

# Course Plan of Public Finance

## 1.Course Information

Course code: 20030063

Course name: Public Finance

Course Type: disciplinary general course

Hours: 48

Credits: 3

Subjects: undergraduate students majoring in taxation (sino-foreign joint training experimental class )

Assessment: examination

Prerequisites: Microeconomics, Macroeconomics, Specialized English of Public Finance and Taxation.

## 2.Course Description

This course is a disciplinary general course in public finance and taxation, which is suitable for undergraduates in public economics and administration. This course helps students to understand and master the basic theories of public finance and practice of the western market economy countries. Its main contents include: empirical analysis and normative analysis methods of fiscal research; the definition and provision of public goods; essence of externality and its influence and countermeasure; mechanisms of public choice ; distribution and efficiency of income and taxes issues and other related problems.

## 3. Objectives of the Course

This unit will help the students comprehensively grasp of basic theories and knowledge of public finance; acquaint with the basic principles of public finance; master some basic skills to study the actual financial economic problems with the preliminary basic knowledge, enabling students to develop a good foundation in finance and economics prior to their subsequent professional courses.

**In terms of values cultivation, this course will teach theoretical**

knowledge of Western finance and analyze it in the context of China's financial practice, so that students can have a clearer understanding of the differences between Chinese and Western financial theories and systems, strengthen national education, and focus on cultivating and stimulating students' strong sense of social responsibility and commitment to the country and the world. In addition, students are guided to develop public consciousness, public perspective, concern for public issues, public risk, public decision-making, the ability to study public issues, the ability to communicate with public parties, the ability to make public rules, the ability to manage public affairs, and the ability to cultivate talents with a strong sense of family and social responsibility, and the character to seek common ground while reserving differences and to be inclusive in governing the country.

#### **4. Teaching Content and Requirement**

##### **Chapter 1 INTRODUCTION**

###### **a. Objectives and requirements**

- 1) Understand the ideology embodied in the study of Public Finance
- 2) Master two viewpoints of government
- 3) Familiar with the legal environment faced by fiscal activities of US governments
- 4) Understand the contents of the US fiscal revenue and expenditure
- 5) Analyze and compare the similarities and differences between China's political and philosophical concepts and those of the West, taking into account the spirit of speeches and relevant policy texts of Chinese party and state leaders**

###### **b. Content**

###### **Section 1 Public Finance and Ideology**

- 1) Main Content
  - a) Two major approaches concerning the relationship between the individual and the state.
  - b) The viewpoints of this book

- 2) Basic concepts and key points
  - a) Basic concepts: Organic View of Government; Mechanistic View of Government.
  - b) Key points: the connotations and comments of both views of Government
- 3) Questions and application
  - a) What's the differences between the views of government held by libertarians social democrats?

## **Section 2 Government at a Glance**

- 1) Main Content
  - a) The Legal Framework
  - b) The Size of Government
  - c) The Expenditure and Revenue
- 2) Basic concepts and key points
  - a) Basic concepts: federalism; unified budget; regulatory budget; entitle programs.
  - b) Key points: the difference of governmental fiscal institutions; major categories of federal government expenditures; the revenue structures of the federal and state budget.
- 3) Questions and application
  - a) Explain how you would expect someone with an organic conception of the state to react to a law mandating child safety seats?
  - b) Introduce the institutional environment facing the fiscal activities of the Chinese government and an overview of its fiscal revenues and expenditures.**

### **c. Reflections and Application**

In the United States, obesity is seen as a national health problem. There is a view that the way to solve this problem is to levy a "fat tax", which means to tax food exceeding the minimum daily fat content set by the government. Please think about what viewpoints of government is consistent with this idea?

### **d. Teaching Method and Pedagogy**

Multimedia technologies and network platform will be used in the process of

lectures. There are also some class discussions about related topics and cases.

## **Chapter 2 TOOLS OF POSITIVE ANALYSIS**

### **a. Objectives and requirements**

- 1) Understand the main role of economic theory
- 2) Master three main research methods
- 3) Be familiar with the conditions to prove causalities

### **b. Content**

#### **Section 1 The Role of Theory**

- 1) Main Content
  - a) The guidance of economic theory to action
  - b) Causation versus correlation
- 2) Basic concepts and key points
  - a) Basic concepts: substitution effect; income effect; causation; correlation; treatment group; control group.
  - b) Key points: The role of a theory as a guiding framework; Three conditions of proving causality
- 3) Questions and application

How to analyze the influence of income tax on the length of working hours according to the theory?

#### **Section 2 Experimental Studies**

- 1) Main Content
  - a) The characteristics of experimental research;
  - b) Implementation and pitfalls of experimental research
- 2) Basic concepts and key points
  - a) Basic concepts: cross section data, time series data; counterfactual situation, counterfactual condition.
- 3) Questions and application

#### **Section 3 Observational Studies**

- 1) Main Content
  - a) The connotation and scope of observational research
- 2) Basic concepts and key points

a) Basic concepts: observation research, biased estimation.

b) Key points: What are the problems of observational research: how to carry out observational research?

3) Questions and application

### **Section 4 Quasi-Experimental Studies**

1) Main Content

a) The connotation and scope of Quasi-experimental research

b) The implementation and pitfalls of quasi experimental research.

2) Basic concepts and key points

a) Basic concepts: quasi experimental research; difference-in-difference analysis; instrumental variable analysis; regression-discontinuity quasi experiment;

b) Key points: The purpose of quasi experimental research, the design method of three kinds of quasi experimental research, and the applicability of quasi experimental research.

3) Questions and application

Examples are given to illustrate the application of three kinds of quasi experimental research.

### **c. Reflections and Application**

A researcher conducts a cross-sectional analysis of workers and finds a positive correlation between time spent on a computer at work and wages. The researcher concluded that computer use increases wages and advocates a policy of computer training for all children. What's wrong with this analysis?

### **d. Teaching Method and Pedagogy**

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## **Chapter 3 TOOLS OF NORMATIVE ANALYSIS**

### **a. Objectives and requirements**

1) Master the basic principles of welfare economics

2) Grasp the realization conditions of Pareto optimality

- 3) Applying the basic principles of welfare economics to judge government policies
- 4) Be familiar with the manifestation and causes of market failure

## **b. Content**

### **Section 1 Welfare Economics**

- 1) Main Content
  - a) pure economy exchange
  - b) production economy
- 2) Basic concepts and key points
  - a) Basic concepts: Edgeworth Box; indifference curve; Pareto improvement; the contract curve;
  - b) Key points: indifference curves in an Edgeworth box; conditions for Pareto efficiency; efficiency conditions with variable production.
- 3) Questions and application

How should people assess the social desirability of various government activities?

### **Section 2 The First Fundamental Theorem of Welfare Economics**

- 1) Main content
  - a) The connotation of the first fundamental theorem of welfare economics;
  - b) The proof of the first fundamental theorem of welfare economics.
- 2) Basic concepts and key points
  - a) Basic concepts: the first fundamental theorem of welfare economics;
  - b) Key points: the connotation and proof of the first fundamental theorem of welfare economics.
- 3) Questions and application

Will a given economy achieve Pareto efficiency?

### **Section 3 Fairness and The Second Fundamental Theorem of Welfare Economics**

- 1) Main Content
  - a) The connotation and proof of the second basic theorem of welfare economics;
  - b) The proof of the first fundamental theorem of welfare economics.
- 2) Basic concepts and key points

- a) Basic concepts: the first fundamental theorem of welfare economics;
- b) Key points: the connotation and proof of the first fundamental theorem of welfare economics; utility possibility curve; social welfare function.

### 3) Questions and application

In order to maximize social welfare, is it necessary for the government to directly intervene in the market? Why?

## **Section 4 Market Failure and the Reference to Welfare Economics**

### 1) Main Content

- a) market failure;
- b) buying into Welfare Economics

### 2) Basic concepts and key points

- a) Basic concepts: market failure; market power; monopoly; asymmetric information ; externality; merit good;
- b) Key points: two reasons for market failure: the nonexistence of market power and markets; vigorous debates and reference on welfare economics.

### 3) Questions and application

How much of the national output should be used in the public sector?

## **c.Reflections and Application**

In his commencement address at Wesleyan university in 2008, then-senator Barack Obama told the students that “Our individual salvation depends on collective salvation.” Is this view consistent with the social welfare function defined in the Equation 3.10?

## **d.Teaching Method and Pedagogy**

Multimedia technologies and network platform will be used in the process of lectures. There are also some class discussions about related topics and cases.

## **Chapter 4 PUBLIC GOODS**

### **a.Objectives and requirements**

- 1) Master the definition and types of public goods
- 2) Master the demand curve of public goods
- 3) Be familiar with the characteristics of public goods supply and production

4) Understand the motivation and development of privatization.

**5) Guide students to develop public consciousness, public perspective, concern for public issues.**

## **b.Content**

### **Section 1 Public Goods Defined**

1) Main Content

- a) The connotation of public goods;
- b) several aspects in the definition of public goods worth noting

2) Basic concepts and key points

- a) Basic concepts: public goods; pure public goods; quasi public goods;
- b) Key points: two characteristics of public goods; six aspects related to the definition of public goods.

3) Questions and application

Does government provision of a good necessarily mean it must also be produced by the government?

### **Section 2 The Efficient Provision of Public Goods**

1) Main Content

- a) Demand curve of public goods
- b) The derivation of the efficiency condition of public goods.
- c) the free rider problem

2) Basic concepts and key points

- a) Basic concepts: horizontal aggregation; vertical aggregation; free ride; perfect price discrimination;
- b) Key points: The demand curve of public goods is different from that of private goods; the efficiency conditions of public goods provision; the free ride problem in the provision of public goods.

3) Questions and application

What can be done to solve the problem of free riding?

### **Section 3 Privatization**

1) Main Content

- a) Public provision and private provision of public goods
- b) Private production and public production of public goods.

2) Basic concepts and key points



- a) Basic concepts: privatization; incomplete contract;
  - b) Key points: The factors that determine whether a good is provided by the public or by the private; the debate between public production and private production.
- 3) Questions and application
- How to understand this sentence: public versus private ownership is less important than whether competition exists?

### **c.Reflections and Application**

Some privately run airports provide amenities such as pod hotels, which enable fliers to nap between flights. These amenities are generally not available at publicly run airports. Given this, would you recommend that airports be privatized? If not, what other information would you require?

### **d.Teaching Method and Pedagogy**

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## **Chapter 5 EXTERNALITIES**

### **a.Objectives and Requirements**

- 1) Grasp the connotation, types and characteristics of externality.
- 2) Understand the difference between negative externality and efficiency output.
- 3) Master the content and application of Coase Theorem.
- 4) Be familiar with the ways of tax and subsidy to solve externalities.
- 5) Master the realization of emission fees and cap-and-trade programs.

### **b.Content**

#### **Section 1 The Nature of Externality**

- 1) Main Content
  - a) The definition of externality;
  - b) Characteristics of externality;
  - c) geometric expression and explanation of externality.

## 2) Basic concepts and key points

- a) Basic concepts: externality; positive externality; negative externality;
- b) Key points: the definition of externality: not reflected in the market price; four characteristics of externality; social losses or benefits brought by externality;.

## 3) Questions and application

How to measure people's marginal willingness-to-pay for pollution elimination ?

### **Section 2 Private Response**

#### 1) Main Content

- a) Bargaining and the Coase Theorem
- b) Mergers.
- c) Social conventions

#### 2) Basic concepts and key points

- a) Basic concepts: Coase theorem; internalization;
- b) Key points: The content and application scope of Coase theorem; other private countermeasures to solve externalities; merger and social conventions

#### 3) Questions and application

Analyze the reasons for the failure of private responses to externality

### **Section 3 Public Responses to Externality: Taxes and Subsidies**

#### 1) Main Content

- a) taxes
- b) subsidies.

#### 2) Basic concepts and key points

- a) Basic concepts: Pigouvian Tax;
- b) Key points: The amount of Pigouvian tax revenue, the scale and problems of subsidies

#### 3) Questions and application

Do the distributional consequences differ between the tax and subsidy schemes?

### **Section 4 Public Responses to Externality: Emissions Fee and Cap-and-Trade Programs**

#### 1) Main Content

- a) emissions fee

b) cap-and-trade program

## 2) Basic concepts and key points

a) Basic concepts: emissions fee; cost effective; cap-and-trade program; safety valve price; incentive-based regulation; command-and-control regulation;

b) Key points: how to use emissions fees to reduce pollution efficiently; conditions of cost effectiveness; emissions fee versus cap-and-trade programs; several aspects of assessing the distributional implications of environmental improvement.

## 3) Questions and application

Please think about who bears the cost of environmental improvement?

### **c.Reflections and application**

A farmer who grows organic corn is at risk of having his crop contaminated by genetically modified corn grown by his neighbors. Is Coase Theorem applicable? Why?

### **d.Teaching method and Pedagogy**

Multimedia technologies and network platform will be used in the process of lectures. There are also some class discussions about related topics and cases.

## **Chapter 6 POLITICAL ECONOMY**

### **a.Objectives and requirements**

- 1) Acquaint with the type and operation of direct democracy.
- 2) Understand the voting paradox and the solutions.
- 3) Understand the conditions and value of Arrow's Impossibility Theorem
- 4) Acquaint with the type and operation of representative democracy.
- 5) Understand the political behavior models of different actors.
- 6) Recognize the universality of public problems, the complexity of governance and the multiplicity of governance responsibilities, and to develop their sense of responsibility and ability to analyze and solve complex public problems.

### **b.Content**

## **Section 1 Direct Democracy**

### 1) Main Content

- a) Unanimity rules;
- b) Majority voting rules;
- c) Logrolling
- d) Arrow's Impossibility Theorem

### 2) Basic concepts and key points

a) Basic concepts: direct democracy; unanimity rules; Lindall price; voting paradox; voting cycling; agenda manipulation; single-peaked preferences; single-peaked preferences; median voter theorem; Arrow's impossibility theorem; Lindall model;

b) Key points: the feasibility of the unanimity rules; solutions to the cycling; the impact of logrolling; median voter theorem; the conditions and value of Arrow's Impossibility Theorem.

### 3) Questions and application

Is Arrow's Impossibility Theorem a negation of democracy?

## **Section 2 Representative Democracy**

### 1) Main Content

- a) elected politicians;
- b) public employees;
- c) special interests and other actors;
- d) Arrow's Impossibility Theorem

### 2) Basic concepts and key points

a) Basic concepts: representative democracy; interest group; rent seeking; cartel; deadweight loss;

b) Key points: the behavior model of elected politicians; the role of public employees; the bases interest groups established on; the deadweight loss brought by rent-seeking.

### 3) Questions and application

Why is rent seeking allowed?

## **Section 3 Explaining Government Growth**

### 1) Main Content

- a) the measurement of government growth;
- b) the explanation of government growth

## 2) Basic concepts and key points

a) Basic concepts: government scale; citizen preferences; chance events; income redistribution.

b) Key points: the changing trend of government scale; the explanation of government growth with citizen preferences; the explanation of government growth with chance events; the explanation of government growth with income redistribution.

## 3) Questions and application

What are the measures to control the growth of government expenditure?

### **c.Reflections and Application**

An agriculture bill passed by Congress in 2007 spent over \$300 billion “on wealthy farm house-holds” and “guaranteed already well-off farmers high incomes”. Members of Congress from agriculture areas were able to obtain the support of urban members in return for spending on subsidies to low income families for food. Which of our models of political decision-making best explains this scenario?

### **d.Teaching method and Pedagogy**

Multimedia technologies and network platform will be used in the process of lectures. There are also some class discussions about related topics and cases.

## **Chapter 8 COST-BENEFIT ANALYSIS**

### **(I) Objectives and requirements**

1. to master the content and application of cost-benefit analysis methods
2. understand the differences between public sector and private sector project evaluation
3. to master the choice of discount rate in the evaluation of public sector projects
4. be familiar with several methods of measuring the benefits and costs of public sector projects
5. understand the pitfalls in cost-benefit analysis and the impact on income distribution

## **(II) Teaching content**

### **Section I. Private sector project appraisal**

1. Main contents: (1) present value criteria; (2) internal rate of return; (3) benefit-cost ratio

2. Basic concepts and knowledge points: (1) Basic concepts: present value; future value; cost-benefit analysis; discount rate; discount factor; internal rate of return; benefit-cost ratio; (2) Knowledge points: calculation of present value and future value; project net present value analysis; calculation of internal rate of return; application of cost-benefit ratio

(3) Problems and Applications (Competency Requirement): Why is the present value criterion more reliable than the internal rate of return criterion?

### **Section 2: Evaluation of government projects**

1. Main contents: (1) discount rate of government projects; (2) evaluation of public benefits and costs; (3) tricks played by cost-benefit personnel; (4) revenue allocation considerations

2. basic concepts and knowledge: (1) basic concepts: social discount rate; shadow prices; consumer surplus; chain reaction gimmicks; Hicks-Caldor criteria; deterministic equivalence; (2) knowledge: selection of discount rates for government projects; several methods for measuring the benefits and costs of public sector projects; pitfalls in cost-benefit analysis; the principle of deterministic equivalence

(3) Problems and applications (required skills): How to adjust the market price of purchased goods in a monopoly situation?

## **(III) Reflections and application**

In 2006, the Indiana Department of Motor Vehicles made changes to its branch offices that reportedly reduced customer wait times from an average of 61 minutes to 7 minutes. How should this be included in the cost-benefit analysis of this new practice?

## **(iv) Teaching Methods and Tools**

The main methods and means used to teach this chapter are classroom lectures, multimedia teaching, web-assisted teaching, and classroom

discussions.

## **Chapter 8 INCOME REDISTRIBUTION: CONCEPTUAL ISSUES**

### **(I) Objectives and Requirements**

1. to master the criteria for measuring the fairness of income distribution
2. to understand the limitations of income distribution data
3. grasp the theoretical basis of income redistribution
4. to understand the way of expenditure effect analysis

### **(II) Teaching content**

#### **Section I Income Distribution**

1. Main contents: (1) Measurement of the fairness of income distribution; (2) Interpretation of income distribution data
2. Basic concepts and knowledge points: (1) Basic concepts: poverty line, poverty rate; cash income; in-kind transfers; (2) Knowledge points: measurement of the fairness of income distribution; limitations of income distribution data
- 3) Problems and Applications (Competency Requirement): Should the government intervene to change the income distribution?

#### **Section 2 Theoretical Basis and Effect Analysis of Income Redistribution**

1. main content: (1) theoretical basis of income redistribution; (2) expenditure attribution.
2. Basic concepts and knowledge points: (1) Basic concepts: simple utilitarianism; the very large and very small criterion; commodity valuationism; relative price effects; (2) Knowledge points: simple utilitarian social welfare function; the very large and very small criterion; Pareto-efficient income redistribution; impersonalist view of income redistribution; other considerations of income redistribution; relative price effects of expenditure policies; in-kind transfers of Rationale and empirical analysis
3. Questions and Applications (competency requirements): Does each household benefit equally from government spending on education? Who benefits more, the poor or the rich?

### **(III) Reflections and application**

How do the basic principles of welfare economics help us to evaluate government policies on income distribution?

#### **(iv) Teaching Methods and Tools**

The main methods and means used to teach this chapter are classroom lectures, multimedia teaching, web-assisted teaching, and classroom discussions.

### **Chapter 9 TAXATION AND INCOME DISTRIBUTION**

#### **(I) Objectives and Requirements**

1. to understand the premise of tax attribution analysis
2. to master the partial equilibrium model of unitary taxation on commodities
3. understand the taxation of goods in the absence of competition
4. master the Harberger model

#### **(II) Teaching content**

##### **Section I. Partial Equilibrium Model of Tax Attribution**

1. Main contents: (1) The basic situation of tax attribution analysis; (2) the partial equilibrium analysis of unit taxation on commodities; (3) the partial equilibrium analysis of ad valorem taxation on commodities 2.

2. Basic concepts and knowledge points:

(1) Basic concepts: statutory attribution; tax shifting; functional income distribution; scale income distribution; lump-sum tax; average tax rate; marginal tax rate tax wedge;

(2) Knowledge points: the difference between statutory and economic attribution of tax; basic situation of tax attribution analysis; several measures of tax progressivity; partial equilibrium analysis of unit tax on commodities. The partial equilibrium analysis of ad valorem taxation in the absence of competition; the Harburg model

3. Problems and Applications (Competence Requirement): In 2011, the Cuban government introduced a regulation that imposes an 8% tax on the purchase of real estate, which is "equally shared between the buyer and the seller". Why?



### **(iii) Reflections and application**

The State of Texas has recently introduced a \$5 per customer tax on strip clubs. Analyze the possible fate of this tax and use appropriate illustrations to support it.

### **(iv) Teaching Methods and Tools**

The main methods and means used to teach this chapter are classroom lectures, multimedia teaching, web-assisted teaching and classroom discussions.

## **Chapter 10 TAXATION AND EFFICIENCY**

### **(I) Objectives and Requirements**

1. to master the size of the excess burden of taxation
2. know how to measure the excess burden by the demand curve
3. understand the excess burden of subsidies and income taxes
4. to master the Harburg model

### **(II) Content**

#### **Section 1: Local equilibrium model of tax attribution**

(1) The basic situation of tax attribution analysis; (2) the partial equilibrium analysis of unit tax on commodities; (3) the partial equilibrium analysis of ad valorem tax on commodities. 2.

(2) Basic concepts and knowledge: (1) Basic concepts: excess burden; equivalence change; sub-optimal theory; (2) Knowledge: definition of excess tax burden; how to measure excess burden by demand curve; excess burden of subsidies and income tax

(3) Questions and Applications (Competence requirement): What results of welfare economics can help us understand the causes of excess burden?

### **(III) Reflections and Application**

In 2012, the Obama administration proposed a set of policies to raise the top rate of income tax from 35% to about 44%. What percentage will this increase the excess burden of income tax on taxpayers in this bracket?

#### (iv) Teaching Methods and Tools

The main methods and means used to teach this chapter are classroom lectures, multimedia teaching, web-assisted teaching, and classroom discussions.

#### 5. Distribution of teaching hours

Content	Teaching					Total hours
	Delivery hours	Exercise hours	Discussion hours	Lab hours	Other teaching hours	
Chapter 1	3		1			4
Chapter 2	3		1			4
Chapter 3	3	1	1			5
Chapter 4	3		2			5
Chapter 5	3		2			5
Chapter 6	3		1			4
Chapter 7	3	1	1			5
Chapter 8	3		2			5
Chapter 9	3		1			4
Chapter 10	3		1			4
In class exam					3	3
Total						48

#### 6. Recommend textbooks and teaching reference resources

1. Harvey S. Rosen. Public Finance (tenth edition). Beijing: People's University Press, 2015.
2. Stiglitz, Joseph E. Stiglitz, Guo Qingwang. Public Sector Economics (3rd ed.). Beijing: People's University Press, 2013.

## **7. Notes**

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Approved by:

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