

## **YUTAKA HORIBA**

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### **FIELDS**

International Trade, Regional Economics, Japanese Economy

### **EDUCATION**

Ph.D., Purdue University, 1969, Economics

M.S., Purdue University, 1966

B.A., Knox College, 1964

### **POSITIONS HELD/ PROFESSIONAL EXPERIENCE**

Visiting Professor, Kansai Gaidai University Center for International Education, Japan, 2008-2011.

Professor, Tulane University, 1982-2008. Emeritus, 2008

Associate Professor, Tulane University, 1975-82.

Assistant Professor, Tulane University, 1971-75.

Chair, Department of Economics, Tulane University, 1987-90, and 1990-92.

Co-Director, Asian Studies Program, Tulane University, 1996-2008.

Director of Graduate Studies, Economics Department, Tulane University, 1978-87.

Professor-in-Charge, Tulane/Tokyo Summer Program, Sophia University, Summer 1987.

Visiting Scholar, Johns Hopkins University, Fall 2005.

Professor, Graduate School of Economics, Osaka University, 2002-04 (on leave from Tulane).

Chair, Southern Japan Seminar, 2001- 2002. (SJS is an interdisciplinary association devoted to Japanese studies).

Visiting Professor, Academia Sinica, Taipei, Taiwan, June 1997.

Tokio Marine Endowed Visiting Professor, Faculty of Economics, Osaka University, Japan, 1996-97.

Visiting Scholar, Tohoku University, Japan, Fall 1992.

Visiting Scholar, Nagoya City University, May-June 1982.

Visiting Scholar, Stockholm School of Economics, Sweden, Fall 1977.

Visiting Associate Professor, Economics Institute, University of Colorado, Summer 1975, and Summer 1977.

Assistant Professor, Macalester College, 1969-71.

Instructor, Macalester College, 1967-69

## REPRESENTATIVE JOURNAL PUBLICATIONS

- “A Note on the Factor Proportions Theory in the N Factor Case,” *Kyklos*, vol. 24, no. 2 (1971), pp. 339-343.

The renowned international economist Jaroslav Vanek made a path-breaking and highly acclaimed contribution to the theory of international trade in an earlier article published in *Kyklos*. This note extends Vanek’s work by obtaining additional theoretical result that establishes necessary and sufficient conditions for linking the pattern of international trade to the factor endowments such as capital, labor and land of the trading nations.

- “A Note on an Efficient Computation of the Standard Error of the Constant Term in Multiple Regression Analysis,” *The American Statistician*, vol. 25 (1971), no. 4, pp. 51-52.

This work contributes two alternative algorithms for an efficient computation of a statistic called standard error of the constant term in multiple regression analysis. The use and application of multiple regression analysis is quite extensive in empirical economic research. However, this particular statistic in question was often unavailable in the earlier years of computer applications, and this note demonstrates that it can be evaluated with alternative algorithms that can be applied to the available information in the statistical software package programs.

- “Factor Proportions and the Structure of Interregional Trade: The Case of Japan,” *Southern Economic Journal*, vol. 39 (1973), no. 3, pp. 381-388.

The empirical relevance of the so-called factor-proportions theory of comparative advantage is demonstrated in this article with the use of Japanese regions and trade among these regions. In the light of many studies that found evidence that the theory does not perform well in explaining trade among nations, it turns out that trade among regions within a nation follows more closely the lines of comparative advantage as predicted by the factor-proportions theory.

- “Non-Homothetic Community Preferences and the N-Factor Theory of International Trade,” *Metroeconomica*, vol. 26 (1974), nos.1-3, pp. 171-180.

The modern theory of comparative advantage in its most rigorous form is predicated on a number of restrictive assumptions including the so-called homotheticity of consumer preferences. Homotheticity implies that the demand for all varieties of goods rise or fall uniformly in strict proportion to changes in the income level. This article probes theoretical perimeters within which simple predictions regarding the pattern of trade that are derived from the theory when there are many factors of production continues to hold true when the homotheticity assumption is relaxed.

- “Managerial Skills, Labor Migration, and the Pattern of Regional Production and Trade in Japanese Manufacturing,” *Journal of Regional Science*, vol. 14 (1974), no. 3, pp. 399-409.

This article extends my earlier findings concerning the pattern of Japanese

interregional trade. It considers more detailed categories of labor and analyzes the structure of production and trade among Japanese regions. For this purpose, a theoretical model of trade based on human capital is constructed and is empirically implemented. It finds that there is a solid basis for such a model.

- “General Equilibrium and the Heckscher-Ohlin Theory of Trade: The Multi-Country Case,” *International Economic Review*, vol. 15 (1974), no. 2, pp. 440-449.

The modern theory of international trade associated with the two Swedish economists Eli Heckscher and his student Bertil Ohlin (the 1976 Nobel Laureate) is formulated in the context of bilateral trade between a pair of countries. This article explores the possibility of extending the theory to a multi-country framework. It obtains and proves six theoretical propositions in which the crucial predictions continue to hold true in the presence of a third country.

- “Private Foreign Investment in Developing Countries” (Book Review), *Journal of Economic Literature*, vol. 13 (1975), pp. 526-528.

A critical book review of H. C. Bos, Martin Sanders and Carlo Secchi, *Private Foreign Investment in Developing Countries: A Quantitative Study on the Evaluation of the Macroeconomic Effect*, International Studies in Economics and Econometrics, vol. 7 (Reidel, 1974), 402 pp.

- “On the Structure of Comparative Advantage in a Multi-factor Trade Model” (with J. R. Moroney), *International Economic Review*, vol. 20 (1979), no. 2, pp. 551-554.

This article proves a new theorem on the link between comparative advantage in the sense of relative cheapness in production to a set of factor intensities and factor costs. It proves that there are theoretical conditions under which the relative cheapness of goods is a mirror image of the relative cost of the factors of production so that the pattern of comparative advantage follows the hierarchy of factor intensities of production when there are many goods and many factors.

- “Testing the Demand Side of Comparative Advantage Models,” *American Economic Review*, vol. 69 (1979), no. 4, pp. 650-661.

This work develops a generic theory of comparative advantage combining the elements of the classical Ricardian model of comparative advantage and the modern Heckscher-Ohlin trade model. It focuses on the chain of pre-trade production concentration ratios as revealing underlying comparative advantage on the supply side, and shows that this chain is preserved in the ranking of post-trade net exports expressed as fraction of output produced under the assumption of homothetic consumer preferences. Regional tests of this proposition using the U.S. interregional trade and production data show a high degree of concordance with the theory, attesting to the empirical robustness of the model proposed.

- “Factor Price Equalization and a Factor Offer Analysis of International Trade” (with J. M. Trapani), *European Economic Review*, vol. 12 (1979), pp. 261-278.

This article presents a general equilibrium analysis of international trade which exploits the univalence (i.e., one-to-one correspondence) condition of the factor price

equalization theorem, and derives such concepts as factor trade indifference curves, factor offer curves, and factoral terms of trade in the factor space, parallel to the traditional development in the commodity space. The analysis accommodates some instances of variable factor supplies, going beyond the traditional assumption of fixed factor supplies.

- “Labor Skills, Human Capital, and the Pattern of U.S. Interregional Trade” (with R. C. Kirkpatrick), in *Interregional Movements and Growth*, COUPE Papers on Public Economics, published by The Urban Institute, Washington, D.C., vol. 2 (1979), pp. 197-235.

This is an empirical investigation of the labor skill differences existing among U.S. regions and how they impact on interregional trade. The U.S. is decomposed into 9 census regions, and labor into 8 different skill categories in this study. It finds that there are fairly strong and stable human capital characterizations of the U.S. regions, and that they in turn are reflected in the interregional trade pattern to a significant degree.

- “Factor Endowments, Factor Proportions, and the Allocative Efficiency of U.S. Interregional Trade” (with R. C. Kirkpatrick), *Review of Economics and Statistics*, vol. 63 (1981), no. 2, pp. 178-187.

Interregional trade reallocates regional factor endowments in an embodied form as these factors are used in the production of goods that are traded. Examining the several major categories of factor inputs that include physical capital, human capital, renewable natural resource products as well as non-renewable natural resources, we find that the U.S. interregional trade exhibits an allocative efficiency as these factors flow from relatively abundant regions to relatively scarce regions.

- “Aggregation, Consumer Preferences, and the Pattern of Trade,” *Economics Letters*, vol.10 (1982), pp. 129-136.

This article evaluates the effect of commodity aggregation on the observed pattern of trade. The major thrust of findings reported in this article is that the commonly made assumption regarding the homotheticity of consumer preferences in the international trade literature has a successively greater empirical relevance at higher levels of output aggregation. This is demonstrated both theoretically and empirically in this article.

- “U.S. North-South Labor Migration and Trade” (with R. C. Kirkpatrick), *Journal of Regional Science*, vol. 23 (1983), no. 1, pp. 93-103.

By breaking down labor by age, education, race and sex categories, we obtain a detailed labor supply profile of the U.S. south relative to the rest of the country. It then investigates both the pattern of interregional trade and the pattern of direct labor migration for each category of labor. It finds that the two are complementary in the sense that each contributes toward the greater homogeneity and convergence over time of the labor supply profile of the U.S. southern region vis-à-vis the rest of the country.

- “Labor Unionism and the Japanese Corporate Pension System” (with Kazuo Yoshida), *Japan Studies Review*, vol. 1 (1997), pp. 69-79.

The rapid aging of Japan’s population has raised serious public concerns about the

adequacy of its pension and social security system. This article traces the evolution of the Japanese corporate pension and that of labor unions. It examines the role of labor unionism as it may have impacted on the adoption of corporate pension plans by Japanese corporations. Interestingly, labor unions were generally opposed to the corporate pension adoption before 1981 for fear that it might erode the traditional severance/retirement benefits. This delayed adoption of new pension plans, especially by those firms where the more militant Sohyo organized the local union activities.

- “On the Empirical Content of the Factor Content Theory of Trade: A Regional Test,” *Osaka Economic Papers*, vol. 47 (1997), no.1, pp. 1-11.

This article presents a U.S. regional test of the factor-contents theory of comparative advantage. Using a five-input classification scheme and data from 1977 U.S. interregional trade data, both the sign and rank statistical tests performed in this study reveal a high degree of support for the theory.

- “Gross Substitutability and the Laws of Comparative Statics: A Simultaneous Demand Shift,” *Keio Economic Studies*, vol. 35 (1998), no. 2, pp. 1-8.

This paper extends and then applies the Mosak theorem in mathematics in order to assess the impact of a demand shift in the Walrasian economy characterized by the presence of many goods in which the goods are governed by gross substitutability. Contrary to what may be expected on the basis of the traditional result in which demand shifting from one good to another raises the relative price of the latter, the paper proves that if the demand shift is from one good to two or more goods, the latter price may fall relative to the price of some other goods whose demand is not directly impacted by the shift. A new theorem is obtained and proved.

- "Reply and a Rejoinder to Grimes and Prime," *Osaka Economic Papers*, vol. 49 (1999), no. 1, pp. 255-261.

This is a note replying to comment by Donald Grimes and Penelope Prime on my previous article, “On the Empirical Content of the Factor Content Theory of Trade: A Regional Test.” In response to the criticism raised by Grimes and Prime, this note provides a detailed methodological justification for the use of direct coefficients of production in the computation of the factor content of interregional trade.

- “International Duopoly, Tariff Policy and the Superiority of Free Trade” (with Shunichi Tsutsui), *Japanese Economic Review* (Official Journal of the Japanese Economic Association), vol. 51 (2000), no. 2, pp. 207-220.

This article addresses the effectiveness of tariff policy in the long-run production framework in which decisions must be made about the firm size and the level of output to be produced by foreign firms competing with each other in the importing country’s market. It builds a game-theoretic model of duopoly competition and obtains and proves a series of propositions and their corollaries comparing the effectiveness of different tariff policies. It also demonstrates that free trade dominates over tariff policies in terms of the welfare impact in the importing country.

- “Determinants of Japanese Corporate Pension Coverage” (with Kazuo Yoshida),

*Journal of Economics and Business*, vol. 54 (2002), no. 4, pp. 537-555.

The unique historical and institutional background of Japanese corporate pension provides the motivation for this study in order to examine the factors underlying corporate decisions to adopt pension plans. Five hypotheses are developed, two of which are based on cost-minimization considerations, and the remaining three hypotheses are derived from the Japanese-style labor bargaining process. The empirical analysis undertaken in this study finds evidence in support of the economic efficiency motives for pension adoption.

- “Japanese Corporate Pension Plans and the Impact on Stock Prices” (with Kazuo Yoshida), *Journal of Risk and Insurance* (Official Journal of the American Association of Risk and Insurance), vol. 70 (2003), no. 2, pp.249-268.

This study focuses on the stock market impact of Japanese corporate decisions to adopt pension plans. Using the generalized autoregressive conditional heteroskedasticity estimation method, it investigates whether and to what extent the stock market responds in terms of the listed company’s stock price to some of the specific characteristics of the adopted pension plans.

- “Determinants of the Initial Decisions by Japanese Firms to Undertake Foreign Direct Investment” (with Kazuo Yoshida), *International Finance Review*, vol. 4 (2003) special edition entitled *The Japanese Finance: Corporate Finance and Capital Markets in Changing Japan*, edited by J. Jay Choi and Takato Hiraki, Elsevier Science, pp. 405-422.

This article investigates the empirical determinants of the initial foreign direct investment (FDI) decisions undertaken by Japanese firms to enter into the U.S. and Taiwanese markets. The study is based on a full-sample (100% complete) survey of all firms listed on Japanese stock exchanges and is for the period 1976-2000. It finds that a number of macroeconomic and financial as well as microeconomic and firm-specific variables are highly significant in explaining the observed pattern of Japanese FDI entry into both the U.S. and Taiwanese markets. In particular, company-specific variables such as R&D expenditures, liquidity as proxied by cash flow, the relative firm size, and memberships in *keiretsu* company affiliation were found to impact significantly on the FDI entry decision, as did the real currency exchange rate.

- “Measuring the Spatial Propagation of Urban Manufacturing Investment,” *Osaka Economic Papers*, vol. 53 (2004), no. 3, pp.221-233.

This article develops a new method of assessing the extent of the impact of manufacturing investment in an urban core over the surrounding areas and regions. The multiplier process involved in the propagation of the impact can be assessed and estimated by the use of detailed interregional input-output data, but often such data are not available. The method proposed here circumvents the more restrictive interregional or inter-area trade data requirements, and obtains an alternative method based on substantially less data requirements. It demonstrates its usefulness with data selected from the New Orleans economy.

- “Waga Kuni no Kakutei Kyoshutsu Menkin Kettei Yoin” (Determinants of the

Japanese Corporate Pension Adoption, with Kazuo Yoshida), **Shintaku Kenkyu Shoreikin Ronshu** (Grant Essays for the Association of Japanese Trust Banks), in Japanese, vol.28 (December 2007), pp.68-75.

Pension economics is a rapidly evolving area of research, reflecting in part the very critical nature of aging problems confronting all industrialized nations. The problem is particularly acute in Japan as it now enjoys the longest life expectancy of its population in the industrialized world, coupled with one of the lowest birth rates (at less than 1.30 projected per newly born female baby) and the country's highly restrictive foreign immigration policies. The serious under-funding of Japan's national social security system and the financial market turmoil brought on by the bursting of speculative bubbles in the stock and housing market during the 1990s have fueled various developments in private corporate pension schemes including the introduction of U.S.-style defined-contribution (DC) pension plans, a new development that has been legalized since 2001. The article examines the empirical determinants of adopting DC plans by Japanese corporations.

- "U.S. Interregional Migration and Trade," *Osaka Economic Paper*, vol. 58, no.2 (2008), pp.159-171 (Special Edition in memory of Yutaka Imai).

This paper demonstrates the following. 1) Interregional *real* (but not *absolute*) wage rate equalization as well as the *relative* wage rate equalization can be deduced from the efficiency requirement regarding the maximization of national output across regions; 2) The *real* wage rate equalization, in turn, makes it possible to deduce determinate and testable patterns of labor migration *and* commodity trade that are complementary, rather than substitutive; 3) To test those implications, the U.S. Census data on migration between the South and the rest of the United States is used, in addition to the U.S. interregional trade-flow data. The test provides empirical evidence supporting the key implications of the model proposed on the complementary nature of trade and migration.

#### EXTERNAL GRANTS and AWARDS

The Japan Foundation Salary Assistance Grant for Japanese Language Instruction (for Tulane University Asian Studies Program), Principal Investigator, 2006-07.

Shintaku Ginko Kyokai (The Association of Japanese Trust Banks/ NPO) Grant, Principal Investigator, "Determinants of Defined-Contribution Corporate Pension Adoption," 2003-05.

The Japan Foundation Conference Grant (for the Southern Japan Seminar), Principal Investigator, 2001-02.

Louisiana Board of Regents, LEQSF Grant, Principal Investigator, "Establishment of the Center for Economic Modeling," 1991.

Louisiana Board of Regents, LEQSF Grant, Principal Investigator, "Excellence in Graduate Education," 1989-94.

Louisiana Board of Regents, LEQSF Grant, Principal Investigator., "Excellence in

Graduate Education,” 1988-93.

National Science Foundation Grant, Principal Investigator, “Foundations of Regional Comparative Advantage,” 1981-1983.

National Commission for Employment Policy Research Grant, Washington, D.C. (with William Oakland and Allan Zelenitz), Summer 1980.

Social Science Research Council Summer Research Grant, 1976.

Recipient, Grew-Bancroft Foundation Scholarship for undergraduate education in the United States, 1960-64