AN ANALYSIS OF THE PRICING OF
SECTION 23 EXPERT REPORTS

by

Ann Johns

Faculty of Business
Staff Papers

SWINBURNE INSTITUTE OF TECHNOLOGY
A division of Swinburne Ltd
AN ANALYSIS OF THE PRICING OF
SECTION 23 EXPERT REPORTS

by

Ann Johns

(Serial No. 40, 1988)

ISBN 0 85590 608 1

This paper should not be quoted or reproduced in whole or in part without the consent of the authors, to whom all comments and enquiries should be directed.

© Johns. A. 1988
This paper identifies and analyses the variables considered likely to determine the cost of Section 23 expert valuation reports. The results indicate that the size and type of the target company being valued and the type of expert (merchant bank, stockbroker or accounting firm) are significant determinants of expert report pricing. A predictive model is then developed using those variables found to be significant. When tested on a subsample of expert fees the predictive model indicated that merchant banks tend to overprice relative to accounting firms.
# CONTENTS

1. Introduction .................................................. 1

2. Methodology .................................................. 4
   2.1 Data and sample ........................................... 4
   2.2 Definition of variables ................................... 5
   2.3 Experimental design ..................................... 6

3. Results ....................................................... 9

4. Conclusion .................................................... 17

5. Bibliography .................................................. 18
1. Introduction

Since the introduction of the Takeover Code in July 1981 there has been a requirement under Section 23 for a target company to provide an independent valuation where the offeror company is entitled to 30% or more of the voting shares, and/or there is a common director between the offeror and target firm. (1) Under these circumstances the target company Part B Statement must be accompanied by an expert valuation report.

Although the Takeover code does not prescribe any particular valuation methodology to be followed by the independent valuer, NCSC Release 102 has suggested some appropriate criteria. It suggests that 'without limiting the expert's application of skill and judgement in forming his opinion' three criteria, should be considered:

- capitalised maintainable earnings;
- value to an alternative bidder, if all the securities in the target company were available for purchase;
- the amount that would be distributed to shareholders assuming an orderly realisation of assets.

Independent reports are prepared by 'experts'. NCSC Release No. 102 defines an expert as 'any person whose profession or reputation gives authority to a statement made by him in relation to 'a matter'. The Commission considers that it is the responsibility of the person retaining the expert to ensure that the 'profession or reputation' of the expert is apparent and relevant to the matters upon which the expert reports. (2)

(1) NCSC Release 102 19/2/83
(2) ibid.
The Takeover Code prohibits anyone 'associated' with either the offeror or target company from acting as experts. The term 'associated' is a question of fact determined by Section 7(5) of the Code. A director or secretary of either company would fall into this category. However a person who has provided professional services to the offeror or target company is not precluded from being employed as an expert. But any such relationship over the past two years must be disclosed in the report. Section 23 also requires the disclosure of fees paid to experts and any other pecuniary or other benefit that is received in connection with the preparation of the report. Expert valuation reports prepared on a voluntary basis are not required to disclose fees.

There is evidence, from a large sample of Section 23 reports (111) studied that takeover valuations are prepared mainly by merchant banks, and to a lesser degree, by accounting firms and stockbrokers. See Table 1 below for a summary of fees charged by experts for independent reports prepared under Section 23 between 1984 and 1986. It is evident from this table that merchant banks and accounting firms prepared 87% of the reports studied for this research. Merchant banks prepared 52% of them at an average cost of $32,496 which is substantially higher than the average cost of accounting firm reports at $12,859.

**Table 1**

<table>
<thead>
<tr>
<th>Expert</th>
<th>No. of reports</th>
<th>% of total</th>
<th>Ave. cost per report $</th>
<th>Total Cost $</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merchant/Investment Banks</td>
<td>58</td>
<td>52</td>
<td>32,496</td>
<td>84,783</td>
<td>69.8</td>
</tr>
<tr>
<td>Accounting Firms</td>
<td>39</td>
<td>35</td>
<td>12,859</td>
<td>501,500</td>
<td>18.6</td>
</tr>
<tr>
<td>Stockbrokers</td>
<td>11</td>
<td>10</td>
<td>26,118</td>
<td>287,300</td>
<td>10.6</td>
</tr>
<tr>
<td>Corporate Advisory Services</td>
<td>3</td>
<td>3</td>
<td>9,000</td>
<td>27,000</td>
<td>1.0</td>
</tr>
</tbody>
</table>

| Total                         | 111            | 100        | 2,700,583              |              | 100        |

Source: Derived from Section 23 reports attached to Part B statements

(3) ibid.
The market for valuation jobs under Section 23 is large given the NCSC guideline that any person whose 'profession or reputation' enable them to act as an expert. A large number of suppliers suggests a competitive market in economic terms. Also there does not appear to be any overt barriers to entry for experts in the market, other than persons 'associated' with the target company. Jobs are assigned to experts on the basis of the target firm approaching an expert. Fees are not constrained legally and there is no tender system to allocate jobs. It is assumed therefore that the fee is a negotiated market price.

What are the factors associated with expert fees? What criteria should target company managers use to evaluate the expert fee charged?

It is evident from expert fee disclosure that there is a diversity of fees charged by experts for target company valuation. There are likely to be several factors contributing to these price differences assuming that fees are not random. From observation it appears that merchant banks and stockbrokers charge substantially more than accounting firms. In a competitive market, systematically higher prices charged by one group of experts would be consistent with product differentiation in that group.

Prior studies into audit fee determination found that size and complexity of the auditee company were statistically significant determinants of audit fees (Simunic 1980). This is likely to be the case with expert fees. The size and type of the target company being valued is likely to affect the cost. For example a large mining company valuation may be more costly than a small industrial or retail firm, due to the type of assets to be valued.

Some experts follow the NCSC valuation guidelines only, whilst other firms use additional or alternative techniques, such as the capital asset pricing model. These techniques may be more time consuming and
therefore more costly. Alternatively it may be that experts who use more sophisticated valuation techniques have a higher reputation in the market place and can charge higher fees for this reason.

It is possible that the size of the control premium being offered to the target company may have some effect on price as experts seek to appropriate some of the takeover premium for themselves as economic rent. A high premium is likely to lead to a successful takeover providing benefits to target company shareholders. Experts may seek to gain some extra benefit for themselves by charging higher fees.

However this research shows that the most significant explanatory variables are target company size, target company type and the type of expert. (See Table 3.) The total fitted relationship incorporating the sample was able to explain 49% of the observed variation in fees. When the regression was run with the three significant independent variables, target size, target company type and expert type, the adjusted $R^2$ was 50%. Thus the other independent variables could not explain any of the fee variation.

2. Methodology

2.1 Data and sample

The data for this research consists of 111 observations on expert report fees and related variables obtained from publically available sources: the Melbourne Stock Exchange, Business and Investment Research Pty Ltd, Personal Investment, and The Australian Financial Review.

The data was collected and classified as follows:

- All fees disclosed by independent experts for valuation of target companies under Section 23 between 1984 and 1986. (111 target firms)
- These were classified into merchant banks, accounting firms and stockbrokers.

- The valuation techniques used by each expert in their reports were identified.

- Market capitalisation of each target company was used as a measure of size.

Target companies were classified into industrial or resource categories. For the purpose of this study a resource company was defined as being involved in mining, mineral exploration, or oil/gas exploration.

The market price for each target company seven days prior to announcement and seven days after announcement was used to calculate a price relative for control premium.

2.2 Definition of variables

The independent variables chosen for this study based on their expected effect on expert fees were as follows:

**Target company size.** This was measured using market capitalisation of the target company. It was expected that the larger the target firm, the larger would be the expert fee.

**Control premium.** This was measured by taking the relative price of the target company share seven days prior to and seven days post announcement date. This was also expected to be positive due to experts seeking to benefit from a high premium.

Three dummy variables were included in the analysis: one for target company type, if a target company was a resource company it was given a value of 1 and a value of 0 otherwise. Another dummy variable used was for the type of expert preparing the report. Merchant banks and stockbrokers were given a value of 1 and others a value of 0. The final dummy
variable was a measure of valuation technique complexity. Experts using more than three valuation techniques were given a value of 1 and those using three or less were given a value of 0. All the dummy variables were expected to show positive coefficient estimates.

2.3 Experimental design

The first part of this study endeavours to identify and describe the determinants of expert fees. Specifically, it investigates the relationship between expert fees and variables considered most likely to influence the size of these fees. This is done by using a random sample of 90 observations from the total 111 to develop a fitted model.

If relationships can be found between expert fees and any of the independent variables they may help to explain and justify individual differences in fees.

The second part of this research is concerned with testing the fitted model wherein the most significant explanatory variables are used in a predictive model. The random subsample of 21 withheld observations is then used to test this predictive model.

The methodology used to identify the determinants of expert fees was to obtain ordinary least-squares (OLS) estimates of the coefficients of the variables in the following linear regression function:

\[ \text{LOYFEE} = B_0 + B_1 \text{LOT SIZE} + B_2 \text{PREM} + B_3 \text{TYPE} + B_4 \text{EXP} + B_5 \text{COMP} + u \]  \hspace{1em} (1)
Where:

\[
\text{LOYFEE} = \text{Natural log (ln) of expert report fee measured in thousands of dollars}
\]

\[
\text{tSIZE} = \text{Natural log (ln) of target company size using market capitalisation as a measure of size in $M}
\]

\[
\text{PREM} = \text{control premium estimated as follows: market price 7 days post announcement}
\]

\[
\frac{\text{market price 7 days post announcement}}{\text{market price 7 days pre announcement}}
\]

\[
\text{tTYPE} = \text{a dummy variable which has the value of 1 if the target company is a resource company and a value of 0 otherwise}
\]

\[
\text{EXP} = \text{a dummy variable which has the value of 1 if the expert is a merchant bank, or stockbroker and a value of 0 otherwise}
\]

\[
\text{COMP} = \text{a dummy variable which has a value of 1 where more than three valuation techniques were used, and 0 otherwise.}
\]

\[
\text{u} = \text{a residual error term assumed to have usual OLS properties}
\]

\[
\text{B}_0 = \text{the intercept}
\]

\[
\text{B}_1, \text{B}_2, \text{etc} = \text{slope coefficients developed using OLS}
\]

An arbitrary decision was made to split the sample 80%/20% and to use the model developed in the larger sub-sample to predict values in the small sub-sample. A random sample of 90 observations was therefore taken from the randomised 111 observations of expert fees to develop the fitted model. The other 21 observations were withheld to test the predictive model in Stage 2 of this study.
An alternative methodology was used by Taylor and Baker (1981) for the analysis and prediction of external audit fees. They split their observations into two equal sub-samples and then calculated model parameters from one sub-sample and used this model to predict audit fees for each observation in the other sub-sample and vice versa. This technique was successful for audit fee prediction because the dependent variable, audit fees, related to a homogeneous group—audit firms.

The initial regression model (1) was tested using the 90 observations of expert fees (as the dependent variable) and target size and control premium in conjunction with three dummy variables, type of target company, type of expert and a measure of valuation complexity, as the independent variables.

One methodological difficulty encountered with OLS is the possibility of heteroskedastic disturbances. When the form and size of heteroskedasticity in the data is known, specific tests can be applied to obtain consistent estimates of the standard errors in the model. (4)

In this paper, heteroskedasticity is addressed by using an option in the time series program which causes the program to compute standard errors which are consistent, even in the presence of unknown heteroskedasticity, using the data to estimate its magnitude (White 1980). Table 3 in the results section shows estimates of standard errors which are heteroskedastic consistent estimates. Unadjusted estimates are shown in parentheses below the relevant consistent estimates. There is no significant difference between the two estimates, however as the option was available, all other results reported in this study are heteroskedastic consistent estimates.

Another problem which may occur with multiple regression analysis is multicollinearity. This refers to a situation in which some, or all of

(4) Judge, George A. The Theory and Practice of Econometrics, p. 145.
the independent variables are very highly intercorrelated. After
running equation (1) the correlation matrix (Table 2) was examined to
see if any of the variables were intercorrelated. Table 2 indicates
the absence of any multicollinearity in this study.

Table 2

<table>
<thead>
<tr>
<th></th>
<th>LOYFEE</th>
<th>LotSIZE</th>
<th>PREM</th>
<th>tTYPE</th>
<th>EXP</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOYFEE</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LotSIZE</td>
<td>0.4730</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PREM</td>
<td>0.0032</td>
<td>-0.0892</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tTYPE</td>
<td>0.0527</td>
<td>-0.2425</td>
<td>0.05</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>EXP</td>
<td>0.5924</td>
<td>0.1519</td>
<td>-0.05</td>
<td>0.07</td>
<td>1.00</td>
</tr>
<tr>
<td>COMP</td>
<td>0.0474</td>
<td>0.0157</td>
<td>0.12</td>
<td>-0.43</td>
<td>0.08</td>
</tr>
</tbody>
</table>

The second stage of the research is to test the fitted model on a
random hold out sample of 21 observations, using the most significant
explanatory variables from stage 1.
3. Results

The fitted model results summarised in Table 3 are based upon equation (1) using 90 observations. It is clear from Table 3 that the target company size and expert variables were highly significant at the 0.01 level (two tail test). However the dummy variable target company type was only significant at the 0.2 level (two tail test). The adjusted $\tilde{R}^2$ was 0.49 which means that the fitted relationship was able to explain 49% of the observed variation in expert fees.

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ESTIMATED COEFFICIENT</th>
<th>STANDARD ERROR</th>
<th>t-STATISTIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1.2469</td>
<td>0.34757</td>
<td>3.5876</td>
</tr>
<tr>
<td></td>
<td>(0.35330)</td>
<td>(3.5293)</td>
<td></td>
</tr>
<tr>
<td>L0tSIZE</td>
<td>0.25998</td>
<td>0.41379E-01</td>
<td>6.2830 **</td>
</tr>
<tr>
<td></td>
<td>(0.48040E-01)</td>
<td>(5.4119)</td>
<td></td>
</tr>
<tr>
<td>PREM</td>
<td>0.19240</td>
<td>0.19181</td>
<td>1.0031</td>
</tr>
<tr>
<td></td>
<td>(0.2570)</td>
<td>(0.74721)</td>
<td></td>
</tr>
<tr>
<td>tTYPE</td>
<td>0.26353</td>
<td>0.17967</td>
<td>1.4667*</td>
</tr>
<tr>
<td></td>
<td>(0.16975)</td>
<td>(1.5525)</td>
<td></td>
</tr>
<tr>
<td>EXP</td>
<td>0.93092</td>
<td>0.14383</td>
<td>6.4724**</td>
</tr>
<tr>
<td></td>
<td>(0.14094)</td>
<td>(6.6049)</td>
<td></td>
</tr>
<tr>
<td>COMP</td>
<td>0.95872E-01</td>
<td>0.14055</td>
<td>0.68210</td>
</tr>
<tr>
<td></td>
<td>(0.16898)</td>
<td>(0.56734)</td>
<td></td>
</tr>
</tbody>
</table>

Number of observations = 90

Adjusted $\tilde{R}^2 = 0.49$

* Significant at $\alpha = 0.2$ (two tail test)
** Significant at $\alpha = 0.01$ (two tail test)

Estimates are heteroskedastic-consistent
Estimates shown in parentheses are unadjusted for heteroskedasticity
The second stage of this study was to develop a predictive model by dropping the insignificant independent variables, PREM and COMP from equation (1). Therefore the model was run again using only the three significant independent variables, target size, target type and expert type.

The OLS regression equation used was as follows:

\[
\text{LOYFEE} = B_0 + B_1 \text{LotSIZE} + B_2 \text{tTYPE} + \text{EXP} + u
\]

(2)

Table 4 below summarises these results. The level of significance of target company type variable was still only significant at the 0.2 level (two tail test). The adjusted \( R^2 \) at .50 gave almost the same result as the model using all the independent variables. Therefore the other independent variables did not add to the explanatory power of the three variables retained in Table 4.

The implications of the results shown in Tables 3 and 4 is that 50% of the observed variation in expert fee is unexplained by the fitted model. This means that there are unidentified factors including non-quantifiable factors which also determine expert fees. These factors may include the reputation of the expert firm, other services provided and quality of the report prepared.

Table 4

**OLS estimated co-efficients for dependent variable expert fee**

(Using the three most significant independent variables)

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ESTIMATED COEFFICIENT</th>
<th>STANDARD ERROR</th>
<th>t-STATISTIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1.5245</td>
<td>0.19578</td>
<td>7.7865 **</td>
</tr>
<tr>
<td>\text{LOtSIZE}</td>
<td>0.25402</td>
<td>0.40348E-01</td>
<td>6.2957 *</td>
</tr>
<tr>
<td>\text{tTYPE}</td>
<td>0.22428</td>
<td>0.14523</td>
<td>1.5443 **</td>
</tr>
<tr>
<td>\text{EXP}</td>
<td>0.93785</td>
<td>0.14546</td>
<td>6.4474</td>
</tr>
</tbody>
</table>

Number of observations = 90
Adjusted \( \bar{R}^2 \) = .50

* Significant at \( \alpha = 0.2 \) (two tail test)

** Significant at \( \alpha = 0.01 \) (two tail test)
The model parameters calculated from the sub-sample of 90 observations were then used to predict the expert fees for the 21 withheld observations. This procedure resulted in actual fees being at least twice the predicted fee in 14.3% of cases (3 out of 21).

Table 5 shows the actual fees and predicted fees (derived from regression model (2)). A price relative for fees has been calculated by dividing actual fees by predicted fees. The expected value of the fee relative is 1.0. Where the fee relative is greater than 1.0 the actual fees are higher than those predicted by the model and vice versa. Out of the 21 random expert firms in the sub-sample, 10 were merchant banks, 10 were accounting firms and one was a stockbroker, thus for comparative purposes the stockbroker was omitted from further analysis. It can be clearly seen that merchant banks tend to have a fee relative greater than 1.0 (7 cases) and accounting firms tend to cluster around and below 1.0 (6 Cases). This shows that merchant banks tend to price higher than the predicted fee and accounting firms tend to price lower than the predicted fee, based on the developed predictive model (2).

The graph below shows the magnitude of the relative fee for actual and predicted fees for 20 observations, measured by actual/predicted fees.

![Price relative of actual/predicted fees for 20 random withheld observations](chart.png)
Table 5

Expert Fees

Actual, predicted and relative price for 21 withheld observations (random)

<table>
<thead>
<tr>
<th>Observation</th>
<th>Actual fee$</th>
<th>Predicted fee$</th>
<th>Fee Relative Act/Pred.</th>
<th>Expert Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>91</td>
<td>9,500</td>
<td>8,560</td>
<td>1.1</td>
<td>A</td>
</tr>
<tr>
<td>92</td>
<td>5,000</td>
<td>7,465</td>
<td>0.67</td>
<td>A</td>
</tr>
<tr>
<td>93</td>
<td>10,000</td>
<td>18,494</td>
<td>0.54</td>
<td>A</td>
</tr>
<tr>
<td>94</td>
<td>75,000</td>
<td>31,582</td>
<td>2.37</td>
<td>MB</td>
</tr>
<tr>
<td>95</td>
<td>23,000</td>
<td>23,045</td>
<td>0.99</td>
<td>A</td>
</tr>
<tr>
<td>96</td>
<td>50,000</td>
<td>30,373</td>
<td>1.65</td>
<td>MB</td>
</tr>
<tr>
<td>97</td>
<td>18,000</td>
<td>25,798</td>
<td>0.69</td>
<td>MB</td>
</tr>
<tr>
<td>98</td>
<td>15,000</td>
<td>8,706</td>
<td>1.72</td>
<td>A</td>
</tr>
<tr>
<td>99</td>
<td>85,000</td>
<td>37,826</td>
<td>2.25</td>
<td>MB</td>
</tr>
<tr>
<td>100</td>
<td>28,000</td>
<td>20,894</td>
<td>1.34</td>
<td>MB</td>
</tr>
<tr>
<td>101</td>
<td>45,000</td>
<td>48,465</td>
<td>0.93</td>
<td>MB</td>
</tr>
<tr>
<td>102</td>
<td>65,000</td>
<td>50,622</td>
<td>1.28</td>
<td>MB</td>
</tr>
<tr>
<td>103</td>
<td>25,000</td>
<td>16,468</td>
<td>1.52</td>
<td>MB</td>
</tr>
<tr>
<td>104</td>
<td>12,500</td>
<td>16,800</td>
<td>0.74</td>
<td>MB</td>
</tr>
<tr>
<td>105</td>
<td>12,000</td>
<td>10,140</td>
<td>1.18</td>
<td>A</td>
</tr>
<tr>
<td>106</td>
<td>12,000</td>
<td>26,079</td>
<td>0.46</td>
<td>SB</td>
</tr>
<tr>
<td>107</td>
<td>62,500</td>
<td>58,541</td>
<td>1.07</td>
<td>MB</td>
</tr>
<tr>
<td>108</td>
<td>15,000</td>
<td>26,075</td>
<td>0.58</td>
<td>A</td>
</tr>
<tr>
<td>109</td>
<td>9,500</td>
<td>16,892</td>
<td>0.56</td>
<td>A</td>
</tr>
<tr>
<td>110</td>
<td>2,500</td>
<td>3,051</td>
<td>0.82</td>
<td>A</td>
</tr>
<tr>
<td>111</td>
<td>26,000</td>
<td>10,678</td>
<td>2.43</td>
<td>A</td>
</tr>
</tbody>
</table>

where
A = Accounting firm
MB = Merchant bank
SB = Stockbroker
The implications of the results shown in Table 5 is that merchant banks tend to overprice their valuation reports relative to accounting firms which tend to underprice. There may be several factors which influence this price variation that have not been tested in this study. For example, there may be differences (or perceived differences) in the quality of expert reports prepared. However quality is difficult to define and measure objectively therefore it was not possible to include a measure of quality in the quantitative analysis of this study.

Higher pricing by merchant banks is consistent, in a competitive market with product differentiation. If the product (in this case service) is differentiated from competing products (services) then some people will be willing to pay a higher price. This could take the form of other services being offered in addition to the valuation, or it may be a reputation for 'quality' service. Alternatively merchant banks may have a different fee structure to accounting firms which could be affected by a prior business relationship. Accounting firms may underprice valuation reports if they have been employed previously by the target company and/or expect such employment in the future.
To test whether there was a significant difference in relative fees between merchant banks and accounting firms the fee relative was regressed against the independent variable type of expert.

The following regression was used:

$$\text{FEE REL} = B_0 + B_1 \text{EXP} + u$$  \hspace{1cm} (3)

where $\text{FEE REL} = \frac{\text{actual}}{\text{predicted fees}}$

$\text{EXP} = \text{a dummy variable which has the value of 1 if the expert is a merchant bank, or stockbroker and a value of 0 otherwise.}$

$u = \text{a residual error term assumed to have the usual OLS properties}$

Table 6 shows the summarised result, which was expected, that the type of expert is significant at the 0.01 level (two tail test). The adjusted $\hat{R}^2$ was 0.16 which means that the fitted relationship was able to explain 16% of the observed variation in relative fees.

Table 6

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimated Coefficients</th>
<th>Standard Error</th>
<th>t-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.75370</td>
<td>0.20747</td>
<td>3.6329</td>
</tr>
<tr>
<td>EXP</td>
<td>1.5094</td>
<td>0.45503</td>
<td>3.3171 **</td>
</tr>
</tbody>
</table>

Number of observations = 21
Adjusted $\hat{R}^2$ = 0.16

** Significant at $\alpha = 0.01$ (two tail test)
In order to determine whether a systematic relationship exists between relative fee and type of expert a chi-square test was computed. The null hypothesis to be tested is that the relative fee is independent of expert type. Table 7 displays a 2 x 2 contingency table with observed frequencies and expected frequencies in parentheses. The $\chi^2$ of 1.82 is insignificant at the 0.05 level (1 degree of freedom). This means that the null hypothesis can be accepted; no relationship exists between the two variables in Table 7. It can be assumed therefore that any deviations from the expected values which occur in the table based on randomly selected sample data, are due to chance.

**TABLE 7**

Contingency Table

<table>
<thead>
<tr>
<th>Relative fee</th>
<th>Accounting firms</th>
<th>Merchant Banks</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above 1</td>
<td>4 (5.5)</td>
<td>7 (5.5)</td>
<td>11</td>
</tr>
<tr>
<td>Below 1</td>
<td>6 (4.5)</td>
<td>3 (4.5)</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>10</td>
<td>20</td>
</tr>
</tbody>
</table>

Note: Expected frequencies are shown in parentheses below the observed frequencies.

$\chi^2 = 1.82$ which is insignificant at 0.05 level of significance (1 degree of freedom)
4. Conclusion

This study addressed the issues of identifying the determinants of expert fees charged for the preparation of takeover target valuation reports. The first part of the study identified three significant determinants of expert fees. Target company size and the type of expert were both highly significant and the type of target company being valued was found to be significant, to lesser degree.

These three variables explained 50% of the observed variation in expert fees charged. Other independent variables used in the model which were considered likely determinants were found to be insignificant. These variables were the price relative of the premium offered on announcement of the takeover and the complexity of the valuation.

This suggests that there are other unidentified factors including non-quantifiable factors which influence expert fees. These factors represent 50% of the observed variation in fees. They may well include the reputation a particular type of expert has in the market. Also prior, or anticipated future business dealings may influence the price charged.

The second part of this research was concerned with testing the predictive model developed on 21 withheld observations'. Results obtained from using this model suggested overpricing by merchant banks and underpricing by accounting firms. However the sample used for prediction was small and therefore the results should be interpreted with caution. If these results are representative of the total population then the predictive model may be of interest to target company managers in evaluating the expert fees charged for Section 23 valuation reports.
5. Bibliography


<table>
<thead>
<tr>
<th>No.</th>
<th>Year</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>1981</td>
<td>'A Note on Customs Unions Theory: The Viner Controversy R.I.P.'</td>
<td>D.J. Thomas</td>
</tr>
<tr>
<td>8</td>
<td>1981</td>
<td>'Disequilibrium and the Expectations-Augmented Phillips Curve'</td>
<td>Max Grant</td>
</tr>
<tr>
<td>9</td>
<td>1981</td>
<td>'A View of Ideological Pressures in the Context of Managerial Power'</td>
<td>Max Brown</td>
</tr>
<tr>
<td>10</td>
<td>1981</td>
<td>'Short Term Prediction of Student Numbers in the Victorian Secondary Education System'</td>
<td>Miles G. Nicholls.</td>
</tr>
<tr>
<td>11</td>
<td>1982</td>
<td>'The Legal Protection of Geographical Trade Names: Prognosis for a Case of Champagne'</td>
<td>Bruce Clarke</td>
</tr>
<tr>
<td>12</td>
<td>1984</td>
<td>'Corporate Planning Practice in Major American and Australian Manufacturing Companies'</td>
<td>Noel Capon, Chris Christodoulou, John U. Farley, James Hulbert</td>
</tr>
<tr>
<td>13</td>
<td>1984</td>
<td>'A Modified Markovian Direct Control Model in Fixed Time Incorporating a New Objective Function Specification'</td>
<td>Miles G. Nicholls.</td>
</tr>
<tr>
<td>15</td>
<td>1984</td>
<td>'Big Business in the U.S. and Australia: A Comparative Study'</td>
<td>Noel Capon, Chris. Christodoulou, John U. Farley, James M. Hulbert</td>
</tr>
<tr>
<td>16</td>
<td>1984</td>
<td>'Modelling the Demand for Tertiary Education - An Exploratory Analysis Based on a Modified Human-Capital Approach'</td>
<td>Miles G. Nicholls.</td>
</tr>
</tbody>
</table>
No. 19 1984  'Alternative Job Search and Job Finding Methods: Their Influence on Duration of Job Search and Job Satisfaction' by John B. Wielgosz and Susan Carpenter.

No. 20 1985  'A Comprehensive Study of Strategic Planning in Australian Subsidiary and Non-Subsidiary Companies' by Chris Christodoulou and Peter T. Fitzroy.

No. 21 1985  'Towards an Optimal Taxation Structure in Australia' by David J. Thomas.

No. 22 1985  'A Suggested Theoretical Basis for the Interpretation of the Effects of Income on the Demand for Tertiary Education' by Miles G. Nicholls.

No. 23 1985  'Austrian Economics and Australian Patents' by Bruce Oakman.

No. 24 1985  'Ensuring a Future for your Organisation' by Chris Christodoulou.

No. 25 1985  'The Long Search: A Pursuit of Organizational Understanding from the Perspective of "System" Thinkers' by Max Brown.


No. 27 1986  'Positive Economic Analysis and the Task of State Enterprise Efficiency and Control' by Patrick Xavier.


No. 29 1986  'A Comparative Examination of Subsidiary and Non-Subsidiary Strategies' by Chris Christodoulou.

No. 30 1986  'Solving Linearly Constrained Nonlinear Programming Problems by Newton's Method' by Fatemeh Ghotb.

No. 31 1986  'An Economic Appraisal of Recent Reforms in Public Enterprise Pricing Policy in Victoria' by Patrick Xavier.

No. 32 1987  'Australian Manufacturing Companies and Academic Institutions: A Comparative Analysis of Strategic Planning' by Noel H. Kelly and Robin N. Shaw.

No. 33 1987  'Centralisation of Information and Exchange with Special Reference to The South Australian Winegrape Industry' by C. Hunt, P. Tiernan, E. Wilson.

No. 34 1987  'The Impact of Home Office Culture on Subsidiary Strategic Planning' by Chris Christodoulou.

No. 35 1987  'A Comparison Between Guarantees Standby Credits and Performance Bonds' by Ann Johns.

No. 36 1987  'The Effects of Uncertainty and Incomplete Information in a Foreign Exchange Market subject to Noisy Rational Expectations' by Edgar J. Wilson.
No. 37 1987  'Inflation Accounting for Australian Public Enterprises - Economic Rationale and Financial Implications' by Barry Graham and Patrick Xavier.

No. 38 1987  'Financial Targets and Dividend Requirements for Commonwealth Government Business Enterprises - Are They Appropriate and How Should They be Determined and Measured?' by Patrick Xavier and Barry Graham.
