CONTESTABILITY IN THE AUSTRALIAN WHEAT EXPORT INDUSTRY

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In the past 30 years, policy makers have argued that privatisation and deregulation of State-administered businesses, services and infrastructure leads to enhanced choice, competition and greater efficiency. Less clear is the question of how contestability theory has been used as a policy lens to understand and predict competition and firm behaviour in deregulated markets. To address this issue, I analyse the application of contestability theory to the Australian wheat export market.

The Federal Government, under Prime Minister Kevin Rudd, deregulated the Australian wheat export market in 2008, ending 60 years of statutory marketing by the Australian Wheat Board. The Minister for Agriculture, Tony Burke, said that deregulation would enable growers to maximise their returns on production (Grattan 2008). Many wheat growers, on the other hand, were sceptical of such claims. Members of Parliament and Senators from both major political parties argued that deregulation would create a market place featuring numerous grain traders competing for farmers' wheat. Liberal Senator Chris Ellison stated that '[i]t is imperative that as many participants enter the market as possible' (Australian Government 2008; 2308). This, it was claimed, would give growers choice, while the competition would drive up wheat prices. However, this description of a competitive market differs from how competition has been conceived in policy documents. Contestability theory, emphasising potential, rather than actual competition, informed policy from 1988, when the Industries Assistance Commission (1988) argued for deregulation of wheat exports, to 2008, when the Rudd government's policy shift was implemented.

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Policy documents analysed in this article include reviews and inquiries into competition policy and wheat industry policy (particularly wheat marketing), initiated by government and government authorities between 1988 and 2008.

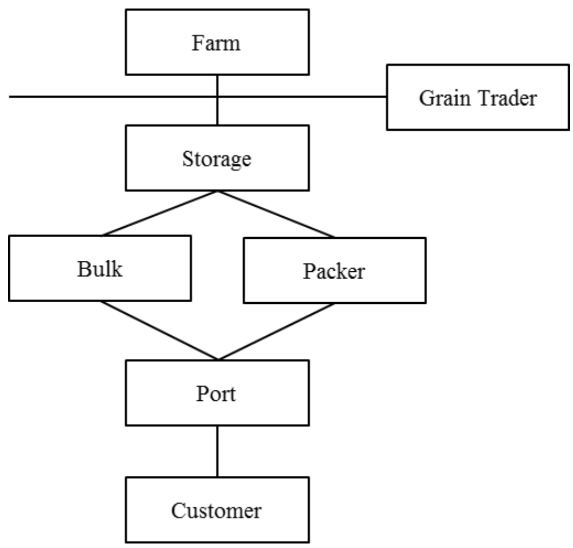
The National Competition Policy Review, initiated by the Keating Government to investigate how a national policy could 'develop an open, integrated domestic market for goods and services by removing unnecessary barriers to trade and competition', provides a different interpretation of competition (Hilmer *et al.,* 1993: 361). Hilmer *et al*. (1993: 3), dismiss the conception of market competition as necessarily involving large numbers of small firms, instead claiming that 'competition between a few large firms may provide more economic benefit…due to economies of scale and scope'. Hilmer *et al*. (1993: 2), draw upon Dennis (1977) to define competition as the 'striving or potential striving of two or more persons or against one another for the same or related objects'. Referring to Baumol (1982), Hilmer *et al*. (1993: 2) explain that:

> Recent work suggests that the real likelihood of competition occurring (potential striving) can have a similar effect on the performance of a firm as actual striving. Thus, a market which is highly open to potential rivals – known as a highly 'contestable' market – may be of similar efficiency as a market with actual head-to-head competition.

Policy documents informing Australian wheat industry policy share this interpretation, viewing competition in terms of the contestability of the market, rather than the number of firms in that market. Yet, these policy documents do not refer in detail to the three conditions of a contestable market: that entry of new firmsis costless, the market is susceptible to hit-and-run entry and entry is reversible (Shepherd 1984: 1995). This raises the question of how contestability theory is used in policy, and whether contestability theory can be applied to the Australian wheat export market.

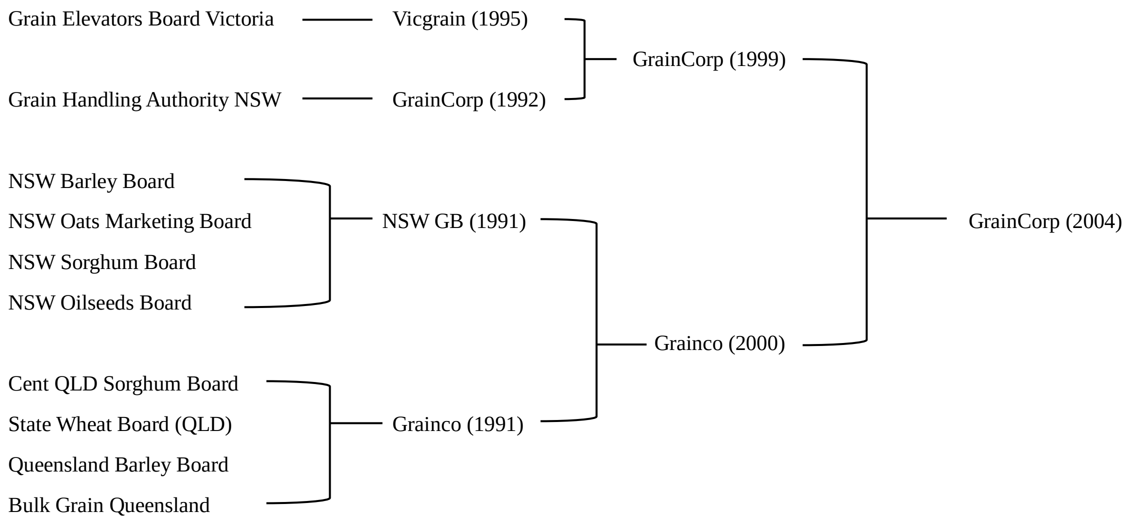
To analyse the use of contestability of the Australian wheat export market, we first need to understand the broad structure of the wheat supply chain, outlined in Figure 1. In Australia, infrastructure servicing the wheat industry, including off-farm storage and handling, and port facilities is controlled by three regionally-based bulk handling companies (BHCs) – CBH (Western Australia), Viterra (South Australia), and GrainCorp (eastern Australia, including Victoria, New South Wales and Queensland). Farmers producing wheat for export sell to grain traders which, in most cases, access this infrastructure to export this wheat to overseas markets.

Figure 1: The Australian Wheat Export Supply Chain



The BHCs' ownership of storage, handling and ports stems from the privatisation of State-based grain authorities in the 1990s and early 2000s. The grain authorities controlled State-wide infrastructure networks, including grain handling, storage and port facilities. The privatised firms merged, causing further consolidation. As Figure 2 shows, GrainCorp emerged from the privatisation of 10 different boards and authorities across Victoria, New South Wales and Queensland. GrainCorp controls the infrastructure established and previously managed by these authorities. Similarly, Viterra (SA) and CBH (WA) control these segments of the wheat supply chain in their region.

Figure 2: Privatisation and Consolidation of Eastern Australia Grain Handling Authorities



Source: Adapted from Essential Services Commission (2006: 17).

Table 1 demonstrates these BHCs have used this ownership of grain handling, storage and ports, either directly or indirectly, to develop market share. This reflects a key problem of privatising vertically integrated, public authorities. The private companies emerging from privatisation, in many cases, control supply chains, including non-contestable facilities and infrastructure (ports and storage networks), and use this control to establish market share in the contestable segments of the supply chain (grain marketing). Thus, the problem of uncompetitive markets, at the retail segment, can result from the initial privatisation. This scenario was known to policy makers when the wheat export market was deregulated; but the policy-makers chose to rely instead upon a general interpretation of contestability theory to conclude that this deregulation and privatisation would not restrict the competitiveness of the wheat market.

Table 1: Bulk handling companies' regional control of storage and handling, ports, and export markets.

Supply chain segment	**CBH (WA)**	**GrainCorp (eastern Australia)**	**Viterra (SA)**
Market Share: up-country	Receives and stores approximately 90% of WA's grain	Handles approximately 75% of east coast grain	80% market share of SA up-country grain storage
Market Share: port throughput (%)	100	80-90	100
Market Share: export tonnage	48% WA bulk exports (2012/13)	28% eastern Australian exports (2012/13)	46% SA exports (2012/13)

Source: Adapted from Stretch, Carter and Kingwell (2014: 11).

I argue here that contestability theory is flawed and is applied uncritically in policy affecting the wheat industry, producing outcomes that do not reflect the promises made by politicians to wheat growers. The result has been that oligopsonistic regional wheat export markets are not contestable. Key conditions of contestability theory, notably that entry is costless, are not met. I outline contestability theory and the broader ideological context resulting in the growing support for this idea, before analysing policy documents to understand how contestability theory is applied in Australian policy-making. Finally, I examine the contestability of the deregulated wheat export market. As contestability theory has underpinned Australian policy, including wheat market policy, it is important to consider the robustness of this theory, its use in Australia, and whether this application leads to desirable policy outcomes.

Market consolidation and efficiency

Policy documents, including Hilmer *et al*. (1993), IAC (1988) and Harper, Anderson, McLuskey and O'Bryan (2015), argue that maximising efficiency should be the focus of competition and industry policy. Efficiency, it is claimed, is enhanced through competition between firms striving to meet the demands of the market. This claim needs to be considered in relation to the theoretical basis for these ideas, showing the context in which contestability theory was developed.

In his influential paper, 'Industry structure, market rivalry, and public policy', Demsetz (1973) contends that firm efficiency determines profitability. According to Demsetz (1973), the most efficient, and therefore most profitable, firms expand market share. Thus, Demsetz (1973: 5), claims that, if concentration emerges due to the 'superior efficiency of those firms that have become large, then a deconcentration policy, although it may reduce the ease of colluding, courts the danger of reducing efficiency either by the penalties that it places on innovative success or by the shift in output to smaller, higher cost firms that it brings about'. This perspective influenced the relaxation of policy aimed at restricting market concentration (Kari *et al.*, 2002).

The claimed relationship between market concentration and efficiencies grew in prominence, as did criticisms of antitrust policy within the United States. Critics such as Bork (1967; 1978), and Baumol and Ordover (1985: 247) argued the Federal Trade Commission, in restricting market concentration, punished firms that were successful due to their superior efficiency and economies of scale and scope. Rather, activities such as mergers would substantially improve industries and markets, by introducing ‘efficiencies that make it necessary for other firms in the industry to try harder’ (Baumol and Ordover 1985: 247). These criticisms give rise to the prioritisation of market structures that are claimed to maximise efficiency (Bork 1967; Baumol and Ordover, 1985; Summers, 2001). This focus is underpinned by the assumption that larger companies will be the most efficient, and that ‘the market’ compels firms to return efficiency and profitability gains to consumers. These assumptions thus lead to the argument for the tolerance of concentrated markets. In turn, the development of large corporations with *the capacity* to exhibit substantial market power is excused, on the assumptions that the presence of these firms increases efficiency, and firms, regardless of size, do not *actually* exert power over the market. These assumptions are evident in the definition of competition used by Hilmer *et al.* (1993).

Contestability theory

Contestability theory was developed by Baumol (1982), who framed this theory as a revolutionary idea in economics and industrial organisation. Baumol outlined contestability in his 1982 address to the American Economic Association, entitled ‘An uprising in the theory of industry structure’, as a theory which intended to provide a flexible and applicable ‘benchmark for desirable industrial organisation’ (Baumol 1982: 2). Contestability theory enabled policy makers to operationalise the concepts developed by Bork and Demsetz, and apply these ideas to competition policy. According to contestability theory, oligopolies and regional monopolies that typically characterise agricultural markets, are not necessarily reflections of market failure (Baumol, 1982; Baumol, Panzar and Willig, 1983a). Provided there are no barriers preventing market entry, such as prohibitive entry costs or regulatory barriers, these market structures are efficient and competitive – in principle and demonstrably (Baumol, 1982; Baumol, *et al.* 1983a; Davies, 1986). Conversely, contestability scholars argue that market efficiency is weakened by government regulation restricting entry to these market (Baumol, 1982; Baumol, *et al.* 1983a; Davies, 1986). Despite claims that contestability theory lacks rigorous empirical support (Shepherd, 1984, 1985), this theory influenced antitrust, competition and regulatory policy within the United States and Australia (Schwartz and Reynolds, 1983; Weitzman, 1983; Dasgupta and Stiglitz, 1988; Davies and Lee, 1988; Blaug ,2001; Davidson, 2012; Jones, 2012). The claims and assumptions of contestability theory demand examination.

As already noted, contestability theorists posit that a market is contestable when three key conditions are met: entry to is costless, the market is susceptible to hit-and-run entry, and exit is costless (Baumol, 1982; Baumol, *et al.* 1983a). Regarding the first of these, Davies (1986: 299) contends that a market for which entry is costless compels firms to act as if they would in a 'perfectly competitive situation', as the threat of competition forces incumbent firms to maximise efficiency. Yet Shepherd (1984: 577) claims 'virtually all production requires specific assets which cannot be transferred or sold costlessly'. For example, the employment of experts to facilitate this entry creates costs that may not be recovered, as may expenditure on necessary research and development (Shepherd, 1984). Despite the absence of regulatory barriers and costs, the investment required by a firm to enter a market may still be substantial. Even if entry to the market were free, Dasgupta and Stiglitz (1988: 570-1) contend that 'by the mid-70s, it was clear that free entry…was not sufficient to ensure economic efficiency'. Furthermore, Shepherd (1984) and Dasgupta and Stigltiz (1988) argue that contestability theory does not consider the potential for incumbent firms to deter potential competitors, directly or indirectly, from entering that market.

The second condition is the supposed vulnerability of that market to 'hit-and-run entry', otherwise described as 'absolute entry' (Baumol, 1982: 4; Shepherd, 1984). As Baumol (1982: 4) explains, '[e]ven a very transient profit opportunity need not be neglected by a potential entrant, for he can go in, and, before prices change, collect his gains and then depart without cost, should the climate grow hostile'. Yet as Brock (1983: 1065) claims, this depends on the incumbent firms' inability to respond quickly to change, such as price changes, despite the success of their business being directly related to their capacity to do so. Schwartz and Reynolds (1983: 489-90), question the plausibility of the concept of hit-and-run entry, arguing that 'hit-and-run entry may be impossible in markets that are *almost* perfectly contestable' (emphasis added). Schwartz and Reynolds (1983: 489) contend that the strength of contestability theory is therefore limited as, once there is minimal deviation 'from the strict assumptions of perfect contestability, pricing and entry decisions depend upon the nature of firm interactions'. Baumol (1982) explains that hit-and-run entry is fundamental to contestability theory and premised on the idea that this threat will compel firms to act efficiently (Schwartz and Reynolds, 1983). The implausibility of this concept, lacking robust support, undermines the strength of this theory.

Similar concerns apply to the third condition required for contestability theory to hold - that market entry is reversible. In other words, firms exiting a market will not incur sunk costs (Baumol *et al.*, 1983b). Baumol *et al.* (1983b: 496) ask, '[c]an markets in which there are 'almost' no sunk costs behave 'almost' perfectly contestably? We have shown that they can, and we believe empirical evidence will confirm that they generally do'. The use of the term 'almost' is disputed by Shepherd (1984) and Stiglitz *et al.* (1987), who contend that absolute freedom and costlessness of entry and exit is required for contestability theory to hold. According to Stiglitz *et al.* (1987: 932), even 'the presence of arbitrarily small sunk costs can serve as an absolute barrier to entry and make potential competition completely ineffective as a discipline device'. These criticisms highlight the rigidity of the conditions required for contestability theory to be applicable (Stiglitz, *et al.* 1987; Schwartz and Reynolds, 1983; Shepherd, 1984), yet Baumol *et al*. (1983b) claim otherwise, despite limited empirical support for these contentions.

Given that contestability theory has been applied to justify the deregulation of markets and industries, that it has limited empirical support, and is based on numerous questionable assumptions, the implications are concerning. In particular, contestability theory excuses concentrated markets and dominant firms within these markets. For example, Baumol and Willig (1986: 10) argue:

> We reject with equal conviction the position of those who hold that mere large size of a firm means that it must serve the economy badly, that high concentration ratios are sufficient to justify governmental restrictions upon the structure or conduct of an industry.

According to Baumol and Willig (1986: 10), the undesirable consequences potentially resulting from concentrated markets would be mitigated by market contestability. They argue that incumbent firms will experience potential competition, as they would actual competition, and that the three key conditions of contestability (discussed above) can be met. Baumol and Willig's argument presumes that firms will both act to maximise their efficiency and deliver gains from efficiency improvements to their consumers. Furthermore, this implies consumers have substantially more power than firms in this scenario. Each of these assumptions is questionable, yet is central to contestability theory.

Contestability theory fits with the emerging neoliberalism of the 1970s and 1980s, offering an excuse for neoclassical economists as to why real-world markets may not reflect perfect competition and not warrant state intervention. Contestability redefines the notion of competition to contend that oligopolistic or monopolistic markets can be competitive and efficient market structures. However, contestability theory is flawed and based upon flawed assumptions of firm behaviour. Despite these limitations, policy makers have applied this theory to myriad policy areas. Its uncritical application to wheat market policy, resulting in a concentrated wheat export market that does not meet key conditions of contestability theory, is particularly problematic, as policy documents and the experience of the deregulated wheat export market shows.

Applying contestability theory to policy

Despite its flaws and limitations, contestability theory has been applied uncritically in policy. The supporting policy documents do not explain contestability theory, nor clearly define competition. Rather, arguments for the dismantling of regulatory barriers are prosecuted on the basis that this leads to 'more competition', or 'greater contestability'. Policy documents do not elaborate upon these concepts, or critically reflect upon the viability and applicability of contestability theory. Articles by Baumol (Baumol, 1982; Baumol, *et al*. 1983; Baumol and Willig, 1981) are given ceremonious citations, accompanied by a brief description of the idea of contestability theory. However, these policy documents do not refer to the conditions required for contestability theory to hold. This implies that contestability has been used as an idea, without condition. Thus, policy makers have simplified contestability, portraying the removal of barriers to entry as sufficient to create a contestable market.

Through applying contestability theory in this manner, policy makers rely upon the robustness of a small group of studies (Baumol, 1982; Baumol *et al.*, 1983; Baumol and Willig, 1981) that do not clearly support the applicability of contestability theory to real world markets. The limitations and weaknesses of this theory are not addressed by policy makers, despite the considerable criticism that contestability theory has attracted. Policy makers thus avoid engaging with criticisms presented by

Shepherd (1984; 1985), Dasgupta and Stiglitz (1988), among others. Contestability theory is represented as fitting the overarching hope for deregulation in policy documents, which is to maximise market and industry efficiency. Policy documents presume the presence of large firms in markets will maximise efficiency, as larger firms are believed to be inherently more efficient, due to their size and scope. For example, the Productivity Commission (2005: 286) argues that:

> …increasing concentration in the local economy has been a desirable outcome of trade liberalisation, rather than a new problem which competition policy must address. That is, increased international competition has served to drive out much inefficient small scale and fragmented production.

Thus, the oligopsonistic market structure fits policy makers' ambition to maximise efficiency, and such a market is claimed to be competitive as it is contestable. Yet, policy documents apply a shallow, uncritical interpretation of contestability, with the sole condition being that external firms are not prevented from entering the market by regulatory barriers.

Wheat export market contestability

Can contestability theory be reliably applied to the Australian wheat industry? The theory requires that market entry is costless. However, instead of directly addressing this condition, policy documents indicate that removing regulatory barriers to market entry is sufficient to create contestable markets. This idea is used clumsily in the example of the Australian wheat industry. The Bulk Handling Companies (BHCs) control storage, handling and port facilities, the non-contestable segments of the wheat supply chain, and operate grain trading arms, the contestable segment of the supply chain (Allen Consulting, 2008; National Competition Council, 2009). In its submission to the Productivity Commission Inquiry into the Wheat Export Marketing Amendment Act, the National Competition Council (2009) contends that unless the contestable and non-contestable segments of these firms are separated, competition will not develop. The National Competition Council (NCC), Allen Consulting (2008) and ITS Global (2006) argue that firms use their control of the non-contestable segments of the supply chain to prevent competing firms from entering the market. To address this problem, an 'Access Test' was introduced to ensure that grain traders entering the market would have clear access to storage and port facilities operated by CBH, ABB Grain (since acquired by Viterra) and GrainCorp. With regard to contestability theory, this regulation intends to ensure that grain traders can enter the export wheat market without incurring costs.

Despite these assurances, firms focus their export activity in areas where they control infrastructure. For example, between 2010 and 2012, CBH exports comprised 46.5% of all exports from its Albany port, 50.5% of total exports from its Esperance Port and 39.9% of total exports from its Geraldton port (Wheat Exports Australia, 2012). However, CBH has reduced its activities in the Eastern states, to consolidate its exports from Western Australia and South Australia. This focus indicates that, although there may be no regulatory barriers preventing CBH from establishing a presence in the Eastern states of Australia, the company, despite 12 years of investment and being a major Australian wheat exporter is still unable to develop a substantial and sustainable share of this market. Similarly, Emerald has withdrawn from Western Australia to focus on Victoria, where it has its own operations within the Port of Melbourne.

Bulk handlers Viterra and GrainCorp also focus their business in regions where they control storage, handling and port facilities. Conversely, firms that do not own infrastructure realise that, unless they address this shortcoming, they will not develop their share of the Australian market. As Yasushi Takahashi, Mitsui Australia Managing Director, states ‘for us to be a competitive and attractive supplier of wheat and grain…we will have to make some meaningful investments in ports, rails and silos’’ (*The Australian*, 2014a). Similarly, Olam Australia Chief Executive, Bob Dall'Alba, says ‘unless you're one of the large quasi-monopoly holders of assets, you're marginalised in the business, and therefore you need to keep investing in port and other infrastructure’ (Jasper, 2014).

Table 2: Herfindahl-Hirschmann Index figures for the Australian Export Wheat Industry (2011-2013).

Year	Australia	QLD	NSW	VIC	SA	WA
2011/2012	1278	1238.06	3271.96	1595.83	1578.41	2122.34
2012/2013	1403	2135.35	3811.07	1546.61	2717.49	1944.39

Sources: Data compiled from NSW Farmers (2014) and Grain Producers Australia (2013).

Table 2 uses the Herfindahl-Hirschmann Index (HHI) as a measure of concentration in the Australian wheat export market and regional markets. The latter is most relevant as the distance between markets prevents a wheat grower in Western Australia from transporting and selling wheat to a marketer operating in Victoria. I calculate HHI figures by adding the squares of the market share of each company in that market (Murphy 2006, p.13). Thus, a market with one company will have a HHI figure of 10,000, whereas a market with 100 companies each with a 1 per cent market share will have a HHI figure of 100. HHI figures between 1000 and 1800 indicate moderate concentration, whereas figures exceeding 1800 reflect a highly concentrated market (Murphy, 2006: 13). As shown in Table 2, in 2012/2013 every regional market except Victoria exceeded this figure.

Policy makers will argue that, despite the market concentration evident in Table 2, markets are still competitive as there are minimal regulatory barriers preventing firms from entering these markets. However, without control of infrastructure, firms appear reluctant to make a meaningful entry into the Australian market.

Investment in new infrastructure

In the past three years, firms have developed port and storage facilities to rival the BHCs. Policy makers will suggest that this is evidence of contestable market, pointing out that firms are entering the market and investing in facilities to support this entry. However, this development does not necessarily reflect a contestable market. As previously noted, for contestability theory to hold in real world markets, entry must be costless. As shown in Table 3 on the following page, investing in ports is a long term, expensive endeavour. For example, Bunge Limited is investing A$60 million in developing port facilities in Bunbury (Western Australia) and Geelong (Victoria) (Financial Review 2014).

In its 2010 Inquiry into Wheat Export Marketing Arrangements, the Productivity Commission recommended abolishing the Access Test in 2014, expressing concern that long-term maintenance of this regulation would disincentivise investment in infrastructure.

Table 3: Investment in new port facilities by grain traders

Port	Investment (Firm market capitalisation in brackets)
Port Kembla (NSW)	A$75m investment by Quattro Group, a 50/50 joint venture established by Noble and Qube (Locke, 2014; Wiggins and Toevai, 2014).
Newcastle (NSW)	Investment by Asciano in partnership with Louis Dreyfus Commodities
Newcastle Agri Terminal (NSW)	A$70m investment by Glencore, 32.5% stake; Agrex Australia, 32.5% stake; and CBH, 18.9% stake, which CBH is trying to sell (The West Australian, 2015). Agrex Australia is a joint venture between Olam Australia and Mitsubishi
Bunbury (WA)	A$40m investment by Bunge Australia (Sprague, 2014)
Geelong (Vic)	A$20m investment by Bunge Australia (Sprague, 2014)

Acquisitions

Acquisitions are also used by firms to gain control of storage, handling and port facilities. Two firms that emerged from the privatisation of state-based bulk handling authorities, ABB Grain (South Australia) and GrainCorp, have been acquisition targets. Viterra acquired ABB Grain in 2009. Glencore then acquired Viterra in 2012. Similarly, Archer Daniels Midland attempted to acquire GrainCorp in 2013 (Packham and Neales, 2013). The then Federal Treasurer Joe Hockey rejected this acquisition in November 2013, claiming that it was not in the national interest.

Table 4 below demonstrates that significant merger and acquisition activity has been occurring in the Australian wheat industry. Policy makers may argue that this suggests deregulation is having the desired effect, through attracting investment in the wheat industry. Potentially, this is true. Table 3 and Table 4 show substantial investments by firms in new infrastructure and in firms owning storage, handling and ports. However, only well-capitalised global firms are making these investments. While a contest is occurring, it is exclusively between very large firms with the capacity to make major investments. As firms need to control storage, handling and port facilities to be competitive, and control is achieved through investments that only the very large well-capitalised global firms appear capable of making, the contestability of the wheat export market may actually be very limited. Thus, the market is formally open but, in reality, is only open to these major firms, as meaningful entry is dependent upon firms' capacity to invest, to incur costs that are sunk.

Table 4: Acquisitions in the Australian wheat industry

2016	Qube currently attempting a $9bn acquisition of Asciano
	COFCO completed its acquisition of Nidera, purchasing the 49% of the company that it did not own, for US$750m (Ballard, 2016; Financial Times, 2016).
2015	Nidera completed its acquisition of PentAG (Nidera, 2016).
	COFCO acquired Noble Agri for AU$2.25bn (Cofco Agri, 2015; Grain Central, 2016).
2014	Mitsubishi acquired 80 per cent of Olam Australia for US$64m in 2014, and 20% of parent company, Olam International, for SGD1.53bn in 2015. (Blas and Koh, 2015; The Australian, 2014b).
	CHS acquired a 50% stake in NSW firm Broadbent, Agfarm (Heard and Marshall, 2014).
2013	ADM attempted to acquire GrainCorp for A$3.4bn.
2012	Emerald, through parent company Sumitomo, acquired Australian Bulk Alliance for A$120m (Emerald Grain, 2013).
	Glencore acquired Viterra for C$6.1bn (Hasselback, 2013). In 2009, Viterra acquired ABB grain (Australian Taxation Office, 2009).
2011	Cargill (Private Company) acquired AWB GrainFlow, giving Cargill ownership of 22 grain receival sites in Australia's Eastern States (GrainFlow, 2011).
2007	Queensland Cotton acquired by Olam Australia for AUD166m (Olam Group, 2016; Chappell, 2007).

The Australian infrastructure investments and acquisitions are substantial. However, they must be seen in the context that Australian wheat comprised only 3.75% of global wheat production in 2013, and in the light of how small are the Australian percentages of the total investments made globally by international merchants. Whether the Australian investments are financially sound in and of themselves (a concern expressed by the Food and Agriculture Organisation of the United Nations, 2015: 12) may be beside the point. For example, Bunge's $40m investment in its Bunbury port lost A$3.4m in its first two operating years (The West Australian, 2016), but Bunge Chief Executive Officer, Stefan Schroder, also hastened to point out that 'Australia is a very important piece for the global supply chain for a company like Bunge' (Garrett and Fitzgerald, 2014). According to Schroder, Bunge is 'very close to having completed the global footprint…Canada and Australia were the last two pieces' (Singh, 2015). If large corporations making investments and acquisitions are focused on developing their global supply and marketing strategies, is it at all sensible to ponder contestability within a national market, let alone sub-national markets? At the very least, it is difficult to think of production and price in a fragment of the global market reflecting the degree of contestation between firms participating in such a fragment.

Conclusion

This article has analysed contestability theory and its application to policies affecting the Australian wheat industry. I have argued that contestability theory is flawed, yet policy makers have used this theory uncritically to inform policy decisions such as the deregulation of the wheat export market. Policy makers have not adequately considered the limitations of contestability theory, nor cited the conditions required for the theory to hold (*i.e.* that market entry is costless, absolute and reversible). Policy decisions have been based on a broad interpretation of contestability, simplified to infer that the removal of regulatory barriers to market entry is sufficient to create a contestable market.

In the case of the Australian wheat export market, this logic is transparently misplaced. Firms may seek to enter this market without incurring cost but, to truly compete, ownership of infrastructure (grain storage and handling facilities, ports) is essential. To enter this market, firms must invest in new infrastructure, or through acquisitions of firms already owning infrastructure. This expenditure represents a barrier to market entry. Further, the magnitude of the necessary spending restricts market entry to highly capitalised, global firms that are capable of making these investments, incurring debt and potentially incurring losses as they develop market share.

In fact, the Australian wheat export market is concentrated, particularly in the oligopsonistic regional markets. It is possible that this scenario was actually desired by policy makers. Policy documents refer to the supposed efficiency gains that can be achieved by allowing large companies to develop market share. This claim hinges on the assumptions that large firms will be the most efficient, that efficiency is a good policy ambition, and that markets will compel firms to be efficient and prevent large firms from exerting market power. However, the policy-makers may well have played into the hands of large multinational firms for whom profitability depends more on the exercise of market power than on the efficiency of grain handling, storage, international shipment and selling.

What about the farmers? Wheat growers, for whom deregulation was supposedly implemented, are lost in this debate. Federal Members of Parliament and Senators claimed that wheat export market deregulation would create a market with numerous buyers competing for growers' wheat. This scenario has not eventuated. This is unsurprising, given that this vision is inconsistent with the concept of competition that has informed Australian policy, which centres on potential, rather than actual, competition. According to Rod Sims, Chairman of the Australian Consumer and Competition Commission, the 2015 Harper Review of National Competition Policy was intended to support farmers. However, the Harper Review is focused on 'making markets work for consumers' and doesn't mention farmers, or attempt to articulate how producers would benefit from oligopsonistic markets (Harper, 2015: 7). Rather than benefitting wheat growers, this article contends that deregulation of the wheat export market is primarily intended to liberalise the participation of large, frequently multinational firms as buyers in Australian markets. Contestability theory conveys the idea that a market comprised of a small number of large firms is still competitive, but its application to policy has resulted in a consolidated market which in reality is not open to new entrants and therefore, is not contestable.

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