Trade and Variety-Skill Complementarity: A Simple Theoretical Resolution of Trade-Wage Inequality Anomaly

(Job Market Paper)

Yoshinori Kurokawa^{*} Department of Economics, University of Minnesota May 3, 2007

The Stolper-Samuelson theorem predicts that the relative wage of high-skilled to low-skilled labor will increase in the high-skill abundant U.S. but decrease in low-skill abundant Mexico after trade liberalization, while data show that the skill premium began to rise in both countries in the late 1980s. This paper presents a simple theoretical resolution of this "trade-wage inequality anomaly." The resolution is a straightforward application of well-known variety trade models. Intra-industry trade increases the variety of intermediate goods used by the final good. If the varieties and high skill are complements, the skill premium rises in both countries. This linking of intra-industry trade to wage inequality is consistent with evidence. Our numerical experiments show that increased U.S.-Mexican intra-industry trade, which is a small fraction of U.S. GDP, can account for much of the increase in U.S. and Mexican skill premium for a reasonable parameterization of the model. (*JEL* F12, F16)

^{*} Department of Economics, University of Minnesota, Minneapolis, MN 55455, kyoshi@econ.umn.edu. This paper received the best graduate student paper award at the MVEA 43rd annual meeting in 2006. I am very grateful to my thesis supervisor Tim Kehoe for his invaluable guidance; Professors Michele Boldrin, Cristina Arellano, Terry Roe, and Pedro Amaral for their helpful advice; and the seminar participants at the Trade and Development Workshop, the Federal Reserve Bank of Minneapolis, the University of Tokyo, the MVEA 43rd Annual Meeting, the MEA 71st Annual Meeting, and the Spring 2007 Midwest Trade Meeting for their useful comments. I wish to thank Professors Michihiro Ohyama, Katsuhito Iwai, Yoshimasa Shirai, and Koichi Hamada for their suggestions and encouragement. I also thank Kim Strain and Andrew Cassey for their careful correction of my English and Professors Gordon H. Hanson and Daniel Chiquiar for their help with Mexican data. However, the remaining errors are exclusively mine.