Honours Thesis

International Trade and Job Polarisation:

Are all the middle-waged jobs disappearing?

Jason P. Maxted

supervised by

Dr. Richard Pomfret

Submitted to The University of Adelaide, School of Economics as partial fulfilment for
the Bachelor of Economics (Honours) degree.

4 November 2016
Declaration

Except where appropriately acknowledged this thesis is my own work, has been expressed in my own words and has not previously been submitted for assessment.

Word Count: 8137 Words

_________________________  _____________
Signature                      Date

4/11/2016
Acknowledgements

I would firstly like to thank Dr Richard Pomfret as my supervisor for his guidance and the access I was granted to his vast knowledge. I would also like to thank Dr Firmin Doko Tchatoka for his assistance with some of the econometric specification. To Dr Benedikt Heid, the once-off meeting I had with you proved valuable and I am very appreciative. Appreciation must also be given to my friends and family for your continued support. And lastly to my fellow honours students, I will be forever grateful for having met you and I wish you all the very best in the next stage of your lives.
Abstract

This thesis investigates the influence that international trade exposure has on the composition of the labour force in the manufacturing sector in Australia between 2008 and 2013. In particular we investigate whether the phenomenon of job polarisation is present within the industry, and whether increased trade exposure contributes to this. Thus we have had to carefully map employment data with trade data. Our panel data fixed effects estimation suggests that job polarisation does not exist within the manufacturing sector. This does not rule out its existence when accounting for the entire labour force however. The most significant finding is that increased exposure to trade leads to a movement of labour down the wage distribution. Such a finding has the potential to have significant policy implications.
Contents

1 Introduction 6
2 Literature Review 9
3 Data Description 12
  3.1 Data Mapping 13
4 Empirical Model 16
5 Variables 19
  5.1 Dependent Variable 19
  5.1.1 ln Share\textsubscript{it} 19
  5.2 Independent Variables 20
  5.2.1 Quality\textsubscript{it} 20
  5.2.2 Trade\textsubscript{it} 21
  5.2.3 Quality\textsubscript{it} \ast Trade\textsubscript{it} 22
  5.3 Controls 23
  5.3.1 Industry Value Added 23
  5.3.2 Australian Tariff Rate 23
  5.3.3 World Tariff Rate 23
  5.3.4 Trade Weighted Index 23
  5.4 Instrumental Variables 25
6 Results 26
  6.1 Pooled OLS 26
  6.2 IV Fixed Effects 28
  6.3 Fixed Effects 30
7 Discussion 33
8 References 35
9 Appendices 37
  9.1 Appendix 1 37
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1.1</td>
<td>Data Mapping</td>
<td>37</td>
</tr>
<tr>
<td>9.2</td>
<td>Appendix 2</td>
<td>52</td>
</tr>
<tr>
<td>9.2.1</td>
<td>Annual Wage Summary Statistics</td>
<td>52</td>
</tr>
<tr>
<td>9.3</td>
<td>Appendix 3</td>
<td>53</td>
</tr>
<tr>
<td>9.3.1</td>
<td>Trade Summary Statistics</td>
<td>53</td>
</tr>
<tr>
<td>9.4</td>
<td>Appendix 4</td>
<td>54</td>
</tr>
<tr>
<td>9.4.1</td>
<td>Pooled OLS - Trade with Developing Countries</td>
<td>54</td>
</tr>
<tr>
<td>9.5</td>
<td>Appendix 5</td>
<td>55</td>
</tr>
<tr>
<td>9.5.1</td>
<td>Pooled OLS - Trade with Industrialised Countries</td>
<td>55</td>
</tr>
<tr>
<td>9.6</td>
<td>Appendix 6</td>
<td>56</td>
</tr>
<tr>
<td>9.6.1</td>
<td>IV analysis - Trade with Developing Countries</td>
<td>56</td>
</tr>
<tr>
<td>9.7</td>
<td>Appendix 7</td>
<td>57</td>
</tr>
<tr>
<td>9.7.1</td>
<td>IV analysis - Trade with Industrialised Countries</td>
<td>57</td>
</tr>
<tr>
<td>9.8</td>
<td>Appendix 8</td>
<td>58</td>
</tr>
<tr>
<td>9.8.1</td>
<td>Fixed Effects - Trade with Developing Countries</td>
<td>58</td>
</tr>
<tr>
<td>9.9</td>
<td>Appendix 9</td>
<td>59</td>
</tr>
<tr>
<td>9.9.1</td>
<td>Fixed Effects - Trade with Industrialised Countries</td>
<td>59</td>
</tr>
</tbody>
</table>