Macroeconomic Theory

Lecturer : Kenneth S. Lin

Professor of Economics Department of Economics National Taiwan University

I. Objectives

This course covers two general topics: the political economy of growth and aggregate fluctuations and the specification and estimation of present value models. It emphasized that students of macroeconomic theory should always have the empirical regularities and institutional factors in their minds when conducting theoretical investigations, that is, the main fours of this course is that the empirical implications of any useful theoretical model must be consistent with the observed stylized facts and underlying institutions.

Regarding the first topic, we study why countries experience different performance in economic growth and aggregate fluctuations in globalization era which has been characterized as follows: firms are allowed to freely choose their locations of production, and capital and technology can be moved across border with almost no barriers. To account different performance across countries, this course emphasizes the importance of institutional factors, such as democratic institutions, the quality of government and social norms. To this end, this course will focus on the recent development of the political economy of economic growth and aggregate fluctuations. The specific topics include income distribution and economic growth in political equilibrium framework, the influence of democracy on economic growth, the impacts of globalization on growth and aggregate fluctuations, and the impact of outsourcing on domestic labor market.

Present value models have been widely used in the conventional analysis in macroeconomic theory and financial economics. We first investigate the long-run properties of present value models and then study econometric strategy for estimating present value models. In particular, I use the intertemporal budget constraint of government as an example to address the issue of fiscal sustainability. We show that

the procedural rules and limits on deficits financing in budgetary institutions provide a crucial and additional econometric restriction on the intertemporal budget constraint. Hence, without properly considering the budgetary institutions, the intertemporal budget constraint implies a stochastic singularity among fiscal variables and therefore cannot be tested.

II. Topics

* indicates the required reading

1. Economic Growth and Income Disparity among Counties

*Ades, Alberto F. and Edward L. Glaeser (1999), "Evidence on growth, increasing returns, and the extent of the market," *The Quarterly Journal of Economics*, Aug.1999, 1025-1045.

Barro, Robert J. (1991), "Economic Growth in a Cross Section of Countries," *Quarterly Journal of Economics*, 106, pp. 407-443.

Barro, Robert and Xavier Sala-i- Martin (1992), "Convergence," *Journal of Political Economy*, 100, pp. 223-251.

Ben-David, Dan (1993), "Equalizing exchange: Trade liberalization and income convergence," *The Quarterly Journal of Economics*, 108(3), 653-679.

*Bernard, Andrew and Charles Jones (1996), "Comparing apples to oranges: productivity convergence and measurement across industries and countries," *American Economic Review*, 86, pp. 1216-1238.

DeLong, J. Bradford and Lawrence Summers (1992), "Macroeconomic policy and long-run growth," Federal Reserve Bank of Kansas City *Economic Review*, 77, pp. 5-29.

*Durlauf, Steven and Paul Johnson (1995), "Multiple regimes and cross-country growth behavior," *Journal of Applied Econometrics*, 10, 365-384.

Durlauf, Steven and Danny Quah (1999), "The new empirics of economic growth," in J. B. Taylor and M. Woodford, eds., *Handbook of Macroeconomics*, Vol. 1, pp. 235-308.

*Hall, Robert E. and Charles I. Jones (1999), "Why do some countries produce so much more output per worker than others?" *Quarterly Journal of Economics*, 114, 83-116.

*Hsieh, Chang-Tai (1999), "Productivity growth and factor prices in East Asia," *American Economic Review*, 89(2), 133-138.

Islam, Nazrul (2003), "What have we learnt from the convergence debate." *Journal of Economic Survey*, 17(3), 309-362.

*Jones, C. I. (1995), "Time Series Tests of Endogenous Growth Models," *Quarterly Journal of Economics*, 110, pp. 495-525.

*Kim, Jong-II and Lawrence J. Lau (1996), "The sources of Asian Pacific economic growth," *Canadian Journal of Economics*, 29, S448-S454.

Lee, Kevin, M. Pesaran and Ron Smith (1997), "Growth and convergence in amulti-country empirical stochastic Solow model," *Journal of Applied Econometrics*, 12, 357-392.

*Mankiw, N. G., D. Romer and D. N. Weil (1992), "A Contribution to the Empirics of Economic Growth," *Quarterly Journal of Economics*, 107, 407-437.

*McCallum, Bennett T. (1996), "Neoclassical vs. Endogenous Growth Analysis: An Overview," Federal Reserve Bank of Richmond *Economic Quarterly*, 82, pp. 41-71.

*Parente, S. L. and E. C. Prescott (1993), "Changes in the Wealth of Nations," Federal Reserve Bank of Minneapolis *Quarterly Review*, 3-15.

*Parente, S. L. and E. C. Prescott (1994), "Barriers to Technology Adoption and Development," *Journal of Political Economy*, 102, pp. 298-321.

Slughter, Matthew J. (1998), "International trade and per capita income convergence: A difference-in-differences analysis," *National Bureau of Economic Research* Working paper 6557.

2. Political Economy of Economic Growth

Alesina, Alberto and R. Perotti (1996), "Income distribution, political instability and investment," *European Economic Review*, 40, 1203-1228.

*Alesina, Alberto and Dani Rodrik (1994), "Distributive politics and economic growth," *Quarterly Journal of Economics*, 109, 465-490.

Alesina, Alberto and E. Spolaore (1997), "On the Number and Size of Nations,"

Quarterly Journal of Economics, 112, 1027-1056.

*Alesina, Alberto, E. Spolaore and R. Wacziarg (2000), "Economic Integration and Political Disintegration," *American Economic Review*, 90, 1276-1296.

*Barro, Robert J. (1990), "Government spending in a simple model of endogenous growth," *Journal of Political Economy*, 98, S103-S125.

Barro, Robert J. (1991), "A Cross-Country Study of Growth, Saving, and Government," in B. Douglas Bernheim and John B. Shoven, eds., *National Saving and Economic Performance*, University of Chicago Press, chapter 9.

*Easterly, William and S. Rebelo (1993), "Fiscal Policy and Economic Growth: An Empirical Investigation," *Journal of Monetary Economics*, 32, pp. 417-458.

McCallum, John (1995), "National Borders Matter: Canada-U.S. Regional Trade Patterns," *American Economic Review*, 85, pp. 615-623.

Persson, T. and G. Tabellini (1994), "Is inequality harmful for growth?" *American Economic Review*, 84, 600-621.

*Rodrik, Dani (1998), "Why do more open economies have bigger governments?" *Journal of Political Economy*, 106, pp. 997-1032.

Roubini, Nouriel and J. Sachs (1989), "Government spending and budget deficits in the industrial countries," *Economic Policy*, 8, 99-132.

Saint-Paul, Gilles (1992), "Fiscal policy in an endogenous growth model," *Quarterly Journal of Economics*, 107, 1243-1259.

3. Economic Growth and Democracy

*Acemoglu, Daron, Simon Johnson, James Robinson and Pierre Yared (2008), "Income and Democracy," *American Economic Review*, 98, 808-842.

Acemoglu, Daron, Fabrizio Zilibotti and Philippe Aghion (2006), "Distance to Frontier, Selection, and Economic Growth," *Journal of the European Economic Association*, 4, 37-74.

*Aghion, Phillippe, Alberto Alesina and Francesco Trebbi (2004), "Endogenous Political Institutions," *Quarterly Journal of Economics*, 119, 565-611.

*Aghion, Phillippe, Alberto Alesina and Francesco Trebbi (2007), "Democracy, Technology, and Growth," manuscript.

Alesina, Alberto and Roberto Perotti (1994), "The Political Economy of Growth: A Critical Survey of the Recent Literature," *The World Bank Economic Review*, 8(3), 351-371.

Barro, Robert J. (1996), "Democracy and Growth," *Journal of Economic Growth*, 1, 1-27.

Easterly, William and Ross Levine (2002), "Tropics, Germs, and Crops: How Endowments Influence Economic Development," *NBER Working Paper* No. 9106.

Evans, Peter and James Rauch (1999), "Bureaucracy and Growth: A cross-national analysis of the effects of "Weberian" state structures on economic growth," *American Sociological Review*, 64, 748-765.

Gerring, John, Philip Bond, William Barndt and Carola Moreno (2005), "Democracy and Economic Growth: A Historical Perspective," *World Politics*, 57, pp. 323-364.

*Giavazzi, Francesco and Guido Tabellini (2005), "Economic and Political Liberalizations," *Journal of Monetary Economics*, 52, 1297-1330.

*Glaeser, Edward, La Porta, Rafael, Lopez de Silanes, Florencio, and Shleifer, Andrei (2004), "Do Institutions Cause Growth?" *Journal of Economic Growth*, 9, 271-304.

Helliwell, John F. (1994), "Empirical Linkages between Democracy and Economic Growth," *B.J.Pol.S.* 24, 225-248.

*Jones, Ben amd Olken, Benjamin (2005), "Do Leaders Matter? National Leadership and Growth since World War II," *Quarterly Journal of Economics*, 120, 835-864.

Knack, Stephen and Philip Keefer (1995), "Institutions and Economic Performance: Cross-country Tests Using Alternative Institutional Measures," *Economics and*

Mauro, P. (1995), "Corruption and Growth," *Quarterly Journal of Economics*, 3, 681-712.

*Mulligan, Casey B., Sala-i-Martin, Xavier and Gil, Ricard (2004), "Do Democracies Have Different Public Policies than Nondemocracies?" *Journal of Economic Perspectives*, 18, 51-74.

Papaioannou, Elias and Gregorios Siourounis (2004), "Democratization and Growth," manuscript.

Perotti, Enrico and Paolo Volpin (2006), "Investor Protection and Entry," manuscript.

*Rodrik, Dani (1999), "Democracies pay higher wages," *Quarterly Journal of Economics*, 114, 707-738.

*Persson, T. and Tabellini, G. (2006), "Democratic Capital: The Nexus of Political and Economic Change," NBER Working Paper 12175.

*Przeworski, Adam and Limongi, Fernando (1993), "Political Regime and Economic Growth," *Journal of Economic Perspectives*, 7, 51-69.

Rodrik, Dani (1997), "Democracy and economic performance," manuscript.

*Tavares, Jose and Romain Wacziarg (2001), "How democracy affects growth," *European Economic Review*, 45, 1341-1378.

Temple, Jonathan and Paul Johnson (1998), "Social Capability and Economic Growth," *Quarterly Journal of Economics*, 113, pp. 965-990.

Quinn, Dennis P. and John T. Woolley (2001), "Democracy and National Economic Performance: The Preference for Stability," *American Journal of Political Science* 45(July), 634-657.

4. Trade Openness, Financial Openness and Growth

Geert Bekaert and Campbell R. Harvey and Christian Lundblad (2001), "Does Financial Liberalization Spur Growth?," National Bureau of Economic Research Working paper 8245.

Berg, Andrew and Anne Krueger (2003), "Trade, Growth, and Poverty: A Selective Survey," *IMF Working Paper*.

Bourguignon, Francois and Christian Morrisson (2002), "Inequality among world citizens: 1820-1992," *American Economic Review*, 92, 727-744.

*Dollar, David and Aart Kraay (2004), "Trade, Growth, and Poverty," *The Economic Journal*, 114, F22–F49.

Edison, Hali J . and Ross Levine and Luca Ricci and Torsten Slok (2002), "International Financial Integration and Economic Growth," *Journal of International Money and Finance*, 21, 749-776

Edwards, Sebastian (1993), "Openness, Trade Liberalization, and Growth in Developing Countries," *Journal of Economic Literature*, 31, 1358-1393.

*Frankel, Jeffrey and David Romer (1999), "Does trade cause growth?" American Economic Review, 89, 379-399.

*Ross Levine and Norman Loayza and Thorsten Beck (2004), "Financial Intermediation and Growth: Causality and Causes." *Journal of Monetary Economics*, 46, 31-77.

*Prasad, Eswar and Kenneth Rogoff and Shang-Jin Wei and M.Ayhan Kose (2004), "Financial Globalization, Growth and Volatility in Developing Countries," NBER Working paper 10942.

Sachs, Jeffrey and Andrew Warner (1995), "Economic Reform and the Process of Global Integration," *Brookings Papers on Economic Activity*, 1995, 1-118.

Slemrod, Joel, William Gale and William Easterly (1995), "What do cross-country studies teach about government involvement, prosperity, and economic growth?" *Brookings Papers on Economic Activity*, 1995, 373-431.

Srinivasan, T. and Jagdish Bhagwati (1999), "Outward-orientation and development: Are revisionists right?" Yale University Economic Growth Center Discussion Paper No. 806.

Warner, Andrew (2003), "Once more into the breach: economic growth and integration," Center for Global Development Working Paper No. 34.

5. Political Economy of Aggregate Fluctuations

Alesina, Alberto (1989), "Politics and Business Cycles in Industrial Democracies," *Economic Policy*, 8, 55-98.

*Ambler, Steve, Emanuela Cardia and Christian Zimmermann (2004), "International Business Cycles: What are the Facts?" *Journal of Monetary Economics*, 51, 257-276.

*Backus, D., P. Kehoe and F. Kydland (1992), "International Real Business Cycles," *Journal of Political Economy*, 101, pp. 745-775.

Baxter, M. (1995), "International Trade and Business Cycles," in G. M. Grossman and K. Rogoff, eds., *Handbook of International Economics*, Vol. 3, North Holland, Amsterdam, pp. 1801-1864.

Danthine, Jean Pierre and John B. Donaldson (1993), "Methodological and Empirical

Issues in Real Business Cycle Theory," European Economic Review 37, 1-35.

*Hansen, G. D. (1985), "Indivisible Labor and the Business Cycle," *Journal of Monetary Economics*, 16, 309-327.

*Hansen, G. D. and R. Wright (1998), "The Labor Market in Real Business Cycle Theory," *Real Business Cycles: A Reader*.

Heathcote, Jonathan and Fabrizio Petri (2002), "Financial globalization and real regionalization," NBER Working Paper 9292.

*Timothy J. Kehoe and Edward C. Prescott (2002), "Introduction Great Depressions of the 20th Century," *Review of Economic Dynamics* 5, 1-18.

*Kose, M. Ayhan, Eswar Prasad and Marco E. Terrones (2003), "How Does Globalization Affect the Synchronization of Business Cycles?" *American Economic Review*, 93, 57-62.

Kydland, Finn E. (2006), "Quantitative Aggregate Economics," *American Economic Review*, 96, pp. 1373-1383.

Lumsdaine, Robin and Eswar Prasad (2003), "Identifying the Common Component in International Economic Fluctuations: A New Approach," *Economic Journal*, 1 13, pp. 101-127.

McCallum, B.T. (1990), "Real Business Cycle Models," NBER Working Paper No. 2480.

Prasad, Eswar, Kenneth S. Rogoff, Shang-Jin Wei, and M. Ayhan Kose (2003), "The Effects of Financial Globalization on Developing Countries: Some Empirical Evidence," *IMF Occasional Papers*.

Weber, S. (1997), "End of the Business Cycle," Foreign Affairs, 76, 65-82.

Zarnowitz, Victor (1999), "Theory and History behind Business Cycles: Are the 1990s the Onset of a Golden Age?" *Journal of Economic Perspectives*, 13, pp. 69-90.

6. Present Value Model: Specification and Estimation

Bohn, H. (1991), "Budget Balance through Revenue or Spending Adjustments?" *Journal of Monetary Economics*, 27, pp. 333-359.

Bohn, H. (2005), "The Sustainability of Fiscal Policy in the United States," *CESifo Working Paper* 1446.

*Bohn, H. (2007), "Are Stationarity and Cointegration Restrictions Really Necessary for the Intertemporal Budget Constraint?" *Journal of Monetary Economics*, 54, 1837-1847.

*Campbell, J. Y. (1987), "Does Saving Anticipate Declining Labor Income? An Alternative Test of the Permanent Income Hypothesis," *Econometrica*, 55, 1249-1275.

*Campbell, J. Y. (1996), "Understanding Risk and Return," *Journal of Political Economy*, 104, 298-345.

Campbell, J. Y. and R. J. Shiller (1987), "Co-integration and Tests of Present Value Models," *Journal of Political Economy*, 95, 1062-1088.

Granger, C. W. J. (1986), "Developments in the Study of Co-integrated Variables," *Oxford Bulletin of Economics and Statistics*, 48, 213-228.

Hall, R. E. (1986), "The Role of Consumption in Economic Fluctuations," in R. J. Gordon, ed., *The American Business Cycle: Continuity and Change*, Chicago: University of Chicago Press, chapter 4.

*Huang, C. H. and K. S. Lin (1993), "Deficits, Government Expenditures and Tax Smoothing in the U.S.: 1929-1988," *Journal of Monetary Economics*, 31, 317-339.

*McCallum, Bennett T. (1984), "Are bond-financed deficits inflationary? A Ricardian Analysis," *Journal of Political Economy*, 92, pp. 123-135.

Polito, V. and M. Wickens (2007), "Measuring Fiscal Stance," *Discussion Papers in Economics*, No. 2007/14, the University of York.

Sheffrin, S. M. and W. T. Woo (1990), "Present Value Tests of an Intertemporal Model of the Current Account," *Journal of International Economics*, 29, 237-253.

Trehan, B. and C. E. Walsh (1991), "Testing Intertemporal Budget Constraints: Theory and Applications to U.S. Federal Budget and Current Account Deficits," *Journal of Money, Credit and Banking*, 23, 206-223.

林向愷與賴惠子 (2009),「預算體制與政府跨期財政行為-台灣的實證研究」, 《經濟論文》,37,207-252。

III. Grading