THE MIC PROGRAM AND THE POLITICS OF SCIENCE POLICY*

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The need to develop policies relating to the development of venture capital markets in Australia was reported regularly in the late 1970s and the early 1980s in science and technology policy literature. The Hawke Government's response to this area of market failure was to implement the MIC program. The history of this program indicates that although venture capital has been identified as an area of market failure, the program has been supported in accordance with the political climate prevailing at the time.

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The Management and Investment Companies (MIC) Program was extended to 30th June 1989 by the Minister for Industry, Technology and Commerce.[1] This program was implemented as a response of the Hawke Government to a perceived need to redress the failure of Australian financial markets to invest in high risk industry. The program has been resisted by government agencies which advise the Government on fiscal matters. This paper suggests that decisions relating to the program have been made in accordance with the usefulness of the program to the prevailing political debate. At present free market economics prevails despite evidence that venture capital and high risk management markets in Australia are incomplete.

VENTURE CAPITAL & HIGH TECHNOLOGY

A major political problem for the Fraser Government of the late 1970s and early 1980s was the decline of Australia's manufacturing base in terms of both employment and export income.[2] In this period the government received advice which indicated that government failure to implement effective science and technology strategies was a major contributor to this decline in the manufacturing sector. The development of local venture capital markets was an integral part of suggested policies.

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It was noted, for example, by the OECD that there had been a "heavy reliance placed by the Australian manufacturing and mining industries on imported technology and know-how".[3] The Senate Standing Committee on Science and the Environment was direct in its criticism of government policy and proposed that "the evidence appears to show that the Government has either failed to understand the relationship between research and development, or does not understand the contribution industrial research and development (IR&D) makes to the industrial process".[4] One of the recommendations of this Committee was to establish a government funded development corporation which would provide funding for the commercialisation of research.[5]

A number of other official reports presented to the government supported the need for government intervention in developing Australian innovation and establishing venture capital supplies. In arguing for the establishment of a venture capital corporation, the Myers Committee argued that existing financial institutions were unable "to evaluate the asset of a highly technical innovation . . . against which to advance development funds".[6] ASTEC supported the view that lack of private sector venture capital was a major constraint on the development of Australian high technology and recommended "that the Government develop a single venture capital institution in the public sector to provide equity and loan funds for new technology enterprises".[7] The Kirby Committee argued that whilst it "does not conceal a strong preference for programs which are less interventionist"[8] support for innovation could be "justified in certain circumstances . . . on economic grounds or the Government's industry or other policies".[9]

Thus, in response to the decline of Australia's manufacturing sector (and the associated political problems) and increasing advice that new directions in science and technology policy were needed to redress these problems, the Fraser Government established the Espie Committee to recommend policies for developing Australian innovation.[10] This report was influential in the direction and the form of the MIC legislation which was introduced by the newly elected Hawke Labor Government later that year.

In noting that government had not implemented incentives for investment in Australian innovation, the Committee argued that

> i) This Committee knows of no country which has succeeded in establishing a climate for investment in high technology enterprises without the Government taking positive action and, at a minimum adopting a catalytic role[11] and
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> ii) the Australian society has no effective vehicle for marshalling its people's savings towards the equity funding of new industrial enterprises leading to growth and creation of jobs through innovation.[12]

In its principal recommendation the Committee proposed a mechanism which would "supply the needs of young, rapidly growing companies for capital and management support".[13] The guidelines proposed by the Committee formed the basis of the MIC legislation.

At the 1983 election science and technology policy, generally, and venture capital, specifically, had a higher priority in the political rhetoric than at previous elections.[14] The Labor Party had adopted a party platform on technology which committed the party to

> participate with and seek the collaboration of trade unions and private enterprise in joint ventures by providing risk capital, facilities and expertise as required and as seems appropriate to establish new industries based on scientific and technological innovation.[15]

The Coalition Parties also promised to establish a mechanism for the financing of innovation. Fraser proposed the development of an Advanced Technology Corporation which would

> help innovators assess their proposals and organise venture capital . . . (and) . . . help them find product development facilities to put their ideas into practice, and it (would) help them with market research and information.[16]

The promise to allocate funds for the establishment of 'sunrise' industries by the Labor Party and the proposal for a venture capital corporation by the Coalition Parties demonstrated a growing awareness by political parties of the need for government to assist in the creation and support of Australian high-technology industries. It is notable that Fraser's election speech at this election was the first time that the leader of a political party had allocated a major portion (approximately 15 per cent) of the party's main policy speech to matters pertaining to science and technology policy.[17]

Thus, the use of science and technology policy to achieve solutions to political, economic and social problems was more common in policy rhetoric than was previously the case although sections of advice available to government were still opposed to government intervention.

MIC LEGISLATION AND FREE-MARKET ECONOMICS

On being elected to Government, Labor's proposal to introduce incentives for investment in high risk, technology related industry encountered bureaucratic resistance. Jones and Button proposed that funds invested in MICs be permitted to be deducted from taxable income at the rate of 150 per cent. The Industries Assistance Commission (IAC), for example, argued that there were two important obstacles to implementing policies promoting technology industries in Australia. The first of these was the recognition that whilst technology related industries were areas of growth in other countries "the Australian economic environment differs from the economic environment that prevails in other countries".[18] The second objection that the Commission presented was that incentives for high technology industries committed the government to subsidising the "commercial utilization of certain 'key technologies' ".[19] The Commission argued that

> such a commitment is likely to result in the repeated claims by industry for increases in assistance to ensure the continued utilization of these technologies in the face of mounting pressures for change.[20]

The Commission argued that the economic case for government intervention in the creation of an infrastructure for venture capital was not strong and that whilst only a small venture capital market existed in Australia this in itself was not proof of market imperfection. It recommended in conclusion that

> An alternative approach to encouraging the growth of industries in the domestic economy is to provide a neutral environment in which all industries can compete on equal terms . . . Specific proposals, such as those for government action to establish . . . venture capital companies, need to be looked at in this light.[21]

The arguments of the IAC assumed that innovation competed equally in a perfect market. The Commission ignored arguments which justify special consideration for government intervention in science and technology on the grounds of indivisibility, inappropriability and uncertainty.[22] Similarly, the absence of perfect markets can be demonstrated from both the domestic support by government for a number of other industries and government intervention in other countries in directing industrial development. It could not be argued, for example, that high technology industry in Australia had previously competed equally with the mining industry in terms of government support.[23]

The influence of these free market arguments within the Treasury and Finance Departments was noted in the popular media. It was reported in the Age that

> The announcement (of MIC legislation) has been delayed — it was to have coincided with last Tuesday's Budget — partly because of a brawl between the Minister for Science, Mr Jones and the Departments of Finance and Treasury.[24]

This report suggested that Jones was criticised in Cabinet for presenting a proposal that was "too wide-ranging, lacking in priorities and not being discriminating enough at a time of economic stringency".[25] It stated that a compromise had been reached between Treasury and Jones which would grant 100 per cent tax deductibility for funds invested in MICs. This was noted as a compromise between the 150 per cent deduction supported by Jones and the 60 per cent deduction that was proposed by Treasury.

This report was supported in the *Sydney Morning Herald* which reported that

> the Federal Government's plans to boost investment in 'sunrise' industries are still in the melting pot, despite some ministers pushing for big tax concessions to investors in new technology.[26]

This article reported that the announcement of the creation of MICs were held up by inter-departmental battles over the best way to go about it[27] and that the Treasury and Finance Departments had argued against the granting of tax concessions of the type proposed by Jones because of their potential for tax avoidance. Similarly, *The Australian* reported that the venture capital proposals "have emerged from a maze of bureaucratic red tape"[28] after being passed by Cabinet's industry committee. This newspaper reported that Treasury and Finance did not agree with the MIC proposals because of "the spectre of tax evasion and get-rich-quick schemes".[29]

THE MIC PROGRAM AND THE BIE

Despite the objections of the IAC and the Departments of Finance and Treasury, the Hawke Government passed MIC legislation. Hawke argued that the introduction of this legislation was a means of redressing an identifiable area of market failure and that

> a reasonable balance has . . . been struck . . . between support for potentially valuable enterprises and the cost they should legitimately place on the rest of the community.[30]

A crucial element of this legislation was that it was instigated to redress an identifiable area of market failure. In a later review of the MIC program, the Bureau of Industry Economics (BIE) which comes under the Department of Industry, Technology and Commerce conceded that venture capital was an area of market failure in the Australian economy. Despite this recognition the BIE in 1987 persisted with a commitment to free-market economics and recommended the abolition of the MIC program.[31]

In its assessment of the venture capital market in Australia, the BIE report stated some important considerations relating to its survey of these markets. The report noted that "there are marked differences between the investment behaviour of MIC and non-MIC companies".[32] In particular the report notes that MICs invest in start-up and early-stage projects with more patient equity. Two other important conclusions of the survey were that

> notwithstanding this strong upward trend in the total supply of venture capital, there could be a residual gap in the market . . . Any gap of this kind would normally be a reflection of a poorly functioning market or an inadequate range of institutional sources of funds;[33] and

> the main conclusion from the survey is that the size of any venture capital gap which existed has probably declined substantially in the past few years as a result of financial deregulation, the emergence of MIC and non-MIC venture capital companies, and stronger competition among institutions supplying risk capital.[34]

Spokespersons[35] for the MIC have also argued that MICs are catering for an important market niche in the supply of venture capital which is not satisfied by non-MIC investment.

The BIE noted two particular areas in which the MIC program was redressing market failure in the development of Australian high technology industries. The first of these areas was the development of private venture capital markets in Australia. The Bureau concluded that whilst the MIC Program has clearly been an important influence on the development of a private venture capital market,[36] MICs were declining in importance in the supply of venture capital because of the wider choices in the sources of venture capital, and because of increased competition between the suppliers of venture capital.

The second area of market failure that the BIE considered was the business management support offered to new innovative firms. In considering the impact of the MICs in development of management skills within high risk industries, the BIE concluded that MICs have been influential in providing management and financial support to start-up and early-stage businesses and that MICs "have a different management emphasis and are more involved than non-MICs in management support".[37]

Thus, despite the BIE's own conclusions that the MIC program was redressing an area of market failure not being catered for by non-MIC sources of venture capital, viz. capital support for early stage projects and management support, it made recommendations relating to the continuation of the program primarily on judgments relating to the total supply of venture capital in Australia. The report noted that financial deregulation and the creation of second board markets had led to more funds being made available for venture capital and that a BIE survey had indicated that "venture capital companies projected continuing strong growth (over 80 per cent) in the amount of venture capital being made available over the next year.[38]

The Bureau identified the reasons for market failure in venture capital as information deficiencies and financial regulations. It argued that whilst its own venture capital survey "shows that there has been a substantial increase in applications for funding"[39] the availability of venture capital has increased from virtually zero to the $300 million that is currently available and significant further increases are projected. The BIE concluded that

> the Bureau's judgment is that the venture capital gap which existed in the early 1980s has diminished with the increased venture capital supply and related activity. Many independent venture capital companies are approaching a size and degree of institutional support which the industry sees as necessary for long-term survival. In addition, ancillary services have emerged to facilitate the search by young companies for risk capital.[40]

In summation of its investigations into the availability of venture capital in Australia, the BIE concluded that

> Government support beyond June 30, 1988 would not appear to be warranted if by that date:
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> - the MIC Program has acheived the desired demonstration effect, so that a significant number of adequately staffed and funded venture capital institutions will continue to provide venture capital and management support to young fast-growing firms at the various stages of development (from start-up to expansion-stage); and
> - the termination of the Program will not jeopardise the attainment of the Government's policy of encouraging the development of innovative new firms able to sell their products on world markets.[41]

In justifying this recommendation the BIE proposed that the following factors supported the case to terminate the program in June, 1988:[42]

- The availability of venture capital and management support for high risk businesses in Australia has expanded and this growth is expected to continue;
- Many of the MICs have a sufficient base of capital and investments to be able to operate without the assistance of tax deductible funds;
- Many MICs already have parallel funds and others have indicated their intention to establish parallel funds;
- The existing MICs are expected to invest in very few new ventures over the next few years and, thus, need less investment capital;
- Deregulation of the MICs will attract institutional investors;
- State governments are offering financial incentives to young innovative businesses.

A final important consideration of the BIE's recommendation was that

> the present concentration by the MICs on start-up and early-stage investments may not continue in an unregulated market. In the absence of the Program, they may adopt a different portfolio profile which provides better long-term balance in terms of risk.[43]

A number of important inconsistencies are evident in the report of the BIE. In the first instance the BIE conceded that the MICs provide important management support to investee businesses and that this support is particularly important in the early stages of a business's development. The report then conceded that abolition of the program would effectively force venture capital and MICs towards later stages of development and thus create an area of market failure. Consistently, spokespersons for the MICs have argued that abolition of the MIC program would have the effect of making their investment strategies more conservative.[44] This result would be a direct contradiction of the original goals of the MIC program. The program was established to direct venture capital funds towards starting up new businesses. Premature abolition of the program would, by the BIE's own admission, restore an area of market failure that the program was established to correct.[45]

Secondly, the BIE suggested that MICs should syndicate, draw on cash reserves or sell some of their investment assets to provide continuing support for their portfolio. These suggestions were ill-considered. The BIE stated in its report that venture capital is a long term investment with returns often not being realised until many years after the initial investment. The program had been in existence for approximately three years and the BIE was suggesting that the MICs should be selling their investments, even though the BIE conceded that this suggestion is contrary to an objective of the program, i.e., the need for patient investment. It would appear that a few of the MICs have proven investment records and are sufficiently capitalised to be in a position to be able to leave the program, but at the time that the BIE had produced its report, all of the MICs except one had capital approvals of less than $20 million dollars and had less than three years to develop an investment record.[46]

A final important omission of the BIE report was its failure to consider important macro-economic considerations. The report failed to provide any analysis of the effect on the availability of venture capital in less buoyant financial markets. This consideration was noted by spokespersons for the MICs[47] and argued strongly by the MIC Board in its submission to the BIE. The Board considered that

> venture capital companies need to demonstrate capacity to perform throughout a full business cycle, in order to demonstrate the health and resilience of the industry overall . . . At May 1987, none of these companies or institutions has been called upon to demonstrate this resilience.[48]

The other important factor which the BIE did not address is the macro-economic value of providing management support to emerging industries. In particular, it failed to consider the value to the economy as a whole of the high rate of success that MICs have achieved in managing risk and continuing to establish venture capital infrastructure. The BIE's own report, for example, notes that up until March 1987 only eight (or 7 per cent) of the 112 businesses in which the MICs have invested had failed.[49] The MIC Board contends that between 20 per cent and 30 per cent of all venture capital investments made in the United States fail and that 46 per cent of Australian small businesses fail within the first two years of operation.[50]

FREE-MARKET ECONOMICS IN THE BUREAUCRACY

The development of the MIC program is a case study of the commitment of some parts of the Federal Government's bureaucracy to free market, non-interventionist policies. The Senate Standing Committee, The Myers Committee, ASTEC and The Espie Committee were a few of the bodies which had clearly identified an area of market failure in the development of Australian high technology industries. From the initial planning stages of the program, the IAC and the Department of Treasury and Finance objected to the scheme. The IAC, particularly, objected on grounds that assistance to any industry should be resisted.

The BIE recommended the abolition of the MIC program although its own report recognised that termination of the scheme would restore areas of market failure in the financing of earlier stage projects and management support for new industries. Its suggestion that the process of creating venture capital markets in Australia had been completed after the program had only run for three years failed to consider both the long term nature of venture capital and the volatile nature of financial markets. The stockmarket crash in October, 1987 has highlighted the volatility of financial markets and has provided evidence that abolition of the MIC would have had a severely detrimental effect on the supply of venture capital in Australia. It was noted in the *Financial Review*, for example, that

> The Australian Industry and Development Corporation (AIDC) and the MICs have been deluged with calls from businesses seeking equity funding because the stock market collapse has made public floats financially unattractive.[51]

This report notes that the AIDC informed the Government in December, 1987 that up to 25 companies may abolish new projects because of a lack of venture capital whilst the MICs invested $2.2 million more in November, 1987 in equity investments than in the previous month.

The history of the MIC program shows that competing advice tendered to government contained elements of both interventionist and non-interventionist ideologies. Support for intervention dominated in the period around the election of the first Hawke Government and the MIC program was implemented. In this period government support for science and technology was symbolised by incentives for capital markets to invest in innovation. By 1987, the importance of venture capital in political debate had diminished and it was decided to terminate the MIC program. This was despite evidence provided by the BIE that market failure in supply of venture capital and management support for high risk innovation may be restored by abolition of the program. Thus, the advice accepted by government in this instance has been related more to the prevailing political climate than to desire to permanently correct an area of market failure.

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