An investigation of the usefulness of accounting data in extractive industry operations

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Abstract

This study investigates the value relevance of accounting numbers presented by Australian extractive industry companies over the period 1998-2003. We proposed that specific extractive industry assets would have explanatory power, and our results support this conjecture. We also argued that intangible assets and capitalised pre-production expenditure would be value relevant, despite managerial discretion in their measurement, because these assets hold information about future economic benefits expected to flow to the company. Similarly, we expected disclosure about capital expenditure commitments to be value relevant. We found mixed results in relation to these propositions. Intangible assets and disclosure of capital commitments appeared to be more important in the later years, while capitalised pre-production expenditure was relevant in the earlier years of the sample.

Keywords: Extractive industry accounting, IFRS 6, international accounting standards, capitalisation of pre-production expenditure.

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1. Introduction

The aim of this study is to investigate the usefulness for market participants of the accounting data generated by companies in the extractive industries. Many extractive industry companies rely on capital sourced from public equity markets, particularly in the early phases of a company's life cycle. Investors use a range of data from a variety of sources when making investment decisions. For companies in general, financial statement data is an important source of information. However, for extractive industry companies other data may be more important for investors when assessing a company's prospects. It may be that financial information is of limited benefit because key data lies outside the traditional domain of the financial statements (see for example PricewaterhouseCoopers, 2002).

The International Accounting Standards Board (IASB) has a current project to develop a comprehensive standard for the extractive industries (IASPlus, 2008). Determining the appropriate standard for extractive industries has been a matter of considerable debate. The standard setter's focus is on producing decision useful information (IASB, 2001). Consequently, they have concluded that neither historical cost, nor historical cost with supplementary note disclosure, is relevant for reporting long term assets. Extractive industry investors have indicated that the information currently provided in financial statements and disclosures is not sufficient and that the capitalisation of pre-production expenditure does not generate much useful information (IASB, 2007).

The standard setters appear to be struggling with decisions about the best way forward in terms of an extractive industry standard. Currently, considerable diversity exists among companies from different countries and accounting jurisdictions (PricewaterhouseCoopers, 1999; KPMG, 2003). Companies have considerable discretion in relation to the capitalisation of pre-production expenditure, a policy choice which in the past has been important to companies (Luther, 1996). The IASB will need to decide

about whether and under what conditions it will allow capitalisation of preproduction expenditure. In addition, the Board must address the issue of defining and measuring reserves. Other regulators are also concerned about extractive industry firm disclosures about reserves. For example, the USA's Securities and Exchange Commission (SEC) has been criticised for its out-of-date and inappropriate disclosure requirements (Nichols, 2008). Consequently it has released a concept release to gather views about how to update and improve existing disclosure about reserves (SEC, 2007).

The objective of this study is to investigate the relevance of accounting data and thereby contribute to the current standard setting debate relating to an extractive industry standard. We consider the extent to which GAAP accounting data is relevant in explaining a company's market value. Overall, studies point to consistent relevance of accounting data for predicting returns, while also recognising that other information affects share price (Frances and Schipper, 1999; Barth, Beaver and Landsman, 1998). Research shows that various measures of assets are value relevant (Barth and Clinch, 1998). We add to these studies by considering the issue specifically for extractive industry companies. Related studies consider the value relevance of capitalised development expenditure (Ahmed and Falk, 2006; Bryant, 2003) but not a comprehensive set of both extractive industry asset measures and disclosures. We consider the relevance of particular items of extractive industry accounting data for share price.

We find that specific tangible extractive industry assets are value relevant while intangible assets are value relevant only in some periods in our study. Further, contrary to survey evidence (IASB, 2007), we present some preliminary evidence that capitalised pre-production expenditure may well be value relevant. This result does not hold for all periods in our study, so further investigation is required. We also find that disclosure of capital expenditure (an item not included in the current balance sheet or income statement but relevant to future operations) is also priced by the market in the later years of our study.

There are several reasons why this study is relevant and timely. The extractive industry is of considerable economic importance on a global scale. Many companies have international operations and investors. Yet accounting standards used in the industry are inconsistent, incomplete and old (Luther, 1996). Practices have not been harmonised in any systematic way, possibly impeding efficient capital flows. There is a lack of recent research in the area of extractive industries which can inform future standard setting activities. Our study will provide useful evidence for the IASB as it determines an international accounting standard for the industry over the next few years.

The remainder of the paper is organised as follows. Section two discusses studies of value relevance of extractive industry companies' assets. Section three presents our methodology and discusses sample selection, data collection and descriptive statistics. Section four presents results and section five concludes.

2. Literature and hypotheses

Accounting data is a primary source of information for investors and analysts for evaluating companies and predicting future income (IASB, 2001). Many studies note that although accounting information provides only a partial explanation for share price, a relationship between net assets, earnings and market value is consistently observed (Francis and Schipper, 1999). Therefore, in the first instance, it could be expected that this relation will be observed for extractive industry companies.

Barth and Clinch (1998) consider the relevance, reliability and timeliness of valuations of investments, property, plant and equipment and intangible assets for 350 Australian companies in the period 1991-1995. For the mining companies in their sample, they find that property plant and equipment and investments held at historical cost are positively associated with share price, while total intangible assets are not. When intangible assets are partitioned, goodwill is value relevant while other intangible assets are not.

The authors also find that revalued property, plant and equipment, revalued investments and disclosed but not recognised asset value estimates are associated with share price. Investors find cost and revalued measures of property equally relevant, but consider historical cost values of plant and equipment (i.e. written down historical cost) more useful than revalued amounts. This suggests some reservations about directors' valuations of plant and equipment. However, the overall valuation of property, plant and equipment made by directors appears to be more useful than valuations provided by independent valuers, implying that directors provide insights in relation to value, despite possible estimation error or bias.

When the association of asset values and analysts' earnings forecasts is considered, the authors find no significant relationship for intangible assets and disclosed (not recognised) asset values. The findings suggest that the traditional measures of firm performance and position (earnings and recognised tangible assets) are those most used by analysts.

A key intangible asset of mining companies not considered explicitly in Barth and Clinch (1998) is capitalised pre-production costs. Some evidence in relation to the value relevance of this item is provided Ahmed and Falk (2006). They investigate the association of capitalised research and development costs with share price and future income. Their sample was 347 Australian companies for 1992-1999, of which 28% were extractive industry companies (326 company-years, out of a total of 1,172 company-years). For mining sector companies, we can assume that 'capitalised research and development' refers to companies' capitalised pre-production expenditure.

The question of interest addressed by Ahmed and Falk (2006) is whether a firm signals good news when it capitalises research and development. The authors argue that the capitalisation decision suggests that the firm expects to realise future economic benefits which are measurable and likely to be realised in the foreseeable future. They investigate the association between companies' discretionary R&D policy choice and its market value.

The authors note that among the extractive industry companies in the sample, 75% capitalise their 'R&D expenditure'. Regression analysis reveals that capitalised amounts are significantly and positively associated with share price, suggesting that despite possible measurement error, the amounts are used by investors. The explanatory power of the value relevance models is greater for capitalisers than for adjusted capitalisers[1] and for companies which expense R&D (64.3% compared to 61.4% and 59%).

Bryant (2003) also investigates value relevance of companies' policy choices in relation to capitalised pre-production expenditure. She studies 112 US oil and gas companies in the period 1994-1996. She compares the impact of using full cost or successful efforts policies[2] and argues that the full cost method contributes to higher value relevance because it allows companies to present 'smooth' earnings.

Our study extends the prior literature by considering the value relevance of specific assets recorded by extractive industry companies. We include tangible assets designated as 'mining operations' and both intangible assets and capitalised exploration, evaluation and development expenditure. Based on the prior empirical research, we expect that tangible assets related to mining will be value relevant as they are integral to the ability to extract product and generate future revenue. Intangible assets include purchased mining leases so we expect this item will also be value relevant. Barth and Clinch's (1998) study suggests that analysts may well disregard intangible assets and non-recognised asset measurements. However, we argue that these items are particularly important for understanding value in extractive industry operations and therefore will be value relevant.

For an extractive industry firm, capitalisation may reflect the companies' expectation of future economic benefits (as argued by Ahmed and Falk, 2006) or it may reflect uncertainty. Australian accounting standards allow companies to carry forward pre-

[1] Adjusted capitalisers are companies which have capitalised R&D in an earlier period, then subsequently written off a portion of the R&D expenditure.
[2] Companies using full cost capitalise all pre-production expenditure, while companies using successful efforts capitalise only some of their pre-production expenditure.

production expenditure if activities in the area of interest have not reached a stage which permits reasonable assessment of the existence or otherwise of economically recoverable reserves.[3] Consistent with Ahmed and Falk's (2006) results, we expect capitalised pre-production expenditure to be value relevant.

Based on the above discussion, the following hypotheses are proposed:

H1: Tangible assets related to extractive industry operations are value relevant;

H2: Intangible assets related to extractive industry assets are value relevant;

H3: Assets representing capitalised pre-production expenditure are value relevant; and

H4: Disclosed (not recognised) measures of capital commitments are value relevant.

3. Data and method

3.1 Models

To investigate value relevance, we use a model derived initially from Ohslon (1995). The intuition behind the model is that share price is a function of a firm's net assets and expected future income. The model is expanded to investigate the relevance of specific assets, as in Barth and Clinch (1998).

We begin with the basic value relevance model as presented in Barth and Clinch (1998). This model assumes that price (P) is explained by future income (proxied by current income or NI) and net assets (book value of equity or BVE).

$$P_{it} = \alpha_0 + \alpha_1 NI_{it} + \alpha_2 BVE_{it} + \varepsilon_{it} \qquad \text{Eq (1)}$$

[3] AASB 1022 para 10 was applicable during the period of this study.

Barth and Clinch then disaggregate BVE, by measuring three asset categories, including them in the model along with the residual balance of BVE. The three categories are tangible, investment and intangible assets.

We follow this approach by disaggregating BVE into the assets of interest in extractive industry operations. We identify extractive industry land and buildings, plant and machinery and other extractive assets as three groups of assets applicable to extractive industry operations. We also separately identify intangible assets and capitalised pre-production expenditure. We then consider these components of BVE to investigate whether they have explanatory power for price.

$$BVE1 = [BVE - (CAPEED + EILAND + EIPLANT + EIOTHER + INTANG)] \quad \text{Eq (2)}$$

Where CAPEED = exploration, evaluation and development expenditure carried as an asset
EILAND = Land and buildings EI operations
EIPLANT = Plant and equipment EI operations
EITOHER = Other miscellaneous assets EI operations and
INTANG = Intangible assets

We also consider a measure of a company's capital commitments, because this many signal their commitment to expand operations and therefore production and revenue. Including the variables discussed, our model is as follows:

$$P_{it} = \alpha_0 + \alpha_1 NPAT_{it} + \alpha_2 BVE1_{it} + \alpha_3 CAPEED_{it} + \alpha_4 EILAND_{it} + \alpha_5 EIPLANT_{it} + \alpha_6 EIOTHER_{it} + \alpha_7 INTANG_{it} + + \alpha_8 CAPCOM_{it} + \varepsilon_{it} \quad \text{…Eq (3)}$$

where P_{it} = Share price, firm *i*, year *t* ;three months after year end
$NPAT_{it}$ = Net profit after tax, firm *i*, year *t* ;
$CAPCOM_{it}$ = Commitment for future capital expenditure, firm *i*, year *t*;
Other variables as defined in Equation 2.

All variables are deflated by the number of shares outstanding at year end, to control for the effect of company size. Recognising that companies are included for a number of years but that observations may not exist for all companies for all years, we conducted an

unbalanced panel analysis of the data, correcting the standard errors for autocorrelation in the disturbance terms.

3.2 Data

Data for Australia extractive industry companies was obtained from Datastream. The Datastream database provided market data (shares outstanding and share price, three months after financial year end) and financial information (about assets, liabilities, revenue and profit) as well as specific data about extractive industry assets required to test the models shown in the previous section.

Table 1 shows data was collected for 1998 to 2003, giving 294 firm-years. Coverage by years is as follows: 1998 = 46 companies, 1999 = 49, 2000 = 50, 2001 = 51, 2002 = 51 and 2003 = 47. Of the 47 companies included in 2003, 44 were in the sample for all six years. The sample is limited to companies included in the database and represents only a small proportion of Australian listed extractive industry companies. For example, at 2003 there were 321 companies in the mining sector of the Australian Securities Exchange (ASX), of which 35 (11%) are included in the sample.

Nevertheless, the sample includes a diverse selection of companies. Mean size based on market capitalisation is A$1,601.7m, with minimum A$1.1m and maximum A$39,568m. Median is A$58m, showing that there are many relatively smaller companies in the sample. Mean revenue (untabulated) is A$12,193 with maximum A$30,346m and minimum zero. Seventy eight firm-year observations show no revenue (26.4% of the sample). Market capitalisation increased over the period 1998-2003, mirroring growth on the ASX. Mean earnings (net profit after tax) is A$77.981m, with a range of A$2,969.1m profit to a loss of A$2,424.4m. Mean and median earnings were volatile over the period.

The majority of extractive industry assets are in the 'other' category. Mean value is A$559.2m. Extractive industry land is A$33.7m and plant and equipment is A$36.4m. These amounts are 32%, 2% and 2% respectively of the mean of companies' net assets over the sample period. Mean intangible assets is A$176.37m, with a median of

A$14.3m. Over the sample period, recognised intangible assets range from mean A$108.71m in 1998 to A$211.04m in 2002. Capitalised pre-production expenditure is surprisingly consistent over the six years. The overall mean value is A$49.19m (standard deviation of 122.9m). Mean values range hover in the range A$49.7m (1999) to A$53.8m (2001) with the lowest mean of A$44.3m in 2003. Capital expenditure commitment has an overall mean of A$83.26m and median of A$0.20m. The maximum is A$2872.9m and the minimum zero (181 firm-years report no capital expenditure commitment).

The sample is dominated by the mining companies (234 firm-years) compared to 60 firm-years for the oil and gas sector. Comparative descriptive statistics (not reported in detail) show that the mean market values and asset values are higher in the mining industry sector, significantly so for EILAND and EI PLANT ($p = 0.019$ and $p = 0.012$) but not for EIOTHER. Mining sector companies have significantly more intangible assets and provide more disclosure of capital expenditure commitments ($p = 0.012$ and $p = 0.026$). However, the amount of capitalised pre-production expenditure is not significantly different between the two groups.

4. Results

Table 2 presents Pearson correlations between the variables included in Table 1 for 2003. As expected, market value has a high correlation with both earnings and net assets (95% and 96% respectively). Further, there are high correlations between market value, earnings and extractive industry assets (95% and 94% respectively for EIOTHER). The variables representing intangible assets, capitalised pre-production expenditure and capital expenditure disclosure are correlated with market value and earnings within the range 80-85%. Similar results (untabulated) are observed in other years (that is, 1998 to 2002) for intangible assets and capital expenditure commitment disclosure but not for capitalised pre-production expenditure. The correlation of pre-production expenditure with market value falls to within 66-75%, suggesting some variation in the relationship of these two variables over time. The relationships between the variables are investigated further in the following multivariate analysis.

Table 3 presents results of panel regressions for the full sample and for three pairs of years, representing early, middle and late years in the sample. Model 1 (1998-2003, 175 firm-years) is significant overall.[4] It shows that companies' market values are associated with earnings and net assets, as expected (EPS and BVE1 are significant, $p < 0.01$). The extractive industry assets have incremental explanatory power, with EILAND and EIOTHER ($p < 0.01$) and EIPLANT ($p < 0.05$) showing significant coefficients. This result provides support for H1. However, H2 and H3 (which proposed intangible assets and capitalised pre-production expenditure would have incremental explanatory power) are not supported in Model 1 as INTASS and CAPEED do not have significant coefficients. Finally, we observe that H4 is supported. CAPEX has a significant coefficient ($p < 0.01$) consistent with predictions that disclosed amounts of future capital expenditure commitments would be priced by the market. Separate regressions for the mining companies and the oil and gas companies (untabulated) provide contrasting results, suggesting some industry differences. H1 and H4 are supported for mining companies, while H1 and H2 are supported for oil and gas companies.

Models 2, 3 and 4 include data for three pairs of years: 1998 and 1999; 2000 and 2001; and 2002 and 2003 respectively. The net assets are important for explaining market value in all years, although earnings are not. Some of the extractive industry asset variables (EILAND, EIPLANT, EIOTHER) are significant in each model, with the importance of this group of variables increasing over time. Capitalised pre-production expenditure is significant in the first two periods but not in 2002 and 2003. In contrast, intangible assets and capital expenditure commitment variables are significant only in 2002 and 2003.

The sub-sample analysis shows that the explanatory power of accounting numbers is not stable. The results may reflect sample composition and sample size, which varies across the years The results suggest further investigation of reasons for the variation in some accounting variables but not others is required.

[4] The high values of R^2 would appear to be a function of the inclusion of indicator variables for companies and years.

5. Conclusions

The aim of this study was to investigate the value relevance of accounting numbers presented by companies in the extractive industry. There is debate about the usefulness of accounting data for extractive industry companies (Nichols, 2008). Our study sought to provide empirical evidence in relation to this issue. We proposed that specific extractive industry assets would have explanatory power, and our results support this conjecture. We also argued that intangible assets and capitalised preproduction expenditure would be value relevant, despite managerial discretion in their measurement, because these assets hold information about future economic benefits expected to flow to the company. Similarly, we expected disclosure about capital expenditure commitments to be value relevant. We found mixed results in relation to these propositions. Intangible assets and disclosure of capital commitments appear to be more important in the later years, while capitalised pre-production expenditure is relevant in the earlier years.

Our results provide only tentative evidence and further investigation is required. Our sample, which was limited by data availability in a commercial database, is relatively small. The results are affected by the composition of the sample and may not be generalisable to other companies and time periods. Further, our study considers only Australian companies and provides no insights in relation companies from other countries.

Nevertheless, the results provide some background information about value relevance of reported financial information for extractive industry companies. We plan to extend the current study to more companies, countries and disclosure items (e.g. reserves disclosure) to achieve our goal of providing useful input for the process of setting an international standard for extractive industry companies.

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Table 1 Descriptive statistics

			MKTVALUE	NPAT	BVE1	CAPEED	EILAND	EIPLANT	EIOTHER	INTASS	CAPCOM
	N		A$'000								
1998-2003	294	mean	1,600,742	77,981	892,957	49,188	33,692	36,390	559,167	176,369	83,264
Mining	234	median	57,875	122	53,057	6,934	0	0	0	14,311	200
Oil&Gas	60	minimum	1,160	-2,424,400	-1,261,700	0	0	0	0	0	0
		maximum	39,567,940	2,969,147	22,750,416	730,512	1,297,126	3,749,269	10,124,738	3,029,013	2,872,860
		std dev	5,167,902	429,040	2,816,501	122,892	165,544	316,809	1,639,522	401,064	364,110
		N	242	242	242	182	178	180	182	242	236
1998	46	mean	861,837	36,365	632,457	50,942	17,179	47,763	474,387	108,710	30,345
Mining	34	median	41,850	-39	38,628	7,495	0	5,939	56,632	10,492	0
Oil&Gas	12	minimum	620	-151,897	450	0	0	0	0	0	0
		maximum	13,286,230	1,035,000	10,940,000	560,850	70,000	280,284	3,563,000	656,167	328,500
		std dev	2,295,450	164,847	1,783,703	106,455	27,392	88,979	930,624	190,037	74,996
		N	46	45	46	32	9	10	19	46	44
1999	49	mean	1,506,753	11,296	806,920	49,759	9,628	4,949	444,799	133,800	29,893
Mining	37	median	67,940	638	46,733	7,574	0	0	2,947	13,880	500
Oil&Gas	12	minimum	2,100	-2,309,000	-11,016	0	0	0	0	0	0
		maximum	29,301,500	1,700,000	10,750,000	486,000	174,724	113,983	4,639,000	1,193,728	453,000
		std dev	4,699,101	421,180	2,060,934	107,479	35,022	20,740	1,096,266	254,489	93,803
		N	49	49	49	37	31	32	34	49	45
2000	50	mean	1,696,122	120,404	854,286	51,364	13,081	4,418	513,111	158,386	88,201
Mining	37	median	55,890	2,111	51,352	6,501	0	0	0	15,806	91
Oil&Gas	12	minimum	1,180	-188,607	-16,096	0	0	0	0	0	0
		maximum	34,125,280	2,249,000	13,219,000	685,549	357,840	117,687	5,360,000	2,104,000	2,403,000
		std dev	5,478,977	409,370	2,413,220	130,894	60,304	19,948	1,325,791	369,306	367,315
		N	50	50	50	38	37	37	38	50	49
2001	51	mean	1,689,332	39,997	852,682	53,758	45,772	4,547	558,732	185,808	84,600
Mining	38	median	52,600	-244	56,305	7,035	0	0	0	14,573	337
Oil&Gas	13	minimum	1,160	-2,424,400	-856,600	0	0	0	0	0	0
		maximum	31,762,370	1,607,000	14,029,000	730,512	1,297,126	118,684	6,033,000	2,106,000	2,221,000

		std dev	5,394,665	485,442	2,551,166	139,328	218,131	20,244	1,472,858	397,460	347,409
		N	51	51	51	37	36	37	37	51	50
2002	51	mean	1,516,693	42,353	985,652	53,123	38,817	100,536	640,409	211,037	81,201
Mining	38	median	56,230	-2,349	46,690	7,804	0	0	0	14,049	150
Oil&Gas	13	minimum	1,980	-919,699	-1,261,700	0	0	0	0	0	0
		maximum	33,612,850	2,810,125	22,750,416	606,867	1,069,566	3,749,269	9,704,551	3,029,013	2,872,860
		std dev	5,207,656	428,131	3,648,059	136,003	177,124	599,975	2,022,494	522,702	408,920
		N	51	51	51	39	39	39	39	51	51
2003	47	mean	2,013,980	122,906	1,038,509	44,270	54,028	56,353	687,970	187,548	129,054
Mining	35	median	71,980	1,443	48,395	5,137	0	0	6,355	13,325	0
Oil&Gas	12	minimum	2,180	-812,584	-80,647	0	0	0	0	0	0
		maximum	39,567,940	2,969,147	18,468,960	619,246	1,086,020	2,018,527	10,124,738	1,796,852	2,386,398
		std dev	6,366,637	508,133	3,276,089	115,252	218,915	327,388	2,108,341	410,508	465,326
		N	47	47	47	37	38	38	38	47	47

This table provides descriptive statistics for 1998-2003 for 294 firm years and for each of the six years in the sample period.

Table 2 Pearson correlation matrix 2003

	MKT VALUE	NPAT	BVE1	CAPEED	EILAND	EIPLANT	EIOTHER	INTANG
NPAT	0.947225							
BVE1	0.960175	0.949484						
CAPEED	0.836331	0.795725	0.765787					
EILAND	0.107842	0.030459	0.017634	0.083266				
EIPLANT	0.189594	0.101766	0.049584	0.208822	0.590961			
EIOTHER	0.946918	0.944968	0.996417	0.754855	-0.02585	0.004842		
INTANG	0.84509	0.845093	0.91523	0.777737	-0.04243	-0.00063	0.908546	
CAPCOM	0.879522	0.811442	0.778371	0.788651	0.339169	0.614488	0.754208	0.667161

This table reports Pearson correlations among the variables included in regression models at financial year end 2003. MKT VALUE = share price x number of shares outstanding, three months after year end. NPAT = net profit after tax. BVE1 = book value of equity less CAPEED, EILAND, EIPLANT, EIOTHER and INTANG. CAPEED = exploration, evaluation and development expenditure carried as an asset. ELAND = Land and buildings EI operations. EIPLANT = Plant and equipment EI operations. EIOTHER = Other assets EI operations. INTANG = intangible assets. CAPCOM = capital expenditure commitment.

Table 3 Regression analysis: Explanatory factors for market value

	98-03 Model 1			1998-99 Model 2			2000-01 Model 3			2002-3 Model 4		
	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.
Constant	1.1029	3.2936	**0.0013**	0.2473	0.6007	0.5539	0.2043	0.6394	0.5250	0.3426	1.7558	0.0838
NPAT	0.8134	2.7219	**0.0074**	2.6791	1.7495	0.0935	0.5182	0.4882	0.6272	0.1003	0.2531	0.8010
BVE1	0.9136	2.7514	**0.0068**	0.8700	2.7696	**0.0109**	1.9997	5.6464	**0.0000**	1.5033	5.7136	**0.0000**
CAPEED	-0.0547	-0.0432	0.9656	5.3643	2.3642	**0.0269**	8.8749	5.3221	**0.0000**	1.1521	1.0640	0.2913
EILAND	1.7212	5.2722	**0.0000**	3.5258	4.0895	**0.0005**	3.0641	8.0986	**0.0000**	2.2668	14.4342	**0.0000**
EIPLANT	0.7678	1.9932	**0.0484**	-2.2836	-0.7004	0.4907	1.4533	1.8963	0.0627	2.1785	6.8133	**0.0000**
EIOTHER	1.2697	7.4306	**0.0000**	0.6181	1.1291	0.2705	0.5757	2.0778	**0.0420**	0.7130	4.2596	**0.0001**
INTANG	0.3692	1.3972	0.1648	0.0135	0.0235	0.9815	0.2091	0.5215	0.6039	1.3016	3.7135	**0.0004**
CAPEX	0.5478	3.2956	**0.0013**	0.7796	0.3846	0.7041	0.3205	1.2801	0.2054	3.1621	6.0951	**0.0000**
N	175			32			69			74		
Adjusted R-squared	0.97			0.89			0.93			0.96		
F-statistic	134.41			33.54			122.57			212.29		
Prob(F-statistic)	0.00			0.00			0.00			0.00		

This table reports OLS regressions testing the association of market value (share price x number of shares outstanding, three months after year end) with explanatory variables. Model 1 includes 1998-2003 (175 firm-years). Model 2 includes 1998 and 1999 (32 firm-years). Model 3 includes 2000-2001 (69 firm-years). Model 3 includes 2002 and 2003 (74 firm-years). NPAT = net profit after tax. BVE1 = book value of equity less CAPEED, EILAND, EIPLANT, EIOTHER and INTANG. CAPEED = exploration, evaluation and development expenditure carried as an asset. ELAND = Land and buildings EI operations. EIPLANT = Plant and equipment EI operations. EIOTHER = Other assets EI operations. INTANG = intangible assets. CAPCOM = capital expenditure commitment.