

An Empirical Investigation of the Mergers Decision Process in Australia¹

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Abstract

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In this paper we examine a database assembled from an Australian public register of 553 merger decisions taken between March 2004 and July 2008. Mergers may be accepted without public assessment, accepted in conjunction with publication of a *Public Competition Assessment*, or rejected. We estimate an ordered probit model, using these three possible outcomes, with the objective of gaining better insight into the regulator's decision-making process. Our two major findings are: (i) the existence of entry barriers and the existence of undertakings are highly correlated with the regulator's decision to closely scrutinise a merger proposal; and (ii) if we compare two decisions, one which does not mention entry barriers (or import competition) with a decision that does mention entry barriers (or import competition), then the latter is significantly more likely to be opposed than the former.

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1. Introduction

Competition or antitrust regulation across the globe is in constant evolution. This evolution is the result of changes in legislation but also importantly of changes in how regulatory agencies and courts enforce the legislation. While some changes might reflect adjustments in social values, others arise from a greater understanding of how particular behaviours can affect competition. As an example, concerns with vertical mergers and foreclosure have emerged mostly over the last two decades following advances in our understanding of firms' strategic reasons for pursuing vertical integration.

This evolution creates difficulties of its own. In particular, it can introduce uncertainty regarding the types of behaviour or transactions that are likely to be scrutinised by the competition regulator. This uncertainty has the potential to discourage behaviour that is welfare enhancing. This concern has been extensively discussed in the literature² and regulators and policy makers are well aware of it. Indeed, regulators have explicitly developed strategies to reduce this uncertainty. For example, Kovacic (2005), the current Chairman of the U.S. Federal Trade Commission, suggests that "... a current and historically complete enforcement database would promote better understanding and analysis, inside and outside the agency, of trends in enforcement activity."

Information of this type can reduce regulatory uncertainty by promoting a better understanding of the regulator's reasoning. This is the motivation of this paper. This paper examines a database that was assembled from a public register of mergers in Australia covering 553 decisions from March 2004 to July 2008. The data include the outcome of the regulator's informal merger clearance review (i.e., whether the merger is opposed or not) and information such as the industry, the geographic dimension of the market (e.g., local versus national) and, importantly, the reasons given for the decision. For a subset of the decisions the regulator also publishes a *Public Competition Assessment*. Such assessment is published when a merger is rejected, a merger is subject to enforceable undertakings, the merger parties seek such disclosure or a merger is

² See, for example, Bork (1993)

approved but raises important issues that the regulator considers should be made public. Decisions take one of three forms: outright acceptance of the merger proposal; acceptance with public scrutiny and publication of a *Public Competition Assessment*; or rejection. We thus estimate an ordered probit model, where the outcome variable is the regulator's decision, with the objective of developing greater understanding of the regulator's decision-making process.

We should stress that our aim is not to explain or evaluate particular decisions made by the regulator³ but rather to improve our understanding of the decision-making process. Therefore, we want to investigate what types of reasons (e.g., existence or absence of entry barriers or import competition) or industry characteristics might increase the likelihood that a merger will be closely scrutinised or rejected.

This paper is organised as follows. Section 2 reviews a growing literature that aims to utilize increasingly available data on merger decisions to develop a better understanding of the merger decision process. Section 3 presents our data and empirical strategy. The empirical results are presented in Section 4, while Section 5 concludes.

2. Literature Review

There are several papers that examine merger decisions in the U.S., the U.K., Canada and the E.U. with a view to identifying the determinants of competition authorities' decisions. These papers, which are reviewed next, are similar in nature to our approach.

Coate *et al.* (1990, 1992) provide evidence that political variables, including pressure from Congress, influence merger decisions in the U.S. These studies also show that the competition authority did not necessarily consider efficiency gains when evaluating prospective mergers. More recently, Coate and Kleit (2004) model the merger review

³ There is a growing interest in the ex-post evaluation of competition decisions or competition policy. See, for example, Werden and Froeb (1994) and for a recent discussion Neven (2008).

process in which the FTC interacts with the acquiring firm to determine the outcome of competition regulation. With respect to firms, the authors find that mergers are driven by the opportunity to capture efficiencies. In contrast, there is no evidence that the anticompetitive characteristics of mergers impact firms' decisions to initiate litigation to dispute the FTC's decision. Firms, however, are deterred from fighting the FTC by the potential negative impact on their reputations.

Weir (1992, 1993) examines proposed mergers in the U.K. between 1974 and 1990 to assess the factors that appear to influence the Monopolies and Mergers Commission (MMC) when considering mergers. Weir (1992) finds that market shares (whether a merger was horizontal or vertical) and the presence of benefits of a merger (such as increased employment or exports) do not appear to affect the MMC's decision to approve a merger. The prospect of increased competition is shown to increase the likelihood of a merger being approved whereas the prospect of negative effects on balance of payments (i.e., through imports and/or exports) leads to a lesser likelihood that a merger will be approved.

Weir (1993) provides a further assessment of the MMC decision process. This is achieved by constructing three sub-samples: (i) mergers that increase or decrease competition, (ii) mergers with an increase or no change in competition, and (iii) mergers with a decrease or no change in competition. For each sub-sample, Weir investigates a range of variables--market share, efficiency gains, effects on the balance of payments, prices, research and development, the nature of the merger (horizontal versus vertical), the relative profitability of the firms, and choice/quality--and their effect on the MMC's decision. The key result is that mergers were significantly more likely to be approved if they increased or had no effect on competition, and expected price impacts were crucial in the final assessment. By and large, other variables were insignificant.

Khemani and Shapiro (1993) investigate proposed mergers in Canada from 1986 to 1989. In Canada, there are four possible responses the regulator can give: no issue, monitor, restructure or challenge. As in this paper, Khemani and Shapiro use an ordered probit

model, though with four outcomes. They find that market share is the strongest determinant of whether a merger will be allowed or not, but that other factors, in particular import competition and barriers to entry, are relevant (i.e. statistically significant). They find that the extent to which the merger is between vigorous competitors or involves one firm that is failing may be relevant to the final decision; however collinearity problems in their data prevent them from coming to firm conclusions.

Williams *et al.* (2003) and Bergman *et al.* (2005) examine the behavior of the European Commission in merger decisions based on public information. Williams *et al.* employ a sample of 245 published merger decisions and find that market share is an important factor in explaining a negative pronouncement. Bergman *et al.* construct a sample of 96 cases and find that the probability that an investigation is initiated is related to barriers to entry, post-merger market share and its increase, and a market structure that can lead to collusion post-merger.

In contrast, Fernandez *et al.* (2008) examine a sample of 50 decisions by the European Commission's regulator after the introduction of the 2004 Merger Regulation. They find that the probability that a merger is investigated is further impacted by the estimated market share increase post-merger, the contestability of the market, and the presence of entry barriers.

Finally, Avalis and de Hoyos (2008), using a database of proposed mergers in Mexico that they created, split proposals into those that were accepted, those that were accepted with conditions and those that were rejected. For each set, they analyse the characteristics associated with the proposal. Their paper focuses on the effects of the following characteristics on the decision of the regulator: market concentration, existence of efficiency gains, foreign presence, presence of import competition, barriers to entry, and whether either of the proposed merger companies owned a company already in the market.

Avalis and de Hoyos (2008) use both an ordered logit model and a multinomial logit model. They show that import competition and barriers to entry are significant factors in the decision of whether or not to approve a merger. However, the authors identify two distinct factors that influence the regulator's decision: (i) foreign-company-related mergers are significantly more likely to be accepted; and (ii) efficiency gains make a merger more likely to have conditions placed on it rather than being accepted without conditions. Although (ii) might sound counter-intuitive, it is analogous to our result that conditions make a public assessment more likely. That is, mergers that are likely to involve significant issues but that involve efficiency gains are more likely to be approved with conditions than rejected.

There is an important distinction between our approach and the papers reviewed above; we rely exclusively on publicly available information. As a result, our data consist mostly of qualitative information made publicly available by the Australian Competition and Consumer Commission (ACCC). That is, we do not have quantitative information on market shares, number of competitors or the extent of import competition. Nevertheless, our analysis provides useful insights into the ACCC's decision-making process.

3. Data and Empirical Strategy

We examine a database that we assembled from a public register of mergers in Australia covering 553 decisions from March 2004 to July 2008. The data include the outcome of the ACCC's informal merger clearance review (i.e., whether the merger is opposed) and information such as the industry, the geographic dimension of the market and, importantly, the reasons given for the decision. For a subset of the decisions the regulator also publishes a *Public Competition Assessment*. Such an assessment is published when a merger is rejected, is subject to enforceable undertakings, the merger parties seek such disclosure, or a merger is approved but raises important issues that the regulator considers should be made public. The data are available online and have been published monthly through the ACCC's ejournal starting in March 2004.⁴

⁴ The ejournal can be accessed at <http://www.accc.gov.au/content/index.phtml/itemId/392039>.

The main outcome variable is the decision taken by the ACCC on the merger proposal. This variable takes three values as described in Table 1: No public assessment; Public assessment, not opposed; Public assessment, opposed. As described above, all opposed (rejected) merger decisions must be accompanied by a public assessment. For those not opposed, there may or may not be a public assessment, but the presence of a public assessment can be clearly interpreted as an indication that the case is qualitatively different, and more likely to raise important issues which could result in rejection of the application, than those that are accepted without public assessment. As the outcome is discrete and ordered, we assign, arbitrarily, the values 0, 1, and 2 to the three outcomes as indicated above. We estimate an ordered probit model controlling for the year and month of decision; reason(s) provided for the decision; industry (at the one-digit classification level); geographic nature of the market; and the number of firms operating in that industry (at the four-digit classification level).

Table 1: Distribution of outcomes for 553 merger decisions

Result	Number
No public assessment (0)	485 (87.7%)
Public assessment, not opposed (1)	55 (9.95%)
Public assessment, opposed (2)	13 (2.35%)

Table 2 provides the number of decisions by the geographic nature of the market: national; more than one state, but less than national; one state only (but in multiple places within the state); and local. Some merger decisions involve multiple markets and so there may be more than one market classification for a decision. We also have 33 decisions where no data are provided on the geographic nature of the market.

Table 2: Decision outcome by geographic nature of market

	No public assessment	Public assessment, not opposed	Public assessment, opposed	TOTAL
National	259	34	7	300
More than one state	36	9	7	47
One state only	47	4	2	53
Local	82	7	2	91
No region given	32	1	0	33
Multiple regions given	29	0	0	29
TOTAL	485	55	13	553

The ACCC provides a detailed description of the particular industry (e.g. contact lenses), however this description is too detailed for inclusion in a regression model--we would end up with nearly one dummy variable for each specific industry/decision. The ACCC does not provide, and we have no way to obtain, information about market shares, number of firms in the particular industry or other quantitative information about the industry at this level of detail. Thus, we use information from the Australian Bureau of Statistics on the number of firms at the four-digit level in the Australian and New Zealand Standard Industrial Classification (ANZSIC). For example, contact lenses would fall into the Photographic and Optical Good Manufacturing category. Secondly, we use information about the type of industry at the one-digit classification level.

Table 3: Decision outcome by total number of firms in the industry at the 4-digit level

	No public assessment	Public assessment, not opposed	Public assessment, opposed	TOTAL
480 or less	113	16	5	134
More than 480 but less than or equal to 1266	118	13	5	135
More than 1266 but less than or equal to 5862	125	13	0	138
More than 5862	129	13	4	146
TOTAL	485	55	13	553

Table 3 provides descriptive statistics regarding our sample of decisions by industry size, as measured by the total number of firms in the relevant four-digit level industry. Table 4 provides information about the one-digit level industry breakdown of decisions.

Table 4: Decision outcome by one-digit industry level

		No public assessment	Public assessment, Not opposed	Public assessment, Opposed	TOTAL
A	Agriculture, Forestry and Fishing	5	0	0	5
B	Mining	16	2	0	18
C	Manufacturing	115	12	5	132
D	Electricity, Gas, Water and Waste Services	56	7	2	65
E	Construction	3	0	0	3
F	Wholesale Trade	18	2	0	20
G	Retail Trade	40	3	2	45
H	Accommodation and Food Services	2	0	0	2
I	Transport, Postal and Warehousing	37	10	1	48
J	Information Media and Telecommunications	54	6	0	60
K	Financial and Insurance Services	39	1	0	40
L	Rental, Hiring and Real Estate Services	10	2	0	12
M	Professional, Scientific and Technical Services	10	1	1	12
N	Administrative and Support Services	3	0	0	3
O	Public Administration and Safety	1	0	0	1
P	Education and Training	0	0	0	0
Q	Health Care and Social Assistance	27	7	0	34
R	Arts and Recreation Services	3	1	1	5
S	Other Services	4	0	0	4
	Multiple industries listed	42	1	1	44
	Total	485	55	13	553

Table 5: Decision outcome by category of stated reason
Reasons are not mutually exclusive

	No public assessment	Public assessment, Not opposed	Public assessment, Opposed	TOTAL
1. market power No change in market structure / share or failure to cross ACCC thresholds / increase in competition/significant market power	192	23	3	218
2. competition Existence (potential for) substantial competitors/ lessening of competition	315	27	11	353
3. import market Existence (potential for) significant import market/ insignificant import market	60	5	5	70
4. market share Insignificant / significant change in Australian market share	32	5	3	40
5. barriers to entry Low barriers to entry / significant barriers to entry	106	10	11	127
6. substitutes Significant substitutes / Insignificant substitutes or complementary products	28	3	3	34
7. vertical market power Lack of vertical market power	69	8	5	82
8. Existence of an undertaking The provision of a contract addressing ACCC concerns/ a court enforceable undertaking	20	18	0	38
No reason provided	33	1	0	34
Total	485	55	13	553

Note: Column totals do not add up because the regulator gives more than one reason for most decisions.

Table 5 provides information about the reason provided by the regulator in making its decision. Note that a reason may be given as evidence in support of a merger or in opposition to a merger. For example, the regulator may state that given the lack of any entry barriers, the merger need not be opposed. Conversely, the regulator may oppose a merger on the basis of significant entry barriers.⁵ We create 8 decision indicator variables to capture the type of issue(s) that the regulator mentioned in making the decision. Table 5 summarizes the reasons provided by the regulator either in favor of or

⁵ We do not separate 'positive' and 'negative' references to each possible issue, since in our regression analysis we will be looking at the relationship between an issue being mentioned and the decision outcome. Obviously a lack of barriers will be correlated with merger approvals and presence of barriers with rejections. Including these as two separate categories in our regression introduces serious endogeneity problems into the model.

against the merger. Note that most decisions have more than one stated reason but 34 decisions have no reason provided by the regulator. The eight categories are: “market power”, “competition”, “import market”, “market share”, “barriers to entry”, “substitutes”, “vertical market power”, and “existence of an undertaking” (8).

4. Empirical Results

Table 6 provides the results from an ordered probit model of the regulator's decision (0, 1 or 2 as detailed above). The values in the table are the marginal effects. We only provide marginal effects for outcomes 1 and 2. The marginal effects on all three outcomes must sum to zero, so the marginal effects for outcome 0 are the additive inverse of the sum of the marginal effects for outcomes 1 and 2. The values in parentheses are the t-statistics from the test of significance of the marginal effect. Stars indicate significance at the one (***) , five (**), and ten (*) percent levels. In a few cases, the coefficient in the model is statistically different than zero but the marginal effect is only just insignificant. These are indicated with † and †† for ten and five per cent significance, respectively.⁶ For dummy variables, marginal effects are calculated using the discrete change from 0 to 1, not as a calculus approximation.

We include dummy variables in the model for month and year of decision. December/January is the omitted month category--decisions for these two months are grouped without distinction in the regulator's reports--and 2004 is the omitted year. There do appear to be some minor seasonal effects--decisions are more likely to be publicly assessed/opposed in March and less likely to be so in May relative to December/January. Decisions were more likely to be publicly assessed/opposed in 2005 and 2007 relative to 2004. We have no compelling explanation for these results.

⁶ Marginal effects are generated in STATA following Greene (2003)--see page 738. The standard errors of the marginal effects depend upon the point at which they are calculated and thus the significance of the marginal effects may differ from the significance of the coefficients. Marginal effects are calculated at the mean values of the data.

We include dummy variables for industry at the 1-digit level with Manufacturing, the largest industry, as the omitted category (see Table 4). There are 8 industries for which we have less than 10 observations. We use one dummy variable for this group of industries as we cannot identify any effects with so few observations.

We attempt to capture the geographic size of the market through a set of dummy variables based upon the categories of Table 2. We include a separate dummy for the 33 observations which have no geographical information available. The omitted category in the regression is national, so the coefficients on the other market/region coefficients need to be interpreted relative to the market being a national one.

We considered two separate specifications for industry size. In one, we use the number of firms in the industry as a continuous variable. This variable was insignificant in all models. In the other, we control for the number of firms with a set of four dummy variables based upon Table 3. We label these, “small”, “medium”, “large” and “very large.” We omit “large” in the regression results presented below so coefficients on the other variables relating to the number of firms need to be interpreted relative to “large”. These categorical variables were also all jointly insignificant.⁷ We only report the latter specification. Whether we use the continuous measure or the dummy variable approach for industry size has no impact on the other variables.

[TABLE 6 about here]

Columns 2 and 3 of Table 6 present the full model controlling for all the factors discussed above. The industry dummies are jointly insignificant (p-value of 0.87), the dummies for number of firms in the industry are jointly insignificant (p-value of 0.72) and the market region variables are jointly insignificant (p-value of 0.50). If we test for joint significance of those three variable sets we fail to reject that they are all jointly equal to zero (p-value of 0.85).

⁷ We do not find this lack of significance surprising as our measure of industry size is poorly matched to the specific industry which was considered in the decision, as described in section 3.

Columns 4 and 5 of Table 6 present a restricted model with most of the variables for industry, number of firms in the industry, and market region set to zero. We keep the variable for “Wholesale Trade” since this variable is just significant at the 10 per cent level in the unrestricted model. Whether we look at the full model of columns 2 and 3 or the restricted model of columns 4 and 5, we come to the same conclusions regarding the key variables which are those relating to the decision reason of the regulator.

In interpreting the results, it is important to keep in mind that this model is a reduced form model of the correlations between the variables considered and the decision outcome of the regulator. The analysis is exploratory and the coefficient estimates can not be viewed as ‘causal’ parameters. Nonetheless, we believe that this exercise enhances our understanding of the regulator’s decision-making process.

Importantly, there are three reasons that stand out as important in relation to the ACCC’s decision to closely scrutinise a merger proposal: the existence of entry barriers, concerns about market concentration and the existence of undertakings. In particular, a merger is approximately 14% more likely to be subject to a public assessment when entry barriers are included as reasons.⁸ To be clear, if we compare two decisions, one which does not mention entry barriers (either in a positive or a negative way) with a decision that does mention entry barriers (either in a positive or negative way), then the latter is about 14% more likely to be subject to a public assessment than the former.

The provision of undertakings or court-enforceable contracts by the merging parties leads, for obvious reasons, to a likelihood of around 40% that the merger will be subject to a public assessment. In terms of the industry dummies, mergers that occur in the wholesale trade market seem to result in a lower likelihood, around 6% lower, that a public assessment exercise will be undertaken.

⁸ The sum of the two marginal effects is 14 per cent. Holding all other things constant, if entry barriers are mentioned by the regulator in the decision, that it is 14 per cent more likely to be publicly assessed with no opposition or opposed (with public assessment) and 14 per cent less likely to be not opposed without public assessment.

In Table 7, we present the estimates of a probit model of the probability of a project being publicly assessed. This model groups categories 1 and 2 from the ordered probit model of Table 6 into one category. We find very similar results to the ordered probit model. Columns 2 and 3 present the marginal effects (on the probability of a project being publicly assessed). In the model with all control variables, the industry dummies are jointly insignificant (p-value of 0.85), the dummies for number of firms in the industry are jointly insignificant (p-value of 0.60) and the market region variables are jointly insignificant (p-value of 0.40). If we test for joint significance of those three variable sets we fail to reject that they are all jointly equal to zero (p-value of 0.83). Column 3 of Table 7 presents the results from a restricted model with these variables (mostly) set equal to zero. Again, we leave “Wholesale Trade” in the model since this variable is nearly significant in the full model. It is significantly different than zero in the restricted model. The results once more highlight that entry barriers, market share and undertakings are important reasons behind the ACCC’s decision to undertake a public assessment exercise.

[TABLE 7 about here]

We also estimated models of the probability of rejection for the 68 publicly assessed decisions. One consequence of the small number of decisions which are publicly assessed is that there is no variation for some variables so we cannot consider the effect of 'presence of an undertaking', for example. If we estimate a model using those variables for which there is variation, we find that none of the industry dummies nor the industry size variables are significant. We find that two of the decision reason variables—‘import market’ and ‘entry barriers’—are significant. When entry decisions are mentioned in conjunction with a decision, that decision is 46% more likely to be opposed than a decision that does not mention entry barriers. Decisions that specifically refer to import competition are 34% more likely to be opposed than those that don't.⁹ The results confirm the importance and direction of these two effects found in our preferred ordered models of Tables 6 and 7.

⁹ Detailed estimation results are available from the authors.

5. Conclusion

The results above present a *prima facie* case that the ACCC's merger decision process is by and large focused in the right direction. That is, decisions that mention entry barriers are more likely to be closely scrutinised than those that do not. Moreover, entry barriers and import competition are important determinants of a decision to oppose a merger. Nothing else seems to influence, in a consistent way, the likelihood that a merger will either be closely scrutinised or opposed by the regulator.

We have to be careful, however, on how far we take our results. There is clearly the potential for a reverse causality problem. Namely, the regulator might have referred to entry barriers (or import competition) as a reason for further investigation or opposition to a merger not entirely exclusively because of the underlying economics, but rather because it is the expected outcome.

Moreover, our findings cannot be interpreted as suggesting that the ACCC has made the correct decisions by investigating or approving or rejecting a particular merger. Such evaluation would necessarily involve a case-by-case analysis that might rely on the information available to the regulator at the time of the decision; in this study we only use publicly available information. Nevertheless, this type of study may provide useful guidance for companies considering a merger by helping them to understand the ACCC's decision process.

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Table 6: Estimates from ordered probit model
Table entries are marginal effects

	Public Assessment		Public Assessment	
	no opposition	opposition	no opposition	opposition
Variables relating to decision reason				
Market Power	0.031 (1.27)	0.0053 (1.14)	0.030 (1.28)	0.0061 (1.16)
Competition	0.017 (0.71)	0.0027 (0.71)	0.012 (0.56)	0.0024 (0.56)
Import Market	0.039 (0.92)	0.0071 (0.80)	0.048 (1.24)	0.0111 (1.05)
Market Share	0.097*†† (1.76)	0.0222†† (1.27)	0.084*†† (1.69)	0.0225†† (1.27)
Entry Barriers	0.114***††† (2.99)	0.0252**††† (2.04)	0.111***††† (3.18)	0.030**††† (2.23)
Substitutes	0.037 (0.72)	0.007 (0.62)	0.035 (0.76)	0.0080 (0.66)
Vertical Market Power	0.031 (0.90)	0.0056 (0.80)	0.023 (0.73)	0.0049 (0.67)
Existence of an undertaking	0.262***††† (4.45)	0.1152**††† (2.12)	0.263***††† (5.31)	0.147***††† (2.58)
Month indicator dummies				
February	0.012 (0.22)	0.0020 (0.21)	0.0001 (0.00)	0.00003 (0.00)
March	0.101†† (1.63)	0.0233†† (1.18)	0.100*†† (1.77)	0.028†† (1.29)
April	0.020 (0.37)	0.0036 (0.34)	0.019 (0.37)	0.004 (0.35)
May	-0.058** (2.17)	-0.0076** (2.00)	-0.058** (2.21)	-0.0092** (2.13)
June	-0.034 (0.91)	-0.0048 (0.72)	-0.021 (0.51)	-0.0037 (0.55)
July	-0.041 (1.20)	-0.0056 (0.72)	-0.049* (1.69)	-0.0081* (1.74)
August	-0.013 (0.36)	-0.0020 (0.72)	-0.0098 (0.28)	-0.0019 (0.29)
September	0.027 (0.49)	0.0048 (0.72)	0.020 (0.40)	0.0043 (0.37)
October	0.011 (0.23)	0.0018 (0.22)	0.015 (0.33)	0.0032 (0.31)
November	-0.023 (0.65)	-0.0035 (0.69)	-0.023 (0.67)	-0.0042 (0.71)
Year indicator dummies				
2005	0.082† (1.46)	0.017† (1.11)	0.089† (1.62)	0.023† (1.22)
2006	0.041 (0.85)	0.0074 (0.75)	0.032 (0.73)	0.0069 (0.66)
2007	0.078† (1.53)	0.015† (1.20)	0.065 (1.39)	0.015 (1.15)
2008	0.016 (0.22)	0.0027 (0.21)	0.031 (0.51)	0.0068 (0.46)

Entries in table are marginal effects (their *t*-statistics are in parentheses).

†††, †† and † indicate that the *coefficient* is significant at the one, five, and ten per cent levels, respectively.

Stars indicate significance of the marginal effects at the one (***) , five (**), and ten (*) percent levels.

Table 6 (continued): Estimates from ordered probit model
Table entries are marginal effects

	Public Assessment		Public Assessment	
	no opposition	opposition	no opposition	opposition
Industry variables				
Mining	-0.020 (0.40)	-0.0030 (0.44)		
Electricity, Gas, Water and Waste Services	0.030 (0.66)	0.0055 (0.59)		
Wholesale Trade	-0.051* (1.92)	-0.0068* (1.84)	-0.057***† (2.57)	-0.0092**† (2.28)
Retail Trade	0.007 (0.14)	0.0011 (0.14)		
Transport, Postal and Warehousing	0.046 (0.87)	0.0087 (0.74)		
Information Media and Telecommunications	-0.008 (0.23)	-0.0013 (0.23)		
Financial and Insurance Services	-0.042 (1.23)	-0.0057 (1.35)		
Rental, Hiring and Real Es- tate Services	-0.014 (0.22)	-0.0022 (0.24)		
Professional, Scientific and Technical Services	0.030 (0.34)	0.0054 (0.30)		
Health Care and Social As- sistance	0.032 (0.60)	0.0059 (0.53)		
Less than 10 industry ob- servations	-0.017 (0.38)	-0.0026 (0.40)		
Geographical nature of market				
More than one state	0.025 (0.62)	0.0044 (0.56)		
State	-0.021 (0.74)	-0.0032 (0.77)		
Local	-0.038 (1.51)	-0.0056 (1.46)		
No region provided	0.024 (0.24)	0.0042 (0.22)		
Number of firms in the industry				
Small	0.030 (0.71)	0.0054 (0.63)		
Medium	0.0012 (0.04)	0.0002 (0.04)		
Very Large	-0.016 (0.56)	-0.0025 (0.56)		

Entries in table are marginal effects (their *t*-statistics are in parentheses).

†††, †† and † indicate that the *coefficient* is significant at the one, five, and ten per cent levels, respectively.

Stars indicate significance at the one (***) , five (**), and ten (*) percent levels.

Table 7: Estimates from probit model
 Dependent variable: project is publicly assessed
 Table entries are marginal effects

	Public Assessment	Public Assessment
Variables relating to decision reason		
Market Power	0.032 (1.13)	0.032 (1.17)
Competition	0.010 (0.36)	0.005 (0.17)
Import Market	0.033 (0.73)	0.043 (1.03)
Market Share	0.093* (1.71)	0.085* (1.64)
Entry Barriers	0.107*** (2.78)	0.108*** (2.92)
Substitutes	0.037 (0.65)	0.038 (0.71)
Vertical Market Power	0.038 (0.96)	0.031 (0.82)
Existence of an undertaking	0.448*** (5.25)	0.48*** (6.05)
Month indicator dummies		
February	0.015 (0.25)	0.001 (0.02)
March	0.122* (1.89)	0.124** (2.02)
April	0.022 (0.37)	0.023 (0.39)
May	-0.065 (1.45)	-0.065 (1.43)
June	-0.043 (0.84)	-0.028 (0.57)
July	-0.058 (1.25)	-0.066 (1.50)
August	-0.022 (0.52)	-0.022 (0.51)
September	0.014 (0.25)	0.009 (0.16)
October	-0.012 (0.24)	-0.003 (0.06)
November	-0.041 (0.94)	-0.040 (0.94)
Year indicator dummies		
2005	0.155** (2.23)	0.174** (2.48)
2006	0.086 (1.42)	0.077 (1.33)
2007	0.132** (2.12)	0.121** (2.02)
2008	0.033 (0.39)	0.052 (0.70)

Entries in table are marginal effects (their *t*-statistics are in parentheses). Stars indicate significance of the marginal effects (and coefficients) at the one (***) , five (**), and ten (*) percent levels.

Table 7 (continued): Estimates from probit model
 Dependent variable: project is publicly assessed
 Table entries are marginal effects

	Public Assessment	Public Assessment
Industry variables		
Mining	-0.009 (0.13)	
Electricity, Gas, Water and Waste Services	0.046 (0.87)	
Wholesale Trade	-0.054 (1.31)	-0.064* (1.72)
Retail Trade	0.017 (0.31)	
Transport, Postal and Warehousing	0.072 (1.21)	
Information Media and Telecommunications	0.006 (0.13)	
Financial and Insurance Services	-0.043 (0.84)	
Rental, Hiring and Real Es- tate Services	0.007 (0.08)	
Professional, Scientific and Technical Services	0.037 (0.38)	
Health Care and Social As- sistance	0.062 (0.97)	
Less than 10 industry ob- servations	-0.027 (0.46)	
Geographical nature of market		
More than one state	0.022 (0.49)	
State	-0.034 (0.99)	
Local	-0.050 (1.56)	
No region provided	0.018 (0.18)	
Number of firms in the industry		
Small	0.034 (0.73)	
Medium	-0.014 (0.38)	
Very Large	-0.026 (0.75)	

Entries in table are marginal effects (their *t*-statistics are in parentheses).

Stars indicate significance of the marginal effects (and coefficients) at the one (***) , five (**), and ten (*) percent levels.