

# Modelling Regional Trade Agreements

by

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*To Mum, Dad and Andrew*

"Whate'er the senses take or may refuse, -  
The Mind's internal heaven shall shed her dews  
Of inspiration on the humblest lay"  
- William Wordsworth.

## Declaration of Originality

This thesis contains no material which has been presented for a degree at this or any other university and, to the best of my knowledge and belief, contains no copy or paraphrase of work published by another person, except where duly acknowledged in the text.

Mark Melatos

"Nor heed the shaft too surely cast,  
The foul and hissing bolt of scorn;  
For with thy side shall dwell, at last,  
The victory of endurance born."  
- William Cullen Bryant.

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# Abstract

In the last twenty years, regional trade agreements have proliferated. These have usually taken the form of customs unions (CUs) or free trade areas (FTAs). This thesis concentrates mostly on the formation and behaviour of CUs.

Union members levy a common external tariff (CET) on non-members. Existing theoretical models, however, do not agree on how the CET rate is chosen. Every model imposes a different choice rule exogenously. In this thesis, for the first time, plausible choice rules, based on the CU's social welfare function, are derived endogenously. The strategic behaviour of members and non-members, reveals that responsibility for CET choice tends to be assumed by the member that can induce the rest of the world to levy those tariffs members prefer to face.

Relatively few general results exist describing the relationship between country characteristics and trade bloc formation. Here, new light is shed on this issue, by systematically analysing bloc formation in an asymmetric world, and investigating the role of preferences in coalition formation. It is found that global free trade is most likely to arise when all countries are similar. Customs unions tend to form between relatively well-endowed countries or those with similar preferences. It is also demonstrated that CUs will usually Pareto dominate FTAs, except where preferences differ significantly.

The role of transfers in CU formation has received relatively little attention in the regionalism literature. In this thesis, optimal intra-union transfers are introduced and their impact on CET choice is investigated. The impact of transfers on CU behaviour depends on the direction of the transfer. When the relatively inelastic member is the recipient, the CU responds less aggressively to non-member tariff choices than it does when transfers are not permitted. However, if the relatively elastic member is the transfer recipient, the union's aggression increases. Moreover, when one union member exercises a similar degree of control over both CET and transfer choice, then the equilibrium CET tends to be lower than in the corresponding no-transfers situation.

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