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**Do Foreign Cross-Listings Increase Firm Value ?  
Evidence from Announcement Effects of Dutch firms**

by

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September 1997

The rapid internationalization of capital markets in recent times has manifested itself in mobility of equity investment as well as in a growing number of foreign cross-listings. The classic argument is that foreign listings lead to a lower cost of capital because they help overcome the segmentation of the local equity market. Firms obtain a broader investor base which accepts a lower rate of return by diversifying firm specific and country specific risks, which may be priced in a small market. Another financial reason to list abroad may be to establish an international reputation which enables the firm to use shares for employee stock-owner plans for their foreign personnel or to pay for foreign acquisitions. All these arguments suggest that the cost of financing is different across listing countries.

There may be different causes for such differences. While for the trading of employee shares transaction costs may be significant, in general asymmetric information costs (such as adverse selection) or agency costs (due to differential enforcement costs) must be different depending on the country of listing. This may lead firms to choose, for instance, listing in countries which are either more transparent (in order to overcome adverse selection) or have better enforcement of conflicts of interest between management/inside equity and outside equity) and differential monitoring costs. In Roell's (1995) review (see also Ransley, 1984, and Baker & Johnson, 1990), enhanced visibility is usually cited as the first or second most important motivation for the decision to go public. Mirroring this, somewhat ironically, the most important costs of going public are "increased pressure on senior management due to closer public scrutiny", disclosure requirements, and external investor scrutiny. Yet increased scrutiny may allow better firms to finance themselves on better terms; Pagano, Panetta and Zingales (1994) report that Italian firms appear to choose a public listing in order to be able to diversify their bank borrowing and reduce its cost.

Theoretically, the main benefits of crosslistings occur when international capital markets are small or segmented.<sup>1</sup> Segmentation of capital markets can occur for legal

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<sup>1</sup> As stated in Eiteman *et al* (1985): 'a national capital market is segmented if the required rate of return on securities in that market differs from the required rate of return on

barriers or higher taxes on foreign investments. Less visible are indirect barriers such as language, accounting principles and quality of disclosure.

There are also other barriers which cause market segmentation, such as foreign exchange risk, small country bias and political risk. Fully or partially segmented capital markets are most of the times illiquid.<sup>2</sup>

A foreign listing may be driven by the intention to send a signal to the local market about future prospects. Stoughton, Zechner and Wong (1996) argue that managers with positive private information on their firm's quality would choose for an IPO; the resulting increase in required disclosure implies that the decision is a credible signal. More generally, this motive may explain why firms may apply for a listing on a stock exchange with stringent requirements. A listing on a prestigious exchange with high standards of disclosure may enhance the image of the company among investors, and reassure them about its prospects.<sup>3</sup>

The fact that a foreign listing increases the visibility of the firm suggests also some other promotional reasons. There may a pure marketing purpose, namely to increase visibility with customers by broadening product identification. 'A foreign listing can boost corporate marketing efforts by enhancing name recognition among investors and consumers in the foreign country'; moreover, 'reports written by local analysts and news media give 'free' advertising (Saudagaran and Biddle, 1991).

For large companies located in small countries for which foreign sales are a necessity, a foreign listing may offer an excellent promotional effect. Dutch companies

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securities of comparable expected return and risk that are traded on other national securities markets'.

<sup>2</sup> Goldman (1982) found that when the shares of a company are in the hands of both domestic investors and foreign investors the influence of shocks in the economy and industry is decreased, suggesting that the share price becomes more stable with a broader share base.

<sup>3</sup> The informational advantage of a less transparent firm does not translate always in a competitive advantage. Lack of transparency ensures that a firm is shielded when in a weak competitive position, while when in a strong position the firm cannot take full advantage of knowledge on its strength to restrain competitors. Thus greater disclosure is desirable only when the firm has positive news. Moreover, since greater exposure may

are a case in point. KLM in 1986 sold 15 million shares, of which 40% across Europe, 55% in the United States and the rest in Japan. The explicit aim of the management was to promote its international activities and support the share price (Euromoney, 1993). Interestingly, Dutch firms have long followed this strategy. At the turn of the century, the Van Linden margarine producer (a predecessor of Unilever) listed itself in London in a major stock offering even prior to seeking a listing in Amsterdam.

Other reasons are more practical. Besides broadening product identification, a foreign listing may signal to foreign competitors a more aggressive approach to their domestic markets. In addition, a foreign listing can increase the political appeal of the company in the local market. A local share listing could increase the political appeal of the company in the foreign country by having local investors and reduce hostile nationalistic feelings. According to Biddle and Saudagaran, 'to the extent to which nationals acquire stock in the company it engenders local support and helps blunt hostile nationalistic sentiments that may exist in the host country'.

Moreover, often foreign acquisitions and/or mergers require a share swap. However, if the shares of the acquiring party are not listed on the same stock exchange of the acquired company, the target management may resist the share swap, as their investors get shares which are not tradable on the domestic market.

Another cause of crosslistings may be the introduction of stock purchase plans to maintain or improve labour relations in foreign countries. The Dutch company Ahold, with more than 50 000 employees in the U.S., stated this reason when it applied for a listing on the NASDAQ. Philips applied for a listing on the TSE with the intention to recruit qualified personnel in Japan.<sup>4</sup>

There are of course costs and disadvantages associated with a foreign listing, starting with listing fees. These costs can be separated into: 'initial listing fee', which has to be paid once, and the 'annual fee', which has to be paid annually. The annual fee is a

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lead to less protection of debt claim, it may be resisted from lender-dominated firms (Perotti and van Thadden, 1997).

<sup>4</sup> According to a spokesman of the Tokyo Stock Exchange (TSE): 'as the parent company's name become more familiar to their family, peers and colleagues, the moral of

guarantee for the company for maintaining its listing on the stock exchange. The 'listing fees' are dependent from the amount of shares which the company issues and are different on each stock exchange. The following table 2 shows the listing fees on the six biggest exchanges of the world (on the ground of market capitalization) and the number of foreign companies listed on the exchange. A listing on the NYSE is the most expensive.

**Table 2**

Listing fees and number of foreign listings on six stock exchanges

| Stock Exchange                       | Number of foreign listings (June 1996) | Initial listing fee (\$) | Annual listing fee (\$) |
|--------------------------------------|--|--------------------------|-------------------------|
| New York Stock Exchange              | 265                                    | from 36.800              | from 14.750             |
| London Stock Exchange                | 518                                    | 990 - 62.500             | 910 - 16.300            |
| Tokyo Stock Exchange                 | 93                                     | 20.000                   | 1.200                   |
| Federation of German Stock Exchanges | 345                                    | 272 - 27.256             | none                    |
| Paris Stock Exchange                 | 208                                    | none                     | none                    |

source: Eiteman *et al.*, 1995, pp. 326

Still, the initial and annual listing fees are only a fraction of the total costs: commissions payable to the 'bookrunner', accountants' and lawyer's fees and the expense of preparing annual and other reports in the foreign languages. To keep and obtain new shareholders, companies have to organize road shows and presentations so that they stay loyal to the company, not only in short term but also in the long run. This helps preventing the flow back of shares to the country of origin (Adhikari et al., 1991).

Financial disclosure requirements are for some firms an important obstacles to listing in certain foreign stock exchanges. An striking example of this is FASB Statement no.14 which requires segment reporting. Segment reporting under U.S. General Accepted Accounting Principles (GAAP) requires the disclosure of assets, revenues, and profits by line of business and geographic area. The Japanese accounting principles do not require segment reporting. Japanese firms complain that these disclosures put them at a

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local employees will improve. By having a listing on the TSE, Philips would get more

competitive disadvantage relative to other Japanese companies which are not listed in the U.S.’ (Choi and Stonehill, 1982). This may explain the relatively small number of Japanese firms listed in the US relative to European exchanges.

Two empirical studies investigated the role of financial disclosure requirements on foreign stock exchange listing decisions. Biddle and Saudagaran (1991) report that companies are reluctant to apply for a listing on an exchange with high disclosure levels. However, Meek and Gray (1989) found that continental European firms listed on the London Stock Exchange exceeded the requirements of the London Stock Exchange by means of a wide range of voluntary disclosures, which in some cases were substantial. The authors conclude that ‘the significance of the Stock Exchange requirements appeared to be relatively minimal compared to competitive pressures associated with the need to raise capital in the international capital market context’. It may also suggest that some companies prefer more disclosure requirements under strict rules.<sup>5</sup>

### **Empirical evidence**

Howe and Kelm (1987) examine the impacts of a foreign stock listing on the price of the shares on the domestic market using the standard event-time methodology. First, they measure the impact of a firm’s first, second and third overseas listings. Second, they segregate the sample by listing location in order to discover whether or not listings on different exchanges have different price effects. The ‘event’ day taken in this research is the actual listing date. The time between application and approval ranged from one to nineteen days with an average of 7.5 days. The time between approval and actual listing date ranged between three and eighty- three days with an average of 11.7 days. According to their results, ‘a firms first overseas listing appears to be harmful to shareholder wealth’. The CARs appeared to be negative 58 days prior to the actual listing date and remained

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familiar and would get more status.’

<sup>5</sup> A survey on the perceived ranking of reporting and regulatory requirements among managers and professionals involved in the foreign listing process (Biddle and Saudagaran) attributes the most demanding requirements to the Anglo-Saxon markets with the US at the top. Netherlands ranks just below, while Japan, France and Germany rank much lower.

negative forty days after the 'event'. The results from examining the listings on individual exchanges showed also negative effects. The cumulative average residual over the 131-day period is about -5.5%.

Alexander *et al.* (1988) analyse monthly data starting 36 months before the first month of trading and ending 36 months after the first trading month to assess changes in **expected** returns. Their empirical results indicate that non-Canadian companies experience an expected return decline after a crosslisting, while the result for Canadian companies was not significant. This could indicate that non-Canadian companies are based in partially segmented markets and that the Canadian market is more or less integrated with the American market. Because it analyses the stock price change at the date of listing and not the date of announcement, the high positive CARs before the event date may suggest that the cost of capital did decrease for crosslisting firms.

Insup Lee published in 1991 a study on 141 American companies with a listing on two important exchanges, the London Stock Exchange and the Toronto Stock Exchange. The event period taken in this study is the same as the study of Howe and Kelm, The results found by Lee were in contrast to the findings of Howe and Kelm; firms listed on the LSE has small and statistically insignificant losses in the event period. The firms listed on the TSE show negative abnormal returns in the event period, although it is not statistically significant. Insup Lee (1992) further studied a sample of 16 UK firms listed on the Tokyo Stock Exchange (TSE) and 9 Japanese firms listed on the LSE in the period from 1962 up to 1989. The results show that the market response is positive for Japanese companies and negative for UK firms, but neither is statistically significant. Lee concluded that 'the absence of significant long-term valuations effects reported in this study rejects the hypothesis that capital markets are segmented'.

G.A. Karolyi (1996) surveys the economic implications of the decision to list a companies shares on a foreign exchange. Karolyi focuses on the valuation and liquidity effects of the listing decision, the impact of listing on the companies global risk exposure and its costs of equity capital. The survey consist of 40 studies. The main findings are as follows: the impact on the stock price around a crosslisting is initially favourable after the

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listing date, however the post-listing period seem to be associated with highly variable performances, depending on the home and listing market, the companies capitalisation and capital raising needs and other company-specific factors. After a company gets listed on a foreign stock exchange, its stock experiences on average an increase of trading volume. The liquidity improves overall, but depends again on the market place and the scope of foreign ownership restrictions in the home market. Furthermore, firms will experience a decrease in exposure to domestic market risk. This result in a decline of cost of capital, despite of the fact that the above mentioned studies found on average no significant results. From these studies, it can be concluded that American Depository Receipts can represent an effective instrument to diversify globally, and to overcome the stringent disclosure requirements of the NYSE.

The problem with this literature to date has been the use as 'event' date of the listing date. If markets are efficient in that stock prices reflect all available information, the timing to measure the impact of a particular event is the announcement date. By the listing date the news of the crosslisting has already been included in the price of the stock. Furthermore, firms tend to list after a period of good performance. It is therefore difficult to determine whether the positive returns occurred because of the good results in the pre-listing period. Only a few studies used the correct date, that is the announcement date.

Darius P. Miller (1996) investigated the market reaction of international listings of ADRs around the announcement date. The sample contains 183 firms from 35 countries over the period 1985 to 1995 which established their initial Depository Receipt program. The purpose of his study is dual. By using the announcement date rather than the listing date, Miller showed a larger market reaction in magnitude than previously reported studies. Furthermore, he investigated cross-sectional differences in Depository Receipts programs, including choice of exchange, accounting standards, geographical location and channels for raising equity capital. The results on day -1 and day 0 for the whole sample show that firms announcing a listing in the US via a ADR program experience a significant positive abnormal return of 0,53 % ( $t = 3,12$ ). The average residuals leading up to the announcement day are positive as well, but insignificant; after the

announcement day are insignificant, consistent with the semi-strong form of market efficiency.

Miller also investigated market reaction around the announcement of different levels of Depository Receipt Programs (DR). For the 90, investigated companies with a level 1 DR program, it appears that the announcement day is associated with a statistical significant result (0,68% and  $t$ -value of 2,61). This is significant at a 99 % significance level. The higher the levels of DR programs, the larger the increase in share value. This is consistent with the hypothesis that more stringent disclosure requirements, a greater shareholder base and liquidity results in a higher increase of share price. However, the results for non US-companies that move from the OTC market to the AMEX show larger abnormal returns than US firms that move from NASDAQ to NYSE.

Miller investigated as well private placements of DRs. In spite of the fact that companies with public offerings of DRs experience an increase in shareholder value, companies which raise capital via privately placed DRs experience a negative stock price. Furthermore, Miller report the remarkable result that companies located in emerging markets experience a large increase in beta, from 0.306 before the listing to 1.058 in the year following the listing. It can therefore be concluded that firms located in emerging markets experience a large increase in their sensitivity to the US market movements.

To our knowledge, so far there have been no extensive study of announcement effect of proper listings. In the next section we investigate the impact on the stock price of a very large fraction of the population of Dutch companies with a foreign listing. The answer is clear: Dutch crosslistings are associated with positive abnormal returns at the time of the announcement.

## Section II Empirical Results

### Sample Description

From the Amsterdam Stock exchange, we received a list of Dutch holdings that were listed on one or more stock exchanges up to February, 1996. There appear to be a total of 40 non financial companies, for a total of 178 listings (see appendix for a list). As there are no market returns on a daily basis available before 1973, we focus on the period between 1973 and 1995. This leads to a loss of 10 events. We also excluded 8 listings by companies which listed on a foreign exchange prior or simultaneously to a listing in Amsterdam. Finally, we could not find some announcement dates even after extensive contacts with the companies: this was the case with 15 companies. In conclusion, we obtained a sample of 53 listings<sup>6</sup>. Since some companies were listed on the same day on different exchanges, there has been 31 separate announcement dates.

**Table 5**

The total sample of overseas listings of Dutch companies over 1973- 1995

| Country               | Exchange   | Number of Dutch listings | Country              | Exchange | Number of Dutch listings |
|-----------------------|------------|--------------------------|----------------------|----------|--------------------------|
| <b>Belgium</b>        | Antwerp    | 1                        | <b>Austria</b>       | Vienna   | 1                        |
|                       | Brussels   | 3                        | <b>United States</b> | Nasdaq   | 4                        |
| <b>Germany</b>        | Düsseldorf | 4                        |                      | NYSE     | 5                        |
|                       | Frankfurt  | 6                        | <b>Switzerland</b>   | Basel    | 10                       |
| <b>France</b>         | Paris      | 2                        |                      | Bern     | 3                        |
| <b>United Kingdom</b> | London     | 6                        |                      | Genève   | 10                       |
|                       |            |                          |                      | Lausanne | 2                        |
| <b>Japan</b>          | Tokyo      | 2                        |                      | Zürich   | 11                       |
| <b>Luxembourg</b>     | Luxembourg | 1                        | <b>Total</b>         |          | 71                       |

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<sup>6</sup> This information was obtained from the companies, and the Amsterdam Stock Exchange. Six of these listings are already withdrawn, but are still included in our study. The companies are: Aegon (Nasdaq), Ahold (Nasdaq), Philips (Tokyo) and Pakhoed (Paris, Dusseldorf and Frankfurt)

To test the market's reaction to announcements of overseas listings, abnormal returns are calculated. The abnormal returns are calculated over the 9 -day test period from  $t = - 6$  to  $t = + 2$  relative to the announcement day  $t=0$ .

Our main advantage relative to previous work on crosslistings is that we are able to measure the stock market reaction on the announcement day rather than the listing date. If markets are efficient, by the listing date investors would have taken already into account the announcement in their investment decisions. The announcement dates are carefully obtained from various sources such as the companies themselves, the Financial Times, Wall Street Journal, NRC and Financieel Dagblad. We use the 100-day period from  $t = - 106$  to  $t = -7$  as the estimation period to compute each stock's characteristics. Table 5.1 gives an overview of all foreign stock listings of Dutch companies in the period from 1973 up to 1995.

We calculate abnormal returns using both market adjusted and risk adjusted returns. According to the market model, the required return on stock  $i$  is determined by the amount of market related systematic risk times its risk premium. For each stock we run the following regression:

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + \epsilon_{i,t}$$

where:

$R_{i,t}$  = daily returns on stock  $i$  for period  $t$

$\alpha_i$  = intercept term of the  $y$ - axis

$\beta_i$  = estimated beta, a measure of market risk

$R_{m,t}$  = market return for period  $t$

$\epsilon_{i,t}$  = 'residual term'

$\alpha_i$  is the average rate of price change non explained by the estimated required return. Its interpretation is ambiguous. In general, even if the CAPM applies and the true  $\alpha_i$  were all zero, the estimated value on individual stock return will in general result in a nonzero  $\alpha_i$ . This may simply reflect the fact that its idiosyncratic performance in a short time series was better or worse than anticipated.  $\epsilon_{i,t}$  is the residual term or

abnormal return, not explained by market movements. If markets are efficient, the expected value of  $\epsilon_i$  is equal to zero. By analyzing the residual terms we are thus able to detect abnormal returns around the announcement date.

We compute an estimate of the unknown variables  $\alpha_i$  and  $\beta_i$  regressing daily stock prices obtained from Datastream by Ordinary Least Squares method (OLS). The  $a$  and  $b$  are assumed to be constant over the time span  $t = -106$  up to  $t = +2$ . Daily average residuals are estimated by adding up estimated residuals for every firm in the event period and averaging across firms in common event time. The next step is to aggregate the average residuals over particular time intervals to obtain the Cumulative Average Residuals (CARs). According to Brown and Warner (1985), 'Examining the CAR of a set of sample securities as of any given event related day  $t$  is a way of looking at whether or not the values of the average residuals, starting from the month of cumulating and up to that point, are systematically different from zero. Examining the CAR as of any event day is equivalent to examining the significance of the mean average residual over the cumulating period' (Brown and Warner, 1985).

A difficulty in interpreting the data is that to the extent that the decision to list abroad results in an issue of new shares, it may in fact convey a double signal and may thus be hard to interpret. There is ample evidence that a statistically significant stock price drop occurs after an announcement of common stock offerings (Mikkelson and Partch, 1985). Myers and Majluf (1984) presents a model in which the issuance of securities conveys less favorable information about the firms investment opportunities and assets in place than do issuance's of debt. Thus measured market responses to the decision to issue abroad may be downward biased as they reflect some negative inference about the need to raise new equity.

To test if the average residuals and the cumulative average residuals are significant from zero, we use the Student- $t$  statistic to determine whether the two sample means are equal. We calculate the standard deviation over the period  $t = -106$  up to  $t = -7$ . The null hypothesis to be tested is that crosslisting does not create value for a Dutch company which already has a domestic listing. Average residuals and cumulative average

residuals must therefore be insignificantly different from zero. We follow the standard practice in the literature and do not adjust the returns for heteroskedasticity.

Table 2 summarizes our findings around the event date.

**Table 2**

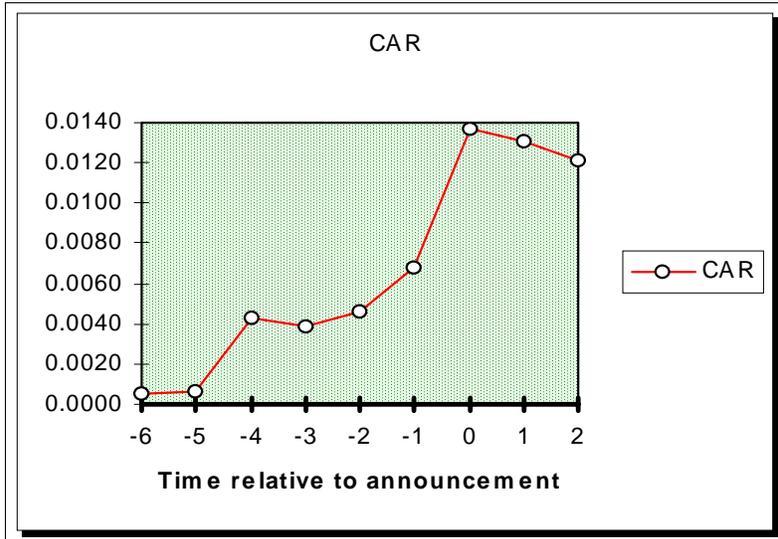
Average residuals (AR) and cumulative average residuals (CAR)

| <b>Day</b> | <b>Average Residuals<br/>(AR)</b> | <b>Cumulative Average Residuals<br/>(CAR)</b> |
|------------|-----------------------------------|---|
|            | <b>%</b>                          | <b>%</b>                                      |
| <b>-6</b>  | 0.06                              | 0.06  |
| <b>- 5</b> | 0.01                              | 0.07  |
| <b>- 4</b> | 0.37                              | 0.44  |
| <b>- 3</b> | -0.04                             | 0.40  |
| <b>- 2</b> | 0.07                              | 0.47  |
| <b>- 1</b> | 0.22                              | 0.69  |
| <b>0</b>   | 0.68 **                           | 1,38  |
| <b>+ 1</b> | -0.06                             | 1,30  |
| <b>+ 2</b> | -0.09                             | 1.22  |

**\*\* significant at a 95 % significance level**

The table shows the results from the one-tailed test at a 95 % significance level (with 30 degrees of freedom) surrounding the announcement date. While post-announcement returns are insignificant between AR= 0.0001 ( $t = 0.03$ ) and AR = 0.37 ( $t = 1.2$ ), the Average Residual (AR= 0.68) on the announcement day is positive and statistically significant at a 95 % significance level ( $t = 2.2$  ;  $\sigma = 0.0031$ ). That is, the companies with dual listings experience a positive and statistically significant 0.68 % abnormal return on the announcement day. The results therefore suggest that overcoming of capital market segmentation, an increased name recognition and a positive signal to the market about future prospects increase the value of the share. Figure 1 presents the cumulative effect for the ‘event-period’.

**Figure 1** Cumulative Average Residuals for the whole sample



An additional hypothesis which may be tested is that more liquidity, a larger shareholder base and more stringent disclosure requirements results in an larger increase of shareholder value than companies listed on a smaller, less stringent exchange. To investigate this hypothesis we examine the listing on the NYSE separately. Table 3 represents the results for NYSE listings. The abnormal returns leading up to the announcement are quite interesting. Four days before the announcement day, the AR is statistically significant (AR= 0.73% ; t= 8.1) at a 99 % significance level and as well two days before the announcement day. The average residual (1.21 %) on the announcement day is strongly significant at a 99 % significance level: the *t statistic* is exceptionally high at 13.4.

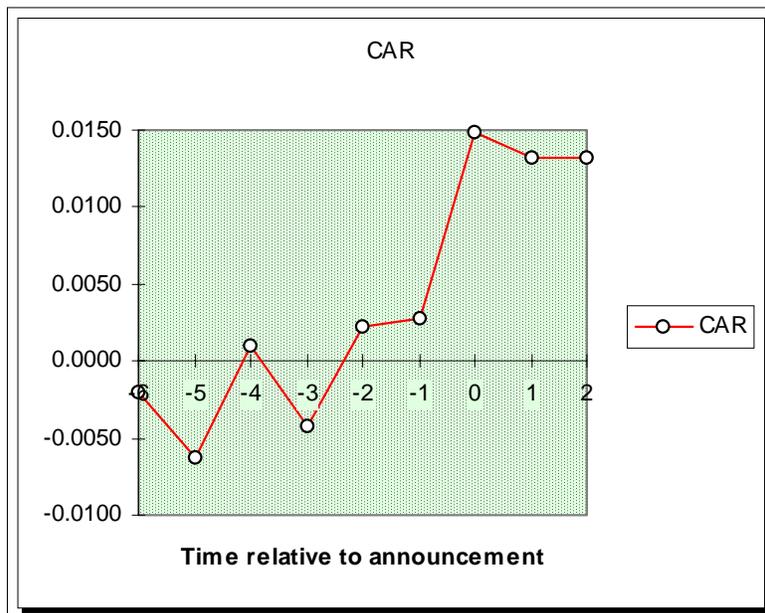
**Table 3** Results for NYSE listings

| Day | Average Residuals<br>(AR) % | Cumulative Average Residuals<br>(CAR) % |
|-----|-----------------------------|---|
| -6  | -0.20                       | -0.0020                                 |
| -5  | -0.42                       | -0.0062                                 |
| -4  | 0.73**                      | 0.0010                                  |
| -3  | -0.52                       | -0.0042                                 |
| -2  | 0.64**                      | 0.0022                                  |
| -1  | 0.06                        | 0.0028                                  |
| 0   | 1.21**                      | 0.0148 *                                |
| +1  | -0.16                       | 0.0132*                                 |
| +2  | 0.01                        | 0.0133*                                 |

\* *significant at a 95 % significance level*

\*\* *significant at a 99 % significance level*

Figure 2 represents the graph for the ‘event-period’ for companies listed on the NYSE.



**Figure 5.2**

Cumulative Average Residuals (CAR) for NYSE listings.

We must however interpret the results with care because of the small size of the sample.

We now investigate whether the results for the complete sample are driven by the NYSE listings. We therefore look at the companies with a dual listing excluding the companies listed on the NYSE. Table 4 presents the results.

**Table 4**

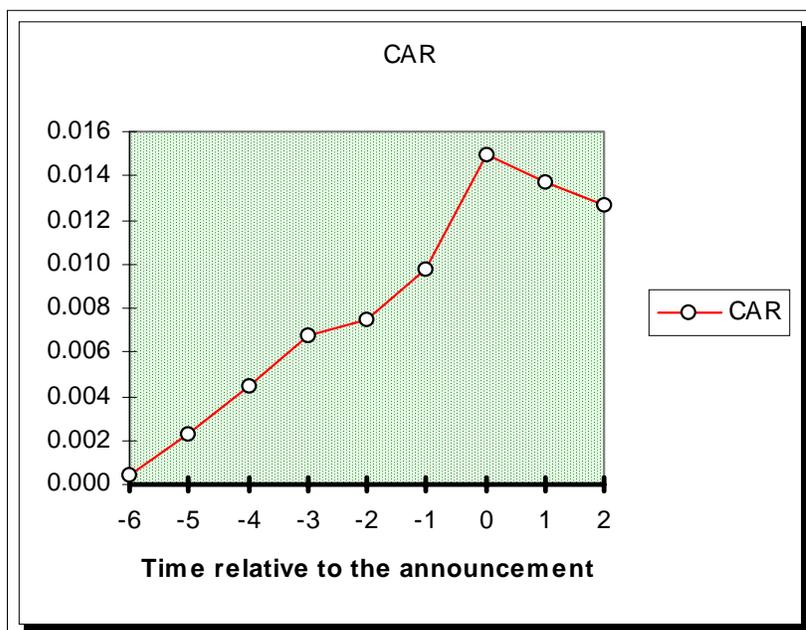
Average Residuals and Cumulative Average Residuals for all companies excluded the companies listed on the NYSE.

| Day | Average Residuals (AR) % | Cumulative Average Residuals (CAR) % |
|-----|--------------------------|--------------------------------------|
| -6  | 0.0004                   | 0.0004                               |
| -5  | 0.0019                   | 0.0023                               |
| -4  | 0.0022                   | 0.0045                               |
| -3  | 0.0023                   | 0.0067                               |
| -2  | 0.0008                   | 0.0075                               |
| -1  | 0.0023                   | 0.0098                               |
| 0   | 0.0052**                 | 0.0149                               |
| +1  | -0.0012                  | 0.0137                               |
| +2  | -0.0010                  | 0.0127                               |

\*\* *significant at a 95 % significance level*

The results show a similar pattern as for the NYSE and the results for all exchanges. The average residual on the announcement day is 0,52% which is statistically significant at a 99 % significance level ( $t = 4.73$  ;  $\sigma = 0.0011$ ).

**Figure 3**



Cumulative Average Residuals (CAR) for dual listings excluding NYSE listings.

## Conclusions

We can conclude that in the case of Dutch companies listing their stock on a foreign exchange, shareholders look forward to an increase in value. The approximate increase in value on the announcement day is 0.68 % for all companies and the cumulative return is 1,38 %. The stock price increase seems to be permanent, given the insignificant abnormal returns following the announcement. This evidence is consistent with various potential explanations. Foreign listing may decrease barriers to capital flows and thus reduce the costs of capital for firms. Alternatively, they may represent positive signals of higher underlying value than the current quotation suggests, either because the listing is a sign of the capacity of the firm to expand its international activities or its willingness to undergo greater scrutiny by international investors.

On average, companies that got listed on the NYSE experience a higher increase of value (AR=1,21% ; CAR 1,48). The result that the listings on the NYSE appear to result in a greater increase in value may be associated with both interpretations. A NYSE listing may result in greater internationalization of the shareholder base; it may result in an increased amount of transparency and disclosure; or it may enhance visibility of corporate strategy for both US and international investors.

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## Appendix

### Foreign listings by Dutch companies

#### **ABN/AMRO Holding N.V.**

|               |                                       |
|---------------|---------------------------------------|
| Belgium       | Brussels                              |
| Germany       | Düsseldorf, Frankfurt, Hamburg        |
| France        | Paris                                 |
| Great Britain | London (Seaq)                         |
| Singapore     | Singapore                             |
| Switzerland   | Basel, Bern, Genève, Lausanne, Zurich |

#### **Aegon N.V.**

|               |  |
|---------------|--|
| Great-Britain | London (Seaq)                                    |
| Japan         | Tokyo  |
| United States | New York (Nasdaq) <sup>7</sup> , New York (NYSE) |
| Switzerland   | Basel, Geneva, Zürich                            |

#### **Ahold N.V.**

|               |  |
|---------------|--|
| Belgium       | Brussels   |
| United States | New York (Nasdaq) <sup>8</sup> , New York (NYSE) |
| Switzerland   | Zurich   |

#### **Akzo Nobel N.V.**

|               |                               |
|---------------|-------------------------------|
| Belgium       | Antwerp, Brussels             |
| Germany       | Berlin, Düsseldorf, Frankfurt |
| France        | Paris                         |
| Great-Britain | London (Seaq)                 |
| Austria       | Vienna                        |
| United States | New York (Nasdaq)             |
| Switzerland   | Basel, Geneva, Zurich         |
| Sweden        | Stockholm                     |

#### **ASM Lithography Holding N.V.**

|               |                   |
|---------------|-------------------|
| United States | New York (Nasdaq) |
|---------------|-------------------|

#### **Baan Company N.V.**

|               |                   |
|---------------|-------------------|
| United States | New York (Nasdaq) |
|---------------|-------------------|

#### **BE Semiconductor Industries N.V.**

|               |                   |
|---------------|-------------------|
| Great-Britain | London (Seaq)     |
| United States | New York (Nasdaq) |

#### **BolsWessanen N.V.<sup>9</sup>**

|               |                       |
|---------------|-----------------------|
| Great-Britain | London (Seaq)         |
| Germany       | Düsseldorf, Frankfurt |
| Switzerland   | Basel, Geneva, Zurich |

#### **CMG plc.**

|               |               |
|---------------|---------------|
| Great-Britain | London (Seaq) |
|---------------|---------------|

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<sup>7</sup> The NASDAQ stock listing is changed into a listing on the NYSE in 1991

<sup>8</sup> The NASDAQ stock listing is changed into a listing on the NYSE in 1993

<sup>9</sup> These are all former listings from Wessanen.

|   |  |
|---|--|
| <b>DSM N.V.</b><br>Germany<br>Switzerland   | Düsseldorf, Frankfurt<br>Basel, Geneva, Zurich                                     |
| <b>Elsevier N.V.</b><br>Great-Britain<br>Switzerland<br>United States                 | London (Seaq)<br>Basel, Geneva, Zurich<br>New York (NYSE)                          |
| <b>EVC International N.V.</b><br>Great-Britain  | London (Seaq)  |
| <b>Fokker N.V.</b><br>Germany<br>Great-Britain<br>Switzerland                         | Frankfurt<br>London (Seaq)<br>Basel, Geneva, Zurich                                |
| <b>Fortis AMEV N.V.</b><br>Luxemburg<br>Great-Britain                                 | Luxemburg<br>London (Seaq)   |
| <b>Getronics N.V.</b><br>Great-Britain  | London (Seaq)  |
| <b>Gucci Groep N.V.</b><br>Great-Britain<br>United States                             | London (Seaq)<br>New York  |
| <b>Heidemij N.V.</b><br>United States   | New York (Nasdaq)  |
| <b>Heineken</b><br>Belgium<br>Luxemburg   | Brussels<br>Luxemburg  |
| <b>Hoogovens N.V.</b><br>Belgium<br>Germany<br>Switzerland                            | Brussels<br>Düsseldorf, Frankfurt<br>Basel, Geneva, Zurich                         |
| <b>Hunter Douglas N.V.</b><br>Great-Britain<br>Switzerland                            | London (Seaq)<br>Basel, Geneva, Zurich   |
| <b>IHC Caland N.V.</b><br>Belgium   | Brussels   |
| <b>ING Groep N.V.</b><br>Germany<br>France<br>Belgium<br>Great-Britain<br>Switzerland | Frankfurt<br>Paris<br>Antwerpen, Brussel<br>London (Seaq)<br>Basel, Geneva, Zurich |

**Internatio-Müller N.V.**

Great-Britain

London (Seaq)

**KLM N.V.**

Belgium

Brussels

Germany

Düsseldorf, Frankfurt, Hamburg

United States

New York (NYSE)

**KNP-BT N.V.**

Belgium

Brussels

Germany

Düsseldorf, Frankfurt

Great-Britain

London (Seaq)

Austria

Vienna

Switzerland

Basel, Geneva, Zurich

**Koninklijke Olie N.V.**

Belgium

Antwerp, Brussels

Germany

Berlin, Bremen, Düsseldorf, Frankfurt,

Hamburg, Hannover, Munich

France

Paris

Great-Britain

London (Seaq)

Luxemburg

Luxemburg

Oostenrijk

Vienna

United States

New York (NYSE), Boston, Chicago, Los

Angeles, Philadelphia, Cincinnati

Switzerland

Basel, Geneva, Zurich

**KPN N.V.**

Great-Britain

London (Seaq)

United States

New York (NYSE)

**LCI Computer Group N.V.**

Belgium

Brussels

**Nedlloyd N.V.**

Germany

Frankfurt

Great-Britain

London (Seaq)

**Océ van der Grinten N.V.**

Germany

Düsseldorf, Frankfurt

United States

New York (Nasdaq)

Switzerland

Basel, Geneva, Zurich

**Otra N.V.**

France

Paris

**Pakhoed Holding N.V.<sup>10</sup>**

France

Paris

Germany

Düsseldorf, Frankfurt

**Philips Electronics N.V.**

Belgium

Antwerp, Brussels

Germany

Berlin, Düsseldorf, Frankfurt, Hamburg, Munich

<sup>10</sup>

The listings of Pakhoed on the exchanges of Paris, and Frankfurt were removed in 1992.

France  
Great-Britain  
Japan  
Luxemburg  
Austria  
United States  
Switzerland

Paris  
London (Seaq)  
Tokyo<sup>11</sup>  
Luxemburg  
Wenen  
New York (NYSE)  
Basel, Bern, Geneva, Zurich

**Pirelli Tyre Holding N.V.**

Great-Britain

London (Seaq)

**Polygram N.V.**

United States

New York (NYSE)

**Stad Rotterdam N.V.**

Belgium

Brussel, Antwerpen

**Stork N.V**

Germany  
Switzerland

Düsseldorf, Frankfurt  
Basel, Geneva, Zurich

**Unilever N.V.**

Belgium  
Germany  
France  
Great-Britain  
Luxemburg  
Austria  
United States  
Switzerland

Brussel  
Berlin, Düsseldorf, Frankfurt, Hamburg, München  
Paris  
London (Seaq)  
Luxemburg  
Vienna  
New York (NYSE)  
Basel, Genève, Zürich

**Van Ommeren N.V.**

Belgium  
Germany

Brussels  
Frankfurt, Hamburg

**Wolters Kluwer N.V.**

Switzerland

Bern, Basel, Geneva, Zurich

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<sup>11</sup> The listing on the exchange of Tokyo was removed in 1992.