The incidence of “Internet floats” — the listing of companies concerned with new forms of electronic commerce — has led to renewed interest in initial public offerings (IPOs). Because widespread use of the Internet has occurred only recently, little research has been undertaken on the performance of these stocks. In a recent paper, Habib and Ljungqvist (1999, p. 1) highlighted the emerging interest with the question: “Why do IPOs by companies with ‘dotcom’ in their names suffer average underpricing that is nearly eight times the US average of 13%?”

Research into IPOs has focused on three major anomalies:

• short-term underpricing, where IPOs, after they are listed, trade on average at prices significantly greater than their offer price;
• long-run overpricing — on average, IPOs earn lower returns than comparable existing or seasoned firms for several years after listing; and,
• the impact of market cycles on the extent of underpricing. Research shows that cycles exist in both the volume and underpricing of IPOs. Allen, Morkel-Kingsbury and Piboonthanakiat (1999) found, in their study of the Thailand market, an average initial return of 157.83% for the 20 IPOs in 1989 compared with a return of only 19.23% for the one IPO in 1985. They found large variation in the returns between industries.

This paper investigates the level of underpricing of Internet stocks relative to the average underpricing of all IPOs in Australia in 1999. The number of Internet IPOs suggests that the Australian market in 1999 could be defined as a “hot issues market”. If this is so, we would expect that these Internet stocks will initially yield greater returns than other IPOs but will underperform the market over the long term.

FADS AND HOT ISSUES MARKETS

In 1975, Ibbotson and Jaffe (and later Ritter [1984]) noted evidence of “fads” in the US market for IPOs. They called these events “hot issues markets” and noted that they were characterised by:

• large numbers of offerings;
• concentration of new issues in particular industries;
• a preponderance of smaller issues;
• frequent oversubscription; and
• abnormally high initial returns.

During these periods of activity many poor-quality IPOs are floated to take advantage of the market’s over-optimism (Shiller 1990, Ritter 1991). Ritter (1991) also found that the long-run performance of IPOs varied widely between industries.
Hot issues markets have been noted in other countries: for example, in the UK between October 1986 and the October 1987 crash, in South Korea in 1988, and in Germany during 1982-83 and 1985-86 (Ibbotson and Ritter 1995).

The existence of a hot issues market should ring alarm bells for those who have been following the current boom in Internet and e-commerce IPOs. Figure 1 shows the number of IPOs in Australia during the period 1990-99. The figure indicates that 1999 was remarkable for the large number of issues compared with previous years.

Table 1 shows that 109 companies were newly listed on the Australian Stock Exchange in 1999. Of these, 42 were floats of Internet or Internet-related businesses. This is in keeping with the results of Ritter (1984), who found that the high initial returns in US IPOs during 1980-81 were largely confined to issues in the oil and gas sectors. In addition, many of these stocks had offer prices less than $1. Consistent with this, Table 1 shows that on average, Internet IPOs make smaller offerings and have significantly fewer assets and liabilities going to the market.

Data on the frequency of oversubscription are not publicly available in Australia. However, as an indication of the level of investor demand during 1999, 11 of the IPOs listed either before or on the closing date specified in the prospectus. While this is not a particularly large number, many of the issues allowed for significant oversubscription.

As Allen et al note (1999, p. 215), an evaluation of the intrinsic value of IPO stocks is difficult “since these stocks are issued by companies with no prior market capitalisation”. In addition, much of the value of these firms may be represented by opportunities for growth rather than by assets already in place (Handley and Ritter 1992). These features are certainly true of many, if not most, Internet stocks.

Many analysts are trying to come to grips with the new technology surrounding the Internet. A general uncertainty exists about how the new technology functions, its likely impact on business and consumers, which companies are involved and which will survive and prosper. In many ways we are experiencing a phenomenon similar to that of the mining boom of the 1960s.

Aggarwal and Rivoli (1990) suggest that fads are likely to occur when the estimation of the true intrinsic value of a firm is difficult or when risky securities are subject to significant amounts of noise trading. They also argue that fads are likely to occur when IPO investors are more speculative than investors in seasoned floats and when marginal investors in initial trading may be overly optimistic.

Given the above discussion we would expect that Internet IPOs are significantly more underpriced than non-Internet IPOs.

**METHODOLOGY**

The sample consists of the 109 IPOs listed on the ASX during the 1999 calendar year. Share prices were obtained from the IRESS database. Company-specific data were obtained from company prospectuses and the Connect4 database.

Following accepted methodology, the initial return is defined as the first-day gross return to an investor who acquired a share by subscribing to the IPO and who later sold it at the closing price on the first day of trading.

The abnormal return for each IPO, $i$, over the period $t-1$ to $t$ is defined as $AR_{it}$ where:

$$AR_{it} = \frac{P_{it} - P_{i,t-1}I_{t-1} - I_{t-1}}{I_{t-1}}$$

and:

$P_{it}$ = the closing price of share $i$, $t$ periods after the initial offering where $t = Day 1$ to Day 30, and $t_0$ is the offer date,

$I_{t}$ = the value of the All-Ordinaries accumulation index $t$ days after the offering, $t = 1, ..., T$

The average daily market-adjusted return, $AAR_t$ (calculated to accumulate the abnormal returns for a portfolio of $N$ companies at time $t)$, is given as:

$$AAR_t = \frac{\sum_{i=1}^{N} AR_{it}}{N}$$

The sample mean $AAR_t$ is a performance index reflecting the return (in excess of the market return) on an investment, divided equally among the $N$ issues in the sample.

The cumulative market adjusted return (CAR) for the sample for Day 1 to Day 30 is:

$$CAR_t = \sum_{t=1}^{T} AAR_t$$

As will be discussed, almost all studies on IPO underpricing adjust IPO returns for market movements (for example, Levis 1990). The All-Ordinaries accumulation index is used to adjust for market movements as it reveals the total return on equities over a period of time from capital gain and dividend receipts. In
the short term, the index has the advantage over the simple price index, in that it avoids falls when a major stock goes “ex-dividend” by retaining the dividend within the index.

RESULTS

The uncertainty regarding Internet stocks is most clearly seen in the large initial returns realised on listing. By the end of the first day of trading investors in Internet IPOs would have earned an average market-adjusted return of 60.84%, compared with 35.52% for investors in all other IPOs.

Table 2 shows mean returns and the standard deviation of those returns for Internet and non-Internet stocks listed in Australia during 1999. We tested to see if the difference between the returns was significant; that is, whether initial returns of Internet stocks are statistically greater than returns of non-Internet stocks.

Table 2: Initial returns of 1999 IPOs

<table>
<thead>
<tr>
<th></th>
<th>Number of IPOs</th>
<th>Mean AAR_{t1}</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAR_{t1} Internet</td>
<td>42</td>
<td>0.6084</td>
<td>1.0445</td>
</tr>
<tr>
<td>AAR_{t1} Non-Internet</td>
<td>67</td>
<td>0.3552</td>
<td>0.7385</td>
</tr>
</tbody>
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Note: N denotes the number of IPOs made during the sample period by type. AAR_{t1} is the market-adjusted return on the initial day’s trading. Market-adjusted returns from Day 1 to Day 30 are not significantly different from zero at any level for a two-tailed t-test.

The future

So, if history is repeating itself and we are in another fad or “hot issue market” what lessons can we learn from the past? What can we expect to happen over the longer term with respect to the Internet companies that have already listed?

Ritter (1991) found that when considered over the period from issue to their third anniversary, US IPOs on average substantially underperformed a sample of already listed matching firms, with significant variation in performance depending on the year and industry under consideration. Companies that went public in high-volume “hot” years performed the worst. This finding was attributed to excessive positive investor sentiment during these periods.

Similar results have been found in Australian studies. Mustow (1992) and Allen and Patrick (1994) document underperformance in post-listing returns of IPOs over 36 months of -112.8% and -25.38%. The difference in the returns performance between these two studies may be due to the periods being analysed. That is, the earlier study could be said to have covered a fad or “hot issue market” while the later study did not. Hence, when the market hysteria dies down, we could expect these new Internet IPOs to significantly underperform the market as a whole.

Some companies will do better than others, but which ones? Analysts point to the phenomenal growth in the share prices of companies such as Amazon.com which have traded at projected P/E multiples of many hundreds. Yet Amazon, as has been frequently observed, has yet to record a profit.

PICKING A WINNER

The Internet is a communication device like the telephone, but instead of connecting people to people it connects computers to computers, thus allowing for the transfer of massive amounts of information and reduced transaction costs for business. While many Internet sites target the consumer market selling everything from roses to groceries, to cars and real estate and travel, the real gains are going to be generated from the savings made by existing businesses.

Invoicing and payments, accounting and cashflow management can be made paperless and significantly faster than they are now. The Economist (26 June 1999, p. 34) noted that IBM sold $US15 billion of goods and services over the Internet during the previous financial...
year. It is estimated that customers using their support Web page will save the company around $US600 million. In addition, IBM expects that purchasing supplies by the Web will eliminate five million paper invoices.

The lesson is that investing in the electronic economy should be done on a company-by-company basis. Reserve Bank of Australia deputy governor Stephen Grenville pointed out in an address that fund managers had treated the whole of Asia as one investment class rather than analysing each country and indeed each company in turn, and this had contributed to the Asian financial crisis. He noted that a sell-off of Asian equities as a whole followed the crisis, with little consideration of the fundamentals underlying each investment. This lesson needs to be applied when evaluating Internet stocks.

REFERENCES


