THREE ESSAYS ON THE FACTOR CONTENT OF TRADE

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ABSTRACT

This dissertation investigates the factor content of trade. This dissertation consists of three chapters that explain the factor content of trade with different methodologies.

The first chapter is Demand Effects in International Trade. We supplement prevalent international trade theory based on supply-side and extend the Heckscher-Ohlin-Vanek model in a new direction by incorporating demand-side consideration. These have been important in the "lore" of economics but not in economics research practice. We focus on aggregate demand differences across different countries that are induced by inequality in the presence of nonhomothetic preferences. We have constructed a new rich dataset that has information on consumption, trade, and factor usage for 32 countries across 45 industries that span the whole economy, for a year circa 2000. We fit the data for different types of preference assumptions, which allows us estimate preference parameters. We then use these results, plus our new demand-side methodology, to compare the relative importance of the supply-side and the demand-side in accounting for global factor trade.

The second chapter, has the title the Relevance of Trade Costs for the Factor Content of Trade: A Comparison of the Trans-Atlantic and the Intra-European Trade, extends the original Heckscher-Ohlin-Vanek (HOV) model in a modified direction, with a consideration of the pair-wise HOV model. Moreover, the original HOV model and the pair-wise HOV model both assume that there are no trade costs. This chapter studies the relevance of trade costs by comparing the fit of the factor content methodology for the trans-Atlantic trade (that is, trade between the United States and several European countries), and the purely intra-European trade

(that is, trade among the largest five European economies). This chapter also examines trade data that includes Australia and Canada. Note by using the trans-Atlantic countries with Australia and Canada, this chapter argues that the trans-Atlantic trade with Australia and Canada has higher trade costs than the intra-European trade. The sign test performs well without major amendments, but simply by restricting trade to the intra-European trade. The evidence presented in this chapter is at least suggestive that trade costs may play a very significant role in trade, and therefore in the calculation of the factor content of trade.

The third chapter is the Factor Content of Trade with Trade Costs. This chapter expands upon the original HOV model by considering trade costs. It deduces the original HOV model with trade costs and compares the importance of the original HOV model with and without trade costs. It does so by including trade costs directly in the technology matrix, where the working assumption is that the trade costs are located in the original country. Additionally, this chapter includes trade costs directly in the vector of the net exports. This chapter concludes that the original HOV model with trade costs achieves better results than the model without trade costs using the data constructed for the purpose of this chapter. These test results show that trade costs play an important role in explaining the factor content of trade.