

# DISCUSSION PAPERS IN ECONOMICS

Working Paper No. 05-06

An Explanation of OECD Factor Trade  
with Knowledge Capital and the HOV Model

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October, 2005

Revised: October, 2006

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## **Abstract**

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## **2. Knowledge Capital**







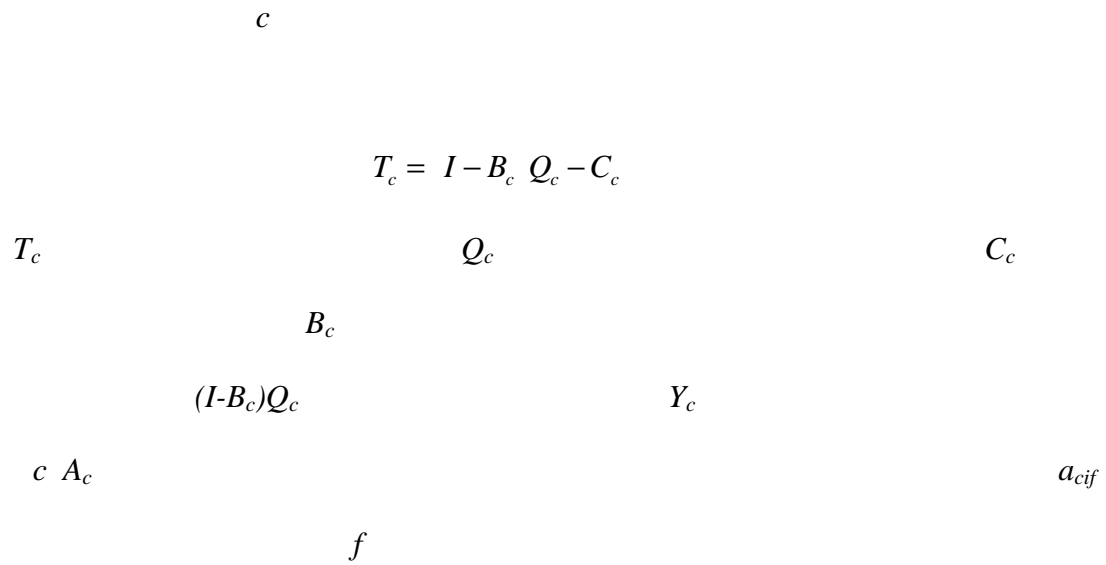
$TFP_{cit}$     $V_{cit}$     $C$     $Y_{cit}$     $cit$     $L_{cit}$   
 $C$     $L_{cit}$     $cit$     $K_{cit}$     $K_{cit}$     $C$     $V_{cit}$   
 $c$     $i$     $t$     $L_{cit}$   
 $K_{cit}$     $cit$

*L*

***2B. Knowle***



### 3. Knowledge Capital in the HOV Model

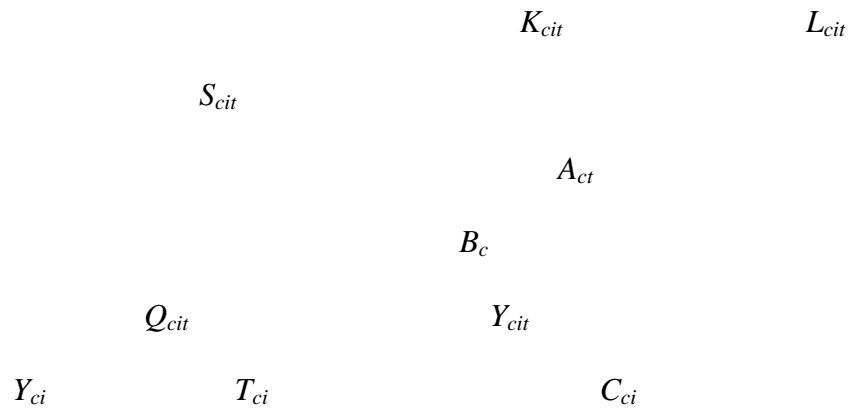








### ***3A. Overview of the Dataset***



### ***3B. Results of Testing the HOV Model with Knowledge Capital***

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### ***3C. Indirect Effects of Knowledge on Factor Productivities***

$$Y_{cit} = M_c M_i e^{\lambda_i t} K_{cit}^{\alpha_i} S_{cit}^{\alpha_i} L_{cit}^{-\alpha_i - \alpha_i}$$

$M_c$

$V_{cf}^*$  $V_{cf}$  $w_{cf}$  $V_{cf}$  $w_{cf}^*$









## References

*Journal of Political Economy*

*American Economic Review*

*Review of*

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*World Bank Economic Review*

*American Economic Review*

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*Proceedings of the American Philosophical Society*

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*Journal of Political Economy*

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*Journal of Economics*

*Canadian*

*Political Economy*

*Journal of*

*Review*

*American Economic*

*Economic Review*

*American*

## **Appendix A: Data Development**







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$$Y_{cit} L_{cit} = m_c + m_i + \lambda_t + \alpha_i K_{cit} L_{cit} + \alpha_i S_{cit} L_{cit} + \beta_i L_{cit} + \varepsilon_{cit}$$

$$m_c = \ln(M_C) \quad m_i = \ln(M_i) \quad l_i \quad l_i \quad 2i \quad 3i \quad l_i$$











