VENTURE CAPITAL IN IRELAND: A REVIEW

Michael Walsh*

It is normal in reviewing the venture capital market to highlight the tremendous success of the U.S. venture capitalists and, by implication, to suggest some deficiencies in the Irish market. However, any attempt to quantify the relative importance of the venture capital markets in Ireland and the U.S. shows the Irish market in a slightly different perspective. At the end of 1981, the estimates on the capitalisation of U.S. markets was as follows:

Venture Capital	*$6 Billion*
Money Market Funds	*$130 Billion*
Pension Funds	*$600 Billion*
Stock Markets	*$2,000 Billion*

In other words, the U.S. venture capital market is about one percent of the total pension fund business. In Ireland, the figure is proportionately not dissimilar. The total Irish pension fund capitalisation is estimated at £2,500 million, while venture capital funds amount to about £35 million — a percentage figure slightly higher than in the United States.

This review article examines the different phases of venture capital finance in Ireland, considers the relevance of a loan guarantee system to Ireland, highlights some of the historical financial problems in Irish industry, and looks at the proposed solutions.

Why would anyone invest in industry?

A report published by the National Economic and Social Council (1984) showed that the level of profitability on average in Irish industry was totally inadequate. Based on a sample of indigenous companies drawn from Allied Irish Banks, Bank of Ireland, and the Industrial Credit Company, the financial profile which emerges for Irish industry is as follows:

**The author is the Irish Banks' Professor of Banking and Finance at University College, Dublin.*

IBAR — Journal of Irish Business and Administrative Research, Volume 7, Number 1, Spring, 1985, pp.33-45.

Table 1: *Selected Financial Ratios for Companies with Borrowings in Excess of £250,000*

	1978	*1982*
Profit before Tax % Sales	4.8	0.4
Profit before Interest and Tax % Interest	3.8	1.2
Debt % Shareholders Funds	58	74
Debtor Days	70	73
Stock Days	60	61
Creditor Days	63	73
Land and Buildings % Fixed Assets	66	66

Source: NESC: 1984

The key messages that come from the summary in Table 1 are:

1. Profit margins in 1982 were only one-tenth of their level in 1978.

2. In 1982 indigenous companies were only barely able to cover their interest obligations, and were probably unable to make their required principal repayments.

3. The debt to shareholders funds ratio had increased from 58% to 74%.

As is clear from these ratios, the level of borrowing in Irish industry is excessive. This contrasts with a situation highlighted by the Wilson Report in the U.K., where over 50% of small companies (those capitalised at less than £4 million in 1977) had no debt.

In addition to the poor performance of Irish industry, historically there have been strong biases against direct investment in industry. Tax exempt securities have been available from State sources, incentives have been provided for investment in property, and incentives exist to invest through the medium of Insurance linked funds rather than directly in industry. With direct equity investment, there are high taxes on dividends, high levels of Capital Gains Tax, and the consequent difficulty in passing the tax benefits in the company through to the investor.

The Business Expansion Scheme

The Business Expansion Scheme was introduced in The Finance Bill 1984 and represents the major incentive towards direct participation in equity investments. To date, there have been two Business Expansion Scheme Funds set up to provide an investment medium for the general public. It is estimated that the total amount raised by these funds amounts to about £1.2 million. In addition, four companies have been provided with funds under the scheme.

The growth of these funds and direct investments is very welcome, not

because of the amounts involved, but because with time they should induce wider ownership and closer identification with success in industry. However, the legislation as currently framed is designed to inhibit the growth of these funds as opposed to encouraging them. This is the consequence of the comprehensive anti-avoidance provisions of the legislation, which creates complete uncertainty as to whether the investment in any particular company will be allowed. The failure to design a scheme to meet Irish needs can be seen from the type of situations where the scheme is not applicable. Some illustrations are:

1. An Irish company which, while trying to develop its export markets, sets up an overseas subsidiary, would no longer be eligible to receive business expansion scheme funds.

2. A group of people who set up a research and development company, with the intent of developing a product to bring to the market, will lose their exemptions if the company takes more than three years to develop and launch the product.

3. The obvious first source of money for a business is the immediate family — yet these are the very people who are precluded from availing of the reliefs under the Scheme. (The Minister has indicated that this restriction will be removed.)

4. Exit mechanisms for investors have not been properly developed. In Ireland, as in the U.K., the relief is lost if the company in which one invests gets an early quotation. Such restrictions on the transfer of the shares is unnecessary. The aim of the legislators is achieved once the new shares are issued and the new monies locked into the company. Any attempt to subsequently sell these shares will result in a price which reflects the fact that the tax advantage has already been availed of and that no further advantage is available. Encouraging immediate trading in the shares, would induce much greater success in the over-riding objective of increasing the flow of equity to industry. Such a change would also have the obvious benefit of injecting new life into the stock markets.

Clearly, a re-think of the rules of the scheme is essential. They must be framed in such a way as to encourage investment in Irish wealth creation and employment, and reflect Irish circumstances. As currently framed, the business expansion scheme provisions fail to meet the needs of Irish industry.

The Phases of Venture Capital

It is convenient to consider venture capital as being three distinct stages of finance – seed capital, venture capital, and development capital. The

seed capital stage involves the development/testing of a concept. The venture capital stage involves bringing the concept into commercial production. This is followed by the development capital phase, which if it is reached, involves moving from a small to medium sized enterprise.

Seed Capital

This is the first and most critical stage of new business development. Without this idea generation phase, there will be no follow on venture or development capital phases. During this stage, the failure rate tends to be very high. In the United States, estimates of failure exceed 90%. Since its inception, the National Enterprise Agency (NEA) has received some three hundred approaches for funds, but has only considered ten of these as being suitable for their investment. The lead time at the seed capital stage tends to be fairly long. U.S. estimates suggest a period of between one and five years. The NEA have developed a model (Appendix 1) which suggests a shorter lead time of only two years. Under either of these estimates, the structure of the Irish Business Expansion Scheme, with its requirement of being in business within a space of three years, is unsuitable as a method of financing this stage of the business.

Given the high risk of these projects, the only appropriate finance is equity or equity type finance e.g. grants. Debt finance is totally inappropriate for this stage of investment — given the high probability of failure. One would never consider borrowing to finance a trip to the races, yet the probability of success is higher at the race meeting than in the pure seed capital operation. The ideal source for these funds is from family, friends, and the local community. Again the Irish legislation acts to inhibit these obvious contributors.

The need to ensure an adequate supply of seed capital has been identified as one of the key roles of the NEA. The availability of seed capital was also perceived to be inadequate in the United States. As a consequence, in 1977, the National Science Foundation (NSF) in the U.S. set up a Small Business Innovation Scheme. Under this programme, up to $30,000 is provided for the first six months, to carry out initial research. Those successfully completing this phase receive about $200,000 for one to two years. This is the main research phase. The third phase is the commercialisation stage, at which point no further NSF support is available. In 1977, the first year of the scheme, the NSF received three hundred and twenty-nine proposals. Of these, forty-two received phase 1 support. Subsequently, half of these received phase 2 finance. Ultimately, eleven companies entered phase 3, and raised $41 million between them.

This scheme is useful in highlighting the large number of projects, 329, required to get 11 successes. From a national financial perspective, it was

highly efficient. For a total NSF investment of less than $8 million, over $40 million was raised from the private sector. (Note: A somewhat similar, though more restrictive, programme, the Strategic Research Grant Programme, is being run by the National Enterprise Agency, in conjunction with the National Board for Science and Technology.)

In summary the seed capital phase is underprovided for. The NEA is helping to redress this. However, the Business Expansion Programme needs to be adjusted if it is to play its potentially important role.

Venture Capital

This is the second financing phase. It will normally last for three to five years. During this phase, the project will move from the feasibility stage, into commercial production. The failure rate at this stage is lower than the seed capital stage. U.S. estimates suggest a failure rate of 60% during the first five years. However, despite the lower failure rate, the total losses at this stage tend to be higher because the cash commitment in individual cases is much more significant. The Midland Bank suggest the following typical pattern for cash drain during the first years of operation. Cash requirements for capital expenditure are usually accurately estimated. Research and development expenses and working capital needs are generally under-estimated. Operating losses are always under-estimated and, in general, start-up costs such as legal and other expenses are ignored. This under-estimation of financial needs and start-up costs is borne out by a recent study of some start-up companies in the U.K. [Robson Rhodes, 1984]

As can be seen from Table 2, nearly one-quarter of the new companies over-estimated their potential sales by more than 100%, while a further 30% achieved only between 50% and 90% of their target sales level. Table 3 highlights the inability of start-up companies to accurately forecast their operating expenses. Nearly half the companies were unable to accurately estimate general overheads, while over 30% were unable to forecast either operating salaries or production costs within 20% of their actual level. Working capital needs were also under-estimated, as is highlighted in Table 4. 73% of companies forecast that their debtor days would be below thirty. In reality, only 21% had debtor days below thirty. Equally, only 7% of companies forecast debtor days being in excess of two months, while the reality shows 50% of the companies having average debtor days outstanding for more than two months.

Partially in response to the lack of venture capital in Ireland and the desire to induce executives to set up new projects, the IDA set up the Enterprise Development Programme (EDP) in 1978. By the end of 1984, a total of 186 new projects had been approved and employment created by the EDP

Table 2: *Percentage Achievement of Sales Forecasts by New Surviving Companies in the UK*

Sales % Forecast Achieved	*% of Companies*
Less than 50%	23
51—70%	13
71—90%	17
91—100%	11
100% +	36

Source: Robson Rhodes, 1984.

Table 3: *Percentage on New Surviving Companies Forecasting Costs Within 20% of Actual*

Operating Salaries	69%
Production Costs	62%
General Overhead	55%

Source: Robson Rhodes: 1984.

Table 4: *Forecast versus Actual Debtor Days in New Surviving Companies*

Debtors Days	*Forecast*	*Actual*
Less than 30 Days	73	21
31—60 Days	20	29
60 plus Days	7	50

Source: Robson Rhodes: 1984.

scheme amounted to over 2,000 people. Of the 186 projects approved, 19 did not actually start, and 28 had failed by the end of 1984. Proportionately this represents a decrease in the failure rates reported in NESC (1984).

While the EDP Programme was set up to meet the needs in the venture capital stage, it has not been without its problems. The average financial profile of the companies funded under the EDP programme is presented in Table 5.

Table 5: *Average Funding of Enterprise Development Companies 1978-84*

	%
Equity	19
Grants	27
Debt — State Guaranteed	20
Debt — Other	23
Other	11
	100

This financial profile is inappropriate for the inevitably risky start-up venture. There are two types of risk for any venture – business risk and financial risk. Business risk is non-avoidable. Financial risk is avoidable. Financial risk is caused by taking on the fixed commitments associated with debt finance. The position is improving however. NESC showed equity only providing 12% of the finance in EDP companies, whereas in 1984, 24% of the finance was from equity sources.

In the EDP programme, half of the debt is guaranteed by the State. This guarantee is relevant to the institution providing the loan, but in no way reduces the financial risk to the enterprise. The guarantee is only of genuine relevance when the project has failed.

McGovern (1983) analysed the cumulative cash-flow position of EDP companies during their first few years of operation. As with other countries, this analysis shows a significant cash drain during their early years. Figure 1 shows the result of this study, classified between high and low-technology type ventures, during their first two-and-a-half years of operation.

The high-technology companies have the more serious cash flow problems. McGovern considered the impact on this cash flow pattern of the following two adjustments:

1. What would be the impact on the companies if equity was used instead of debt finance, and dividends were only paid when the funds were available?

2. What would be the impact on the companies if they rented their premises instead of purchasing them?

Figure 2 shows the combined effects of correcting the financial structure, and not purchasing unnecessary assets. (Note: the purchase, rather than the rent, of lands and buildings appears to be a widespread problem in indigenous industry. Investment in land and buildings is twice as high as the investment in the productive asset – plant). Figure 2 illustrates the impact of changing the capital structure and renting, rather than purchasing the property on the cumulative cash-flow position of the high-tech firms. As is clear from Figure 2, making these adjustments results in these companies achieving a cumulative cash break-even position after two-and-a-half years, instead of being in serious financial problems. (Note: The IDA no longer allows EDP companies to purchase their premises, and requires greater upfront equity investment.)

Figure 1:
Enterprise Development Programme: Analysis of cumulative cash flows of high and low technology projects over the first three years of operation

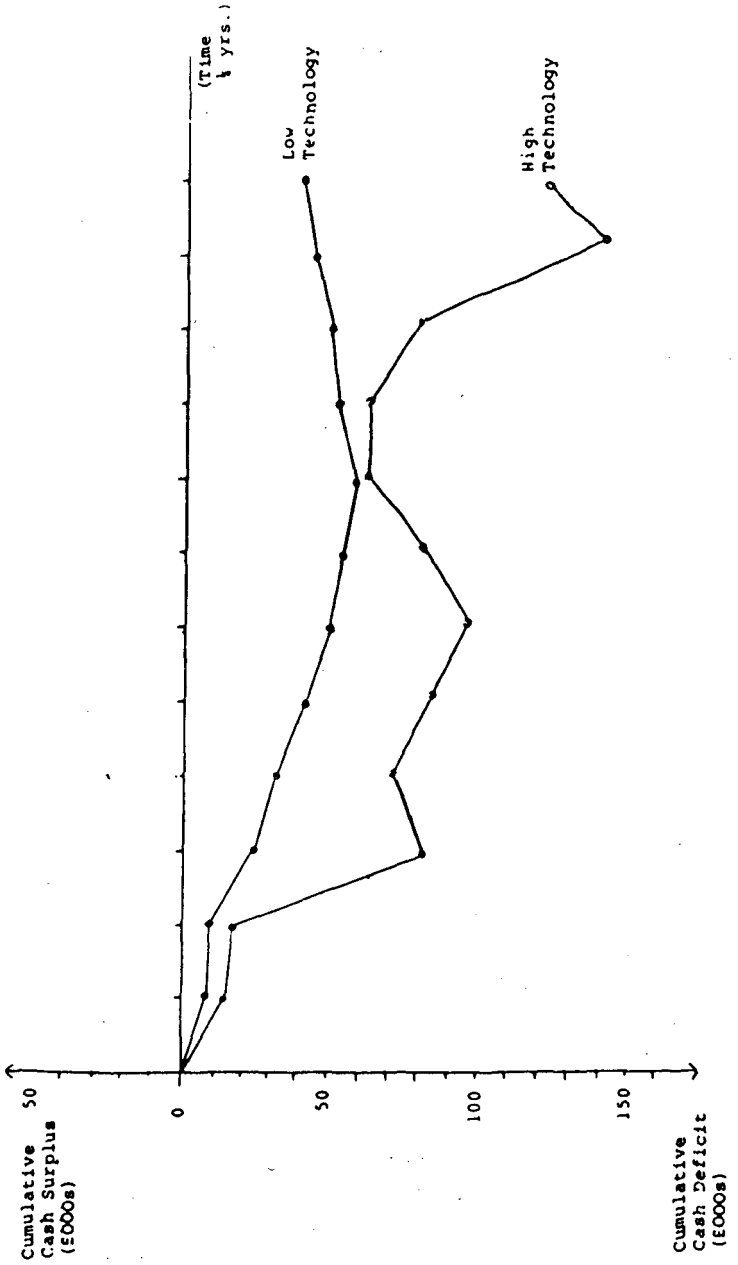
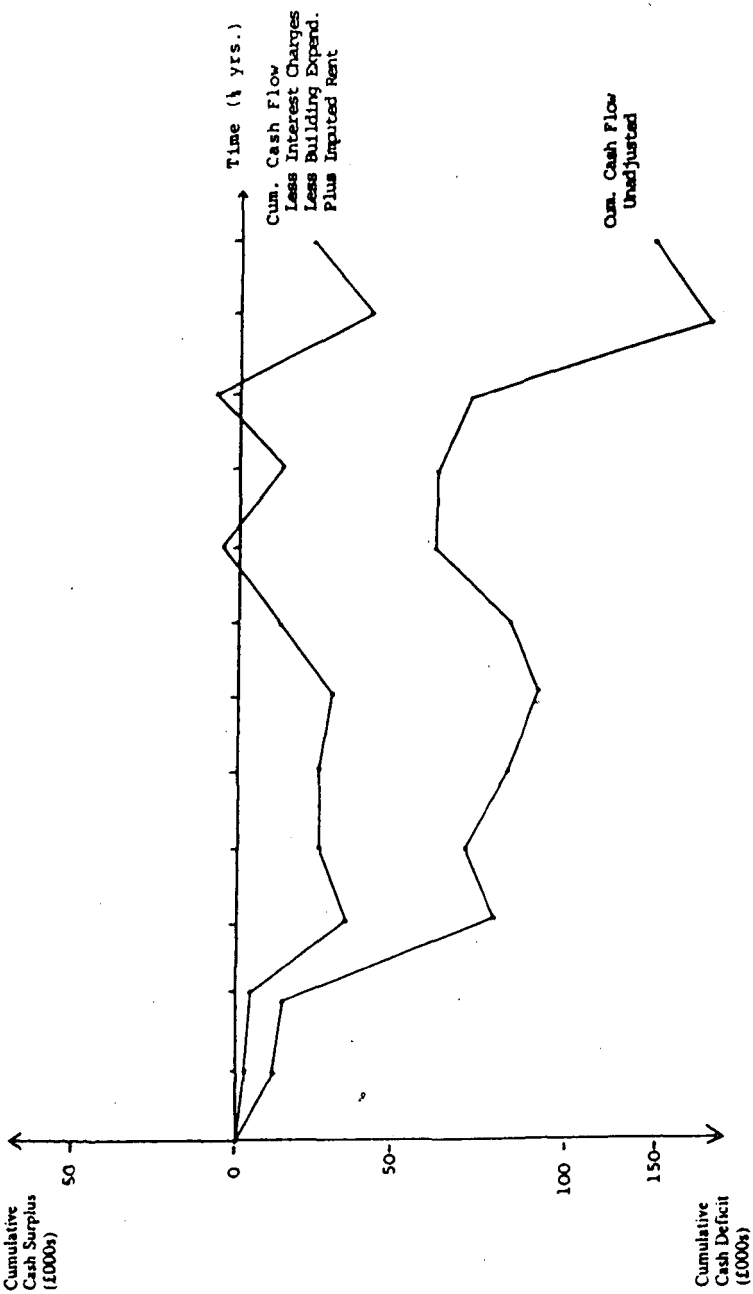


Figure 2:
Analysis of cumulative cash flows of Enterprise Development Companies over the first three years of operation



Development Capital

During this phase, the very small number of companies which get through the seed and venture phases, move from small to medium-size businesses. At this stage, reflecting the lack of a policy to properly promote the seed capital stage – the problem is a lack of projects, rather than a lack of funds. Funds are available through the groups like Development Capital Corporation, Allied Combined Trust, and Investors in Industry. All of these groups have access to additional funds, should the right projects be available for investment. While there are some problems at this end of the market, such as the high level of Capital Gains Tax, the problems are much less severe than at the earlier stages.

Long-Term Debt and Loan Guarantee Schemes

Both of these, separately and in tandem, have been suggested as solutions to problems, presumed to exist with the Irish financial system. Loan guarantees are on offer within the U.K., and there have been calls for them to be introduced here also. In the U.K., they are provided to otherwise non-financible companies for amounts up to £75,000 for periods of two to seven years. The bank providing the loan carries 20% of the risk, whereas the remaining 80% is carried by the U.K. Government.

Before there is any further move to introduce these in Ireland, the following points should be considered:

1. The lessons to be learnt from the inappropriate financial structures in the EDP companies.

2. The current levels of debt in Irish industry.

As was indicated before, guarantees are only of relevance after the company has collapsed. If a banker cannot extend any further debt to a company because he believes that it will be unable to repay, then providing the finance does not in any way increase the company's likelihood of survival. The EDP scheme effectively provides a 50% State guarantee on debt, and yet, these companies would have a much better chance of survival and growth if they were correctly structured rather than being provided with the guarantees. The data included in Table 1 indicates the already high level of debt, on average 75% of shareholders funds, in Irish companies. While the greatest problem of these companies is inadequate profitability, it is equally clear they could not afford to take on the additional financial risk associated with debt repayment commitments.

The lack of long-term debt is also perceived as being a problem. It is not entirely clear whether those concerned with this lack are worried about the lack of long-term funds, or the lack of long-term funds at fixed interest

rates. If we contrast the cash-flow effects of five year money at 14% versus twenty year money at 14%, the potential problem becomes obvious. On a £100 loan, one will be £92 worse off in cash-flow terms after five years if the period of the loan is five years rather than twenty years. Effectively, this is due to the complete repayment of the capital sum borrowed in the five year facility.

In reality, many loans, even those designated as overdrafts, are of a permanent nature, and the cash-flow drain is purely the interest component. The provision of fixed-rate money is not a difficult task, though the pension funds, rather than the banks, are the obvious suppliers of such funds. These funds would have to be priced relative to fixed interest government gilts. To this would have to be added a premium for the credit risk, and the lack of marketability. Currently, this would imply long-term fixed rate borrowings of about 16%, a rate most business people are unlikely to perceive as attractive.

A further complication exists in that the obvious suppliers of these funds, the pension funds, are unable to provide tax-efficient finance, such as Section 84, or leasing.

To synopise the long-term debt debate: Long-term debt is officially unavailable, in reality it is available, but there is no demand for it at realistic market-determined fixed rates. In relation to the provision of further debt-finance facilities in the form of loan guarantees or otherwise, Robson Rhodes (1984) concluded, in relation to their study of the U.K. Loan Guarantee Scheme:

"Borrowers, and even bankers, misunderstand and under-estimate the importance of getting the initial financing of a small business properly structured for growth."

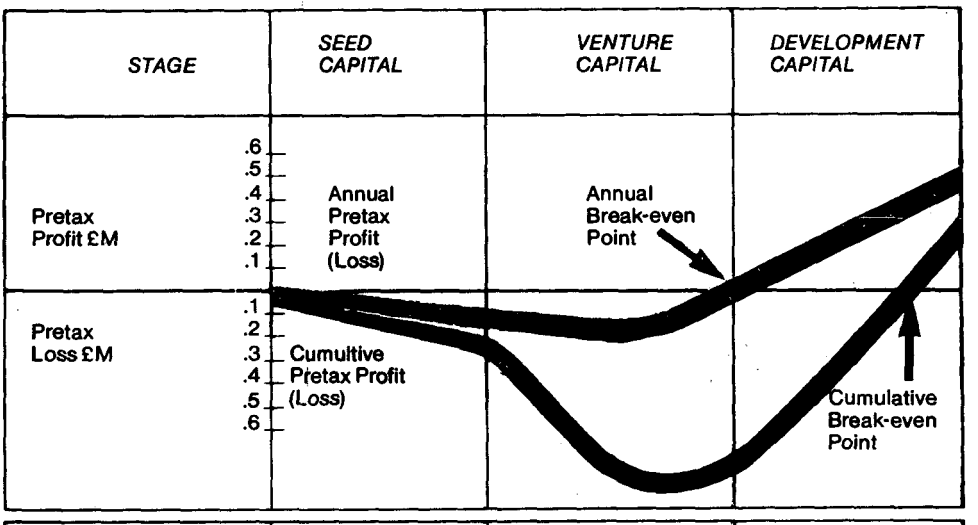
Given that the Irish financial structures are so much worse already than in the U.K., the dangers of additional borrowing are even more severe in Ireland.

Conclusions

NESC showed that indigenous industry had effectively no profits, minimal equity, was over-geared, and is very small. Under no circumstances should additional debt, guaranteed or otherwise, be considered as a solution to these problems. Additional equity capital can solve the financial elements of the problem. The Business Expansion Programme is a first step towards solving the Irish equity gap. Regrettably, it has been designed to ignore the key needs of Irish industry. Seed capital, export market development, and exit mechanisms are essential if sufficient projects are to be created for the Venture/Development financiers to nurture a new generation of successful indigenous companies.

APPENDIX 1

The following diagram illustrates the stages of financing the successful growth of a company involved in a new technology area.



Company Characteristics			
Length of Stage (years)	1–2	2–4	Ongoing
Average Annual (£M) Turnover	Nil	1.5	5.0+
Average Annual Employment	5–10	50	150+
Average Capital Employed (£M)	0.1	1.5	2.5+
Management	Founders only	Founders & associates	Professional
Organisational Structure	None	Informal	Formal
Equity financing: No. of rounds	1–2	2–4	
Size Range (£000)	25–150	250–750	Ongoing

Source: National Enterprise Agency

Department of Trade and Industry. 1983. *An Analysis of Some Early Claims under the Small Business Loan Guarantee Scheme*. London: H.M.S.O.

McGovern, B. 1983. *The Implications of Financial Structure on the Performance of Start-Up High Technology Based Companies in Ireland*. Dublin: Ubniversity College. (Unpublished M. Comm. Thesis)

National Economic and Social Council. 1984. *The Role of the Financial System in Financing the Traded Sectors*. Dublin: The Stationery Office. (Report No. 76)

Robson Rhodes. 1984. *A Study of Business Financed under the Small Business Loan Guarantee Scheme*. London: Department of Trade and Industry.