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Policy Settings in the Agricultural Sector – THE ECONOMICS OF FREE TRADE AND FOOD SECURITY

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1. INTRODUCTION

'A capitalist world organised on liberal principles knows no separate economic zones. In such a world, the whole of the earth's surface forms a single economic territory.'

(Ludwig von Mises 1985)

The hurt of selling the family farm is so deeply embedded in the Australian psyche that the reality of foreign ownership in the agricultural sector is profoundly misunderstood (Fitzpatrick 2013). Contrary to common belief, foreign investors own a mere 11.3 per cent of agricultural land, with approximately half that figure being Australian managed (Australian Bureau of Statistics 2010). These figures signal the misconceptions concerning this issue. Foreign direct investment (FDI) has become increasingly controversial, in part, due to recent Chinese interest in our national farmland. The subject of food security in the Asian Century has since been brought to the forefront of Australian politics with rhetoric that Australia ought to reap the associated benefits of becoming Asia's 'food bowl'. However, it is my contention that our regulatory policies may frustrate this initiative.

More specifically, the purpose of this paper is threefold. Firstly, the Cobb-Douglas Production function is adapted to identify the affect an increase in FDI has on the returns to labour, capital and overall national income. Secondly, Coase's theory of the firm is deployed to explain the rationale behind the FDI decisions of multinational corporations and foreign governments. Finally, the Australian legal position with regards to FDI is critiqued and I argue that our screening regime should be reassessed.

2. THE ECONOMIC THEORY

A. *Introduction of Model*

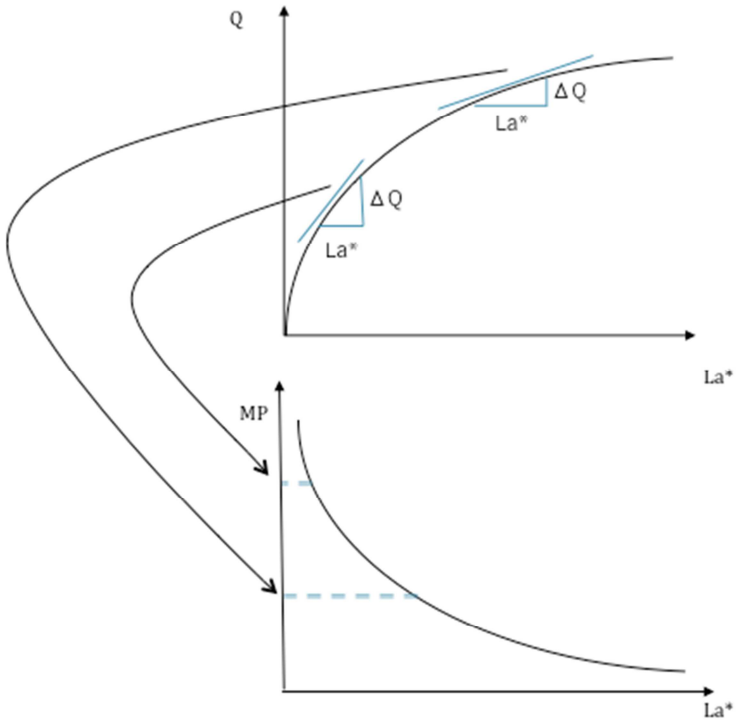
George Donald Alastair MacDougall (1960) endeavoured to assess changes in Australia's real income at a particular moment in time by the presence of more or less foreign-owned private capital. This required an analysis of positive externalities and several other indirect effects that influence the welfare assessment, such as those

arising from the impact of foreign direct investment on tax policies, terms of trade and the balance of payments (Blomstrom 2002). He modelled this by utilising the most commonly deployed neoclassical production function, namely, the Cobb-Douglas Production function.[1]

For the purposes of this paper, MacDougal's theory is adopted, extended and applied to the agricultural sector by introducing land as a variable factor of production. Manufactured or physical capital must be, in itself, produced by labour prior to becoming a factor of production. It is considered distinct from land typically for this reason. However, work must also be conducted on agricultural land in order for it to be 'brought online' or capable of yielding a return. Land, in this context, therefore means observed terrain plus a minimum level of capital, which we will call basic land capital to yield useful land or La*. One unit of basic land capital is needed to bring one unit of land online. Thus, the process of alienating or transforming land into agricultural land is not costless. The addition of La* to a fixed amount of capital (in addition to the minimum level required) and a fixed amount of labour increases agricultural output but at a decreasing rate. This reflects one of the chief characteristics of the Cobb-Douglas Production function, namely, the law of diminishing marginal product of land, which is represented in diagram one below.

[1] For accounts of the Cobb-Douglas Production function see Mankiw, N.G. 2003, *Macroeconomics*, Worth Publishers.

Diagram One



The Cobb-Douglas Production function is traditionally utilised to represent the technological relationship between the amounts of two inputs –typically labour and capital – and the amount of output that can be produced by those inputs. This is represented as $Q = aL^{\alpha}K^{\delta}$. There is also a long tradition of using empirical evidence to estimate the numerical values of alpha and delta. That is, the exponents of L and K. In the U.S, it was calculated that alpha = 0.75 and delta = 0.25 (Douglas 1976). A subsequent calculation several years later revealed that alpha decreased to = 0.65 and delta increased = 0.35 (Douglas 1976). This means that for a 1 percentage unit increase in L there will be a 0.65 percentage increase in Q. For the purposes of this paper, and as mentioned at the start of this section, land is introduced as an additional input to ensure that the function is capable of depicting fluctuations in the stock of land. This adapted mathematical formula is shown below.

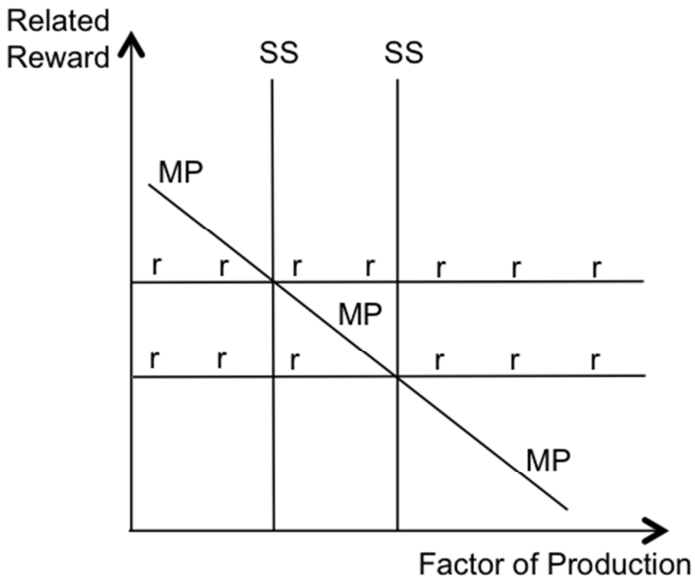
$$Q = aL^{\alpha}K^{\delta}La^{*\lambda}$$

Where $\alpha + \delta + \lambda = 1$

This development is not in any way new economics. A Canadian study similarly estimated the value added in agriculture as a constant returns to scale function of the three basic factors of production (Echevarria 1998).

The Cobb-Douglas Production function or model is used to explain how factors are rewarded in such a way that the total product is exhausted. Each factor of production earns the marginal product of the last unit offered and hired in the market place. This is because due to the law of diminishing marginal product of land, each successive unit of a specific factor produces less at the marginal and hence will not be hired unless its reward is higgled down to its marginal product. Specifically, $W/P = MP_L$, real $r = MP_K$ and real land rent = MP_{La*}. If for some reason the reward is held above the level, the marginal costs of hiring additional units of a factor will be higher than the marginal benefit and hence unemployed resources will result. This is shown in diagram two below.

Diagram Two



For reasons of simplicity, some assumptions must be made to ensure that this model is workable. First and foremost, all resources must be homogenous. If resources were heterogeneous (e.g. land), the model would need to discriminate between different types or qualities of land and allow for this by treating each as a separate variable. Cobb Douglas or neoclassical distribution theory characteristics also hold. That is:

1. $Q' > 0$ and $Q'' < 0$;
2. Constant elasticity;

3. Constant returns to scale; and
4. All rewards are exhausted.

These characteristics are depicted mathematically in Appendix A.

Thus, where there is an addition of La*, capital and labour are spread more thinly, and the land at the margin is less productive. For investors to purchase the land, the real market rental rate must fall to the level of the lower marginal productivity of the additional land. The market rental rate will fall as more land is brought online, assuming that capital and labour are fixed, to ensure all of the resource is utilised. In other words, the real market rental rate is bid down to equal the MP_{La*} of the last unit of La* presented. The implications of FDI investment in land for factor rewards may now be explored in a series of scenarios in which the Cobb-Douglas Production function figures.

3. SCENARIO ONE: $Q = F(\bar{L}, \bar{K}, La^*)$

Diagram Three

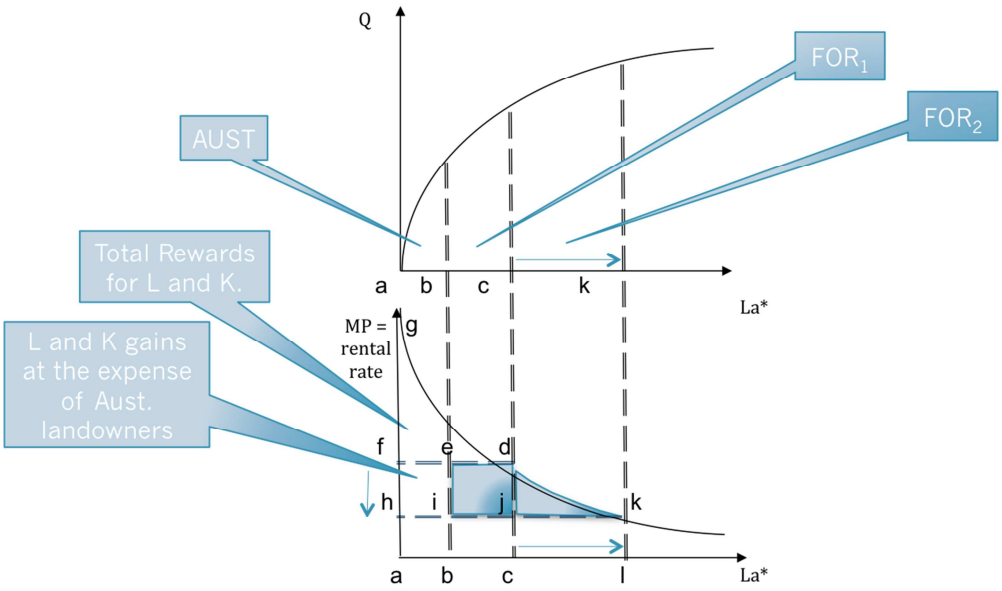


Diagram three relates the stock of La* in Australia to the marginal product of land, taking into account the extent of other factors of production such as labour and capital. AC represents the initial stock of land, with AB owned by Australians and BC owned by foreign countries. According to the previous assumptions, the market

rental rate (both implicit and explicit) is equal to the marginal product of land.[2] Land that is less productive at the margin is less valuable.

Total rentals on Australian owned land are depicted by FEBA and total rentals on foreign owned land are depicted by EDCB. GDCA represents total output, with labour and capital benefiting GDF. This is based on the additional assumption that labour could not produce any output in the absence of land.

As foreign investors bring more land online (from BC to BL), there will invariably be an increase in overall output. While this change in output may be dramatic, the additional acreage of land is less productive as the availability of skilled labourers, machinery and other necessary capital is limited, and is thereby spread more thinly. The implication of this is that at the margin, the reward for holding and using land is lower. This fall in the marginal product of land means that the original foreign land loses EDJI while the additional foreign land earns JKLC. Using MacDougall's approach total foreign rewards increase on balance as a result of the elasticity of demand for foreign land. Namely, the percentage change in land is greater than the percentage change in the marginal product of land. Therefore, the high elasticity is equal to the percentage change in land divided by the percentage change in the market rental rate, with this being greater than one. Thus, the area EDBC > JECL. This is likely since the marginal product of land is unlikely to fall by much as La* increases. This is shown mathematically below.

Mathematics One

$$\% \Delta La^* > \% \Delta MP_L$$

$$\text{Therefore, } E_d = \frac{\% \Delta La^*}{\% \Delta \text{ rent}} > 1$$

Australian landowners lose out by an amount equal to the area of FEIH. In contrast, labour and capital gain FDKH. Thus, the dead weight gain for Australian factors of EDKI demonstrates that Australia as a whole benefits from foreign direct investment. On an intuitive level, agricultural labour and capital gain at the expense of landowners

[2] Where implicit rent refers to someone renting the land and explicit rent refers to a landowner who forgoes the rent that could be earned if he or she leased the land.

because their services are spread more thinly over a larger body of land and hence their rewards increase. Two additional points further support this argument: the fixity of labour and the greater capital intensity of farming. Each is considered in turn.

A. *Labour Shortage in the Agricultural Industry*

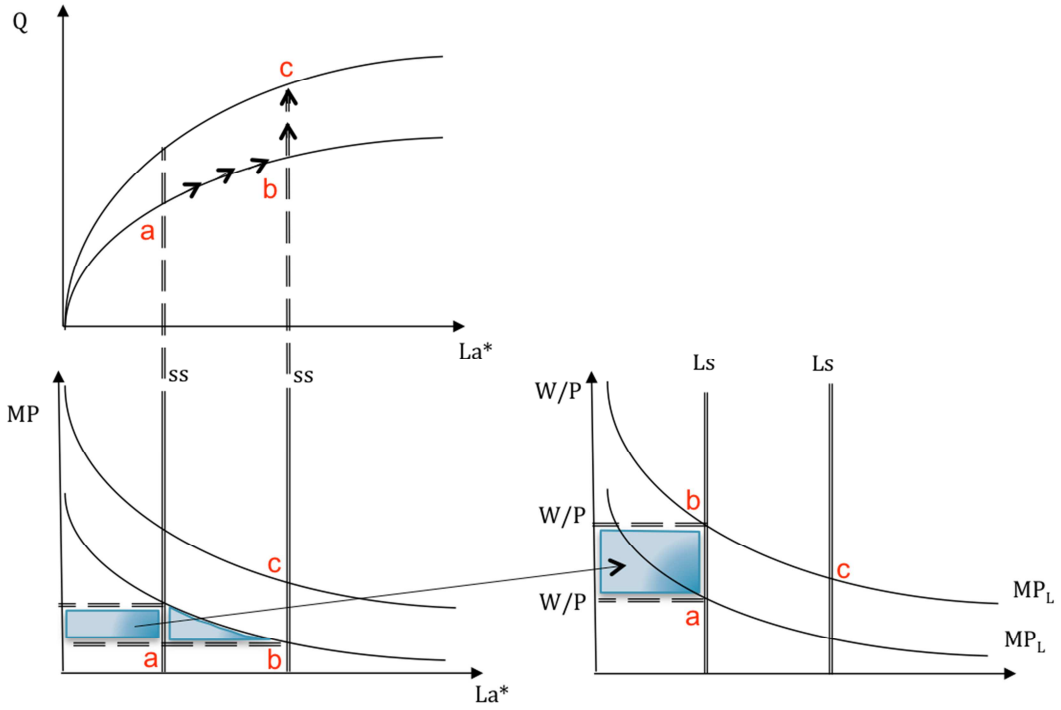
The three factor model developed in this paper is of particular importance to Australia given recent labour statistics. In 2012, AgForce Queensland, one of Australia's biggest farm industry groups, estimated that the agricultural sector faced a national labour shortage of at least 96,000 full-time skilled workers and 10,000 casual workers (Beeby 2012). These acute shortages have cost Australian farmers more than $150 million per year in lost productivity (Beeby 2012). Thus, L may be presented to be a variable that is sufficiently stable in the short run to be presumed fixed. This means adding La* to the fixed labour and capital supply will induce a decline in MP_{La*} and greater rewards will flow to the more scarce labour.

B. *The Rise of the Capital Intensive Corporate-Farming Model*

This model is also important because of the demographic changes taking place in the agricultural industry. In 2011, the average farmer age was 56 (KPMG 2012). It is possible that half of Australia's farming workforce may choose to retire and exit the industry within the coming decade. The inherent issue is that children of existing farmers are becoming increasingly reluctant to take over the family business and are more interested in moving to the capital cities in search of higher earning jobs and better services in other sectors (KPMG 2012). With family farms struggling to compete with the productivity of corporate farms – which have superior capital and professional management skills available to them – many farmers are forced to sell, with the most attractive offers coming from the mining and resources sector or foreign investors (KPMG 2012). The resulting corporate farm is more capital intensive and, since capital takes time to change, there is again reason to believe that greater land will lead to greater rewards accruing to the capital owner in the short run.

4. SCENARIO TWO: Q = F (L, $\overline{K}$, $\overline{La^*}$)

Diagram Four



It is now appropriate to consider circumstances in which labour and capital are no longer constant. Diagram Four represents an increase in foreign direct investment in land and the positive outcome it yields for the labour market. With an increase in the stock of La* (as shown in Scenario One) the real wage subsequently increases. The movement along the curve from point A to B induces greater rewards for capital and labour due to the greater abundance of land. Note, however, that only the labour market is shown alongside the land market in diagram four, and one needs to imagine a third diagram for the capital market.

As such, Australian land is capable of supporting additional labourers without lowering the real wage. It would be possible to moderately increase population without reducing income per head below the level that would have been attained in the absence of the extra La*. Thus, if the labour force were permitted to increase via a rise in immigration rates the curve will shift bodily outwards to point C and deflate the real wage, but not below the level prior to the extension of La*. Trade unions, jingoistic and xenophobic nationalists, and those generally hostile to multiculturalism

would therefore be less likely to oppose migration. It may be argued that the end of the White Australia Policy and the start of mass migration waves that have characterised recent Australian history transpired simply because capital and land grew at a faster rate than labour and therefore prevented real wages from falling.

5. SCENARIO THREE: $Q = F(\overline{L}, K, \overline{La^*})$

Further investment in capital will induce the curve to shift bodily outwards and bears similar if not identical implications as the narrative in Scenario Two. This is particularly important for Australia, as it is the foreign investors who typically dedicate their time and financial resources to capital-intensive projects that cause the simultaneous shift from point A to B to C. The need for foreign investment in both land and capital is further justified by the apparent unwillingness of domestic residents to undertake such investment. This claim is explored in the following two points.

A. *Australia's Savings (Or Lack Thereof) Cannot Support Further Investment in Capital*

As a resource rich country with relatively high demand for capital, Australia has, for over two centuries, relied on foreign investment to meet the shortfall of domestic savings relative to domestic investment needs (Department of Treasury 2000). According to the 2012 World Bank Report, gross savings (as a percentage of GDP) in Australia were last reported at 24.3 per cent in 2010 (The World Bank 2012).[3] Since 1960 there have only been three years in which Australian domestic savings have exceeded foreign investment (Kirchner 2008).

The Australian Trade Commission calculated in 2012 that foreign investment in Australia totalled an astounding $549.6 billion (Australian Trade Commission 2013). This was an 8.6 per cent increase from 2011, preceded by 7.1 per cent increase from 2010 (Australian Trade Commission). As a percentage of GDP, Australia's inward foreign direct investment stock has averaged 36 per cent between 2007 and 2012, a 2 per cent rise from the previous six years (Australian Trade Commission 2013). Such

[3] Gross savings are calculated as gross national income less total consumption, plus net transfers.

growth is expected to continue with Australia being recently ranked the world's sixth most attractive destination for foreign direct investment in A.T Kearney's 2012 FDI Confidence Index (Australian Trade Commission 2013).

Without the availability of foreign capital our nation's limited savings would be under additional pressure to service growth, innovations and developments (Robinson 1989). The consequence of such a situation would be an increase in taxes or interest rates to service domestic demands for capital as well as lower rent rewards for labour. Australia's agricultural sector would not have industrialised and progressed to where it stands today if not for foreign investment – a fact widely acknowledged in government analysis (Fitzpatrick 2013). As such, why challenge the benefits of foreign direct investment now?

The role of important financial capital in maintaining high real wages is patent in the historical record. This record has been traced out by Davidson in *European Farming in Australia: An Economic History of Australian Farming* (1981). He shows that a range of well-known agricultural companies developed Australian resources via their investments. The earliest large-scale investments in agriculture were undertaken by the British funded Australian Agricultural Company, which bought more than 200,000ha of New South Wale's Peel River and the Liverpool Plains in 1824 to develop a sheep and cattle grazing run (Fitzpatrick 2013). In 1825 Van Diemen's Land Company purchased 142,000ha in Tasmania, investing £170,000 in seven years (Fitzpatrick 2013). In the 1890's Canadians George and William Chaffey were granted 100,000ha in Mildura to subdivide and supply with water. In the subsequent decade they invested approximately £300,000 (Fitzpatrick 2013). The British-Argentinean Vestery family was a beef pioneer in the Northern Territory, creating the Blue Star Line in 1911 to ship refrigerated meat to Britain (Fitzpatrick 2013). They also built a freezing and canning works in Darwin in 1914. Additional British investment in the meat sector followed, with the United Stated becoming heavily involved by the 1960's and Japan by the 1980s (Fitzpatrick 2013).

Davidson points out that Australian farmers have always been constrained by the unique dryness of their land (Havinden 1983). In addition to other factors such as distance from markets (which has been explored by Blainey in The *Tyranny of*

Distance: How Distance Shaped Australia's History) and having a smaller population, means that fewer opportunities are available to Australian farmers than to European or North Americans (Davidson 1981). While Australia is approximately the same size as the United States geographically, the population only reached 8 million by 1950 and 14.4 million by 1980 (Havinden 1983). If the ratio of well-watered land to population were the same as in the United States, Australia would have a population of 58 million, and if it were the same as in Western Europe the population would be 176 million (Havinden 1983). Davidson draws these comparisons to emphasise the size of Australia's domestic market against the international stage.

Davidson argues that Australian farming has only been – and only will be – successful and profitable if it complies with four essential economic principles (Davidson 1981).

1. Commodities must be produced for which a large export market exists.
2. The exports must be valuable in relation to their bulk and must not deteriorate during long distance transport.
3. Exports must not be labour intensive given that wages have always been relatively high.
4. Their production should utilise large areas of land, as this is the one factor of production that Australia possesses in abundance.

Whatever the precise arguments advanced by Davidson, the model deployed here suggests that only through imported financial capital will physical capital and land remain high relative to labour in a way to maintain high real wages with migration.

B. *The Ord River Scheme*

The recent FDI in land is therefore just a continuation of the historical trajectory of Australian economic history. This is shown dramatically in the case of the Ord River Scheme. The Ord River Scheme is an exemplar of a flailing project that was salvaged by the investment of foreign capital. In 2012, Chinese conglomerate Shanghai Zhongfu won the sole right to develop 15,200ha of high-value irrigated agricultural land in northern Australia after the state and federal governments spent $510 million

of taxpayer funds building road, irrigation, port and local community infrastructure to support the scheme (Neales 2012).

The waters of the Ord River were first dammed in the 1970s to trap the heavy monsoon rains for year-round irrigation (Carey 2012). The scheme was later directed towards harvesting cotton crops, but a lack of modern capital, farming management techniques and inexperience in tropical farming systems, are said to have rendered the scheme unsuccessful. Foreign acquisition may return the sunk costs that were incurred in developing the region. Hence, this should be viewed as a positive opportunity to position Australia as Asia's 'food bowl' and reap the rewards described in the economic model above.

Shanghai Zhongfu plans to grow sugarcane across the entire region, and build a new sugar mill to process the cane into sugar and ethanol biofuel. The mill is expected to cost the company approximately $250 million. This cost includes the preparation and planting of the cane crops across the undeveloped land (AAP 2012). AACo, a shortlisted contender in the bid, admitted that they could not match the offer made by Shanghai Zhongfu (Neales 2012). This is very much a reality across Australia, where national organisations such as AACo simply cannot compete with the capital investment offered by foreign investors.

6. SCENARIO FOUR: TRANSFER OF LAND

Thus far this economic model has failed to consider the situation where foreign investors purchase existing land that is already operational as opposed to basic terrain. This does not alter the volume of land that is 'brought online' but is merely a transfer between Australian landowners to foreign landowners. However, if the foreign landowners introduce additional capital in the process of acquiring the land productivity would increase. Similarly, this would inflate the rental rate and the rewards to Australians would escalate. Furthermore, transactions such as these generate forward and backward linkages. Through business networks, landowners have the opportunity to sell their product in international markets. This last issue is explored further when considering the relevancy of the Coase's Theory of the Firm (Coase 1937).

7. COASE'S THEORY OF THE FIRM

Throughout history economists have admired the beauty of the free market. Atomistic agents exchange goods and services, via Adam Smith's 'invisible hand', in such a way that yields mutually beneficial results for all. However, this perspective fails to explain why agents forgo these exchanges and establish companies, which the free market internally does not operate. Capitalism essentially entails miniature non-market commercial and contract enterprises that interact with each other through market exchanges at a price signal. Ronald Coase provided an explanation of this dichotomy via the transaction cost theory of the firm.

Coase examined the trade-off between the costs of conducting business within the firm and the transaction costs of outsourcing. Costs within the firm are fairly easy to identify and are uncomplicated to quantify. The chief costs of outsourcing include the cost of monitoring the external company to ensure that it provides the good or service to your specifications, the cost of legal advice and the drawing of contracts to ensure the external company delivers on what they promised, and the cost to ensure certainty of delivery. If transaction costs are sufficiently high, the firm will integrate these activities within the boundaries of the firm. Downstream and upstream activities may therefore be integrated. This is a particular possibility for foreign food processing firms that are concerned about the quality and reliability of supply of food inputs. A higher quantity of Australian produce is required as a result and therefore there is an increase in demand for all resources. The Coasian dynamics drawn from FDI, as well as the benefits increased demand from forward and backward linkages, is highlighted in the following two case studies.

A. *Chinese Interest in Van Diemen's Land*

The State-owned China Investment Corporation (CIC) may emerge with approximately half of Australia's oldest dairy producer Van Diemen's Land (VDL) pursuant to a proposed $200 million agreement (Carter 2013). New Zealand diary giant Fonterra Co-Operative Group Ltd has offered to purchase VDL in partnership with CIC.

The actions of firms such as CIC reflect Coase's theory of the firm in that by purchasing VDL they are making the simple choice between producing within the boundaries of the existing firm and extending the firm by building backward linkages that travel upstream. This will ensure they have a supply of a certain quality. Such assurance was rendered necessary after CIC's milk product scare that demanded a major product recall in global markets in 2008 (Frangos and Pi 2013). The ingredients in question originated from Fonterra, which supplied milk powder contaminated with melamine, which had disastrous consequences. Six infants died as a result and thousands more were hospitalised (Frangos and Pi 2013). Australian businesses should look to partner with Chinese companies to exploit China's growing demand for safe, premium fresh and processed foods. The opportunity cost of not pursuing such deals is incredibly high.

B. *Indonesian Interest in Australian Cattle Farms*

Indonesia's Ministry of State Owned Enterprises (MSOE) has confirmed it is close to making investments in Australian cattle stations in line with Indonesian Government plans to obtain security of beef supply (Nason 2013). Wahyu Hidyat, Secretary of the MSOE, has publicly expressed that due-diligence studies recently completed by PT Pupuk Indonesia concluded that cattle farming should be conducted in Australia for reasons of efficiency, while cattle fattening and processing should be conducted in Indonesia (Nason 2013). This is due to the benefits afforded by lower labour costs and the potential to re-export processed beef from Indonesia to other Muslim countries.

Ironically enough, Sumba Island, located in eastern Indonesia, is soon to become a new processing centre for Australian live cattle and beef in Indonesia (Nason 2013).

These two case studies also raise the issue of double standards, in that it follows that if other nations have allowed us to purchase their land, how can we create substantial barriers to entry in the Australian agricultural market.

8. THE AUSTRALIAN LEGAL POSITION

A. *Current Australian Law*

The following instruments collectively administer Australia's foreign investment screening regime:

- *Foreign Acquisitions and Takeovers Act 1975* (Cth);
- *Foreign Acquisitions and Takeovers Regulations* 1989 (Cth); and
- The Australian Government's published Foreign Investment Policy.

This legislative framework provides for the submission of proposals to the Foreign Investment Review Board (FIRB), a non-statutory body that is responsible for examining foreign acquisitions and investment projects (Department of Finance and Deregulation 2013). Upon the conclusion of such an assessment the FIRB makes recommendations to the Treasurer and other Treasury portfolio ministers. Nevertheless, the FIRB's functions are merely advisory, and final responsibility for making decisions on proposals rests with the Treasurer.

Pursuant to the Act, the Treasurer has a period of 30 days to consider and make a decision regarding an application (Foreign Investment Review Board 2012). The decision will either raise no objections, thus authorising the launch of the proposal; impose conditions, which are required to be met; or block the proposal.

Particular classes of foreign investment require submission to, and the prior approval of, the FIRB. These include proposed investments in Australian urban land or land rich corporations or trusts, acquisitions of interests in an Australian business where the value of the gross assets is above $248 million AUD, and direct investments by foreign governments and their agencies irrespective of size (Department of Treasury 2013).

However, there are certain exceptions to the $248 million threshold. Where the privately owned foreign investor originates from the United States or New Zealand a $1,078 million threshold applies, provided the investment is in a non-sensitive sector

(Department of Treasury 2013).[4] These allowances were afforded subsequent to the signing of the Australia-United States Free Trade Agreement and the Australia-New Zealand Closer Economic Relations Trade Agreement. It is interesting to note that while Australia also maintains free trade agreements with Chile, Singapore, Malaysia and Thailand, only the United States and New Zealand were granted a higher threshold.

Chinese foreign investment in Australia has increased exponentially in recent years, with the end of 2011 exhibiting $19 million in Chinese investment – three times the amount in 2007 (Hurst, Cai and Findlay 2012). With regards to foreign investment approvals, Chinese applications worth a total of $15 billion were accepted by the FIRB in 2011 (Foreign Investment Review Board 2012). This accounted for 8.5% of total approvals, ranking the third highest after the United States and United Kingdom, whose applications totaled $27.6 and $15.4 billion respectively (Foreign Investment Review Board 2012). Thus, not only is China Australia's largest trading partner, but it may soon also be our largest source of capital investment in agriculture.

i. Defining Foreign Persons and Foreign Governments

The *Foreign Acquisitions and Takeovers Act 1975* (Cth) prescribes that a foreign person is defined as:

- A natural person not ordinarily present in Australia;
- A corporation in which a natural person not ordinarily resident in Australia or a foreign corporation holds a controlling interest;
- A corporation in which 2 or more persons, each of whom is either a natural person not ordinarily resident in Australia or a foreign corporation, hold an aggregate controlling interest;
- The trustee of a trust estate in which a natural person not ordinarily resident in Australia or a foreign corporation holds a substantial interest; or

[4] Sensitive sectors include media, telecommunications, transport, the supply of training or human resources, the manufacture and supply of military goods or equipment or technology to the Australian Defence Force or other defence forces, the manufacture or supply of goods, equipment or technology able to be used for a military purpose, the development, manufacture or supply of or the provision of services relating to encryption or security technologies and communication systems and the extraction of uranium or plutonium or the operation of nuclear facilities.

- The trustee of a trust estate in which 2 or more persons, each of whom is either a natural person not ordinarily resident in Australia or a foreign corporation, hold an aggregate substantial interest.[5]

The Act also provides that an entity is a foreign government investor if it is:

- A body politic of a foreign country; or
- A body politic of part of a foreign country; or
- A part of a body politic mentioned in subparagraph (i) or (ii); or
- The entity is controlled by an entity mentioned in paragraph (a); or
- An entity mentioned in paragraph (a) holds an interest in the entity that satisfies the conditions specified in the regulations.[6]

ii. Acquisitions Involving Rural Land and Agribusiness

The Policy defines rural land as 'land used wholly and exclusively for carrying on a business of primary production.' (Department of Treasury 2013). To be a business of primary production, the business must be substantial and have a commercial purpose or character. Further reference is made to the *Income Tax Assessment Act 1997* (Cth), which expands on what constitutes a primary production business. Production resulting from the cultivation of land, animal husbandry, horticulture, fishing, forestry, viticulture and dairy farming are deemed to fall within this realm.

Proposed investments by private investors in agribusinesses – including those involving agricultural land – are subject to the same thresholds that apply to other foreign acquisitions of Australian companies or business assets (Department of Treasury 2013). That is, where the value of the property in question exceeds $248 million.

iii. Defending and Defining the 'National Interest'

There is the additional qualifier of a 'national interest' test in which the government recognises community concerns and takes into consideration issues of national

[5] *Foreign Acquisitions and Takeovers Act 1975* (Cth), s 5.
[6] Ibid, s 17F.

security, competition, tax and other potential economic consequences (Department of Treasury 2013). The nature of the investor is also contemplated together with the extent to which the investor operates independently of foreign governments.

In the context of rural land and agribusiness, the level of scrutiny is rather rigorous. When assessing foreign investment applications in agriculture, the Government typically considers the effect of the proposal on:

- The quality and availability of Australia's agricultural resources, including water;
- Land access and use;
- Agricultural production and productivity;
- Australia's capacity to remain a reliable supplier of agricultural production, both to the Australian community and our trading partners;
- Biodiversity; and
- Employment and prosperity in Australia's local and regional communities (Department of Treasury 2013).

Should a potential project adequately pass these considerations, the Australian Competitions and Consumer Commission will subsequently analyse any potential competitive effects of agribusiness supply chain acquisitions.

Mitigating factors that assist in determining whether such proposals are not contrary to the national interest may include: the existence of external partners or shareholders in the investment; the level of non-associated ownership interests; the governance arrangements for the investment; ongoing arrangements to protect Australian interests from non-commercial dealings; and whether the target will be, or remain, listed on the Australian Securities Exchange or another recognised exchange (Department of Treasury 2013).

9. INTERNATIONAL COMPARISONS

A. *New Zealand*

Foreign investment in New Zealand assets are screened only if considered sensitive within the Overseas Investment Act (2005). Three classes of assets are currently constitute sensitive in accordance with the Act and include:

- Acquisition of a 25% or greater ownership interest in business assets valued at over $100 million;
- All fishing quota investments, and
- Investment in sensitive land as defined in Schedule 1 of the Act (The New Zealand Treasury 2012).

Investors must pass an investor test, similar to that of Australia's national interest test, which considers character, business acumen and level of financial commitment (The New Zealand Treasury 2012). Foreign investors wishing to purchase sensitive land must either intend to reside permanently in New Zealand or demonstrate that the investment will benefit New Zealand.

B. *Canada*

Particular Provinces within Canada have regulatory policies in place. For example, Alberta restricts foreign ownership of agricultural land to 20 acres and Saskatchewan restricts foreign acquisitions of agricultural land greater than 10 acres (The Coalition 2012).

C. *United States of America*

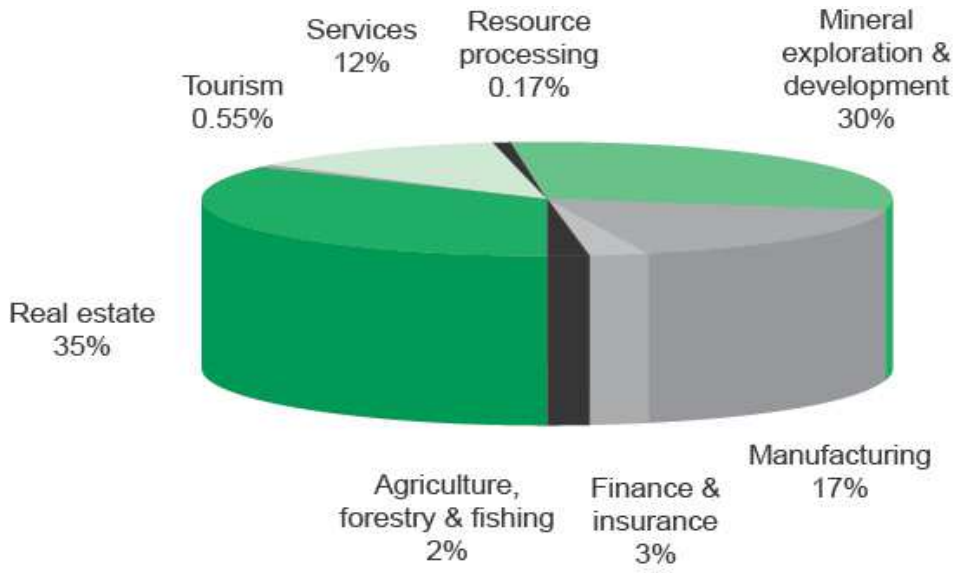
While some States have particular regulatory requirements in place, the Federal Government requires foreign buyers to report all acquisitions of agricultural land within 90 days (The Coalition 2012).

10. WHERE DOES AUSTRALIA STAND?

The FIRB's 2011-2012 Annual Report indicates that a total of 11,420 applications for foreign investment approval were considered, with 10,703 approved – of which 5,803 were subject to conditions and the remaining 4,900 were accepted without conditions (Foreign Investment Review Board 2013). 13 applications were rejected (compared with 43 in 2010-11), 534 withdrawn and 170 exempt as not subject to the Policy or the Act (Foreign Investment Review Board 2013). All of the rejected applications related to real estate purchases.

Overall, this insinuates that there is little to no obstruction of FDI in practice. Furthermore, agriculture, forestry and fishing collectively accounted for a mere 2 per cent of the total value of approved investment as shown in the diagram below (Foreign Investment Review Board 2013). This indicates that too much of the debate concerning foreign ownership of agricultural land is driven by anecdote rather than hard facts and data (Institutional Economics 2011).

Diagram Five – Total FIRB Approvals by Industry

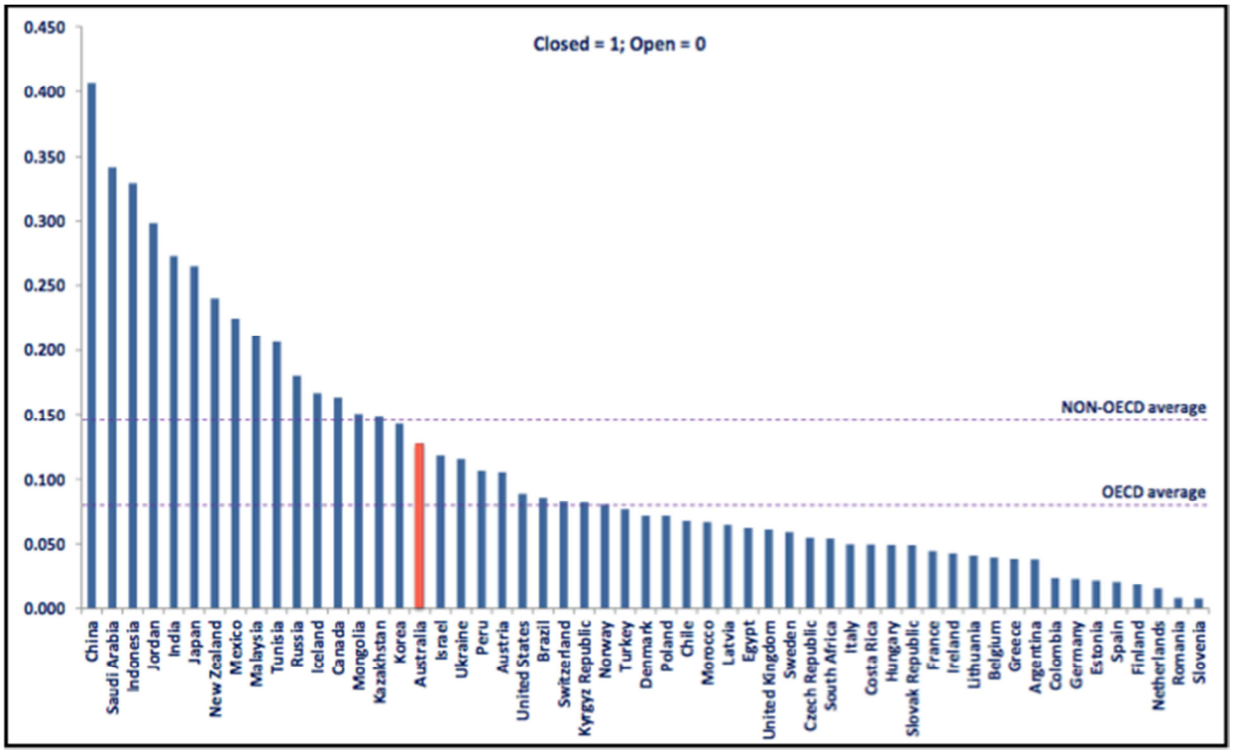


Source: Foreign Investment Review Board (2012)

The Organisation for Economic Cooperation and Development (OECD) has been at the forefront of efforts to cultivate a set of international principles for foreign investment and promotes the fair treatment of foreign investors (OECD 2004). The OECD's investment policy is contained in their investment instruments, which are based on the OECD Codes of Liberalisation of Capital Movements and Current

Invisible Operations. Upon a country's membership – which Australia obtained in 1976 – it is expected that these principles will be adhered to (OECD 2004). Upon comparing Australian Policy to other OECD countries we are ranked 17th the most restrictive in the world (Thomsen 2012). The US, Britain and all other major European nations are more liberal than Australia while Canada, Japan and New Zealand are more restrictive (Thomsen 2012).

Diagram Six - OECD FDI Regulatory Restrictiveness Index



Source: OECD (2010)

It must be acknowledged that this data is – to a certain extent – biased in that each country as opposed to a foreign, third party observer supplied the figures for each country.

11. Implications of the Federal Election 2013

Throughout the recent election campaign it was made abundantly clear that an Abbott government would lower the threshold for the FIRB to review acquisitions of agricultural land and agribusiness to a trigger level of $15 million (Ashurst Australia 2013). It is unlikely that this additional scrutiny will raise the rejection rate for foreign acquisitions, given the then Coalition Discussion Paper does not propose significant

changes to the criteria by which they will be assessed (Kirchner 2012). The FIRB is overstretched as is, considering over 11,000 applications per year. Nevertheless, it is unclear whether these intentions will truly come to fruition given that no bill has been presented to parliament regarding this proposed change.

A. *Recommendations for Policy Makers*

When the time comes to draft the relevant legislative amendments, policy makers should ensure Australia maintain an open and non-discriminatory investment policy and that each FIRB application should be assessed on its merits rather than yield to political driven populism. Increased regulation cannot set the bar too high and consequently result in the failure of projects, which otherwise have significant commercial merit, to proceed. Moreover, a number of politicians, economists and academics have voiced concern that lowering the threshold will hinder Australia's current negotiations with both China and Japan in securing a free trade agreement. Public anxiety in this context would be more effectively managed through a national agriculture land register, which would allay instead of heighten food security fears.

12. CONCLUSION

This paper has contended that an increase in foreign direct investment is beneficial for the national income. More specifically, it increases the real wage and the availability of domestic capital. Other spillovers include lower transportation costs, an increased focus on research, and development and 'know-how' – that is, new methods, procedures and processes. This paper indicates that Australia is unduly restrictive in its FDI policy and additional steps need to be taken to ensure that a more liberal approach is embraced. Furthermore, while no empirical studies have been conducted in Australia, an estimation of the agricultural production function would be incredibly beneficial given the contemporary importance placed on the interrelation between sectorial composition and growth and in the sectorial decomposition of the business cycle.

APPENDIX A

1. Law of Diminishing Returns

$$Q = aL^{\alpha}K^{\delta}La^{*\lambda}$$
$$= aL^{1/3}K^{1/3}La^{*1/3}$$
$$MP_{La^*} = dY/dLa^{*} = \lambda aL^{\alpha}K^{\delta}La^{*\lambda -1}$$
$$= 1/3aL^{1/3}K^{1/3}La^{* -2/3}$$
$$= 1/3 \cdot \frac{aL^{1/3}K^{1/3}}{La^{*2/3}}$$

2. Constant Elasticity

$$\text{Elasticity of } Q \text{ to } La^{*} = \%\Delta Q/\%\Delta La^{*}$$
$$(\Delta Q/Q \times 100)/(\Delta La^{*}/La^{*} \times 100) = \Delta Q/Q \cdot La^{*}/\Delta La^{*}$$
$$= \Delta Q/\Delta La^{*} \cdot La^{*}/Q$$
$$= \lambda aL^{\alpha}K^{\delta}La^{*\lambda -1} \cdot La^{*}/Q$$
$$= \lambda[aL^{\alpha}K^{\delta}La^{*\lambda}]La^{*-1} \cdot La^{*}Q^{-1}$$
$$= \lambda[Q]\ La^{*\lambda-1} \cdot La^{*}Q^{-1}$$
$$\lambda = 1/3$$

3. Constant returns to scale

$$Q = aL^{\alpha}K^{\delta}La^{*\lambda}$$
$$= a\,(tL)^{\alpha}(tK)^{\delta}(tLa^{*})^{\lambda}$$
$$= a\ t^{\alpha}L^{\alpha}\ t^{\delta}K^{\delta}\ t^{\lambda}La^{*\lambda}$$
$$= t^{\alpha}\ t^{\delta}\ t^{\lambda}\ [aL^{\alpha}K^{\delta}La^{*\lambda}]$$
$$= t^{\alpha+\delta+\lambda}\ [Q]$$
$$= t^{1}[Q]$$
$$= tQ$$

4. All rewards are exhausted

$$MP_L \cdot L + MP_K \cdot K + MP_{La^*} \cdot La^{*} = Q$$
$$\alpha aL^{\alpha-1}K^{\delta}La^{*\lambda} \cdot L + \delta aL^{\alpha}K^{\delta-1}La^{*\lambda} \cdot K + \lambda aL^{\alpha}K^{\delta}La^{*\lambda -1} \cdot La^{*} = Q$$
$$\alpha[Q]\ L^{-1} \cdot L + \delta\ [Q]\ K^{-1} \cdot K + \lambda[Q]\ La^{*-1} \cdot La^{*} = Q$$
$$\alpha Q + \delta Q + \lambda Q = Q$$
$$\alpha + \delta + \lambda = 1$$

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