



The decision to go public: An overview

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Abstract

Firms' motives for going public are reviewed, and significant cross-country differences in the propensity to seek a listing are documented and discussed.

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1. Introduction

One of the most striking contrasts among the financial systems of major developed economies is the difference in the propensity of firms to use publicly traded forms of finance. As shown in the first column of Table 1, the importance of listed equity as a form of finance varies enormously, ranging from 17% of GDP in Italy to 125% in Switzerland. This paper surveys the determinants of firms' decision to go public. Section 2 gives a selective review of recent work on the decision to list. Section 3 discusses possible causes of cross-country differences in the use of listed equity. Section 4 concludes.

The survey will intentionally neglect the extensive literature on underpricing and subsequent long-term underperformance of IPO's, well summarized by, for example, Ibbotson and Ritter (1995).

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Table 1
Stock listing: International comparisons

Exchange	Market capitalisation ^a / GDP (1)	Number of listed companies ^a / GDP (bn Ecu) (2)	Corporate income tax rate (%) (3)	Corporate income taxes, % of GDP (4)	Number of listed bonds ^b / GDP (bn Ecu) (5)	Bond/stock turnover ratio ^c (6)	Number of foreign/domestic listed companies (7)	Public pensions (% of national income) (8)
Amsterdam	0.76	1.32	35-40	3.1	3.00	2.72	0.68	12.1
Athens	0.20	2.78	35	1.9	0.27	0.00	0	10.8
Brussels	0.41	0.93	39	2.0	0.17	0.01	0.91	14.0
Copenhagen	0.36	2.30	34	1.6	21.47	10.99	0.04	10.1
Dublin	0.40	1.41	40	2.5	0.90	0.00	0.16	6.7
Deutsche Börse	0.26	0.28	45	1.6	9.10	0.07	0.54	13.7
Helsinki	0.47	0.91	25	1.2	5.69	0.02	0	8.5
Lisbon	0.18	1.27	36	2.7	5.49	0.20	0	8.2
London	1.15	2.15	33	2.7	4.08	0.11	0.26	7.7
Madrid	0.35	1.03	35	2.3	2.36	0.12	0.01	10.0
Milan	0.17	0.26	36	4.9	0.05	0.01	0.02	16.9
Oslo	0.37	1.62	28	3.3	4.74	2.83	0.11	9.6
Paris	0.37	0.47	33.3	1.5	1.45	0.06	0.42	14.3
Stockholm	0.62	0.68	30	1.2	0.63	4.14	0.08	12.9
Swiss Exchanges	1.25	1.15	25-29 ^d	2.0	6.07	0.85	1.13	8.8
Vienna	0.16	0.66	34	1.8	10.75	6.48	0.44	16.5
New York	0.62(0.76) ^e	0.29(1.09) ^e	34	2.1	n.a.	0.00 ^e	0.11(0.08) ^e	8.1

2. Reasons for going public

The *advantages* of a stock market flotation are manifold. The discussion will be organised around the main reasons for listing given by new stock market entrants themselves, in descending order of claimed importance.¹

New finance. Not surprisingly, access to new finance, with concomitant improved prospects for growth (particularly by acquisition) is the most important reason cited by stock market entrants for floating their stock. The proceeds of the issue itself are not necessarily devoted to immediate expansion. Surveying the motives that prospective entrants consider very important, Ransley (1984) ranks prospects for growth by acquisition (53%) above funds for organic expansion (44%) and refinancing current borrowings (12%); though a survey of first reasons given in prospectuses (Buckland and Davis, 1989) puts capital investment (24.5%) before acquisitions (7.6%) and loan repayment (12.5%). Empirical work on Italian IPOs (Pagano et al., 1995a; Pagano et al., 1995b) and a Spanish study (Planell, 1995) suggest that the proceeds of the issue are primarily used to make acquisitions, unlever the balance sheet and increase payouts in the wake of large investment programs, rather than to undertake new ones (indeed in Italy investment falls on average immediately after the IPO).

In the longer term, the issue of public equity facilitates the raising of new finance in several conceptually distinct ways.

(i) Firstly, the equity base is strengthened and leverage is reduced, thus mitigating in the future the debt overhang and other agency problems explored in

¹ The ranking is based on the following sources: an interview survey of executives taking their company public on the U.K. Unlisted Securities Market (Ransley, 1984); a summary of motives cited in prospectuses for U.S.M. issues (Buckland and Davis, 1989); an interview survey of Italian flotations (Ferrari, 1992); and an analysis of stated motives in Swedish prospectuses (Rydqvist and Högholm, 1995).

Notes to Table 1:

^a Main market listed domestic equity, excluding investment trusts, listed unit trusts and units

^b Main market listed domestic non-public bonds

^c Main market domestic equity trading (including investment trusts etc.)/domestic non-public bond turnover. Note: imperfectly comparable because some figures include reported off-exchange and foreign transactions

^d Zurich; typical range

^e NYSE only (NYSE, NASDAQ and Amex combined)

Sources: Exchange data for Europe: Federation of European Stock Exchanges, European Stock Exchange Statistics, Annual Report 1994; U.S.: F.I.B.V. 1994 Statistics. G.D.P.: OECD Main Economic Indicators, August 1995. Corporate income tax rate: Coopers and Lybrand, 1994 International Tax Summaries; revenue: Revenue Statistics of OECD Member Countries 1965–1993. Public pensions: OECD Social Policy Studies Series No. 5, Reforming Public Pensions, 1988. All data are for 1994, except column (4), 1992, and column (8), 1984.

Myers (1977) and subsequent literature. This benefit would, of course, also be obtained through the placing of private equity; so of itself it cannot be a sufficient reason to go public unless liquidity per se is beneficial.

(ii) Prospective investors value liquidity. In valuing a potential investment, they take into account the expected transaction cost that they will incur at the time when they liquidate their holding (and so do the investors who buy from them). Hence, the expected present value of future trading costs will appear as a discount in the issue price: empirical work such as Amihud and Mendelson (1986) finds a strong relationship between trading costs and the required return on capital. When the stock is placed with only a few large investors, it is not worthwhile to incur the cost of going public because the expected frequency of trading is low; only rarely does a large block need to change hands, incurring search cost in finding a counterparty. In contrast, widely held stock changes hands more frequently, so that it is cost-effective to provide a listing on an organised marketplace.

This begs the question of why it is desirable to attract such a dispersed shareholder base. Diversification and risk sharing is one obvious reason, especially in countries lacking well-developed collective investment vehicles; Chemmanur and Fulghieri (1995) model the going-public decision as a tradeoff between risk spreading and information costs. Pagano and Röell (1995) and Brennan and Franks (1995) stress a second reason: that the original owner may prefer dispersed share ownership in order to discourage excessive meddling by large external shareholders, who do not take into account the value to the entrepreneur of obtaining his control rents.

(iii) Sufficient liquidity in the equity market can be a prerequisite for the raising of further (even non-equity) capital, as suggested in comments on the benefits of a wide shareholder base by Pickens (1987):

“But ... [the acquisition by a stock swap of a small, hopelessly uncompetitive company in an unrelated line of business, whose only attraction was the fact that it had 2,200 stockholders] ... did provide us with enough stockholders to create a market for Mesa stock. By 1966 we were ready to raise debt capital, and that would have been impossible without an active market for our stock.”

Indeed, Anderson (1994) provides evidence of complementarities between traded security finance and long-term bank debt. An important explanation for why an active market can help in obtaining further finance is that the equity price acts as a signal of the company's value. Consider the following example.

Example. A company is either worth V , with probability p , or worthless, with probability $1 - p$. Stock market participants collect information about the company; the more actively traded it is, the greater the scope for profits from such information. Let the company's true value be found out and fully reflected in the market price with probability q , while with probability $(1 - q)$ nothing is found out about the company; where $q(a)$ is an increasing function of the level of activity (a) in the stock market.

Suppose that there is an investment opportunity requiring new funds I that will add X to the company's value if it is a good company, and be totally wasted otherwise. Let $p(V + X) < I < X$: the project can only be financed if the perceived probability that the company is successful is well above p ; and it is a worthwhile project only if the probability of success is close enough to 1.

Clearly the project will never be financed if no information comes out. But if the stock market reveals that a company is a good one (by pricing the stock at $V + X - I$), banks will be ready to lend it the money.

In deciding the level of activity (a) needed for their stock, the original owners trade off the net expected gain from new investment ($qp(X - I)$) against the expected stock market profits $\pi(q)$ that must be conceded to informed traders (by shareholders, and hence indirectly by the original owner) in order to induce an appropriate amount of information collection:

$$a = \operatorname{argmax}\{q(a)p(X - I) - \pi(q(a))\}. \quad \square$$

But why rely on stock speculators to value the company? Why cannot potential new financiers (banks, private equity investors) themselves adequately analyse the company's prospects? Arguably, bank loan officers are not necessarily the most able judges of a firm's prospects; there are likely to exist better qualified, unidentified people who have greater expertise in the business of the company and its industry. Such experts may not have the wealth needed to provide the necessary capital on their own account, or be able to credibly convince prospective financiers of their expertise as paid consultants. Moreover the stock market cost-effectively aggregates signals from multiple sources, although unsophisticated investors and herd behaviour, the topic of another session of this conference, may render the stock price excessively inaccurate as an indicator of firms' worth.

(iv) Competition among suppliers of finance. 52% of Ransley's respondents felt that their enhanced status as a public company enabled them to negotiate bank facilities at better rates. Pagano et al. (1995a) find striking evidence that upon listing, companies are able to widen the sources of their bank loans and to negotiate better terms for loans, even after controlling for the salutary effects of the increased equity base on their balance sheet. They suggest that this may be a result of increased competition, both among the banks providing loans and with other potential sources of finance.

Enhanced company image and publicity. This factor is ranked second as a major advantage of going public by Ransley (1984) (cited by 36% of respondents), and is given as a reason by 57% in the sample of Ferrari (1992) and in 67% of the prospectuses analysed by Rydqvist and Högholm (1995). It seems extraordinary that a public listing is so widely regarded as a marketing device. Can the publicity surrounding a flotation really have such significant lasting benefits in raising the

visibility of the company and its products? I am not aware of any market research studies on this issue.

As argued above, a public listing provides not only an initial certification by financial market professionals but also a longer term price signal to suppliers, workforce and customers. A robust equity price in the aftermarket reassures suppliers that they can safely give trade credit, workers that they can expect a fairly stable job, and customers that the product will be supported (warranties honoured, spare parts and expertise available, etc.) in the aftermath of their purchase. Thus counterparties are spared the time and expense of checking the firm's staying power and creditworthiness, and this should enhance its position in the marketplace.

Motivating management and employees. 33% of the respondents in Ransley (1984) cited an improvement in the morale of management and staff as a major advantage experienced as a result of going public. While this may simply be a natural response to the company's signal of growth intentions, many companies explicitly cite the need to retain and motivate senior management and employees via share participation schemes as a reason for going public. Presumably this cannot be achieved with private equity, because employees do not wish to be at the mercy of the controlling group when they leave the company and want to cash in their stake. Alternatively, as modelled by Holmström and Tirole (1993), a well-informed stock price is of value in itself as an input into managerial performance-linked compensation, thus reducing agency costs.

Cashing in. IPO prospectuses generally de-emphasize existing shareholders' wish to liquidate all or part of their holdings: after all, voicing an intention to sell out cannot but depress the price obtained. Nonetheless, Ransley (1984) and Jenkinson and Espenlaub (1991) note that around 40% of the money raised in USM flotations in Britain in the 1980s went to the original owners. But founders are generally considered reluctant to float more than the bare minimum needed to achieve an adequately liquid market, citing the need to retain control; and only about a quarter of issued equity is sold. For the Italian and Swedish markets Pagano et al. (1995b) and Rydqvist and Högholm (1995) report that in over half of IPOs the owners do not cash in at all (though they may do so later on).

Divestment tends to continue in the years following the IPO: in Sweden, 93% make secondary offerings in the five years following the IPO; and Brennan and Franks (1995) find that within seven years more than two thirds of shares of U.K. main market entrants are sold to outside shareholders. Some observers attribute the IPO boom of recent years to the approaching retirement of founders of companies set up in the aftermath of World War II: the average age of companies going public in Europe is 40 years (Rydqvist and Högholm, 1995). But only 3% of the respondents in Ransley (1984) regarded the problem of lack of family succession as very important.

Exploiting mispricing. There is a large body of empirical evidence (see Ibbotson and Ritter, 1995; Bergström et al., 1995) suggesting that managers can successfully time new issues so as to take advantage of excessively optimistic investor sentiment. It is not clear to what extent this possibility of making investors overpay outweighs the substantial immediate cost (underpricing, listing cost, underwriting and advisers' fees, compliance with disclosure requirements, etc.) of going public.

Other benefits. In the survey of Ransley (1984) many managers mentioned unexpected but welcome side effects of getting listed: closer working relationships with professional advisers, especially brokers (cited by 44%), the formulation of a clearly defined business strategy for future growth (34%), and improved management and organisational and financial structure (21%). Rydqvist and Högholm (1995) suggest that tax avoidance in the remuneration of employees may have contributed to the Swedish IPO boom of the 1980s.

We turn now to the *disadvantages* of going public. Firstly, there are the *costs*: direct costs, underpricing, costs of information disclosure, constraints on the freedom of action in making business decisions (the reason why Richard Branson took Virgin private again within two years of going public) and tax implications (Pagano et al. (1995b) find that Italian companies pay significantly more taxes after going public, perhaps because their accounts are more transparent). Secondly there is a *danger of loss of control*. Pagano et al. (1995a) Pagano et al. (1995b) and Rydqvist and Högholm (1995) find that the controlling parties on average retain a comfortable majority of voting rights several years after an IPO. Brennan and Franks (1995) provide evidence that original owners on the U.K. main market, while divesting more than 50% in the years following the IPO, ration the issue so as to ensure small external block sizes. This control-liquidity tradeoff is modelled by Bolton and Von Thadden (1995). Ransley (1984) ranks the costs of going public as follows: increased pressure on senior management due to closer public scrutiny (a major disadvantage for 25%), disclosure requirements (16%) (sometimes leading to more pay pressure from employee unions), external investor scrutiny (12%), dividend pressure (5%) and unwelcome attention regarding a possible takeover (4%).

3. Cross-country differences in the propensity to list

Table 1 documents quite striking cross-country differences in the use of listed equity for finance. Main market listed domestic equity is a far greater proportion of GDP in Switzerland, the UK, the USA and the Netherlands than, in particular,

in Germany, Austria, Greece, Italy and Portugal. These differences are partly due to differences in the average size of listed companies: for example, Greece boasts one of the highest numbers of listed companies per unit of GDP (but note that our data do not include second-tier market listings). Another striking difference is in the use of traded bonds, proxied in column (4) by the ratio of turnover in listed domestic, nonpublic bonds to equity turnover, which is relatively very high in Austria, the Netherlands and some Scandinavian countries.² How can we explain these differences? And, first of all, should we care about them?

The economic effects of stock market listing are the subject of considerable debate. Many have argued that such arm's-length relations with investors lead to unduly weak controls on management, excessive concern with short-run performance, etc.; and that their reliance on bank loans and closely held finance is a main reason for the success of the German, Japanese and even Northern Italian economies; Edwards and Fischer (1994) critically appraise these arguments. In contrast, several theoretical models argue that there are positive self-reinforcing externalities to stock market listing: Maug (1996) argues that managers will have less of an incentive to entrench themselves if others are subjected to stock market discipline as well, opening up the market for managerial labour; Pagano (1993) focuses on welfare-enhancing opportunities for risk-sharing created by others' decision to make stock available, and Saint-Paul (1992) argues that the ability to spread risks enables entrepreneurs to go for more productive, albeit riskier, technologies. In all three models the economy can enter a low-level trap in which no-one lists. Empirical work on the relation between stock markets and growth is sparse; Atje and Jovanovic (1993) report a positive cross-sectional relationship between stock exchange turnover and growth; but much more detailed empirical work is needed to check the robustness of their result and the direction of causality.

There are many possible causes of the international differences in the size of the stock market.

Some countries *lack institutional investors* willing to invest in venture capital and small listed companies. Venture fund managers often stress the view expressed by a French entrepreneur who recently took his computer-screen company public on NASDAQ in the USA, and found no buyers for his shares in France: "En dehors de l'Angleterre et de la Suisse, il y a d'ailleurs peu d'amateurs en Europe pour ce genre d'investissements" (*Liberation*, 7 September 1995). The lack of a suitable exit route onto a successful small-company market is generally considered a major cause of the small size of the venture capital industry in Europe. In part, the state's greater involvement in the provision of pensions in Continental Europe may be crowding out private pension funds: there is a striking

² The figures include both corporate and mortgage-backed bonds (important in, e.g., Denmark).

(and statistically significant at the 5% level) negative relationship between the size of the stock market and the proportion of GDP devoted to public pensions, columns (1) and (8) of Table 1. In addition, countries differ in the extent to which employee pension funds are independently run, and not used by employers as a low-cost source of self-finance. Lastly, there are tight legal and prudential constraints on pension funds and insurance companies investing in small, illiquid companies.

Deficiencies in the exchanges' rules and regulations may be another reason why some bourses do not provide an attractive and liquid forum for trading. In a recent report to the European Commission, Graham Bannock and Partners (1994) point to a lack of competition in Europe, where second-tier markets are run by the main exchanges, unlike the USA, where NASDAQ competes fiercely and innovatively with the NYSE. In this context the recent initiatives to set up pan-European small company stock markets are encouraging.

Similarly, underwriters and professional advisers may be too cartelised (a recurring issue in public debate in the UK) or too inexperienced to provide a cost-effective service.

Inadequate legal protection of minority shareholders and lack of transparency in the market for corporate control may deter investors in some countries, as commonly argued for the case of Italy. A legal system that sets high standards of fiduciary duty, proscribes self-dealing by controlling groups, and enables minority shareholders to pursue class action suits, should encourage listing. And in general *institutional arrangements regarding corporate control* (the use of non-voting shares, cross-shareholdings, and pyramidal ownership structures; the rules governing takeovers) differ widely among countries, and affect the attractions as well as the costs of going public.

Lastly, *tax systems* differ in the extent to which they penalise listed equity finance. The corporate income tax rates listed in column (3) of Table 1 suggest that differences in tax treatment of the corporate form of organisation do not provide an explanation; indeed, column (4) shows that corporate income taxes are a relatively important source of revenue in Italy, so that reluctance to incorporate cannot explain why listings are so low there.

4. Conclusion

Our brief review of the reasons for going public has stressed advantages such as an informative stock price, a more liquid stock, and increased competition among providers of finance. Research into the causes of the wide variation in countries' propensity to list is as yet very sparse; in particular, the apparently crucial role of institutional investors seems to have been neglected so far. The pros and cons of a general increase in the use of listed equity are very much a topic of ongoing debate.

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