Articles and Notes

Factors Affecting Japanese Investment in the Australian Beef Industry

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This paper begins with details on the current level of Japanese investment in the Australian beef industry. The reasons for direct investment by Japanese firms in the Australian beef industry are investigated, as is the nature and extent of integration by these firms in the Japanese beef production and marketing chain. The results are shown to be consistent with foreign direct investment theory. Specifically, the desire to provide quality assurance through ownership of upstream production facilities and the potential to exploit a domestic marketing and distribution advantage provide the principal motivations for beef industry foreign direct investment by Japanese firms.

1. Introduction

The on going liberalisation of the Japanese and Korean beef markets is a field that has attracted considerable research interest in recent years (see, for example, Harris *et al.* 1990; Takahashi 1990; Mori and Lin 1990; Suneya 1990; Alston *et al.* 1989, 1990; Coyle and Dyck 1989, 1990; Wahl *et al.* 1989; Hayes *et al.* 1991; and Ohga 1989). Most studies have focussed on the effects of trade reform on the demand and supply of beef in the various affected countries in the Pacific region. In general, this has meant analyses of the potential gains for producers in exporting countries (such as Australia, New Zealand and the United States), losses to consumers in those countries and losses to producers and gains to consumers in the North Asian markets.

Because of the uncertainties regarding consumer behaviour, producer responses, political developments, exchange rate fluctuations and movements in other macroeconomic indicators, most analysts have adopted the 'scenario' approach to forecasting the effects of these beef trade reforms. The general consensus is that, in the medium term at least and in accordance with neoclassical international trade theory, producers in most exporting countries and consumers in the North Asian markets will benefit considerably from the trade reform while North Asian producers and exporting country consumers will be worse off (see Alston *et al.* 1989, 1990; and Mori and Gorman 1989, for differing views). Further, most studies, as well as received trade theory, indicate that both countries will enjoy net gains.

While the spotlight has been on the distribution of these gains between the trading countries, in terms of price changes and changing market shares, little analytical attention has been given to how they will be affected by the incidence of foreign ownership within the industry. The potential for influencing the distribution of the gains from trade is obvious when the source of investment funds is the country where trade reform is occurring and the destination of the funds is the exporting country. This is apparent in the case of North Asian beef market reform where significant Japanese investments have already been made in both Australia and the United States.

The leakage of trade gains through foreign investment has been an emotional and widely discussed issue in the Australian rural and national press reflecting broader community concerns (see, for example, Cribb 1989). Although sectors of the beef industry have been concerned enough to commission studies into the nature and extent of foreign investment (see, for example, Australian Meat and Livestock Industry Policy Council 1989; Weeks 1990), little economic analysis has been undertaken in this area. The introductory work by McKenzie (1990) tackles some of the many theoretical issues and Riethmuller (1992) and Young and Sheales (1991) provide preliminary assess-

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ments of the potential advantages and disadvantages of foreign investment in, respectively, agriculture and the beef industry.

The aim of this paper is to investigate the rationale of Japanese firms in making their decisions to invest (or otherwise) in the Australian beef industry. To this end, details of current Japanese ownership in the beef industry are summarised in the following section. In Section 3, the results of a survey of major Japanese beef importing firms, many of which have either already made beef industry foreign direct investment (FDI) or have plans to, are reported. Details on the nature and extent of integration in the beef production and marketing chain by these firms is provided and empirical evidence on the reasons for FDI is then presented. Some policy implications and conclusions are presented in the final section.

2. Japanese Ownership in the Australian Beef Industry

In the context of Japanese ownership and control in the Australian beef production and processing industries, there are four sectors that provide a useful basis for classification: pasture-fed sector, lot-fed sector, abattoirs and post-abattoir processing.

For the pasture-fed sector comprehensive information on foreign investment is difficult to obtain. The Foreign Investment Review Board does keep a record of rural land purchased by foreign interests although, since 1987, this has only included investments valued at more than $3 million. Additionally, on a country-by-country basis, Foreign Investment Review Board records are only available at the broad industry level so that agricultural data are grouped together with that for the forestry and fishing industries.

As detailed in Table 1, Japanese investment represented approximately seven per cent of total foreign investment in these industries for the three year period 1987/1988 to 1989/90. This was substantially above the levels recorded earlier in the decade[1] but still relatively small compared to that from the United States and the United Kingdom.

[1] Individual state data and information compiled from the Queensland Registry of Foreign Land Ownership is detailed in Morison (1992).

Table 1: Total Expected Foreign Investment[a] ($ million) in the Agriculture, Forestry and Fishing Sector, by Country, 1981/82 - 1989/90

Year	USA	UK	Japan	Germany	Australia[b]	Other	Total
1981/82	14	23	3	14	8	65	127
1982/83	8	12	14	14	4	10	62
1983/84	5	78	-	11	16	28	138
1984/85	16	33	6	1	60	49	165
1985/86	32	12	1	1	18	23	87
1986/87	66	17	5	2	9	93	192
1987/88	15	124	13	-	16	69	237
1988/89	117	51	17	11	15	52	263
1989/90	104	13	29	-	3	157	306

[a] Includes proposals for the acquisition of rural properties.
[b] The expenditure identified as originating from Australia represents the contribution by Australian-controlled companies and Australian residents to the total expenditure associated with foreign investment proposals in which they are in partnership with foreign interests but does not generally include the contribution attributable to minority Australian shareholders in companies with majority or controlling foreign shareholders.
Source: Foreign Investment Review Board (1991, p. 44) and previous issues.

Table 2: Japanese Investment in Australian Feedlot Industry[a]

Feedlot Name	Company Name	Current Capacity	Planned Capacity
New South Wales			
Killara	Mitsubishi (100%)	10 000	
Rangers Valley	Marubeni (90%)	12 000	24 000
	ICM (10%)		
Ladysmith	Hannan (100%)	4 000	20 000
Regmont	Manno Corp. (100%)	500	
Rockfield	Itoh Ham (100%)	-	20 000
ICM	Inter-City Mills P/L (70%)	-	30 000
	Marubeni (30%)		
Queensland			
Whyalla	Nippon Ham (100%)	25 000	40 000
Mirrabook	Kilcoy Pastoral (53%)	7 000	20 000
	Nozaki Sangyo		
	Tokyo Meat Service (47%)		
	Sakei Shoten		
Metro	Metro Meats (51%)	3 000	
	Tokyu Foods Meat (25%)		
	Tokyu Store (24%)		
Kyodo Holdings	Kyodo Shiryo (?%)	1 000	
	Darling Downs Grain Fed Beef (?%)		
Victoria			
Peechelba	ICM (70%)	5 000	
	Marubeni (30%)		
Crown Beef	Takku Corp. (100%)	-	20 000
Tasmania			
Hawkridge	Itoman (50%)	3 000	
	Jusco (50%)		

[a]Values in parenthesis indicate equity holding.

Source: This information has been compiled from various Japanese and Australian newspaper articles and various industry sources.

Foreign investment in the beef industry, particularly from Japan, has been most obvious in the lot-fed sector in recent years. The main feedlots with significant Japanese equity are detailed in Table 2. Current capacity of feedlots with Japanese equity is just over 70 000 head but this could increase to almost 200 000 if all currently planned construction and extension work is undertaken.

Over one-third of beef export abattoirs in Australia have some foreign ownership (Young and Sheales 1991) and of those with foreign equity, over half (15) have Japanese interests. These abattoirs are listed in Table 3, with details on current equity levels of the firms involved. Although the level of Japanese control is not large, at 9.5 per cent of cattle

Table 3: Australian Beef Export Abattoirs with Japanese Ownership

Abattoir Name	Equity Holder(s)[a]
New South Wales	
Midco	Mitsubishi Corporation (75%)
	Hannan Corporation (25%)
Lachley	Hannan Corporation (75%)
	Mitsubishi Corporation (25%)
Berrima	Marubeni Corporation (50%)
	Inter-City Mill P/L (50%)
Grafton	RJ Gilbertson P/L (60%)
	Itoman Corporation (40%)
Queensland	
Oakey & Murarrie	Nippon Meat Packers (100%)
Mackay & Bowen	Nippon Meat Packers (70%)
	Mackay Sugar Board (30%)
Kilcoy	Kilcoy Pastoral Co (90%)
	Mirrabook (10%)
Victoria	
Altona & West Footscray	RJ Gilbertson P/L (60%)
	Itoman Corporation (40%)
Tasmania	
Camdale & Quoiba	Itoman Corporation (50%)
	RJ Gilbertson P/L (50%)
Longford & King Island	RJ Gilbertson P/L (60%)
	Itoman Corporation (40%)

[a] Values in parentheses indicate equity holding.
Source: Weeks (1990) and various industry sources.

slaughtered in New South Wales in 1990 and 11.4 per cent in Queensland, Young and Sheales (1991) and Australian Meat and Livestock Industry Policy Council (1989) have indicated that the proportion of exports to Japan is, unsurprisingly, much higher.

In the processing sector as well, there are no official statistics on foreign ownership. The smallgoods manufacturers that are known to have some Japanese ownership are listed in Table 4. Of the Japanese companies listed to hold equity in these firms, three, Nippon Ham (through its subsidiary Japan Foods), Nichimen and Zenchiku, were large importers of beef prior to the removal of quotas in April, 1991.

3. Reasons for Foreign Direct Investment: Some Empirical Evidence

The growth of FDI has generated a considerable body of literature in recent decades on the reasons for FDI (see, for example, Kindleberger 1972; Caves 1982; Dunning 1988) and, in more recent times, on the specific reasons for Japanese FDI (see Riethmuller 1992; Young and Sheales 1991; McKenzie 1990; Edgington 1989; Graham and Krugman 1989; Yamamura 1989).

To investigate some of the reasons for beef industry FDI and the strategies firms have adopted in reaction to the ongoing liberalisation of the domestic market, a survey of Japanese beef importing firms

Table 4: Australian Smallgoods Manufacturers with Japanese Ownership

Company Name	Owners	Location
Presto	Wright Heaton Nippon Ham	Sydney
Tibaldi	Japan Sugar (60%) Nichimen (30%) John Capriolio (10%)	Melbourne
Nippon Kogyo	Nippon Kogyo (100%)	Gosford
Hans Continental Smallgoods	Asahi Chemical (100%)	Brisbane
J.C. Hatton	Zenchiku (100%)	Brisbane

Source: Various media reports and industry sources.

was undertaken by this paper's senior author in September/October 1990. The Livestock Industry Promotion Corporation designated beef importing firms (38 in all), the only firms entitled to import beef prior to the April 1991 abolition of quotas in the Japanese beef market, and some of their affiliate firms, were targeted for the survey. A questionnaire was compiled (in Japanese) and distributed to these firms. An interview was also conducted with all cooperating firms (28 in total). There were 25 usable questionnaires, the respondent firms importing approximately 271 300 tonnes (74.4 per cent) of the 364 700 tonnes (Livestock Industry Promotion Corporation 1991, p. 57) imported into Japan during the 1989/90 Japanese fiscal year.

Several findings from the questionnaire, relating to the motivation of firms to invest in the Australian beef industry, are presented in this section. First, the question of how the FDI may be classified (vertical, horizontal, etc.) is considered; second, the direct or primary reasons for overseas expansion by the Japanese firms are reported and discussed; and, third, some secondary factors that may influence the firm's FDI decision (market power and transfer pricing opportunities) are considered.

3.1 Classification of Foreign Direct Investment

A widely held perception of Japanese firms undertaking beef industry FDI in Australia is one of firms that are looking to integrate backwards along the production and marketing chain to include beef production and processing in the firm's domestic wholesale and retail activities. However, FDI, as an expansion strategy, can be manifest in a number of ways. In addition to *vertical* expansion (adding a stage in the production process that comes before or is subsequent to the firm's principal activity), it can also take the form of *horizontal* expansion (producing the same products as in the domestic market) or *conglomerate* expansion (producing different goods from those for the domestic market) (Koutsoyiannis 1982, p. 310). It is important to recognise this distinction because it can imply quite different motivations for FDI by firms from the same country investing in the same industry in the same foreign country.

Many of the Japanese firms which have invested in the Australian beef industry are involved in similar production systems in Japan, either the firm itself or subsidiary or related firms. The survey revealed that the degree of vertical integration varied considerably among firms, reflecting the diversity of the firms involved in the beef import trade. Nevertheless, the overall level of integration was found to be quite high with the 25 respondent firms (or their affiliate firms), on average, being engaged in almost six of the ten defined activities in the Japanese beef production and marketing chain (Table 5).

The picture is somewhat different when comparing the degree of integration of the 11 firms that have undertaken some form of beef industry FDI, with

Table 5: Domestic Vertical Integration of Japanese Meat Importing Companies (No. of firms)[a]

Beef production and marketing activities in Japan	FDI Firms[b]	Non-FDI Firms	Total
Feed imports	6	10	16
Live cattle imports[d]	11	9	20
Beef cattle production	9	8	17
Livestock/meat market management	3	2	5
Abattoir operation	5	3	8
Boning and packing	7	7	14
Smallgoods manufacturing	8	5	13
Wholesaling beef	10	12	22
Retailing beef	8	6	14
Restaurant operation	7	5	12

[a] Indicates the number of firms (or their affiliates) that are active in each stage of the beef production/marketing chain.
[b] Firms that have made some foreign direct investment in beef production and processing. Does not include firms that have trading offices only abroad. Eleven FDI firms in sample.
[c] Fourteen non-FDI firms in sample.
[d] Includes feeder steers and cattle for slaughter.
Source: Survey results

that of the 14 firms which have no FDI. The FDI firms (or their affiliates) were engaged in, on average, about seven of the ten defined activities in the Japanese beef production and marketing chain. In contrast, the non-FDI firms were involved in an average of less than five activities in the domestic production and marketing chain. The hypothesis that the degree of vertical integration in the domestic beef market is the same whether or not the firm has undertaken beef industry FDI, is rejected at the 5 per cent level using a simple t-test for the difference between means[2].

To the extent that more extensive vertical integration reflects larger firm size, greater knowledge of the relevant sector(s) in which the FDI takes place and, consequently, superior technical know-how, this is an unsurprising result. What the result does show, contrary to the assumptions adopted in most discussions of Japanese beef industry FDI, is that for a majority of firms the integration is horizontal as much as vertical. Although the foreign investments in feedlots, abattoirs and smallgoods manufacturing plants are integrated into domestic distribution and marketing activities, they are activities that most firms already undertake in their home market.

3.2 Reasons for Foreign Direct Investment

As indicated above, the general theory of FDI points to many reasons for overseas expansion by firms looking to grow. Young and Sheales (1991, p. 69) suggest that those relevant to Japanese investment in the Australian beef industry include the ability to:

(a) capitalise on marketing and distributional advantages it has in Japan;

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[2] The degree of integration, measured by the number of domestic beef industry activities of the firm or its affiliate, was calculated to have a mean of 6.73 for FDI firms and 4.45 for non-FDI firms. The critical t value (for a two-sample test for means) at the 5 per cent significance level for 23 degrees of freedom is 2.07. Since the calculated t value was 2.42, the null hypothesis is rejected and it is concluded on the basis of the sample data that the average degree of domestic beef industry integration by FDI firms is significantly different from that of non-FDI firms.

(b) profit from distortions in the margins between import prices and Japanese domestic prices of beef;
(c) ensure a stable and reliable supply with improved quality control to existing customers; and
(d) take advantage of investment opportunities.

As most Japanese firms undertaking FDI take a long term view of expected market developments and returns on investment, reason (b) can probably be discounted as being of minor importance. Young and Sheales (1991) and Johnson and Fisher (1988) point out that profits from the differential between import and domestic prices can be expected to be largely dissipated due to the greater certainty in the market following liberalisation, the continuing reduction in stocks and increased competition in the Japanese market. This conclusion should be tempered by the observation that the Japanese distribution system and the various linkages between firms (referred to in Section 3.1), mean the barriers to entry are substantial despite the large number of firms in the industry[3]. How competitive the industry will become is still uncertain due to the short time since the removal of import quotas and restrictions on the number of firms able to import beef. This issue, although beyond the scope of this paper, may influence future returns to the Australian beef industry and is worthy of further investigation.

Reason (d) is also unlikely as a motive for FDI in itself, particularly for firms which have no previous involvement in the beef industry. To take advantage of the strong yen, lower risk, more flexible and potentially higher yielding foreign investments can and have been found outside the Australian beef industry. Nevertheless, some firms may see that beef industry investment opportunities will be enhanced through distortions in the operation of the market. For example, there may be the opportunity to develop monopoly power at some stage along the production and marketing chain or the opportunity to undertake transfer pricing due to differential tax

[3] The authors are grateful to an anonymous referee for making this observation.

Table 6: Reasons for Undertaking Beef Industry FDI

Reason	Degree of Importance[a] (No. of firms) 1st[b]	2nd	3rd	Total
Hold technical/managerial advantage in beef production	-	1	4	5
Wish to acquire technical/managerial advantage in beef production	1	2	-	3
Hold technical/managerial advantage in beef processing	-	4	1	3
Wish to acquire technical/managerial advantage in beef processing	-	2	-	2
To enable stable supply of consistent quality product to end users	17	2	-	19
Hold an advantage in the marketing and distribution of beef in Japan	5	5	1	11
Other reasons	-	1	4	5

[a] In total 20 firms responded to this question.
[b] A number of firms indicated that some reasons were of equal importance, hence the number of responses in this column is greater than the number of respondent firms.
Source: Survey results

rates between the two countries. Market power and transfer pricing, as reasons for FDI, are considered further in Section 3.3 below.

In addition to reasons (a) to (d) mentioned above, FDI theory suggests that proprietary advantage in production, either technical or managerial, can also be a strong motive for a firm to undertake foreign investment (Casson 1987, pp. 27-8). This is likely to be relevant for Japanese investment in the Australian beef industry where, as shown in Table 5, most of the FDI firms are engaged in some form of production/processing activities in the domestic market. Conversely, firms without the appropriate technical expertise, may look to FDI as a way of obtaining such know-how with a view to developing it and/or exploiting the proprietary advantages the firm may hold in other segments of the production and marketing chain.

To test the relevance of these motives for FDI, each firm was asked to indicate *up to* three reasons for undertaking FDI, ranking them where possible. In addition to the 11 firms who have already undertaken FDI, another nine which had indicated they were considering FDI as a possible expansion strategy in the future, completed this question. Five firms in the sample expressed no interest in or intention to undertake future beef industry FDI. The results reported in Table 6 show that it is the need to meet customer requirements and the possibility of exploiting market power in marketing and distribution that provide the strongest motivations for foreign direct investment. Seventeen of the 20 respondents indicated that the ability to ensure a consistent supply and control product quality through FDI was the most (or equally the most) important reason for FDI. Two other firms listed it as the second most important factor.

Table 7: Incidence of Contractual Problems for Japanese Beef Importing Companies[a]

Type of Problem	No. of firms with experience of problem
Quality Specifications	22
Packaging	15
Labelling	6
Volume	14
Delivery Date	22
Price	3
Other Problems	0

[a] Sample included 25 beef importing companies.
Source: Survey results

Ensuring a stable and reliable supply of product with improved quality control is important when the production process is subject to natural variation, as in the case of beef. This is especially so when new products are being produced or, in the case of exported beef to Japan, new brands are being created. Disagreements over responsibility for product failure between producers and customers are quite common in such circumstances (Casson 1987, p. 133).

To avoid inferior quality products, or items that do not meet required specifications, close supervision of the production process is required. Here FDI through outright control of the production process or joint venture agreements, can be the appropriate strategy to achieve the desired product specifications and quality control. Contractual arrangements, either purchasing on the spot market or by long term contracts, will not provide the necessary assurance of quality control.

The sample firms were asked to indicate the types of problems they had experienced, if any, in contractual arrangements with beef exporting companies (mainly in Australia and the United States). A summary of the responses are provided in Table 7. Clearly, problems with product quality and delivery time are the two factors of major concern to importing companies, although over half the respondent firms indicated packaging and quantity problems had also been sources of dispute with exporters.

Quality problems were perceived by importers as something that could be rectified by better organisation and management. Common complaints included freshness (particularly for chilled beef where storage at inappropriate temperatures results in changes in meat colour, reduced shelf life and, consequently, reduced customer appeal), fat trimming, specified cuts, marbling specifications and the presence in the beef of extraneous items such as bullets, flies and bone tips. Respondents were divided as to whether such problems could be overcome simply by feedback to the exporters or whether direct control by the importing firms in the processing stage was necessary. This variance in response is reflected in the different investment and contractual strategies that the respondent firms have adopted.

In contrast to the quality and specification problems, problems with delivery date were viewed as largely outside the control of the beef processors. These problems arise because of difficulties with cattle supply (most often due to floods), and strikes at either the packers themselves or, more frequently, at some stage along the transport and handling system.

The other problems of consequence, packaging and quantity, were viewed by importers as aspects of quality control that are under the direct influence of exporters. Packaging difficulties were almost all associated with leaking vacuum packs for chilled beef, which considerably reduces the product's shelf life. Although claims against the exporter or claims for insurance can be made in most cases, the cost of making the claims and insurance costs are never fully compensated. Problems of this nature do, therefore, create incentives for firms to have greater control in the production process.

Integration in the domestic (Japanese) marketing and distribution channels and the possibility of exploiting this integration (marketing advantage) was also an important motivation for FDI, where 11 of the 20 firms indicated it to be of at least some significance (Table 6). This is not surprising given the number of firms in the sample that are integrated in the beef marketing chain in Japan (see Table 5). While these firms may not hold significant proprietary advantages over other domestic firms, they do hold advantages over potential foreign entrants, and they will be keen to maintain market share against domestic rivals in a growing market.

The holding of a proprietary advantage in beef production and processing or the desire to acquire such technical know-how are far less important. Although a large proportion of the firms already undertaking FDI, or those wishing to, are either involved themselves or have affiliates engaged in cattle production in Japan (see Table 5), production conditions in Australia and the United States are markedly different from those in Japan in almost every way (climatic conditions, cattle and grain types and availability, other input availability, management practices, labour relations, etc.). Consequently, the benefits from any technical or managerial advantages a Japanese firm may have that could be transferred to overseas operations, are often swamped by the costs of adapting to the local environment. Nevertheless, for some firms these advantages, or the desire to acquire such technical or managerial know-how, are real and influential in their FDI decision making (Table 6).

3.3 Market Power and Transfer Pricing

Given the current low returns and losses experienced by firms operating in different sectors of the Australian beef industry, FDI may not be a profit maximising investment strategy for Japanese firms that are not already involved in the beef industry. The unattractiveness of the industry for investment purposes is based on the (implicit) assumption that the beef market (i.e., the many stages and dimensions of the market) is operating in a way that conforms to the conditions of a perfectly competitive market as described by neoclassical economic theory. That the industry does not operate under perfectly competitive conditions and/or that FDI may induce significant distortions from the competitive ideal, are factors that are often cited in objection to foreign investment. The opportunity to exploit market (monopoly) power and undertake transfer pricing are two examples of such market distortions considered here.

The investments that have been made to date indicate a wide diversity among investing firms: (1) in contractual form (greenfield investment, 100 per cent buyout, joint venture, minority equity holding, etc.); (2) in the beef industry sub-sector targeted for investment (grazing properties, feedlots, abattoirs, etc.); (3) in the degree of integration both in Australia and in Japan; and (4) in the scale of operation. This diversity, together with the large number of firms involved, suggests there is an absence of a coordinated approach to investment (with a view to exerting monopoly power) by Japanese firms. It is therefore difficult to envisage problems of monopoly control developing in the Australian industry while the current extremely competitive environment prevails and there remains a relatively large number of competing firms (domestic, Japanese and other foreign interests).

If the problem of firms exercising monopoly power arises, it is more likely to occur in isolated regional markets where one or two large (not necessarily foreign) firms are able to exert some influence on price levels. An additional question was put to firms in the survey, asking if the firm has or would have a capacity to influence input prices (grain, feeder steers, labour, etc.) in operating overseas. Of the 20 firms in the sample that have either undertaken or plan to undertake beef industry FDI, five indicated they would be able to influence input prices. Further asked if this factor was important in their FDI decision, four said it was moderately important (3 on a 1 to 5 scale) and the other said it was very important (5 on the scale). Clearly, there is a potential for firms to exercise market power if the circumstances permit and so it is in the interest of the industry as a whole that no individual firms become dominant on a regional basis or in any particular sector of the industry. As Sheales and Young (1991, p. 74) point out, if the existing legal safeguards, in particular Section 46 of the Trade Practices Act, is found to be inadequate then these laws need to be strengthened and the power to enforce them be assured with adequate resources devoted to the relevant government agencies.

A further concern about FDI from a host country perspective is that of transfer pricing. Surveyed firms were also asked about its relevance in undertaking FDI. Of the same 20 firms, nine replied it was relevant, although only two of those considered it more than moderately important (greater than 3 on the 1 to 5 scale) in their FDI decision. Most firms viewed it as a strategy for short term returns and not of great importance in their long term investment decisions. Many firms pointed out the illegality of the practice and the damage that would be done to the company's image if they were caught. Further, with the costs involved and the small difference in corporate tax rates between Australia and Japan, there appears to be little incentive for Japanese firms to engage in transfer pricing (Young and Sheales 1991, p. 72).

4. Conclusions

FDI involves factors of production such as equity capital, entrepreneurship and technical knowledge being transferred from the investing country to a host country (Koutsoyiannis 1982; Corden 1987). The resulting changes in real capital stocks in both locations have impacts on income, savings, capital formation and local rates of return (Frank and Freeman 1978). The total impact of FDI on the host and investing countries depends on the reasons for investment and the consequences on market behaviour and economic performance.

These issues are too broad to be settled satisfactorily in this paper. Nevertheless, several points have been made that do expand on and provide some quantitative evidence for the work of McKenzie (1990), Riethmuller (1992) and Young and Sheales (1991) and shed some light on the motivation for and consequences of beef industry FDI by Japanese firms.

The results are consistent with FDI theory in that both the desire to provide quality assurance through ownership of upstream production facilities and the potential to exploit a domestic marketing and distribution advantage provide the principal motivations for beef industry FDI by Japanese firms. Other reasons for FDI suggested by the received theory, such as exploiting technological advantage in production, are indicated as relevant by some respondent firms, but are generally secondary to the above-mentioned factors.

The abolition of import quotas in the Japanese beef market has created the opportunity for Japanese firms to engage in beef industry FDI, in Australia, the United States and other beef exporting countries. The response by Japanese firms to the ongoing liberalisation process, however, has not been matched by firms from the beef exporting countries. Are there similar opportunities for foreign investment in Japan? and, if so, why are they not being exploited by firms from beef exporting countries?, are obvious questions for further investigation.

This article has provided some empirical evidence on the reasons for beef industry FDI by Japanese firms. The increased competitiveness of the industry, the diversity of foreign firms and their contractual arrangements, the motivations for investment and the transfer of knowledge, particularly of the Japanese market, indicate that recent foreign investment in the Australian beef industry has to date, resulted in an industry that is more competitive in international markets. The challenge for policy makers is to ensure that the competitive domestic environment is maintained without hindering the industry's international competitiveness.

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