

MACQUARIE UNIVERSITY



Division of Economic and Financial Studies

ECON210 PUBLIC ECONOMICS

<http://online.mq.edu.au/pub/ECON210/>

2004 Course Outline

Prepared by Professor Peter Abelson

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Overview of the Course

I Nature of Government

- 1 Foundations of Public Economics
- 2 Government in Practice

II Markets and Government

- 3 Efficiency of Competitive Markets
- 4 Market Failures and Equity

III Economic Basis of Public Policy

- 5 Social Welfare and Economic Evaluation
- 6 Cost-Benefit Analysis
- 7 Public Choice

IV Building Economic Foundations

- 9 Public goods and Externalities
- 10 Competition Policy and Information Failures

V Delivering Public Services

- 11 Delivering Efficient Public Services
- 12 Pricing and Ownership
- 13 Health and Education

Note: Monday in week 8 is Labour Day Public Holiday

Staffing

| | | | |
|---------------------|---------------------------|---------|----------------|
| Lecturer in charge | Professor Peter Abelson | C5C 323 | Tel: 9850 8512 |
| Alternate lecturers | Dr. Pundarik Mukhopadhaya | C5C 376 | Tel: 9850 6472 |
| | Ms Vicki Le Plastrier | C5C 360 | Tel: 9850 8479 |
| Tutor in charge | Dr. Hyun Hwa Son | C5C 341 | Tel: 9850 8496 |
| Webmaster | Ms Demi Chung | C5C 312 | Tel: 9850 6479 |

Introduction to Course

Welcome to *Public Economics (ECON 210)*. This course deals with the role of government, public expenditure, and policy. Government expenditure accounts for a third of gross national expenditure. In its policy role, government regulates the operations of markets. Understanding the role of government in the economy is a fundamental part of the training of an economist. It should also be part of the education of anyone who takes an active interest in the political conduct of the country.

Public Economics discusses how government should, and does, establish the basic rules for the working of the economy and how resources are allocated and distributed. A central concern is the economic basis of public policies. The focus is on microeconomic issues and management rather than on macroeconomic policy. The course also discusses the role of government in economic growth.

ECON 210 should be viewed as the first part of a two semester study, the other part being the *Economics of Taxation and Social Security (ECON 211)*. As its name implies *ECON 211* deals with issues of public finance, taxation and social welfare. This is strongly recommended as a complementary course to *ECON 210*.

ECON 210 is a core course for economics students. It provides a foundation for several other courses in economics, notably courses industry economics, urban and transport economics, environmental economics, as well as public finance.

ECON 210 is a demanding course. Note that *ECON 200* is a compulsory prerequisite for doing this course. *ECON 210* deals with complex issues. It requires an understanding of concepts and of empirical methods. We are dealing with fundamental issues about the nature of society and we do so in a rigorous manner. There are no short cuts to understanding this material.

The University expects students to study at least 9 hours per week in a 3-credit point course. This should be a serious commitment. Surveys have found that many students study for less than six hours per week per course. *This is not sufficient*. In recent years, failure rates in *ECON 210*, as well as in other second year economics courses, have been well over 30 per cent. A lack of application has been a significant factor in these failure rates.

This warning applies especially to those who come direct into second year university courses. Experience indicates that these students have a significantly weaker grounding in economics and in basic intellectual concepts and have especially high failure rates.

A special point needs to be made about tutorials. Attendance at tutorials, as at lectures, is voluntary. However, students who do not attend tutorials where issues are discussed cannot expect lecturers to give them individual counselling sessions. Also, many students apparently regard tutorials as an extra lecture where they take notes of answers to questions. This is only part of the purpose of tutorials. Students should come to tutorials ready to talk about the questions. Ten marks will be given for tutorial participation.

All lecturers and tutors in this course believe that it is an important and interesting course. We hope that you will participate actively in the course.

Course Schedule

The course consists of 12 weeks of two-hour lecture sessions and 8 tutorials. Because we lose a week to Labour Day on 4 October, there will be full lectures and a revision tutorial in week 13.

Lectures will be given on Mondays. Day lectures are from 9.05 a.m. to 10.55 a.m. in X5B T1. Evening lectures are 6.05 - 7.55 p.m. in W5C 320.

Lectures will start punctually. Students should arrive on time. Students may ask questions in lectures. However, it is disruptive and discourteous to arrive late or talk during lectures.

Note that the multiple choice tests are at the start of week 4 and week 11 lectures on 23 August and 25 October respectively.

In addition, there are 8 weeks of tutorials, with the first one in week two.

| Week | Date | Lecture Topic | Tutorial |
|------|-------|--|--------------------------------------|
| 1 | 02.08 | Foundations of public economics | |
| 2 | 09.08 | Government in practice | Foundations of public economics |
| 3 | 16.08 | Efficiency of competitive markets | Government in practice |
| 4 | 23.08 | Class test / Market failures and equity | |
| 5 | 30.08 | Social welfare and economic evaluation | Competitive market efficiency |
| 6 | 06.09 | Cost-Benefit Analysis | Social welfare / economic evaluation |
| 7 | 13.09 | Public choice | Cost-Benefit Analysis |
| | | Mid – semester break | |
| 8 | 04.10 | Labour Day Public Holiday | |
| 9 | 11.10 | Public goods and Externalities | |
| 10 | 18.10 | Competition policy; Information failures | Public goods and externalities |
| 11 | 25.10 | Class test / Efficient Public Services | |
| 12 | 01.11 | Pricing and Ownership | Efficient public services |
| 13 | 08.11 | Health and Education | Pricing, ownership and revision |

Course Materials

The course text is Abelson, P., 2003, *Public Economics, Principles and Practice*, Applied Economics, Sydney.

All lectures are available as chapters in this text (Chapters 1 to 17). The course text also lays out the core questions for each chapter that students are expected to be able to answer.

Students are recommended to attend lectures to obtain a deeper understanding of the issues and other material.

Two other recommended texts are:

- Stiglitz, J.E., 2000, *Economics of the Public Sector*, W.W. Norton, New York.
- Rosen, H.S., 2002, *Public Finance*, McGraw Hill, New York.

Additional readings are provided below for each topic. Copies of the starred reading will be available in the Library Special Reserve.

Website Administration

Certain materials and services will be available through the course website. These materials will include the course outline, lecture slides or overheads, and some readings. To access the website, students will require their username and password. Also, administrative announcements will be made and student's administrative queries answered via the website. Note however that answers to tutorial and other course related questions will be provided at tutorials and will not be provided on line.

Course Assessment

| The assessment will consist of: | Marks |
|---|-------|
| An essay to be submitted by 9.0 p.m. 11 October | 15 |
| 30 minute multiple choice test 23 August | 10 |
| 30 minute multiple choice test 11 October | 10 |
| Tutorial participation | 10 |
| End of semester exam | 55 |
| Total | 100 |

The multiple choice tests will be 30 minute tests, starting promptly at 9.05 a.m. for day students and 6.05 p.m. for evening students. The first test will cover material in weeks 1 to 3. The second test will cover material in weeks 4 to 10. Day students must attend the day test. They are not permitted to do the evening test.

The end of semester exam will be a three-hour exam. It will consist of multiple-choice questions (10 marks) and three essays (15 marks each). The exam will cover the material for the whole course. Three hours are allowed for the exam so that students can prepare thoughtful answers without undue haste against time. For the essays, students will be expected to have knowledge at least of the starred readings (see below) as well as the course text and to write properly constructed essays.

In addition, students **MUST** do a spreadsheet cost-benefit exercise. This must be done adequately. If students fail to do this to a reasonable standard or by the scheduled time, they will lose marks. The spreadsheet exercise must be handed in by 20 September.

Students who collaborate excessively or without acknowledgment in preparing their semester essay or spreadsheet exercise will lose significant marks.

In order to pass the course, students are expected to achieve an overall mark of 50 or more for the course and a mark of 27 or more for the end of semester exam.

Students should work steadily through the semester and prepare physically as well as academically for tests.

In the event of documented adverse personal circumstances, such as accident, illness, etc., a supplementary exam may be granted. However, when a student has extra time to prepare while suffering only a minor ailment, a higher standard is expected in the deferred exam. Also, students who sit the regular final exam and then request a supplementary exam should know that, if a supplementary exam is granted, his or her performance in the supplementary exam may raise **or** lower the result obtained in the regular final exam.

Tutorials

The following material will be discussed at the tutorials. In addition, students are expected to be able to describe the **key concepts** and **discussion questions** in each chapter in the text, which are in some cases different from those shown below. .

Tutorial 1 Foundations of Public Economics

1. What is the relationship between the government and the state?
2. Adam Smith and John Stuart Mill are famous economists who are often associated with *laissez-faire* policies. What does *laissez-faire* mean? Why is this a simplistic view of the policies that Smith and Mill actually believed in?
3. Do individuals have any private rights? If so, are these rights natural or social? If any such rights exist, how should they be protected?
4. Why are property rights essential to functioning and prosperous economies?
5. What are the main economic functions of government? And, what is the basis for these functions?
6. Suppose, as economists often do, that the aim of public policy is to maximise social welfare, what would be the main components of social welfare? Should the welfare of non-citizen residents have the same weight in a welfare function as citizens of a country?
7. Which of the following are normative statements? Why?
 - Full employment is a desirable policy.
 - Reducing unemployment will increase the rate of inflation.
 - Lower interest rates will reduce the number of unemployed persons.
 - Redistributing income from the rich to the poor increases social welfare.
 - Economists should not make normative statements.
8. Rational decision making implies that decisions should be based on marginal considerations. Can this principle be applied to the public sector? If so, how?
9. What kinds of arguments might be put for, or against, government subsidising university students? Are these normative or positive arguments?

Tutorial 2 Government in Practice

1. Which of the following measures is the best measure of the size of government? Government expenditure on goods and services, general government expenditure, government tax revenues or government employment? Give reasons.
2. If government size is measured by the ratio of general government expenditure to gross domestic product, what happens to the size of government if:
 - (i) Government increases welfare payments to unemployed persons, when such transfer payments are not recorded as part of GDP?
 - (ii) Unemployment rises?
 - (iii) Interest rates fall?
 - (iv) Government increases income tax rates?
 - (v) Government requires all households with more than a certain level of income to hold private health insurance?
 - (vi) Government subsidises private health insurance?
3. Using the Government Financial Statistics accounting system, how are budget deficits defined? What is the headline budget deficit and what deficiencies exist in this measure of the deficit? What tricks can government use to disguise the size of the budget deficit (the surplus of expenditure over revenue)?
4. Explain why tax expenditures can have the same economic effects as actual government expenditures. Give an example.
5. Suppose that at the start of a year, public debt in Australia is A\$500 billion, with three-quarters denominated in Australian dollars and a quarter in foreign currency. Suppose also that the rate of inflation in Australia in that year is 3 per cent and that the trade-weighted value of the A\$ falls by 1 per cent in the year. What are the implications for the real value of the debt at the end of the year and for government revenues?
6. Does Baumol's theory of unbalanced growth provide an adequate explanation for the increase in government expenditure as a percentage of gross domestic product?
7. Personal benefit payments as a percentage of gross domestic product have doubled since the 1960s. What factors explain the increase in personal benefit payments? Do you think this trend is likely to continue in the future?

Tutorial 3 Efficiency of Competitive Markets

1. How are the utility possibilities frontier and the production possibilities frontier related? Why does the utility possibilities frontier matter?
2. What is a Pareto efficient position and what is a Pareto improvement?
3. Using partial equilibrium analysis, determine the quantity and price outcomes in a competitive market that produces shirts, assuming the supply of shirts is given by $Q^S = 20 + 4P$, and the demand for shirts is given by $Q^D = 65 - 5P$. Will this equilibrium outcome be Pareto efficient?
4. The First Welfare Theorem claims that competitive markets result in a Pareto efficient outcome. Explain briefly why.
5. Anne and Ben may have quite different tastes for shirts and beer such that Anne wants a large number of shirts and Ben wants large quantities of beer, but at the margin they must be prepared to exchange the same amount of beer for a shirt. Explain this apparent paradox.
6. Suppose that if a manufacturing company gave up 3 units of capital it would require 2 units of labour to maintain the same level of output, while a food company would require 2 units of labour if it gave up one unit of capital. What is the marginal rate of substitution of inputs for each firm? Does this represent a situation of efficient production? Why/why not?
7. Suppose that an economy produces two goods, clothes and food. At current margins, consumers are willing to exchange four units of food for one unit of clothing and firms can produce one unit of clothing at the expense of two units of food. Is this an efficient allocation? To be efficient, should the economy produce more clothes or more food?
8. Airlines often charge passengers different prices for similar seats on the same flight. Is this consistent with exchange efficiency?
9. Consider an economy that produces clothes and bread. Explain why the economy will not produce an efficient mix of products if a tax is imposed on the consumption of shirts but not on bread.
10. Economists favour a Pareto improvement because it is always socially beneficial regardless of the form of the social welfare function. Discuss.

Tutorial 4 Social Welfare and Economic Evaluation

- Several state governments have capped payments for damages that courts may award to injured persons and against the party responsible for the damage. What are the economic implications? Does welfare economics provide justification for capping damage awards?
- Assume an economy with only two people (Anne and Bruce).
 - Let the social welfare function be $W = U_a + U_b$ where U_a and U_b are the utilities of Anne and Bruce. Graph the iso-welfare curves (the social indifference curves). What is the relative importance attached to their well-being?
 - Repeat for $W = 2U_a + U_b$. What are the implications?
 - Draw a utility possibilities curve and show how the SWFs in (a) and (b) affect the desired outcome.
 - What are the main weaknesses of the additive utilitarian social welfare function?
- It is sometimes assumed that a Rawlsian SWF will produce an egalitarian outcome in utility terms. Draw an opportunity set with utility on both axis in which the maximum social welfare as defined by a Rawlsian SWF is not egalitarian.
- Show how the valuation of both benefits and costs can be interpreted in willingness to pay or opportunity cost terms. Is there any difference between a willingness to pay value and opportunity cost?
- Define the compensation principle. What is the relationship between this principle and a potential Pareto improvement? What value judgements underlie the compensation principle?
- Why are compensated demand functions important for measuring welfare changes?
- Show why the Scitovsky paradox (footnote 20) occurs when the sum of the compensation variations does not equal the sum of the equivalent variations.
- There are three individuals (groups) with the following income, health and perceived utility.

| | 1 | 2 | 3 |
|-----------------------|--------|--------|--------|
| Income (\$ per annum) | 20,000 | 40,000 | 80,000 |
| Health | Good | Poor | Good |
| Utility | 100 | 120 | 200 |

Government has six policy options (A to F), which give forecast income changes below.

How would you rank the options?

What does this imply about a social welfare function?

What does it imply about compensation schemes?

Forecast income outcomes

| Option | 1 | 2 | 3 | Total | Rank |
|--------|-------|-------|-------|-------|------|
| A | +1000 | 0 | -3000 | -2000 | |
| B | +500 | +500 | -2500 | -1500 | |
| C | +1500 | -500 | -500 | +500 | |
| D | +500 | 0 | +500 | +1000 | |
| E | -100 | +1100 | 0 | +1000 | |
| F | +1000 | -250 | +500 | +1250 | |

Tutorial 5 Cost-Benefit Analysis

1. Consider two projects, A and B. Project A has a capital cost of \$100 million and Project B has a capital cost of \$20 million. Given an opportunity cost of capital of 7 per cent, A provides a NPV of \$30 million. B provides a NPV of \$10 million. Explain why A is better than B, although it costs five times as much and produces only three times the benefit.
2. Is the net present value always the best measure of project value? When might other measures of aggregate project value be preferred?
3. What is an appropriate price for petrol as a factor of production in project appraisal? Domestic market prices, market prices less indirect taxes, export prices, the opportunity cost of producing petrol locally, or some other price?
4. Are existing income differentials a reasonable guide to the benefits of investing in further education? What problems might arise with using this method? Should any fall in incomes of existing workers who do not get extra training be considered a cost to the training program?
5. What discount rate should be applied to assess policies to reduce greenhouse gas emissions and hence long-term global warming?
6. Why is it efficient to locate dirty industries in poor countries? What are the policy implications?
7. If the Pacific Highway were substantially upgraded and freight costs were reduced by 20 per cent, who would benefit? The trucking firms using the road? Firms sending freight? Consumers? Give reasons.
8. When, if ever, should other evaluation methods be preferred to cost-benefit analysis?

Tutorial 6 Public Goods and Externalities

1. How does the efficient provision of a pure non-excludable and non-rival public good differ from the efficient provision of an excludable but non-rival public good?
2. Council wants to determine how often to clean residential streets. It costs \$150 to clean a street. There are 20 houses in the street. Ten households have a demand for street cleaning equal to $q = 5 - 0.25p$. The other 10 households have a demand curve equal to $q = 5 - 0.5p$. Convert these demand curves into marginal benefit curves and estimate the efficient number of street cleanings per month.
3. Suppose there are two people in society. The demand curves for flu immunisation are represented by the equations $Q_A = 100 - P$, and $Q_B = 200 - P$. Suppose that flu immunisation is a non-exclusive public good, which can be produced at a constant marginal cost of \$50 per unit. Determine the following:
 - (i) The optimal level of flu immunisation
 - (ii) The level of flu immunisation that might be produced if production were left to the private sector. Does your answer depend on what each person assumes the other might do?
 - (iii) The cost of flu immunisation if government were to produce the optimal level.
4. Suppose that the Department of Health wishes to value improvements in health status and asks you to advise on the potential use of contingent valuation and choice modelling techniques for valuing health. What advice would you give?
5. Suppose that several hedonic house price studies give different values for the cost of noise varying from say 0.03 per cent to 1.5 per cent of house price per average dBA above 70 dBA. Would you conclude that the estimates were faulty for some reason (if so what would the reasons be) or explain the differences in some way?
6. Explain why the optimal level of pollution is generally not equal to zero.
7. The marginal cost of a plant producing chemical materials is represented by the equation $MC = 100 + 25Q$. However, because of the wastes associated with the chemical production, the marginal social cost is represented by $MSC = 100 + 50Q$, where Q represents the quantity of output per unit. Assume that in the competitive market the chemical product can be sold for \$250. How much will the firm produce? What is the socially efficient level of output?
8. Suppose that two firms make use of the local river in their production process. Firm A operates upstream, and faces marginal costs of 1.3 per unit. Firm B operates downstream of firm A, and faces marginal costs of 1.2 per unit. Suppose that production by firm A increases the marginal costs of firm B by 0.6 per unit of output. Determine the following:
 - (i) The social marginal cost of production of firm A
 - (ii) The tax that needs to be levied on firm A to produce a socially optimal production level of firm A in a perfectly competitive economy.

Tutorial 7 Efficient Public Services

1. What are the various ways of estimating cost functions? What are their strengths and weaknesses?
2. What are the main difficulties that arise in estimating average and marginal costs for a public agency?
3. Public and private sector costs are often compared using either 'before and after' or cross-section analysis. How are these methods applied? What issues might arise in assessing the relative costs of private and public production from these methods?
4. Suppose that you were asked to determine whether public or private buses operated at lower costs. What kind of data would you need? What kind of statistical model would you use?
5. In Australia, job search assistance has been contracted out to private organisations. What are likely to be the costs and benefits of this?
6. If government wishes to increase the use of childcare services, what is the best way to do so?
7. How can more control be given to users of publicly funded services? What are the advantages and disadvantages of giving users more control?
8. How would you measure the inputs, outputs and outcomes of police services? Is it possible to estimate the average and marginal costs of police outputs? Does this provide benchmarks for comparing the efficiency of police services? Reference: Steering Committee for the Review of Commonwealth/State Service Provision, 1999, *Linking Inputs and Outputs: Measurement by Police Services*, Ausinfo, Canberra.

Tutorial 8 Pricing and Ownership

1. The Productivity Commission (2001) points out that many regulatory agencies, such as the Therapeutic Goods Administration, recover all or a high proportion of their costs, whereas most information agencies, such as the ABS, recover only a small part of their costs.
 - (i) What principles should determine whether government agencies should recover costs for services provided?
 - (ii) Should regulatory agencies aim to recover 100 per cent of their costs?
 - (iii) Should information agencies aim to recover some or all of their costs?
2. Why is short-run marginal cost pricing often efficient? When is it inefficient?
3. When does short-run marginal cost pricing lead to full cost recovery?
4. Suppose the government adopts a strategy of mark up pricing for a good. Demand for the good is given by $P = 50 - 2Q$. The government can produce at constant marginal costs of \$10 per unit. The government marks up goods by 20 percent. Determine the following
 - (i) The price and quantity under the mark-up pricing strategy
 - (ii) The efficient price and quantity combination
 - (iii) The deadweight loss that emerges as a result of the pricing strategy
 - (iv) Suppose that demand for the good becomes more inelastic. What do you think will happen to the size of the deadweight loss as a result of the mark up?
5. What incentives might make private firms more efficient than state owned enterprises? Why is market structure important to incentives?
6. The Australia Government owns 51 per cent of the shares in Telstra, the major telecommunications company in the country. What are the main arguments for and against the sale of this 51 per cent share to the public? What would you advise the government to do?
7. The Australian Rail Track Corporation (ARTC) is a Commonwealth-owned corporation with a charter to run at a profit. ARTC runs rail track in Victoria and South Australia relatively efficiently and has offered to lease and run the major interstate rail lines in NSW. These rail lines are currently run at a loss by the NSW government Rail Infrastructure Corporation. Why might one state corporation run the rail more efficiently than another one? What factors should determine whether the NSW government should accept the ARTC offer?
8. What, if anything, do share prices post-privatisation tell us about the nature of the privatisation?
9. Suppose that government can fund a project by issuing bonds at 6 per cent (public funding) or equity finance on which lenders require a 10 per cent expected rate of return (private funding). Why might government prefer private funding to public funding despite the higher cost of capital? Does the interest rate differential represent a real economic cost of developing the project by private finance?
10. Is public ownership necessary for an equitable supply of basic household services?

Readings

Week 1: Foundations of Public Economics

- (*) Holcombe, R.G., 1998, 'The Foundation of Normative Public Finance', pp.1-42, in F.Thompson and M.T.Green (eds.), *Handbook of Public Finance*, Marcel Dekkar, New York.
- Mill, J. S. 1848, *Principles of Political Economy*, Book 5, Chapter 1 (pp 159-166), Chapters 8 to 11 (pp 256-367). Oxford World Classics, Oxford University Press.
- Musgrave, R.A and P.B.Musgrave,1989. *Public Finance in Theory and Practice*, Chapter 1, McGraw Hill, New York.

Week 2: Government in Practice

- Borcherding, T.E., 1985, 'The causes of government expenditure growth: a survey of the U.S. evidence', *Journal of Public Economics*, 28, 359-382.
- Hackl, F, Schneider, F., and G.Withers, 1993, 'The Public Sector in Australia: A Quantitative Analysis', pp. 212-31 in *The Growth of the Public Sector*, ed. N.Gemmell, Edward Elgar, Aldershot, UK.
- Mueller, D.C., *Public Choice II*, Cambridge University Press, Chapter 17.
- (*) Robinson, M., 2002, 'Accrual Accounting and Australian Fiscal Policy', *Fiscal Studies*, Vol. 23, No.2, 287-300.
- Treasurer, 2002, *Budget Strategy and Outlook 2002-03*, Budget Paper No. 1, <http://www.budget.gov.au>
- Tunny, G., 2000, 'An empirical evaluation of the Baumol cost disease', 29th Conference of the Economic Society of Australia, Gold Coast.

Week 3: Efficiency of Competitive Markets

- (*) Lange, O., 1942, 'The Foundations of Welfare Economics', *Econometrica*, 10, 215-28.
- Stiglitz, J.E., 2000, *Economics of the Public Sector*, Chapter 3, W.W.Norton, New York.
- Jones, C.I., 2002, *Introduction to Economic Growth*, Chapters 1, 2 and 10, W.W.Norton, New York.
- (*) Rogers, M., 2003, 'A survey of economic growth', *Economic Record*, 79,112-35
- Sachs J.D. and A.Warner, 1997, 'Fundamental Sources of Long-run Growth', *American Economic Association, Papers and Proceedings*, 97, 184-88.
- Symposium on Social Capital, 2002, Authors are S.N.Durlauf, S.Bowles and H.Gintis, and Glaeser, D.Laibson and B.Sacerdote, in *Economic Journal*, 112, 417-479

Week 4: Market Failures

- Bohm, P., 1973, *Social Efficiency: A Concise Introduction to Welfare Economics*, Chapter 2, MacMillan, London.
- (*) Coase, R.H., 1974, 'The lighthouse in economics', *Journal of Law and Economics*, 1974, October, 357-76.
- Hardin, G., 1968, 'The Tragedy of the Commons', *Science*, 162.
- Stiglitz, J.E., 2000, *Economics of the Public Sector*, Chapter 4, W.W.Norton, New York.

Week 5: Social Welfare and Public Policy

- (*) Dupuit, J., 1844, 'On the measurement of the utility of public works', translation by R.H.Barback in *International Economic Papers* No.2, MacMillan Press, 1952, 83-110.
- Kaldor, N., 1939, Welfare propositions of economics and interpersonal comparisons of utility', *Economic Journal*, 49, 549-52.
- (*) Pearce, D.W, 1983, *Cost-Benefit Analysis*, pp.1-24, MacMillan, London.
- Stiglitz, J., 2000, *Economics of the Public Sector*, Chapter 5, W.W. Norton, New York.

Week 6: Cost-Benefit Analysis

- Boardman, A., Greenberg, D., Vining A., and D.Weimer, 2001, *Cost-Benefit Analysis, Concepts and Practice*, Prentice Hall, New York.
- Department of Finance, 1991, *Handbook of Cost-Benefit Analysis*, AGPS, Canberra.
- (*) Lesser J.and R.O.Zerbe, Jr., 1998, 'A practitioner's guide to benefit-cost analysis', pp.221-268 in *Handbook of Public Finance*, eds. F.Thompson and M.T.Green, Marcel Dekker, New York.
- Pearce, D.W., 1983, *Cost-Benefit Analysis*, MacMillan, London.
- Stiglitz, J.E, 2000, *Economics of the Public Sector*, Chapter 11, W.W.Norton, New York.

Week 7: Public Choice

- Arrow, K.J, 1950, 'A difficulty in the concept of social welfare', *Journal of Political Economy*, 58, 324-46.
- (*) Mueller, 2003, *Public Choice III*, chapters to be selected, Cambridge University Press, Cambridge.
- Khursheed, A.F. and T.E.Borcherding, 1998, 'Organising Government Supply: the Role of Bureaucracy', Chapter 2 in *Handbook of Public Finance*, eds: F.Thompson and M.T.Green, Marcel Dekkar, New York.
- Stiglitz, 2000, *Economics of the Public Sector*, Chapter 7, W.W.Norton, New York.
- Wolf, C., 1988, *Markets or Government*, Chapters 3 and 4, MIT Press, MA.

Week 9: Public Goods and Externalities

- Boardman, A.E. et al., 2002, *Cost-Benefit Analysis, Concepts and Practice*, Chapters 12-15, Prentice Hall, New Jersey.
- Musgrave, R.A and P.B.Musgrave,1989. *Public Finance in Theory and Practice*, Chapters 4 & 5, McGraw Hill, New York.
- (*) Pearce, D. and E.Ozdemiroglu. et al., 2002, *Economic Evaluation with Stated Preference Techniques, Summary Guide*, Department of Transport, Local Government and the Regions, UK. Available on www.odpm.gov.uk
- Samuelson, P., 1955, 'Diagrammatic exposition of a theory of public expenditure', *Review of Economics and Statistics*, 37, 350-56.
- Stiglitz, J.E., 2000, *Economics of the Public Sector*, Chapters 6 and 9, W.W. Norton, New York.
- Coase, R., 1969, 'The problem of social cost', *Journal of Law and Economics*, 3, 1-44.
- Tietenberg, T., 2003, *Environmental and Natural Resource Economics*, 5th ed., Chapter 4, Addison Wesley, New York.

Week 10: Competition Policy and Information Failures

- OECD, 1998, *The OECD Report on Regulatory Reform, Synthesis*, OECD, Paris.
- Productivity Commission, 2001, *Review of the Prices Surveillance Act 1983*, Report No. 14, AusInfo, Canberra. (www.pc.gov.au)
- Treasury (Australian), 2003, *Trade Practices Act Review*, AusInfo, Canberra. (www.treasury.gov.au)
- Stigler, G.J., 1971, 'The Theory of Economic Regulation', *Bell Journal Economics and Management Science*, 2, 3-21.
- Stiglitz, J.E., 2000, 'The contributions of the economics of information to twentieth century economics', *Quarterly Journal of Economics*, 115, no.4.
- Viscusi, W.K., Vernon, J.M., and J.E.Harington, Jr., 2000, *Economic of Regulation and Antitrust*, Chapters, 1, 4, 10, 11,22.
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Week 11: Efficient Public Services

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