

**Hoon Hian Teck**

**Professor of Economics**  
**Associate Dean**  
**School of Economics**  
**Singapore Management University**

**Degrees**

Ph.D. (obtained with distinction), Columbia University, 1990  
M.Phil., M.A., Columbia University, 1989, 1988  
B.Soc.Sci. (Hons), B.Sc., National University of Singapore, 1984, 1983

**Previous Positions Held**

Associate Professor of Economics, Singapore Management University (July 2001-June 2007); Adjunct Associate Professor, National University of Singapore (January 2002-June 2007); Senior Tutor (1984-1990), Lecturer (1991-1994; Tenured in 1993), Senior Lecturer (1994-1998), and Associate Professor (1999-June 2001) at the National University of Singapore; Sub-Dean, Faculty of Arts and Social Sciences, National University of Singapore (1995-1996; 1998-June 2001)

**Visiting Positions**

Visiting Research Scholar, Kelley School of Business, Indiana University (May 1997-April 1998)  
Visiting Research Scholar, John F. Kennedy School of Government, Harvard University (September-December 1999)  
Visiting Research Scholar, Department of Economics, Columbia University (April-November 2001); concurrently Fulbright Research Scholar (August-October 2001)

**Awards**

National University of Singapore Overseas Graduate Scholarship, 1986-1990  
Winner of Teaching Excellence Award, Faculty of Arts and Social Sciences, NUS, 2000  
Recipient of Fulbright Research Scholarship, 2001  
Lee Kuan Yew Research Fellow, SMU, 2002

**Teaching and Research Areas**

Macroeconomics, International Economics, Development and Growth

## **Current Research Interests**

A two-sector analysis of the effects of productivity growth in information-technology industries on the natural rate of unemployment

Analysis of the links among share prices, the real exchange rate, and structural unemployment in non-monetary open economies

Study of inflation targeting in models with an endogenous natural rate of unemployment

Study of entrepreneurship and financiership in modern economies

Study of the link between growth and unemployment as well as the effects of the tax structure on equilibrium unemployment and wages

Study of the influence of international linkages in the determination of jobs and wages

Analysis of the influence of international flows of foreign talent on economic growth

Analysis of policy dilemmas and policy-making in the age of globalization and skill-biased technological change

Study of Singapore's economic growth beyond the balanced-growth path

Study of various economic problems of the Singapore economy: social security, social safety nets, determinants of long-run growth, wage determination, and international as well as regional economic integration

## **Membership in Professional Organizations**

Member, Economic Society of Singapore

Member, American Economic Association

Foreign Member, The Center on Capitalism and Society, Columbia University

## **Publications**

### **Books**

#### **Research Monographs**

- 1 Collaborator with George Kanaginis and Gylfi Zoega in Edmund S. Phelps, *Structural Slumps: The Modern-Equilibrium Theory of Unemployment, Interest and Assets*, Cambridge, Mass.: Harvard University Press, 1994, 420 pp.
- 2 *Trade, Jobs and Wages*, Cheltenham, UK and Northampton, Mass.: Edward Elgar Publishing, 2000, 207 pp.

**Textbook**

- 1 *Economics: Theory and Applications*, with Ai Tee Koh, Anthony Chin and Euston Quah, Singapore: McGraw-Hill, 1998, 398 pp.

**Edited Book**

- 1 *Development, Trade, and the Asia Pacific: Essays in Honour of Professor Lim Chong Yah*, editor with Basant Kapur and Euston Quah, Singapore: Prentice-Hall, 1996, 591 pp.

**Journal Articles and Chapters in Books (organized by fields)**

**Macroeconomics**

- 1 “Open Economy Real Business Cycle Models” in Euston Quah and Anthony Chin (eds.), *Selected Surveys in Modern Economics*, Singapore: McGraw Hill, 1990.
- 2 “Macroeconomic Shocks in a Dynamized Model of the Natural Rate of Unemployment”, with Edmund S. Phelps, *American Economic Review*, Vol. 82, no. 4, 1992, pp. 889-900. (Reprinted in *The Economics Of Unemployment*, volume 3, edited by P.N. Junankar under The International Library of Critical Writings in Economics series published by Edward Elgar Publishing, Northampton, Mass., 2000.)
- 3 “Defense Spending Cutbacks and Real Interest Rates in the Neoclassical One-Sector and Two-sector Models”, *Economics Letters*, Vol. 39, 1992, pp. 443-448.
- 4 “The impact of Fiscal and Productivity Shocks on the Natural Rate of Unemployment in a Two-Country World”, with Edmund S. Phelps, in H. Frisch and A. Worgotter (eds.), *Open-Economy Macroeconomics*, London: Macmillan, 1993. (Paper originally presented at International Economic Association Conference, May-June 1991, Vienna, Austria.)
- 5 “Efficiency Wages and Economic Growth”, *Economics Letters*, Vol. 42, 1993, pp. 201-208.
- 6 “Economic Effects of Work Sharing in a Dynamic Labor-Turnover Model”, *Rivista di Politica Economica*, Vol. 11, 1994, pp. 103-123. (Also published by the same title in M. Baldassarri, L. Paganetto and E. S. Phelps (eds.), *Equity, Efficiency and Growth: The Future of the Welfare State*, New York: St Martin’s Press, 1996.)
- 7 “Macroeconomic Shocks and the Endogenous Response of the Stock Market and Real Interest Rates in a Neoclassical General-Equilibrium Model”, with Kong Weng Ho, *Economic Modelling*, Vol.12, no. 1, 1995, pp.28-34.

- 8 “The Impact of Military Spending Cutbacks on Economic Activity in an Incentive-Wage Two-Sector Aggregative Economy”, *Defence and Peace Economics*, Vol. 7, April 1996, pp. 95-114.
- 9 “Payroll Taxes and VAT in a Labor-Turnover Model of the ‘Natural Rate’”, with Edmund S. Phelps, *International Tax and Public Finance*, Vol. 3, no. 3, July 1996, pp. 367-381.
- 10 “Macroeconomic Stabilization in a Newly Reformed Socialist Economy”, in Anthony Chin and Hock Guan Ng (eds.), *Transition Towards the Market: An Asian Perspective*, Singapore: World Scientific Publishing, 1996.
- 11 “Growth, Wealth and the Natural Rate: Is the Jobs Crisis a Growth Crisis?”, with Edmund S. Phelps, *European Economic Review (Papers and Proceedings)*, Vol. 41, May 1997, pp. 549-557.
- 12 “Equilibrium Unemployment and Endogenous Public Sector Employment”, with Kong Weng Ho, *Metroeconomica*, Vol. 48, no. 2, June 1997, pp. 136-160.
- 13 “Bequest Motives, Economic Growth and Equilibrium Unemployment”, in Euston Quah and David Lee (eds.), *Household Economics and the Asian Family*, Singapore: Times Academic Press, 1997.
- 14 “Capital Expansion, Endogenous Growth and Equilibrium Unemployment”, *Australian Economic Papers*, Vol. 37, no. 3, September 1998, pp. 257-272.
- 15 “Product Market Concentration and the Equilibrium Rate of Unemployment”, in S. B. Dahiya (ed.), *The Current State of Economic Science*, Rohtak: Spellbound Publications, 1999.
- 16 “Asset prices, the Real Exchange Rate, and Unemployment in a Small Open Economy: A Medium-Run Structuralist Perspective,” with Edmund S. Phelps, in Warren Young and Arie Arnon (eds.), *The Open Economy Macromodel*, Norwell, Mass.: Kluwer Academic Press, 2002.
- 17 “Low-Wage Employment Subsidies in a Labor-Turnover Model of the ‘Natural Rate’”, with Edmund S. Phelps, in Edmund S. Phelps (ed.), *Designing Inclusion: Tools to Raise Low-End Pay and Employment in Private Enterprise*, Cambridge: Cambridge University Press, 2003. (Paper originally presented at Conference on Low-wage employment subsidies, December 1997, Russell Sage Foundation, New York, USA.)
- 18 “The Structuralist Perspective on Real Exchange Rate, Share Price Level and Employment Path: What Role is Left for Money?” with Edmund S. Phelps and Gylfi Zoega in Willi Semmler (ed.), *Monetary Policy and Unemployment: U.S., Euro-Area and Japan*, New York: Routledge,

2005, pp. 107-132. (Paper originally presented at Conference on Monetary Policy and the Labor Market in the US, the Euro-Area and Japan, November 2002, New School University, New York, USA.)

- 19 “A Structuralist Model of the Small Open Economy in the Short, Medium and Long Run,” with Edmund S. Phelps, *Journal of Macroeconomics*, Vol. 29, June 2007, pp. 227-254.
- 20 “Future Fiscal and Budgetary Shocks,” with Edmund S. Phelps, *Journal of Economic Theory*, Vol. 143, no. 1, November 2008, pp. 499-518.
- 21 “Macroeconomic Effects of Over-Investment in Housing in an Aggregative Model of Economic Activity,” *Capitalism and Society*, Vol. 5, Iss. 2, Article 1, 2010.
- 22 “Payroll Taxes, Wealth and Employment in Neoclassical Theory: Neutrality or Non-Neutrality?” in Edmund S. Phelps and Hans-Werner Sinn (eds.), *Perspectives on the Performance of the Continent's Economies*, Cambridge, Mass.: MIT Press, 2011, pp. 427-445.

#### **International Trade**

- 1 “Foreign Labor Importation in a Small, Open Economy with a Non-traded Good Sector: A Geometrical Note”, *Asian Economic Review*, Vol. 28, 1986, pp. 107-111.
- 2 “Effects of Technical Progress and Foreign Labor Importation on Shifting Comparative Advantage: A Geometrical Note”, *South African Journal of Economics*, Vol. 54, 1987, pp. 442-445.
- 3 “Comparative Advantage and the Equilibrium Rate of Unemployment”, *Economics Letters*, Vol. 37, 1991, pp. 299-304.
- 4 “The Impact of Intra-Industry Trade on the Natural Rate of Unemployment in Two Simple Models,” *Open Economies Review*, Vol. 5, 1994, pp. 29-46.
- 5 “International Trade and the Equilibrium Rate of Unemployment in a Heckscher-Ohlin World Economy”, *International Economic Journal*, Vol. 8, no. 2, Summer 1994, pp. 13-32.
- 6 “Welfare Effects of International Trade and Migration in the Context of Endogenous Unemployment”, in J. H. Ong, K. B. Chan and S. B. Chew (eds.), *Crossing Borders: Transmigration in Asia Pacific*, Singapore: Prentice-Hall and Center for Advanced Studies, 1995. (Paper originally presented at International Conference on Migration, February 1991, Singapore.)
- 7 “Market Size, Comparative Advantage and the Natural Rate of Unemployment”, *Journal of International Trade and Economic Development*, Vol. 5, no. 1, 1996, pp.79-98.

- 8 “Intraindustry trade, High-wage Jobs and the Wage Gap”, *Economics Letters*, Vol. 65, 1999, pp. 213-220.
- 9 “The Changing Pattern of Production Fragmentation in Singapore and its Economic Consequences”, with Kong Weng Ho, in Leonard Cheng and Henryk Kierzkowski (eds.), *Global Production and Trade in East Asia*, Norwell, Mass.: Kluwer Academic Press, 2001.
- 10 “Arms Length Transactions vs. Affiliates: A Study of Two Electronic Component Firms in Singapore”, with Kong Weng Ho, in Leonard Cheng and Henryk Kierzkowski (eds.), *Global Production and Trade in East Asia*, Norwell, Mass.: Kluwer Academic Press, 2001.
- 11 “General-Equilibrium Implications of International Product-Market Competition for Jobs and Wages”, *Oxford Economic Papers*, Vol. 53 (1), January 2001, pp. 138-156.
- 12 “Adjustment of Wages and Equilibrium Unemployment in a Ricardian Global Economy”, *Journal of International Economics*, Vol. 54 (1), June 2001, pp. 193-209.
- 13 “Endogenous Growth and Equilibrium Unemployment in a North-South Model”, *Review of Development Economics*, Vol. 6 (1), February 2002, pp. 26-38.
- 14 “Trade, Capital Accumulation and Structural Unemployment: An Empirical Study of the Singapore Economy”, with Hiau Looi Kee, *Journal of Development Economics*, Vol. 77, no. 1, pp. 125-152, 2005.

#### **Singapore Economy**

- 1 “The Impact of Industrial Restructuring: The Case of Singapore’s Textile and Garment Industry”, *Southeast Asian Economic Review*, Vol. 7, 1986, pp. 153-174.
- 2 “The Effects of a CPF Cut: A Note”, *Singapore Economic Review*, Vol. 32, no. 2, October 1987, pp. 66-74.
- 3 “The Long-Run General Equilibrium Consequences of Choosing the CPF Contribution Rate in the Singapore Economy”, *Singapore Economic Review*, Vol. 36, no. 1, April 1991, pp. 70-80.
- 4 “A Simple Model of Labour and Capital Flows between Singapore and the Rest of ASEAN”, in Linda Low and Mun Heng Toh (eds.), *Public Policies in Singapore: Changes in the 1980s and Future Signposts*, Singapore: Times Academic Press, 1992.
- 5 “The Role of Direct Foreign Investment in the Determination of the Natural Rate of Unemployment and Long-Run Growth of the Singapore Economy”, *Development and International Cooperation*, Vol. 8, 1992, pp. 225-237.

- 6 "A Model of the Link Between the Fiscal System and Singapore's Central Provident Fund in General Equilibrium," with Kai Lin Teo, *Singapore Economic Review*, Vol. 37, no. 2, October 1992, pp. 73-88.
- 7 "The Singapore Experience", in Patrick Pillai (ed.), *Industrial Training in Malaysia: Challenge and Response*, Malaysia: ISIS, 1994.
- 8 "Individual Lifetime Uncertainty, Annuity Market and the Central Provident Fund", with Lai Yee Ng, *Singapore Economic Review*, Vol. 41, no. 2, October 1996, pp. 41-52.
- 9 "Taxes, the Central Provident Fund, and Retirement Decisions", with Mei Choo Neo, *Singapore Economic Review*, Vol. 42, no. 2, October 1997, pp. 61-74.
- 10 "Factors Shaping Singapore's Wages and Unemployment and the Role of the NWC", with Hiau Looi Kee, in Chong Yah Lim and Rosalind Chew (eds.), *Wages and Wages Policies: Tripartism in Singapore*, Singapore: World Scientific, 1998.
- 11 "The Benefits of Economic Openness and Policy Challenges Facing Singapore in the Age of Globalization", in Ai Tee Koh, et al. (eds.), *Singapore Economy in the 21<sup>st</sup> Century: Issues and Strategies*, Singapore: McGraw-Hill, 2002.
- 12 "Future Job Prospects in Singapore", in Winston Koh and Roberto Mariano (eds.), *The Economic Prospects of Singapore*, Singapore: Addison-Wesley, 2005, pp. 47-78.
- 13 "Growth Accounting for a Technology Follower in a World of Ideas: The Case of Singapore", with Kong Weng Ho, *Journal of Asian Economics*, Vol. 20, no. 2, March 2009, pp. 156-173.

#### **Other fields**

- 1 "Compensating and Equivalent Variations Again: the Case of Odd Preferences", with Euston Quah, *Indian Journal of Economics*, Vol. 67, 1986, pp. 193-202.
- 2 "Value-added Per Worker, Capital Accumulation and Technical Progress in a Small, Open Economy: An Explanation", *Pakistan Development Review*, Vol. 27, 1988, pp. 211-215.
- 3 "Improvements in Agriculture in Ricardo's Essay on Profits", *The Manchester School of Economic and Social Studies*, Vol. 61, no. 4, 1993, pp. 425-438.
- 4 "Productivity Growth and Public Sector Employment", with Kong Weng Ho, *American Economist*, Vol. 42, no. 2, December 1998, pp. 73-79.

## Book Reviews

- 1 Review of Stephen Parente and Edward Prescott, *Barriers to Riches*, Cambridge, MA: MIT Press, 2000 in *Singapore Economic Review*, Vol. 46, No. 1, 2001, pp. 145-148.
- 2 Review of Finn Ostrup, *Money and the Natural Rate of Unemployment*, Cambridge, Cambridge University Press, 2000 in *Journal of Economic Literature*, Vol. XLII, June 2004, pp. 516-517.

## Other Writings

Several opinion pieces of mine appearing in *The Business Times* and *The Straits Times* attempt to grapple with understanding pressing issues confronting the Singapore economy.

- 1 “A Short Macroeconomic Account of the Singapore Economy”, with Kong Weng Ho, *Times Economic Link*, Vol. 3, 1992, pp. 12-17.
- 2 Op-ed piece in *The Business Times* on December 12, 2000 entitled, “Economic Openness: Benefits and Challenges”.
- 3 Op-ed piece in *The Business Times* on September 4, 2001 entitled, “What's New, What's Next for Singapore?”
- 4 Op-ed piece in *The Business Times* on January 22, 2003 entitled, “Is Singapore Past its High-Growth Era?”
- 5 Op-ed piece in *The Business Times* on April 15, 2003 entitled, “The Daunting Challenge of Structural Unemployment”.
- 6 Op-ed piece in *The Business Times* on November 30, 2004 entitled, “A Fix for Joblessness”.
- 7 Op-ed piece in *The Business Times* on December 3, 2004, with Kong Weng Ho, entitled, “No Case for Casinos”.
- 8 Op-ed piece in *The Business Times* on July 22, 2005, with Kong Weng Ho, entitled, “When the Economy Hits the Brakes”.
- 9 Op-ed piece in *The Straits Times* on September 30, 2005, entitled, “Making Work Pay for Low-Wage Earners”.
- 10 Op-ed piece in *The Straits Times* on February 10, 2006, entitled, “Workfare: Striking the Right Balance”.
- 11 Op-ed piece in *The Business Times* on June 14, 2006, with Kong Weng Ho, entitled, “Perspiration, Inspiration and Singapore's Growth”.



- 12 Letter to the Forum page of *The Straits Times* on June 26, 2007, "Improve design features of workfare scheme".
- 13 "The Singapore Model of Workfare: Three Suggestions," *ETHOS* (a publication of the Civil Service College, Singapore), issue 3, October 2007, pp. 69-70.
- 14 Op-ed piece in *The Business Times* on July 29, 2008, entitled, "Less Room for MAS to Influence Inflation Rate".
- 15 Op-ed piece in *The Business Times* on June 9, 2009, entitled, "Mapping Out S'pore's Economic Strategies".

### **Working and Discussion Papers and Other Unpublished Completed Works**

- 1 "Assessing Export Platforms: The Case of Singapore", with Kong Weng Ho, CAER II Discussion Paper No. 72, April 2000, Harvard Institute of International Development, 46 pp.
- 2 "A Structuralist Model of the Small Open Economy in the Short, Medium and Long Run", with Edmund S. Phelps, Discussion Paper No. 0102-25, March 2002, Department of Economics, Columbia University.
- 3 "Tax Cuts, Employment and Asset Prices: A Real Intertemporal Model", with Edmund S. Phelps, Working Paper No. 23-2002, November 2002, School of Economics and Social Sciences, Singapore Management University. Also appears as Discussion Paper No. 0102-70, August 2002 (revised February 2003), Department of Economics, Columbia University.
- 4 "A Model of Industrialization and International Wage Convergence Based On Multi-Plant Foreign Direct Investment", with Irene Ng, Working Paper No. 24-2002, December 2002, School of Economics and Social Sciences, Singapore Management University.
- 5 "Is Ricardo's Essay on Profits a Precursor of the New Trade Theory?", Working Paper No. 25-2002, December 2002, School of Economics and Social Sciences, Singapore Management University.
- 6 "Service Links and Wage Inequality", with Kong Weng Ho, Working Paper No. 4-2003, February 2003, School of Economics and Social Sciences, Singapore Management University.
- 7 "Catch-Up Growth Based on International Talent Mobility in an Idea-Based World", with Quan Yu, Working Paper No. 11-2003, May 2003, School of Economics and Social Sciences, Singapore Management University.

- 8 “The Structuralist Perspective on Real Exchange Rate, Share Price Level and Employment Path: What Role is Left for Money?” with Edmund S. Phelps and Gylfi Zoega, Working Paper No. 5-2004, January 2004, School of Economics and Social Sciences, Singapore Management University.
- 9 “Trade, Capital Accumulation and Structural Unemployment: An Empirical Study of the Singapore Economy”, with Hiau Looi Kee, Working Paper No. 6-2004, February 2004 (revised March 2004), School of Economics and Social Sciences, Singapore Management University.
- 10 “Future Fiscal and Budgetary Shocks”, with Edmund S. Phelps, Working Paper No. 20-2004, September 2004, School of Economics and Social Sciences, Singapore Management University. Also appears as Discussion Paper No. 0405-01, September 2004, Department of Economics, Columbia University.
- 11 “Future Job Prospects in Singapore”, Working Paper No. 01-2005, January 2005, School of Economics and Social Sciences, Singapore Management University.
- 12 “Effects of Technological Improvement in the ICT-Producing Sector on Business Activity”, with Edmund S. Phelps, Working Paper No. 07-2006, February 2006, School of Economics and Social Sciences, Singapore Management University.
- 13 “Growth Accounting for a Follower-Economy in a World of Ideas: The Example of Singapore”, with Kong Weng Ho, Working Paper No. 15-2006, June 2006, School of Economics and Social Sciences, Singapore Management University.
- 14 “Payroll Taxes, Wealth and Employment in Neoclassical Theory: Neutrality or Non-Neutrality?” Center on Capitalism and Society Working Paper No. 16, September 2006, Columbia University. (Paper originally presented at CESifo-CCS Conference, San Servolo (Venice), 21-22 July, 2006.
- 15 “Distance to Frontier and the Big Swings of the Unemployment Rate: What Room is Left for Monetary Policy?” with Kong Weng Ho, Kiel Working Paper No. 1347, June 2007, Kiel Institute for World Economics.
- 16 “Effects of Labor Taxes on Hours of Market and Home Work: The Role of International Capital Mobility and Trade,” Working Paper No. 5-2010, April 2010, School of Economics, Singapore Management University.
- 17 “Wage Subsidies in a Program for Economic Inclusion and Growth”, Working paper No. 2-2011, February 2011, School of Economics,

Singapore Management University. (Paper originally presented at a wage subsidies workshop in South Africa organized by the Centre for Development and Enterprise on November 2, 2010.)

- 18 “Innovation and Employment”, Center on Capitalism and Society Working Paper No. 69, April 2011, Columbia University.

## Research summary

A major theme in Hian Teck Hoon’s research grew out of his PhD work done under the supervision of Professor Edmund Phelps, McKim Professor of Political Economy, and Professor Ronald Findlay, Ragnar Nurkse Professor of Economics, at Columbia University. Professor Phelps was then revising his views about the determinants of unemployment, largely spurred by his interest in explaining the steady rise of European unemployment without apparent disinflation. Hoon worked on reformulating the labor-turnover model of the natural rate of unemployment to pay attention to dynamics, providing a general-equilibrium characterization of the economy’s response to various economic shocks. This work was published as “Macroeconomic Shocks in a Dynamized Model of the Natural Rate of Unemployment”, with Edmund S. Phelps, *American Economic Review*, Vol. 82, no. 4, September 1992, pp. 889-900. A 1997 paper with Phelps, “Growth, Wealth and the Natural Rate: Is the Jobs Crisis a Growth Crisis?” *European Economic Review* (Papers and Proceedings), Vol. 41, May 1997, pp. 549-557 studied the influence of a change in the trend growth rate of productivity on the natural rate. The consequences of a low-wage employment subsidy scheme in a model of the natural rate are examined in “Low-Wage Employment Subsidies in a Labor-Turnover Model of the ‘Natural Rate’”, with Edmund S. Phelps, in Edmund S. Phelps (ed.), *Designing Inclusion: Tools to Raise Low-End Pay and Employment in Private Enterprise*, Cambridge: Cambridge University Press, 2003.

In “Future Fiscal and Budgetary Shocks,” *Journal of Economic Theory*, Vol. 143, no. 1, November 2008, pp. 499-518, Hoon and Phelps study the effects of future tax and budgetary shocks in a non-monetary and possibly non-Ricardian economy populated by Phelps-Winter customer-market firms. This paper shows that present concerns about future fiscal and budgetary overhangs that do not directly affect technological possibilities might nonetheless depress present asset prices and contract employment through the adverse shifts of labor demand via higher price-cost markups. This paradox of reduced activity through announcement of future “stimulus” does not hinge on an upward jump of long interest rates. An effort at reconstructing open-economy macroeconomics based upon customer-market frictions and used to analyze the behavior of share prices, real exchange rates and output in three historical episodes is attempted and compared to Keynesian and real-business-cycle analyses in Hoon and Phelps, 2007, “A Structuralist Model of the Small Open Economy in the Short, Medium and Long Run,” *Journal of Macroeconomics*, Vol. 29, June, pp. 227-254.

As a specialist also in the area of trade, Hoon noticed that although trade models allowed one to analyze the general-equilibrium welfare effects of opening up to international commerce as well as the effects of cross-border shocks, it was striking that, in standard formulations, there was never an influence of trade on joblessness while ironically politicians often seek to convince the public to support a particular trade initiative on the ground that it creates so many numbers of jobs. Hoon then added a new theme to his research, reworking trade theory to embed trade effects on an endogenous natural rate of unemployment. An early paper that showed how trade affected structural unemployment in a Heckscher-Ohlin two-country setting (his Asia-America model) is “Comparative Advantage and the Equilibrium Rate of Unemployment”, *Economics Letters*, Vol. 37, 1991, pp. 229-304. A more complete analysis is provided in “Adjustment of Wages and Equilibrium Unemployment in a Ricardian Global Economy”, *Journal of International Economics*, Vol. 54 (1), June 2001, pp. 193-209. There, it is shown how a collapse of world trade due to protectionist barriers can lead to a world-wide depression with a rise of structural unemployment. An effort to test the theory of an endogenous natural rate of unemployment in a pure trade model is found in “Trade, Capital Accumulation and Structural Unemployment: An Empirical Study of the Singapore Economy”, with Hiau Looi Kee, *Journal of Development Economics*, Vol. 77, no. 1, pp. 125-152, 2005. Hoon also provided a book-length treatment of this subject in a book entitled *Trade, Jobs and Wages* (Northampton, Mass., Edward Elgar Pub. Co., 2000).

In collaborative work with Kong Weng Ho, a quantitative exercise was conducted to account for the sources of the growth of Singapore’s real GDP per worker using a dataset available from the Singapore Department of Statistics and other OECD data. This growth accounting exercise made explicit the channels through which Singapore benefits from international R & D spillovers. We find that 61.5 percent of Singapore’s real GDP per worker growth over the 1970-2004 period is due to multifactor productivity growth. More specifically, 52.1 percent of the growth is explained by an increase in the effectiveness of accessing ideas through improvement in Singapore’s educational quality as well as increases in machinery imports and foreign direct investment from the G5 countries. This work is reported in “Growth Accounting for a Technology Follower in a World of Ideas: The Case of Singapore”, with Kong Weng Ho, *Journal of Asian Economics*, Vol. 20, no. 2, pp. 156-173, 2009 [available at <http://hthoon.googlepages.com/growth-accounting-D48.pdf>].

## **Work in Progress**

### **Book Manuscript in Preparation**

*The Singapore Economy in Transition: From Catch-Up Growth to Life in a Mature Economy*, Singapore: McGraw-Hill.

### **Current Research Projects**

- 1 *Labor Taxes, Wealth and Hours Worked.* A well-known paper, Prescott (2004), makes the argument that the bulk of the long-term decline in hours worked by Europeans (relative to Americans) can be explained by the rise of marginal labor taxes in Europe. This research project shows how wealth adjustment, in the context of a world with international trade in capital and goods, can *undo* the negative effects of punishingly high labor taxes in one country and lead to an international equalization of hours worked.
- 2 *Effects of Technological Improvement in the ICT-Producing Sector on Business Activity*, with Edmund S. Phelps. It seems to be taken for granted by many commentators that the sharp decline in prices of computers, telecommunications equipment and software resulting from the technological improvements in the information and communications technology (ICT)-producing sector is good for jobs and is a major driving force behind the non-inflationary employment miracle and booming stock market in the latter half of the nineties in the U.S. and their recurrence since 2004. We show that, in our model, a technical improvement in the ICT-producing sector by itself cannot explain a simultaneous increase in employment and a rise in firms' valuation (or Tobin's Q ratio). The key to generating a booming stock market alongside employment expansion is to hypothesize that when technical improvement in the ICT-producing sector occurs, the market forms an expectation of future productivity gains to be reaped in the ICT-using sector. Then we can explain not only the stock market boom and associated rise in investment spending and employment in the period 1995-2000 but also the subsequent decline in employment, in Tobin's Q and in investment spending in 2001, with consumption holding up well as productivity gains in the ICT-using sector were realized. An anticipation of a future TFP improvement in the ICT-using sector can once more play the role of raising the stock market.
- 3 *Overinvestment and Employment.* Since the modern economy is one that is fraught with novelty, asset prices can turn out to have travelled along disequilibrium paths where expectations of the future turn out to be wrong. This may be one way to describe a "bubble." When the bubble comes to an end and the economy finds itself with "too much" capital---excess housing stock as well as plant and equipment---what does formal theory predict about economic activity in the post-bubble era? This research aims to answer this basic question.
- 4 *Real Exchange Rates and Employment.* A well-known mechanism in the open-economy Mundell-Fleming model under flexible exchange rates and free international capital mobility is that real exchange rate depreciation acts to shift spending towards the domestically produced good and thus expand employment. However, in models with a sufficiently rich supply side and trade frictions, a collapse in local asset prices lead customer-market firms to increase their mark-ups and labor-intensive firms to cut back their hiring with the result that real exchange rate depreciation is accompanied by a *slump in employment*. This research aims to

find theoretical and empirical support for this non-Keynesian channel, particularly in the behavior of economies during and after the 2008-9 credit crisis.

- 5 *Sources of Singapore's Growth*. Singapore's relatively low productivity growth in the past decade became a matter of public interest and led the Economic Strategies Committee to set the goal of achieving productivity growth of 2 to 3 percent annually over the next ten years. What is meant by "productivity growth" here is the growth of labor productivity, more specifically, the growth of "Real GDP per worker." This research aims to deepen our understanding of the factors that contributed to the growth of real GDP per worker during the economy's *catch-up phase* and its current somewhat *more mature phase*. In particular, it identifies the contributions of physical capital accumulation, human capital accumulation, and *multi-factor productivity growth*. It also seeks to unpack the sources of multi-factor or total-factor productivity growth during the growth process.

### **Research Grants**

SMU-sponsored research project conducted in collaboration with Edmund S. Phelps, Effects of a Delayed or Immediate Tax Cut on Employment and Asset Prices, 2002-03.

SMU-sponsored research project conducted in collaboration with Edmund S. Phelps, A Two-Sector Analysis of the Effects of Productivity Growth in Information-Technology Industries on the Natural Rate of Unemployment, 2003-04.

SMU-sponsored research project conducted in collaboration with Edmund S. Phelps, An Analysis of Overinvestment in the Ramsey One-Sector Model and the Uzawa-Two-Sector Model of Economic Activity, 2005-06.

SMU-sponsored research project, Endogenous Comparative Advantage and Job Creation, 2008-09.

Co-investigator in research project on Entrepreneurship and Innovation in Capitalist Systems (Principal Investigator: Edmund S. Phelps) funded by Kauffman Foundation, 2004-07.

### **Recent Conference Presentations**

Invited speaker, "Payroll Taxes, Wealth and Employment in Neoclassical Theory: Neutrality or Non-Neutrality?" Paper presented at conference titled, Perspectives on the Performance of the Continent's Economies, organized by CESifo and Center on Capitalism and Society (Columbia University) held in Venice, 21-22 July 2006.

Invited speaker, "Distance to Frontier and the Big Swings of the Unemployment Rate: What Room is Left for Monetary Policy?" with Kong Weng Ho. Paper presented at

conference titled, The Phillips Curve and the Natural Rate of Unemployment, 3-4 June 2007, Kiel Institute for World Economics, Germany.

Invited panel speaker on the Panel on “Policies Towards Employment and Inclusion” at 7<sup>th</sup> Annual Conference of the Center on Capitalism and Society, Columbia University, on “Post-Crisis Economic Policies” held at Deutsche Bank AG, Berlin, Germany, 11-12 December 2009.

### **Editorial Services**

Co-editor, Singapore Economic Review since January 2002.

### **Professional Activities and Services**

Vice-President, Economic Society of Singapore, 2002-04.

Program committee member, Far Eastern Meeting of the Econometric Society 1999, 1-3 July 1999.

Program committee member, 2008 Far Eastern and South Asian Meeting of the Econometric Society, 16-18 July 2008.

Local organizing committee member, International Conference on the History of Science in East Asia held in Singapore, August 1999.

Consultant on the Consulting Assistance on Economic Reform (CAER II) Project, Harvard Institute of International Development, 1998-2000.

### **Lectures, Seminars and Talks Given**

Member of Economic Panel to discuss Enterprises in Singapore, Singapore Discovery Centre, February 12, 2004.

Commentator at Workshop on Fiscal Policy in Singapore organized jointly by the Institute of Policy Studies and Economic Society of Singapore, May 5, 2004.

Panel discussion on Singapore's 2007 budget, which included the introduction of the Workfare Income Supplement scheme, broadcast on MediaCorp radio channel 938*Live*, February 15, 2007.

Invited talk on “Distance to Frontier and the Big Swings of the Unemployment Rate: What Room is Left for Monetary Policy?” at Economic and Social Research Network (ESRN) lunchtime seminar, Treasury Building, April 25, 2008.

Invited talk on “Economic Openness: Opportunities and Challenges” at Raffles Junior College (on July 24, 2008) and Hwa Chong Junior College (on August 1, 2008).

Invited talk on “Current Economic Tsunami and Its Impact on Singapore in 2009” under the program Viewpoints@SAFTI Military Institute Library, February 26, 2009.

Invited talk on “Economic Growth and Social Cohesion” at 2009 Seminar on Economics and Public Policy for JC Students and Teachers organized by Division of Economics, NTU and Singapore Ministry of Education, March 19, 2009.

Invited talk on “The Global Credit Crunch and the Singapore Economy: Challenges and Opportunities” at Economic Symposium 2009 organized by Catholic Junior College, July 15, 2009.

Invited talk on “The Importance of Having a Global View for Grasping the Keys and Threats to Economic Prosperity” at the Raffles Economic and Current Affairs Challenge 2009 organized by Raffles Junior College, August 22, 2009.

Invited talk on “Inclusive Growth matters” at EDB-VJC Economic Symposium 2011 organized by Victoria Junior College, May 4, 2011.

Invited talk on “The Philosophical Justification for Economic Inclusion and the Best Policy Instruments to Achieve It” at the Raffles Economic and Current Affairs Challenge 2011 organized by Raffles Junior College, July 30, 2011.

### **Courses Taught at SMU**

Undergraduate-level International Economics in academic year 2001-02

Undergraduate-level Intermediate Macroeconomics B in academic year 2002-03, 10-11

Undergraduate-level Intermediate Macroeconomics A in academic years 2002-03, 03-04, 04-05

Undergraduate-level Monetary Economics in academic year 2003-04, 04-05, 05-06, 06-07, 07-08, 08-09, 09-10

Graduate-level Macroeconomics in academic years 2005-06, 06-07

Graduate-level International Trade in academic years 2006-07, 08-09

Graduate-level International Macroeconomics in academic year 2007-08, 09-10

Graduate-level Managing Economic Growth in academic year 2009-10

### **Executive Education and Professional Programs Taught**

“Teaching of Macroeconomics”, an in-service course for ‘A’ level economics teachers organized by the Ministry of Education, Singapore, 1991, 1992.



“Issues in Economic Development”, a police senior executive development course organized by The Police Academy, 1992.

“Macroeconomic Principles for Transitional Economies” for Vietnamese government officials, various years.

“Long-run Movement of Wages and Unemployment in Singapore” for officers in the Ministry of Manpower, Singapore, 2000.

“Key Macroeconomic Issues Facing the Singapore Economy” for administrative officers in Singapore's civil service, 2000.

“Social Safety Nets” and “Population and Immigration Issues” for officers in the Ministry of Finance, Singapore, 2003.

“Applied Macroeconomics” for officers in Economic Development Board, Singapore, 2004.

### **Administrative Duties at SMU**

Member of Faculty Senate, 2003-05

Economics Seminar and Working Paper Series Co-ordinator, 2001-07

Graduate-Program Co-ordinator, 2005-07

### **Contact Information**

Tel: (65) 6828 0248

Fax: (65) 6828 0833

Email: [hthoon@smu.edu.sg](mailto:hthoon@smu.edu.sg)

Address: Singapore Management University, 90 Stamford Road,  
Singapore 178903