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Why Issue Equity Abroad? The Experience of Small Country Companies

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WHY ISSUE EQUITY ABROAD? THE EXPERIENCE OF SMALL COUNTRY COMPANIES

by

Karl-Markus Modén and Lars Oxelheim

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Why issue equity abroad? The experience of small country companies.

Abstract

- The increased activity on both domestic and foreign capital markets observed during the 1980s raises the research question addressed in this article: What are the significant differences in raising capital abroad as compared to at home? And, have these differences vanished with deregulation?
- Based on an event study, the domestic stock price reactions in the Nordic, and particularly the Swedish, stock markets to the announcement of equity issues on foreign stock markets are analyzed and compared to those of domestic equity issues.

Key Results

- The event study shows price responses to announcements of foreign equity issues substantially different from those of domestic equity issues. For the period as a whole, separate announcements of foreign equity issues by Swedish companies resulted in a share price increase of 7 percent whereas announcements of domestic issues were met by a decrease of almost the same size. However, for *very* large companies the response to foreign issues became more similar — both negative — as the deregulation process matured. Medium-sized and large companies should still consider to invest in global recognition to reap the benefits of a successful foreign equity issue.

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1 Introduction

For most of this century, the Nordic equity markets, like equity markets in most small countries, were all parts of isolated national capital markets characterized by low liquidity and low volumes of both trade and new capital raised. In short, due to extensive regulation, they could not fully function as marketplaces for the trade in risk, and could not adequately perform their role as allocators of capital to their best uses. In the first part of the 1980s the situation started to change in all the Nordic countries. Internal and external deregulation was initiated and foreign financial capital gradually became more interested in the small markets of these countries.

In the Nordic equity markets, issuing activity began to increase in the mid-1980s. Figures 1 and 2 provide a historical perspective on the increase using Sweden as an illustration. Figure 1 shows the volume of new equity issues on the Swedish stock exchange between 1915 and 1992 in real terms (in fixed 1979 SEK). Except for the booming interest in new issues in the period immediately preceding the crash of 1929, for the whole period 1915-92 there is nothing similar to the high issuing activity during 1985-92. However, as Figure 2 shows, the relative importance of stock markets as suppliers (equity issues in percent of GDP) of new capital increased only slightly during that period. Considering changes in relative importance, one may fruitfully divide the observation period into three parts: 1915-1929, 1930-1979 and 1980-1992. The average yearly equity issues (in percent of GDP) for these periods were: 1.13%, 0.17% and 0.39%, respectively. Although the relative measure for the last period is far below that of the first, it still indicates a significant increase compared to the middle period which was characterized by heavy regulation.

The recent revival of issuing activity in Sweden followed a period of deregulation. As a first step in this deregulative process it became possible for domestic companies to go abroad with equity issues, and subsequently the restrictions on foreign ownership of Swedish stocks were lifted, allowing capital to flow freely into the country.

For the Nordic region as a whole the deregulative process matured in the mid-1980s. Figures 1 and 2 do also support a division of the period 1980-1992 into two parts, 1980-85 and 1986-92. In the case of Sweden, such a division shows that the average yearly equity issues increased between the two periods from 0.17% (of GDP) to 0.56%. Similar patterns can be found for the other Nordic countries for the same two sub-periods. For example, average equity issues in Denmark went from 0.33% to 1.07% (of GDP), in Finland from 0.38% to 0.95%, and in Norway from 0.42% to 0.55%.

In the early 1980s, concurrent with the revival of the Nordic stock markets as sources of new risk capital, large companies in these countries started to go abroad to tap

foreign sources of capital as well. The increased activity on foreign capital markets raises interesting questions: Why did this latter development take place just as the functioning of local capital markets started to improve? Is, or was, there some significant difference in raising capital abroad as compared to at home? And, if so, has this difference disappeared with deregulation?

To answer these questions we study the price reaction on the domestic stock markets to the announcement of equity issues abroad by Nordic companies. Our hypothesis is that the stock price reaction to such an announcement should differ depending on whether the issuing company was previously traded on a segmented capital market only, or if it was traded on a stock market that is integrated with the rest of the world. The main focus will be on the Swedish experience, the reason for this being the size distribution of firms. The greater number of large firms in Sweden compared to the other Nordic countries explains a higher incidence of Swedish equity issues on foreign capital markets. Although high in comparison to the number of international issues undertaken by firms from the other Nordic countries, the total number of Swedish equity issues on foreign markets is still only 30 and hence just at the borderline of a number that, in case of a "super-population" assumption, permits statistical tests of differences in price reactions before and after integration. In fact, the total number of issues in the other Nordic countries is so small that only tests based on pooled data can be used.

This article begins with a discussion in Section 2 of the reasons why companies make international equity issues, given their right to do so. A brief description of the history of capital controls in Sweden is given, as well as of the international equity issues undertaken by Swedish companies. In Section 3 the basics of the so-called event study methodology are described. Section 4 contains an empirical application of the methodology focusing on the price reaction following the announcement of Swedish domestic and international equity issues. In Section 5 the focus is on the question of whether there is any discernable difference in the price responses to the announcement of international equity issues between periods designated as pre- and post-integration. Based on the assumption that such a change would be best reflected by the reaction to announcement by the largest (and most internationalized) companies in the two periods, we here pool the largest Swedish international equity issues with the largest international issues by companies from each of the other Nordic countries. Section 6 provides concluding remarks.

Figure 1: Equity issues on the Stockholm stock exchange in fixed prices (1979 SEK), 1915-1992.

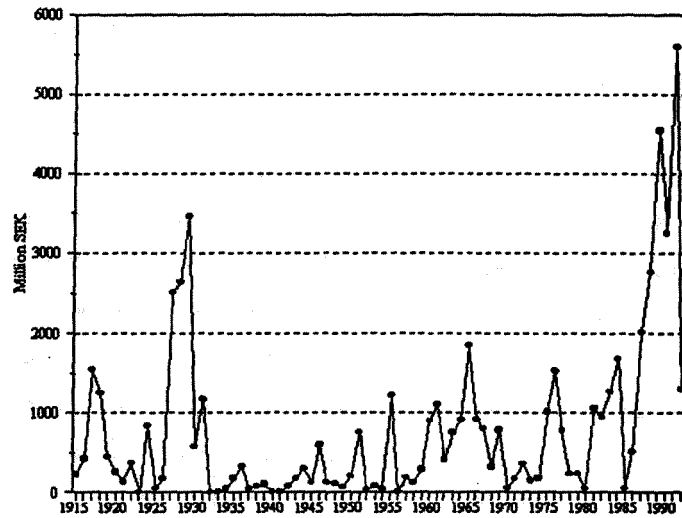
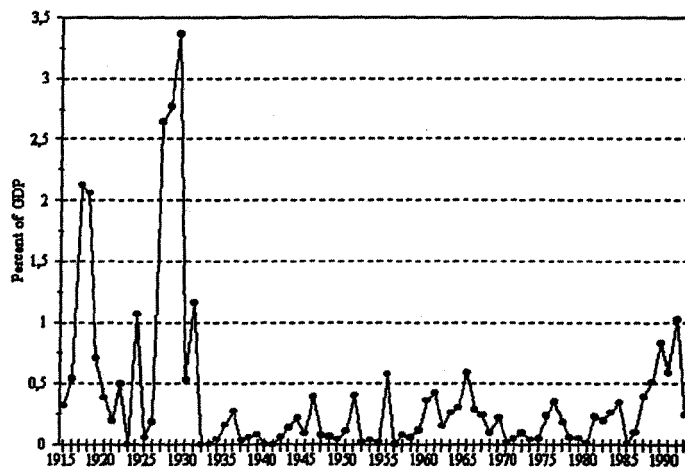


Figure 2: Equity issues on the Stockholm stock exchange in percent of GDP, 1915-1992.



2 Price Reactions to International versus Domestic Equity Issues

2.1 Research approaches

Studies of reactions of the domestic share price to the announcement of an international public offer have been fairly scarce. The case of Novo, described in Stonehill & Dullum (1982), constitutes the pilot study in which a strong positive reaction was found. Novo belongs to the pharmaceutical sector which at the beginning of the 1980s was experiencing a very low price/earnings (P/E) ratio in Denmark as compared to corresponding ratios on the US stock markets. This gap was a result of a "thin" Danish market and of the extensive capital controls and regulations imposed on Danish corporations and investors at that time. Novo found a public offer to be an appropriate way of circumventing the regulations and escaping the illiquid Danish market in order to benefit from the higher US P/E-ratios (lower cost of capital). Eventually Novo managed to make a public issue on the US market. The higher US P/E-ratio meant an increase in Novo's US share price, which was transmitted to the Danish market.

2.1.1 Other studies

Much of the previous research has focused on the effects of domestic public offers on share prices.¹ Using the event study methodology discussed in Section 3, the results convincingly point to a negative reaction, i.e., a decrease in share prices at the time the intention of the public offer is announced. Several explanations for this phenomenon are possible, but the logically and empirically most satisfying ones are built in the principal-agent framework.

If there is asymmetric information between managers and investors, the latter interpret an equity issue as a signal about the true value of the firm's equity, a fact that is known only to the management. The signal may be interpreted as reflecting either good or bad news. For example, it may be interpreted as good news if managers are assumed to have upgraded their assessment of the future prospects of the firm, deciding to start new investment projects on such a big scale that the internally generated cash flow is not sufficient and debt finance will result in a too high overall debt-equity ratio. In this case, investors may value the firm correctly given the available information, but the new information that management just recently received, and which is not yet available to

¹See among others: Asquith (1986), Hess & Frost (1982), Myers & Majluf (1984), Krasker (1986), Noe (1988), Scholes (1972), Shleifer (1986), Smith (1986), Stulz (1995). For an extensive review see Harris & Raviv (1991).

the general investor, calls for an increase in the stock market value.

Alternatively, the issue signals bad news to the investors, the timing of the issue being a signal that management finds investors overvaluing the firm's stock, and therefore seizes the opportunity to raise funds "cheaply." If investors are rational they will interpret the announcement of an issue as a confirmation that the firm's stock is indeed overvalued, and the price will drop. It is quite intuitive to assume that management knows about the risk of a drop in price after an issue. Hence, management may try to neutralize the price-drop effect by coordinating the timing of the announcement of the issue with the announcement of some good news. In actual practice, new equity issues are often announced together with yearly or quarterly earnings reports. To ensure a strong neutralizing effect, other significant announcements, such as major new investment plans or acquisitions, are often made on the same occasion.

Most empirical studies provide support for a negative reaction to the announcement of domestic equity issues. Several characteristics of the negative reaction have been reported. For example, Krasker (1986), studied the relationship between the size of the equity issue and the price reaction, and found that the larger the stock issue, the worse the signal and hence the subsequent fall in the stock price. Another interesting result for our purposes is the finding (Lucas & McDonald 1990) that equity issues will tend to cluster after the release of annual reports and earnings announcements, and the stock price drop will be negatively related to the time between the release and the issue announcement. Other studies have also found that, in general, the price drop will be larger, the larger the informational asymmetry (Korajczyk, Lucas & McDonald 1990).

Research on purely domestic equity issues has tapered off recently and, as we mentioned above, a consensus about a negative price reaction has developed. For the US case a consensus estimate is a negative price reaction at the announcement date of -2.75% (Stulz 1995). Results from an earlier study of Sweden point toward a similar reaction (Claesson 1987).

Recent interest in the information revealed in stock price reactions has turned more towards the domestic price response to the announcement of a listing on a foreign stock exchange. This research is related to ours since it asks the question about the type of signal a company sends with such an announcement. The evidence is mixed regarding the valuation effect of the listing decisions; however, there is a weak tendency toward a positive effect (Marr, Trimble & Varma 1991).

Segmentation of capital markets generally has a depressing effect on security prices (Marr, Trimble & Varma 1991). Corporations may seek mitigating policies that increase the diversification opportunities available to foreign investors. Such policies may embrace

Table 1: Ranking of arguments for undertaking a foreign equity issue.

Motive:	Phar- macia	Cardo	Pers- torp	Alfa Laval	Eric- son	Gam- bro	Volvo	Sones- son	AGA	PLM	Phar- macia	PLM	Bilspe- dition	Bilspe- dition	Elect- rolux	Skåne- Gripen	Ellos	Pers- torp	Atlas Copco	Gam- bro	Secu- ritas	Front- line	Sve- dala	Arjo	
	1981	1982	1982	1983	1983	1983	1983	1983	1983	1983	1983	1984	1985	1985	1986	1986	1987	1988	1990	1990	1991	1993	1993	1993	
Marketing	1	2			2	2		2	1	1	1	1	1	1		1	1	1						3	2
Limited domestic supply		1				1	1	1												1	1			1	
Preferential Price Difference	3			1												2									1
Legal Restrictions			1	2			3						3	3	1										
Diversification	2				1		2		2				2	2		1					2				
To satisfy foreign demand of shares										2												1	1	2	
The issue caused by an imminent funding need	No	No	Yes	No	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes

Sources: Annual reports and interviews.

Note: (1) is the most important argument for a foreign equity issue, (2) the second most important argument, etc.

Table 2: Companies issuing equity on foreign stock markets, 1981-1993.

Company	Date	ISIC-code	Relative size	Issue-size	Market-value	D1	D2
Fortia	81:08	352	0.311	583	1,877	1	0
Cardo	82:09	MF	0.072	227	3,152	1	0
Ericsson	83:02	383	0.146	2,906	19,869	0	1
Gambro*	83:02						
Perstorp	83:03	351	0.055	102	1,850	1	0
Volvo	83:04	384	0.021	491	22,793	0	1
PLM	83:04	381	0.029	52	1,773	0	0
Alfa Laval	83:04	381	0.066	441	6,704	1	1
Sonesson	83:05	371	0.121	331	2,746	1	0
Pharmacia	83:09	352	0.056	585	10,338	1	1
AGA	83:10	351	0.084	435	5,169	1	1
Skåne Gripen	84:02	MF	0.033	54	1,627	1	0
PLM	84:02	381	0.046	75	1,623	0	0
Volvo**	84:02						
Fermenta**	84:04						
Esab**	85:01						
Fermenta**	85:01						
IDK Data**	85:01						
Fermenta**	85:02						
Bilspedition	85:03	719	0.090	108	1,200	0	0
Electrolux	86:04	381	0.125	2,918	23,357	0	1
Skåne Gripen	86:05	MF	0.090	142	1,575	1	1
Ellos	87:01	623	0.043	52	1,226	0	0
Perstorp	88:12	351	0.050	273	5,458	1	1
Atlas Copco	90:03	381	0.138	1,203	8,700	1	1
Gambro	90:03	382	0.173	583	3,375	0	1
Securitas*	91:12						
Frontline	93:07	712	0.525	378	720	1	0
Svedala	93:03	382	0.138	405	2,923	0	0
Sintercast	93:11	371	0.186	48	256	1	0

Note: Relative size = "Issue size"/"Market value" (all values are in current SEK); MF = mutual fund; D1 = 1 if the equity announcement was made separate from other significant news (0 otherwise); D2 = 1 if the issuing company was listed on a foreign stock exchange prior to the issue (0 otherwise).

* excluded since it was not previously listed on the Stockholm stock exchange.

** excluded since the equity issue was directed toward private investors in exchange for the whole, or part, of stock of shares of another company.

incentives to seek dual (or multiple) listings. Benefits may accrue both directly to investors and directly to the company (and hence indirectly to investors). Investors may benefit for several reasons, involving lower transaction costs, reduced currency risk, better information (if more financial information is disclosed), and lower monitoring costs (Stonehill & Dullum 1982, Marr, Trimble & Varma 1991). Benefits to the company include a larger pool of capital to tap and a higher visibility in general, which may have positive marketing effects. All of these effects would imply that a positive price response is to be expected to follow the announcement of a decision to use dual listings as a way of reducing obstacles for foreign investors to holding a company's stock in a period of segmentation.

It should be emphasized here that a listing abroad may be done without doing a new equity issue at the same time. What benefits can then be reaped by having an issue in addition to the listing. In principle most benefits accrue already through the listing. In Table 1 we present some arguments for making an issue abroad as they appear in annual reports of Swedish companies involved in such issues. The ranking of the arguments is, in addition to what has been found in the annual reports, based on interviews with relevant decision-makers in these companies. As is found in Table 2, some of the companies were listed prior to the time of the international equity offer; others were not. It is apparent that the marketing reason is regarded as important in many cases. In case a company is already listed, the marketing effect is probably enhanced if the company's shares are regularly traded on the foreign stock market. Consequently, a issue directed to foreign investors (to the general market or to a limited set of large investors) may contribute to the marketing effect by fuelling the liquidity of the share (financial marketing) or by highlighting the company name in local and international media (commercial marketing).

2.1.2 The present study

We now focus on the hypothesis that in a financially integrated world, the stock market reaction to the announcement of a planned public offer on an international market should be similar to the reaction on the domestic market to the same kind of news. Due to problems in capturing the expectational dimension, measuring stock market integration has long been a tricky issue. Few studies have focused on the change in price reaction during the transition of an equity market from being a small segmented market to an integrated part of the global equity market. Hence, this article may open up an avenue for analyzing this type of integration. We use an event study technique to analyze the size effects at the announcement day. A general data problem in the analysis is that the announcement of the public offer often takes place together with the announcement of

other information that may influence the share price. Hence, the effects from the public offer announcement have to be filtered out from the effects of other information in a press release. Another problem is that of self-selection in the sample, which may bias the statistical tests.

In order to prove the usefulness of the domestic market response as an indicator of equity market integration, we analyze in Section 4.2 the reaction of the Swedish stock markets to international equity issues for the period 1981-1993. This period is split into two subperiods, one which we have *à priori* reasons to believe can be characterized as more "segmented" (less integrated), and one where the domestic market is more "integrated" (less segmented). In Section 2.2 we argue, based on the history of Swedish regulation of international security trade, that the official dismantling of the existing capital controls in July 1989 was merely an acknowledgement of a *de facto* liberalization that had made capital controls inefficient a long time prior to that date. This conclusion finds additional support in a study of Nordic credit market integration by Oxelheim (1996). The conclusion in that study is that by 1982 the capital controls in all the Nordic countries had, from a general capital flow point of view, become ineffective. However, some restrictions remained as regards equity issues and transactions, which motivate us in the case of equity markets to set 1986 as an adequate line of demarcation. In our empirical study we thus designate the 1981-86 period as the "pre-integration" period, and 1987-93 as the "post-integration" period.

As was previously mentioned, we focus on Sweden because the industrial structure there is biased toward capital intensive sectors and it is dominated by a few very large companies which are more likely to have a lot to gain from international equity issues. However, when we turn to our study of the pre- and post-integration reaction we will pool a collection of Nordic events in order to get an as big as possible large-company sample. This study is described in Section 5.

2.2 The Swedish Controls on International Trade in Securities

Swedish companies have been traded on foreign stock markets since the 1920s. Among those early traded companies we find Alfa Laval, Electrolux, and Swedish Match. These companies also issued new equity directed toward foreign investors concurrently with their introduction abroad. This early episode came to an abrupt halt at the time of the stock market crash of 1929. The depression following the crash implied that the demand for new capital was very low, and by the time the demand might have picked up, the outbreak of World War II led to the institution of extensive capital controls in 1939. These controls made it illegal to sell Swedish securities to foreigners, as well as for

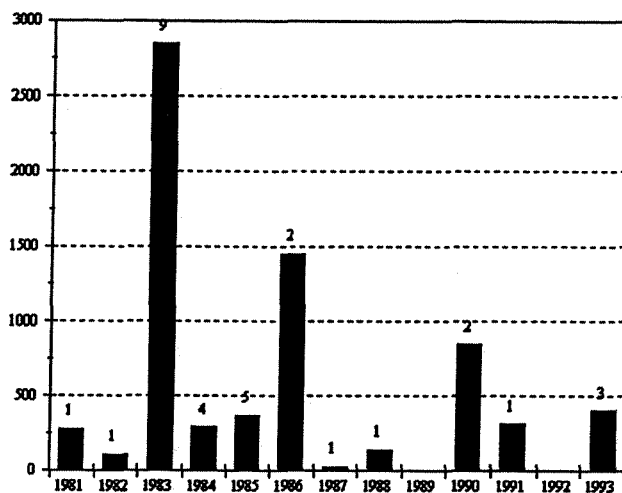
Swedes to buy foreign securities. A couple of exceptions applied. For example, Swedish and foreign securities which were in foreign and Swedish hands, respectively, in 1939, could be sold. This gave the seller a so-called "switch right," which was a right to buy a foreign security. The switch rights were themselves tradeable. During the 1970s the capital controls on security trading started to be loosened somewhat. In 1974 Volvo was granted permission to export shares of common stocks abroad; between 1975 and 1981 half a dozen additional companies received such export permits (see Stjernborg 1987). However, no companies issued new equity abroad, but rather created markets with existing stocks on foreign exchanges. As we will show below, export activity took off in earnest after 1982, with companies being granted permission to export shares on a routine basis (as long as they were listed on the stock exchange). A further liberalization was undertaken in 1986 when the Central Bank officially stated that permission to export shares would "normally" be given to all officially listed stocks, OTC-stocks, and in certain circumstances for other stocks as well. In 1989 the remainder of this regulation was abandoned.

2.3 Swedish Equity Issues Abroad

When Swedish companies began to approach foreign equity markets, it was not done through floatation of new equity, as was pointed out above. A major break in this pattern took place in 1981 when Fortia/Pharmacia was introduced on the NASDAQ market in the US, together with a large (compared to the size of its market capitalization) issue of new shares. Over the period 1981-1993 a total of 30 issues directed to foreign investors were offered by Swedish companies. The time profile is illustrated in Figure 3. It is clear from this picture that it was a strong initial effect in 1983. However, apart from one major issue in 1986, activity has been moderate thereafter.² A complete list of the issuing companies is given in Table 2, together with the date and issue size, market value of the company and the industry in which it is active. In addition, the table makes a distinction between companies that are not listed on a particular market prior to the issue and those that are. There is also a distinction made between issue announcements that are made separately from the release of other significant news and those that are not.

²In the views of management of large Swedish multinationals, the major obstacle in the Swedish capital controls was a requirement regarding foreign financing of direct investment. This provision was abolished in June 1986 (Oxelheim 1990).

Figure 3: Number and amount (in 1980 SEK) of equity issues directed abroad by Swedish companies.



3 Event Study Methodology

An event study analyzes the price reaction at the time of the announcement of a particular "event," which may be a merger, a takeover, an equity issue, a change in dividend policy, to name a few examples. According to the view that stock market actors are efficient processors of information, the immediate price reaction after the "news" reaches the market will reflect the complete valuation effect of the "news" in question.

The basic event study methodology involves studying the stock price reaction around the event date, with a correction for risk.³ The risk correction is carried out by computing daily excess returns for each company around the event date. The excess, or abnormal, returns are calculated by taking the difference between the actual returns and a control return. The control return is computed by using the so-called market model, which is a linear function of the return of a market index:

$$cr_{it} = \hat{\alpha}_i + \hat{\beta}_i r_{mt} \quad (1)$$

³For discussions about the event study methodology in more detail, see for example Jensen & Ruback (1983) and Brown & Warner (1985).

where cr_{it} is the control return for company i in period t , $\hat{\alpha}$ and $\hat{\beta}$ are estimated parameters, and r_{mt} is the return on a general market index at time t . The coefficient $\hat{\beta}$ measures the sensitivity of the individual stock with respect to the return of the general market index, and may be thought of as the "riskiness" of that stock.⁴ The excess return at date t of security i is then $e_{it} = r_{it} - cr_{it}$. Where r_{it} is the actual return at date t .

The daily excess returns, or residuals from the OLS estimation, are then averaged over each of the n security included:

$$AAR_t = \sum_{i=1}^n \frac{1}{n} e_{it} \quad (2)$$

The cumulative average excess (or abnormal) return at time y relative to time x is computed as $CAR_x^y = \sum_{t=x}^y AAR_t$. Assuming that the daily excess returns of securities are independently distributed in event time, portfolio daily excess returns approach normal distributions for large samples under the Central Limit Theorem.⁵ Conditional on the assumption that we may apply the large sample results from statistical distribution theory, we may perform tests of the event day stock price reaction (AR_0) and the cumulated average excess returns for relevant "event windows." An example of a response to one individual event, where almost all of the reaction seems to occur at precisely the event date, is given in Figure 4. This figure illustrates the reaction to an announcement of an international equity issue by Pharmacia in May 1983, showing the cumulated abnormal return from ten days before the announcement of the issue to ten days after.

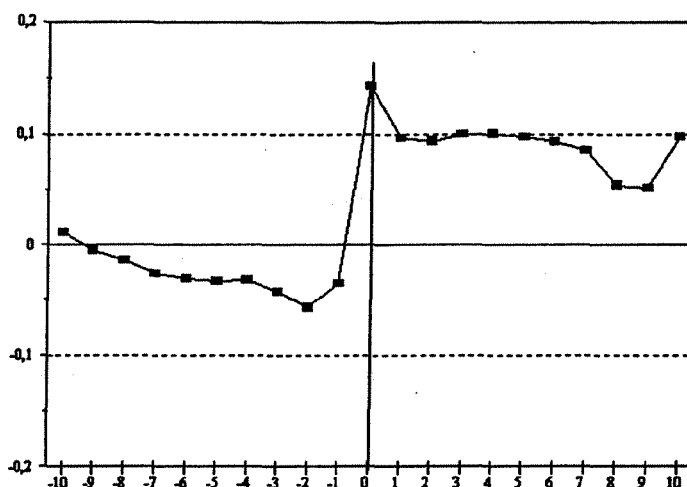
4 Price Responses to Domestic Issues

One problem with the event study methodology is that a certain event may not be independent of other events (news) that may have an effect on the stock price. Specifically, if management anticipates a negative price reaction to an equity issue made in isolation, they may want to time this announcement with the release of other, positive, news in order to neutralize the negative effect. This timing effect may thus "contaminate" the test of the price response to an equity issue.

⁴According to most asset pricing models, the relevant risk that investors pay to avoid is the "covariance risk," i.e. how the returns are correlated with that of all other assets.

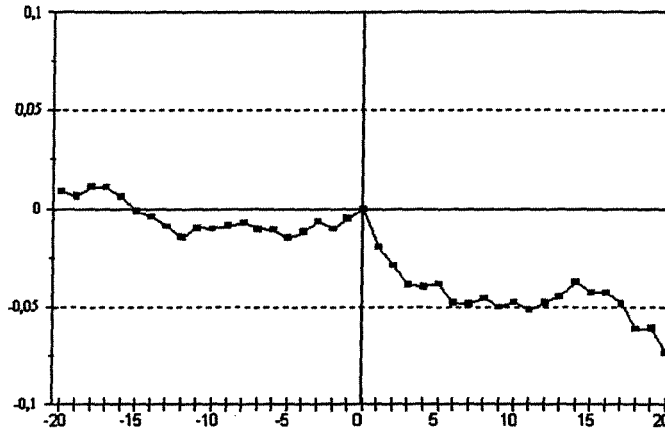
⁵Brown & Warner (1985) has shown that the daily excess returns are not normally distributed and that one needs rather large samples in order for the usual significance test should be applicable. Since we only have a rather small population of events to pick a sample from, this is an important caveat in the interpretation of our results.

Figure 4: Cumulated abnormal returns around the date of announcement for Pharmacia's international equity issue in May 1983.



The announcement timing effect leads us to the hypothesis that the price response to equity issues made in isolation, or separate announcements, should be negative, while announcements made jointly with other significant information releases should be less negative or even positive. Alternatively, we may formulate the null hypothesis more conservatively and predict only that the difference between the share price reactions in the two cases should be negative. In our empirical study, described in the next section, we identified the event dates from press releases, and tried to get them confirmed by interviews. We also checked for the "news value" of the press releases by reading the commentaries in the business press at the time. In a number of cases it was found that the equity issue was already known, and the press release was merely a confirmation of earlier announcements done in some other way. In some cases we were able to find the correct event date in the newspaper reports, but in other cases this proved to be impossible. Such undecided cases are omitted.

Figure 5: CAR around the date of domestic equity issue announcements, 1980-1993



4.1 Empirical evidence from domestic equity issues by Swedish firms

In a separate study of domestic equity issues in a sample including 69 events⁶ between 1981 and 1993, we find the price reaction pattern given in Figure 5. The negative price effect discussed above is verified; the cumulated average abnormal return from five days before the equity announcement until five days after, CAR_{-5}^{+5} is -2.7% , while the average abnormal return for the day after the announcement is $AR_{+1} = -2.0\%$. This may be a small amount but one should keep in mind that the price decrease as a percentage of the amount raised by the issue is more substantial. The ratio between the issue size and the market value before the issue announcement is 0.18 for the companies in the sample. The average market value was 4,371 MSEK (in 1990 prices) and a price drop of 2.7% implies then that 15% of the new equity raised "disappears" so in the sample. The magnitude of the negative price reaction is also very close to the -2.75% reported by Stulz (1995) from a survey of event studies on US data. One difference between these studies and ours is that the average issue size was twice as big in the Swedish case compared to the one in the US studies.

To control for contaminating announcement timing effects, we divide the sample into

⁶A list of the sample issues, with the name of the company, issue-size, date and industries, is given in Table 3. This sample was drawn by identifying the total number of domestic issues over the period and picking out the 100 largest (to exclude very small companies that are substantially different from the larger companies in terms of access to international equity markets). Out of these we were able to identify 69 announcement dates with confidence.

Table 3: Companies in the sample of domestic issues, 1981-1993.

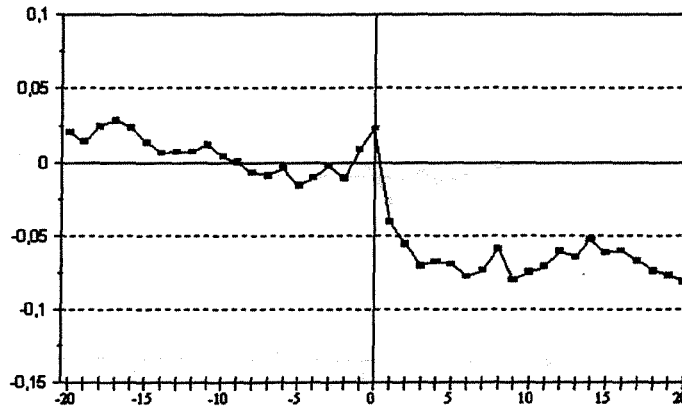
Company	Date	Isic-code	Relative size	Issue-size	Market-value	D1
SAAB	81:02	384	0.067	260	3,889	0
SEB	81:02	810	0.062	322	5,150	0
SKF	81:02	381	0.119	520	4,366	0
Diligentia	81:02	831	0.133	96	722	0
Fortia	81:03	352	0.127	283	2,223	0
AGA	81:08	351	0.079	270	3,426	0
Munksjö	82:01	341	0.143	177	1,241	1
Volvo	82:01	384	0.105	988	9,393	0
Sonesson	82:02	371	0.142	257	1,808	0
Götabanken	82:02	810	0.092	154	1,684	0
Esselte	82:07	343	0.120	253	2,104	1
Perstorp	83:01	355	0.081	157	1,938	1
Incentive	83:02	MF	0.153	200	1,308	0
Saab	83:02	384	0.083	914	10,984	0
SEB	83:02	810	0.119	1,037	8,723	0
Esab	83:02	381	0.060	60	1,002	0
Barkman	83:03	MF	0.060	65	1,074	0
Skåne Gripen	83:03	MF	0.077	40	523	0
Bahco	83:05	381	0.385	145	378	1
Fagersta	83:05	371	0.724	246	339	0
PLM	83:10	381	0.162	288	1,777	0
Aritmos	84:01	MF	0.065	118	1,824	0
Broströms	84:02	712	0.560	231	412	1
Hexagon	84:02	MF	0.173	213	1,230	0
Protorp	84:02	MF	0.245	469	1,912	1
Skrinet	84:02	MF	0.213	373	1,755	1
Sonesson	84:02	371	0.163	1,026	6,299	0
Sydkraft	84:02	410	0.115	612	5,332	1
Transatlantic	84:02	712	0.254	225	885	0
Kuben	84:03	MF	0.408	147	360	1
Modo	84:03	341	0.077	220	2,850	0
Bilspedition	85:03	711	0.138	394	2,834	1
Pronator	85:10	830	0.153	175	1,142	1
Skåne Gripen	86:03	MF	0.136	172	1,260	0
Modo	86:04	341	0.144	360	2,493	1

Table 3: Continued.

Company	Date	Isic-code	Relative size	Issue-size	Market-value	D1
Siab	86:04	501	0.180	177	984	0
Östgötabanken	86:09	810	0.108	104	958	0
Iggesund	86:10	331	0.139	394	2,834	0
Nordbanken	87:02	810	0.118	301	2,554	0
Cabanco	87:03	810	0.318	131	411	0
Holmen	87:03	341	0.101	577	5,401	0
Pronator	87:03	830	0.241	349	1,445	0
Nobel	87:06	351	0.116	648	5,607	1
SCA	87:10	341	0.029	706	24,108	0
Trelleborg	87:10	356	0.124	1,281	10,353	1
Componenta	88:08	381	0.333	175	525	0
Perstorp	88:12	355	0.040	234	5,831	0
Bilspedition	89:03	711	0.128	612	4,803	0
Sila	89:04	713	0.129	385	2,980	1
Esab	89:08	381	0.252	467	1,856	0
Argonaut	90:03	712	0.179	519	2,900	1
Atlantica	90:03	820	0.087	26	300	0
SpectraPhysics	90:07	385	0.406	1,199	2,950	1
Bilspedition	90:10	711	0.136	545	4,000	1
Nobel	91:08	351	0.283	1,870	6,607	1
Nordbanken	91:08	810	0.303	4,799	15,820	0
Östgötabanken	91:10	810	0.507	472	931	0
Trelleborg	92:03	356	0.130	821	6,297	0
Stena Line	93:03	712	0.598	694	1,161	0
Gambro	93:04	385	0.044	379	8,665	1
Modo	93:08	341	0.211	1,556	7,384	0
SCA	93:08	341	0.061	1,261	20,815	0
SEB	93:08	810	0.250	4,707	18,849	0
SHB	93:08	810	0.098	2,367	24,120	0
Trelleborg	93:08	356	0.166	1,048	6,328	0
Bilspedition	93:11	711	0.249	524	2,099	1
Sands Petroleum	93:11	220	0.043	48	1,127	0

Note: Relative size = "Issue size"/"Market value;" MF = mutual fund; D1 = 1 if the equity announcement was made separate from other significant news (0 otherwise).

Figure 6: CAR around the announcement of domestic equity issues made separate from other news, 1981-1993.

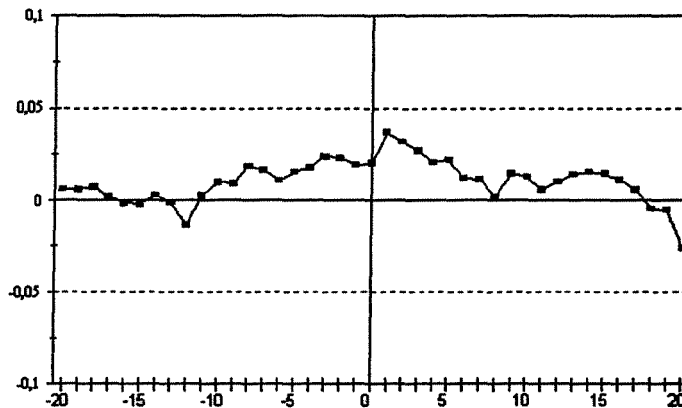


two groups of issues: those announced separately from other news and those announced jointly with such news. We then find price-reaction patterns as in figures 6 and 7. It is obvious from these figures that the most negative response is to announcements made separately, which is in line with the arguments made above. CAR_{-5}^{+5} is -6.5% , for separate announcements, while it is $+1.1\%$ for joint announcements. In Figure 6, we do also see positive abnormal returns the days immediately preceding the event date as emphasized by e.g. Lucas and McDonald (1990).

4.2 Empirical Results for Issues Abroad

The results as regards the price reaction to announcements of equity issues abroad by Swedish companies are given in Figure 8. The reaction patterns are compared to those of domestic issues in Table 4. Although the number of observations is small, especially for the post-integration period, it is quite clear that the reaction to an equity issue abroad is different from the reaction to a domestic issue. For both periods, and for both separate and joint announcements, the price reactions are positive. The difference between the reactions to foreign and domestic issues is especially pronounced for issues announced separately from other information. It is not meaningful to divide each sub-period with respect to separate or joint announcement since we will end up with very few observations for some of the categories. However, the difference between the price

Figure 7: CAR around the announcement of domestic equity issues made jointly with other news, 1981-1993.



reactions to foreign and domestic issues is found to be statistically significant.

4.3 Concluding remarks on the different reactions to the announcement of domestic and foreign equity issues

We are not able to establish that the price reaction has changed between 1981-86 and 1987-93, as we would expect when markets go from being segmented to being integrated. However, as was pointed out above, these are not absolute terms. Even though some legal barriers have been lowered, there remain other significant barriers, especially of an informational nature. Furthermore, if the equity market has become, for all practical purposes, integrated for some firms, for example the large ones, it would not be necessary for these to "seek out" foreign capital directly, because it would flow obediently to them. It would be sufficient to issue equity on one marketplace only. Figure 9 shows the proportions of domestic and foreign issues from 1981 to 1993. After 1986, issues directed abroad have exceeded 10% of the total amount in only one year (1991), the average being 6.8%; in the pre-integration period the average was 36.5%. The size of the companies issuing equity abroad is also quite different between periods. In fixed 1980 prices, the average size (measured in total sales) in the earlier period was 9,770 MSEK, while it was only 2,512 MSEK in the later period.

Another important factor is that there are other reasons for issuing equity abroad

Figure 8: CAR around the announcement date of foreign equity issues by Swedish firms, 1981-93.

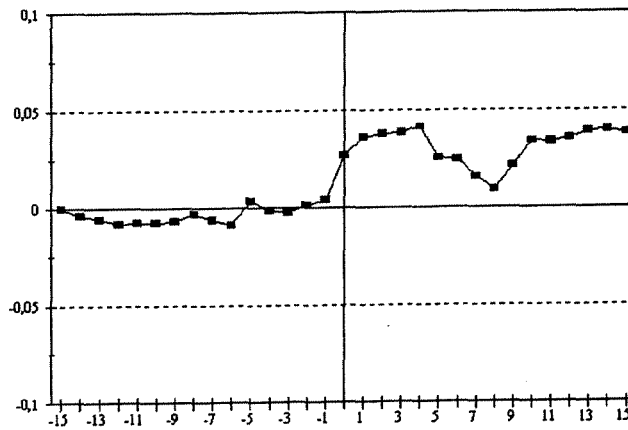


Figure 9: Distribution of the total amount of new equity issues, by Swedish companies, between domestic and foreign issues. The darker segment is foreign issues.

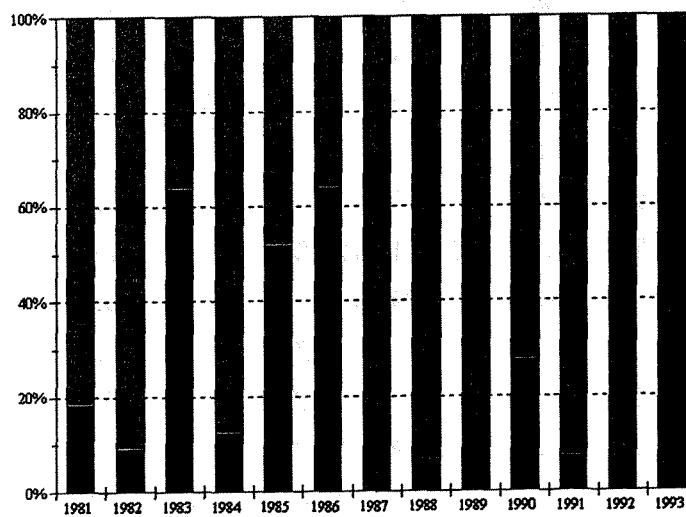


Table 4: Cumulated average abnormal returns, CAR_{-5}^{+5} , for domestic and international equity issues.

	Domestic issues	International issues
	(%)	(%)
Pre-integration	-1.14	5.26
Post-integration	-2.46	5.82
Separate announcement	-6.50	7.02
Joint announcement	1.10	2.43

Table 5: Total values (in current SEK) of directed issues abroad by Swedish, Finnish and Norwegian companies, 1981-1991. The numbers in parentheses show the percentage of total issues (domestically plus abroad) each year.

Year	Sweden	Finland	Norway
1981	798 (28.2)	na .	0 (0.0)
1982	150 (6.5)	na .	21 (1.9)
1983	3,904 (40.8)	510 (23.1)	226 (7.6)
1984	371 (5.6)	876 (21.7)	640 (21.4)
1985	547 (19.3)	256 (13.1)	123 (3.5)
1986	2,366 (55.2)	1,414 (28.6)	1,162 (32.5)
1987	42 (0.6)	889 (11.1)	4 (0.2)
1988	0 (0.0)	342 (2.7)	6 (0.1)
1989	250 (3.0)	641 (4.9)	1,809 (26.4)
1990	2,441 (24.6)	783 (29.7)	2,600 (40.3)
1991	0 (0.0)	7 (0.6)	604 (22.3)

Sources: Stockholm Stock Exchange Annual Reports (various issues), Statistics Sweden Yearbook (various issues), Helsinki Stock Exchange Annual Reports (various issues), Oslo Stock Exchange Annual Reports (various issues).

than taking advantage of higher valuations elsewhere due to segmentation effects (see Table 1). One such reason is that firms want to attain some media exposure when they enter a product market in a new country. The intention of a listing and offering of a new equity issue may also be to pave the way for future commercial activities in a new country. Whereas the listing provides the bulk of commercial marketing, an issue may sometimes be required to support this marketing effect. A "road show" to the benefit of financial investors may be an additional way to accomplish such exposure.

5 International Equity Issues in the Nordic Countries

In this section we will focus on a comparison of reactions in pre- and post- integration periods. In the case of Sweden we have performed such a comparison by running a regression based on abnormal returns of all issues - domestic as well as foreign - by Swedish companies. Dummies were here used for pre- as opposed to post-integration, separate as opposed to joint announcement, and listing prior to the issue as opposed to simultaneous listing and equity offering. We also controlled for size. The only significant result was here found for the difference between the reaction to an announcement of a domestic as opposed to a foreign equity issue. Since we assume that the insignificant outcome of the pre- versus post- integration test may reflect the presence of quite many fairly small companies in the sample of total abnormal returns that were used we will here try another avenue and create a sample of only large companies' issues by pooling across the Nordic countries. We argued in the introduction that the four major Nordic countries, Denmark, Finland, Norway and Sweden, all had isolated equity markets up until the 1980s. We also argued that mid-1986 was a good line of demarcation for the transformation of Nordic equity markets. In the pooling procedure, we will hence use the same classification as was used in the case of Sweden as regards "pre-integration" and "post-integration" events

5.1 Denmark, Finland and Norway

Our Nordic sample consists of the largest issues from Denmark, Finland and Norway. The cases from Denmark are: Lauritzen (1990), Chr. Hansen (1992), DFDS (1992), D/S 1912 (1989) and Carlsberg (1992); from Finland: Amer (1986), Enso (1988), Huhtamäki (1990), Nokia (1986 and 1993), Pohjola (1986), Huhtamäki (1993), KOP (1993), Metsä-Serla (1993) and Outokumpu (1993); and from Norway: Aker (1990), Hafslund Nycomed (1989), Kværner (1990), Orkla (1989) and Storli (1989). Hence, twenty companies met the common size criterion.

To get some idea of the incidence of directed issues abroad in the Nordic countries we present in Table 5 the total amount of directed issues abroad by Swedish, Finnish and Norwegian companies, as well as their percentage of total issues in each country. For Sweden and Finland there is a clear tendency that the percentage of total issues directed abroad has declined between the first- and second part of the period 1981-91. This is not the case for Norway though. The necessary data for Denmark are not available.

To the twenty non-Swedish cases we added the thirteen Swedish cases that met the size criterion, to arrive at a pooled Nordic sample of 33 cases. This sample was then divided up into two groups, a *pre*-integration group containing 14 events and a *post*-integration group containing 19. Figures 9 and 10 show the *CAR* for both groups. It is clear from these figures that there seems to be an opposite reaction to international equity issues in the two periods.

The *pre*-integration period contains eleven Swedish and three Finnish cases, and is therefore very similar to the Swedish event study discussed above. The same conclusion remains, that is, the value of CAR_{-5}^{+5} is positive, and in this case equal to 2,5%. The *post*-integration period contains five cases from Denmark and Norway, two from Sweden and seven from Finland. The results now show a negative CAR_{-5}^{+5} , with a value of -2.2%. Since the low number of observations does not allow further division, we may just conclude that this Nordic pooling seems to add support to the view that the announcement of equity issues on foreign markets provokes the same reaction as the announcement of a domestic issue does in the post-integration period.

6 Concluding Remarks

The gap that we recognize between the price reaction to domestic and foreign equity issues indicates a lack of perfect international integration of the domestic stock market for the period 1980-1993. However, for the period following the *de facto* dismantling of capital controls imposed on the domestic market, the gap has decreased, indicating increased, though not perfect, international integration. The remaining gap in the domestic reaction to the choice of marketplace for a new equity issue should contain inefficiencies that, for example, are related to prohibitive transaction costs for small and medium-sized firms to use foreign markets rather than wedges created by policymakers.

Further research should focus on the gap and the elements that are responsible for it. In such an analysis we should find an answer to the question about potential mismatching. In other words, are foreign issues essentially different from domestic issues? For instance, is it predominantly large firms that issue on international markets and small and medium-sized firms that use the domestic market? If so, the difference in stock

Figure 10: CAR around the announcement of equity issues abroad for fourteen Nordic companies in the pre-integration period, 1981-1986.

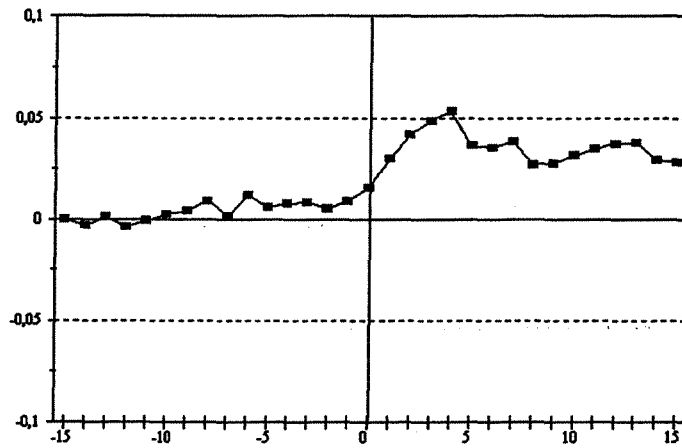
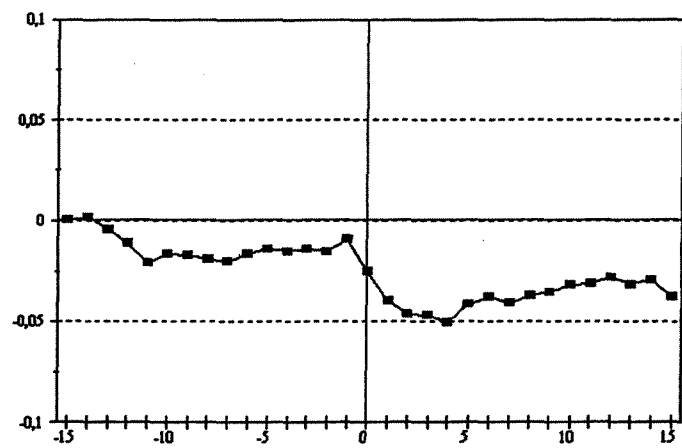


Figure 11: CAR around the time of announcement of equity issues abroad by nineteen Nordic companies in the post-integration period, 1987-1993.



market reaction could be explained in terms of transparency; an asymmetric information problem of more serious character may prevail in the small and medium-sized firms. Another potential explanation that could arise from further analysis of the gap concerns the extent to which a separate announcement of a decision to undertake an equity issue on a foreign market *signals* new profit opportunities of a commercial character, thereby motivating a more positive reaction than in the case of a domestic issue.

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