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Australian junior exploration floats, 2001–06, and their implications for IPOs

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Abstract

An analysis of 179 junior exploration floats, listed on the Australian Securities Exchange (ASX) between July 2001 and June 2006, helped to build a basic understanding of the strategy and business structure of these companies. The "typical" junior explorer raised A$4 million at initial public offering (IPO) to finance a 2-year, mainly greenfields exploration program. The capital raised at IPO entitled its investors to approximately half of the company, with the balance in the hands of the promoters, vendors and/or seed capital investors. Of the A$4 million raised at IPO, it intended to spend approximately two-thirds on exploration, while the remainder was absorbed in corporate overheads and the costs of the IPO. Once these were paid, ongoing corporate overheads averaged approximately 28% of its total operational expenditure. However, given an average total annual expenditure of approximately A$2.6 million, most juniors held insufficient capital reserves to meet operational costs beyond a time frame of 2 years. As at October 2006, 9% of the companies were in the process of mine construction, whereas 6% had made it to producer status. The lead time from listing to production ranged from 1.5 to 53 months, giving a median of 28 months.

JEL classification: Q30

Keywords: Junior mineral exploration company; Initial public offering (IPO); Australian securities exchange (ASX); Strategy; Capital structure; Performance

Introduction

The junior exploration sector is a significant component of the minerals industry, in terms of both exploration investment and achievement. For example, junior mineral exploration companies accounted for 30–40% of total global grass roots exploration expenditures between 1985 and 2003, and approximately 31% of total Australian exploration expenditures between 1994 and 2002. In addition, junior explorers discovered approximately 51% of the significant Australian gold and copper discoveries between 1970 and 1997, and 60% of the 53 million ounces of gold that were found in Australia between 1988 and 1995 (Cranstone, 1998; Maponga and Maxwell, 2000; Brook and Alexander, 2001; Hogan et al., 2002; Maritz, 2003; Schodde, 2004). In 2005, juniors accounted for nearly half of the worldwide exploration total by all mineral resources companies surveyed by the Metals Economics Group, whereas in 2006 junior companies spent more than half of the total worldwide exploration budget (Metals Economics Group, 2006, 2007).

Most, if not all, industry majors have undertaken exploration through strategic alliances and joint ventures with junior companies, in particular during bear markets

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(Stanley, 2007) and at least partly based on the perception that the juniors are the more efficient and resourceful explorers (e.g., Lowell, 2001; Maritz, 2003). On the basis of Metals Economics Group data, Parry (2001) questioned the apparent technical superiority of junior exploration companies, indicating that the majors have a significantly better track record when it comes to finding large mineral deposits with in-situ values greater than US$1 billion. This conclusion is supported by findings of a study by Schodde (2004) of the discovery performance of the western world gold industry over the period 1985–2003, suggesting that, while junior explorers have been successful at finding small- to medium-sized gold deposits (<1 million ounces), major companies have been more successful at finding large resources (>1 million ounces) and captured most of the NPV value.

Junior exploration stocks offer high-risk, high-reward investment opportunities that can yield phenomenal returns upon exploration success (e.g., Ord, 1998; Poskitt, 2005; Stanley, 2007), although more typically deliver poor shareholder returns (e.g. Brook and Alexander, 2001; Appel, 2004). While individual companies may perform spectacularly well, average returns for the sector tend to be low. Ball and Brown (1979) suggested that this is a fundamental characteristic of the industry and that, over the long haul (i.e. since the beginning of mining in Australia in 1851), investors have been getting a lower rate of return on their investment, even though the risks in the materials and energy sectors are much higher than in the share market as a whole (e.g., Ord, 1998).

Strong criticism of the financial performance of the Australian junior exploration sector was voiced by Bromby (2004) and Whiting (2005), who highlighted the lack of discovery (cf. Kalgoorlie Miner, 2005) despite the great number of new exploration floats and the hundreds of millions of dollars raised to be put into the ground, and condemned the "lifestyle companies" that put investor money "into fancy offices and over-the-top salary packages for a select few directors rather than into the ground." However, this criticism failed to take into account the grave business impediments that Australian junior exploration companies are faced with: (1) juniors generally do not generate taxable income against which they could deduct their exploration-related business expenses; (2) most juniors do not generate regular cash inflows from operations and, thus, have to rely on equity funding to provide financing for ongoing activities; and (3) equity funds tend to be available when market sentiment is buoyant and not necessarily when funds are actually needed (e.g., McClements and Cranswick, 2001; Maritz, 2003; Fethers, 2006). These impediments greatly impact upon the business model and capital structure adopted by most Australian junior exploration companies over the study period.

Our study examined the initial public offerings (IPOs) of 179 Australian junior exploration companies that were listed on the Australian Securities Exchange (ASX) between July 2001 and June 2006, that is just before or during a major commodity price boom (cf. Radetzki, 2006). In July 2006, the companies in our study constituted at least one-third of the total number of ASX-listed junior explorers. By assembling data on the projects, target commodities, IPO results and allocation of IPO funds, we were able to build a basic picture of how these 179 junior companies invested their capital. By analysing their share price performance, we were also able to assess market opinion as to their business performance as explorers.

Methodology

For the purpose of this study, junior mineral explorers are defined as companies that search for mineral deposits but (at the time of listing) have no income from existing mines and therefore have to rely on raising money from the public to fund their exploration activities.

The data compilation for our study of 179 Australian junior exploration companies (Appendix A) was undertaken in two stages:

(1) Stage I (June–July 2004) formed part of an industry-collaborative research project at the GEMOC ARC National Key Centre, Macquarie University, and included 79 companies that were listed at the ASX between July 2001 and June 2004.
(2) Stage II (May–October 2006) formed part of a research project at the Centre for Exploration Targeting, a joint venture between the University of Western Australia and Curtin University of Technology, and included 100 companies that were listed at the ASX between July 2004 and June 2006.

Company and budget data were compiled from company prospectuses and annual and quarterly reports by these companies to the ASX that were accessed via the websites of the ASX (www.asx.com.au) and InvestSMART (www.investsmart.com.au). Share price data were compiled from the business section of the daily national newspaper The Australian and the website InvestSMART. Stock market performance data were taken from the float scoreboard on the website InvestSMART. Time series of stock prices were constructed with the charting facilities that are available on the websites of the ASX and Factiva (www.factiva.com.au). Measures of quarterly consumer inflation were compiled from statistics prepared by the Reserve Bank of Australia (www.rba.gov.au). Commodity prices were taken from KITCO (www.kitco.com), the London Metal Exchange (www.lme.co.uk) and UxC (www.uxc.com), while ASX indices and US dollar prices were compiled from Factiva.

Junior companies for which prospectus data could not be obtained ($n = 2$) or that were delisted prior to commencement of our study in July 2004 ($n = 1$) or floated largely to develop a mine that had already been acquired ($n = 1$) were excluded from our study. Assignment of exploration stages to the junior project portfolios followed

Table 1
Definition of exploration stages (modified from Lord et al., 2001)

Stage	Objective	Aims
A	Project generation	Select and acquire ground in well-endowed belts Establish database and management system Build an expert team for the belt
B	Prospect definition/ reconnaissance	Build area knowledge Test the presence of mineralizing system Define prospect risks Define drillable targets
C	Systematic drill testing of targets	Establish size and grade potential Test the potential of the mineralizing system Test geologic information Test geologic and mineralization models
D	Resource delineation	Test continuity Establish controls on grade distribution
E	Feasibility	Establish economic/metallurgical parameters Determine NPV Determine project costs

the classification scheme of Lord et al. (2001) given in Table 1. In most cases, the assigned exploration stage represents the average exploration stage of the projects in a portfolio. However, where the bulk of the proposed exploration expenditure was allocated to a single key project, the assigned exploration stage reflects that of the key project and not that of the portfolio as a whole.

Exploration budgets include all direct and indirect exploration expenses, such as the costs of tenement acquisition, administration and maintenance, and expenditures relating to native title claims, labour (including consultant fees), travel and consumables. Administration expenditures comprise corporate overheads, listing fees, IPO expenses and any funds that were not specifically allocated to exploration. All dollar values are in Australian dollars of the day, unless otherwise quoted.

Listing date

More than 80% of the companies in our study were listed in the financial years 2003–04 to 2005–06 (Fig. 1A). The considerable increase in junior exploration floats in 2003–04 and high levels of such floats in 2004–05 and 2005–06 are most likely direct consequences of the recovery of commodity prices and renewed investor interest in the resources sector. The quarterly synopsis of the listing dates in Fig. 1B illustrates that the highest number of listings was recorded in the second quarter of 2003–04 and the fourth quarter of 2005–06. As at July 2006, the 179 juniors in our study constituted at least one-third of the total number of ASX-listed junior exploration explorers, illustrating that a significant proportion of Australia's juniors was less than 5 years old.

Fig. 2 illustrates the number of junior exploration floats per quarter financial year as a percentage of the total number of ASX listings. The ratio of junior floats was highest in the fourth quarter of 2002–03 and coincident with the start of a major commodity price boom in 2003 (cf. Radetzki, 2006). The decline of junior exploration IPOs relative to the total number of IPOs between the first quarter of 2003–04 and second quarter of 2004–05 may have been linked to uncertainty about whether this commodity boom would continue or not. This uncertainty seems to have diminished after the third quarter of 2004–05 when the ratio of junior exploration floats reached proportions ranging from 21% to 33%.

Projects

Exploration stages

At the time of listing, most juniors held project portfolios at stage B (47%) or stage C (30%) of the exploration process (Table 1) (cf. Lord et al., 2001). In all, 21% of the juniors held project portfolios at stage D, whereas only 2% held tenure in more advanced project portfolios at stage E.

A survey in October 2006 of the 179 juniors in our study indicated that, while approximately 50% of the companies were in exploration stages B and C, 18% were in stage D and 17% in stage E. In all, 9% of the juniors were in the process of mine construction, whereas 6% had made it to producer status with the new mining operations producing alluvial diamonds, nickel and gold. The lead time to production was highly variable and ranged from 1.5 to 53 months with respect to the date of listing. The median lead time from listing to production was 28 months. Six of the new producers acquired or joint ventured into existing mines. One company re-opened a historic mine, while two of the new producers had discovered and delineated economic mineral resources at, or near, previously known occurrences.

Number of projects and size of tenement holdings

In all, 70% of the companies in our study managed between one and six projects, whereas only 9% controlled 11 exploration ventures or more (Fig. 3). The tenement holdings of the 179 juniors ranged in size from 100 to 10,000 km^2, with 6% of the juniors holding 7–78 km^2, 36% controlling 115–985 km^2, 50% holding 1005–9820 km^2, and only 8% controlling larger land packages between 11,672 and 48,835 km^2.

When comparing the size of the tenement package and number of projects on a company-by-company basis, it looks as though the number of projects is an arbitrary

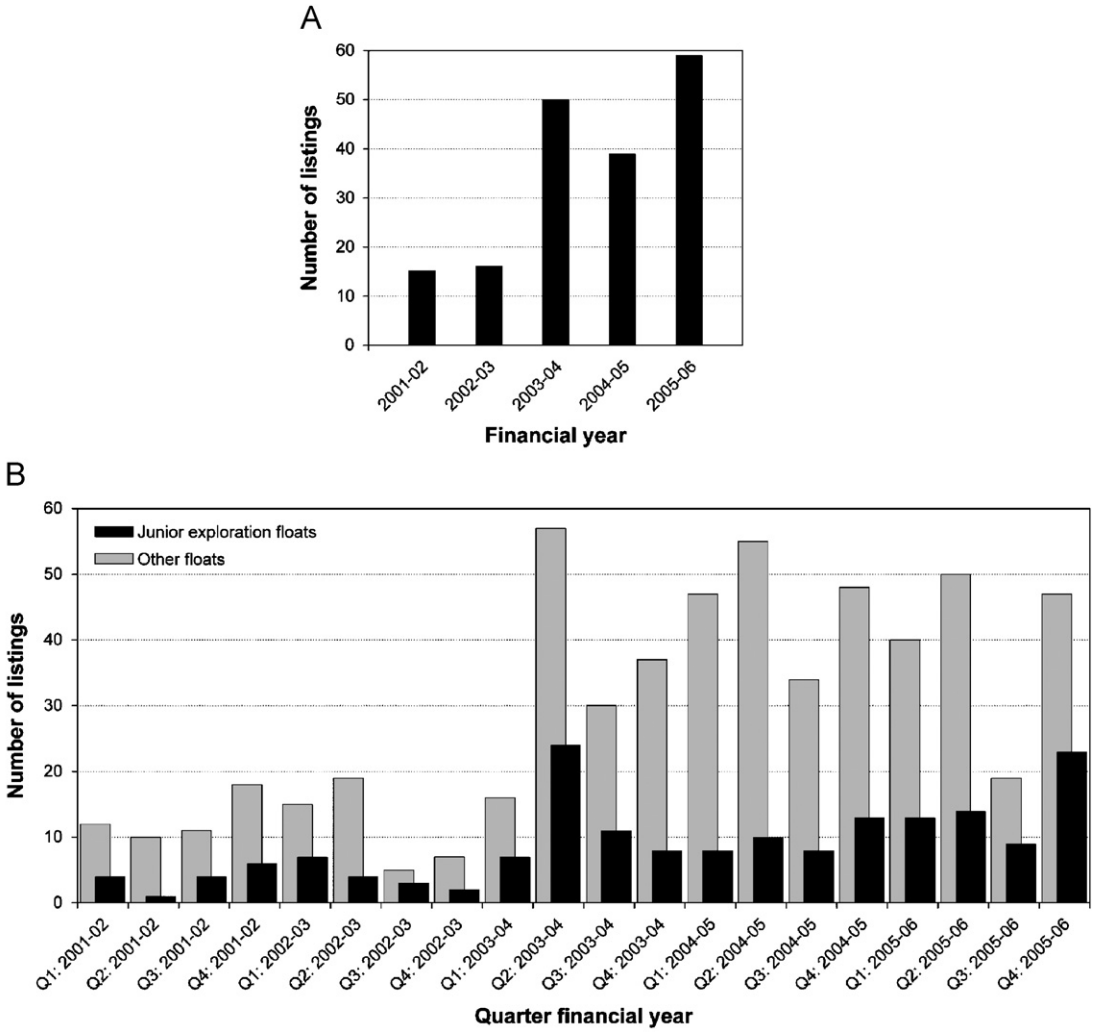

Fig. 1. Number of listings of junior exploration companies at the Australian Securities Exchange (ASX): July 2001–June 2006. (A) Per financial year. (B) Per quarter financial year and superimposed on the number of all other ASX listings.

parameter. For example, the junior with the greatest number of projects ($n = 19$) held tenure over 2391 km^2, whereas some one-project companies commanded significantly larger tenement holdings ranging from 1500 to 48,835 km^2. Nevertheless, a crude trend is apparent: the size of the lease holdings varies inversely with exploration stage. This trend is consistent with the reduction in search area as a project advances through the various exploration stages (Table 1).

Project locations

Of the 970 projects that were administered by the juniors in our study, 473 were located in Western Australia, 129 overseas, 108 in South Australia, 104 in Queensland, 61 in New South Wales and 55 in the Northern Territory. The least number of projects were in Victoria ($n = 25$) and Tasmania ($n = 15$). However, in terms of the number of projects per 10,000 km^2 of the total land area of the Australian continent, Tasmania was ahead of Western Australia, Victoria, South Australia and New South, whereas Queensland and the Northern Territory came last.

Fig. 4 illustrates the geographic locations of the 970 projects itemized by financial year and as a percentage of the total number of projects. This graph may be taken as an indication of the degree of popularity of exploration destinations over time. Western Australia, while having remained the top project location for junior exploration floats over the full term of this study, dropped from a relative high in 2002–03 to a relative low in 2004–05. South Australia dropped from a high in 2001–02 to a low in 2002–03, but regained significant percentage points in 2004–05 and 2005–06. The ratio of overseas-based exploration projects remained relatively constant for the period of our study except for the financial year 2002–03, when overseas projects accounted for only 1% of the total projects in new junior floats. The percentage of Queensland and New South Wales-based projects was erratic, whereas the Northern Territory recorded a steady increase in projects by new junior exploration floats from a low of 1% in 2001–02

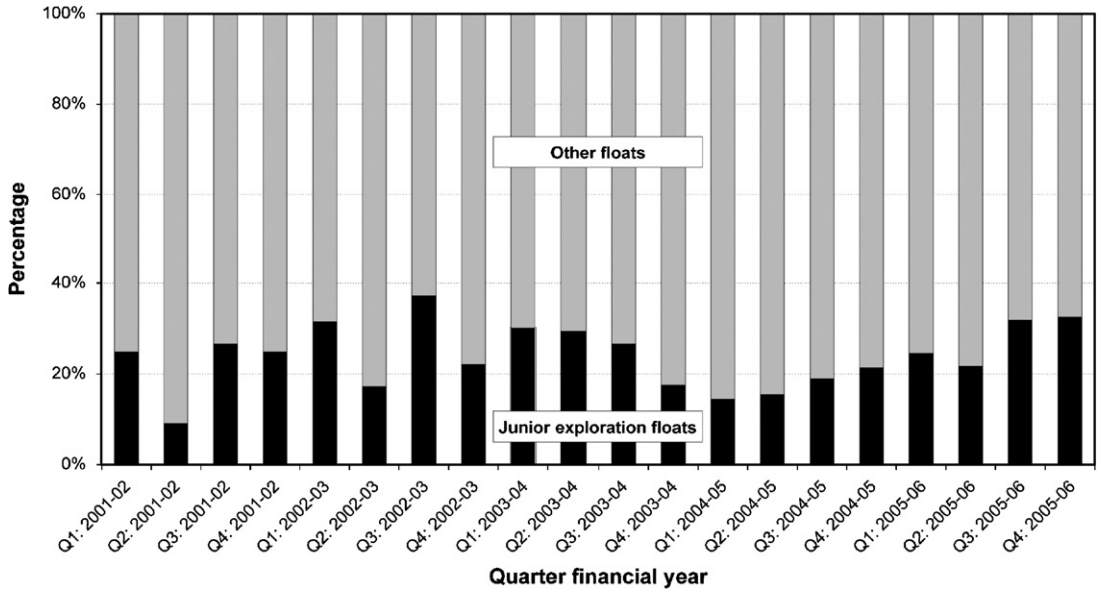

Fig. 2. Number of junior exploration companies that were listed at the Australian Securities Exchange between July 2001 and June 2006 as a percentage of the total number of listings.

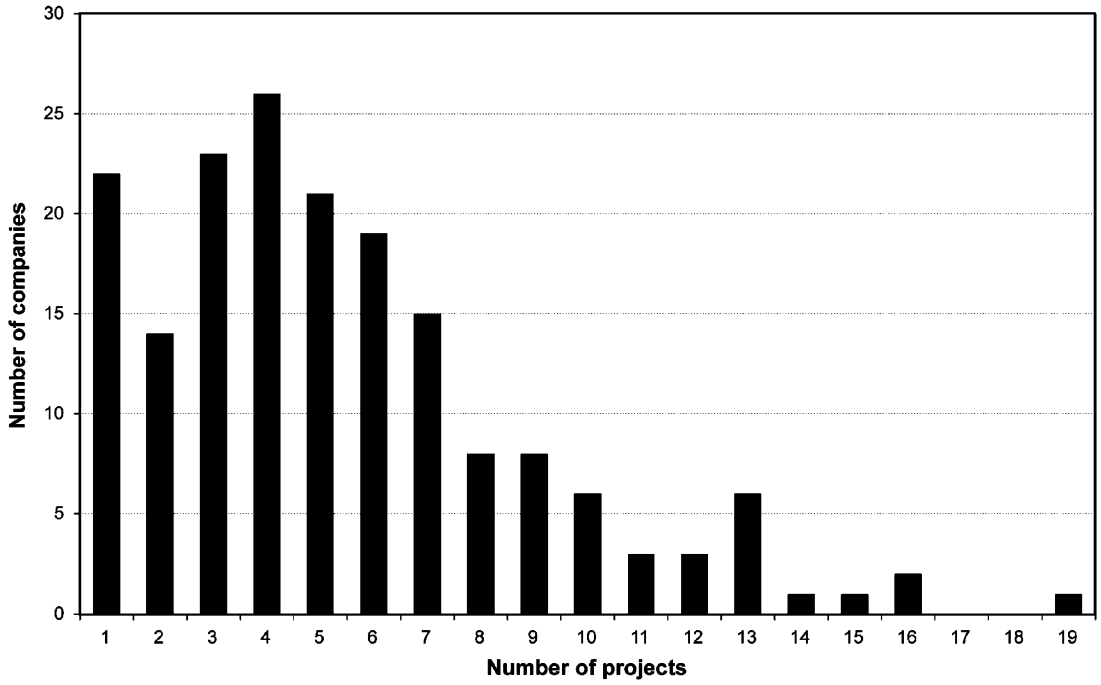

Fig. 3. Number of projects administered per new junior exploration float.

to a high of 7% in 2003–04 and 2005–06. The proportion of Victorian and Tasmanian projects was consistently small, with no new junior projects recorded in Tasmania in the financial year 2001–02 and in Victoria in 2002–03.

The most likely reasons for Western Australia's status as the top project destination for junior exploration floats are as follows:

(1) Western Australia is arguably one of the most prospective regions in the world (cf. McMahon and Melhem, 2006).
(2) The Geological Survey of Western Australia offers high-quality and freely available spatial datasets and geoscience databases.
(3) Western Australia hosts many small deposits, particularly gold deposits, that can be developed with limited financial resources.

The relatively high popularity of South Australia as a project destination for junior explorers that were listed in 2001–02 was probably linked to the discovery in 2001 of the significant Prominent Hill iron oxide–copper–gold

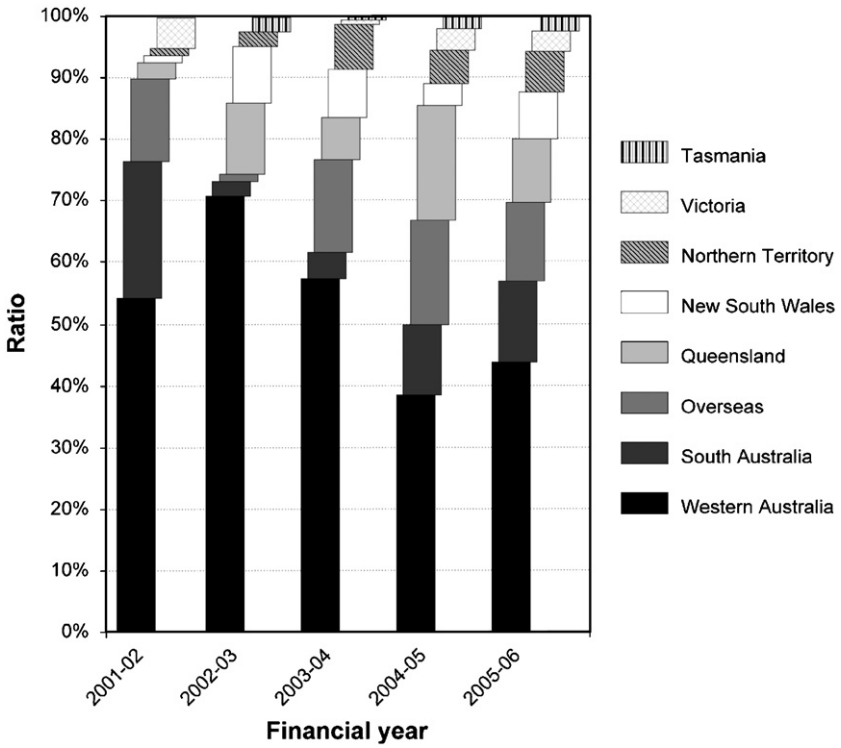

Fig. 4. Geographic location of projects administered by new junior exploration floats itemized by financial year and as a percentage of the total number of projects.

deposit, whereas South Australia's more recent increase in popularity is almost certainly linked to its prospectivity for uranium, a positive political attitude towards uranium mining, and its extremely successful PACE initiative (e.g., Department of Primary Industries and Resources of South Australia, 2007). The apparent lack of appeal of Victoria as project destination for new junior exploration floats appears linked, but not restricted, to the perception of Victoria's prospectivity being limited apart from the heavily tenemented Victorian goldfields and Murray Basin mineral sands province. The low level of activity in Tasmania may be related to its rugged terrain, large wilderness areas that are not available for mineral exploration (e.g., Shatwell, 2004; McMahon and Melhem, 2006) and an exploration industry that had almost had to start from scratch after the downturn earlier in the decade saw an exodus from Tasmania (T. Murphy, Bass Metals Ltd., written communication, 2007).

Target commodities

Most junior exploration floats targeted one (44%), two (27%) or three (18%) commodities, whereas only 11% of the companies targeted four commodities, or more. Gold (gold-only, copper-gold, iron oxide copper-gold), the most popular commodity, was being targeted by 79% (Fig. 5) of the junior floats, followed by nickel (31%) and other base metals (31%), uranium (16%), platinum group metals (15%), diamonds (7%) and silver (6%). Commodities such as titanium, tantalum, rare earth elements and coal were considered by 8% of the junior explorers in our study, whereas iron was targeted by only 4% of these floats.

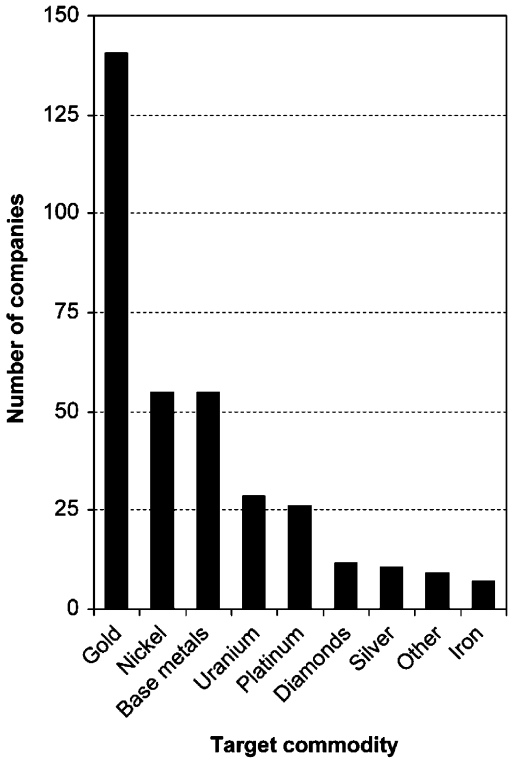

Fig. 5. Commodities targeted by new junior exploration floats.

Fig. 6 illustrates the preferred target commodities of new junior exploration floats itemized by financial year and as a percentage of the total number of target commodities. The graph may be taken to imply that gold, while having remained the preferred target commodity for the entire study period, dropped from a relative high in the financial year 2002–03 to a relative low in 2004–05. The slump after 2003–04 despite a rise in the US dollar gold price may have, at least partly, been correlated with the appreciation of the Australian dollar that offset the increase in the US dollar gold price (cf. Fig. 2 in Baker, 2005). Even though the Australian dollar gold price rose significantly in 2005–06, the number of new gold-focused exploration floats recorded in 2005–06 remained much lower than in the financial years prior to 2004–05. One explanation for this reduction may be the surge in uranium, nickel, copper, lead and zinc prices, having offered new junior floats exciting options outside the traditional gold sector.

Base metals went from a relative low in 2002–03 to a relative high in 2005–06. This pattern is a direct reflection of the price development of many base metals: prices bottomed out between 2002–03 and 2003–04 and soared thereafter. Nickel, in particular, recorded a substantial price hike that coincided with a surge in nickel's popularity as a target commodity from a low in 2002–03 to a high in 2003–04. Given the very favourable price development since 2003–04, nickel remained a sought-after commodity in 2004–05 and 2005–06.

Platinum group metals dropped from a high in 2001–02 to a low in 2002–03. Since then, interest by new junior floats in targeting platinum group metals remained at relatively low levels. While the slump after 2001–02 in new platinum-focused floats can be explained by the strong and abrupt decline in platinum and palladium prices, the relative lack of interest in platinum group metals between 2003–04 and 2005–06 is less obvious, and more so when considering the strong upward price trend of platinum since January 2002 and palladium since July 2005. Potential deterrents are the rare occurrence of and capital intensity of extracting these metals, scarcity of successful mining start-ups and overwhelming market dominance of the major South African and Russian producers.

Uranium was not considered as a target commodity by junior exploration floats prior to 2004–05. Since then uranium surged from a 5% share in the target commodity spectrum of new exploration floats in 2004–05 to a 16% share in 2005–06. This move was obviously triggered by the strong and continuous upward price trend of yellowcake and the success in terms of share price appreciation of previous uranium-focussed IPOs. Iron also was not considered as a target commodity prior to 2004–05, but, on the back of five consecutive years of increases that lifted iron ore prices by 189% (cf. Craze and Blount, 2006), reached a share of 3% in 2004–05 and 2005–06.

Capital, budget and share structure

IPO results

The junior explorers in our study raised a total of A$816.76 million, giving a median of A$4 million per

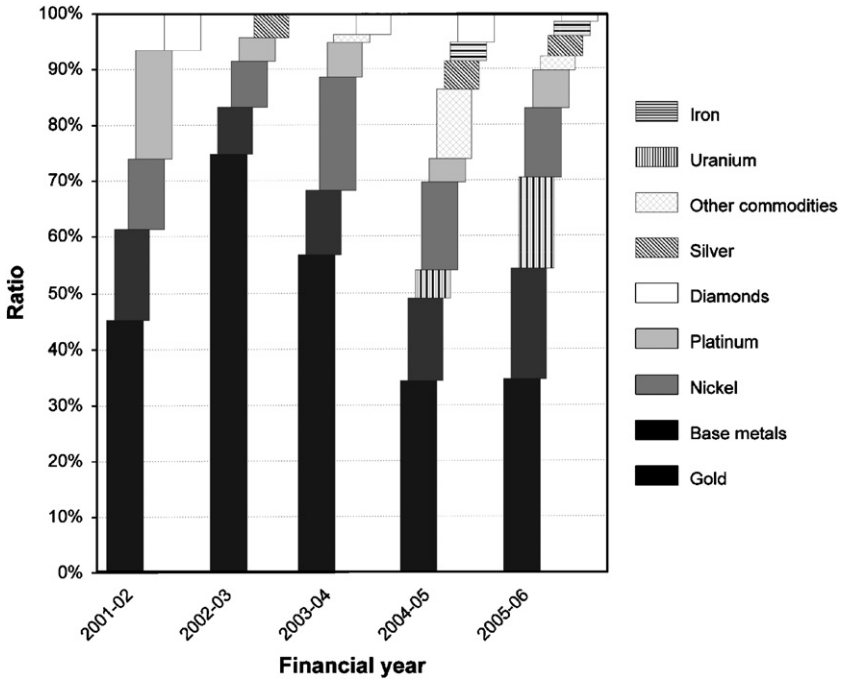

Fig. 6. Preferred target commodities of new junior exploration floats itemized by financial year and as a percentage of the total number of target commodities.

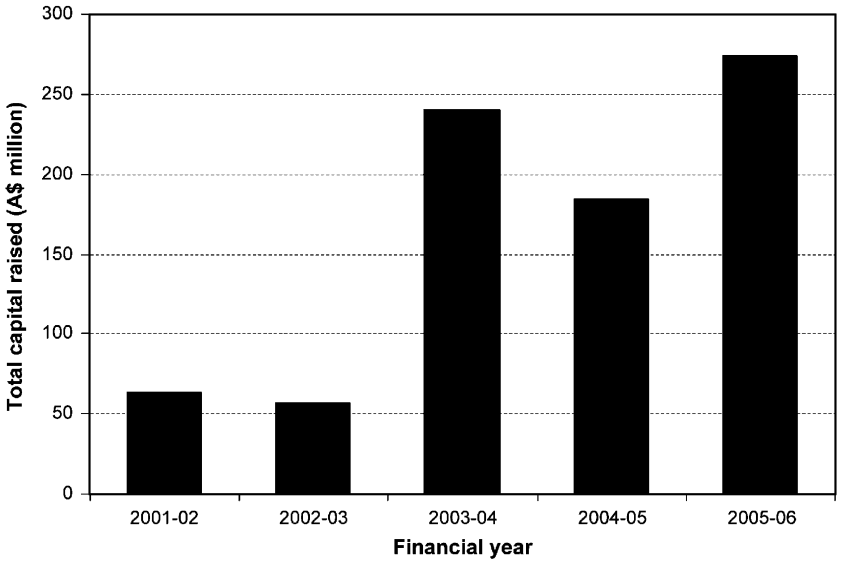

Fig. 7. Total capital raised at initial public offering by new junior exploration floats per financial year.

Table 2
Raised IPO capital: junior exploration floats versus all floats

Financial year	All floats ($)	Junior exploration floats ($)		
	Raised capital	Raised capital ($)	Median capital raising ($)	Percentage of all raised capital (%)
2001–02	5,500,000,000	62,870,000	4,000,000	1.10
2002–03	5,800,000,000	56,473,251	4,500,000	1.00
2003–04	12,700,000,000	239,796,609	4,000,000	1.90
2004–05	14,900,000,000	184,054,135	3,053,500	1.20
2005–06	23,100,000,000	273,565,291	4,000,000	1.20
Total	62,000,000,000	816,759,286		
Median	12,700,000,000	184,054,135	4,000,000	1.30

IPO = initial public offering.

listing (Fig. 7). Table 2 serves to illustrate that the median capital raised by the surveyed junior floats remained relatively constant for the period 2001–02 to 2005–06. However, given the anecdotal evidence of a significant increase in exploration costs since 2002–03 (cf. Copeland, 2007), companies that were listed since 2002–03 had generally a much smaller budget for exploration than companies that were listed prior to 2002–03.

The A$816.76 million in total IPO capital raised by the companies in our study is dwarfed by the A$61.18 billion that was raised by the other 622 firms that were listed at the ASX between 2001–02 and 2005–06. Table 2 serves to illustrate that while the number of junior exploration IPOs as a proportion of the total number is substantial (Fig. 2), the junior exploration IPOs accounted for less than 2% of the total capital that was raised by the new floats in the financial years from 2001–02 to 2005–06.

The total IPO capital that was raised by new junior explorers per financial year increased significantly from A$62.87 million in 2001–02 to A$273.57 million in 2005–06. This increase was mainly linked to the significant increase in junior exploration floats since 2001–02. Individual IPO results ranged from A$1 million to A$18 million (Appendix A). As illustrated in Fig. 8A, the maximum individual IPO results were significantly higher in 2003–04 (A$15 million), 2004–05 (A$10.4 million) and 2005–06 (A$18 million) than those achieved in 2001–02 and 2002–03 (A$7 million each). Of the A$816.76 million in total IPO capital raised, A$71.61 million was spent on fund-raising, giving a median cost of the offer for the companies in our study of A$0.36 million or approximately 9% of the capital raised at listing. Fig. 8B illustrates that, with a few exceptions, the greater the amount of raised capital, the higher the cost of the offer. However, if expressed in percentage terms, it is obvious that many floats at or above A$9 million resulted in charges less than the 9% average. While the cost of the prospectus and expert reports are approximately similar irrespective of the

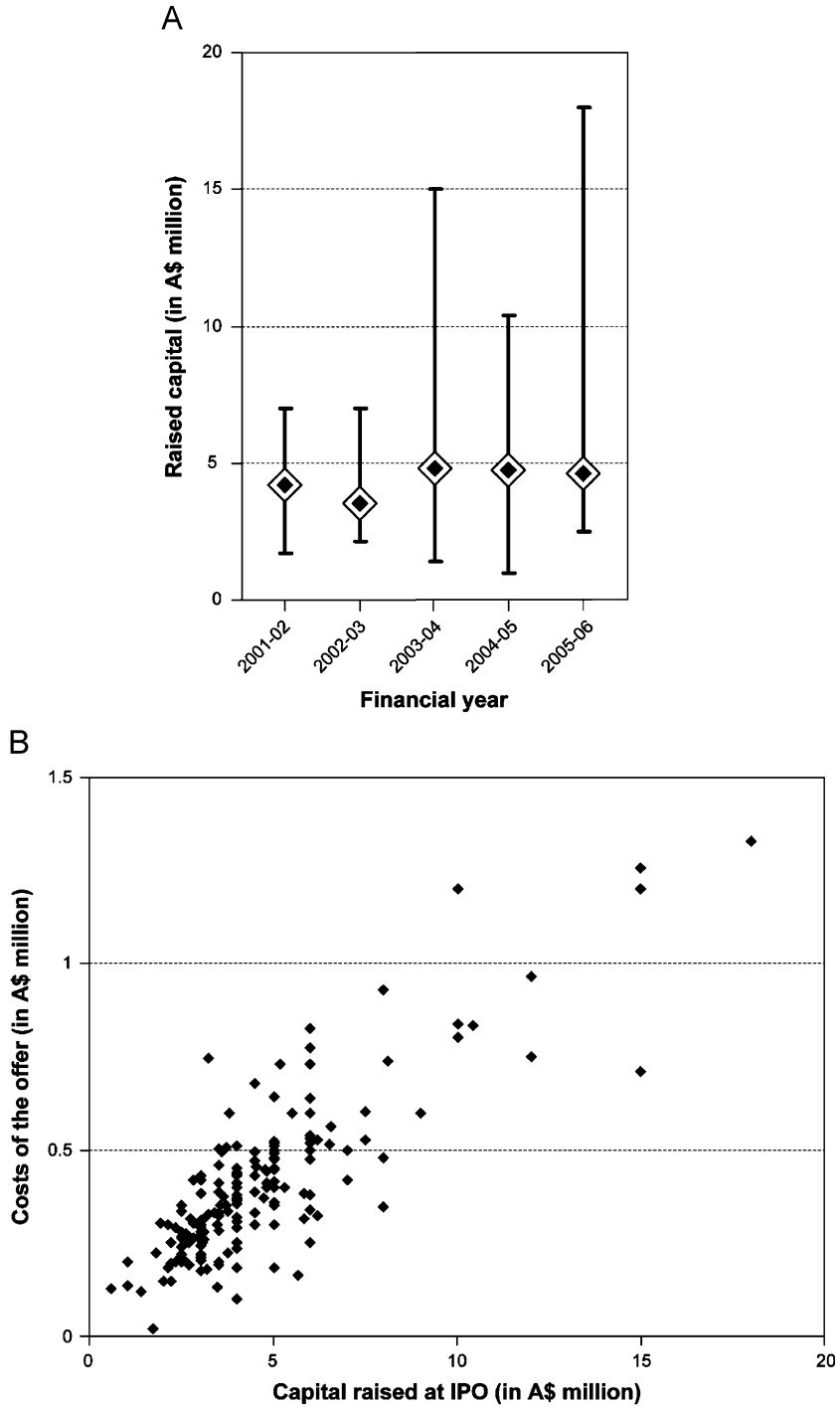

Fig. 8. (A) Average (illustrated by diamond symbol), minimum and maximum (illustrated by error bars) results of individual capital raisings by new junior exploration floats per financial year. (B) Positive linear correlation ($R = 0.83$) between the amount of raised capital and cost of the offer.

size of an IPO, brokerage and underwriting costs make larger floats relatively more expensive.

Share structures at the time of listing

The proportion of shares issued to the public by the 179 junior companies ranged from approximately 0.4% to 99.9% of the total share volumes, giving a mean of 45.3%.

Proposed budgets

Funds allocated by the surveyed companies to exploration and development made up 28–87% (A$0.9–13 million) of the total proposed budgets, whereas administration expenditure accounted for 8–72% (ca. A$0.2–2.4 million). Unallocated capital ranged between 0 and 47% (A$5.6 million). Immediately prior to listing, 122 (ca. 68%) of the

juniors had clean balance sheets, whereas 56 (ca. 31%) had pre-offer cash at bank ranging from approximately A$0.04 million to A$2.7 million and one firm had a pre-offer debt of A$0.09 million.

On average, the juniors assigned 62% of their capital to project exploration and development and 35% to administration. In all, 42% of the juniors retained unallocated capital that, on average, constituted 13% of their budgets, and 33% of the junior explorers included in their financial plans pre-offer cash that, on average, constituted 13% of their budgets. Only one company had a pre-IPO budget deficit.

From these budget figures it follows that the median exploration expenditure per project is A$0.56 million. Spilt into the various stages of exploration (Table 1), the budget figures indicate median exploration expenditures per project of approximately A$0.45 million for juniors in stage B, A$0.61 million for companies in stage C, A$0.69 million for juniors in stage D and A$3.72 million for firms in stage D.

Surveys of subsets of the 179 junior exploration floats

Actual budgets

Actual exploration and development expenditures were compiled in two separate surveys and for a total of 72 of the 179 junior explorers in our study:

(1) Survey I includes a population of 35 juniors that were listed between August 2001 and August 2003 and, at the time of data compilation, had published at least four quarterly reports. This survey formed part of data collection stage I (see section Methodology for details).
(2) Survey II includes a population of 37 juniors that were listed between June 2004 and June 2005 and, at the time of data compilation, had published at least four quarterly reports. This survey formed part of data collection stage II (see section Methodology for details).

The total capital investments by 46 of the 72 sample companies exceeded the proposed figures given in their prospectus, even though only 26 companies had completed the 2-year period over which prospectus budgets are generally proposed for. On average, exploration expenditure accounted for 72% of the total spending, while company administration consumed 28%. However, 15 juniors spent as little as 6–20% of their total budget on administration, whereas 10 recorded administrative expenditures that accounted for up to 40–69% of their operational budgets. An unpublished study by Schodde (Schodde R.C., BHP Billiton Ltd., written communication, 2007) found that it typically costs A$0.5 million per annum for a junior explorer to "keep the lights on." These costs are pretty much fixed. Hence, at times when the resources sector is going into a down-cycle and it is more difficult to raise funds, juniors have to cut back the amount of money that goes into the ground by as much as 300% (Schodde R.C., BHP Billiton Ltd., written communication, 2007).

Sixty-five firms raised additional capital between the time of listing and data compilation for this study. These additional funds were commonly raised through share placements, option agreements, convertible note issues, entitlement offers and debt facilities. Additional funds ranged from A$1000 to A$18.5 million, although 62% of the additional fund raisings were in the order of A$1.0–7.9 million. The median of the additional funds raised by the 72 companies is A$2.3 million.

Cash reserves held by the 72 juniors ranged from A$0.15–11.3 million for companies in survey I and fromA$0.8 to A$8.25 million for firms in survey II. Thirty-four of the 72 companies only held small cash reserves of A$0.15–1.99 million, including 16 juniors with less than A$1 million in cash for future spending. Twenty-six firms had cash reserves of A$2–4.45 million, while only 12 companies held reserves greater A$5 million.

A large part of this variation may be due to company maturity. A company that is just listed should hold relatively large cash reserves, whereas a company that was listed two years ago would have run down these reserves and be looking at raising additional capital. If the company has a good portfolio of projects, it should be easy to raise the money; if not, it will be on the path to oblivion. The data in Appendix B support this thesis. Of the 27 (38%) companies that, at the close of the surveys I and II, had been listed at the ASX for a minimum of eight quarters (i.e. the 2-year period over which prospectus budgets are proposed for), most ($n = 17$, 63%) had cash reserves between A$1.02 million and A$3.72 million. Four (15%) firms had less than A$1 million, whereas only six (25%) juniors held more than A$6 million in cash reserves. Based on the median expenditure of A$2.1 million per junior, only these six companies had sufficient capital to meet more than 2 years of future operation.

The values above serve to illustrate that junior exploration companies have to be smart about how they spend their funds. One of the major budgetary challenges is to manage the high level of fixed costs (i.e. overheads) that, in a down cycle, have the effect of less money being left to go into the ground.

Market performance

The float scoreboard of InvestSMART (www.investsmart.com.au) helped to build a basic picture of the stock market performance of the surveyed companies (Table 3). Information about first-day returns (e.g., How, 2000; Dimovski and Brooks, 2006) was available for 166 of the 179 juniors in our study. Most (ca. 59%) of the 166 floats recorded positive first-day returns, including nine juniors that recorded first day returns ranging from 100% to 416%. The monthly performance figures available for 169 of the 179 junior floats illustrate that, as on 16 October

Table 3
Stock market performance of junior IPOs[a]

Share price	1st day close[b] (%)	1 month[c] to 16-Oct-06 (%)	12 months[d] to16-Oct-06 (%)
Down by at least 50%		1.18	11.81
Down by 0.1–49.9%	33.73	42.01	40.16
No change	7.23	8.28	0.79
Up by 0.1–49.9%	45.78	31.36	21.26
Up by 50–99.9%	7.83	10.65	9.45
Up by at least 100%	5.42	6.51	16.54

[a]Data compiled from InvestSMART (www.investsmart.com.au).
[b]Based on data for 166 (ca. 93%) of the juniors in our study.
[c]Based on data for 169 (ca. 94%) of the juniors in our study.
[d]Based on data for 127 (ca. 71%) of the juniors in our study.

2006, the share prices of 49% of the 169 juniors were up, whereas 43% of them traded lower with respect to the previous 1-month period. Table 3 also illustrates that the stock prices of 47% of the 127 companies, which were listed for at least 1 year, were up, whereas 52% of them traded lower with respect to the previous 12-month period.

A comparison on 16 October 2006 of the share prices of 169 of the 179 surveyed junior floats, with their respective issue prices illustrated that the shares

(1) of 11% of these companies traded at least 50% below their issue price;
(2) of 30% of these companies traded between 0.1% and 49.9% below their issue price; and
(3) of 57% of these companies traded above their issue price, including 39 firms that gained between 0.1% and 99.9%, 37 that gained between 100% and 299.9%, 10 that gained between 300% and 499.9%, and 10 that gained 500% or more.

A time series analysis of the stock prices of the 20 juniors that gained 300% or more showed that most of these companies significantly and consistently outperformed the ASX Materials Index. Of these 20 companies, 15% were producing nickel miners, 15% were constructing gold and lead–zinc mines and 35% were undertaking feasibility and pre-feasibility studies (exploration stage E: Table 1) on their advanced nickel, gold, uranium and iron projects. The remaining companies were either carrying out resource delineation drilling (stage D = 20%) of their gold, heavy mineral sands and uranium resources or exploring (stages C and B = 15%) for gold, base metals and/or uranium.

Discussion

What are the trademarks of the best-performing junior explorers?

A study by Kennedy (1996, 1997) of the performance of 220 junior explorers that were listed on the ASX between 1983 and 1987 suggests that important success ingredients for Australian companies include the following:

(1) sufficient funds available at listing to cover exploration and administration costs,
(2) commodity focus neither too broad nor too narrow,
(3) high level of geoscience education and technical expertise of the members of the board,
(4) past exploration success,
(5) extensive management experience of the members of the board, and
(6) prior joint experience of the members of the board.

The 20 top-performing explorers in our survey incorporated various combinations of these factors but also had strategies such as focusing on lightly explored or uncharted terrains, taking exploration into prospective areas under cover, embracing novel exploration technologies, adding new target commodities to the portfolio to take advantage of global commodity demands and making a swift transition from explorer to producer. By October 2006, three of the 20 top-performing companies had made this transition, while three more companies were in the process of mine construction. However, many of the companies whose shares traded below their issue price incorporated similar success ingredients and followed similar strategies. Hence, we argue that, based on the prospectus information, it is virtually impossible to pick future winners (or losers), and that the success of a new company may simply be linked to capacity of the board and technical team to identify, pursue and realise value from business opportunities.

Market influences on junior strategy and performance

It is arguable that the world has recently been experiencing its greatest minerals boom. In contrast to previous commodity booms, the current upswing has also been "stronger for longer" with the sustained growth in China's and India's demand for raw materials (e.g., Radetzki, 2006). Several commentators suggest that we are experiencing the early stages of a commodity "super cycle."

Most mining IPOs enjoyed strong positive returns in 2005–06. Lawson (2007) observed that a newly listed company could increase its share price nearly 10-fold without having drilled a single hole. The entry of technology and dot-com companies into the mineral resources sector (Bromby, 2007) has been another reflection of the positive sentiment. The substantial increase in the number of new mineral resources floats since 1998–99 (Fig. 9) suggests a "hot market" (e.g., Suchard and Woo, 2003) where highly speculative floats can take advantage of increasing demand for shares by investors and rising commodity prices to raise capital. Historically, returns from mining and exploration have not matched those of most other asset classes (e.g., McClements and Cranswick, 2001; Standing Committee on Industry and Resources, 2003; Maritz, 2003), but this is easily forgotten when rising commodity prices have contributed to significant rises of the ASX Small Resources, ASX 100 Resources and ASX All Ordinaries indexes (Appendix C).

When integrating the results of our study with these macro-economic observations, it becomes obvious that in a "hot market" most juniors can raise additional capital (only one of the surveyed companies went into liquidation) and record upturn in the value of their shares. The same is true for share portfolios. Any broad combination of shares in junior companies will perform well under booming market conditions. In the downswing of the cycle, investors typically desert the sector. There is an "accordion effect" in the amount of funds that are available for investment in the sector at the top and bottom of the cycle.

Like all industries competing for investor funds, the exploration sector must demonstrate that it can deliver value over extended periods. This involves application of superior geoscience to become more cost effective and shortening the time frame to discovery (cf. Hall and Redwood, 2006). Only an evolving and continuously improving junior sector can be successful in attracting and competing for external funds, given that investors are likely to assess the industry as a whole prior to selecting companies within it (e.g., McClements and Cranswick, 2001). The most tangible proof of this is a steady stream of economic discoveries.

Conclusions

There are six principal conclusions from this study of the prospectus documents of and announcements by 179 junior exploration companies that were listed at the ASX between July 2001 and June 2006:

(1) The number of floats increased significantly from 15 in 2001–02 to 59 in 2005–06 and this coincided with booming commodity prices and renewed investor interest in the resources sector.
(2) The "typical" float raised approximately A$4 million at IPO to finance a 2-year, mainly greenfields exploration program. The "typical" company intended to spend approximately two-thirds on exploration, while the remainder was absorbed in the costs of the offering and corporate overheads. Once the costs of the IPO were paid, its ongoing corporate overheads averaged approximately 28% of the total operational expenditure.
(3) The "typical" junior had five projects, mainly at the prospect definition stage, although it commonly had one more advanced ("flagship") project with targets to be drill tested within the first year of listing.
(4) The favourite project location was Western Australia. The preferred target commodities were gold and nickel, although uranium rapidly increased its share after 2004–05.
(5) In October 2006, 9% of the surveyed companies were constructing mines, and another 6% had become producers. The lead time to production was highly variable and ranged from 1.5 to 53 months from the date of listing. The median lead time from listing to production was 28 months.

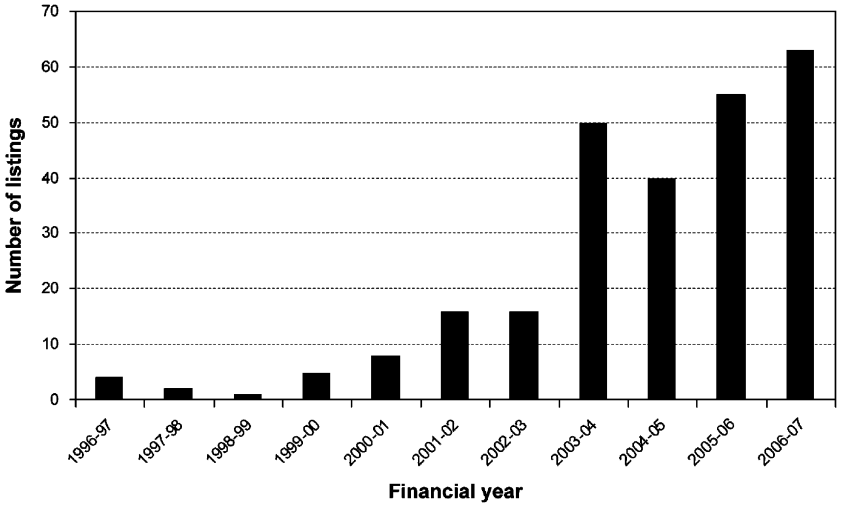

Fig. 9. Number of Australian Stock Exchange listings of mineral resources floats: financial years 1996–97 to 2006–07.

(6) Based on the median annual expenditure of A$2.1 million per junior, few companies had sufficient capital to meet more than 2 years of future operation. Hence, many juniors went back to the market 1 or 2 years after listing to raise additional funds of approximately $A2.7 million.

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Appendix A

See Table A1.

Appendix B

See Table B1.

Appendix C

See Fig. C1.

Table A1

	Company name	Symbol	IPO date	Projects	Tenement holdings (km^2)	Exploration stage	Share distribution at IPO		Issue price ($)	Market cap at IPO ($)	IPO result ($)	Proposed budget ($)			Pre-offer cash at bank ($)	Comments
							Public	Others				Exploration	Overheads	Unallocated		
Data compilation stage I	A1 Minerals	AAM	05-Dec-03	2	600	4	17,500,000	21,753,334	0.20	7,850,667	3,500,000	2,405,000	1,095,000	0	0	
	Albidon	ALB	26-Mar-04	12	37,845	2	30,000,000	35,668,000	0.50	32,834,000	15,000,000	12,240,000	3,172,613	547,473	960,086	
	Allied Gold	ALD	08-Dec-03	1	7	4	9,000,000	19,500,000	0.20	5,700,000	1,800,000	1,526,067	874,731	184,202	785,000	
	APEX Minerals	AXM	05-Jun-02	2	6470	2	20,000,000	38,557,505	0.20	11,711,501	4,000,000	2,940,000	1,060,000	0	0	
	Arafura Resources	ARU	05-Nov-03	12	12,000	2	17,500,000	26,457,503	0.20	8,791,501	3,500,000	2,015,000	1,485,000	0	0	
	Bounty Industries	BNT	30-Apr-04	3	1044	4	17,300,000	13,475,000	0.20	6,155,000	3,450,000	2,070,000	1,380,000	0	0	Previously Ausmet Resources (AME)
	AusQuest	AQD	25-Nov-03	6	39,416	2	20,000,000	20,508,000	0.20	8,101,600	4,000,000	3,049,000	951,000	0	0	
	Avoca Resources	AVO	15-Apr-02	13	20,480	2	35,000,000	22,081,745	0.20	11,416,349	7,000,000	5,090,000	1,910,000	0	0	
	Berkely Resources	BKY	16-Sep-03	4	1277	2	16,889,500	9,500,000	0.20	5,277,900	3,475,124	2,118,000	1,357,124	0	0	
	Cazaly Resources	CAZ	31-Oct-03	6	805	3	20,000,000	12,950,000	0.20	6,590,000	4,000,000	1,875,000	2,125,000	0	0	
	Chameleon Mining	CHM	12-Aug-03	11	483	2	37,500,000	34,500,003	0.20	14,400,001	7,500,000	5,850,000	1,650,000	0	0	In liquidation
	Cougar Metals	CGM	16-Dec-03	7	403	3	23,300,000	28,520,081	0.25	12,955,020	5,825,000	3,648,700	2,176,300	0	0	
	Crusader Holdings	CAS	06-Feb-04	3	131	2	11,690,675	7,000,000	0.20	3,738,135	2,338,135	1,500,000	838,135	0	0	
	D'Aguilar Gold	DGR	21-Aug-03	2	1486	3	20,000,000	37,312,039	0.20	11,462,408	4,000,000	2,683,000	1,317,000	0	0	
	De Grey Mining	DEG	03-Jul-02	3	2167	3	22,500,000	26,100,005	0.20	9,720,001	4,500,000	3,560,000	940,000	0	0	
	DiamonEx	DON	30-Mar-04	2	2189	4	12,500,000	28,625,000	0.20	8,225,000	2,500,000	1,750,000	750,000	0	0	
	Discovery Nickel	DNL	17-Dec-03	7	7947	2	22,500,000	15,699,999	0.20	7,640,000	4,500,000	3,500,000	1,000,000	0	0	
	Elkedra Diamonds	EDN	08-Jan-02	1	48,835	3	14,216,000	20,749,700	0.25	8,741,425	3,554,000	2,420,000	1,134,000	0	0	
	Flinders Diamonds	FDL	20-Feb-02	6	14,948	2	16,750,000	40,950,000	0.20	11,540,000	5,000,000	2,900,000	2,100,000	0	0	
	Fox Resources	FXR	26-Apr-02	9	881	2	13,000,000	10	0.20	2,600,002	2,600,000	1,880,000	720,000	0	0	
	Gleneagle Gold	GLN	28-Jul-03	3	1135	3	22,700,000	18,700,000	0.20	8,280,000	4,540,000	2,295,000	2,245,000	0	0	
	Gold Aura	GOA	01-Nov-02	4	1529	3	8,473,244	12,098,082	0.25	5,142,832	2,118,311	1,528,311	590,000	0	0	
	Goldstar Resources	GDR	31-Oct-03	5	713	4	24,000,000	23,426,752	0.25	11,856,688	6,000,000	4,029,500	1,970,500	0	0	
	Great Australian Resources	GAU	11-Mar-04	4	245	4	20,000,000	10,975,002	0.20	6,195,000	4,000,000	2,157,500	2,144,500	0	302,000	
	Uran	URA	19-Mar-04	3	140	2	9,760,000	14,750,000	0.25	6,127,500	2,440,000	1,333,000	810,000	348,210	51,210	Previously Great Western Exploration (GWE)
	Gryphon Minerals	GRY	22-Apr-04	3	343	3	15,000,000	21,900,002	0.20	7,380,000	3,000,000	1,896,000	1,261,000	0	157,000	
	Hannans Reward	HNR	05-Dec-03	4	337	2	17,500,000	15,410,003	0.20	6,582,001	3,500,000	1,605,752	800,000	1,174,248	80,000	
	Havilah Resources	HAV	21-Mar-02	5	558	2	30,000,000	24,950,020	0.20	10,990,004	6,000,000	4,750,000	1,250,000	0	0	
	Moly Mines	MOL	11-Mar-04	5	564	3	7,000,000	8,300,010	0.20	3,060,002	1,400,000	1,400,000	790,000	53,751	843,751	Previously Hibernia Gold (HIB)

Hill End Gold	HEG	17-Jul-03	1	329	4	13,600,000	22,486,472	0.20	7,217,294	2,720,000	2,080,000	640,000	0	0	
Image Resources	IMA	04-Jul-02	19	2391	2	15,250,000	33,429,257	0.20	9,735,851	3,050,000	2,444,000	606,000	100,000	100,000	
Independence Group	IGO	17-Jan-02	12	36,112	2	20,000,000	35,600,006	0.20	11,120,001	4,000,000	2,739,000	1,261,000	0	0	
Indophil Resources	IRN	03-May-02	7	1404	3	20,000,000	80,044,505	0.25	25,011,126	5,000,000	3,950,000	1,050,000	0	0	
Jackson Gold	JAK	11-Jun-02	5	911	3	20,000,000	15,000,002	0.20	7,000,000	4,000,000	2,778,000	1,222,000	0	0	
Jindalee Resources	JRL	11-Jul-02	5	1240	2	10,680,000	10,104,765	0.25	5,196,191	2,670,000	1,796,000	874,000	0	0	
Lake Resources	LKE	29-Aug-01	4	4450	2	4,902,857	16,483,275	0.35	7,485,146	1,716,000	1,740,000	551,000	0	575,000	
Lefroy Resources	LEF	12-May-04	1	700	2	18,875,000	17,000,001	0.25	8,968,750	4,718,750	2,300,000	2,418,750	0	0	
Liberty Gold	LBY	10-Feb-04	3	963	2	14,000,000	13,000,001	0.20	5,400,000	2,800,000	2,395,000	783,350	11,625	389,975	
Lodestone Exploration	LOD	17-Mar-03	1	621	3	12,500,000	18,411,154	0.20	6,182,231	2,500,000	1,663,000	803,000	34,000	0	
Malachite Resources	MAR	26-Nov-02	5	923	3	15,285,000	21,766,565	0.20	7,410,313	3,057,000	2,590,000	467,000	0	0	
Marengo Mining	MGO	13-Nov-03	5	1345	2	17,500,000	14,300,000	0.20	6,360,000	3,500,000	1,820,000	1,680,000	0	0	
Medusa Mining	MML	23-Dec-03	6	323	4	12,500,000	22,575,600	0.20	7,015,120	2,500,000	2,515,000	405,000	30,000	450,000	
Midas Resources	MDS	25-Feb-03	5	2524	3	35,000,000	26,030,986	0.20	12,206,197	7,000,000	2,800,000	4,200,000	0	0	
Mithril Resources	MTH	18-Nov-02	5	20,817	2	10,596,500	14,700,000	0.20	5,059,300	3,119,300	1,918,000	920,000	281,300	0	
Green Rock Energy	GRK	10-Dec-03	3	539	2	11,000,000	9,532,465	0.20	4,106,493	2,211,000	1,454,000	862,000	0	105,000	Previously Mokuti Mining (MOK)
Monarch Resources	MRS	29-Oct-02	5	1109	2	13,750,000	28,680,002	0.20	8,486,000	2,750,000	2,133,000	617,000	0	0	
Navigator Resources	NAV	19-Sep-03	5	1111	2	15,000,000	20,163,434	0.20	7,032,687	3,000,000	1,520,000	1,480,000	0	0	
NGM Resources	NGM	03-May-04	3	2359	3	18,000,000	14,000,001	0.20	6,400,000	3,600,000	2,305,000	1,295,000	0	0	
Nickel Australia	NKL	16-Dec-03	4	1081	2	60,000,000	25,000,004	0.25	21,250,001	15,000,000	11,415,039	3,584,961	0	0	
Ferraus	FRS	31-Dec-03	1	39	3	15,000,000	13,997,867	0.20	5,799,573	3,000,000	1,400,000	1,600,000	0	0	Previously NiQuest (NIQ)
NKWE Platinum	NKP	24-Sep-03	6	78	3	20,000,000	47,115,003	0.50	33,557,502	10,000,000	4,140,000	5,860,000	0	0	
Northern Star Resources	NST	17-Dec-03	3	2605	2	25,000,000	26,400,000	0.20	10,280,000	5,000,000	3,107,000	1,500,000	393,000	0	
Paradigm Gold	PDM	18-Nov-03	11	1354	2	25,000,000	19,132,178	0.20	8,826,436	5,000,000	3,725,000	1,275,000	0	0	
Paramount Mining Corp	PCP	13-Feb-04	7	1005	2	18,750,000	16,190,000	0.20	6,988,000	3,750,000	2,282,800	1,467,200	0	0	
Pioneer Nickel	PIO	04-Dec-03	9	2,590	2	27,500,000	16,400,010	0.20	8,780,002	5,500,000	4,120,000	1,380,000	0	0	
Polaris Metals	POL	16-Apr-04	6	1370	4	17,500,000	16,550,002	0.20	6,810,000	3,500,000	2,615,000	885,000	0	0	
Prosperity Resources	PSP	24-Nov-03	4	773	4	12,568,000	16,640,000	0.20	5,841,600	2,513,600	1,349,560	1,164,040	0	0	
Ramelius Resources	RMS	31-Mar-03	7	260	3	16,000,000	18,050,002	0.20	6,810,000	3,200,000	1,371,136	1,678,980	149,884	0	
Range River Gold	RNG	17-Jun-02	9	4427	2	30,000,000	21,724,630	0.20	10,344,926	6,000,000	3,900,000	2,100,000	0	0	
Reed Resources	RDR	10-Jul-02	2	403	4	30,000,000	19,000,000	0.20	9,800,000	6,000,000	4,500,000	1,500,000	0	0	
Integra Mining	IGR	16-Aug-01	2	16,046	2	200,000	53,300,000	0.20	10,700,000	4,000,000	2,645,000	1,355,000	0	0	Previously ReLODE (RLD)
Red Metal	RDM	27-Oct-03	13	7179	2	60,000,000	23,176,472	0.20	16,635,294	12,000,000	4,915,000	1,485,000	5,600,000	0	
Republic Gold	RAU	16-Jan-04	2	3419	4	29,175,000	41,335,004	0.20	14,102,001	5,835,000	3,465,700	2,369,300	0	0	

Table A1 (*continued*)

	Company name	Symbol	IPO date	Projects	Tenement holdings (km^2)	Exploration stage	Share distribution at IPO		Issue price ($)	Market cap at IPO ($)	IPO result ($)	Proposed budget ($)			Pre-offer cash at bank ($)	Comments
							Public	Others				Exploration	Overheads	Unallocated		
	Rox Resources	RXL	27-Apr-04	1	43	4	22,500,000	10,000,000	0.20	6,500,000	4,500,000	2,000,000	2,500,000	0	0	
	Sally Malay Mining	SMY	14-Sep-01	1	37	5	15,000,000	46,000,000	0.20	12,200,000	3,000,000	2,195,000	805,000	0	0	
	Sandfire Resources	SFR	04-Mar-04	6	2663	2	25,000,000	14,000,000	0.20	7,800,000	5,000,000	2,785,000	1,750,000	465,000	0	
	Siberia Mining Corp	SIB	29-Apr-03	9	813	2	11,000,000	12,500,000	0.20	4,700,000	2,200,000	1,140,909	1,030,112	28,979	0	Delisted due acquisition
	South Boulder Mines	STB	17-Oct-03	1	1500	3	17,500,000	22,232,943	0.20	7,946,589	3,500,000	2,489,330	1,010,670	0	0	
	TasGold	TGD	09-Apr-03	2	189	3	11,613,200	22,375,500	0.20	6,797,740	2,322,640	1,550,000	772,640	0	0	
	Tasman Resources	TAS	18-Dec-01	1	6253	2	17,500,000	24,661,682	0.20	8,432,336	3,500,000	1,900,000	800,000	800,000	0	
	Terramin Australia	TZN	23-Dec-03	5	3717	4	25,000,000	30,235,005	0.20	11,047,001	5,000,000	3,250,000	1,750,000	0	0	
	Tethyan Copper Company	TYC	30-Oct-03	2	3954	5	50,000,000	47,803,667	0.30	29,341,100	15,000,000	13,000,000	2,000,000	0	0	Delisted due acquisition
	Traka Resources	TKL	20-Nov-03	3	410	2	20,000,000	11,700,000	0.20	6,340,000	4,000,000	2,820,000	970,000	570,000	360,000	
	Tri Origin Minerals	TRO	09-Jan-04	4	419	4	26,550,000	49,997,012	0.20	15,309,402	5,310,000	4,110,000	1,200,000	0	0	
	Universal Resources	URL	03-Sep-02	6	1462	3	20,000,000	36,713,578	0.20	11,342,716	4,000,000	2,680,000	1,320,000	0	0	
	Vulcan Resources	VCN	10-Sep-02	7	1614	2	11,944,000	13,190,000	0.25	6,283,500	2,986,000	1,947,000	1,039,000	0	0	
	Jupiter Enegy	JPR	12-Nov-03	1	333	3	25,850,000	18,458,118	0.20	8,861,624	5,170,000	2,475,000	2,695,000	0	0	Previously Westcoast Mining (WML)
	Australian Mines	AUZ	28-Sep-01	4	1030	2	17,500,000	33,633,000	0.20	10,226,600	3,500,000	2,094,975	1,405,025	0	0	Previously West Musgrave Mining (WMM)
	Westonia Mines	WEZ	20-Aug-02	1	8	5	25,000,000	58,347,119	0.20	16,669,424	5,000,000	3,715,000	1,285,000	0	0	
Data compilation stage II	ABRA Mining	AII	08-Apr-05	1	190	4	36,000,000	30,000,004	0.25	16,500,001	9,000,000	5,600,000	1,900,000	1,500,000	0	
	A-Cap Resources	ACB	19-May-06	8	8000	2	25,000,000	70,535,006	0.20	19,107,001	5,000,000	1,878,244	3,121,756	0	500,000	
	Accent Resources	ACS	26-Aug-05	4	454	3	18,201,453	23,050,000	0.20	8,250,291	3,640,291	2,350,846	1,289,445	0	0	
	ActivEX	AIV	11-Apr-06	4	1600	2	17,500,000	15,300,002	0.20	6,560,000	3,500,000	2,506,000	1,194,000	0	200,000	
	Castlemaine Goldfields	CGT	03-Mar-05	3	590	3	25,000,000	24,000,000	0.20	9,800,000	5,000,000	3,350,000	1,650,000	0	0	Previously Alexander Resources (AXD)
	Alloy Resources	AYR	06-Apr-06	4	713	4	25,000,000	33,300,000	0.20	11,660,000	5,000,000	2,772,000	2,228,000	0	0	
	Atlas Iron	AGO	17-Dec-04	4	2220	3	22,500,000	25,200,010	0.20	9,540,002	4,500,000	2,902,460	1,597,540	0	0	Previously Atlas Gold (AGO)
	Aura Energy	AEE	30-May-06	10	1733	2	20,000,000	11,000,000	0.20	6,200,000	4,000,000	2,831,900	1,168,100	0	104,400	
	Aurora Minerals	ARM	15-Jun-04	8	3032	2	20,000,000	13,702,000	0.20	6,740,400	4,000,000	2,147,700	1,852,300	0	0	
	Aurox Resources	AXO	22-Oct-04	4	324	2	12,500,000	13,666,498	0.20	5,233,300	2,500,000	1,600,500	899,500	0	0	

Australasia Gold	AAO	18-Jan-06	3	1,109	3	15,500,000	14,545,051	0.20	6,009,010	3,100,000	2,210,000	890,000	0	0
Auzex Resources	AZX	04-Oct-05	15	8000	3	10,000,000	11,840,000	0.50	10,920,000	5,000,000	3,067,000	1,933,000	0	0
AXG Mining	AXC	15-Sep-04	3	1123	3	12,500,000	27,750,000	0.20	8,050,000	2,500,000	1,635,980	1,435,640	0	285,810
Azumah Resources	AZM	09-Jan-06	1	2177	4	30,000,000	32,500,000	0.20	12,500,000	6,000,000	4,318,000	1,682,000	0	0
Bannerman Resources	BMN	28-Apr-05	1	45	3	10,500,000	5,300,003	0.20	3,160,001	2,100,000	1,405,000	848,150	0	153,150
Blina Diamonds	BDI	17-Aug-04	7	1800	4	34,737,770	118,713,312	0.30	46,035,325	10,421,331	6,435,000	3,986,331	0	0
Bonaparte Diamonds	BON	15-Oct-04	6	2490	2	24,800,000	30,700,000	0.25	13,875,000	6,200,000	2,300,000	3,900,000	0	0
Carrick Gold	CRK	20-Jan-05	1	143	4	30,000,000	30,000,000	0.20	12,000,000	6,000,000	1,800,000	4,200,000	0	0
Castle Minerals	CDT	02-May-06	5	1029	2	15,000,000	23,335,000	0.25	9,583,750	3,750,000	3,031,889	718,111	0	0
Chalice Gold Mines	CHN	24-Mar-06	5	2200	3	37,500,000	35,000,000	0.20	14,500,000	7,500,000	5,531,800	1,968,200	0	0
Contact Resources	CTS	21-Sep-05	7	6912	3	15,000,000	27,250,004	0.20	8,450,001	3,000,000	2,088,000	951,000	0	39,000
Copper Range	CRJ	07-Jun-06	4	3378	2	15,000,000	24,500,000	0.20	7,900,000	3,000,000	1,113,000	1,887,000	0	0
Copper Strike	CSE	24-Nov-04	8	2416	3	32,500,000	19,200,000	0.20	10,340,000	6,500,000	4,900,000	1,716,360	156,640	273,000
Cortona Resources	CRC	21-Mar-06	3	115	4	15,000,000	12,250,002	0.20	5,450,000	3,000,000	1,969,476	1,220,717	0	190,193
Curnamona Energy	CUY	19-Apr-05	4	4302	3	28,287,100	31,000,003	0.20	11,857,421	5,657,420	2,400,000	765,000	2,492,420	0
Diatreme Resources	DRX	22-Jun-05	10	11,672	3	18,436,915	52,610,233	0.20	14,209,430	3,687,383	2,654,000	1,036,000	502,383	505,000
Drake Resources	DRK	31-Mar-05	3	257	2	15,000,000	15,000,000	0.20	6,000,000	3,000,000	2,111,000	1,152,850	0	263,850
Dynasty Metals Australia	DMA	06-Dec-05	8	2364	2	15,175,002	12,350,000	0.20	5,505,000	3,035,000	1,381,000	1,319,000	335,000	0
Echelon Resources	ECH	03-May-05	10	3203	2	5,000,000	10,112,878	0.20	3,022,576	1,000,000	1,587,000	1,013,000	100,000	1,700,000
Echo Resources	EAR	09-May-06	6	761	4	24,000,000	20,042,860	0.25	11,010,715	6,000,000	4,180,000	1,820,000	0	0
ElDore Mining Corporation	EDM	25-Oct-05	1	11	4	12,000,000	38,200,000	0.25	12,550,000	3,000,000	1,612,000	1,320,798	317,202	250,000
Elemental Minerals	ELM	21-Sep-05	2	1497	2	15,000,000	13,820,300	0.20	5,764,060	3,000,000	1,820,000	1,811,915	0	631,915
Encounter Resources	ENR	24-Mar-06	13	3252	3	20,000,000	34,996,900	0.20	10,999,380	4,000,000	2,963,100	1,222,410	59,160	244,670
Energy Metals	EME	09-Sep-05	7	3142	2	12,000,000	10,000,000	0.25	5,500,000	3,000,000	1,860,000	1,140,000	0	0
Eureka Mines	EKA	21-Dec-05	1	529	2	11,000,000	14,000,000	0.20	5,000,000	2,200,000	1,529,900	1,062,517	57,583	450,000
Geopacific Resources	GPR	09-May-06	4	442	2	22,500,000	23,530,505	0.20	9,206,101	4,500,000	3,475,000	1,025,000	0	0
Gladiator Resources	GLA	27-Jun-06	5	776	2	12,500,000	27,400,000	0.20	7,980,000	2,500,000	1,021,000	1,479,000	0	0
Globe Uranium	GBE	09-Dec-05	3	175	2	12,500,000	23,000,000	0.20	7,100,000	2,500,000	1,835,000	779,300	259,000	373,300
Golden Tiger Mining	GTX	24-Nov-04	11	15,725	2	27,000,000	34,607,000	0.30	18,482,100	8,100,000	6,160,000	1,940,000	0	0
Golden West Resources	GWR	24-Dec-04	3	300	4	14,000,000	23,312,502	0.20	7,462,500	2,800,000	1,982,000	1,023,000	0	205,000
Graynic Metals	GYN	30-Jun-05	3	622	3	6,250,000	18,250,003	0.20	4,900,001	2,500,000	1,801,700	199,228	649,075	150,003
Hindmarsh Resources	HMR	11-Jul-05	8	7256	3	2,000,000	18,833,333	0.28	5,833,333	560,000	900,000	2,371,331	0	2,711,331
Hodges Resources	HDG	20-Oct-05	1	8	2	13,500,000	6,720,001	0.20	4,044,000	2,700,000	1,818,500	1,176,701	0	295,201
Iberian Resources	IBR	18-Nov-04	2	1380	4	24,000,000	16,000,000	0.20	8,000,000	4,800,000	2,620,000	410,000	1,678,000	−92,000

Table A1 (*continued*)

Company name	Symbol	IPO date	Projects	Tenement holdings (km^2)	Exploration stage	Share distribution at IPO		Issue price ($)	Market cap at IPO ($)	IPO result ($)	Proposed budget ($)			Pre-offer cash at bank ($)	Comments
						Public	Others				Exploration	Overheads	Unallocated		
Icon Resources	III	06-Jun-06	13	2895	2	20,000,000	20,000,000	0.20	8,000,000	4,000,000	3,000,000	1,188,000	132,000	320,000	
Intermet Resources	ITT	20-Apr-06	7	9008	2	20,000,000	20,500,500	0.20	8,100,100	4,000,000	2,630,000	1,370,000	0	0	
International Goldfields	IGC	02-May-06	14	1616	4	20,000,000	35,000,005	0.20	11,000,001	4,000,000	2,295,000	1,705,000	0	0	
Iron Ore Holdings	IOH	10-May-05	4	430	2	30,000,000	40,000,000	0.20	14,000,000	6,000,000	2,126,000	1,994,000	1,880,000	0	
Jaguar Minerals	JAG	15-Jul-04	5	434	3	25,000,000	20,100,000	0.20	9,020,000	5,000,000	3,355,000	1,645,000	0	0	
Jupiter Mines	JMS	23-Dec-04	6	195	4	19,005,000	31,381,250	0.20	10,077,250	3,801,000	1,555,000	1,845,000	401,000	0	
Kalgoorlie Boulder Resources	KAL	20-Apr-05	6	251	3	16,000,000	17,475,444	0.20	6,695,089	3,200,000	2,037,300	1,364,700	0	202,000	
Kentor Gold	KGL	17-Mar-05	8	3675	3	12,000,000	22,151,132	0.50	17,075,566	6,000,000	4,380,200	1,690,400	604,400	675,000	
Korab Resources	KOR	31-Aug-05	5	1044	4	15,000,000	30,000,000	0.20	9,000,000	3,000,000	2,050,000	950,000	0	0	
Magma Metals	MMB	02-Jun-06	7	2493	2	30,000,000	28,950,002	0.20	11,790,000	6,000,000	4,830,000	1,870,000	0	700,000	
Marathon Resources	MTN	17-Mar-05	9	3336	2	25,000,000	14,600,000	0.20	7,920,000	5,000,000	3,100,000	1,900,000	0	0	
Matilda Minerals	MAL	15-Sep-04	2	810	3	22,500,000	11,417,001	0.20	6,783,400	4,500,000	2,304,000	2,196,000	0	0	
Maximus Resources	MXR	26-Oct-05	5	17,288	2	30,000,000	29,966,671	0.20	11,993,334	6,000,000	3,851,000	2,694,000	0	545,000	
Metallica Minerals	MLM	23-Nov-04	13	7059	4	15,000,000	49,148,183	0.20	12,829,637	3,000,000	2,060,000	1,447,000	168,000	675,000	
Meteoric Resources	MEI	16-Jul-04	8	1295	2	20,000,000	16,213,259	0.20	7,242,652	4,000,000	2,270,000	1,250,000	480,000	0	
Mirabela Nickel	MBN	16-Jul-04	4	160	4	15,000,000	15,511,000	0.20	6,102,200	3,000,000	1,265,000	1,188,160	670,920	124,080	
Monaro Mining	MRO	15-Sep-05	4	818	2	13,000,000	5,200,100	0.20	3,640,020	2,600,000	1,570,000	1,030,000	0	0	
Monax Mining	MOX	21-Sep-05	10	4245	2	25,000,000	24,166,670	0.20	9,833,334	5,000,000	2,801,000	2,199,000	0	0	
Newera Uranium	NRU	19-Jun-06	3	1082	2	15,000,000	21,700,000	0.20	7,340,000	3,000,000	2,511,700	1,038,233	94,737	644,670	
Northwest Resources	NWR	12-Jun-04	4	60	3	9,500,000	15,000,001	0.20	4,900,000	1,900,000	1,298,000	602,000	0	0	
Norton Gold Fields	NGF	16-Sep-05	6	381	4	23,800,000	49,112,505	0.20	14,582,501	4,760,000	2,975,000	1,903,000	0	118,000	
Nova Energy	NEL	23-Aug-05	6	3398	3	15,000,000	43,550,001	0.40	23,420,000	6,000,000	4,340,000	1,225,000	738,000	303,000	
Olympia Resources	OLY	26-Aug-04	13	1356	4	14,000,000	39,334,261	0.20	10,666,852	2,800,000	1,177,600	1,622,400	0	0	
Ord River Resources	ORD	08-Mar-05	2	1289	2	16,000,000	101,254,411	0.30	35,176,323	4,800,000	3,324,000	4,033,000	0	2,557,000	
Panaegis Gold Mines	PAU	23-Jun-06	9	1241	4	30,000,000	40,062,500	0.20	14,012,500	6,000,000	3,945,000	2,055,000	0	0	
PepinNini Minerals	PNN	15-Apr-05	3	9820	3	22,500,000	28,025,000	0.20	10,105,000	4,500,000	2,713,322	1,786,678	0	0	
Perseus Mining	PRU	22-Sep-04	7	3896	3	18,500,000	40,933,450	0.20	11,886,690	3,700,000	2,588,000	1,112,000	0	0	
Platina Resources	PGM	29-May-06	3	510	3	9,500,000	21,510,000	0.20	6,202,000	6,200,000	4,155,000	2,045,000	0	0	
Primary Resources	PRZ	08-Mar-06	5	3116	2	25,000,000	29,500,000	0.20	10,900,000	5,000,000	3,240,000	1,760,000	0	0	
Queensland Ores	QOL	20-May-05	4	319	4	24,000,000	20,859,170	0.25	11,214,793	6,000,000	4,432,000	2,068,000	0	500,000	
Red Hill Iron	RHI	14-Feb-06	1	1900	2	20,000,000	13,333,333	0.20	6,666,667	4,000,000	2,170,000	1,830,000	0	0	

Red River Resources	RVR	15-Jul-05	4	780	3	15,800,000	29,850,003	0.20	9,130,001	3,160,000	1,205,000	1,955,000	0	0	
Regal Resources	RER	28-Jun-05	5	598	3	15,500,000	22,037,505	0.20	7,507,501	3,100,000	1,762,000	1,338,000	0	0	
Rey Resources	REY	05-Jun-06	6	4079	2	32,000,000	45,280,954	0.25	19,320,239	8,000,000	4,817,800	3,582,200	0	400,000	
Royalco Resources	RCO	29-Jun-06	9	1090	2	24,000,000	32,411,200	0.50	28,205,600	12,000,000	6,895,000	2,315,000	3,080,000	290,000	
Royal Resources	ROY	06-Apr-06	9	740	2	20,000,000	28,940,001	0.20	9,788,000	4,000,000	2,061,000	1,343,919	1,111,356	516,275	
Scimitar Resources	SIM	28-Jan-05	6	1556	2	16,935,003	15,670,003	0.20	6,521,001	3,387,001	2,127,500	1,523,501	0	264,000	
Segue Resources	SEG	28-Oct-05	1	54	2	2,000,000	8,336,350	0.50	5,168,175	1,000,000	1,060,000	1,387,598	0	1,447,598	
Southern Gold	SAU	21-Apr-05	6	3000	2	20,000,000	18,586,800	0.20	7,717,360	4,000,000	2,590,000	1,410,000	0	0	
Stellar Resources	SRZ	28-Apr-05	16	8758	2	10,000,000	39,238,168	0.20	9,847,634	2,000,000	3,323,000	827,000	0	2,150,000	
Talisman Mining	TLM	25-Nov-05	7	1750	4	15,000,000	23,637,506	0.20	7,727,501	3,000,000	1,760,000	1,240,000	0	0	
Terrain Minerals	TMX	23-Mar-06	4	157	3	20,000,000	27,750,000	0.20	9,550,000	4,000,000	2,617,000	1,383,000	0	0	
Territory Iron	TFE	11-Mar-05	4	266	2	50,000,000	50,000,000	0.20	20,000,000	10,000,000	7,522,000	2,478,000	0	0	
The Gold Company	GGG	20-Jun-06	1	120	2	20,000,000	12,100,300	0.20	6,420,060	4,000,000	1,380,000	2,680,000	0	60,000	
Toro Energy	TOE	24-Mar-06	10	26,069	2	72,000,000	73,502,000	0.25	36,375,500	18,000,000	14,470,000	3,530,000	0	0	
Trafford Resources	TRF	19-Jun-06	2	985	3	15,000,000	11,666,670	0.20	5,333,334	3,000,000	2,117,510	1,132,490	0	250,000	
U3O8	UTO	09-May-06	10	2243	3	25,000,000	40,600,000	0.20	13,120,000	5,000,000	3,675,000	1,325,000	0	0	
United Minerals Corporation	UMC	09-Dec-04	6	4642	3	50,000,000	42,750,001	0.20	18,550,000	10,000,000	6,100,000	1,900,000	2,000,000	0	Previously United Kimberly Diamonds (UKD)
Uranex	UNX	25-Oct-05	5	15,896	3	16,400,000	49,400,100	0.20	13,160,020	6,560,000	4,564,244	1,827,562	168,194	0	
Uranium Exploration Australia	UXA	22-Nov-05	16	6299	2	30,000,000	34,145,000	0.20	12,829,000	6,000,000	4,080,000	1,920,000	0	0	
Valhalla Uranium	VUL	19-Dec-05	8	766	4	20,000,000	100,000,000	0.40	48,000,000	8,000,000	3,110,000	4,890,000	0	0	
Vital Metals	VML	11-Oct-05	3	344	4	40,000,000	30,050,003	0.20	14,010,001	8,000,000	4,570,000	4,040,000	0	610,000	
Washington Resources	WRL	17-Nov-05	7	8907	2	15,000,000	29,958,326	0.20	8,991,665	3,000,000	1,710,000	1,290,000	0	0	
Western Plains Gold	WPG	23-Aug-05	6	1167	3	24,000,000	11,600,000	0.20	7,120,000	4,800,000	2,420,000	2,380,000	0	0	
Zedex Minerals	ZDX	23-May-06	4	532	4	25,000,000	115,030,327	0.20	28,006,065	5,000,000	2,800,000	2,700,000	0	500,000	
Zelos Resources	ZCO	25-Aug-05	7	635	2	25,000,000	16,750,000	0.20	8,350,000	5,000,000	2,413,000	1,035,738	1,868,087	316,825	Previously Zinico Resources (ZCO)
Average			5	3567	3	20,349,146	26,766,791	0.22	10,594,949	4,562,901	2,944,209	1,597,283	180,306	160,678	
Median			5	1167	3	18,875,000	22,375,500	0.20	8,741,425	4,000,000	2,420,000	1,370,000	0	0	
Total			970	638,543		3,642,497,219	4,791,255,558		1,896,495,870	816,759,286	527,013,450	285,913,710	32,274,829	28,761,293	

Table B1

	Company	Symbol	IPO date	Proposed 2-year expenditure				Actual expenditure					Total actual minus total proposed expenditure ($)	Ratio total actual/total proposed expenditure (%)	Years listed	Average total actual expenditure per annum ($)	Additional capital raised since IPO ($)	Capital reserves at time of data compilation ($)
				Exploration ($)	IPO costs and overheads ($)	Total ($)	Ratio exploration/ overheads (%)	Exploration ($)	Development	Overheads ($)	Total ($)	Ratio exploration and development/ overheads (%)						
Survey I	APEX Minerals	AXM	05-Jun-02	2,940,000	1,060,000	4,000,000	277	2,440,000	0	588,000	3,028,000	415	−972,000	76	2.00	1,514,000	0	620,000
	Australian Mines	AUZ	28-Sep-01	2,475,000	2,695,000	5,170,000	92	2,728,489	0	1,318,532	4,047,021	207	−1,122,979	78	2.00	2,023,511	2,320,000	448,863
	Avoca Resources	AVO	15-Apr-02	5,090,000	1,910,000	7,000,000	266	3,219,000	0	1,114,000	4,333,000	289	−2,667,000	62	2.00	2,166,500	6,264,000	2,862,000
	Chameleon Mining	CHM	12-Aug-03	5,850,000	1,650,000	7,500,000	355	1,386,000	0	275,000	1,661,000	504	−5,839,000	22	1.00	1,661,000	850,000	225,000
	D'Aguilar Gold	DGR	21-Aug-03	2,683,000	1,317,000	4,000,000	204	1,031,000	0	875,000	1,906,000	118	−2,094,000	48	1.00	1,906,000	4,572,580	2,117,000
	De Grey Mining	DEG	03-Jul-02	3,560,000	940,000	4,500,000	379	4,438,000	0	1,827,000	6,265,000	243	1,765,000	139	2.00	3,132,500	7,715,000	3,850,000
	Elkedra Diamonds	EDN	08-Jan-02	2,420,000	1,134,000	3,554,000	213	3,036,000	0	906,000	3,942,000	335	388,000	111	2.00	1,971,000	3,635,000	1,638,000
	Flinders Diamonds	FDL	20-Feb-02	2,900,000	2,100,000	5,000,000	138	2,771,000	0	1,084,000	3,855,000	256	−1,145,000	77	2.00	1,927,500	3,196,000	2,167,000
	Fox Resources	FXR	26-Apr-02	1,880,000	720,000	2,600,000	261	4,672,824	579,318	1,092,737	6,344,879	481	3,744,879	244	2.00	3,172,440	5,768,000	2,682,688
	Gleneagle Gold	GLN	28-Jul-03	2,295,000	2,245,000	4,540,000	102	3,748,000	0	560,000	4,308,000	669	−232,000	95	1.00	4,308,000	2,070,000	2,197,000
	Gold Aura	GOA	01-Nov-02	1,528,311	590,000	2,118,311	259	1,142,000	0	753,000	1,895,000	152	−223,311	89	1.75	1,082,857	458,000	338,000
	Havilah Resources	HAV	21-Mar-02	4,750,000	1,250,000	6,000,000	380	1,335,000	0	418,000	1,753,000	319	−4,247,000	29	2.00	876,500	0	3,716,000
	Hill End Gold	HEG	17-Jul-03	2,080,000	640,000	2,720,000	325	600,000	1,256,000	440,000	2,296,000	422	−424,000	84	1.00	2,296,000	1,328,000	970,000
	Image Resources	IMA	04-Jul-02	2,444,000	606,000	3,050,000	403	1,727,000	0	1,194,000	2,921,000	145	−129,000	96	2.00	1,460,500	2,867,000	3,064,000
	Independence Group	IGO	17-Jan-02	2,739,000	1,261,000	4,000,000	217	5,692,000	23,691,000	1,848,000	31,231,000	1590	27,231,000	781	2.00	15,615,500	11,673,000	11,300,000
	Indophil Resources	IRN	03-May-02	3,950,000	1,050,000	5,000,000	376	6,486,133	0	1,428,000	7,914,133	454	2,914,133	158	2.00	3,957,067	16,069,000	8,684,000
	Integra Mining	IGR	16-Aug-01	2,645,000	1,355,000	4,000,000	195	1,876,000	0	1,163,000	3,039,000	161	−961,000	76	2.00	1,519,500	980,000	1,791,000
	Jackson Gold	JAK	11-Jun-02	2,778,000	1,222,000	4,000,000	227	3,065,000	0	1,308,000	4,373,000	234	373,000	109	2.00	2,186,500	1,980,000	1,173,000
	Jindalee Resources	JRL	11-Jul-02	1,796,000	874,000	2,670,000	205	1,211,000	0	354,000	1,565,000	342	−1,105,000	59	2.00	782,500	0	1,570,000
	Lake Resources	LKE	29-Aug-01	1,740,000	551,000	2,291,000	316	1,188,000	0	339,000	1,527,000	350	−764,000	67	2.00	763,500	379,000	684,000
	Lodestone Exploration	LOD	17-Mar-03	1,663,000	803,000	2,466,000	207	1,014,000	0	459,000	1,473,000	221	−993,000	60	1.25	1,178,400	1,000	894,000
	Malachite Resources	MAR	26-Nov-02	2,590,000	467,000	3,057,000	555	2,255,000	0	832,000	3,087,000	271	30,000	101	1.75	1,764,000	1,365,000	620,000
	Midas Resources	MDS	25-Feb-03	2,800,000	4,200,000	7,000,000	67	4,809,892	0	876,883	5,686,775	549	−1,313,225	81	1.50	3,791,183	0	1,114,715
	Mithril Resources	MTH	18-Nov-02	1,918,000	920,000	2,838,000	208	1,855,000	0	510,000	2,365,000	364	−473,000	83	1.75	1,351,429	4,671,000	6,164,000
	Monarch Resources	MRS	29-Oct-02	2,133,000	617,000	2,750,000	346	1,529,000	0	509,000	2,038,000	300	−712,000	74	1.75	1,164,571	747,000	150,000
	Ramelius Resources	RMS	31-Mar-03	1,371,136	1,678,980	3,050,116	82	1,407,000	0	600,000	2,007,000	235	−1,043,116	66	1.25	1,605,600	2,504,000	2,034,000
	Range River Gold	RNG	17-Jun-02	3,900,000	2,100,000	6,000,000	186	5,754,000	0	623,000	6,377,000	924	377,000	106	1.75	3,644,000	7,867,000	6,225,000
	Reed Resources	RDR	10-Jul-02	4,500,000	1,500,000	6,000,000	300	3,278,739	1,487,509	1,634,735	6,400,983	292	400,983	107	2.00	3,200,492	3,062,500	2,003,688
	Sally Malay Mining	SMY	14-Sep-01	2,195,000	805,000	3,000,000	273	5,600,000	1,819,000	2,071,000	9,490,000	358	6,490,000	316	2.00	4,745,000	12,575,000	7,547,000
	Siberia Mining Corporation	SIB	29-Apr-03	1,140,909	1,030,112	2,171,021	111	946,000	4,893,000	1,529,000	7,368,000	382	5,196,979	339	1.25	5,894,400	3,600,000	348,000
	TasGold	TGD	09-Apr-03	1,550,000	772,640	2,322,640	201	1,445,000	0	499,000	1,944,000	290	−378,640	84	1.25	1,555,200	564,000	376,000

	Tasman Resources	TAS	18-Dec-01	1,900,000	800,000	2,700,000	238	3,403,000	0	1,064,000	4,467,000	320	1,767,000	165	2.00	2,233,500	2,645,000	1,104,000
	Universal Resources	URL	03-Sep-02	2,680,000	1,320,000	4,000,000	203	3,819,000	0	1,054,000	4,873,000	362	873,000	122	1.75	2,784,571	3,152,000	1,215,000
	Vulcan Resources	VCN	10-Sep-02	1,947,000	1,039,000	2,986,000	187	1,269,000	0	897,000	2,166,000	141	−820,000	73	1.75	1,237,714	2,000	789,000
	Westonia Mines	WEZ	20-Aug-02	3,715,000	1,285,000	5,000,000	289	4,730,000	241,000	1,416,000	6,387,000	351	1,387,000	128	1.75	3,649,714	6,539,000	1,463,000
Survey II	Atlas Iron	AGO	17-Dec-04	2,902,460	1,597,540	4,500,000	182	4,667,000	0	1,321,000	5,988,000	353	1,488,000	133	1.75	3,421,714	10,640,000	8,251,000
	Aurora Minerals	ARM	15-Jun-04	2,147,700	1,852,300	4,000,000	116	1,855,000	0	981,000	2,836,000	189	−1,164,000	71	2.00	1,418,000	760,000	2,164,000
	Aurox Resources	AXO	22-Oct-04	1,600,500	899,500	2,500,000	178	6,339,000	0	1,563,000	7,902,000	406	5,402,000	316	1.75	4,515,429	7,375,000	2,034,000
	AXG Mining	AXC	15-Sep-04	1,635,980	1,435,640	3,071,620	114	615,000	0	1,359,000	1,974,000	45	−1,097,620	64	2.00	987,000	805,000	1,050,000
	Bannerman Resources	BMN	28-Apr-05	1,405,000	848,150	2,253,150	166	475,000	0	315,000	790,000	151	−1,463,150	35	1.25	632,000	1,044,000	2,478,000
	Blina Diamonds	BDI	17-Aug-04	6,435,000	3,986,331	10,421,331	161	10,189,000	1,740,000	699,000	12,628,000	1707	2,206,669	121	2.00	6,314,000	11,040,000	6,708,000
	Bonaparte Diamonds	BON	15-Oct-04	2,300,000	3,900,000	6,200,000	59	2,881,000	0	1,120,000	4,001,000	257	−2,199,000	65	1.75	2,286,286	2,375,000	2,864,000
	Carrick Gold	CRK	20-Jan-05	1,800,000	4,200,000	6,000,000	43	3,275,000	0	986,000	4,261,000	332	−1,739,000	71	1.50	2,840,667	2,323,000	1,536,000
	Castlemaine Goldfields	CGT	03-Mar-05	3,350,000	1,650,000	5,000,000	203	1,677,000	0	1,163,000	2,840,000	144	−2,160,000	57	1.50	1,893,333	3,200,000	3,340,000
	Copper Strike	CSE	24-Nov-04	4,900,000	1,716,360	6,616,360	285	4,308,000	0	1,007,000	5,315,000	428	−1,301,360	80	1.75	3,037,143	7,924,000	2,765,000
	Curnamona Energy	CUY	19-Apr-05	2,400,000	765,000	3,165,000	314	777,000	0	425,000	1,202,000	183	−1,963,000	38	1.50	801,333	0	4,446,000
	Diatreme Resources	DRX	22-Jun-05	2,654,000	1,036,000	3,690,000	256	2,130,000	0	791,000	2,921,000	269	−769,000	79	1.25	2,336,800	5,247,000	2,959,000
	Drake Resources	DRK	31-Mar-05	2,111,000	1,152,850	3,263,850	183	948,000	0	585,000	1,533,000	162	−1,730,850	47	1.50	1,022,000	100,000	1,029,000
	Echelon Resources	ECH	03-May-05	1,587,000	1,013,000	2,600,000	157	931,000	0	390,000	1,321,000	239	−1,279,000	51	1.25	1,056,800	1,125,000	3,453,000
	Golden Tiger Mining	GTX	24-Nov-04	6,160,000	1,940,000	8,100,000	318	1,819,000	0	1,767,000	3,586,000	103	−4,514,000	44	1.75	2,049,143	0	4,043,000
	Golden West Resources	GWR	24-Dec-04	1,982,000	1,023,000	3,005,000	194	2,241,000	0	1,250,000	3,491,000	179	486,000	116	1.75	1,994,857	3,148,000	1,426,000
	Graynic Metals	GYN	30-Jun-05	1,801,700	199,228	2,000,928	904	1,307,000	0	390,000	1,697,000	335	−303,928	85	1.25	1,357,600	624,000	1,350,000
	Iberian Resources	IBR	18-Nov-04	2,620,000	410,000	3,030,000	639	5,378,000	1,184,000	1,247,000	7,809,000	526	4,779,000	258	1.75	4,462,286	18,540,000	6,994,000
	Jaguar Minerals	JAG	15-Jul-04	3,355,000	1,645,000	5,000,000	204	1,504,000	0	813,000	2,317,000	185	−2,683,000	46	2.00	1,158,500	1,000,000	1,018,000
	Jupiter Mines	JMS	23-Dec-04	1,555,000	1,845,000	3,400,000	84	1,575,000	0	1,338,000	2,913,000	118	−487,000	86	1.75	1,664,571	1,035,000	795,000
	Kalgoorlie Boulder Resources	KAL	20-Apr-05	2,037,300	1,364,700	3,402,000	149	888,000	418,000	566,000	1,872,000	231	−1,530,000	55	1.25	1,497,600	3,254,000	934,000
	Kentor Gold	KGL	17-Mar-05	4,380,200	1,690,400	6,070,600	259	2,788,000	0	1,521,000	4,309,000	183	−1,761,600	71	1.50	2,872,667	0	2,077,000
	Marathon Resources	MTN	17-Mar-05	3,100,000	1,900,000	5,000,000	163	2,250,586	0	1,273,651	3,524,237	177	−1,475,763	70	1.50	2,349,491	3,408,000	4,200,000
	Matilda Minerals	MAL	15-Sep-04	2,304,000	2,196,000	4,500,000	105	4,301,000	2,544,000	1,805,000	8,650,000	379	4,150,000	192	2.00	4,325,000	5,591,000	869,000
	Metallica Minerals	MLM	23-Nov-04	2,060,000	1,447,000	3,507,000	142	2,512,000	85,000	1,448,000	4,045,000	179	538,000	115	1.75	2,311,429	5,817,000	4,329,000
	Meteoric Resources	MEI	16-Jul-04	2,270,000	1,250,000	3,520,000	182	3,167,000	0	880,000	4,047,000	360	527,000	115	2.00	2,023,500	1,000,000	2,110,000
	Mirabela Nickel	MBN	16-Jul-04	1,265,000	1,188,160	2,453,160	106	11,927,000	0	1,185,000	13,112,000	1006	10,658,840	534	2.00	6,556,000	17,947,000	6,359,000
	Northwest Resources	NWR	12-Jun-04	1,298,000	602,000	1,900,000	216	3,914,000	0	762,000	4,676,000	514	2,776,000	246	1.75	2,672,000	3,113,000	980,000
	Olympia Resources	OLY	26-Aug-04	1,177,600	1,622,400	2,800,000	73	2,747,000	1,920,000	2,592,000	7,259,000	180	4,459,000	259	2.00	3,629,500	7,426,000	2,338,000
	PepinNini Minerals	PNN	15-Apr-05	2,713,322	1,786,678	4,500,000	152	2,182,000	0	711,000	2,893,000	307	−1,607,000	64	1.25	2,314,400	223,000	1,423,000
	Perseus Mining	PRU	22-Sep-04	2,588,000	1,112,000	3,700,000	233	3,859,000	0	1,509,000	5,368,000	256	1,668,000	145	2.00	2,684,000	8,883,000	6,002,000
	Queensland Ores	QOL	20-May-05	4,432,000	2,068,000	6,500,000	214	2,366,000	0	1,033,000	3,399,000	229	−3,101,000	52	1.25	2,719,200	932,000	3,223,000
	Regal Resources	RER	28-Jun-05	1,762,000	1,338,000	3,100,000	132	1,141,000	0	1,165,000	2,306,000	98	−794,000	74	1.25	1,844,800	1,438,000	1,283,000
	Scimitar Resources	SIM	28-Jan-05	2,127,500	1,523,501	3,651,001	140	1,284,000	0	836,000	2,120,000	154	−1,531,001	58	1.50	1,413,333	981,000	1,441,000

Table B1 (*continued*)

	Company	Symbol	IPO date	Proposed 2-year expenditure				Actual expenditure					Total actual minus total proposed expenditure ($)	Ratio total actual/total proposed expenditure (%)	Years listed	Average total actual expenditure per annum ($)	Additional capital raised since IPO ($)	Capital reserves at time of data compilation ($)
				Exploration ($)	IPO costs and overheads ($)	Total ($)	Ratio exploration/ overheads (%)	Exploration ($)	Development	Overheads ($)	Total ($)	Ratio exploration and development/ overheads (%)						
	Southern Gold	SAU	21-Apr-05	2,590,000	1,410,000	4,000,000	184	1,606,000	0	916,000	2,522,000	175	−1,478,000	63	1.25	2,017,600	939,000	1,986,000
	Stellar Resources	SRZ	28-Apr-05	3,323,000	827,000	4,150,000	402	2,722,000	0	921,000	3,643,000	296	−507,000	88	1.50	2,428,667	5,887,000	5,613,000
	United Minerals Corporation	UMC	09-Dec-04	6,100,000	1,900,000	8,000,000	321	3,489,000	0	1,410,000	4,899,000	247	−3,101,000	61	1.75	2,799,429	618,000	5,588,000
Survey I: averages							247					373		126	1.73	2,689,219	3,469,117	2,404,142
Survey I: medians							227					320		84	2.00	1,971,000	2,504,000	1,570,000
Survey II: averages							214					305		112	1.64	2,478,597	3,939,514	3,012,378
Survey II: medians							182					231		71	1.75	2,311,429	2,323,000	2,338,000
Survey I and II: averages							230					338		119	1.68	2,580,982	3,710,848	2,716,708
Survey I and II: medians							204					280		81	1.75	2,107,821	2,349,000	2,034,000

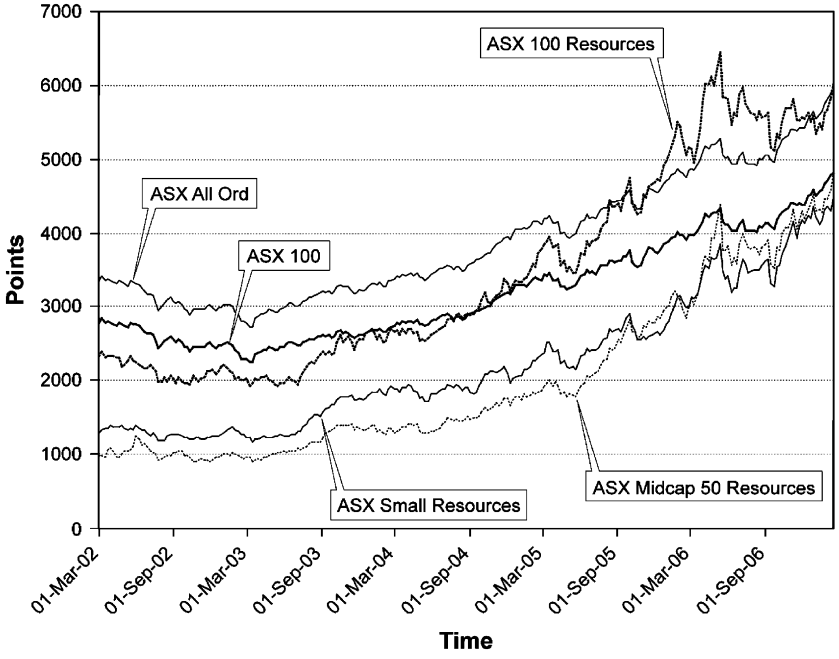

Fig. C1.

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