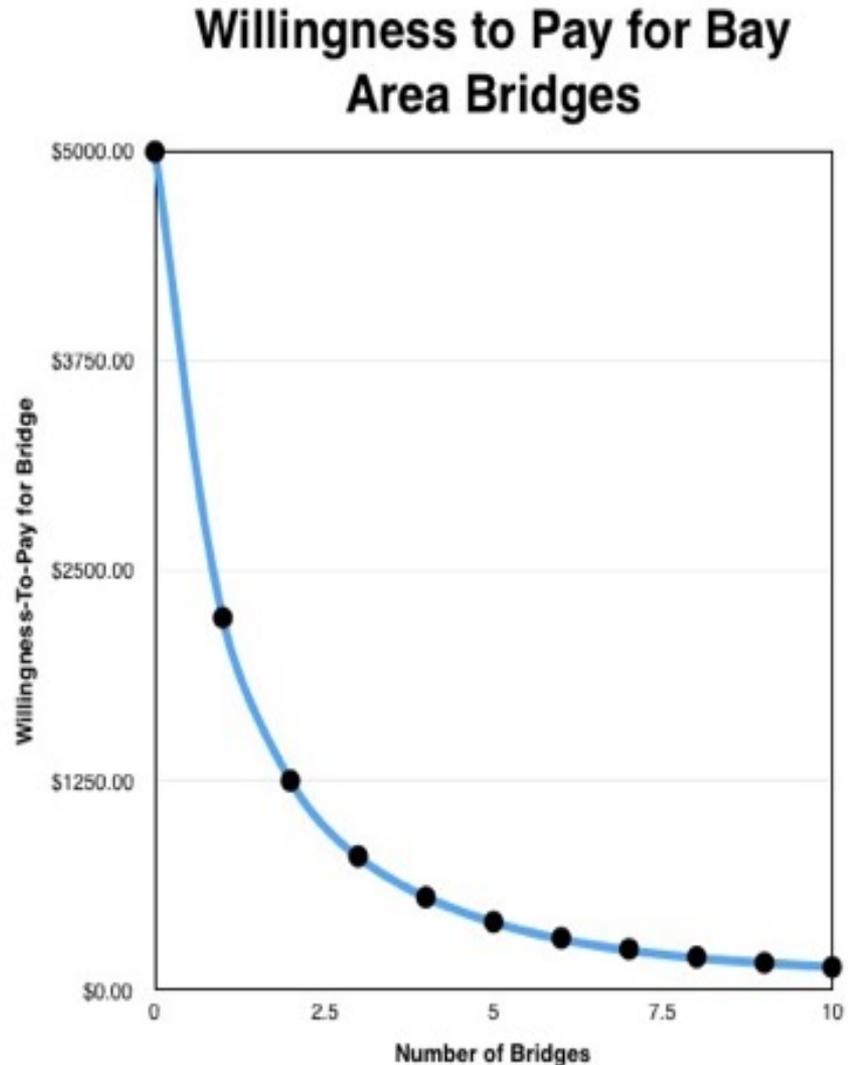
The Scale of Demand for Public Goods

- How would we draw a supply-and-demand graph for public goods?
- Let's start with the demand of one single citizen for a public good—for, say, the Bay Bridge (and let's dodge knotty questions about congestion by counterfactually assuming that the bridge won't be too crowded).
- My willingness to pay for an eighth bridge across the Bay—given the existence of the other bridges, the ferries and the Transbay Tube for BART—is some \$200/year
- However, my willingness-to-pay for a first bridge is considerably larger: \$5,000/year



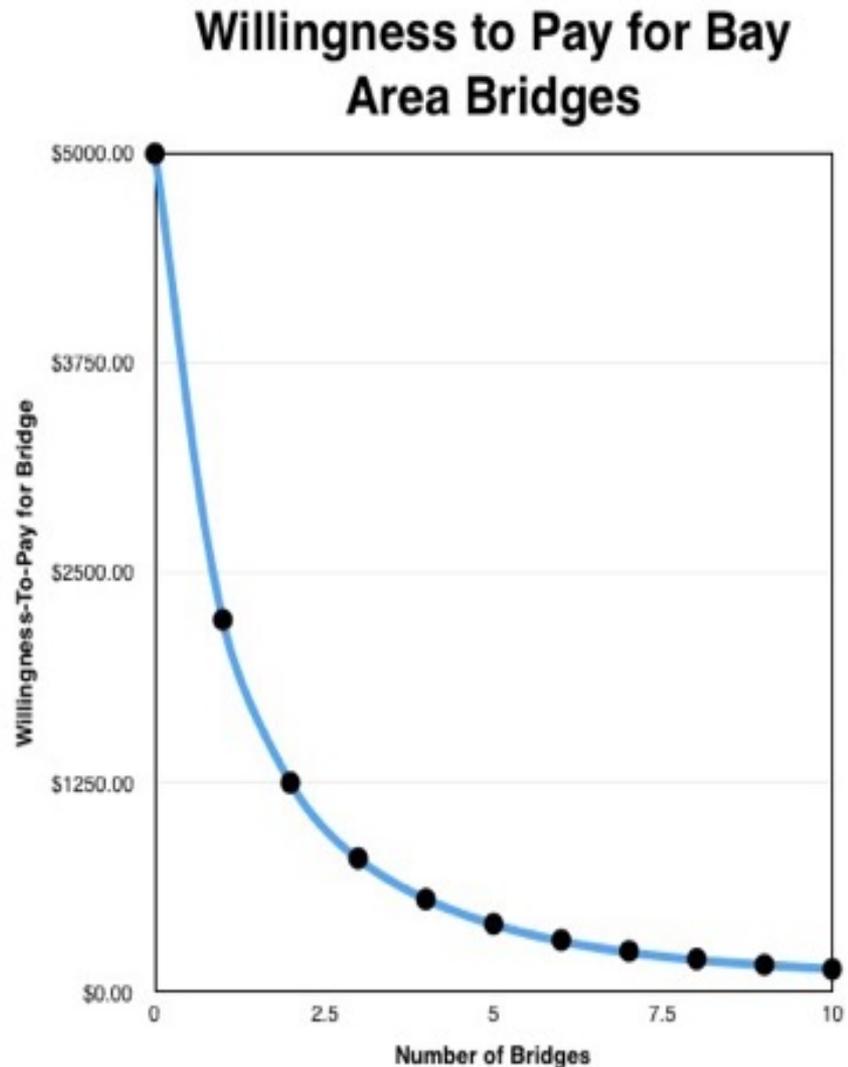
The Scale of Demand for Public Goods

- But each bridge can be used by all 2M drivers in the Bay Area...
- Let's suppose that I am typical...
- That means that the 8th bridge would generate $\$200/\text{year} \times 2\text{M} = \$400\text{M}/\text{year}$ of value
 - (The replacement east-span of the Bay Bridge cost $\$6.5\text{B}$ — $\$260\text{M}/\text{year}$ amortized at 4%/year.)



Demand Curves for Private and Public Goods

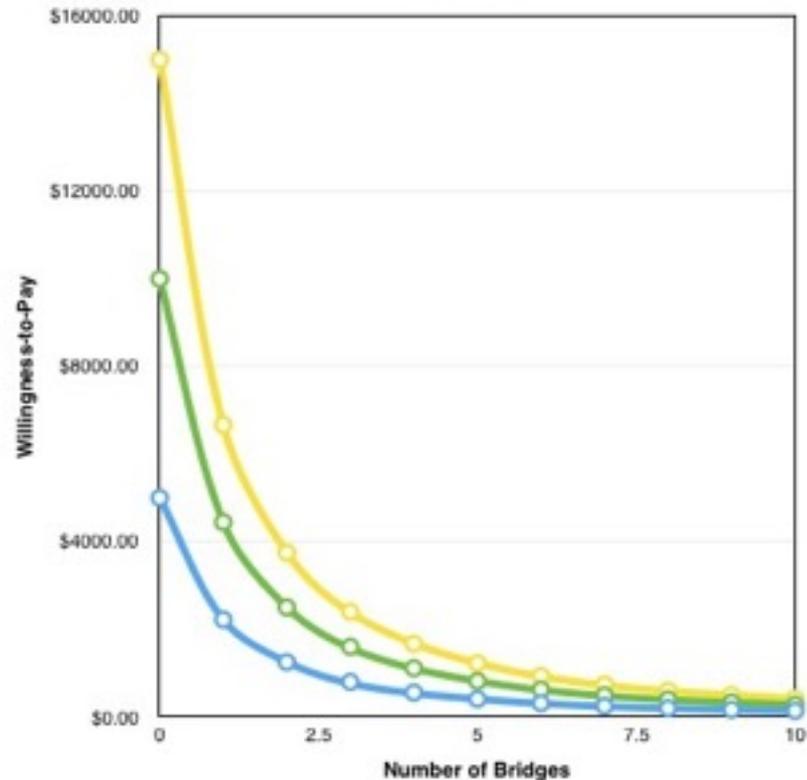
- Demand curves for private goods add horizontally:
 - $Q_{\text{mkt}} = \text{Pop} \times Q_{\text{ind}}$
- Demand curves for public goods add vertically:
 - $P_{\text{pub}} = \text{Pop} \times P_{\text{ind}}$
- But who should then pay?
- Only the government can afford to build non-excludable commodities
 - But: (i) ancillary services, (ii) selling your users to someone else



Demand Curves for Private and Public Goods

- Calculating the surplus from a public good:
 - $(AWtP) \times (\# \text{ of users})$
 - Minus: cost to the government's treasury of raising the taxes to pay for the public good
- Which leads us to taxes...

For Public Goods, Add Individual Demand Curves Vertically



Public Finance

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Public Finance

- The scale of demand for government
- Taxes
 - What do we want to tax?
 - How much do we want to tax?
- Rent-seeking
 - The government is the source of property rights
 - All kinds of things can become “property”
 - North Carolina Board of Dental Examiners

The Scale of Demand for Government

- Government to *set up* markets—property and contract
- Government to *regulate* markets—correcting for market failures, to the extent that you can do so
- Government to *supersede* markets—where market failures are too great for the market mechanism to be effective
- Private, commons, collective, and public goods:
 - Economic life is moving more and more toward the far end of that scale
 - Hence the appropriate role of government in the economy is growing—more “public” and less “private” in our mixed economies

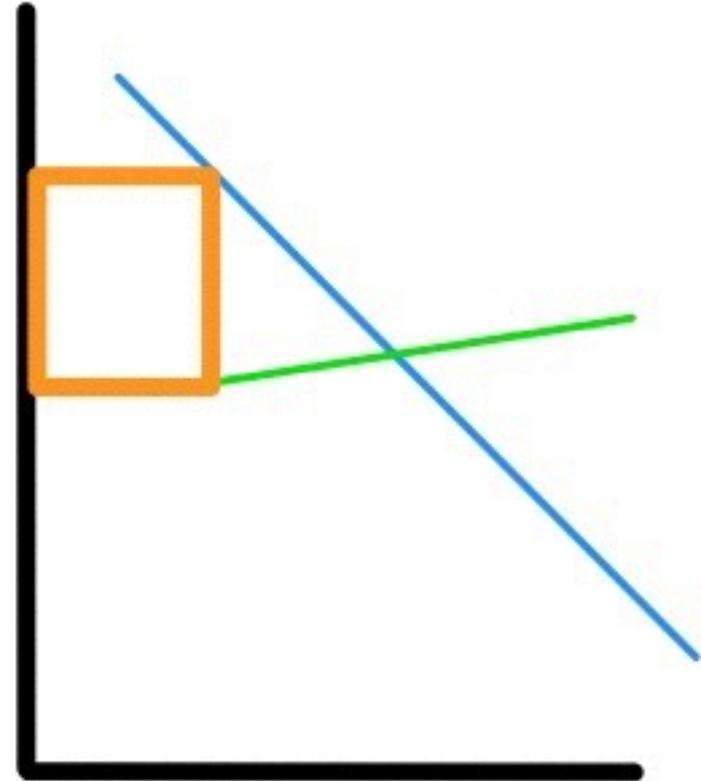
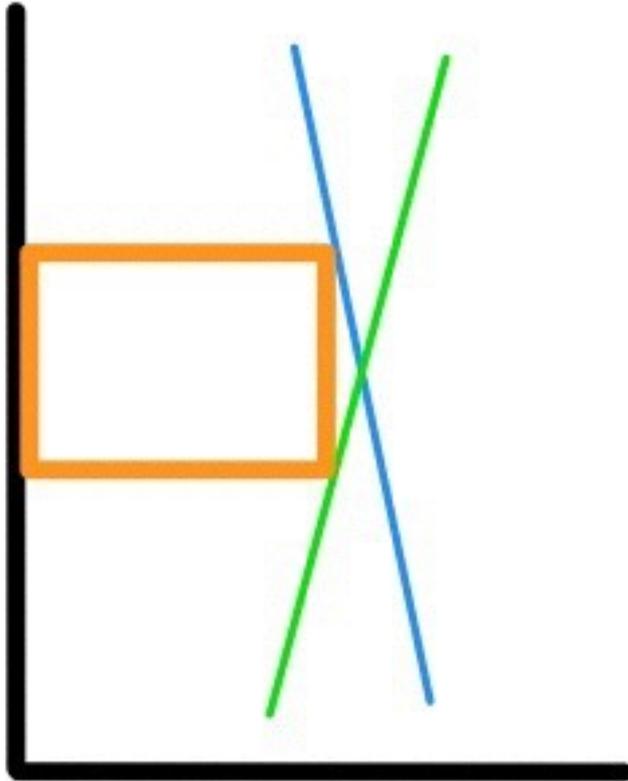
Rules for Raising Money via Taxation

1. Tax “bads”
2. Tax goods that are in inelastic demand and supply
3. Tax in proportion to *ability to pay*
4. Tax to provide *social insurance*
5. Tax in the interests of *intergenerational equity*

Taxing “Bads”

- If you tax something, you will find that less of it is produced and provided.
- Therefore if you have something that produces bad externalities that you can tax
 - You tax it
 - And you not only raise money, you get a double benefit by reducing the noxious activity
- Carbon fees, smoking taxes, alcohol taxes, etc...
 - Questions of distribution: smokers, for example, are “poor”
 - Questions of “rational addiction”

Taxing Goods in Inelastic Demand and Supply



Tax in Proportion to *Ability to Pay*

- It is very difficult to raise money by taxing people who have little or none
- It is very destructive to their lives to raise money by taxing such people without much to contribute
- Try to fund public goods from public revenue without taking account of *ability to pay*, and you will leave lots of potential utilitarian value on the table
- If you think that all benefit relatively equally in terms of utility from public goods, there is a case for asking all to forego equal amounts of private utility—and the rich have a much lower utility of wealth at the margin than the poor do

Tax to Provide *Social Insurance*

- The Myth of Er (Plato, according to Wikipedia):
 - “The souls... reached... the Spindle of Necessity... were then organized into rows and were each given a lottery token. Then, in the order in which their lottery tokens were chosen, each soul was required to come forward to choose his or her next life.... They [then] passed under the throne of Lady Necessity, then traveled to the Plane of Oblivion, where the River of Forgetfulness... flowed. Each soul was required to drink...”
- What society would we choose to construct if we were all asked before we had reached the Spindle of Necessity and been assigned our lottery tokens?
- We would choose to buy a lot of “insurance” against the vicissitudes of life—for the same reason that we buy insurance in the real world...
- Behind the “Veil of Ignorance”...

Does the Myth of Er Have Force?

- The alternative is Thrasymakhos:
 - “Justice is simply what is in the interest of the stronger...”
- Or Thoukydides: the Athenians in the Melian Dialogue:
 - “Justice, as the world goes, is only in question between equals in power, while the strong do what they can and the weak suffer what they must...”

Intergenerational Equity

- Who should pay the taxes to build a bridge that will last for fifty years?
- Or to support technological research that will then make humanity potentially richer for as long as civilization lasts?
- Alternatively, if we think the future will be richer than the present, then doesn't the equal-utility contribution ability-to-pay argument strongly suggest that we should load more taxes on to the distant future and fewer taxes on to us?

Rent Seeking

- Karl Marx and Friedrich Engels:
 - “The modern bourgeoisie is itself the product of a long course of development.... An oppressed class under the sway of the feudal nobility, an armed and self-governing association in the medieval commune: here independent urban republic (as in Italy and Germany); there taxable “third estate” of the monarchy (as in France); afterwards... serving either the semi-feudal or the absolute monarchy as a counterpoise against the nobility, and, in fact, cornerstone of the great monarchies in general, the bourgeoisie has... conquered for itself, in the modern representative State, exclusive political sway. The executive of the modern state is but a committee for managing the common affairs of the whole bourgeoisie...”

Rent Seeking II

- Karl Marx and Friedrich Engels:
 - “The serf, in the period of serfdom, raised himself to membership in the commune, just as the petty bourgeois, under the yoke of the feudal absolutism, managed to develop into a bourgeois. The modern labourer, on the contrary, instead of rising with the process of industry, sinks deeper and deeper.... He becomes a pauper, and pauperism develops more rapidly than population and wealth.... The bourgeoisie is unfit any longer to be the ruling class... because it is incompetent to assure an existence to its slave... because it cannot help letting him sink into such a state, that it has to feed him, instead of being fed by him.... This bourgeoisie[’s]... existence is no longer compatible with society...”

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