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SUPERANNUATION FUNDS AND THE PROVISION OF DEVELOPMENT/VENTURE CAPITAL: THE PERFECT MATCH? YES OR NO

by

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Executive Summary

During the next decade, the assets of superannuation funds in Australia will continue to increase at a significant rate due to the maturing of the Superannuation Guarantee system, good investment earnings and the increasing effect of preservation. At the same time, some organisations or interest groups may suggest that superannuation funds are the ideal provider of development or venture capital.

Yet, at the outset, it must be stressed that superannuation funds represent the investment vehicle through which individuals save for their retirement. Furthermore, it must be realised that each fund has its own members with their individual risk profiles and that trustees are required to act in the best interest of the fund's members. In addition, it is critical that community confidence in the total superannuation system be strengthened.

The differences between individual funds and the need to act in the member's best interests does not imply that development and venture investments do not have a role to play in the investment portfolios of various funds. A number of large funds already invest more than 2% of their total portfolio in development capital and the recent growth in this type of investment is likely to continue as some funds mature and trustees become more aware of the benefits of diversification.

This report recommends that the Government should not prescribe a minimum level of superannuation fund investment in either development or venture capital. Such a requirement would lead to an inefficient allocation of capital within the economy and may be contrary to the best interests of the funds' members.

On the other hand, should the Government wish to encourage a particular form of investment, it is recommended that this encouragement should be available to all investors and, to have greatest effect, be provided in the form of an initial tax incentive in the form of a tax rebate.

1. Introduction

The next three to five years will be critical for the long term development, size and characteristics of the Australian economy as it moves into a period of economic growth with low inflation, lower interest rates, new industrial relations arrangements, increased focus on export industries and links with our Asian neighbours, and the continued growth of compulsory superannuation.

The growth of superannuation funds will continue and it can be expected that during the next seven years the assets of these funds will approximately double in their real value due to investment earnings, higher contribution rates and the increasing effect of preservation. It is therefore natural that many individuals, organisations or interest groups suggest superannuation funds as the provider of the capital necessary to fund their 'pet' projects or where there appears to be a shortfall in the supply of capital. In recent times, it has been suggested that these funds are an ideal source of capital for new and developing industries or projects which are seen to have an important role to play in the future growth of the Australian economy with expected increases in both exports and employment.

This report discusses the relationships between the assets held by Australian superannuation funds and the need for both development and venture capital in the Australian economy. Section 2 will briefly outline the characteristics of both development capital and venture capital, noting their similarities and differences. The features of superannuation funds will be discussed in Section 3, highlighting the fact that no two superannuation funds are identical. The relationship between superannuation funds and the provision of development capital will then be discussed in Section 4 before Section 5 considers similar issues in respect of venture capital.

2. What are Development Capital and Venture Capital Investments?

The terms *development capital* and *venture capital* are used in many contexts and can mean different things to different people. Hence it is necessary to define these terms as they will be used in this report. There are no universally accepted definitions within the industry although the following definitions, with some slight variations, are generally accepted.

Development capital is the provision of capital to a business that is already operating successfully and where the injection of capital will enable it to undertake a significant expansion of its current operations. The businesses are normally small to medium sized firms and are often unlisted.

It should be realised that the businesses have established markets and cash flows with a proven track record but will be entering a growth period until their operations are more firmly established. The results of a recent survey of companies receiving development capital showed that 70% of the businesses are more than seven years old and their average employment is 140 persons, thereby highlighting the fact that they are not new enterprises.

It must be stressed that development capital is distinct from venture capital.

Venture capital is provided for a new product or industry with no track record but promises of a high return. It includes both seed capital and start up capital. As may be expected, the risks for the investor are considerably higher here than with development capital.

In general, the businesses are much smaller, often family owned and the amount of capital required is normally less than for development capital.

Infrastructure capital is different again and represents the provision of capital for particular infrastructure projects which provide physical assets available for public use to support economic activity. These projects are very different in terms of size and ownership from the businesses which require development or venture capital.

Having clarified the meaning of development and venture capital, it is now appropriate to highlight some of the general characteristics of these two forms of capital.

As noted above, the provision of development capital is involved in a significant expansion of the businesses operations. As a result, a development capital investment normally has some or all of the following characteristics:

- the investment is generally for a fixed number of years with most of the return coming at the end when the investment is sold;
- a generally illiquid investment during its term due to the lack of a secondary market;
- a closer relationship between the investor and the business than in most other investments;
- the use of a specialist development capital fund manager due to the special nature of the investment.

The characteristics of venture capital are similar although the level of risk is much higher, the potential rate of return much more uncertain and the exiting or selling process at the conclusion of the investment much less clear. In addition, the average amount of venture capital required tends to be much smaller than the average amount of development capital provided.

Some specialist development capital managers are also less willing to become involved in venture capital projects as there exists a much higher probability of an unsuccessful investment and, as a result, there is a natural fear of a negative reaction within the market towards their company. This public perception is particularly important following the experience of the 1980's.

The use of specialist fund managers in these areas calls for comment, particularly when viewed from the investor's perspective. Investment into development or venture capital requires a new set of skills when compared to most other investments. A recent report by the Bureau of Industry Economics (1993) notes that the process of providing venture and development capital involves the following seven steps:

1. the search process which includes seeking opportunities and receiving referrals for possible investment;
2. the screening process which involves an analysis of the quality and nature of the documentation, the track record of the proposed management team and the willingness of the business to be bought out by a third party or to be listed at some point in the future;
3. evaluation of the project which assesses the quality of management or entrepreneur, potential market growth and, in particular, the exiting possibilities;
4. the decision process which is normally made by an investment decision board;
5. the structuring of the deal which will normally include an investment agreement and performance goals;
6. post investment activities which often includes financial advice and/or a board position; and
7. the exiting process which is often a trade or buy-out sale or, less commonly, a listing on the Australian stock exchange.

It is clear that this development or venture capital investment process is very different from the investment into a more common investment area such as listed equities or bonds. It is also apparent that almost all superannuation funds and many fund managers do not have the expertise required to be involved in a process that requires a significant input of time as well as experience in the assessment of these investment alternatives. Hence the use of specialist fund managers is an efficient and rational approach for investors who desire to become involved in this area of investment.

It should also be noted that venture capital investment requires as much, if not more, analysis and consideration than a development capital investment even though it is normally for a smaller level of investment. Hence, the fees charges by venture capitalists tend to be proportionately much higher than those charged by development capitalists.

3. The characteristics of superannuation funds

Superannuation funds represent the investment vehicle through which individual workers save for their retirement years. That is, the money within these funds generally represents investments made by individual workers or their employers (on the employee's behalf) which the individual cannot access until their retirement or under other specified conditions set by the Government.

With the introduction of award superannuation and now the Superannuation Guarantee system, most of these funds are of the defined contribution (or accumulation) type. This means that the size of the individual's retirement benefit is directly affected by the rate of investment return achieved by the fund. There is no employer or government guaranteeing or even suggesting a minimum superannuation benefit. These types of funds stand in contrast to the traditional defined benefit scheme where there existed a promise (but not a guarantee) from the employer to link the size of the benefit to the individual's salary and years of service. These funds are now in the minority and will continue to diminish in relative importance.

The significant point to note is that for most superannuation fund members the size of the retirement benefit, and hence their post retirement living standard, is directly linked to the after tax rate of investment return achieved by the superannuation fund.

It must also be noted that superannuation represents a long term investment with funds invested by individuals for many decades. Hence, it is essential that the community has a high level of confidence in the long term stability of the superannuation system. This confidence must not be put at risk through either imprudent management or excessively risky investments. The desire for a high level of confidence in the system has led the Government to strengthen the prudential arrangements for superannuation with the recent SIS legislation and the general thrust of this legislation is to be applauded.

This long term nature of superannuation also means that the investment horizon of many superannuation funds differs from most other financial institutions. A long term perspective can be taken with a correspondingly reduced concern for liquidity. Consequently, many superannuation funds invest more than half their funds in equity investments. This is to be expected in view of their long term liabilities and represents a sensible investment approach.

This investment approach with a relatively high level of investments in equity and related investments is also possible due to the pooling nature of superannuation funds. As the investments are spread over a large number of members for many years, the trustees can adopt a lower level of risk aversion than would be feasible at an individual level. In turn, these investments, with appropriate diversification, will lead to a better long term return and therefore higher retirement benefits for the members. This result is in contrast to the suggestion in Pender and Ross (1994) who suggest that trustees act in a more risk averse fashion than contributors would desire. Their suggestion is not supported when one compares the long term investments held by superannuation funds and households.

It must also be recognised that no two superannuation funds are the same. Every fund has members with different ages, earning profiles, risk preferences, retirement expectations and so on. As a result, every fund must develop its own investment strategy in line with its own liabilities and membership. In fact, trustees are now required by law to develop and publish the investment objectives for their fund.

The differences between individual superannuation funds can arise for a large number of reasons including:

- some funds are winding down with a significant proportion of its membership approaching retirement whereas others are growing with a higher percentage of younger members;
- some funds have primarily executive and senior management as members whereas others have a much more diverse membership;
- some funds have built up reserves over several years enabling them to adopt different investment policies whereas new funds have virtually no reserves;
- some funds are deliberately established with a particular investment orientation and attract investors accordingly (that is, individual investors choose the fund in line with their own risk profile);
- some funds have very stable membership whereas others have members who tend to stay within the fund for a shorter period meaning that liquidity is a more important concern for these funds;
- some funds are of a defined benefit nature with employer support whereas most are defined contribution with the members bearing the total investment risk; and
- some funds provide members with choice in respect of their investments whereas most do not.

These differences are important for they highlight the fact that each fund's investment strategy must take into account both the fund's liabilities and the risk preferences of the members. After all, as noted above, the superannuation fund represents the investment vehicle for the individual's retirement savings. This fact must never be forgotten.

It is also apparent from the diversity within the characteristics and liabilities of superannuation funds, that a range of investment objectives will naturally arise. Some will be conservative, which would be appropriate for a fund with members approaching retirement, whereas other funds will adopt a strategy involving longer term investments where the returns are likely to be more volatile. This diversity in investment approaches will not only be evident between funds but also between fund managers who provide investment services to the trustees.

For example, in a recent study by Knox (1993), it was shown that major fund managers invested between 1.0% and 29.5% of their equity portfolio in listed stocks with capitalization of less than $1 billion. (These stocks make up about 24% of the capitalized value of the Australian stock market.) The study showed that individual fund managers adopt different investment priorities and that the so called 'herd mentality' does not exist.

Any requirement for all funds to invest in a particular form of investment must ignore the above differences between funds and therefore compel the assets of some funds to be placed in investments that are either contrary to the members' best interests or create a mis-match with the funds' liabilities.

4. The Relationship between Superannuation Funds and Development Capital Investments

There is no doubt that development capital is needed for the continuing growth of the Australian economy, especially as the economy moves into a low inflation post-recession expansion period. The business cycle is also currently within a growth phase and it is likely that an increasing number of small to medium size businesses will be seeking development capital to significantly expand their operations.

At the same time, the Government has recently introduced compulsory superannuation and with these increased employer contributions together with greater preservation requirements and good investment returns, the size of the superannuation funds will continue to increase significantly.

Initially, it may appear that with the apparent need for development capital within the Australian economy and the significant growth in superannuation funds, a perfect match occurs between the demand for and supply of development capital. Indeed, there have been some suggestions that superannuation funds should be required to invest a minimum proportion of their assets in development capital. But, appearances can be deceiving.

In assessing the proposal to prescribe that a minimum proportion of superannuation funds be invested into development capital, the following should be noted.

1. Funds raised by members of the Australian Development Capital Association Limited (ADCAL) increased from $23 million in the year to June 1992 to $164 million in the year to June 1993 and there are strong indications that this growth is continuing.

2. It is estimated that superannuation funds and insurance companies have been the source of 70% of the development capital already raised and it is expected by ADCAL that 75% of the new funding will come from superannuation funds.

3. In view of this recent raising of funds by development capitalists, there appears to be sufficient capital for the next year or so to fund the available development capital projects. Further, it is expected that during this period additional funds will be committed to development capital investments.

4. Many large superannuation funds have recently shown a trend to move away from balanced funds and have begun making asset allocation decisions at the trustee level with the introduction of the development capital class in some cases. For instance, the NSW State Superannuation Fund's development capital portfolio comprised about 20 major investments valued at $244 million (as at 31 March 1993) while the Special Investment Portfolio of the South Australian Fund Investment Trust, which includes exposure to unlisted companies, management buy outs and development capital, represented 16.7% of the fund's total assets.

5. Following the introduction of the recent SIS legislation, trustees of superannuation funds are becoming increasingly aware (in some cases through trustee training programs) of the need to develop an appropriate investment strategy and the benefits of diversification between a range of asset classes. These developments are likely to lead to an increase in the potential supply of development capital.

6. The significant growth of many industry funds and the easing of investment restrictions for some public sector funds are likely to further increase the supply of development capital. It should also be noted that funds need to be of a certain size before development capital becomes a realistic investment option due to the relatively small proportion of a total fund that is normally invested in this area.

7. In the United States and United Kingdom many large institutions and pension funds now invest between 2% and 5% of their assets in 'alternative investments'. This development is likely to be followed by larger Australian funds, especially during the growth phase in the business cycle.

8. It has been shown in a recent study (McKenzie, 1993) that the introduction of a development capital investment may improve the fund's expected rate of return whilst, at the same time, reducing the level of risk, as measured by the standard deviation of return. The paper concluded that if appropriate investments could be found, the fund should invest a small proportion of the fund's assets in development capital projects. It is expected that the advantage of this extra diversification will be increasingly appreciated by trustees.

9. As noted earlier, most development capital investments are fairly illiquid during the term of the investment. As funds increase in size and establish appropriate reserves, this illiquidity problem for a relatively small proportion of the total fund becomes less important.

10. The introduction of development capital investments will, in many cases, defer the return to the fund and this can create problems of equity between individual members, especially when the fund does not have a reserve. However, many industry funds have now established a level of reserves so that the importance of this equity issue is reducing.

11. The Australian economy is currently moving into a new period of economic growth and confidence. As a result, it is likely that the provision of development capital (from both Australian and overseas sources) will increase as a natural part of the cycle.

The above developments are occurring in an environment where there is no compulsion for superannuation funds to be directed into particular or designated areas.

The introduction of compulsory investments would lead to an increase in supply of the funds for development capital but it would also mean an increase in the risk level of the investments chosen, due to the increase in the number of projects that would be funded. As noted above, each superannuation fund has its own characteristics and the introduction of prescribed development capital investment would not be consistent with the responsibilities of trustees for some funds. Furthermore, such investments may be contrary to the members' best interests.

Any mandatory requirement would also lead to a distortion in the capital markets and as a result an inefficient allocation of the capital resources within the economy as noted by the Industry Commission (1991).

For the above reasons, both in terms of the current activity and the significant problems created by compulsion, **it is recommended that the Government should not prescribe a minimum level of superannuation fund investment in development capital.**

Superannuation funds and insurance companies are currently investing in all capital markets and will continue to do so. They will continue to assess all equity investments on a range of criteria including:

- the likely after tax rate of return over the period of investment;
- the impact of any taxation or Government incentives;
- the expenses involved in the investment;
- the expected volatility in the investment's rate of return;
- the risks associated with the investment;
- the quality of any specialist fund manager involved;
- the quality of the firm's management;
- the liquidity of the investment, including the ability with development capital investments to sell at the end of the investment;
- the overall diversification of their portfolio; and
- internal limitations concerning the minimum and maximum size of a single investment.

It is right and proper that trustees take into account these and other factors in the development and implementation of their investment strategy.

On the other hand, the Government may, at a particular point in time, wish to encourage investments in a particular industry or in a particular form of capital (whether it be development capital, venture capital or infrastructure capital). Such a action is clearly possible and may complement other Government initiatives. However, if investments are to be encouraged in a particular area, **it is recommended that the encouragement should apply to all investors.** Limiting the incentive to superannuation funds would be both restricting the source of capital and possibly raising the cost of the particular form of capital.

If the Government decides that an incentive is required, the question then arises as to what is the most appropriate form of incentive.

The Federal Government adopted one approach with the Pooled Development Fund Program which commenced in 1992 and introduced taxation incentives for the establishment of privately funded investment vehicles to provide equity capital for the expansion of small and medium sized companies. However, as noted in the recent

Kelty Report (1993), it has been acknowledged that this program has not worked. The reasons for the lack of success include the relatively small size of the taxation incentives, the deferral of the taxation benefits for some years and the severe restrictions on the size and form of the capital investments.

Investment behaviour of all investors (whether they be superannuation funds, insurance companies, other financial institutions or individuals) is more likely to be changed when an incentive occurs at the **beginning** of the investment. This initial incentive need not be as large as later incentives due to the absence of any need to discount the incentive. Furthermore, an initial incentive is much easier to administer.

It is therefore recommended that, should an incentive be considered desirable, the most efficient form of incentive to encourage investments in a Government designated or preferred area is an initial tax incentive or credit.

Of course, a tax incentive at the commencement of the investment raises a number of problems including the immediate effects on Government revenue and the possibility of ill-advised investments which are primarily tax driven.

It is therefore recommended that any initial tax incentives be spread equally over five years and that the incentive only be paid in later years on the condition that the business is continuing to operate.

It is also recommended that this incentive should be a tax rebate equal to a percentage of the investment given at the time of placing the investment.

For instance, a tax rebate equal to 10% of the initial investment could be sufficient to change some investors' behaviour. The use of a rebate is recommended to avoid the problems of institutions and individuals with different tax rates.

5. The Relationship between Superannuation Funds and Venture Capital Investments

As noted earlier, venture capital investments have important differences from development capital investments. In particular, these investments tend to:

- be for smaller amounts;
- have a much higher risk associated with them as they represent new ventures;
- involve family businesses who may have a reluctance to sell the business at the end of the investment; and
- often require capital without providing collateral.

In addition, the amount of investigation required prior to an investment can be greater than that required for larger development capital investments.

For these reasons, venture capital is much less attractive than development capital investments for the trustees of superannuation funds. Indeed, the additional costs incurred in investing in these areas may even exceed the extra rate of return that could be obtained. This lack of interest in venture capital is confirmed by the fact that of the $250-350 million funds available from the ADCAL members, less than $20 million is for venture capital.

Superannuation funds are an investment vehicle for individuals to save for their retirement in a cost effective manner at appropriate risk levels. Whilst acknowledging that there is a place for venture capital investments in the portfolios of large superannuation funds, these investments should not represent a significant proportion of the assets of any superannuation fund. Fundamentally there are too many unknowns for this form of investment to play a major role in the accumulation of individual's retirement savings.

Of course, it could be argued that shortfall of venture capital could be overcome by prescribing a minimum percentage of superannuation fund assets to be invested in these areas. However, such a policy would have enormous difficulties. The demand for venture capital fluctuates greatly with economic conditions and any prescribed percentage would be totally unsuitable at some time in the future. Further, as outlined in the previous section, such prescription would lead to an inefficient allocation of the capital resources within the economy. In addition, these investments may lead to decreased confidence in the total superannuation system.

Hence, it is recommended that the Government should not prescribe a minimum level of superannuation fund investment in venture capital.

In view of the smaller amounts of capital that are normally required and the fact that most of these businesses already have financial arrangements with banks, it is suggested that the banking system is an appropriate source of venture capital.

Should the Government wish to encourage this form of investment from banks or other financial institutions and individuals, **it is recommended that the Government consider the introduction of a tax rebate at the placement of the venture capital investment (as previously discussed) and/or capital gains tax incentives for a period of years following the investment.**

Venture capital investment represents a much riskier investment than development capital and some form of Government incentive may be needed if this form of capital is to be as readily available as may be considered desirable. However the incentives must apply to all potential investors. This level playing field will then mean that market pressures will operate and thereby improve the efficiency of the overall capital allocation process.

References

Bureau of Industry Economics (1993), Venture and Development Capital in Australia and Japan, Occasional Paper No. 13.

Industry Commission (1991), Availability of Capital, Report No 18.

Kelty B (1993), Developing Australia A Regional Perspective, Taskforce on Regional Development.

Knox D M. (1993), An Analysis of the Equity Investments of Australian Superannuation Funds, The Australian Banker, October, 233-239.

McKenzie A (1993), Development Capital - Taking advantage of the business cycle, ASFA National Superannuation Conference.

Pender H and Ross S (1994), Taxation, Regulation and Private Saving in Australia, Economic Planning and Advisory Council, Background Paper No. 36.

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