Long Run Underperformance of Seasoned Equity Offerings: Fact or an Illusion?

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EXTENDED ABSTRACT

This paper uses Australian data from 1984 to 1993 to show that the long run underperformance of seasoned equity offerings is related to the definition of 'long-run'. We demonstrate that following the period delimited by other writers as the long run, issuing firms turn around in their performance and in fact outperform their corresponding benchmarks, sometimes more than making up for the initial losses. We show that the initial underperformance affects the issues of companies performing more than one SEO in a similar fashion. Our results demonstrate that a poor performance following an SEO has, to an extent, a specific role as the mitigator of costs associated with the issue.

Are new equity issues really a good investment, or is it more rewarding to invest in alternative assets? The enthusiasm among investors for initial public offerings (IPOs) and many seasoned equity offerings (SEOs) has been well documented. But do these investments provide a good return opportunity beyond the initial gain? In other words, are they a good long-term investment? This is the question we will attempt to address in some detail inside this paper. Although the underperformance of initial public offerings has been studied vigorously for a number of decades, the finding that seasoned equity offerings are also poor "long-run" investments is relatively new. Early writings can be traced to 1960s in the researches by Stigler (1964) and Friend and Longstreet (1967), but it was not until mid 1980s that the issue of seasoned equity offerings was seriously revisited in studies by Masulis and Korwar (1986) and Asquith and Mullins (1986) both documenting a significant share underperformance of companies who have just conducted a new equity issue. Masulis and Korwar (1986) in fact observed highly negative returns for 50% of industrial and 32% of public utility stocks in the same time, when the market recorded a significantly positive return. This was consistent with findings by Mikkleson and Partch (1986) and Schipper and Smith (1986). However, none of these researchers provided a comprehensive theoretical explanation for their results. The landmark study into the performance of issuing companies was conducted in 1995 by Loughran and Ritter (1995) building on foundations laid by Healy and Palepu (1990), Ritter (1991) and Loughran, Ritter and Rydqvist (1994) into IPOs. They affirmed the original findings by Masulis and Korwar (1986) observing a 15.7% and 33.4% five-year holding period returns for IPOs and SEOs during time when the returns on non-issuing firms matched with the issuers by capitalisation were 66.4% and 92.8%, respectively. This finding was also supported by others including Spiess and Affleck-Graves (1995) who observed the *median* return for SEO firms to be only 10%, compared with a 42.3% median return for non-issuers matched by size. Loughran and Ritter (1995) extended this by reporting that no significant under-performance was found in the first 6 months following an issue, but a critical period of 18 months ensued during which much of the discrepancy occurred. Loughran and Ritter (1997) who also noted no significant differential during year six and seven.

Our results, the first, to examine Australian long-run SEO performance, show that underperformance of Australian seasoned equity issues is dependent on the definition of the 'long run'. (Allen and Patrick (1996) examined long-run IPO performance).When long run is defined as twelve years instead of the usual five years, SEOs can be clearly seen to turn around their performance particularly during years six and seven. A series of regression results point to a number of factors that bear influence on the extent of the initial underperformance. Decreased ex-ante uncertainty associated with older firms causes a negative relationship between the age and the extent of underpricing. Moreover, the greater is the SEO cost specifically associated with underpricing of the new equity, the greater will be the underperformance that follows the issue.

1. INTRODUCTION

The long-term under-performance of SEOs has been observed in both stockholder returns and also as reflected significantly in lower operating performance. Loughran and Ritter (1997), observed a 23% and 40% drop in operating income-to-assets and market-to-book ratios, respectively, and a profit margin which less than halved over the four-year period following an issue. Spiess and Affleck-Graves (1995), in addition, controlled for differences in trading-system, offer size and firm age. McLaughlin, Safieddine and Vasudevan (1996) re-examined the issue concentrating on cash flows (found to decline by over 20%) and detected a greater overall performance drop in companies having larger amounts of free cash.

Loughran and Ritter (1997) suggest that when a firm is substantially overvalued it is likely to issue equity, augmenting what Myers and Majluf (1984) refers to as financial slack. This is consistent with the pecking order hypothesis, which suggests that during the "windows of opportunity" the preference ranking can change to external equity, external debt and then internal equity, causing preference for SEOs rather than debt. Poor subsequent performance is fuelled by over-optimism on the part of the issuing firms' managers, see Healy and Palepu (1990), and Brous (1992).

We report significant underperformance of Australian firms issuing seasoned equity during the first five years following the offer, consistent with prior studies including Loughran and Ritter (1995, 1997) and Spiess and Affleck-Graves (1995). Our results demonstrate that although issuers do under-perform non-issuers in the initial years, this trend is later significantly reversed and by the sixth year issuers actually report significant over-performance. The over-performance then gradually subsides and by the eight year the cumulative performance of issuers and non-issuers becomes approximately equal.

The results suggest that the extent of underperformance, especially over a five-year period, is related to the initial underpricing, as reflected in the *Dilution Yield* measure of initial returns.

A discussion of the research method and hypotheses tested follows in section 2. Section 3 discusses performance measurement, section 4 presents the results and section 5 provides a brief conclusion.

2. RESEARCH METHOD

In this paper we re-examine the long-run performance of Australian SEOs. We begin by re-examining whether the issuers in our sample actually do under-perform with respect to a number of benchmarks including both non-issuers and proxies for the market. We examine a number of hypotheses:

1a: *Firms issuing seasoned equity do not under-perform with respect to corresponding non-issuers.*

1b: *Firms issuing seasoned equity do not under-perform with respect to the market*

We conjecture that the observed long-run underperformance is a phenomenon conditioned by the adopted definition of the 'long run'. We hypothesise that it takes more than five years for capital projects to come to fruition, after which the issuers will significantly outperform non-issuers. Some preliminary support comes from Loughran and Ritter (1997) who found that critical underperformance occurs in seventh to twenty-fourth month following an SEO, after which the performance gap significantly narrows. McLaughlin, Safieddine and Vasudevan (1996) in fact detected no significant difference in the sixth year following an issue. Our second set of hypotheses are:

2a: *SEO firms do not crossover from period of underperformance to period of over-performance relative to non-issuers.*

2b: *SEO firms do not under-perform non-issuers, in aggregate, over the real 'long-run'.*

Next we examine the performance of companies which had more than one seasoned equity offering. We hypothesise that if underperformance is a consequence of issue, then it should accompany each offering. Moreover, controlling for changes in company characteristics that resulted from the previous issue, each underperformance should be qualitatively equal and quantitatively similar to the previous one:

Hypothesis 3: *Performance characteristics of firms having more than one issue of seasoned equity are not economically and statistically similar for each offering.*

We then analyse the impact that various extraneous factors have on SEO performance presuming that some of these factors may differentiate issuers from non-issuers. In particular we will control for:

Firm Age – A more established firm generally suggests greater stability of its costs and revenues, and hence lesser ex-ante uncertainty. *Company Beta* – As a proxy for company risk, the higher the beta the greater would be the expected return as a compensation for the risk, and hence the smaller should be the post-issue underperformance. Hence a positive relationship is anticipated.

Market Capitalisation – Just like age, size may also reflect on the ex-ante uncertainty implying a positive relationship between firm's capitalisation and the abnormal returns.
Year of issue – This factor is included to account for the possibility that differences in the economic environment surrounding the issue play a role in the amount of underpricing.
Volume of SEOs in the issue year – While year of issue is taken more as a 'raw' reflection on the conditions affecting the offering, volume of SEOs proxies specifically for a particular aspect of these conditions – the level of market optimism. These arguments are tested in the following null hypotheses:
4a:*The extent of SEO underperformance is not a function of age.*

4b:*The extent of SEO underperformance is not a function of beta.*

4c:*The extent of SEO underperformance is not a function of market capitalisation.*

4d: *The extent of SEO underperformance is not a function of the chronological attribute of the issue.*

4e: *The extent of SEO underperformance is not a function of volume of seasoned equity offerings in the year of issue.*

We might expect the above variables to proxy for risk or informational uncertainty which could impact on performance.

The raw sample consists of 137 seasoned equity offerings made in Australia between January 1984 and October 1993. The period was chosen so as to permit at least five years of price data for each SEO company in the sample (leading up to 1998). The SEOs met the following criteria: (1) the company is listed on the Australian Stock Exchange and recorded in the DataStream Database at the time of the issue, (2) the offer must be a cash offer for common stock, (3) the book value of assets at the end of the fiscal year of issuing must be at least $5 million in terms of the 1990 purchasing power and (4) the company undertaking the SEO is not a financial company or a regulated utility.

Furthermore, during the stages of our study where we examine no more than five years of issuers' performance we remove all issues by the same company made within five years after the SEO to avoid a period overlap bias. Thus, when a company made a seasoned equity issue, that company cannot re-enter the sample until five years after the offer date. This causes the deletion of 35 SEOs from the sample, leaving a total of 102 issues made by 94 companies. Finally, for the analysis of the long run performance it was necessary to extend the time frame back to October 1986 instead of 1993. This reduced the sample to 26 SEOs. During this period 5 of the companies had multiple issues, so further deletions produced a clean sample of 21 firms. It is also important to note that although each of these companies did have continuous data for the ensuing 12 – year period, this was not a precondition in the selection process, and as such survivorship bias has not been introduced.

Choice of Performance Benchmarks
We chose three alternative benchmarks: (1) a size-matched sample of non-issuing firms, (2) an industry-and-size-matched sample of non-issuing firms and (3) a market index benchmark Finally, the market index benchmark was established by pairing the performance of each issuer with the performance of the All Ordinaries Index over the corresponding time. Initial (or opening) return is calculated over the first trading day on which the seasoned equity was issued. Post-issue returns are computed during the period following the offer date, ie excluding the first day. Three separate time frames are defined:

1. *Short term* – Defined as 3 years following the offer date. This period is selected to permit examination of the "critical underperformance period", proposed by Loughran and Ritter (1997) to occur
2. Medium term – Defined as 5 years following the offer date.
3. Long term – Defined as 12 years following the offer date.

3. PERFORMANCE MEASUREMENT
We use Cumulative Abnormal Returns (CAR) method to measure the performance of firms issuing seasoned equity. Raw daily returns for issuers and non-issuers are first calculated as:

$$r_{ISS,t} = \frac{P_{ISS,t}}{P_{ISS,t-1}} - 1 \qquad r_{BM,t} = \frac{P_{BM,t}}{P_{BM,t-1}} - 1$$

$$r_{AOI,t} = \frac{AOI_t}{AOI_{t-1}} - 1$$

where $P_{ISS,t}$ = closing price of the SEO firm on day t (dividends are included where appropriate)

$P_{BM,t}$ = closing price of the benchmark non-issuing firm on day t

AOI_t = closing value of the All Ordinaries Index on day t

The abnormal return is then calculated as the raw return from the issuing firm minus the return on the

corresponding non-issuer or the All Ordinaries Index. Hence

$$ar_{i,t} = r_{ISS,t} - r_{BM,t} \qquad ar_{i,t} = r_{ISS,t} - r_{AOI,t}$$

where $r_{ISS,t}$ = Raw return for SEO on day *t*

$r_{BM,t}$ = Raw return for non-issuer benchmark firm on day *t*

$r_{AOI,t}$ = Raw return for All Ordinaries Index on day *t*

Next, the average abnormal return for the day t across all SEOs is calculated as the equally weighted arithmetic average of the individual abnormal returns:

$$AR_t = \left(\frac{1}{n}\right)\sum_{i=1}^{n} ar_{i,t}$$

where n = number of SEOs in the sample

Finally, the CAR from the first day after the offering until day t is calculated as the sum of the daily average abnormal returns until t. Hence

$$CAR_t = \sum_{d=1}^{t} AR_d$$

To test for the significance of the resulting cumulative abnormal return we use a modified t-statistic that also accounts for the auto-covariance that may exist in the time series:

$$t(CAR_t) = \frac{CAR_t \cdot \sqrt{n}}{\sqrt{t \cdot \text{var} + 2 \cdot (t-1) \cdot \text{cov}}}$$

where var = average cross-sectional variance over the measurement period

cov = first-order autocovariance of the AR_t series

We follow Conrad and Kaul (1993) and define holding-period return as an alternative returns measure:

$$HPR_{i,a:b} = \left[\prod_{t=a}^{b} (1 + R_{i,t})\right] - 1$$

where $R_{i,t}$ = Raw return of firm *i* on day *t*

a = Beginning of the holding period

b = End of the holding period

The above formula will be used to measure "the total returns from a buy and hold strategy in which a stock is purchased at the first closing market price after listing" (a=1) and held for the subsequent short-term (b=3×252=756), medium term (b=5×252=1260) and long term (b=12×252=3024) period. In the 'cross-sectional analysis' we regress the returns of SEOs (dependent variable) on a number of controlling factors (independent variables):

$$CAR_i = \alpha_i + \beta_i \Omega_i + \varepsilon_i \text{ (univariate)}$$

$$CAR_i = \alpha_i + \beta_{1,i}\Omega_{1,i} + \beta_{2,i}\Omega_{2,i} + \ldots + \beta_{n,i}\Omega_{n,i} + \varepsilon_i \text{ (multivariate)}$$

where CAR_i = Cumulative abnormal return of SEO *i* for a five year period

Ω_i = Control variable whose effect on SEO performance is being measured

α_i, β_i = Regression coefficients

ε_i = Regression error terms

i. *Age (2 VARIABLES)*

INAGE Number of years from the time of SEO firm's incorporation in Australia. This variable will look at the impact of issuing firm's maturity (as proxied by its effective life) on the extent of underperformance.

PUBAGE Number of years from the time of SEO firm's listing on an organised stock exchange in Australia. Through this variable we examine the impact of time during which the SEO is 'in the public eye', on the post-issue performance.

ii. *Company Beta (1 VARIABLE)*

BETA This variable will be used to test the adequacy of our benchmark in controlling for the effect of firm's risk as measured by the variability of its returns relative to the market.

iii. *Market Capitalization (1 VARIABLE)*

EQUITY This variable proxies for the firm size and is calculated as the market value of the firm expressed in 1990 dollars:

$$EQUITY = \ln(MV_{adj})$$

iv. *Year of Issue (1 VARIABLE)*

ISSYR The year in which each issue is made.

Volume of SEOs in the issue year (2 VARIABLES)

To account for the possibility of either the overall climate, or the climate specific to sample firms impacting on their post-issue performance, we have used two variables for this factor:

TOTVOL Measure of the effect of total annual volume of SEOs on the issuing firm's performance. Calculated as

$$TOTVOL = \ln(1 + \Psi_{TOT})$$

SAMPVOL Measure of the effect of sample annual volume of SEOs on the issuing firm's performance. Calculated as

$$SAMPVOL = \ln(1 + \Psi_{SAMP})$$

The final element is to investigate the impact of initial underpricing on the subsequent performance

of the issuer. The initial underpricing will be defined as $R_i = \Re_i - R_{AOI}$, with raw return ($\Re_i$) estimated using four methods:

CORERT It calculates how deeply was each new share in the offer discounted with respect to the closing price on the day of the issue.

$$CORERT = \left(\frac{P_0}{IP}\right) - 1$$

whereP_0 = Closing price on the day of the issue (t=0)

IP = Subscription price for each new share in the SEO

ABSRT Compares the closing price at the offer date with the closing price on the day just prior to the issue, thus incorporating everything from the effect of equity addition to the reaction by the market.

$$ABSRT = \left(\frac{P_0}{P_{-1}}\right) - 1$$

DILRT Similar to CORERT, but also takes into account the proportion of new equity issued with respect to the equity in place prior to the offer thus reflecting on the dilution effect of new shares.

$$DILRT = \left(\frac{(\eta + 1) \times P_0}{\eta \times P_o + IP}\right) - 1$$

whereη = Ratio at which new equity is issued.

TOTRT A holding period return for an investor who acquires the necessary number of shares (η) on the last day before the SEO, exercises the right to buy the extra equity, and sells it at the close of the day of the issue.

$$TOTRT = \left(\frac{(\eta + 1) \times P_0}{\eta \times P_{-1} + IP}\right) - 1$$

As before, each of the market-adjusted definitions of the initial returns will be regressed on the three – year and five – year CARs of the issuers. For all analyses, *t-statistic* and *p-value* will be used to assess the significance of regression results.

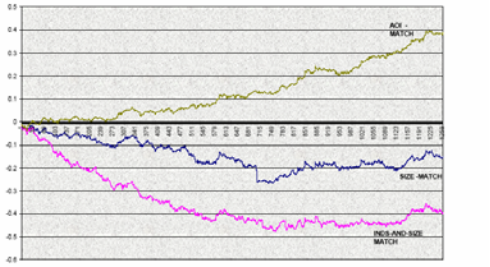
4. RESULTS

Table 1 and Figure 1 show the long-run performance of SEOs. The size-match-adjusted returns produce CARs of -26.07% significant at a 5% level at the end of the third year. When we extend the view to the medium term, the underperformance of the SEOs largely subsides resulting in a CAR of just -15.03% at the end of the fifth year. When we take industry-and-size matched non-issuers as the benchmark, the underperformance of the issuers becomes more marked. The CAR is significantly negative for each of the five post-issue years reaching -47.71%, which is significant at a 1% level. Similar to the size-match-adjusted returns, underperformance is not evident during years four and five and the CAR reaches -39.46% significant at a 5% level by the end of medium term.

FIGURE 1

Five-Year Performance of Firms Issuing Seasoned Equity

This figure maps the cumulative daily abnormal returns for the 102 SEOs detailed in Table 2 over the five-year period (ie 5years x 12 months x 21days = 1260 trading days). The CARs under different benchmarks are shown. With the exception of AOI-based excess returns, the performance characteristics are largely parallel. AOI benchmark was subject to further investigation based on pre- and post- October 1987 crash data (viz Figure 2).



In sum, therefore, results reject *Hypothesis 1a* – firms issuing seasoned equity do under-perform with respect to corresponding non-issuers.

A twelve-year SEO performance window is observed to establish whether the above underperformance is a persistent phenomenon. Our results summarized in Table 2 and Figure 2 are quite remarkable, despite the expected drop-off in significance levels due to the smaller number of SEOs in the sample. The CAR is significantly negative in both cases during the first year, peaking in year three at -22.52% significant at a 5% level, which is consistent with -26.07% for the short-term sample, also significant at a 5% level. Underperformance then subsides in both cases during fourth and fifth year following the issue. Strikingly, however, the performance continues to improve further during years six and seven. The CAR crosses into positive territory in the first quarter of year 6 recording a significantly positive 15.29% by the end of the year. It then proceeds to peak at +28.9% in the middle of the seventh year before starting its decline, reaching zero once again in the last quarter of year eight.

The results from a regression of the three year cumulative abnormal returns on the seven control variables (not reported and available on request from the authors), concur with our predictions. The company age factors, *INAGE* and *PUBAGE* are both positive implying a negative relationship between a firm's maturity and the extent of the underpricing. Whilst the time since listing (*PUBAGE*) does not seem to play a major role in the abnormal returns, the amount of time since a company's incorporation (*INAGE*) is statistically significant for all benchmarks. In sum the results reject *Hypotheses 4a* and *4b* – the extent of underperformance is a function of age, when age is

expressed as the amount of time since incorporation and is related to company beta. We cannot reject *Hypotheses 4c* and *4d*, finding the extent of underperformance to be neither a function of market capitalisation nor the chronological year of issue. The results do, however, reject *Hypothesis 4e* suggesting that the extent of underperformance is related to the volume of SEOs issued in the corresponding year, but only when market performance is used as a benchmark. *Hypothesis 4e* is not rejected for other benchmarks.

5. CONCLUSION.

Our results show that the general conclusions of many writers accusing firms issuing seasoned equity of long run underperformance is dependent on the definition of the 'long run'. When long run is defined as twelve years instead of the usual five years, SEOs can be clearly seen to turn around their performance particularly during years six and seven. A series of regression results point to a number of factors that bear influence on the extent of the initial underperformance. Decreased ex-ante uncertainty associated with older firms causes a negative relationship between the age and the extent of underpricing. Moreover, the greater is the SEO cost specifically associated with underpricing of the new equity, the greater will be the underperformance that follows the issue. Finally, the greater is the risk of the issuer as proxied by its beta, the more compensation will investors require for taking on new shares, and hence the smaller will be the subsequent loss of performance.

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TABLE I

Short and Medium Term Performance of SEOs measured against the i) size-matched non-issuers, ii) industry-and-size matched non-issuers and the iii) market-index benchmarks over the January 1984 to October 1993 period.

The table reports the excess returns of issuers calculated under the three benchmarks for a period of *five* years since issuing. The data cover 102 seasoned equity offerings from January 1984 to October 1993. The y(CAR_t) column shows the cumulative abnormal return of daily abnormal returns specifically for the one year shown in the Years Since Seasoning column. The CAR_t shows the cumulative abnormal return of all daily abnormal returns since the date of seasoned equity issue. The corresponding calculations have been defined by equations:

$$CAR_t = \sum_{d=1}^{t}\left(\left[\frac{1}{n}\sum_{i=1}^{n}\left(r_{issue,d} - r_{bm(i),d}\right)\right]\right) \qquad y(CAR_t) = \sum_{d=1}^{t}\left(\left[\frac{1}{n}\sum_{i=1}^{n}\left(r_{issue,d} - r_{bm(i),d}\right)\right]\right)$$

It should be noted that, for clarity, subscript t in the above equations refers to the year in the 'Years Since Seasoning' column. Mathematically, however, each such year comprises of 252 trading days whose returns ($r_{i,day}$) are actually used in the computations. The significance levels (presented in brackets) have been calculated based on the following t-statistic formula (where t refers to the specific time frame covered by CAR_t or $yCAR_t$):

$$t(CAR_t) = \frac{CAR_t \cdot \sqrt{n}}{\sqrt{t \cdot \text{var} + 2 \cdot (t-1) \cdot \text{cov}}}$$

The added benefit of this t-statistic definition is its ability to account for series autocorrelation when reporting significance level.

	Size matched		Ind and Size matched		AOI matched	
Years since SEO	y(CAR_t) [%]	CAR_t [%]	y(CAR_t) [%]	CAR_t [%]	y(CAR_t) [%]	CAR_t [%]
1	-10.02*	-10.02*	-25.21***	-25.21***	0.36	0.36
	(-1.41)	(-1.41)	(-3.25)	(-3.25)	(0.07)	(0.07)
2	-4.25	-14.27*	-14.01	-39.22***	6.05	6.41
	(-0.42)	(-1.42)	(-1.28)	(-3.58)	(0.81)	(0.85)
3	-11.80	-26.07**	-8.49	-47.71***	6.34	12.75*
	(-0.96)	(-2.12)	(-0.63)	(-3.55)	(0.70)	(1.39)
4	6.20	-19.88*	3.24	-44.47***	10.65	23.40**
	(0.44)	(-1.40)	(0.21)	(-2.87)	(1.00)	(2.20)
5	4.85	-15.03	5.01	-39.46**	15.45*	38.85***
	(0.31)	(-0.95)	(0.29)	(-2.28)	(1.30)	(3.27)

* Significant at 10% level

** Significant at 5% level

*** Significant at 1% level

TABLE 2

Long-Term Performance of SEOs measured against the i) size-matched non-issuers, ii) industry-and-size matched non-issuers and the iii) market-index benchmarks over the January 1984 to October 1996 period.

The table reports the excess returns of issuers calculated under the three benchmarks for a period of *twelve* years since issuing. The data cover 21 seasoned equity offerings from January 1984 to October 1986. The y(CAR_t) column shows the cumulative abnormal return of daily abnormal returns specifically for the one year shown in the 'Years Since Seasoning' column. The CAR_t shows the cumulative abnormal return of all daily abnormal returns since the date of seasoned equity issue. The mathematical expressions for each of these measures, as well as the corresponding t-statistic, are identical to those defined in Table II, above.

	Size matched		Ind and Size matched		AOI matched	
Years since SEO	y(CAR_t) [%]	CAR_t [%]	y(CAR_t) [%]	CAR_t [%]	y(CAR_t) [%]	CAR_t [%]
1	-20.96*	-20.96*	-24.05*	-24.05*	-16.41*	-16.41*
	(-1.54)	(-1.54)	(-1.46)	(-1.46)	(-1.37)	(-1.37)
2	3.02	-17.95	-22.43*	-46.48**	14.65	-1.76
	(0.22)	(-0.93)	(-1.36)	(-2.00)	(1.22)	(-0.10)
3	-4.58	-22.52*	-13.62	-60.10**	4.74	2.98
	(-0.34)	(-1.29)	(-0.83)	(-2.11)	(0.40)	(0.14)
4	-1.03	-23.56*	-4.72	-64.83**	7.16	10.14
	(-0.08)	(-1.31)	(-0.29)	(-1.97)	(0.60)	(0.42)
5	22.84**	-0.72	12.08*	-52.75*	15.20	25.34
	(1.68)	(-0.02)	(1.22)	(-1.43)	(1.27)	(0.95)
6	16.01*	15.29*	1.16	-51.59*	19.74*	45.08*
	(1.28)	(1.26)	(0.07)	(-1.28)	(1.64)	(1.54)
7	-1.73	13.55*	19.82*	-31.77	19.11*	64.19**
	(-0.13)	(1.21)	(1.46)	(-0.73)	(1.60)	(2.03)
8	-19.84*	-6.29	-12.98*	-44.75	-3.39	60.80**
	(-1.46)	(-0.16)	(-1.22)	(-0.96)	(-0.28)	(1.80)
9	-4.69	-10.98	-0.50	-45.24	7.96	68.76**
	(-0.35)	(-0.27)	(-0.03)	(-0.92)	(0.66)	(1.91)
10	5.93	-5.05	-1.44	-46.68	3.32	72.08**
	(0.44)	(-0.12)	(-0.09)	(-0.90)	(0.28)	(1.90)
11	0.29	-4.76	-1.56	-48.24	6.19	78.27**
	(0.02)	(-0.11)	(-0.10)	(-0.88)	(0.52)	(1.97)
12	8.05	3.29	7.65	-40.59	6.61	84.88**
	(0.59)	(0.07)	(0.47)	(-0.71)	(0.55)	(2.05)

* Significant at 10% level

** Significant at 5% level

*** Significant at 1% level

FIGURE 2

Long Run Performance of Firms Issuing Seasoned Equity

This figure maps the cumulative daily abnormal returns for the 21 SEOs detailed in Table III over the twelve-year period (i.e. 12 years x 12 months x 21days = 3024 trading days). The CARs under different benchmarks are shown. The chart of excess returns against size-matched benchmarks shows a reversal in the performance of the issuing companies gradually more than making up for the initial losses. As the competition eventually catches up, however, this performance edge is then eroded with issuers' cumulative returns at the end of the period matching those of non-issuers. These characteristics are mirrored in data measured against the other benchmarks, albeit finishing with either positive or negative CARs. Overall data have a strong average tendency towards matched performance over the real 'long-run'.