



HONOURS THESIS

# **Location, location, innovation:**

**The impact of local environmental factors on regional innovation in Australia**

Maverick P. De Leon (B.Ec (Adv))

supervised by

Dr. Eran BINENBAUM

Submitted to The University of Adelaide, School of Economics as partial fulfilment for admission to 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: Approximately 11,900 words

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Signature

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Date

## Acknowledgements

First to my supervisor Dr Eran Binenbaum, thank you for your continual guidance and advice throughout this year. To the other academic staff (there are too many to name) who have always been happy to provide invaluable feedback and suggestion. A special mention to Dr Firmin Doko Tchatoka who advised on my econometrics, and helped me stay afloat in the rough times. To the honours cohort, I cannot imagine getting this far without your unending motivating and support, thoughtful advice, and the laughter; you guys are top 10 (I will never forget our heated debates about whether curries are stews, and if horses are capable of looking up). To my friends who tolerated my incessant complaints and occasional absence throughout the year, thank you for your patience with me throughout the year. To my uncle Chris, the Excel wizard, thank you for advising me on how to efficiently work with my data and enduring the pain of helping proof my thesis. To Thithi, who has kept me from self-imploding and kept me grounded this year, thank you for being my rock. But most importantly, my parents. Without your guidance and sacrifices I would not be where I am today. I am thankful for how you always pushed me to strive for better things, and although I never realised at the time, I bear the fruits of your labour today. Thank you for your unconditional love, being there for me through the highs and the lows.

In loving memory of my Lolo Abe. I hope you would be proud by what I have achieved.

“As a matter of fact, capitalist economy is not and cannot be stationary. Nor is it merely expanding in a steady manner. It is incessantly being revolutionized from within by new enterprise, i.e., by the intrusion of new commodities or new methods of production or new commercial opportunities into the industrial structure as it exists at any moment.” - *Schumpeter, 1942*

“A smart innovation agenda, in short, would be quite different from the one that most rich governments seem to favour. It would be more about freeing markets and less about picking winners; more about creating the right conditions for bright ideas to emerge and less about promises of things like green jobs. But pursuing that kind of policy requires courage and vision and most of the rich economies are not displaying enough of either.” - *The Economist, 2010*

# Contents

<b>1</b>	<b>Introduction</b>	<b>8</b>
<b>2</b>	<b>Literature Review</b>	<b>11</b>
2.1	Early approaches and theories of innovation . . . . .	11
2.2	Knowledge and Spatial Spillovers . . . . .	11
2.3	Regional linkages and the role of the university . . . . .	12
2.4	Related empirical literature . . . . .	13
<b>3</b>	<b>Exploratory Spatial Data Analysis</b>	
	<b>Spatial Diagnostics</b>	<b>15</b>
3.1	Spatial Weights Matrix . . . . .	15
3.2	Spatial Autocorrelation . . . . .	17
<b>4</b>	<b>Theoretical Model of Knowledge Production</b>	<b>22</b>
<b>5</b>	<b>Model Specification and Estimation</b>	
	<b>Confirmatory Spatial Data Analysis</b>	<b>24</b>
5.1	Model Selection . . . . .	26
5.1.1	Selection Between Spatial Models . . . . .	26
5.1.2	Model Comparison and Quality . . . . .	26
5.2	Fixed Effects Specification . . . . .	27
5.3	Issues: Bias Correction . . . . .	27
5.4	Robustness Checks . . . . .	27
5.5	Estimation Method . . . . .	28
<b>6</b>	<b>Data Description</b>	<b>28</b>
6.1	(Spatial) Unit of Observation . . . . .	29
6.2	Dependent Variable . . . . .	29
6.2.1	Innovation (Patents, Designs, and Plant Breeders Rights): (Innov) . . . . .	29
6.3	Independent Variables . . . . .	30
6.3.1	Business Research and Development Expenditure: (BRD) . . . . .	30
6.3.2	Number of university campuses: (Unis) . . . . .	31
6.3.3	University Research Funding per Region in \$millions: (Ufunding) . . . . .	31
6.3.4	Access to Business and Technical Services: (busserv <i>and</i> techserv) . . . . .	32
6.3.5	Primary Industry Dummy . . . . .	32
6.3.6	Control Variables . . . . .	32
<b>7</b>	<b>Results and Discussion</b>	<b>33</b>
7.1	SDM Comparisons . . . . .	34
7.2	Spatial Spillovers: Direct and Indirect Effects . . . . .	36

7.2.1	Direct Effects . . . . .	36
7.2.2	Indirect Effects . . . . .	37
7.3	Additional Remarks . . . . .	38
<b>8</b>	<b>Conclusion</b>	<b>39</b>
<b>A</b>	<b>Summary Statistics</b>	<b>45</b>
<b>B</b>	<b>Primary Industries by Year</b>	<b>45</b>
<b>C</b>	<b>Industry Counts</b>	<b>46</b>
<b>D</b>	<b>Correlations</b>	<b>46</b>
<b>E</b>	<b>Unit of Observation</b>	<b>47</b>
<b>F</b>	<b>Moran’s I Scatter (Innovation log-transformed)</b>	<b>48</b>
<b>G</b>	<b>LISA Map (Australia)</b>	<b>50</b>
<b>H</b>	<b>LISA Significance Map (Australia)</b>	<b>51</b>
<b>I</b>	<b>LISA Map (Melbourne and Sydney)</b>	<b>52</b>
<b>J</b>	<b>Moran’s I (not logged)</b>	<b>53</b>
<b>K</b>	<b>Moran’s I scatter (not logged)</b>	<b>54</b>
<b>L</b>	<b>Spatial Panel Model Specifications</b>	<b>56</b>
L.1	SAR Model . . . . .	56
L.2	SEM Model . . . . .	56
L.3	SAC Model . . . . .	56
<b>M</b>	<b>Results form SAR, SEM, and SAC Fixed Effects Estimation</b>	<b>57</b>
<b>N</b>	<b>Results from non-spatial panel model (FE and RE)</b>	<b>58</b>
<b>O</b>	<b>Results for Primary Industry differences</b>	<b>59</b>
<b>P</b>	<b>Spatial Panel Random Effects Results</b>	<b>60</b>

## List of Figures

1	Neighbour Connectivity Histogram . . . . .	17
2	Moran’s I Scatter: Mean (log) Innovation (2009-2015) . . . . .	20
3	Local Indicators of Spatial Autocorrelation Map (Australia) . . . . .	21
4	Local Indicators of Spatial Autocorrelation Map (Eastern States) . . . . .	21

5	Modified regional production function . . . . .	23
6	Australian (logged) Innovation (Natural Breaks/Jenks) Map . . . . .	30
7	Statistical Area 3: Australian Regional Division . . . . .	47
8	Moran's I Scatter Plots . . . . .	48
9	Moran's I Scatter Plots . . . . .	52
10	Moran's I Scatter Plots (no log transformation) . . . . .	54

## List of Tables

1	Spatial Weights Matrix Summary Statistics . . . . .	17
2	Tests for Spatial Dependence (Autocorrelation): (log) Innovation . . . . .	19
3	Quadrant Relationships in Moran's I Scatter Plot . . . . .	19
4	Spatial Panel Specifications . . . . .	24
5	Summary of Results from General Model (i) Estimation . . . . .	33
6	Spatial Durbin Model (Fixed Effects) Results . . . . .	35
7	Direct and spillover effects of different model specifications (Source: Elhorst (2010)) . . . . .	36
8	Direct and Indirect Effects (SDM (i)) . . . . .	38
9	Spatial Panel Fixed Effects Results ( <u>without</u> Lee and Yu (2010) Transformation) . . . . .	40
10	Summary Statistics . . . . .	45
11	Count of Primary Industries . . . . .	45
12	Summary of Industries within a region . . . . .	46
13	Correlation Table . . . . .	46
14	Tests for Spatial Dependence/Autocorrelation (for innovation not log-transformed) . . . . .	53
15	Spatial Panel Estimation Results . . . . .	57
16	Results from non-spatial Fixed and Random Effects Panel Model . . . . .	58
17	Summary of Industry Differences (all spatial models) . . . . .	59
18	Spatial Panel Results: Random Effects . . . . .	60

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Maverick P. De Leon\*

November 4, 2016

## Abstract

This paper investigates the determinants of innovation among Australian regions, focussing on the spatial dimension of innovation and innovative-related activities in creating spillover effects. Through ‘exploratory’ and ‘confirmatory’ spatial data analysis we find evidence that innovation activity is spatially dependent, and that there is evidence of spatial clustering of highly innovative regions. Applying spatial econometric techniques, we estimate a Spatial (panel) Durbin Model to control for spatial autocorrelation to analyse the driving forces of innovation throughout regions. We find that the number of university campuses within a region along with university research has a significant and positive effect on local levels of innovation. In terms of spillover effects, we find that population density creates a negative indirect effect; where neighbouring region’s population density adversely impacts innovation levels.

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\*The University of Adelaide