

## I. What is Public Economics?

- A. Public economics is the study of all manner of affects and causes of government policies.
- As such, it is large and growing field of study.
  - Public policies fill thousands of pages of legal documents, are implemented by millions of government employees, and directly control a very large fraction of all spending in developed economies--often between 35 and 60 percent of RGNP.
  - The public sector thus has enormous influence over the manner in which economies operate.
  - However, one would know this, if one just looked through a typical principles of economics or intermediate microeconomics text book. The public sector is rarely given much attention in those books.
    - The typical text simply ignores all the effects of taxes and regulation on production and production costs.
    - Nor, does the typical micro-economic text spend much time thinking about non-wage sources of income and how such sources affect the demand for goods and services.
    - Nor does the typical micro-economic text spend time trying to account for the polices actually adopted by governments.
    - This is partly "excused" by the large volume of material that they actually do cover.
- B. The neglect of the effects of public policies on the market was easier to defend in the "old days" when micro economics was worked out.
- In 1900, the government of a typical developed economy spent less than 10% of its national RGNP.
  - In 2018, in contrast, the typical government of a developed economy collects taxes on and spends 40-60% of RGDP.
  - The influence of governmental regulation have also increased.
  - To understand contemporary markets really requires understanding public economics and public choice.

## II. Why Study Public Economics

- A. The importance of governmental policy decisions thus provides a good reason to study public economics.
- To understand how contemporary markets operates, one need to know a good deal about public policies.

- B. Another reason to study public economics is that in one's role as a voter, one is often asked to vote on policies or for persons who promise to adopt various policies. Unless one understands how policies affect the economy (and thereby oneself), it is difficult to make sensible choices when one votes, make campaign contributions, or simply comments on public policy.
- Is the deficit too large?
  - Can a tax system increase economic output?
  - Can a tax system be improved?
  - Is the social security program doomed to bankrupt Western democracies? or not?
  - Is a national health care system necessarily too expensive to be feasible?
  - Why does the U. S. so much more on health care than other Western economies?
  - Is the welfare state too large or too small? Is it growing too fast or too slowly, or in the wrong way.
  - Are deficits out of control and so likely to threaten market economies in the long run or not?
- C. All these are issues addressed by public economics, which provides good reasons why one should study public economics.

## III. The Approach of this course.

- A. This course begins by using economic tools to analyze the effects of public policy on the private economy.
- Individuals in their roles as consumers purchase goods and services to maximize their net benefits (consumer surplus).
  - Individuals in their roles as entrepreneurs produce goods and services to maximize their profits.
  - Individuals in their roles as input providers, hire those inputs out to firms as a method of maximizing their net benefits from doing so--which is often simply a matter of maximizing their incomes.
  - Together all of these decisions characterize the demand and supply curves that that determine market prices.
  - Market prices, in turn, inform the decision maker's choices about purchases and production, which tend to set supply equal to demand.
- B. Public policies affect this equilibrium in a number of ways.
- Taxes often affect the prices that firms and consumers take into account when making decisions.

- Regulations often affect the production costs of products differentially and so affect the decisions of firms and consumers through indirect effects on taxes.
  - Subsidies often affect the prices that firms and consumers take into account when making decisions about purchases and production.
  - Other expenditures affect the incomes of individuals which tend to increase or decrease demand depending on both the effect on income (up or down) and whether goods and services are normal, superior, or inferior goods.
- C. Public policies, of course, do not come from “out space.” They are products of politics, which in turn are products of the nature of a government. Dictators and democracies make decisions through different processes and so tend to select different policies. Because of time constraints this class focuses on democratic decision making, more or less like those of the United States.
- The most obvious feature of democracies is that they use majority rule to select the highest government officials (representatives) who then make policy decisions using majority rule within legislatures.
  - So, majority rule is an important feature of such governments and is used in this course to model the selection of public policies.
  - Both voters and government officials are assumed to be “rational” in the same sense as consumers and firm owners are. They both are assumed to maximize their net benefits (or utility).
  - This allows their choices to be modeled using similar geometric (or mathematical) characterizations.
  - However, their decisions take place in a different institutional setting where voting indirectly determines outcomes--as opposed to private decisions in markets where one’s choice largely determines outcomes (at least for one’s self. (One does not always get the representative or candidate that one votes for, although one does normally get the good or service one chooses.).
  - Majority rule, as will be seen, has clear effects on many public policies.
- D. In addition to the effects of voting on public policies, there are also effects of interest groups both inside and outside government. We do not have much time to take these into account, but a couple of lectures will be devoted to them as well.
- E. Although majority rule based governance is not perfect, public policies are often selected to address common problems faced by voters (e.g. public goods and externality problems, social insurance, risk management, etc.). They are also adopted in some cases to shift money or profits from one group to another.
- F. Throughout the course, real world examples are used to illustrate the relevance of the models. Towards the end, these qualitative analyses are supplemented with quantitative ones in which measures of taxes and expenditures and trends are used to examine longer term problems.
- G. The analysis of this course differs from those of your principles of economics courses in that more detailed models are developed and that somewhat more policy details and subtle issues are taken into account.
- It is very helpful/important to pay close attention to the “review of tools” section of the course, because mastering the geometry of net benefit maximizing choice and their associated diagrams provide the logical foundations for the whole rest of the course.
  - The diagrams are much much easier to understand if you master these tools rather than simply memorize the “pictures.”
- H. The analysis differs from ones that you may have learned in intermediate microeconomics by its use of net benefit maximizing models rather than utility maximizing models. For this course, one can make a good deal more progress with net benefit maximizing models of choice than with utility maximizing models.
- Many of the predictions are sharper.
  - The diagrams--although often complex--are easier to develop and understand.
  - The same basic models can be used to think about consumers, firms, voters, representatives, and interest groups.
  - The same tools can be used to undertake normative analysis (cost benefit analysis, which enables us to assess the relative merits of alternative taxes, subsidies, and other public policies.

**IV. Illustrating Data and Data trends.**

- A. Before heading off into theory, it is useful to provide a bit of data about the size, composition, and growth of government budgets.
- B. Table 1.1 provides an overview of the pattern and growth of various categories of expenditures in the U.S. Note the growing importance of social insurance programs and in overall budgets.

Function	1990	2000	2010
National Defense	299.3	294.4	693.6
Veterans Benefits	29	47	108.4
Health (all, non vet)	155.8	351.6	820.7
Social Security (pension)	248.6	409.4	706.7
Income Security (disability, unemployment etc)	148.7	253.7	622.2
<b>Net Interest</b>	<b>184.3</b>	<b>222.9</b>	<b>196.2</b>
Education	37.2	53.8	127.7
Transportation	29.5	46.9	92
Natural Resources and Environment	17.1	25	43.7
Community Development	8.5	10.6	23.8
Agriculture	11.8	36.5	21.4
<b>Total</b>	<b>3159.8</b>	<b>3751.8</b>	<b>5466.4</b>
<i>Total Insurance and Risk Management</i>	2900.3	3417.6	5026.7
<i>Pure and Near Public Goods</i>	2335.9	2366.3	2839.3
<i>Redistributive</i>	454.8	764	1501.8
CPI (standardized dollar)	0.765	0.581	0.459
GNP	5801	9952	14660
Population (millions)	250.132	282.385	308.745
Total Outlays is calculated from the table entries, and neglects several small categories of expenditures not included in the functional categories tabulated. All data taken from the 2012 Statistical Abstract except for the 2010 population estimate, which is from the US Bureau of the Census Website (downloaded 10-29-12).			

C. Figure 1, shows the growth of national social insurance programs in several major Western countries as a fraction of their gross domestic products (GDP), note the upward trends and differences among countries. Note the rapid growth from 1960 to 1990.

