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Aggressive Fringe Competition and International Trade

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Abstract

The global integration of product markets is altering the structure of many industries. Firms have become more specialised in their production and national industries have become more concentrated. Although the effects of economic integration are well known, how changing market structures are impacting upon the competitive behaviour and strategic decision-making of firms is less well known. The objective of this paper is to investigate the characteristics of three different market entry strategies used by aggressive foreign competitors upon entering a concentrated domestic market. The paper also considers how domestic firms might respond to the import competition under different conditions. An empirical model investigating the three import strategies is presented that seeks to identify distinguishing characteristics of the aggressive market entry strategies. The identification of key characteristics provides useful insight into how the domestic firm may best respond to either defend market share or maintain profitability.

Keywords: competition, International trade, economic integration.

Introduction

The global economic integration of national product markets once segmented by tariff and other trade barriers is altering the structure of industries. A number of studies indicate that many industries have become more concentrated and the firms that make-up those industries have become increasingly specialized.ⁱ In the industrialized countries, many major industries are dominated by a small number of domestic firms that possess large market shares and, therefore, market power (Franko, 2003). At the same time, trade liberalization policies and reductions in transport costs have opened domestic markets to higher levels of foreign import competition. Although foreign firms entering a market are likely to hold a much smaller market share, they still may possess considerable market power (as a consequence of being a dominant firm in their home market) and pose a serious competitive threat to the domestic industry (Baker, 1997)ⁱⁱ.

Domestic firms that face aggressive import competition from foreign firms that are capable of 'exporting' their market power, must make a strategic decision. The domestic firm must choose to either meet the foreign competition by lowering price in order defend their market share; or they may choose to hold firm and use non-price based strategies to retain sales (Tirole, 1988; Boudreux, 1989). The strategy the domestic firm will choose is influenced by a range of factors including: industry structure, product characteristics and market demand conditions at a given point in time.

The objective of this paper is to examine whether a better understanding of the characteristics and circumstances underlying aggressive import competition can provide useful insights into the defensive strategy a domestic firm might choose in responding to aggressive import competition. In the next section, a simplified discussion of the economics of aggressive fringe competition and three relevant international pricing strategies are presented. The characteristics of the three aggressive pricing strategies are then outlined in the methodology section, the issues empirically investigated using a probit model that seeks to identify distinguishing features of aggressive international fringe competition. A brief discussion of the policy

implications of the empirical findings is then undertaken, with a summary and conclusion presented in the final section.

Contextual Considerations

The classical model of the economics of fringe competition does not consider the presence of foreign competitors that are capable of exercising market power. The classical model considers an industry dominated by a single firm sharing the market with a competitive fringe of much smaller domestic firms that do not possess market power. The dominant firm will behave as a benevolent monopolist, tolerating the existence of the smaller firms allowing them to sell any amount of the product they wish. The fringe firms produce identical products and choose quantities to maximize their profits, taking as given the market price set by the dominant firm. The dominant firm then takes its demand as the residual of the market demand not met by the competitive fringe firms, and proceeds to behave as a pure monopolist in maximizing profits (Church and Wares, 2000).

However, the threat of entry by an aggressive foreign competitor changes market dynamics by compelling the domestic firm to consider adjusting its pricing strategy to defend its market share. The classical model breaks down if one or more foreign competitors possessing market power enter the domestic market using aggressive pricing and promotion strategies with the aim of 'buying' market share by undercutting the domestic market price. Even though it is argued that substantial price undercutting is economically irrational, numerous studies indicate that it is not uncommon for managers to lower prices to gain market share at the expense of maximising profits (Armstrong and Collopy (1994, 1996). There are several strategic reasons why firms may engage in aggressive pricing behaviour even though the consequences are not short-run profit maximising (which are discussed further below) (Benz, 1990).

A dominant domestic firm confronted by the threat of import competition may use an entry-deterring strategy of limit pricing. Limit pricing is intended to discourage entry by signaling, before entry occurs, that sales by the foreign firm in the domestic market will be unprofitable (Milgrom and Roberts, 1981). To determine an entry-deterring limit price, the domestic firm chooses a level of output where its marginal revenue is equal to marginal cost.ⁱⁱⁱ At the same time, the domestic firm will estimate a typical foreign firm's minimum average variable cost, its transport cost and any tariff that might apply on importation to derive a total import price (Brander and Krugman, 1983). If possible, the domestic firm will set its domestic price at some point above its marginal cost, but below the foreign firm's total import price. Hence, the domestic firm's entry-deterring profit-maximizing strategy will be to determine a limit price that ensures it retains a dominant share of the domestic market (Martin, 1995).

A potential foreign entrant will interpret the limit price as a signal and use it as a benchmark. In order to be profitable, the foreign firm's total import price must be less than the domestic limit price, but greater or equal to its marginal cost plus any tariff and transport costs (the total import price). Under normal circumstances, if the foreign firm's total import price is above the domestic firm's limit price, it will choose not to enter the market. However, if the foreign competitor's market entry objective is to 'buy' market share, it may be prepared to undercut the domestic firm's limit price even if that means sales at or below cost (Thomas and Kamp, 2006).

The domestic firm must make a decision to either defend its market share by either dropping its price or by pursuing a 'hold-firm' strategy.^{iv} The challenge for the domestic firm is to determine which defensive strategy is most appropriate under the circumstances. The foreign competitor's market entry strategy will vary under different circumstances and market conditions and may be influenced by a range of factors including industry structure, product characteristics and market demand conditions at a given point in time. The question arises whether, by better understanding the nature of the competitive threat, a domestic firm may be in a better position to meet the foreign competition. Three strategies are described below.

Market Share Predation

Predatory pricing has attracted a great deal of debate over the years. It occurs when a predatory firm sets a selling price below its' short-term profit-maximizing price with the intent of driving competitors out of the market. The debate surrounding predatory pricing questions whether aggressive price discounting is merely highly 'competitive' or whether such behavior is predatorily anti-competitive?' A traditional test of whether a selling price is anti-competitive examines whether the predatory firm's selling price is below its average variable cost of production. Alternative tests of predation set the predatory selling price threshold at sales below the predator's marginal cost (Areeda and Turner, 1975).

It is argued that predatory pricing is not likely be used as a rational pricing strategy in industries that have low barriers to entry and under conditions of perfect information (Bork, 1978). However, international trade involves the sale of goods between markets segmented by distance, trade barriers and imperfect information. It is not uncommon for firms that choose to enter new markets to use aggressive or predatory pricing to quickly acquire, or buy, market share (also known as promotional pricing (Boltuck, 1991)). As such, the primary objective of the entry strategy is not to eliminate a rival. An aggressive foreign firm may be motivated to heavily discount in order to obtain a large enough market share to generate sales momentum and gain a beachhead within a new market. The motive is to acquire sufficient market share to support administrative and distribution overheads required to support a medium to long-term presence in new or expanding market.

Foreign Price Leadership and Collusive Piggybacking

Collusion is defined as an agreement among two or more firms to charge an agreed price for the same or similar products. Collusion can be explicit, denoting a formal arrangement among participating firms; or it may be tacit (Markham, 1951). There is evidence that, within some regional markets around the world, firms tacitly collude to set a regional limit price in order to deter foreign competition (the chemical industry, for example Andres (2003)). Conversely, a form of tacit collusion arises where a regional price leader targets a foreign market and is successful in gaining market entry. Successful entry sends a price signal to other foreign competitors who subsequently follow the foreign price leader into the domestic market. An aggressive foreign price leader will set a market access price undercutting a domestic firm's limit price. If the price leader is successful in gaining market share, other foreign firms interpret the entry-price as a signal and will use it as a benchmark whether or not to enter the market. Hence, a piggybacking effect can occur after the initial market-entry price becomes known throughout the industry.

Strategic Price Discrimination

Strategic price discrimination by foreign firms occurs under particular market conditions. Foreign firms that are protected by trade barriers or benefit from other forms of home market trade and/or industry policy advantage are ensured of a significant market share of their home market (Willig, 1998). In times when a foreign firm's home market is performing well, the foreign firm will prefer to sell output within its home market at a protected market profit-maximising price. However, if the foreign firm's home market is in decline, excess capacity and rising inventories may be strategically dumped in export markets. The foreign firm can remain profitable if it maintains a home market selling-price that is above world price thereby counteracting less profitable sales made into an export market.

A foreign firm that periodically dumps excess output is unlikely to have the objective of buying market share as consideration motivating its pricing decision. Yet, it will still be interested in receiving as high a price as possible while recognizing the need to set a price below the domestic limit price in order to access the market. As such, it will set a total import price just under the domestic limit price in order to achieve sales and its objective of reducing excess stocks while at the same time receiving as high a price as possible.

An Empirical Model of Aggressive International Fringe Competition

A question arises whether domestic firms having a clearer understanding of a foreign competitor's pricing strategy are better able to formulate an appropriate strategic response to the competitive threat? A related and further question is whether it is possible to identify an aggressive foreign firm's market entry pricing strategy given different market structures, product characteristics and market conditions? The broad purpose of this model is to empirically investigate whether aggressive foreign competitors, under different circumstances, use different market entry strategies. A more specific objective is to investigate whether structural characteristics of product markets and the price effects of each strategy provide any insight into the circumstances under which each strategy is likely to be used. Accordingly, three hypotheses are tested:

Hypothesis One: Foreign firms competing in more specialised, higher-value added product types and not protected by high home market tariff barriers are more likely to use a strategy of constrained predatory behaviour as a market access strategy of quickly buying market share.

Hypothesis Two: Foreign firms competing in intermediate goods markets are more likely to use a price leadership/piggybacking strategy to aggressively access regional product markets.

Hypothesis Three: That foreign firms protected by high home market tariff barriers will use a strategy of strategically dumping excess inventories under declining market conditions.

Data and Modelling Framework

Australian product markets provide an excellent environment within which to test differences in aggressive foreign firm behaviour for several reasons. The Australian

economy is geographically isolated and segmented and can therefore be analysed as a distinct market free. It is a developed, diversified and open economy and therefore subject to the competitive pressures of world markets that require firms to be productive and efficient in order to be competitive.

The data used in this analysis has been extracted from *Reports Nos. 1 - 209*, issued by the Australian Anti-Dumping Authority (ADA) between December 1988 and January 2001. All 209 *Reports* were examined to find cases in which evidence of aggressive foreign competition could be detected. From a pool of 97 total cases of price discrimination, 79 cases could be classified as conforming to one or more of the three different pricing strategies described in Part 3.^{vi}

Table 1 Dependant Variables

Variable Name	Pricing Strategy	Description	Selection Criteria
<i>CP</i>	1. constrained predation	rapid and large increase in import market share (1= constrained predation, 0= otherwise).	Large Δ in import market share
<i>COL</i>	2. collusive piggybacking	aggressive price leadership followed by sequential market entry by entry price imitators (1= collusive piggy-backing, 0= otherwise).	Multiple importing firms sequentially entering market
<i>SPD</i>	3. strategic price discrimination	dumping by price discriminating importers protected from home market competition by high trade barriers (1= strategic price discrimination, 0= otherwise).	High home country tariff

The selection of the observations was not a straight-forward task. Several ADA cases were complicated by circumstantial factors that either distorted or contributed to ambiguity in identifying and classifying a trade practice as falling into one of the three strategy categories (for example, product markets distorted by dominant firms that both manufacture and import product). In order to classify an observation as conforming to a particular price strategy, minimum selection criteria were set. The process of classifying the 79 observations as conforming to one or more of the three pricing strategies described in Section 3 is also the basis upon which the three dependant variables used in the model are also selected. These criteria are described in Table 1 along with a brief definition of the dependant variables.

The general form of the model is estimated three times, each time using a different one of the three dependant variables described in Table 2. The probability that an observation conforms to the classification criteria is estimated by a standard probit model:

$$\begin{aligned}\text{Prob}(\text{DepVar}=1) &= F(\mathbf{X}'\mathbf{b}) \\ \text{Prob}(\text{DepVar}=0) &= 1 - F(\mathbf{X}'\mathbf{b})\end{aligned}$$

where F denotes the cumulative normal distribution function, \mathbf{X} denotes the vector of variables introduced above, and \mathbf{b} is a vector of parameters. The maximum likelihood estimates of \mathbf{b} are known to be consistent and asymptotically efficient.

The independent variables have been selected and categorised by product and industry structural characteristics, or price differentials and market share effects. Therefore, three versions of the same general model are presented and which is represented as:

$$\text{DepVar} = f(\text{PT}, \Delta\text{TM}, \text{NDP}, \text{NFI}, \text{Ftrf}, \text{DM}, \text{PU}, \Delta\text{IMS}, \text{RATE})$$

The expected pattern of the signs for each version is an important feature of the model that requires a separate explanation for each of the strategies tested.

Table 2

Independent Variables	Description	
Product and Market Characteristics		
<i>PT</i>	product type	categorisation of industry/product type as intermediate homogenous goods= 0; and value-added finished products =1
ΔTM	total market change	% change in the growth or decline of the total regional market
<i>NDP</i>	number domestic producers	concentration of the incumbent industry
<i>NFI</i>	number foreign importers	number of foreign importers simultaneously involved in import practice
<i>Ftrf</i>	export country tariff	tariff level in foreign importer's country
Price and Price Effects		
<i>DM</i>	dumping margin	difference between home market selling price and import selling price
<i>PU</i>	price undercutting	difference between incumbent selling price and import selling price
ΔIMS	change import market share	percentage change in import market share over period of 24 or 36 months
<i>RATE</i>	rate of ΔIMS	rate of percentage change in IMS measured as a ratio of the $\% \Delta IMS$ to $\% \Delta sales/months$

Strategy 1: Constrained Predation

Expected Sign: + + - - - - + + +
 $CP = f(PT, \Delta TM, NDP, NFI, Ftrf, DM, PU, \Delta IMS, RATE)$

Constrained predation is defined as an aggressive market access strategy of buying a rapid increase in market share. Hence, ΔIMS and *RATE* are both, *a priori*, signed positively. To achieve its strategic objective, it is necessary for the foreign importer to engage in a high degree of price undercutting. Accordingly, *PU* is signed positively. Since it is a fruitless exercise for firms to use predatory tactics to increase market share in highly competitive product market having low barriers to entry, foreign firms using the strategy are expected to produce high value-added specialised products result in *PU* being signed positively. Hence, both the number of foreign firms and domestic firms are expected to be few providing the rationale for the negative signing of *NDF* and *NFI*. Finally, we expect that constrained predation is a tactic used by firms originating from low-tariff industrialised countries under favourable domestic market growth conditions. Therefore, *Ftrf* and ΔTM are both given positive signs.

Strategy 2: Collusive Piggy-backing

Expected Sign: - + - + ? - - + -
 $COL = f(PT, \Delta TM, NDP, NFI, Ftrf, DM, PU, \Delta IMS, RATE)$

Collusive piggybacking is a strategy of imitation that stems from the creation of a market entry price signal by a foreign price leader that is subsequently used by other foreign firms to enter the market. In other words, the foreign price leader's initial strategic pricing decision is successful and observed by numerous firms. Hence, it is expected that *NFI* is positive. Given the number of foreign competitors entering the market, we also expect a positive ΔIMS under domestic market conditions exhibiting increasing total market growth ΔTM .

Furthermore, the relative speed at which imitators react to the price leader suggests that readily substitutable intermediate and homogenous product type giving *PT* a negative signing. However, the rate of the increase in ΔIMS is expected over a longer period giving rise to *RATE* having a negative sign relative to other strategies. As multiple imitators could originate from several regional markets, *Ftrf* has been left unsigned.

Strategy3: Strategic Price Discrimination

Expected Sign: - - + - + - - - - -
 SPD= f(*PT*, ΔTM , *NDP*, *NFI*, *Ftrf*, *DM*, *PU*, ΔIMS , *RATE*)

Strategic price discrimination is a strategy used by foreign exporters whose home market is protected by trade barriers thereby giving rise to the positive signing of *Ftrf*. Periodic, or cyclical dumping, tends to occur most frequently under conditions of declining market demand (hence, a negative signing of ΔTM), foreign exporters will dump excess inventories in non-protected markets. However, *PU* is given a negative sign because foreign firms are likely to set a price that slightly undercuts the domestic good. However, because of home market trade barriers, this may incur a high dumping margin giving *DM* a positive sign. Since, strategic price discrimination is a discrete strategy; it is likely that *NFI* is negative. Similarly, since permanent market positioning is not an objective of the strategy both ΔIMS and *RATE* are expected to be negative.

Results and Discussion

In Table 3 the estimated probit coefficients, *t*-ratios and diagnostics for all three versions of the model are reported. Columns 1 and 2 contain results for a general and parsimonious version of the pricing strategy of constrained predation. Columns 3 and 4 provide general and parsimonious results for collusive piggy-backing and columns 5 and 6, for strategic price discrimination.

Table 3 Probit Estimates

Strategy	Constrained Predation		Collusive backing		Piggy-	Strategic	Price		
	Sign	(1)	(2)	Sign	(3)	(4)	Sign	(5)	(6)
<i>Variables</i>									
<i>Constant</i>		-2.34 (-2.55)	-2.41 (-2.01)		-1.13 (-1.95)	-1.07 (-0.62)		-0.97 (-0.78)	-1.14 (-0.80)
<i>Product and Industry Structure</i>									
<i>PT</i>	(+)	0.91 (0.51)	1.34** (0.68)	(-)	-1.26** (-0.75)	-1.40** (-0.69)	(-)	-0.24 (-0.12)	
ΔTM	(+)	0.64 (0.49)		(+)	0.77 (0.69)		(-)	-1.77* (-1.60)	-1.74* (-1.50)

<i>NDP</i>	(-)	-0.96 (-0.26)		(-)	-0.54 (-0.12)		(+)	1.98* (0.39)	1.95* (0.33)
<i>NFI</i>	(-)	-1.78** (-0.43)	-1.66** (-0.33)	(+)	3.75* (0.72)	3.86* (0.65)	(+)	-1.23** (-0.14)	-1.21** (-0.12)
<i>Ftrf</i>	(-)	-0.87 (-1.77)		(?)	-0.99 (-1.70)		(+)	2.97* (5.08)	2.95* (4.58)
<i>Price Effects</i>									
<i>DM</i>	(+)	1.30** (1.98)		(-)	0.27 (0.30)		(+)	-1.35** (-1.42)	-1.44** (-1.47)
<i>PU</i>	(+)	2.08* (7.85)	2.38* (6.11)	(+)	-2.08* (-6.48)	-2.36* (-6.68)	(-)	-0.506 (-1.34)	
<i>ΔIMS</i>	(+)	0.81 (0.29)	1.32** (0.36)	(-)	0.60 (0.22)		(-)	-1.12 (-0.20)	-1.43** (-0.17)
<i>RATE</i>	(+)	1.36** (5.91)	1.50** (5.01)	(-)	-0.66 (-2.99)		(-)	0.52 (1.08)	
LOG- LIKELIHOOD		-15.492	-18.600		-19.741	-20.508		-28.006	-28.390
LR-TEST		42.385	36.164		36.081	33.710		23.771	23.004
Maddala R-Square		0.5184	0.4640		0.4575	0.4408		0.3363	0.3274
Cragg-Uhler R-Square		0.7223	0.6464		0.6335	0.6085		0.4499	0.4381
McFadden R-Square		0.5776	0.4929		0.4775	0.4511		0.2979	0.2883
% CORRECT PREDICTIONS		86%	85%		83%	83%		78%	76%

Constrained Predation

An examination of Columns 1 and 2 respectively showing the general and parsimonious results of testing for constrained predation yield several interesting insights into characteristics of the strategy. All explanatory variables enter having the expected signs with six of nine variables *PT*, *NFI*, *PU*, *DM*, *ΔIMS* and *RATE* being significantly different from zero at acceptable decision levels in respect of the parsimonious version. In turning to the industry/product structure variables, the strong performance of *PT* indicates that a predatory strategy is used by firms selling higher value-added finished products rather than intermediate goods. Consistent with the expectation that predatory tactics are used in more specialised product markets, it is a tactic, of course, that is used by a single rather than multiple firms.

Several of the 'price effects' variables also perform well. Although *DM* is strongly significant suggesting a high price differential between the foreign firm's home and export market pricing, *PU* performs even more strongly. This finding supports the hypothesis that market access success is closely linked to the degree that the import price undercuts the domestic limit price and is more important than the price differential between its home and export market price. A further expected outcome is that *RATE* enters as significant supporting the hypothesis of a rapid increase in import market share.

A final observation is that *ΔIMS*, the basic selection criteria for classifying an observation as predatory, was statistically significant, as expected. However, interestingly, it failed to perform as well as might have been anticipated. This result is consistent with the more constrained form of predation described earlier and can also be attributed to other factors such as the degree of price undercutting as being more dominant features of the strategy.

Collusive Piggybacking

Of the three versions of the model, testing for this strategy yielded the least definitive result. Only, three of the nine explanatory variables, *PT*, *NFI* and *PU* were statistically significant from zero. As expected, *NFI* performed strongest consistent with it being our key selection variable. However, in addition, *PT* and *PU* also entered as being statistically significant. The strong, negatively signed, performance of *PT* indicates that collusive piggy-backing is a pricing strategy that is more likely to be used by foreign importers of intermediate goods rather than higher value-added finished products (as distinguished from the opposite result with constrained predation).

A further interesting outcome was that *PU* was strongly statistically significant, but signed negatively. This result suggests that of the three pricing strategies tested, the level of price undercutting that occurs in relation to collusive piggy-backing is, in comparative terms, the lowest. In other words, the level of price undercutting set by the price leader is a profit-maximising market entry price. Once set, other foreign competitors view the price leader's market-entry price as a signal that is imitated. The implications of this finding are that should the domestic firm decide to defend its market share using a countervailing pricing strategy, the degree it may need to discount its price is less than would be the case if it were confronted by foreign firms using a more aggressive strategy such as constrained predation. In addition, it also suggests that defensive price competition on the part of the domestic firm may discourage potential entrants.

Strategic Price Discrimination

In turning to Columns 5 and 6 of Table 3, testing for the characteristics of strategic price discrimination also indicate a strong result. Like constrained predation, six of nine explanatory variables enter as being statistically different from zero. However, unlike the predation version of the model where the price effects variables performed more strongly, the industry structure variables appear to be better explainers of the pricing tactic.

Beginning with our selection variable, *Trf*, as expected, it is the strongest performing variable. However, three additional structural variables, ΔTM , *NDP* and *NFI* also perform well. Consistent with the expectation, strategic price discrimination can be characterised as occurring when foreign importers, protected behind a wall of home market trade barriers, engage in price discrimination to reduce home market inventories, probably as a result of declining home market demand. Hence, a decline in global or regional business cycles which motivates strategic price discrimination is also evident in the import market which appears as a negative ΔTM .

An interesting finding that was not expected is that strategic price discrimination appears to affect industries and product markets that have a higher degree of domestic competition. At the same time, it is a strategy that is pursued by singular firms acting in isolation of other foreign competitors as suggested by *NFI*. In turning to the price effects variables, of the three versions of the model, the results show that this strategy tends to result in a comparatively small ΔIMS . The small change in market share, ΔIMS , is consistent with the result that that this strategy showed the smallest home market to import market price differential and smallest margin of price undercutting. The conclusions that can be drawn from these findings are that a defensive strategy of moderate price adjustment and non-price competition strategies such as emphasizing supply stability may be sufficient to discourage foreign firms.

Conclusions and Policy Implications

Although the effects of economic integration are well known, what is less well understood is how changing market structures have impacted upon the behaviour and strategic decision-making of firms and the competitive dynamics of industries. Many domestic firms have become more specialised in their production and industries more concentrated. There has been an intensification of oligopolistic rivalry among international competitors contributing to an environment in which aggressive foreign entrants capable of exercising market power increasingly confront dominant domestic firms.

A better understanding of the characteristics of aggressive fringe competition provides some insight into the strategic choices available to domestic firms in defending their market share. In this paper, three aggressive entry strategies were examined. Each of the entry strategies was seen to have different structural characteristics and occurring under different market conditions. In the case of constrained predation, the results of the model indicate that if a foreign entrant uses a highly aggressive and predatory strategy, the domestic firm may not be able to meet and defend against heavy price discounting. The results of the model indicate that the characteristics of a strategy of constrained predation arises when foreign sellers of high value-added finished products engage in substantial price undercutting resulting in a rapid increase in import market share.

Rather than meeting the import price competition, the domestic firm may be better off investigating the possibility that the imports may be priced anti-competitively and should consider using of anti-dumping and countervailing law and policy (AD/CVD).

Alternatively, the results of the model suggest that collusive piggy-backing is a market entry strategy that may be sensitive to price competition as a means of discouraging entry. If the domestic firm responds to the marginal price undercutting strategy used by an import price leader, it sends a signal to other possible imitators that the domestic market will be defended and any opportunity is foreclosed to other potential entrants. Strategic price discrimination is, however more structurally based and is used by foreign importers under declining market conditions, and therefore, cyclical in nature. The degree of price undercutting is the lowest of the three entry strategies, resulting in the smallest proportionate import penetration. Given the cyclical nature of this form of market entry, imports of this type may not pose a medium to long term threat to the domestic industry and, accordingly, non-price forms of competition may be effective in discouraging entry.

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ⁱⁱIf the import competition is anti-competitive, domestic competition law and policy of most countries will not apply as it only protects smaller domestic firms from an abuse of dominant position by larger domestic firms exercising market power. Antidumping law and policy may be available to the domestic firm (irrespective of size and market position) and may be used if the imports are priced below 'normal value' (as determined using home market selling price).

ⁱⁱⁱ It is assumed for the purpose simplifying the analysis, that in the short-run, the marginal cost (*MC*) for all firms is constant and that average variable cost (*AVC*) = *MC* and that fixed costs (*FC*) are held constant.

^{iv} A domestic firm may choose to hold firm for three reasons- two of which are policy related. First, engaging in a catch-up strategy may spark a price war prompting the foreign firm to drop its price even further. Second, the existence and effective administration of competition law places constraints on the behaviour of dominant domestic firms. Third, it may be able to use anti-dumping law and policy to defend its market position.

^v One position in the debate asserts that predatory pricing is so rare that it should not be a concern for policy-makers and regulators.

^{vi} Although the ADA had released 209 Reports, many do not include a complete economic analysis, are duplicate reviews of the same case or are Reports into application for revocation of existing AD/CVD duties.