

Final Report

New approaches to expanding the supply of affordable housing in Australia: an increasing role for the private sector

authored by

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EXECUTIVE SUMMARY

Over the past decade direct government expenditure on social housing has fallen in Australia, while implicit housing subsidies delivered to home owners have continued to increase. The real value of rent assistance paid to private tenants appears to have peaked in the mid-1990s and shows recent signs of decline. This pattern of government intervention is occurring at a time when increasing economic inequality and insecurity, on the one hand, and high house price inflation (especially in the large cities), on the other hand, is creating a growing pool of households experiencing housing-related hardship or 'housing stress'. The key policy challenge raised here is to explore ways of more effectively attracting significant volumes of private investment into the provision of affordable housing, to complement existing government programs in the area. This research project poses and answers a number of key questions intended to inform this challenge.

What are the options for private sector financing of affordable housing?

Around 95 per cent of Australia's housing stock has been financed through private debt and equity sources. Owner occupation as the dominant tenure form has developed through the commitment of personal savings to fund the purchase deposit and debt finance supplied by banks, building societies, credit unions, the legal profession and a host of small agents. Since the mid-1990s a rapidly growing secondary market in residential mortgages has attracted institutional investors into the housing sector. In general, there are strong indications that the rapid growth of financing for owner occupation since the late 1980s has been biased towards the middle and upper end of the income distribution.

However, it is in the private rental sector that constraints on investment have impacted most severely on the supply of affordable housing and this fact forms the focus of this study. In the light of prevailing barriers to and policy settings influencing private investment in rental housing in Australia, the current pattern of investment is dominated by small, individual landlord-investors, owning one or two rental dwellings. The corollary of this well-established finding is the absence of large, professional investors in this sector. The result has been a significant decline over the past 15 years in the total stock of low cost private rental housing.

Nevertheless, there has been considerable experimentation over the last 10 years by investors, government and the non-government sectors in attracting new sources of private investment into affordable rental housing. In general, these efforts were characterised by their small scale and ad hoc nature. In no case did the model or vehicle 'take-off' and support continuing private investment.

In summary, it appears that the range of private rental investment options *actually* taken up in Australia is very narrow, by comparison to what is *potentially* available. This raises the second research question addressed in this study.

What are the main barriers and inducements currently facing key players who are or could be involved in affordable housing provision?

Rental market imperfections are deep and permanent. Hence, normal market forces are prevented from restoring rates of return (rental yields and capital gains) that would fully compensate investors for the risks they must hold. Key institutional factors that prevent the smooth operation of rental markets, especially at the bottom end include:

- The existence of a diverse band of individual landlord-investors, many of whom are prepared to accept low rental yields and negative net returns
- The impact of government regulations like landlord-tenancy legislation and taxation settings that favour small rental holdings
- The complex nature of the housing commodity, defined by its location, type, age, size, range of services offered residents and owners, long-lived nature, flexibility of use, importance as a necessity of life

The many risks that face investors in the rental market include:

- *Financial risk* associated with economy-wide movements in interest and inflation rates
- *Management and operating risks* associated with the actual operation of a rental business: maintenance costs, rental arrears and default, vacancy rates, etc.
- *Capital risk*, especially changes in the market value of the dwelling (and land) through time
- *Political risk* associated with the possible impacts (positive and negative) of future changes in government policy

Other barriers constraining investment here are:

- The *illiquidity* of housing
- *Poor market information*
- *Absence of a track record*

What policy instruments would be necessary to reduce current barriers and/or improve current inducements to effectively attract (significantly) more private investment into affordable housing provision?

The primary policy imperative for governments that are aiming to attract professional and institutional investors into the affordable rental housing sector is to bridge the gap between the rates of return those investors require and the returns that currently exist in the market.

This can be achieved by:

- *Raising net returns* to investors above those that exist at prevailing market rents. This will generally entail delivery of some form of subsidy to investors.
- *Lowering risks to investors*, so that the required rate of return falls towards the market rent, or further towards the affordable rent, where the latter is deemed to be lower than current market levels for target groups. This will generally entail part of the total risk being transferred from the investor to someone else, usually government and/or the achievement of market efficiencies through institutional innovation.
 - *A combination of the above* – bringing about increasing net returns *and* declining risk.

The forms that government 'bridging' support can take can be categorised as follows:

- Subsidy provision in the form of cash or in-kind *outlays* made by government agencies to investors, directly or indirectly; or *revenue foregone* via taxation concessions to investors
- Risk transfer by *credit support* (e.g. government guarantee to investors on income received from and/or the capital value of the dwelling); or *increasing market efficiency* through, for example, the generation of better quality market information, reduction of transaction costs and improved liquidity
- Regulation through *urban planning controls*: or *financial controls on investment decisions* (e.g. a prescribed assets ratio)

These forms of government support can be delivered through several mechanisms. *Demand side assistance* provides support to low income tenants, either in the form of cash payments or housing vouchers. *Supply side assistance* provides government funding for the expansion of dwelling stock provided at less than market rates to selected residents and includes:

- *Capital provision* of dwellings managed by government or non-profit organisations; in Australia the main channel for this delivery mechanism is the Commonwealth State Housing Agreement.
- *Subsidised home loans*, through the provision by government of mortgage finance at subsidised interest rates.
- *Shared equity schemes* that split ownership of the dwelling between government and resident, where the cost of the rental or equity components (or both) are subsidised by government.

Finally, whichever delivery mechanism and support option is chosen, the program has to be financed. Private financing options fall into two broad categories – debt and equity. Debt refers to financial instruments that return the amount borrowed and interest that is fixed, floating or real. Equity options can also take several forms, including direct ownership, a stock exchange listed company and a residential property trust, listed or unlisted. More complicated financing structures can be devised that draw on both equity and debt components.

A 'policy package' designed to close the market/affordability gap therefore has three components: a form of government support, a delivery mechanism through which the support is provided and a method of privately financing the operation. In doing so government needs to be clear about *the criteria* used to select a particular package or packages for implementation. The following criteria were applied in this study:

- Equity
- Efficiency
- Volume of funds
- Feasibility

In order to demonstrate how viable policy packages can bridge the gap and deliver appropriate risk-adjusted rates of return for rental investors, against the criteria just listed, three specific models were developed and analysed in chapter 4.

Model 1 is characterised by a Commonwealth Government outlay subsidy to the States who borrow from private investors to fund the capital provision of dwellings that are rented to target tenants at affordable rents.

The Commonwealth subsidy stream is calculated so that the expected cost to the States over the term of the loan is zero. The higher the subsidy, the lower the rents can be set to still meet all other outgoings and the lower the income required of the assisted tenants at the 25 per cent affordability benchmark. In this model the Commonwealth provides a capped subsidy and the States raise the debt finance and manage the risks.

Key outcomes of the model are:

- This model generates about \$4.50 dollars of initial private investment for every \$1 dollar of Commonwealth subsidy
- The annual cost of subsidising each tenant lies a little below current rent assistance subsidies but the tenant population to be assisted could be more widely targeted
- In the base case, a loan financed capital acquisition program of \$1 billion would require a Commonwealth subsidy of \$220 million and deliver an initial stock expansion of about 7,500 dwellings at a cost per assisted tenant year of \$2,288 before extra taxation receipts to the Commonwealth are considered and \$908 per assisted tenant year after tax
- These costs varied from a low of \$790 in Western Australia to \$3,413 in N.S.W. (before tax) and -\$565 in W.A. to \$1,794 in N.S.W. (after tax). Differences in subsidy costs between the States and Territories arise due to different relative operating cost structures and tenant relocation rates
- A sensitivity analysis carried out on the model found that total subsidy cost per assisted tenant year is highly sensitive to the actual rate of capital appreciation on the dwelling, when underlying variables are changed by one percentage point (100 basis points). Where proportional variations are made to the cost drivers, tenant income change, stamp duty level and initial dwelling price levels also exert a relatively large impact on resulting subsidy cost levels

Model 2 is a corporate equity vehicle, drawing on both private equity and debt investors. In addition, the Commonwealth contributes equity that provides (is subordinated to) a capital guarantee to the private equity investor. The States also provide a revenue subsidy so that, overall, the required (expected) rates of return of all private investors are met. The company

is listed on the stock exchange to ensure liquidity and the ready calculability of asset values for investors. In terms of the policy package, this model delivers a capital provision outcome, backed by both outlay subsidy and government guarantee, financed by a mix of public and private equity and corporate debt.

The main outcomes of the modeling are:

- This model generates about \$3 dollars of initial private investment for every \$1 dollar of government subsidy
- The annual cost of subsidising each tenant is about 50% higher than in model 1 and for current rent assistance subsidies. This cost differential falls to about a third when taxation receipts to the Commonwealth are taken into account
- In the base case, a loan financed capital acquisition program of \$1 billion would require a Commonwealth subsidy of \$347 million to deliver an initial stock expansion of about 7,500 dwellings at a cost per assisted tenant year of \$3,606 before extra taxation receipts to the Commonwealth are considered and \$1,249 per assisted tenant year after tax
- A sensitivity analysis carried out on the model found that total subsidy cost per assisted tenant year is sensitive to the same key variables as model 1. However, model 2 is slightly more sensitive than model 1 to changes in stamp duty and less sensitive in the case of changes in tenant income and initial dwelling price levels; sensitivity to changes in dwelling price appreciation is similar in both models

Model 3 is a non-profit company created to acquire and manage affordable housing. The state government provides non-returnable, dividend-free equity, leveraged by modest private borrowing and voluntary developer contributions. As a charitable entity, the vehicle has GST-free status and a number of other tax advantages that help sustain lower than market rents. This model therefore delivers a capital provision outcome, backed by both Commonwealth and State government foregone revenue subsidies, financed by a mix of government equity, private debt and donations.

This model is currently being developed by Queensland Housing and Brisbane City Council. As such, its results are provisional. The main outcomes to date are:

- The model appears to be capable of delivering long term, financially viable rental options in the Brisbane case for a range of household types at 75 per cent of market rent levels
- At the scale envisaged, 600 dwellings can be provided at a subsidy cost per assisted tenant that falls with the number of years of operation. Over a 50 year period the cost is \$3,051 or about 20 per cent below that in model 2
- The model appears to be able to deliver a range of dwelling options targeted to particular regions, drawing on cooperation between State government and the relevant local government
- The required subsidy cost is relatively insensitive to changes in most key variables, with the exception of the discount rate (and, hence future interest rates) on future costs and revenues

Two further *general findings*, across the three models analysed are:

- Whatever the model and financial instrument offered, institutional investors are primarily interested in investment options that deliver relatively low risk-low return outcomes. Put another way, their portfolios are light on in relation to such investments. Large institutional investors, operating on a global scale, have plentiful opportunities to take on high risk-high return investments. What they are missing, as governments in many countries seek to reduce public debt, is the less risky end of the spectrum. The three models analysed in this study have been selected because they each exist at that end
- This study has also concluded that additional private investment in the range modeled – i.e. an initial capital expansion of the affordable housing stock of \$1 billion to \$2 billion – will not 'crowd out' private investment in other parts of the housing system, due to the heavily segmented nature of that system and, in particular, to the existence of significant excess demand (stock shortages) in the low cost rental segment

In the case of institutional investment, what model or models could support the development of rental housing as a new asset class?

This question identifies the factors and developments that would need to be addressed in order to establish rental housing as a distinct asset class or sub-class within existing classes suitable for large-scale investment by institutional investors. In either case, appropriate investment vehicles or financial instruments would need to be developed and marketed.

The three models presented and analysed in chapter 4 meet this challenge. Model 1 depends on the primary issue of conventional State government bonds for which a deep market exists. Model 2 accesses private equity capital through the stock exchange and debt through the corporate market. Model 3 is more peripheral to mainstream financial markets, with only a minor share of capital raised through private mortgage debt. In each case, the potential volume of finance required would meet the scale requirements of institutions eager to commit large tranches of investment in order to spread large transaction costs.

Financial instruments, such as those modeled in this study, are also likely to appeal to a rapidly growing new sector of the capital market – the market for socially responsible investment products. Over the past two years the Australian SRI market has begun to catch the lead established in countries like the U.S. and Britain during the 1990s. This has been driven both by the demonstrated interest of Australian savers in the collateral economic, social and environmental benefits to be gained by targeted or 'ethical' investment and by the progressive build up of superannuation savings as a result of deliberate government policy. The increasing role played by investor choice and the established legal precedents relating to superannuation funds further raise the likelihood of a continuing rapid growth in SRI.

Affordable housing – and, possibly, housing targeted at particular groups like the aged or disabled – is well placed to be positively screened into the investment pools of SRI funds. There are no obvious characteristics of housing that would run afoul of the main negative screens being applied by investment analysts and consultants for their mutual and superannuation fund clients.

Policy Implications

This study has focused on the fact of declining housing affordability faced by many Australians, even after a decade of strong economic growth. The situation is reinforced by the continuing decline in the numbers of low-rent dwellings available to low income households and the current public policy settings in place. The lack of affordable housing is not confined to Sydney and Melbourne but characterises all the capital cities.

This situation therefore calls for urgent and innovative government action. There is a need for new housing assistance policies to complement existing policies. Given the current (and likely continuing) constraints on government expenditure, this strongly implies the need for greater investment in the provision of affordable rental housing by the private sector. In the current situation and with existing government taxation and assistance measures, private investment in rental housing has evolved as a 'cottage industry', dominated by small landlords, many of whom are not primarily driven by the financial motives exercising professional and institutional investors. The latter are, therefore, absent from this sector. *This is the major negative policy-relevant conclusion of the study.* The corollary is that if a significant boost to private investment in affordable housing is to be achieved, the barriers that currently repel these investors must be removed.

A policy package necessary to remove the basic barrier to institutional investment – viz. an inadequate risk-adjusted rate of return – will entail three components: a form of guaranteed subsidy stream; a mechanism for delivering the necessary subsidy and; a private financing option. *The key implication for government* here is that a successful attack on the affordability problem requires a carefully constructed approach that entails all three components, each of which is necessary but not sufficient for the purpose.

This policy approach has a number of important implications for government.

- *First*, in the case of approaches like Model 1, it establishes a basis for a constructive partnership between the Commonwealth and States. The Commonwealth, as the currently dominant taxing power with responsibility for maintaining acceptable housing standards in all parts of the country, accepts responsibility for providing the ‘bridging’ support necessary to attract a significant inflow of private investment into the rental housing sector. The States, with sovereign powers and an institutional capacity to deliver affordable housing, retain the direction and management of the program (model 1), or specify its charter (model 3), in the context of the economic conditions and political priorities ruling in each jurisdiction.
- *Second*, this approach has clear benefits for government. The major subsidy required is determined up-front (i.e. capped) in each of the three models presented and promises to deliver assistance targeted to the housing cost conditions in each jurisdiction, to households in need, around or below the ruling costs of the rent assistance program.
- *Third*, this approach has the advantage of both control and flexibility for government. Different models divide the risks and costs differently, both between public and private actors and between the levels of government. The more risk a particular government takes on, in the overall arrangement, the lower the expected subsidy cost it bears – and vice versa. In the case of model 1, for example, the States must manage a range of risks.
- *Fourth and critically*, this general approach is not presented as a substitute for the two established housing assistance programs in Australia, rent assistance to social security beneficiaries in the private rental sector and capital grants provision through the CSHA for public housing. Rather, this approach is offered as a ‘third way’, a supplement to the established programs that has the capacity to increase the stock of affordable housing in a targeted way in the short to medium term. *This point is crucial.*
- At a more basic level, *the long term permanent rationale* for maintaining the existing programs and building a ‘third way’ approach into an overall affordable housing strategy is that such a strategy enables government to introduce *a professional system of risk management* in order to reduce the overall risk of ‘subsidy blow-out’. In other words, if government puts ‘all its housing subsidy eggs in one basket’ – e.g. rent assistance -- and the downside for that approach eventuates, actual subsidy costs will rise substantially. By distributing subsidy resources across three broad programs, the risks partly cancel each other out, reducing total subsidy costs in the long term.

The final implication of this study for government is that the current environment is very timely for policy innovation in this field. The Commonwealth, States and Territories are currently engaged in multilateral discussions over the future of the Commonwealth State Housing Agreement. Capital markets in OECD countries, including Australia, are increasingly dominated by the decisions and requirements of institutional investors. These investors are increasingly attracted to socially responsible investment opportunities, in response to widespread and growing interest in this investment sector by individual savers and superannuation fund members. Affordable housing is both necessary in a civilised society and under-provided in contemporary Australia. The prospects therefore exist for a substantial flow of socially responsible investment into expanding the affordable housing stock in this country – but will only eventuate if governments initiate appropriate policy packages, such as those analysed in this study.

CHAPTER 1 INTRODUCTION

1.1 The Policy Context

Since the late-1980s real expenditure on social (public and community) housing has fallen. In contrast, housing assistance to owner occupiers, in the form of income and capital gains tax subsidies, has continued to rise with dwelling values and income taxation bracket creep. The real value of rent assistance to private tenants rose sharply through the 1990s but has recently begun to turn down (AHURI, n.d.). Private investors provide housing capital in the form of dwellings owned by private (largely individual) landlords and mortgage finance to owner occupiers. By and large, the tenure division of the total dwelling stock has been constant since the 1960s, though we may be beginning to see the slow decline of home ownership from its post-War high level of around 70 per cent (Yates, 1999; 2000). This is the broad context within which current housing policy debates are unfolding.

Although the total dwelling stock continues to grow in absolute terms, tracking moderate population growth – albeit in a highly cyclical and uneven geographic fashion – increasing problems are apparent in matching housing opportunities and needs among the less affluent sections of the population, particularly those who are not well placed in the changing labour market. The demand for *affordable* housing is clearly outstripping its supply in some areas and sub-regions (Berry and Hall, 2001).

The capacity of governments to deal directly with housing affordability problems has been severely limited by fiscal constraints on public borrowing and investment. Following the National Housing Strategy (NHS) of the late-1980s, early 1990s, governments have attempted to attack affordability problems through a number of supply-side and demand-side measures, including: rent assistance, encouragement of more efficient land sub-division and building regulations, and greater private investment in housing provision. It is this latter emphasis on the potential contribution of private investment to increasing the supply of affordable housing that forms the focus for this project¹.

A number of state government authorities have established programs to encourage or facilitate greater private sector provision of affordable housing. For example:

- In N.S.W. the Housing Minister has established an Affordable Housing Advisory Group, which has proposed a program of seeding grants to demonstrate the viability of private sector collaboration in the delivery of affordable housing outcomes. The Department of Urban Affairs and Planning is also developing a new state environmental planning policy that will enshrine “inclusionary zoning” provisions allowing planning authorities to require the inclusion of affordable housing units in new housing developments.
- In Queensland, the Department of Housing has established an Affordable Housing Unit responsible for developing a strategic program aimed at increasing the supply of affordable housing in the state. This strategy includes cooperation with the private sector, local government and community sector organisations (Queensland Housing, 2000).
- In Victoria, the Bracks Labor government has committed to injecting an extra \$90 million into leveraging private and community sector investment into expanding the stock of affordable housing, during its current term of office.

This project will review a number of relevant approaches designed to attack the intensifying housing affordability problem. The emphasis will be on the ways the housing authorities can develop successful partnerships and leverage arrangements with private investors and other actors, in the light of existing and alternative policy settings.

Current debates on housing policy in Australia are occurring in the context of both broader economic, demographic and social developments, and the peculiar history of housing and housing policy traditions in this country (on the latter, see Dalton, 1999). In the broad context the key factors include:

¹ Following the NHS, “affordable housing” refers to housing that can be accessed by households in the bottom two income quintiles by paying no more than 30 per cent (or 25 per cent in the case of a more stringent benchmark) of their household incomes in rent or mortgage repayments. Housing costs in excess of 30 per cent are likely to impose significant financial and social hardships on low to moderate income earners.

- Increasing deregulation and ‘globalisation’ of the national economy
- Ageing of the population and the rapid growth of smaller households
- Increasing economic (i.e. ‘vertical’) inequality, expressed geographically; that is, polarisation between high and low income earners is increasing in general, but is particularly marked in some regions – especially those undergoing pronounced economic decline. Harding and Greenwell (2001) found that, during the 1990s, the income share of the bottom 10 per cent of Australians fell, there was a marginal decline in the share of the middle income quintile and the share received by the top 10 per cent rose.
- Increasingly ‘flexible’ but segmented labour markets; i.e. labour markets unhindered by government or trade union rules, the appearance of distinct types of jobs differentiated according to whether they have particular characteristics or not – such as guaranteed hours, time or piece rates, high or low wage levels, promotion prospects, redundancy provisions, etc. – and the growth of both high income, knowledge intensive jobs and low paid, insecure and casual employment.
- The growth of both dual income and no-income households, and the increasing economic participation of women in the paid workforce
- A deregulated and rapidly growing capital market (see technical appendix), increasingly integrated on a global scale
- Continued growth of the service sector in comparison to the primary and secondary sectors of the economy: i.e. the growth of a whole range of consumer and producer services – both in output and employment terms – in relation to the agricultural, natural resources and manufacturing sectors of the national economy

In terms of the rather unique history of Australia’s housing system over the past hundred years, the following key points stand out:

- Australia has – by comparison to most of the other advanced industrial societies – a very heavy emphasis on the market. More than 95 per cent of households have always accessed their housing through the markets for rental housing or owner occupation. Social housing has played a (numerically) minor role and was late on the scene when compared to, say, Great Britain
- Australia already had a high rate of owner occupation by the end of the Nineteenth Century; this rate climbed further in the two decades after World War II
- Australia has (and has always had) a significant and buoyant private rental sector, dominated by small individual landlord-investors owning one or two rental dwellings
- The large majority of Australians enjoy high housing standards
- The housing stock is predominantly comprised of fully detached dwellings located in low density settlements
- Policy responsibility for housing has been split between the Commonwealth and State and Territory governments, with local government playing a minor and indirect role

The strong and persisting imprint of the market on housing provision in Australia has been dependent for much of the Twentieth Century on the institutional framework ushered in soon after Federation and resulting in what has been termed ‘the social settlement’ between Capital and Labour. In particular, the centralised system of wage fixation matched minimum award wages across the economy to movements in the cost of living for families. Housing costs were explicitly included in this calculation, more or less ensuring that households with a full-time employed member would be able to afford at least basic housing through the private rental market and many would be able to move from renting into home ownership. The development of a protected circuit of housing finance facilitated this typical pattern of housing careers. That is, close government regulation of the financial sector required the savings banks, credit unions and insurance companies to invest in limited areas of activity, notably the purchase of government bonds and home mortgage lending at lower than general market interest rates. In the case of owner occupation, this created a trapped pool of mortgage finance that did not reflect or respond fully to movements in economic conditions elsewhere in the economy. Permanent and secure employment led to adequate and secure housing for upwards of 90 per cent of the population, except in times of serious economic downturn (as in the 1930s) or Wartime privation (Berry, 1999; Dalton, 1999).

It is this functional fit between labour and housing markets that has begun to unravel over the past twenty years. Employment security has declined for many workers across the economy, along with the proportion of full-time middle-income jobs, especially for men. Labour economists like Gregory (1992) point to the phenomenon of 'the disappearing middle,' and the growth of low waged, part-time and casual jobs in the service sector. Campbell (1997) stresses the increasingly *precarious* nature of such employment, especially in terms of continuity of income over time. To gain and maintain access to both owner occupation and rental housing, households require adequate levels of income and a reasonably stable and predictable flow of income. Increasingly, labour markets are not meeting this dual condition for some workers. At the same time, in the wake of far-reaching deregulation of financial markets, the protected circuit of mortgage finance has broken down; mortgage borrowers now compete with other borrowers and pay full market interest rates on their loans. There is, therefore, an increasing disjuncture between housing and labour markets that is undercutting the capacity of the market to deliver affordable and appropriate housing to an increasing number of households. Put another way, housing affordability problems are increasing – with implications for a range of social problems like homelessness, ill health and declining access to employment. Inadequate housing appears to be one of the interacting factors leading to the threat of 'social exclusion', marginalisation of people from the mainstream economic and social institutions of society (Berry, 2000). Housing policy has changed too, with the Commonwealth withdrawing to focus on the delivery of income support through the social security system while progressively reducing its real contribution to public housing. Over the past decade most of the States and Territories have also wound back their direct housing operations, seeking to consolidate and reduce debt in the public sector and phase down home lending programs (discussions with housing officials).

A key question arising is: can the emerging crisis in housing affordability be adequately addressed by relying solely on traditional government policies in the housing assistance field – or will part of the solution be to attract more private sector investment into the provision of affordable housing? If the solution involves a greater reliance on private sector involvement, how can this be engineered?

1.2 Research Aims

The following four research questions will be addressed in this project².

1. *What are the options for private sector financing of affordable housing?* This question will identify the range of ways in which private investors are or could be involved in the provision of affordable housing in countries like Australia. The aims, requirements and motivations of the key players will be described in each case. The analysis will be supplemented by drawing selectively on past examples of private sector involvement in housing provision in Australia and internationally.
2. *What are the main barriers and inducements currently facing key players who are or could be involved in affordable housing provision?* The current pattern of housing investment in Australia will be described, highlighting the dominance of small individual investors in the rental sector compared to the deep market for (debt) investment (see technical appendix) in the owner occupation sector. The barriers to greater investment, especially in affordable rental housing, will be detailed.
3. *What policy instruments would be necessary to reduce current barriers and/or improve current inducements to effectively attract (significantly) more private investment into affordable housing provision?* Market failure at the bottom end of the rental market and increasing problems of access to home ownership constrain the capacity of the system to deliver satisfactory outcomes for lower income households; this has a pronounced geographical or locational dimension, feeding into broader patterns of social dislocation

² It was originally intended to include a fifth research question in this study, focussed on developing strategies for the redevelopment of existing public housing stock. This part of the study was dependent on close collaboration with several State Housing Authorities (SHAs). In fact, a number of the SHAs are currently considering this issue, as important components of their overall housing policy strategies. Their timescales for carrying out this work extend beyond the horizon for this project. It has, therefore, not been possible to pursue this component in the current study. However, the author has indicated that he is willing to collaborate with SHA colleagues as they develop and progress their work in this important policy area.

and exclusion. Housing subsidies and other policy interventions play a central role in breaking the vicious circle of poor housing-limited economic opportunities and their potential role in stimulating the flow of private investment into expanding the supply of affordable housing will be addressed.

4. *In the case of institutional investment, what model or models could support the development of rental housing as a new asset class?* This question identifies the factors that would need to be addressed in order to establish rental housing as a distinct asset class suitable for large-scale investment by institutional investors. Appropriate investment vehicles would need to be developed and trialled. Both debt and equity models (see technical appendix) will be analysed in this context.

1.3 Methodology

In order to answer the research questions specified above, this project was carried out in a number of sequential stages.

Stage 1: A selective literature search was conducted to identify recent research on issues and developments relevant to the project focus. The scope of this review included both Australian and international work. The review also covered the policy context within which concern over expanding the supply of affordable housing has emerged. The review sought to cover the overall system of housing provision, in terms of the major tenure groups. The role and limitations of private investment in the provision of affordable housing is discussed in Britain, the United States and the Netherlands, in order to compare and contrast developments in those countries with the Australian situation. Attention then turns to the area of greatest constraint in Australia – viz. the private rental housing market. The current pattern of private investment in this sector is outlined and the main factors responsible identified. The fact of and reasons for the neglect of this sector by large institutional investors are then outlined and discussed.

This stage provides an initial answer to the first two research questions – what are the options for private investment in affordable housing and what are the current barriers to it, drawing on the existing literature?

Stage 2: A framework for analysing the current barriers to greater private investment in affordable housing was developed, providing the basis for identifying the main forms of government support or subsidy necessary to reduce the gap between the investors' required rates of return and actual market returns. These forms of government support was related to the ways in which they can be delivered to investors and the various options for accessing private finance. The feasible combinations of support, delivery mechanism and financing option provide a range of potential policy approaches designed to encourage private investment in this sector.

This stage provided the conceptual and empirical support necessary to adequately discuss the range of private sector options and the current market and policy barriers to their implementation (the first two research questions) and to analyse the range of policy interventions designed to overcome these barriers and encourage greater private investment in affordable housing (third research question).

Through interviews and discussion with key public and private sector actors, this broad range of approaches was narrowed down to a number of specific options that involve significant government involvement. The research analyses these approaches in terms of the analytical framework established, seeking to evaluate the extent to which they effectively surmount the barriers identified in ways that have the capacity to generate a large scale volume of funds at an acceptable cost to government. Implications were drawn, where possible, for the most effective ways of achieving the policy goals entailed.

Discussions with financial sector actors established the developments that would need to occur for rental housing to be established as a new asset class or part of an established asset class. The growth of the 'socially responsible investment' sector was explored in this context, seeking to establish the potential for introducing 'positively screened' investment products that include affordable housing instruments.

Stage 3: Drawing on the analysis in stage 2, a number of models and scenarios were developed involving private investment in affordable housing projects. Based on assumptions concerning housing affordability trends and key economic variables, the implications for the volume of private investment funds and the cost of government support were estimated in each case. Projections were developed for the medium term (up to 25 years) on the basis of assumptions concerning housing market conditions and policy settings. The sensitivity of outcomes to variations in those base assumptions was then explored in detail.

This stage provides an indicative account of how cost effective particular policy approaches would be in achieving greater private investment in affordable housing and completes the answer to research question three. Stages 1, 2 and 3 also allow answers to the fourth research question to be advanced – i.e. what developments and models would have the greatest likelihood of creating rental housing as a new asset class for institutional investors or, alternatively, of ensuring that rental housing is included within existing asset classes? Part of the answer turns on the prospects for the continuing growth of 'socially responsible investment' in Australia.

1.4 Structure of Report

Chapter 2 of the report first outlines the downward trend in housing affordability, especially with respect to private tenants in the lower two income quintiles. The chapter then describes the existing pattern on investment in the rental housing sector and notes the absence of large institutional investors from this sector. Current barriers to institutional investment are discussed, along with an account of past studies and policies aimed at attracting these investors to the provision of affordable rental housing, both in Australia and internationally.

Chapter 3 establishes an analytical framework for understanding the investment motivation and behavior of professional and institutional investors, drawing on the theory of modern finance in financial economics. The framework is extended to produce a three-part approach to public policies designed to encourage the involvement of large investors in rental housing provision. This approach entails selecting a form of government support or subsidy, a means of delivering the support and a form of private financing or financial instrument. A set of criteria for selecting appropriate policies is then advanced and applied in order to identify three particular options or models for further analysis.

Chapter 4 details the three models and, on the basis of reasonable assumptions, in each case, derives outcomes for each model with respect to the required level of government subsidy costs and the volume of affordable housing provided. The first model is a public debt driven approach; the second model is a listed corporate vehicle, drawing on both private and debt finance; and the third model is a non-profit vehicle. A detailed sensitivity analysis is carried out on each model.

Chapter 5 discusses the potential for policy interventions of the type discussed in chapter 4 to create a deep demand for rental housing-related investment by the institutions. It is argued that this question is best answered by looking in detail at the recent and continuing growth in 'socially responsible investment', in Australia and overseas.

Chapter 6 summarises the findings of this project and draws out the policy implications for government.

CHAPTER 2 CURRENT INVESTMENT PATTERNS IN AFFORDABLE HOUSING

2.1 Trends in Housing Affordability³

Although the Australian economy has grown strongly through two economic cycles since recovery from recession in the early 1980s, the housing situation of low income households has generally deteriorated, especially for those in the private rental market. This has occurred in spite of rising average living standards and historically low nominal interest rates through most of the 1990s. Table 2.1 compares the changes between 1986 and 1996 in the percentage of low income private tenants paying more than 30 per cent of their household incomes in rent⁴. These households are said to be in 'housing stress' (National Housing Strategy, 1991).

Table 2.1: Housing Stress among Low and Moderate Income Private Tenants, 1986-1996

City	1986 %	1996 %
Melbourne	60.5	74
Sydney	67.3	80.7
Brisbane	63.7	64.3
Perth	59.9	56.1
Hobart	57.7	62.4
Darwin	70.7	63.7
Adelaide	63.4	76.1
All capital cities	64.1	72.7

Source: Berry and Hall (2001, p. 61)

The number of low and moderate income rental households experiencing housing stress across the seven capital cities increased by 90,000 during this period, so that by 1996 there were an estimated 227,480 private rental households in housing stress throughout Australia (Berry and Hall, 2001, p. 61). Only in Darwin and Perth did the proportion in housing stress fall. If current trends and policies persist, the total number of rental households in housing stress will rise to a million over the next 20 years (ibid., p. 65). A crude estimate of the current capital cost of immediately providing affordable housing for rental households currently in stress was put at around \$27 billion (ibid., pp. 61-2).

Adelaide, Melbourne and Sydney have been, as Table 2.1 suggests, particularly hard hit over the period in question. Berry and Hall (2001, pp. 59-60) have analysed these three cities at a sub-metropolitan level bringing the analysis up to June 2000 and distinguishing between the small multi-dwelling unit and three bedroom house segments of the housing market. The analysis calculates the proportions of low income private tenants (i.e. the two lowest income quintiles) who could buy or rent the median-priced unit or house in selected inner and outer regions of the three cities, using the 30 per cent affordability benchmark. The main results were that, at June 2000:

- No low income tenant household could afford to *buy* the average priced three bedroom house anywhere in the three cities. This indicates a clear barrier to movement into home ownership and one strong reason for the growth in long term renting, especially among medium sized and larger households.

³ For a detailed presentation of the data included in this section and their sources. See Berry and Hall (2001).

⁴ This group includes private tenants who fall within the bottom two income quintiles in the overall private tenant population, in line with the housing affordability benchmark established by the National Housing Strategy (1991).

- No low income tenant could afford to *buy* an average one bedroom unit anywhere in Sydney nor in inner Melbourne or inner Adelaide. In outer Melbourne, a one bedroom unit was affordable by 15 per cent of this group; the comparable figure for outer Adelaide was 39 per cent.
- No low income tenant can afford to *rent* an average three bedroom house anywhere in Adelaide, inner Melbourne or inner Sydney. Only 3 per cent can afford to rent in outer Sydney and 9 per cent in outer Melbourne.
- Less than 5 per cent of low income tenants can afford to rent average one bedroom units in inner Melbourne and inner Sydney but over 50 per cent can afford to rent in the outer areas of the three cities. Almost 40 per cent could also afford to rent small units in inner Adelaide. The (relatively) greater affordability of small rental units in these cities does not assist larger households seeking affordable housing.

It is clear, from both the aggregate analysis of trends until the mid-1990s and the more up to date analysis of Adelaide, Melbourne and Sydney at the sub-metropolitan level, that low income private tenants face considerable and growing problems in accessing affordable housing. Existing policy settings are failing to adequately address this situation. The progressive reduction in Commonwealth real funding of public housing through the CSHA (noted above), the increasing 'welfarisation' of the public housing sector and the rising maintenance and up-grade liabilities on the existing public stock place severe constraints on the extent to which this sector can expand the supply of affordable housing to meet rising needs. The other current form of housing assistance to tenants comes in the form of rent assistance paid as an income supplement to eligible private rental households receiving social security pensions and benefits. Although nominally designated as a housing benefit, in fact, it is delivered as income support and is not tied to the purchase of housing services. The real value of rent assistance (RA), in total, has fallen since the late 1990s (AHURI, n.d.), as has the low cost rental stock (Yates and Wulff, 2000), suggesting that RA has not impacted positively on increasing the supply of affordable housing. Yates and Whitehead (1998) and Berry and Hall (2001) provide arguments and evidence that suggest that demand-side subsidies, by themselves, are unlikely to expand supply at the bottom end of the housing market because of the existence of significant inefficiencies in that market segment.

Berry and Hall (2001, pp. 74-78) analysed, for Australia's two largest cities, the extent to which rent assistance moved low income tenants out of housing stress – i.e. to a situation where they were paying less than 30 per cent of income in rent after RA is included in their incomes. The analysis is carried out for every local government area in both Sydney and Melbourne at two points in time, June 1994 and June 2000, with respect to both dwelling types and household types. In other words, this study calculates, for each city, the percentage of local government areas (LGAs) in which private tenants eligible for RA can afford to rent the average priced dwelling, at each point in time, both before and after RA is added to their household incomes. The main results were as follows:

- In both 1994 and 2000, there were no LGAs in either city in which any single person household in receipt of RA could affordably rent any size or type of (median priced) dwelling.
- The same null outcome occurred with respect to low income couples with no children, with the exception that such households could afford to rent one bedroom units in a small minority (25 per cent) of LGAs in Sydney by 2000.
- Low income single parents with one or two children were not able to rent the average priced two or three bedroom house anywhere in either city in either years, before or after RA is included. In the case of units, the situation is a little better. In 1994, single parent households (after RA) could afford the average one bedroom flat in all LGAs in Melbourne but only 22 per cent of Sydney LGAs. By 2000, these percentages had fallen to 48 and 20 per cent, respectively. In the case of two bedroom flats, a minimal requirement for any family, only 29 per cent of LGAs were affordable in Melbourne in 1994 and 10 per cent of Sydney LGAs, after RA. These figures had fallen to 19 per cent and nil, respectively, by 2000.

- Low income couples with children fared better. In Melbourne, in 2000, they could afford to rent the average two or three bedroom house in just under 40 per cent of LGAs (after RA), and rent two bedroom units in 71 per cent of areas, though this was less than in 1994. The outcome for this group, however, was noticeably dimmer in Sydney, where average rents on three bedroom houses in 2000 were affordable in only 2 per cent of LGAs, even after RA had been received. Two bedroom houses and flats were affordable in less than 25 per cent of areas.

In other words, rent assistance is failing to provide either a wide range of locational or dwelling type choices for low income tenants in Melbourne and Sydney, with the partial exception of couples with children⁵. Moreover, the limited impact of the RA program has declined further during the latter half of the 1990s.

Given the relative ineffectiveness of both established forms of housing assistance in Australia to meet the growing problem of declining affordability, in the context of the social and economic environment described above, there is a strong case for a 'third way', not to replace but to supplement the existing policy approaches. Before focusing on this imperative (which points to the need to leverage more private sector investment into the provision of affordable housing) later in this chapter and in chapter 3, we will briefly raise and answer the obvious question – *why is declining housing affordability so important?* Why, in other words, should governments be concerned to reverse the trends described above?

Why Affordable Housing Matters

A number of **direct costs**, economic and social, are imposed on a household when it cannot afford to rent a dwelling appropriate to its multiple needs⁶. They include:

- *Housing related financial hardship or poverty.* The role of housing in intensifying and entrenching poverty has been evident in Australia since the *Commission of Inquiry into Poverty* (1975). Private tenants were found to be twice as likely to be in extreme financial hardship after housing costs were accounted for than people in the other tenures (Berry, 1977). This finding influenced the *National Housing Strategy's* choice of affordability benchmark in the early 1990s. Households whose incomes were in the bottom two income quintiles and paid housing costs in excess of 30 per cent of income were deemed to have insufficient income left to purchase the other necessities of life like clothing, food, transport, domestic power and health services. Insufficient purchasing power to support a basic acceptable lifestyle, in the context of socially and historically established norms, in turn, creates a range of further problems, such as those noted below.
- *Overcrowding and homelessness.* A lack of affordable housing encourages forced mobility as people strive to find and keep appropriate dwellings. Recourse to temporary and stop-gap accommodation is associated with frequent moves and often leads to overcrowding. Where temporary accommodation cannot be found, even at the expense of overcrowding, homelessness results. Homelessness is a complex and multi-dimensional problem but, clearly, one major factor in its growth in the recent decade (Chamberlain, 1999) is a lack of affordable housing appropriate to the needs of the diverse group of low income tenants. Particular subgroups are highly likely to fall into homelessness, including Indigenous Australians (Berry et al. 2001), young people and those experiencing substance abuse (Department of Human Services, 2000, 2001; Commonwealth Advisory Committee on Homelessness, 2001).
- *Health problems.* Overcrowding and poor housing conditions have been associated with a range of health problems (National Health Strategy, 1992). Homelessness, in particular is implicated in respiratory illnesses and poor nutrition, especially among children and a high prevalence of mental illness and substance abuse (Clough, 1991; Cass, 1991). The link between inadequate housing and poor health is very strong among Indigenous Australians (Pholeros, 1992; Jones, 1992; Berry et al., 2001).

⁵ Other weaknesses attributed to the current RA program include inflexibility across different geographic sub-markets and horizontal inequity. That is, RA levels are constant for a given household type across all States and Territories, regardless of relative housing costs; RA is only payable to households receiving social security benefits or pensions and not, therefore to similar households receiving identical incomes from other sources.

⁶ This section draws on arguments and evidence presented by Berry (2000).

- *Family instability and breakdown.* Inadequate housing, financial stress and forced mobility can contribute towards growing conflicts and pressures within households, culminating in domestic violence and family break-up. Once shattered, coherent family ties may be difficult or impossible to re-establish, especially where family members have chosen or been forced to move to different temporary accommodation (McCaughey, 1992). Separation and divorce imposes high psychological as well as economic costs on the people affected.
- *Reduced employment opportunities.* An absence of affordable housing in areas accessible to jobs reduces the opportunities for people to secure and keep paid employment. The concentration and marginalisation of people in affordable areas where jobs are scarce reinforces barriers to securing permanent employment for institutional, financial and behavioral reasons, including the absence of local information about employment opportunities (Van Kempen and Priemus, 1999). Unemployment and low and unstable income prospects, in turn, narrow the long term housing opportunities of people living in these areas, reinforcing patterns of marginalisation and social exclusion (Stubbs, 1998).
- *Poor educational attainment.* Financial stress within the family and frequent housing moves disrupts the schooling of children, while living in overcrowded and unhealthy accommodation also undermines the capacity of children to perform well at school. These outcomes are critical for the life-long economic prospects of children and a major factor in entrenching inter-generational patterns of poverty and disadvantage. Youth homelessness, in particular, extracts heavy costs on young people in terms of their interrupted education, future employment prospects and vulnerability to substance abuse and violence (MacKenzie and Chamberlain, 1998).
- *Increasing crime.* The links between poor housing and crime are complex and often indirect. Anecdotal evidence suggests that large public housing estates are sometimes associated with drug dealing and associated criminal acts. Barrow and Bachan (1997) found that particular crimes and the costs of dealing with it were higher in an older, undermaintained estate than in a newer, better resourced estate in London. Poor housing and high mobility are probably implicated as one among several reinforcing factors in the lifestyles of people perpetrating crimes and suffering as its victims.

It is also the case that poor and inadequate housing imposes **wider costs on the community at large**. Lack of housing affordability can, as noted above, result in *socio-spatial polarisation* at the regional level. Increasing social exclusion undercuts the normal social linkages that hold a community together and provide a necessary base for economic and social life. Put another way, when the housing system fails, a community's stock of 'social capital' is depreciated. Putnam (1998, p. v) argues that social capital includes '... the norms and networks of civil society that lubricate cooperative action among both citizens and their institutions. Without adequate supplies of social capital – that is, without civic engagement, healthy community organisations, norms of mutual reciprocity [sic] – social institutions falter'. Permanent, secure and affordable housing is a necessary (though not sufficient) condition for the accumulation of social capital. Without it, the normal guarantors of social interaction -- trust, reciprocity and community activism – atrophy⁷.

Where social capital and cooperation is undermined, due to factors like inadequate housing provision, other consequences ripple out. For example, lifestyles become more privatised. Many services and facilities that were widely provided through communal cooperation or state agencies are replaced by private markets or disappear entirely. This change impacts most heavily on low income people who have few effective choices. Defensive expenditures increase and avoidance behaviour is practiced by more affluent people; private security services, private transport and 'fortified' houses appear on the scene. The city itself develops harder divisions and edges. Spatial segregation intensifies. The phenomenon of the 'gated estate', where affluent households purchase or rent expensive dwellings isolated by physical barriers and private security systems from the larger city, is one manifestation of this trend.

⁷ A special issue of the journal *Housing Policy Debate* (vol. 9, no. 1, 1998) includes several studies that underscore the links between housing improvements and social capital, along with an introduction by Putnam.

These defensive expenditures are essentially unproductive from the viewpoint of the economy as a whole, like the costs of dealing with pollution. They divert resources away from productive uses, undercutting the growth capacity of the economy and the long term prospects of all citizens. The decline in civility and safety in a city or region has other negative economic effects. The social environment of a city is an important resource in attracting investment and skilled labour, as well as tourism. The prospects of a regional economy increasingly depend on its capacity to attract and keep 'knowledge workers' of all persuasions and senior managers of global enterprises and their families. The perceived safety and 'ambience' of a city, along with its cultural assets and infrastructures, are central economic determinants of success.

There are also functional intra-regional economic concerns raised by an increasingly fragmented and polarised city in which housing markets concentrate low income workers in distant and inaccessible locations. Innovative knowledge industries and clusters require routine and low wage workers, as well as highly skilled workers and excellent intra-regional communications and transport infrastructure. Social exclusion resulting in the concentration of routine workers in areas of limited local employment and isolated from the nodes of rapid growth and opportunity undermines this functional requirement. Poorly integrated urban transport systems weakly articulated with affordable housing opportunities for these workers constrain the capacity of a regional economy to succeed in the current global environment (Greater London Council, 2000; Silicon Valley Manufacturers Group, 1999). Mean and Andrews (1999) analyse this process of mobility, progressive polarisation among knowledge workers and other workers and functional break down in the regional economy in greater London during the 1990s. Increasing concentration of the latter group in parts of inner London where traditional jobs had declined was matched by the movement out to new growth areas on the edge by knowledge workers and their families. In those growing areas housing prices prevented routine workers from living anywhere near the job opportunities that opened up, creating potential labour shortages in routine but necessary support and service jobs.

In summary, a lack of housing that is both affordable and appropriate to the needs of all households imposes heavy long term costs on the people directly affected and on the economic prospects and quality of life of all members of the broader society. It was argued above that current developments and policies are failing to satisfy this imperative and that, if continued, will see the problems intensify. There is a pressing need for governments to find 'a third way' to supplement the rent assistance and CSHA programs in order to expand the stock of affordable housing in Australia. This entails attracting a significant volume of private investment to leverage whatever extra government investment is necessary and available.

The remainder of this chapter looks at the current nature and limits of investment in rental housing in this country, before exploring (in subsequent chapters) how governments can encourage a substantial flow of private investment to this sector.

2.1 Existing Investors in Rental Housing in Australia

The Australian Bureau of Statistics carried out two surveys of rental investors during the 1990s (ABS, 1998). The results have been analysed by Yates (1996), Beer (1999) and Berry (2000). The main picture emerging is as follows:

- The majority of rental properties are owned by individuals or couples and the remainder by small partnerships and companies.
- Three-quarters of individual landlords own only one rental dwelling, and a further 16 per cent own two dwellings. Three quarters of landlords are also home owners.
- The average income of landlords is almost twice the national average.
- Most individual landlords are primarily concerned to ensure a long term secure return on their investment.
- At any time a significant proportion of landlords can be regarded as 'accidental', having inherited the rental property or temporarily renting out their owner occupied dwelling.

This singular pattern of investment in private rental has produced a highly fragmented 'cottage industry' with significant movement of investors and dwellings into and out of the sector (Yates, 1996). Gross rental yields vary widely and net returns are low or negative for a high proportion of landlords (Berry, 2000). In the latter case, negative gearing of rental losses against other income delivers tax benefits (especially) to high income landlords to add to prospective capital gains as the dominant component in overall return. The (virtual) absence of rent control in Australia, the prevalence of short term leases, and the absence (until the recent growth in direct share ownership and universal superannuation) of alternative investment opportunities for small savers reinforced this pattern of small scale landlordism.

The taxation system also encouraged the same outcome (Yates, 1996). Negative gearing has been allowed on all rental properties, except for a short period in the mid-1980s. Land tax levied by the State governments has a threshold that usually cuts in after one or two properties are acquired. Interest paid on mortgage loans against the rental property is normally deductible against income. The building allowance was increased from 1 to 2.5 per cent in the 1980s (with a brief interval where the allowance was set at 4 per cent). Rental housing can now be treated as any other business for income tax purposes, allowing the landlord to fully depreciate fixtures and fittings for income tax purposes. Capital gains taxation was not introduced until the 1980s and has always been levied at an effective rate that is less than that pertaining to other taxable income (Yates, 1996; Wood and Watson, 1999).

The obvious absentee in this picture is the large, professional, institutional investor. The reasons for this absence can be grasped by considering the various barriers to investment in this sector that currently confront this class of investor in Australia.

2.3 Barriers to Institutional Investment in Rental Housing

Rental housing – as opposed to owner occupation – has never been an avenue for investment by the large banks, insurance companies and the superannuation funds. Berry (2000) has listed a number of key reasons for this outcome.

- *Low returns.* The cottage industry nature of the sector means that there exists a diverse collection of small landlords with a range of motivations for supplying rental housing. Rental yields vary significantly but around a relatively low average (5 to 6 per cent). This income yield is seldom high enough to attract professional investors who are well informed about alternative investment opportunities yielding higher returns for equivalent or lower risk, except where tax shelters deliver adequate compensating benefits.
- *High risk.* Rental investment generates significant and multiple risks associated with revenue flows, financing costs, operation and management, and public policy changes. It is this coupling of low returns with high risks that provides the basic barrier to institutional involvement in this sector.
- *High management costs.* The current small scale nature of the industry prevents the capture of economies of scale. Property and tenancy management costs are high on a per dwelling basis. Institutions prefer to allocate large tranches of funds in order to spread transaction costs, including the heavy compliance and due diligence processes that must accompany their investment decisions. The rental sector as currently configured does not meet this requirement.
- *Illiquidity.* All property assets are illiquid by comparison with asset classes like equities (shares). The institutions will invest in commercial property, directly and through company or trust structures, but generally require a premium on the rate of return and, over the past decade, many institutions have been reducing their exposure to commercial property in favour of more liquid assets, here and overseas. A higher required rate of return intensifies the basic barrier noted above.
- *Poor market information.* Information on property values and their movement over time is incomplete and uneven in quality, by comparison to the minute-by-minute tracking of share prices, for example. This makes it difficult for investors to accurately calculate and price risk on property assets. Uncertainty replaces risk which tends to load a further premium on the required rate of return.

- *No track record.* Allied to a lack of good market information, institutions have no real experience of large scale investment in rental housing in this country to judge outcomes upon. Institutional investors tend to focus on well trod ground. There is a certain ‘herd mentality’ in financial markets, where the performance of funds managers and consultants is judged against industry benchmarks – e.g. in the share market, the all ordinaries index or S&P 500 (Haugen, 1995). Untried investment niches normally require a pioneering investor and a ‘novelty’ premium on the rate of return.

All these reasons, taken together, mean that the risk-adjusted rate of return is normally insufficient to attract institutional investors into the provision of rental housing, especially in the case of equity investors⁸. The policy implication is that if institutional investors are to be attracted into this sector – and the great advantage is that if they were then the large volume of funds attracted would have the potential to make a very positive contribution to the housing affordability problem – then government needs to find ways of reducing the gap between the required and actual rate of return facing those investors. The key government role is to reduce the barriers to large-scale private investment in this sector.

2.4 Attempting to Overcome the Barriers: Australian Experience

To date, there have been a few, generally one-off and small scale, studies and policy programs designed to reduce the barriers discouraging the institutions from investing in affordable rental housing. These include the following.

- *Brian Elton and Associates (1991).* This report for the *National Housing Strategy* looked at the supply side of the private rental market. The main conclusion was that the Commonwealth should use the income tax system to deliver further benefits to individual and syndicated investors, by targeted increases in depreciation allowances. Syndication was thought to offer some attractions for institutional investors.
- *Caversham Partners et al. (1991).* The Caversham Report to the Commonwealth identified the (then) volume of funding necessary to support a viable social housing sector and the limits to raising those funds. They found a major barrier in the (then) indexation treatment of capital gains taxation that meant that the benefits could not easily be passed to investors in pooled equity or corporate structures. They conclude that real rate funding – inflation indexed debt instruments – is increasingly attractive to the institutions and recommended the creation of a single issuer of such securities for all the state housing authorities, falling outside Loan Council borrowing limits.
- *J.R. Hall and Associates et al. (1995).* This study for the Commonwealth’s *Youth Housing Strategy* analysed and compared three models for privately funding affordable housing for young Australians: a debt model, a leasing model and a corporate vehicle. Fixed, floating and real rate debt options were explored under a range of different economic conditions and the net subsidy cost to the two levels of government compared. The modeling demonstrated that the least-cost option for government is very sensitive to movements in interest rates, rents, inflation and construction costs. The least risky model for government as a whole (in terms of net subsidy cost per tenant housed) is the company structure with floating rate debt and Commonwealth equity subordinated to the private equity component.
- *East Perth Redevelopment Authority (1995).* This was a proposal for the (then) Commonwealth funded *Social Housing Subsidy Scheme*, developed for EPRA by J.R. Hall and Associates. The model was based on the construction of 50 medium density units in inner Perth. Private investors would finance construction in return for an equity share. Tenants drawn from Homewest’s shared equity waiting list would be invited to take an equity share in the dwelling, with residual equity residing with EPRA. The investor would be guaranteed a rental yield through a sinking fund established and subsidised by EPRA and the Commonwealth. Subsidies to the sinking fund would be at a level to ensure the residents’ housing costs were affordable. At the end of 10 years the dwellings would be sold and proceeds divided but with tenants given first option to purchase the remaining equity in the dwellings at the then market valuation. The Social Housing Subsidy Scheme was scrapped before this model could be implemented.

⁸ This important point is explained in detail in chapter 3.1.

- *Brian Elton and Associates (1998)*. This report for the National Community Housing Forum reviewed the prospects for attracting private investment into the community housing sector. Key, in this view, was the need for community housing providers to find ways of increasing net rental yields for investors, especially by mixing resident income levels and improving management efficiencies. Government subsidies would also need to be factored in in ways that guarantee transparency and accountability. Recommendations included a preference for debt models and fixed rate borrowing (to guard against interest rate risk), exploration of a sector-wide borrowing vehicle and the development of organisational infrastructure in the sector.
- *Brian Elton and Associates (2000)*. This report revisits the scene addressed in the 1998 report. Several small scale joint ventures between community sector organisations and private investors are summarised and the report notes the strategic importance for the sector of 'scaling up', and working with State government as a sector. The need to further raise management standards and practices across the sector is critical in giving private investors the confidence to become involved. The report points out that the recent changes in the tax system, notably the introduction of the GST, may give community housing organisations with GST free status an advantage in investing in new rental housing.
- *Ecumenical Housing Inc. (1999)*. This study developed two investment models oriented to ethical investors. In both models rents are set at 25 per cent of income, including rent assistance. The partial debt finance model has a church or similar organisation provide the land component and construction is financed by mortgage debt. Lenders are assumed to accept the nominal interest rate on long term bank deposits. The equity investment-headleasing model entails an established community housing provider negotiating a sale and leaseback arrangement with an equity investor, the term of the lease up to 15 years. The returns to the investor comprise net rent, tax benefits and capital gain, with the benchmark return set at the real return on long term bank deposits. Using these assumptions and benchmarks the models suggest that affordable rents can be delivered in many circumstances related to leverage ratios and economic conditions. This result is, of course, critically dependent on the willingness of the private investors, as ethical investors, to accept the assumed lower than market rates of return.
- *Berry, et al. (1998)*. This report to the Commonwealth Department of Social Security reviewed the barriers to institutional investment in the rental sector, on the basis of selective interviews with key financial sector actors. The results were consistent with the barriers noted above. Investors expressed interest in new investment opportunities which would fill the gap left by the shortage in government bonds, as governments ran their budgets into surplus and repaid past debt through public asset sales. The report modelled a corporate vehicle for middle suburban medium density development, drawing on both equity and debt finance. Under conservative assumptions the required rent was found to be around 20 per cent higher than current market levels. The model explored some of the ways that this gap could be reduced – e.g by capturing higher capital gains to equity investors or by achieving greater financing efficiencies – short of depending on government subsidies.

In summary, these previous studies:

- Identify a range of barriers that currently prevent significant large-scale private investment in some forms of affordable housing, most notably in the private rental market. These barriers are summarised, above.
- Propose several options or models for private investment in affordable housing, each dependent on particular government subsidies and institutional arrangements to overcome the existing barriers.

These studies are, in general, one-off and have not led to concrete and continuing policy developments; nor have they systematically set out a conceptual framework for considering the key factors determining and constraining housing investment patterns. The research questions posed in this study do attempt to provide such a conceptual framework – viz. to look at the forces and motivations that are responsible for housing investment flows into the low-to-moderate cost sector of the housing market and to the barriers that constrain

alternative investment outcomes. The third research question focuses on what governments can do to facilitate greater private investment in this sector, by way of subsidy delivery and other supports.

In addition to these studies, State governments have introduced a number of (generally short-lived) policies over the past decade and a half, aimed at encouraging greater institutional involvement. Examples from N.S.W., Victoria and Queensland are briefly outlined below.

2.4.1 N.S.W.

In the mid-1980s the Commonwealth Government replaced negative gearing on all assets, including rental houses, with a 4 per cent building allowance on new dwellings. This encouraged the formation of a rental trust (see technical appendix) in N.S.W. with returns guaranteed by the State Bank. Tax benefits received by private investors were generated by the capture of the indexation benefits (see technical appendix) of the (then) capital gains tax regime and the tax shelter provided by the 4 per cent building allowance. The capture of tax benefits and the revenue guarantee allowed new rental dwellings to be built and let at prevailing market rents. Similar trust arrangements emerged in some other States at this time. The major drawback in public policy terms was that there was little attempt to target the new rental dwellings towards the affordable end of the market. In any event, once Commonwealth taxation policy changed – as it did in 1987 with the reintroduction of negative gearing and the reduction of the building allowance to its current level of 2.5 per cent – these rental schemes dried up. The return to risk profile no longer satisfied investors. This trend was reinforced by the imposition of increasingly stringent taxation rulings which limited the extent to which government guarantees could be factored into structured arrangements with private investors – without investors losing the tax benefits from the building allowance and depreciation deductions. The Loan Council also cast a wider net over government off-budget deals in an attempt to prevent such arrangements from turning into public borrowing by stealth. The impact of these two constraining factors severely limited the extent to which government leasing and guaranteed buy-back arrangements could be used to transfer risk from the private investing party.

The tighter rulings of the tax office and public borrowing limits by the Loan Council led, in the later 1980s, to a search for genuine joint venture equity agreements between government agencies and private investors. The largest deal of this kind was the Public Equity Partnership joint venture between the N.S.W. Department of Housing (DOH) and the AMP Society – the so-called PEP1 and PEP2 schemes. These schemes saw about 1,500 dwellings acquired by an AMP vehicle and leased back to the DOH who managed the properties. Vacant dwellings could, after a minimum period, be rented to private tenants. The DOH provided AMP with an agreed gross real rate of return which reflected the capital gains tax indexation benefits captured by AMP. The DOH also provided a minimum capital guarantee of the residual value (see technical appendix) of the dwellings, in real terms, and shared in the division of any real capital gain above that minimum. The financial obligations of the State were provided for through a commercial insurance policy (in the case of PEP1) and by establishing a special government trust (PEP2). This represents one of the few examples to date of large scale institutional investor equity involvement in the rental sector in Australia.

Currently the N.S.W. government is pursuing two avenues with respect to attracting private investment into the provision of affordable housing. First, following recommendations by the Ministerial Affordable Housing Advisory Group, a small seeding program has been established to fund demonstration projects. Second, the Department of Urban Affairs and Planning is developing a State Environmental Planning Policy on affordable housing to give effect to legislative changes in 2000 to the Environmental Planning and Assessment Act empowering local planning authorities to require minimum provision of affordable housing units in private residential development schemes. Beyond that, the DOH continues to explore options for private investment in affordable housing, particularly with respect to the redevelopment and regeneration of existing dwelling stock.

2.4.2 Victoria

The Bracks Labor government was elected in 1999 with a promise to inject a further \$90 million of State funds into the provision of affordable housing, in cooperation with the community sector and drawing on private investment to leverage the government funds. The Social Housing Innovations Project (SHIP) has as its target the addition of 800 dwellings to the affordable stock in the State. The government funds are to be allocated in ways and to projects that attract at least a 15 per cent investment by the private sector. In late 2000 the Victorian Office of Housing called for proposals from community housing providers and private investors to access the first tranche (\$11 million) of those funds. A commissioned report recommending how to allocate the remaining funds was submitted to the Housing Minister in November 2000 and released for public comment in May 2001. The period for public consultation ended in September 2001 and the government is currently considering the responses and its actions.

Prior to SHIP, Victorian governments have not been actively seeking private investment in this area. Earlier programs focused on encouraging the growth of the small community housing sector through a variety of means, including:

- Grants: in the first half of the 1990s grants were made to established community sector providers under the community housing program.
- Headleasing: the government headleases dwellings from the private sector and on-leases to community housing organisations.
- Agency arrangements: the management of government owned stock is out-sourced to community housing providers. For example, the common equity rental cooperatives manage dwellings owned by a government vehicle, Common Equity Housing Inc. Other programs draw on the management resources of the larger community organisations like Supported Housing Development Foundation which specialises in providing appropriate housing for people with disabilities.

Some of these programs leverage resources from the community organisation involved – e.g. the Churches – but, by and large, do not draw significantly on the private sector. The major exception was the establishment, in the late 1980s, of a government vehicle, the National Mortgage Market Corporation, to securitise (see technical appendix) home mortgages targeted to low income earners, with the bonds sold to institutional investors. This was the last large scale effort by government to boost home ownership by providing mortgage finance to households who may have found it difficult to access the mainstream mortgage markets. However, repayment difficulties surfaced for many borrowers in the early 1990s – due to a mixture of high interest rates in the boom period and the technical structure of the mortgage products provided – and the program was phased out through the decade. In particular, it appears that low income borrowers effectively carried most of the risks associated with underlying movements in economic conditions that affected mortgage interest rates. When interest rates rose sharply at the end of the 1980s, in order to break inflationary pressures in the economy, many borrowers were faced with unsustainably high mortgage repayments.

2.4.3 Queensland

The Queensland Housing Department released a discussion paper on affordable housing in late 2000⁹. The paper establishes a rationale for government policy in this field and reviews a range of approaches government could take to expand affordability outcomes. These approaches included legislative, institutional, town planning, taxation and fiscal measures designed to encourage greater private and community sector involvement. The Integrated Planning Act (1997) provides the legislative platform for the possible introduction of State Planning Policies along the lines of the N.S.W. model allowing local councils to require the inclusion of a proportion of affordable dwellings in new residential developments. Under the Land Titles Act (1994) voluntary covenants can be attached to land to preserve its current use as low cost housing. The Department is currently exploring collaborative action with the Brisbane City Council, including the feasibility of establishing a joint affordable housing trust or non-profit company (this model is discussed in chapters 3 and 4).

⁹ Queensland Department of Housing, *Affordable Housing in Sustainable Communities: A Discussion Paper*, Brisbane, November 2000.

2.5 Attempting to Overcome the Barriers: International Experience

This section provides an overview of the private financing of rental and affordable housing in Britain, the United States and the Netherlands¹⁰.

2.5.1 Britain

New housing legislation, enacted early in the first Thatcher Government (1979-84), introduced 'the right to buy' for sitting public housing tenants. By the beginning of the 1980s, local government public housing accounted for about one third of the total dwelling stock. Thatcher's first Housing Act (1980) was designed to encourage public tenants, particularly those who were employed, to move into home ownership, supported by substantial discounts on the purchase price of their dwellings. By the mid-1990s over 1.5 million local council dwellings had been purchased by tenants and the stock of public housing had fallen to a little over 20 per cent of total stock (Kleinman, 1996, p. 30). The home ownership rate in Britain rose from just over 50 per cent in the 1970s to 67 per cent in 1990 (Oxley and Smith, 1996, p. 74).

Private finance flowed strongly into mortgage lending during this period, facilitated by a publicly funded mortgage insurance scheme ('Income Support for Mortgage Interest' or ISMI), means tested and delivered through the social security system. More generally, the central government continued to provide mortgage interest relief through the income tax system. However, from 1983 the mortgage interest relief scheme was progressively restricted in order to limit the total cost of the subsidy to government that threatened to blow out under the twin impact of rising home ownership and house price inflation. The total subsidy to home owners rose from 1.6 billion pounds in 1980-81 to peak at 7.7 billion in 1990-91, declining to 3.5 billion by 1994-95 (Kleinman, 1996, p. 31).

A second Housing Act (1988) in the last Thatcher Government (1987-90) introduced the policy of transferring local council dwellings to housing associations, according to the expressed preferences of the majority of tenants on a public estate. By 1995, 185,000 public dwellings had been transferred in this manner (Kleinman, 1996, p. 37). This process continued during the second half of the decade. The housing association sector has grown accordingly, to absorb stock transfers and access private loan funds made possible by central government provision of facilitating infrastructure. In particular, the government established the Housing Corporation to regulate and assure quality within the sector and to channel government grants and loan funds to the associations (*ibid.*). The associations can also borrow directly from banks and other private lenders. Private sources now supply up to 50 per cent of the cost of new stock (Aughton and Malpass, 1994).

Successive British governments have also sought to encourage the growth of the private rental sector which had fallen to less than 7 per cent of the total stock by the early 1990s. In 1988 the Business Expansion Scheme was extended to cover companies investing in rental housing. Under the scheme investors received tax relief on dividends, up to a limit, as long as the shares were held for at least five years. Thereafter shares could be sold and any capital gains realised free of tax. This scheme was phased out in the 1990s and made little impact on actual investment patterns (Crook et al., 1995).

A second scheme – the creation of housing investment trusts (HITs) – was introduced in 1996 by the Major Government. HITs are housing-specific corporate vehicles designed to attract equity investment by delivering tax benefits to investors. Company income tax is charged at the lowest rate and capital gains are exempted. Crook and Kemp (1999) carried out a survey of 27 financial institutions to determine the attitude of institutional investors to the scheme. The overall result was that the scheme (like the earlier BES) had made little headway to date. Investors were concerned about the capital value constraints (scale), illiquidity (in spite of stock market listing) and lack of tax transparency. However, there were some signs of investor acceptance, by comparison with the earlier scheme, and more industry interest in developing the approach to satisfy investor concerns. A number of the institutional investors surveyed were either currently investing in residential rental property, or considering it. There was some recognition of the portfolio diversification benefits of investing

¹⁰ For more detailed discussion of international developments see Berry and Hall (2001, pp. 103-113).

in this asset type. Nevertheless, it was clear from the research that significant barriers to investment in rental housing still existed and would need to be further reduced before a large volume of private funds flows into this sector. Crook and Kemp (1999, pp. 57-58) propose two policy changes that would reduce barriers in this way:

- Create tax transparent 'TERLS' – tax exempt residential lettings schemes – which pass through untaxed net corporate earnings to equity investors to be taxed at their marginal tax rates (see technical appendix). In Australia, this would mean that superannuation funds would pay tax at the rate of 15 per cent on their dividends. This model is similar to the 'Real Estate Investment Trusts' (REITs) in the United States.
- Introduce and enforce industry-wide codes of practice establishing minimum standards with respect to the management and maintenance of rental dwellings. This would reduce risks associated with asset management and landlord reputation.

2.5.2 The Netherlands

Dutch housing policy has long favoured the growth of social housing. Private renting accounts for about 15 per cent of the national dwelling stock, a little less than in Australia, but owner occupation covers only 45 per cent of the total, well below Australia and most other OECD countries. In this respect, the Netherlands is similar to Germany and Sweden. Housing Associations and other non-profit organisations own and manage 33 per cent of the stock, and local government a further 6 per cent (Oxley and Smith, 1996, p. 75).

Government housing subsidies have encouraged this particular tenure pattern of development. Until the late 1980s, housing associations received a range of cash subsidies on the construction of new dwellings and operation of their activities. Rental allowances were paid to their tenants to ensure affordable housing costs. Most of these subsidies have been phased out in the 1990s or converted to a once-over capital injection. This so-called process of 'grossing and balancing' (Boelhouwer, 1997; Larkin and Lawson, 1998) entailed the capitalisation of future housing subsidies and the sum applied to discharging housing association loans to government on their existing stock. This is, in effect, a one-off equity grant to the sector which is now responsible for managing that stock and adding to it by accessing private funds. It is part of a general effort by the Dutch Government to limit the growth in the fiscal cost of housing subsidies, a policy drift that is occurring in many of the European Union member countries (Boelhouwer, 1997; Kleinman, 1996).

Institutional investors, including the banks, have long invested in this sector, providing both debt and equity funds. In 1992, institutions owned about 6 per cent of the total stock (Oxley and Smith, 1996, p. 75). Private loans from the banks are secured on the asset base of the housing association, backed by a tripartite system of insurance and guarantees. First, housing associations must meet capital adequacy requirements and maintain their equity base in terms of a minimum benchmark value of their assets. Second, all associations contribute to a central insurance fund that covers default on interest and principal repayments on loans held by each association. A second central organisation has been established to offer financial and management assistance to individual associations that get into difficulties that might lead to loan default. Third, ultimate responsibility for the financial viability of the sector rests with local and central government, which bear the final, catastrophic risk in the sector. The consequence of this structure of provision is that housing associations are generally able to borrow from the banks cheaply, at around 25 basis points above the government bond rate. Consequently, around 90 per cent of the cost of new dwellings in the sector was being financed by bank loans by 1997 (Boelhouwer, 1997).

This relatively low cost of finance has at least partly compensated for the removal of subsidies on construction and operation in keeping rents below full market levels. However, the fact that residual risk now resides with individual housing associations who are responsible for managing the assets and meeting all financial obligations, along with the removal of central government controls over rents, has encouraged associations to match rent levels with the total costs and quality of individual dwellings. The result has been an upward drift in rents through the 1990s and increasing concerns about declining affordability in the sector (Oxley and Smith, 1996, pp. 111-12; Larkin and Lawson, 1998).

The private rental sector is split almost evenly between private and institutional investors. Some rental dwellings are subsidised and some are unsubsidised. Landlords receiving subsidies must charge rents in line with central government policy; unsubsidised dwellings rent at full market value. Over the past 30 years government has wound back subsidies for new rental dwellings and focused one-off capital grants on the construction of low cost dwellings (Oxley and Smith, 1996, pp.150-53). At the same time, rising construction and operating costs, rent control and inflation have encouraged disinvestment in the sector, especially by individual landlords. A pattern of division has emerged in which individual landlords tend to own lower quality, lower cost dwellings while the pension funds and insurance companies own the better quality stock renting at the higher end of the market (ibid. p. 152).

Although owner occupation has traditionally been less important in the Dutch housing system and housing policy debates, very recent developments may be altering that picture. After more than a decade of housing reforms that effectively reduced the direct role of government in subsidising the social and privately rented sectors, a decade in which the economy grew strongly, home ownership appears to be on the rise. Policy discussion has now turned to embrace and further support this phenomenon (Lawson, 2001, pers. comm.).

2.5.3 United States

All three levels of government have been heavily involved in subsidising housing provision in the U.S. The Federal Government has intervened primarily through the tax system and regulation of the financial sector. Key *Federal* approaches include:

- The establishment in the 1930s of the Federal National Mortgage Association (Fannie Mae), originally to manage non-performing mortgage loans for the banking sector. Fannie Mae pioneered and now dominates the mortgage backed securities market and is responsible for about one-seventh of all residential mortgage loans outstanding in the U.S. Fannie Mae's mission continues to be the provision of finance to assist lower income households into home ownership (Stegman, 1999, p. 1).
- The introduction of the Community Reinvestment Act (CRA) in 1977 which requires all federally regulated banking institutions to demonstrably meet the full range of credit needs in the community. Access of low income households to affordable housing is included within the scope of this requirement. In effect, this forces banks wishing to gain the Federal Government's regulatory stamp – a critical factor in enhancing that institution's credit rating – to extend mortgage finance on favourable terms to disadvantaged households who find it difficult or impossible to access finance from mainstream lenders (Stegman, 1999, pp. 184-85). Since, 1992 more than US\$300 billion has been directed towards traditionally under-serviced populations in the loan market (Freedman, 1998).
- Real estate investment trusts provide equity and debt investment opportunities for individual and institutional investors. REITs pass all net income and capital gains to the equity investors for taxation at their marginal rates of taxation. REITs can draw on CRA sanctioned funding, benefitting from lower cost of finance, as long as the bulk of the dwellings are targeted to the low cost end of the market (Affordable Housing Finance 6, 1998).
- Federal taxation policy directly subsidises some rental investment projects. Between 1965 and 1983, more than 1.5 million rental dwellings were provided under the so-called 'Section 8' program. Investors were able to gain tax benefits through accelerated depreciation allowances and access to low interest finance in return for locking the dwelling into low cost rental for 20 years. Thereafter, the investor was able to rent the dwelling in the open market or sell it unencumbered to owner occupiers or other investors. Low income households received rental subsidies (vouchers). The end result was affordable rents for the agreed period. This scheme was closed to further expansion early in the first Reagan Presidency (1980-84) (Stegman, 1999, p. 127).
- Largely replacing the section 8 program, the Low Income Housing Tax Credit Scheme was introduced by the Tax Reform Act of 1986 as the Federal Government's major approach to encouraging the provision of affordable housing (McClure, 2000). The scheme delivers tax credits, redeemable against Federal tax liabilities, to selected

developers who supply housing for low to moderate income occupancy for a minimum period, using specified affordability benchmarks. The scheme is Federally funded but implemented at the State government level. Individual and syndicates of developers annually tender for the fixed volume of tax credits available in each state. The base term for investment is 30 years but there is an effective bailout option for investors after 15 years. Maximum rent levels that can be charged are related to average incomes and housing expenses in the regional housing market concerned. In recent years this scheme has been further leveraged by allowing developers to bundle other Federal subsidies – notably, section 8 program benefits – into LIHTC projects without losing the tax credits. (For more information on the LIHTC scheme and its impacts see McClure, 2000).

State and local government and community non-profit organisations are also involved in a range of programs designed to encourage private investment to flow into the provision of affordable housing, some drawing on Federal schemes like LIHTC. Stegman (1999) provides a summary of more than one hundred examples, many involving cooperation between government, community sector and private sector organisations. These approaches cover:

- Affordable home ownership schemes
- Preservation of the existing affordable housing stock
- Community-based affordable rental schemes
- The development of secondary financial market vehicles
- Rental assistance tied to the transition from welfare dependency to work
- Community development strategies involving housing area regeneration
- The creation of special housing trusts with a mission to direct revenue gained from a variety of sources into supporting affordable housing outcomes

City Councils in the U.S. are also able to use town planning controls to expand affordable housing supply, mainly through inclusionary zoning powers and the process of charging developers 'linkage fees'. Lawson (1995) describes a range of such mechanisms in operation in American and Canadian cities.

Conclusion

The next chapter provides an analytical framework for considering *how* public policy approaches can be designed to overcome the barriers to institutional investment identified in this chapter, in order to attract substantial and sustainable volumes of investment into the provision of affordable renting housing. Three models aimed at this outcome are then analysed, in detail, in chapter 4.

CHAPTER 3 'STORMING THE BARRIERS': AN ANALYTICAL FRAMEWORK

This chapter begins by developing an analytical account of *why* institutional investors ignore rental housing as an investment opportunity in Australia. This account rests on the wide acceptance of modern finance theory, and associated risk management techniques, in the professional investment community in countries like Australia. The analysis then outlines the three necessary components of any effective attack on the barriers preventing large-scale private investment in the provision of affordable housing; the form and level of government support, the manner in which that support is delivered to investors, and the type of private finance drawn upon. An appropriate policy option must combine all three components. A set of reasonable policy criteria for selecting preferred policy options from among the many possible are discussed, and then applied to select three options that are described in this chapter and modeled in chapter 4. Finally, the process necessary to implement each of these preferred options is outlined.

3.1 Posing the Problem: Establishing the Framework

Chapter 2 argued that, in general, large institutions have not invested in rental (as opposed to owner occupied) housing in Australia, due to the existence of a range of barriers and disincentives. The 'cottage industry' nature of this sector is reinforced by the absence of these investors. To fully understand this absence it is necessary to capture the logic driving the investment behavior of the institutions and other professional investors in countries like Australia. This logic is provided by 'the theory of modern finance', which presents a view of how financial markets work and how investors should behave (invest) if they aim at maximising their wealth over time. Since institutional investors are driven by both a regard for their competitive success and legal regulation to maximise the well-being of their clients or policy holders, it is not surprising that modern finance theory has their full and undivided attention.

Modern finance theory (MFT) is deceptively simple¹¹. It proceeds on the well-known prudential assumption that it is best not to 'put all one's eggs in one basket'. By spreading one's assets over a number of different income earning areas, the chance of losing everything in an unexpected disaster is radically reduced. MFT demonstrates that diversification across a large range of different financial assets (shares, bonds, property, etc.), in all sectors of the economy (and indeed, globally), maximises overall financial returns given the overall risks, or alternatively, minimises risk given overall return. 'Risk' is viewed as the calculable probability of fluctuating returns over time from an investment or set (portfolio) of investments. Risk is generally measured by the past volatility of the price movements of the asset in question. For example, a company share whose price has bounced around significantly in the past might reasonably be expected to continue to do so in the future. Conversely, another share that has maintained a stable value or grown consistently in value in the past will probably continue to do so in future. The former share is a riskier bet than the latter in the sense that it is difficult to forecast its future value with any confidence. Risk can therefore have both positive (upside) and negative (downside) characteristics; volatile asset prices can move up and down.

The reason that a carefully chosen investment portfolio is less risky (volatile) than the sum of the risks of the individual assets making up the portfolio is that the risk of some assets cancels out the risks of others. For example, a portfolio of company shares and real estate property will be less risky than just holding either type of asset. When share prices plunge, property tends not to decline as far or even increase. That has been the market experience for over a century. Consequently, the value of the portfolio rises or falls less than the individual shares and property assets involved. The more types of assets included in the portfolio, the greater the number of potential cross-cutting patterns of individual returns and the lower overall risk or volatility of the portfolio. More formally, portfolio risk will be minimised where the covariance of returns between as many as possible of the pairs of assets in the portfolio is low or negative.

¹¹ The theory is outlined and explained in all introductory texts in corporate finance – e.g. Brealey and Myers (1988); Bishop, Crapp and Twite (1988). For an interesting historical account of the development of the theory, see Bernstein (1992).

The key to successful investing in an uncertain world is to diversify as much as possible, *provided that the prices of the assets held in the portfolio are appropriate*. Put another way, the expected returns (income divided by the asset price) must be high enough, given the risk. The higher the risk, the greater the rate of return required to bear that risk – i.e. given the return, the lower the asset's value or price¹². But, as we have seen, some risk attaching to individual assets can be diversified away by putting together suitable portfolios. This type of risk is called 'unsystematic risk', which depends on factors peculiar to the asset in question. By combining assets, the unsystematic risks of each are removed, leaving a bedrock of 'systematic risk' for the portfolio as a whole.

Systematic risk is due to factors like movements in the general economic cycle or wars that adversely or favourably affect all assets and investment returns in much the same ways. It is systematic risk that can't be diversified away and simply has to be borne by investors who therefore will demand an appropriate rate of return for doing so. This required rate of return implies that the prices of the individual assets making up the portfolio will be set at appropriate relative levels. This, as outlined below, depends on financial markets being 'efficient' – i.e. on buyers and sellers of financial assets each attempting to maximise their individual wealth through portfolio building, in the light of full and relevant information about the risk and return characteristics of all the assets traded.

'Efficient financial markets' are markets where prices always fully reflect the available information on the performance of the assets traded (Fama, 1970). For example, the current share price of a company will, in this view, reflect widely shared information about that company's past financial performance, current activities and plans and expected future returns. A corollary is that when new information impinging on the company's future prospects becomes available – say, news of a product innovation or mining ore discovery – financial markets will immediately factor that news into asset prices. In this case investors will rush to buy shares in the company, pushing the share price up to a new level consistent with raised expectations of higher future profits and dividends. Improved future profit and growth prospects will also tend to lower the risk of holding that company's debt instruments, reducing the rate of return required on those instruments and (other things equal) increasing the demand and price for those assets as well. In such a world, financial markets are said to be 'informationally efficient'¹³.

For markets to be efficient in this sense, three characteristics are required:

- Most investors must be 'rational' – i.e. they must each be attempting to maximise their individual wealth over time, in the light of available information and a given range of widely available investment opportunities. This implies that they will each value a financial asset on the basis of their expectations of its future financial return, discounted by their personal preferences for current over future income (consumption).
- Where some investors are 'irrational' – either because they rush around trying to 'beat the market' or they invest with aims other than wealth maximisation in mind – their trades are random and in most cases cancel each other out. Irrational investors are called 'noise traders' and their offsetting activities have no aggregate effect on resulting asset prices. In other words, there is no systematic bias in the investment behavior of noise traders.
- However, *if* systematic bias does arise – if the irrational investors are irrational in the same direction, if they all head off down the same inappropriate path (e.g. dumping the shares of a mining company that has just struck gold) – *then* more rational investors will enter the market to cancel out their effect on prices. If for example, due to the activities of noise traders, an asset is temporarily under-priced in relation to its underlying fundamental value, determined by expected future returns, then rational investors will quickly notice this and move in to buy shares in order to reap a speculative profit. This will occur as long as price is below value until the increasing demand pushes price back to its fundamental value. A reverse process will occur if the share is over-priced, with

¹² If r is the required, risk-adjusted rate of return, and R is the given net return or income, and P the price of the asset, then: $r = R/P$, and simple algebraic manipulation tells us that $P = R/r$. With R fixed, the price (P) varies inversely with the required rate of return and, hence, risk.

¹³ To be more accurate, MFT presents financial markets as 'informationally efficient in the semi-strong sense' (see technical appendix).

rational investors selling at the high price and, in the process, driving it down to its true value. This process of moving in for a speculative gain whenever price and value diverge, setting up forces that close the gap, is termed 'arbitrage' and the investors with an eagle eye for a bargain and quick killing are called 'arbitrageurs'. Because there are so many arbitrageurs operating in financial markets, including fulltime professionals, any divergence of price and value will be strictly limited and very temporary (Fama, 1965)¹⁴.

In an efficient market a rational investor will build an efficient portfolio. A portfolio is efficient if it has an equal or better return than any other portfolio that has the same overall risk (and equal or less risk than other portfolios with the same overall return). In deciding whether or not to add another asset to the portfolio all that matters is how this will affect the overall return and risk of the new portfolio. If returns go up relative to risk then the portfolio will be expanded.

In fact, MFT demonstrates that the most efficient portfolio is the market as a whole; that is, investors can't do better than investing in all shares, bonds, property, etc. – as long as they pay the right price for each asset. And, as we saw above, efficient financial markets ensure that 'the price is right'. By holding the whole-of-market portfolio unsystematic risk is diversified away completely.

The MFT approach enables investors to readily calculate the rate of return that they would need to achieve on any particular asset – and, hence, the price that should be paid for it – if it is to be included in an efficient portfolio. This is referred to as the 'required rate of return' for an asset. The standard technique for calculating the required rate of return is 'the capital asset pricing model' or CAPM (pronounced CAP-EM) for short. To justify inclusion in an efficient portfolio an asset's rate of return must include three components (see technical appendix for more details):

- As a base, the rate of return being earned on risk-free assets, usually assumed to be government bonds¹⁵. This provides a floor, since a risky asset can hardly deliver less than a risk-free alternative. If it did then no rational investor would invest in it if he or she could buy more government securities at an appropriate price.
- A premium to compensate for all the risky assets held in the portfolio – i.e. all assets other than government securities.
- A further premium to compensate for the asset in question's risk (volatility) in relation to the risk of the whole market portfolio. This 'premium' can be negative. That is, if the asset in question is very low risk relative to the market – say, it has a partial government guarantee – then its inclusion dampens the overall risk of the portfolio.

To summarise, acquiring individual assets entails both systematic and unsystematic risks for investors. The latter is diversified away by selecting a portfolio of all risky and risk-free assets. This leaves the investor bearing systematic risk for which an appropriate overall rate of return must be achieved. The rate of return on (and price of) each asset making up the (efficient) portfolio will reflect the return on risk-free assets plus a dual premium based on the riskiness of the market as a whole and the contribution of the asset in question to overall market risk or volatility.

The end result, if markets are efficient, is that each investor will be driven to hold a portfolio comprising all assets, risky and risk-free. The only difference between investors will be in the proportion of risky and risk-free assets held. Investors who want a lot of certainty in their lives will build portfolios dominated by the risk-free asset; they will hold only a small proportion of their wealth in risky assets. They are called 'risk averse' – more colourfully, 'government coupon clippers'. Conversely, investors keen to build their wealth quickly, and prepared to risk losing it, will load up on risky assets and allocate little of their investment to acquiring government securities. They are said to be 'risk preferers'. Each investor faces a trade-off between expected return and risk. To get more you have to risk more. More prosaically, you can either chase riches or sleep soundly at night but not both!

¹⁴ The claim that financial markets are characterised by these three features is called 'the efficient market hypothesis' or EMH (for a further discussion of the theoretical and empirical arguments supporting the EMH, see Shleifer, 2000, pp. 2-10).

¹⁵ In fact, as experience demonstrated in the 1990s, government securities are *not* risk-free, even when hedged in futures markets. Nevertheless, investors in the capital market tend to act as if they are, at least when they come to price assets.

This standard approach to portfolio analysis assumes the existence of a perfect capital market. It abstracts from real-world complications like transaction costs, imperfect and incomplete information, government taxes and regulatory regimes. In recent times there has emerged an alternative theoretical approach – ‘behavioral finance theory’ (BFT) – that models investor behavior and outcomes on different assumptions about rationality, in the light of empirically observable imperfections in real-world financial markets¹⁶. Nevertheless, MFT still predominates in financial markets, among both professional investors and in legal circles responsible for defining and enforcing the fiduciary responsibilities of trustees, investment managers and others who look after other people’s money. Professional investors, including the institutions, therefore continue to rely on CAPM and other more esoteric risk pricing techniques to guide their investment decisions. They also tend to ignore investments that are difficult to price using these techniques or that are traded in clearly inefficient asset markets. In such recalcitrant cases, if investors are to invest they may only do so by demanding a further premium on the rate of return to compensate for the peculiar uncertainties relating to those assets. The greater the complications and uncertainties perceived, the larger the super-premium demanded.

It should now be clear why rental housing is so unpopular with institutional investors in Australia. The barriers to investment in this sector, discussed in chapter 2.3, define rental housing as a high risk-low return proposition, with plenty of intractable uncertainty thrown in for good measure. Ruling market rents and expected capital gains are too low given the myriad perceived risks and uncertainties. The rental housing market is dominated by noise traders – as noted earlier, most rental investors are not motivated solely or even predominantly by wealth maximisation. If the investment behavior modeled by MFT ruled in this market, then current landlords would recognise that their returns are too low (their investment is over-priced) and would disinvest, switching their investment to other assets. As the supply of rental housing fell, rents would rise (and rental housing prices fall) until an adequate, risk adjusted rate of return for this asset is achieved. Since this doesn’t happen, the barriers (and irrational investor behaviors) must be strong and persistent, and the institutions will continue to avoid this market.

This situation can be depicted heuristically in Figure 3.1.

The ‘required rent’ depicts the rent that would need to be charged by an institutional investor in order to add rental housing to an efficient portfolio. This rent level includes the premium noted above related to both overall market volatility and the contribution of rental housing to that risk, plus whatever ‘comfort’ super-premium investors require to compensate them for the uncertainty due to the other barriers noted – poor information, political risk, etc. Since the required rent exceeds the current market rent, institutional and other professional investors continue to avoid the sector. There exists what might be called ‘a market rent gap’, represented by area (a) in Figure 3.1.

Figure 3.1 also suggests (and chapter 2.1 demonstrates) that the affordable rent for many households is below the current market level (to the extent represented by area (b)). The ‘affordable rent gap’ is, then, the difference between what the institutions require and what low income tenants can afford to pay. Put another way, if institutional investors are to contribute to expanding the supply of rental housing, then some way must be found to bridge the market rent gap (a). But if the institutions are to provide *affordable* rental housing, then the larger affordable rent gap (a+b) must be bridged.

¹⁶ As its name suggests, BFT concentrates on how investors actually behave under conditions of uncertainty (not risky outcomes defined by probability judgments). The theoretical differences with MFT focus on assumed attitudes to risk, the way in which investors form expectations about the future and the degree of investor sensitivity to the manner in which investment opportunities are framed (perceived). For a useful discussion of both the theoretical and empirical claims of BFT, see: Shleifer (2000, pp. 10-23); Shiller (2000); Haugan (1995).

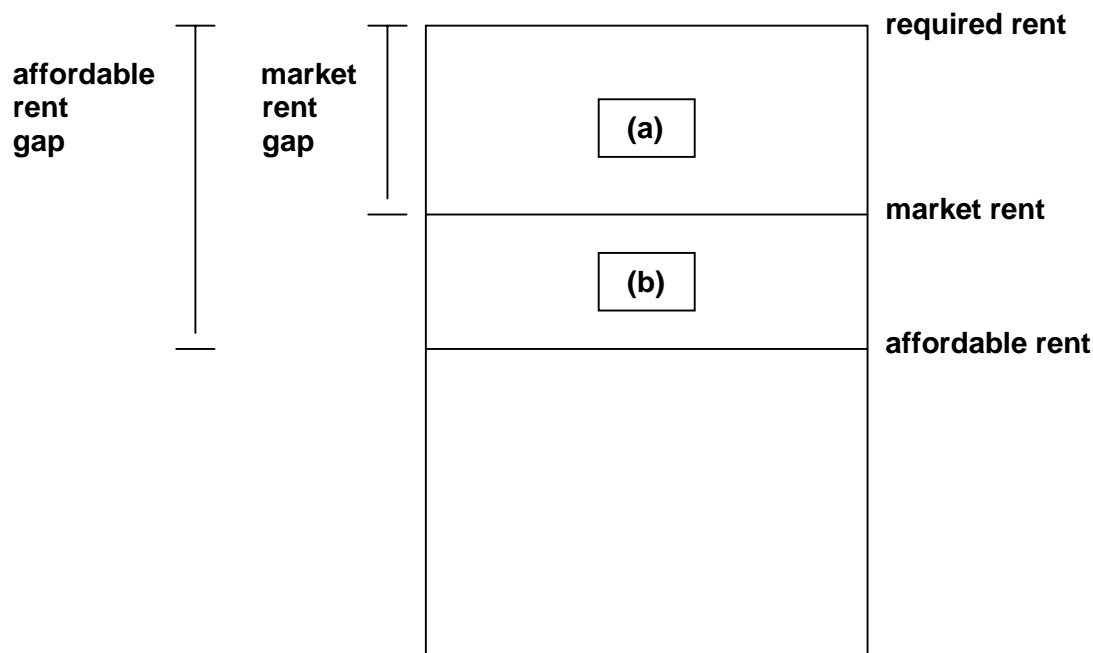


Figure 3.1: The Affordable Rent Gap

The next section examines the alternative ways in which these gaps can be bridged. If this can be achieved, then the basis is created for significant volumes of institutional investment to flow into the affordable housing sector in Australia. The key point emerging from the discussion above is that investors have a strong incentive to diversify as much as possible in order to maximise portfolio returns given the risk. There are currently untapped diversification benefits¹⁷ attaching to rental housing that investors are missing out on because 'the price is not right' – i.e. rental housing is over-priced as an asset. There is also a rapid accumulation of national savings in the superannuation sector seeking investment outlets. Rental housing represents a potential new domestic investment field for the superannuation funds, and an alternative to the increasing flow of Australian savings off-shore. What has not yet occurred is the merging of this potential investment opportunity and the growing pool of funds. Chapter 5 discusses the growth of institutional investment in the context of the move to 'socially responsible investment' and the implications for an expanding market in financial instruments tailored to the provision of affordable housing.

3.2 Government Support Options and Delivery Mechanisms

The previous section established why, at base, institutional and other professional investors avoid rental housing as a sphere of investment in Australia. In spite of potential diversification benefits (i.e. low or negative covariance of rental with other returns), the current rate of return available is not high enough to compensate for the contribution that rental assets would make to the systematic risk of well-chosen portfolios. The absence of complete, accurate and reliable data on the past performance of residential property as an investment compounds the problem. Investors either ignore this asset, because they can't accurately price the real risk, or demand a 'comfort' premium – i.e. a very high rate of return, in effect equating rental housing with the highest risk investments for which adequate data does exist. In either case, the end result is – avoidance of rental housing as a viable investment sphere.¹⁸

¹⁷ Housing represents about 50 per cent of total net personal wealth in Australia, and private rental housing comprises a fifth of the housing stock. Hence, institutional investors are currently avoiding investing in about 10 per cent of the country's total asset base.

¹⁸ For a detailed discussion of the various risks (systematic and unsystematic) facing investors in residential property see Hall, Berry and Carter (2001, chapter 2.3). Chapter 2.5 of that report then describes the forms of government support, summarised in the following discussion.

If the policy aim is to attract more private investment into the provision of rental housing, especially at the affordable end of the market, then government must do one of the following:

- *Raise net returns* to investors above those that exist at prevailing market rents. This will generally entail delivery of some form of subsidy to investors. In terms of Figure 3.1, above, the market rent is effectively supplemented by the subsidy in order to equal the required rent. Investors will invest once the 'market rent gap' is bridged. The outcome will be affordable, however, only if the (larger) 'affordable rent gap' is closed.
- *Lower risks to investors*, so that the required rate of return falls towards that implied by the market rent, or further towards the affordable rent. This will generally entail part of the total risk being transferred from the investor to someone else, usually government and/or the achievement of market efficiencies through institutional innovation.
- *A combination of the above* – bringing about increasing net returns *and* declining risk.

The **forms that government 'bridging' support** can take can be categorised as follows:

1. *Subsidy provision* in the form of:

- *Outlays*: cash payments by government agencies to investors, directly or indirectly.
- *Revenue foregone*: taxation concessions to investors, which reduce the gross rent required while increasing the after tax return to an acceptable level. Examples here include concessions on income tax, stamp duty and land tax payable by investors.

2. *Risk transfer* by:

- *Credit support*: the provision of a government guarantee to investors on income received from and/or the capital value of the dwelling.
- *Increasing market efficiency*: through the generation of better quality market information, reduction of transaction costs and improved liquidity (say, through securitisation), government assumption of design costs associated with financial innovation and institutional reform.

3. *Regulation* through:

- *Urban planning controls*: the imposition of land-use controls that require housing developers to provide a minimum proportion of dwellings at affordable prices (or a cash levy in lieu).
- *Financial controls on investment decisions*: a legally enforceable requirement to invest a proportion of funds in specific ways – i.e. a prescribed assets ratio – in this case, the requirement to invest a minimum proportion of funds in affordable housing.

Thus, measures dependent on government subsidies will *either* enable investors to achieve competitive gross rates of return through supplementing market rents by cash outlays *or* reduce the gross required rate of return while boosting after tax returns through taxation concessions. Risk transfer measures reduce the risk to investors, and therefore their required rate of return (and cost of finance), *either* through transferring some of the risk to government *or* squeezing greater efficiencies out of less than perfectly operating financial and property markets. Finally, government regulation over-rides the risk-return calculation, to some extent, by legally mandating a constrained investment environment.

DELIVERY MECHANISMS

The various forms of government support described above can be delivered in two main ways.

- *Supply side assistance* is targeted at increasing the stock of dwellings available for either assisted purchase or rental. Funds are provided for the physical delivery of dwelling stock. Alternatively, government regulation is directed at achieving the same outcome, the expansion of the housing stock.

- *Demand side assistance* is targeted directly at low income households and takes the form of either the provision of a cash payment (rent assistance) or a 'voucher' (to buy housing services) in the hands of the housing consumer.

Advantages and disadvantages have been claimed for both approaches:

Proponents of this form of [demand side] assistance argue that, given markets are efficient, then the provision of allowances will bring about an increase in the supply of low cost housing at the most competitive price (subsidy). They also argue that this form of assistance permits closer and tighter targeting and removes the inequities associated with the differential levels of assistance available to public tenants viz a viz private tenants (enhancing 'horizontal equity').

Proponents of supply side programs argue that demand side assistance is inefficient and that the number of households supported will never be able to be maintained or increased (because of rising real rents). They also argue that demand side assistance cannot provide the same quality of housing support, because the standard of housing provided cannot be effectively guaranteed and security of tenure assured. Furthermore, as an entitlement-based benefit, the growth in the cost to government of demand side assistance may be difficult to limit or cap (Hall, Berry and Carter, 2001, pp. 28-29).

Supply side assistance can be divided into three specific delivery vehicles or mechanisms.

- **capital funding** for the physical provision of dwellings which are managed in the government or community sectors
- directly and indirectly **subsidised home loans**¹⁹ (including mortgage assistance)
- directly and indirectly **subsidised shared equity** (or joint ownership arrangements with residents)

In each case, public funds are provided on terms that (with subsidies built-in) reduce rents or mortgage repayments below current market levels.

Demand side assistance takes the form of **direct assistance** to private and public renters via untied (cash) or tied (vouchers) payments. In Australia, the main forms of direct assistance are rent rebates provided to public tenants and rent assistance to eligible private tenants provided through the social security system. Both are effectively means tested.

The *forms* of government support are linked or coupled with the *mechanisms* through which the support is delivered in the following ways:

- Cash *outlays* can be delivered through all four mechanisms. Outlays can fund direct assistance to tenants, subsidies to home purchasers and capital injections to purchase dwellings. Outlays can be delivered as a stream of payments over time, as in the case of rent assistance or mortgage interest subsidy, or paid up-front in a lump sum, as in the case of the first home owners grant. Demand side subsidies delivered through rent assistance can really only take the form of outlays, since both management and ownership of the rental stock is in the hands of private investors.
- *Revenue foregone*, such as the granting to investors of tax exemption on rental property revenue, can be delivered through capital programs, subsidised home loan and shared equity schemes. In such arrangements, ownership and management of the stock can be separated, with management assumed by public or community sector agencies and tax benefits delivered to the equity-holding private investor.
- *Credit support* is also a supply side approach and involves the provision of government guarantees, either on income flows to investors (rent top-ups, cover for mortgage loan default) or the capital value of dwellings, or both. Such support can therefore be delivered through capital programs and home loan and shared equity schemes.

¹⁹ This mechanism for subsidising some home owners is in addition to the large subsidies delivered through the taxation system to *all* owner occupiers. Home owners in Australia are exempt from the capital gains tax on their homes and income tax on the imputed rental value.

- *Planning regulation* can only be imposed (delivered) through capital provision programs – that is, at the point of developing or redeveloping housing. The focus is on land use control by the owner of the land and its improvements.
- *Financial regulation*, as in the case of a prescribed assets ratio imposed on particular classes of investors like superannuation funds, raises funds that can be applied to capital provision, shared equity and subsidised home loan schemes. Key policy questions are raised here in relation to how closely the resulting housing outcomes can be targeted to households deemed to be in need; i.e. how affordable will the resulting housing be?

The alternative delivery mechanisms pose different risks, in terms of subsidy liabilities, for government as a whole. There is no ‘dominant strategy’ regarding delivery mechanisms; that is, there is no one mechanism that is least-cost for government under all circumstances. Systematic risks attaching to volatility in interest rates, inflation, rental income and property prices arise and interact differently across the four delivery mechanisms. The least-cost option for government depends on precisely how factors like interest rates and property values move over time. Hall, Berry and Carter (2001, p. 8) offer the following conclusions:

- With low to moderate interest rates and moderate to higher levels of gross private rental yields and capital growth, public housing (i.e. capital provision) options will prove to be most cost-effective
- as interest rates rise, and capital growth declines shared equity will probably outperform public housing as the most efficient delivery mechanism
- in periods of low housing interest rates, high gross rental yields and little capital growth subsidies on home loans will become the least cost approach
- when rental yields are low dwelling prices are stagnant and mortgage rates are high, headleasing supported by direct (i.e. rent) assistance will be most cost effective

3.3 Private Financing Options

The manner in which housing is financed is the third component – along with the form and method of delivery of government support – that defines an overall policy aimed at providing affordable housing. Private financing falls into two broad categories, debt and equity.

1. *Debt options* can be further subdivided into:

- *Fixed rate instruments*: the interest rate is unchanging for the term of the loan. The instrument is usually provided in the form of a credit foncier loan with a constant mortgage payment schedule or as a loan with constant interest payments over the term of the loan and repayment of the principal at the end of the loan period.
- *Floating (variable) rate instruments*: the interest rate can vary during the term of the loan, usually following general movements in the capital market. A credit foncier structure is also common here, though the payments made vary with interest rate changes. In this case, the borrower bears the interest rate risk, whereas in the case of fixed debt, this risk falls on the lender.
- *Real rate instruments*: lenders receive an agreed real rate of interest throughout the term of the loan. The inflation component of the interest cost is stripped out and the loan principal indexed to movements in the general level of prices. With positive inflation this means that the borrower pays progressively more in nominal terms through the life of the loan, even when inflation, and hence, nominal interest rates remain constant. In this case it is the borrower who bears the risk of inflation, whereas in the case of fixed and floating debt, the lender bears this risk.

2. *Equity options* can also take a number of forms:

- *Direct investment*: the private investor owns the real assets in question – i.e. the dwellings.

- A stock exchange listed company: private investors own shares in a company that owns rental housing. The value of the shares reflects the general performance of the company and investor sentiments concerning its expected future returns.
 - A residential property trust: similarly to the company, the investors own units in the trust, which acquires and manages a rental stock. Property trusts can be listed or unlisted on the stock exchange. Taxation treatment of companies and trusts differ, particularly since income and capital gains are normally distributed to and taxed in the hands of the individual unit holders.
3. *Combined options.* Corporate structures can draw on both equity and debt instruments. Other, more complex combinations of financial instruments can also be devised in order to meet the particular risk preferences of different types of investor. Such financing structures can include options, swaps, mixtures of standard and indexed debt, subordinated debt, and so on.

Where government agencies borrow from (i.e. sell bonds to) private investors the price (interest rate charged) will be relatively low. This follows from the application of the logic of modern finance theory, discussed in section 3.1, above. The risk that governments will default on interest or principal repayment is very low – at least, this is the experience with governments in countries like Australia. Hence, investors only need a modest interest return to 'reward' them for adding government bonds to their investment portfolios. Commonwealth Government loans are the least risky of all, because the Commonwealth has the largest revenue base; all Australian taxpayers stand behind a loan to the Commonwealth. This fact allows the Commonwealth to issue cheaper debt than the States; the difference is around 50 basis points (0.5 per cent). Similarly, debt issued directly by state agencies will need to offer higher interest rates (between 35 and 50 basis points) than debt issued by State Treasuries, since the risk of default is greater in the former case.

In general, for the reasons just noted, public borrowing provides the cheapest cost of financing investment in affordable housing, however the necessary subsidies are packaged and delivered. The exception would be where an equity instrument can be devised that would pass on to investors significant tax concessions on depreciation and building allowances on residential buildings and capital gains, while offering a level of risk nearly equivalent to government debt²⁰. This means, in general, public borrowing will be the cheapest form of financing affordable housing schemes for government. Other options would, therefore, only be used where (a) other efficiencies in operation could be achieved via alternative financing routes, or (b) political constraints limit government borrowing, or (c) governments wish to reduce their risk exposure by transferring risk to private equity investors and are willing to pay the extra cost.

Some combinations of *private financing option* and *delivery mechanism* make more sense than others. For example, if government support is being delivered through subsidised home loan programs, then government debt is most appropriate, since it is not possible to deliver significant benefits to equity investors. Furthermore, considerations of risk management favour some financing options over others. For example, depending on which risks government is willing to assume:

- when government offers home loan schemes financed by public borrowing, the financial risk to government is lower where they are able to repay principal at any time. Hence, when a home purchaser sells the dwelling and repays the outstanding mortgage loan to government prior to the end of the loan term, the government can immediately repay the private bond holder and avoid the risk of not being able to reinvest (find a new home purchaser) in order to meet the principal repayment when the loan to government matures.
- Floating rate mortgage products increase the risk of home purchaser default for government, whereas fixed rate instruments impose interest rate risk unless governments also borrow from private investors at fixed rates over the same term.

²⁰ It should be noted that after changes to the business taxation regime, following the Ralph Report in 1999, the potential pricing benefits of equity instruments have been moderately reduced for companies and slightly reduced for individuals. (For more details see, Hall, Berry and Carter, 2001, chapter 2.7.3)

- Real rate debt carries a significant default risk for government, since home purchasers whose incomes don't rise at the CPI rate face paying a rising proportion of their incomes in mortgage repayments.
- If affordable housing is provided through capital provision or shared equity programs, government borrowing through real rate debt instruments allows the government's payments to private bond holders to be matched by rising rents to public or community sector tenants whose (CPI-indexed) pension and benefit incomes also tend to rise with inflation.

In general, direct investment – where the dwellings are owned by the private investor and the subsidy delivered in return for lower rents or prices – is consistent with all the delivery mechanisms.

In summary, chapters 3.2 and 3.3 argue that an overall policy option or approach designed to provide affordable housing to households in need has three components; a subsidy or support flow, a means of delivering the subsidy, and; a private financing instrument. Governments need to be aware of the factors generating risks for themselves, investors and residents, and to manage those risks in ways that minimise the long term costs of support while targeting the resulting housing to households currently suffering housing stress. This issue of selecting the most appropriate policy options that would expand the stock of affordable housing is taken up in the next section.

3.4 Selecting 'Preferred' Policy Options

By combining the six forms of support with the four delivery mechanisms and two or more private financing options gives in excess of 50 possible policy options for stimulating private investment in affordable housing²¹. Those options are preferable that rank high on the following criteria:

- *Equity*: beneficiaries in similar situations should be treated similarly (horizontal equity), while those (low income households) most in need should benefit most (vertical equity). Some households in need (i.e. who are currently in housing stress) who do not receive housing assistance under existing arrangements should have access to housing provided under the new policies. This suggests that low waged households – the so called, 'working poor' – should be included as target groups. With respect to ensuring vertical equity, the new policies should also effectively extend assistance to low income, rather than middle and higher income groups. This means that the new policies should allow close targeting and monitoring of impacts; in this sense, these policies should extend access to disadvantaged groups that are already targeted by public housing and rent assistance programs, as well as those who currently miss out. Hence, equitable new policy options will both extend the reach of current housing assistance programs and supplement those programs by targeting currently ignored (but stressed) groups.
- *Efficiency*: the new policy options should deliver support in an efficient and effective manner. This requirement has several dimensions. *First*, the program costs should be minimised so that a high proportion of the resources provided result in extra households housed at affordable rents and prices. Low program costs, including the costs of designing and tailoring financial instruments, usually depend on the utilisation of simple rather than complex financing and organisational structures. *Second*, effective targeting to high-need groups requires protocols and checks ensuring that resources are not diverted to other groups and purposes – i.e. 'fraud' must be prevented. *Third*, and most critically, the long term cost of support to government must be minimised. This, in turn, requires governments to identify and control the various operational and financial risks alluded to above – viz. risks associated with volatile interest rates, rates of dwelling price appreciation, rent movements and revenue risks associated with income or job loss. Just as individual investors improve their overall return-to-risk profiles by diversifying their investments, so governments too can minimise risks relative to expanding affordable

²¹ In fact, 121 options are identified, and the advantages and disadvantages of each outlined in Hall, Berry and Carter (2001, chapter 2.9.3, table 5). Chapter 2.9 of that report discusses in more detail the criteria for and process of selecting preferred policy options from amongst this large set.

housing opportunities by spreading their housing assistance over several delivery and financing options. Minimising risks in this context means minimising long term subsidy costs borne by government.

- *Volume of funds:* the large scale of current housing stress identified in chapter 2.1 suggests that new options will be desirable to the extent that they unlock large volumes of private investment and attract it into the sector. Small scale and one-off schemes are not only like to fail the efficiency test (too costly to implement given the return) but will make no significant impact on the housing affordability crisis. To generate large investment flows, the level of government support must be commensurate and assured. The financing instruments used must be readily priced by investors and their consultants, liquid and capable of being issued in large volumes on a repeated basis (thereby also further reducing the transaction costs of the program).
- *Feasible:* the new policy options should be capable of being implemented in the likely economic and policy climate. Options that cut across or contradict well-established policy directions are unlikely to be introduced in the short to medium term.

In the report by Hall, Berry and Carter (2001), 12 policy options (out of 121) were selected as ranking moderately to highly on the criteria listed above. These options covered each of the delivery mechanisms identified earlier and drew on debt, equity and combinations of debt and equity finance. The Allen Consulting Group (2001) report further refined this list to four options that were assessed using a balanced score card approach²². The two policy options ranking highest on this assessment – i.e. in terms of the criteria of equity, efficiency, volume of funds and feasibility – are summarised below. The first option has two variants. A third option, based on the housing trust proposed by the Queensland Housing Department and Brisbane City Council is then outlined. This option is substantially different from the first two identified in the Consortium project (Hall, Berry and Carter, 2001). It has been included because it offers a clear contrast to the other two models analysed and because it is currently under active consideration by the Queensland Housing Department and the Brisbane City Council. These three options are briefly described below and examined in detail in chapter 4.

Policy Option (Model) 1a: capital provision of housing managed by state housing authorities (SHAs) or non-profit community sector agencies, funded by fixed rate debt (bond) carrying an interest payment exempted from income tax in the hands of the private investor (bond holder).

The Commonwealth annually determines a total level of foregone tax revenue and nominally allocates a share of this subsidy to each State and Territory jurisdiction. The States sell bonds to ‘leverage’ the Commonwealth subsidy and purchase and manage the expanded social housing stock. In other words, the private investor accepts an interest rate that is below the market level because the difference is compensated by the tax benefit received. Consequently, the rent charged can be below the market level because the interest cost is less than it normally would be. The higher the tax subsidy per dwelling, the lower the rent relative to market rents and the more affordable the housing (i.e. the more the affordability gap depicted in Figure 3.1 is bridged). The Commonwealth, in allocating access to this subsidy stream, would determine, for each jurisdiction, the effective level of leverage required, which would, in turn, depend on the relative cost levels of the SHAs and the rate of turnover of the dwellings acquired. If the resulting rent level charged was still above affordability benchmarks in some states, the latter could choose to ‘top-up’ the subsidy, probably in the form of cash outlays or rent rebates in order to further reduce rents to affordable levels in those jurisdictions.

An alternative would be for the Commonwealth to raise the debt (sell the bonds) and parcel out the proceeds to the States under agreed conditions. This would result in lower interest costs, given the level of tax benefit, than where the States individually sold bonds – and, hence lower rents -- but would mean that the Commonwealth would bear many of the risks without being able to directly manage the social housing program. To control these risks would require close cooperation between the Commonwealth and the States, and close monitoring of the latter by the former.

²² For details on this process and the resulting outcomes see the report to the Affordable Housing National Research Consortium by the Allen Consulting Group (2001).

Issuing fixed rate debt means that the government issuing bonds bears the capital risk of changes in future interest rates, while inflation risk is borne by lenders²³.

In terms of the criteria noted above, this option is simple, results in a relatively low long term cost per household assisted, is liquid, can be closely targeted and monitored and, most importantly has the potential to raise large volumes of investment from the institutions. The Commonwealth is able to cap its liability and adjust its contribution, in total and in the distribution of the benefit between States, in the light of experience and demonstrated need. The SHAs are able to plan and execute an expansion of their social housing stock, determining the management arrangements, allocation and rental policies according to the housing market conditions and needs in their individual jurisdictions.

Policy Option (Model) 1b: capital provision of housing managed by state housing authorities (SHAs) or non-profit community sector agencies, funded by fixed rate debt (bond), with part of the interest payment to the private investor (bond holder) paid by a new Commonwealth outlays program.

This is a variant of the first option, with the Commonwealth subsidy delivered by a cash outlay rather than income tax concession. The bonds pay a market interest rate, comprising a reduced interest payment by the States topped up by the Commonwealth outlay subsidy. Otherwise, the two variants are similar with respect to their advantages and disadvantages. This is the option modeled in chapter 4.1.

One possible disadvantage of this overall approach is that, as presented, these option variants specify that the expanded stock is owned and managed by the SHAs (or community sector agencies). This means that the SHAs will be responsible for adequately managing and maintaining the stock and efficiently operating a large rental housing program, while also managing the financial risks. It is possible to devise further variants of this approach (and new approaches like option 2, below) that transfer ownership or management or both to private investors, and some efficiencies may be achievable in that way. However, by transferring ownership and/or management, the private investors will also assume more risk – and they will demand a higher return, implying larger subsidies of one form or another. In these more complicated arrangements it is likely that more than one form of government support will be required – e.g. government guarantees as well as adequate cash outlays. In addition, once management passes to private investors, the issue of monitoring performance with respect to targeting and effective use of government support becomes important. Governments can't directly ensure that the extra housing goes to where it's most needed; they have to rely on investors for this desired policy outcome.

Policy Option (Model) 2: capital provision through the creation of a new stock exchange listed company to acquire, develop and let housing at affordable rents. Equity would be provided (shares held) by private investors and the Commonwealth, leveraged by corporate (fixed rate) borrowing. Two forms of subsidy are entailed. First, the States or Commonwealth undertake to supplement net rentals (i.e. assume some of the revenue risk) with an outlay subsidy guaranteeing the private equity investor a minimum dividend. Second, the Commonwealth's equity is 'subordinated' – i.e. it is discounted to the extent that housing price inflation does not achieve an agreed level, e.g. the original cost plus CPI. In other words, the Commonwealth's equity is transferred to the private equity investor to the extent that the value of the company's housing stock fails to appreciate at a fast enough rate. This is a form of capital guarantee provided by the government; the Commonwealth is assuming some capital risk by placing a 'collar' or floor to dwelling values. The corporate debt holders receive a normal market interest rate. The financing structure suggested in the Hall, Berry and Carter (2001) report comprised: 20 per cent Commonwealth (subordinated) equity, 30 per cent private equity and 50 per cent borrowed funds. This structure is assumed for the purposes of modeling in chapter 4.2.

²³ The study by Hall, Berry and Carter (2001), in fact, recommended the use of real rate debt, where inflation risk is borne by government thereby reducing the required rate of return and rents. A targeted survey of institutional investors carried out for this study indicated strong interest in this instrument.

By varying the size of these two subsidies, the Commonwealth can engineer the required reduction in the private investors' required rate of return and, hence, achieve a desired rent outcome. The dwellings in the vehicle would be valued each year and the underlying share price would reflect any move in property prices that has occurred plus the government support.

Investor response to this option, tested in the Consortium project, was favourable. The equity and debt instruments created by this vehicle are relatively low risk, while satisfying current Australian Taxation Office rulings regarding private equity investment, suggesting that both instruments have the potential to attract large amounts of private funds into the provision of affordable housing.

Policy Option (Model) 3: capital provision through the creation of a non-profit housing trust or company to acquire and manage affordable housing. Equity capital is provided by State government (hence, fully implemented, this model would see at least one such vehicle in each State and Territory)²⁴. Private funding is contributed by developers in return for planning bonuses or acquiring access to government owned land. Debt finance is leveraged by borrowing, probably through the State Treasury. Government support is provided in the form of (a) the planning bonuses to developers provided by local government, (b) exemption from the GST²⁵ and (c) rent assistance paid to tenants by the Commonwealth.

Tenants for trust dwellings could be accessed through the SHA waiting list and referred by relevant community sector agencies, including those dealing with homeless people. Hence, this option readily targets households in need. The scope for private sector involvement is, however, more limited than in the case of the other two options. The degree of leverage (borrowing) that would be prudent is probably restricted to 15 to 20 per cent, if rents are to be set at the target level of 75 per cent of market levels to the extent required in order to gain GST relief (see footnote 23). Developer contributions are uncertain and depend on the development features of particular sites, the stage of the property cycle, the requirements of good planning and the bargaining skills of the company and the relevant planning authority. Existing planning legislation and recent legal interpretations will also influence the prospects for extracting developer contributions in this manner. In order to gain economies of scale in operation, the initial equity input by government will need to be significant, and capable of supporting a growing stock. British experience in the housing association sector suggests that stock portfolios in the thousands (or even tens of thousands) are increasingly the norm. This suggests that an initial stock of between 500 and 1,000 dwellings would be minimally appropriate, requiring a capital (equity) injection by the State in the order of \$50-100 million.

Before taking each of these models and exploring their features and outcomes in more detail (in the next chapter), the final section of this chapter outlines the process that would need to be undertaken, in each case, in order to implement them as policy.

3.5 Implementing the Three Options

Each of the three options described in the preceding section would require an implementation plan that satisfies the requirements of both Treasury Departments and financial market operators. The procedure for operationalising each option is outlined in this section.

3.5.1 *The Bond Option (Model 1)*²⁶.

This is the variant of the bond option with the Commonwealth subsidy delivered as an outlay (rather than taxation concession). The outlay subsidy variant has been chosen for further analysis here and in chapter 4 because it is the simpler one and most in line with the current Commonwealth government approach to determining and delivering targeted subsidies.

²⁴ This option is based on a proposal being developed by the Queensland Housing Department, in conjunction with Brisbane City Council (see Queensland Housing Department, 2001).

²⁵ As a registered charity, the entity can provide accommodation that is GST-free when the rent charged is less than 75% of market rent. In this circumstance, it does not pay GST on its revenues but can claim input tax credits on its costs. By comparison, private landlords are input-taxed – i.e. they don't pay GST on rental income but they cannot claim input tax credits. The vehicle could also benefit from local government's discretion to reduce or exempt rates and from state government's discretion over land tax and stamp duty levies. Charities are also eligible for a rebate of fringe benefit taxes on employees and may be eligible to receive tax deductible gifts or donations. All these benefits have the potential to lower the required rent or expand the affordable stock further whilst maintaining a sustainable organisation.

²⁶ See Hall, Berry and Carter (2001, pp. 78-79).

In this case, each State²⁷ is required to individually issue fixed interest rate bonds. The proceeds of the bond issue are to be used to purchase or build dwellings for rental to assisted tenants. As time goes by and dwellings are vacated by tenant turnover, they are sold into the private market at current market values. The sales proceeds are applied to repaying the principal owed on both the bonds and any short term borrowings obtained to meet operating shortfalls during the term of the transaction. At the end of the loan period, the remaining dwellings are sold and the proceeds used to repay the remaining bond principal and short term borrowings outstanding. The Commonwealth subsidy is used to make up the difference between bond interest and the (expected) net rental yields over the life of the loan period. Rents are set using a 25 per cent affordability benchmark, common to public housing programs in a number of the States. The funds raised would be distributed to the State Housing Authorities and other eligible social housing providers on the condition that they are used for the construction or acquisition of affordable rental dwellings.

The model analysed in chapter 4 calculates, for each State, the present value of the Commonwealth subsidy required to support a \$100 million capital program over the loan period. The subsidy level is set so that, in each State, all liabilities are discharged by the end of the period, leaving each State with zero net worth on the transaction. In other words, if the assumptions concerning costs, inflation, rental yield, capital gain, income growth, etc. prove correct and the SHAs manage the program efficiently, the States will not be required to provide any subsidies. The converse is that if either or both of these conditions are not met, then the States will either be liable for residual subsidies or will reap a financial surplus on the transaction. Managing the risks, therefore, has both an up-side and a down-side for State governments.

The key steps in operationalising this approach are as follows.

1. The Commonwealth determines the total subsidy outlay available for the scheme.
2. The Commonwealth then analyses the potential gearing opportunities in each State (utilising the model developed by Hall [2001] as presented in chapter 4). That is, how much Commonwealth subsidy would need to be paid to each state in order to achieve a given capital commitment (say, \$100 million) to dwelling acquisitions in that State, given the respective rates of housing operating costs and the relocation rates of assisted tenants? The lower the operating costs and the more rapid the turnover of tenancies (and, therefore, the sale of dwellings into the general market), the lower the subsidy required per dollar committed to capital acquisition of stock. This follows because (a) low operating costs means a lower operating deficit and less short term borrowings, reducing the gap between net rental yield and bond interest payments and (b) earlier sale of dwellings means earlier repayments of bond principal, reducing the cost of bond interest payments. The past performance of the States on these factors is used to model relative leverage ratios in chapter 4.
3. An annual Commonwealth allocation of subsidy funds is made to each State. In chapter 4 this is determined by the current CSHA formula for the division of the Commonwealth tied grant.
4. These funds are offered to the States on the condition that they (a) issue bonds to the level determined by the leverage ratios determined as in point 2., above and (b) establish an affordable housing trust to quarantine the funds so that they are used only to pay subsidies to the bond holders and towards operating expenses of the dwellings managed.
5. Individual States can decide to add their own funds to the transaction if they wish to further lower the required rents or purchase the dwellings as they become vacant to add them to their core public housing stocks.
6. The State Treasuries issue bonds and the State Housing Authorities establish the delivery mechanism for the subsidies, determine the management arrangements (with community housing providers, if so determined) and acquire the dwellings.
7. As assisted tenants voluntarily vacate, they are replaced with private tenants until the dwellings are sold. This allows flexibility of asset disposal in order to maximise financial return to the transaction (and therefore lower subsidy costs and/or increase financial

²⁷ 'State' includes the eight Australian States and Territories.

return to the States) and limit the refinancing risk associated with retaining some stock and having to rollover bonds in order to maintain assisted tenants at the end of the loan period. In the latter context, instead of having to find new assisted tenancies for all tenants in the initially acquired stock, relocation is only necessary for the tenants in those dwellings still held by the States at the end of the transaction. Of course, the other side of this coin is that as the term of the transaction continues the number of assisted tenants progressively falls as dwellings are sold off or re-let to private tenants. The total number of assisted tenancies can be maintained (or increased) by rolling in a staggered series of new transactions in future years. Each transaction would be separately subsidised and managed through to termination.

There are a number of important implications of this approach.

First, the transaction provides very strong incentives for the SHAs to efficiently manage the dwellings acquired. They carry and manage a number of risks including: capital risks associated with future dwelling and bond values; relocation and vacancy risks; tenant income risk; rental yield risk and; operational cost risks. The downside to all these risks means that the SHAs may have to make up financial shortfalls in repaying bond holders during the term of the transaction. For example, if operating costs increase faster than assumed in the model, given the capped Commonwealth subsidy, then the SHAs will need to cover the extra costs. Likewise, if dwelling values appreciate more slowly than assumed, there will not be enough revenue generated by net rents, Commonwealth subsidy and the sale of dwellings to meet loan repayments, leaving the State to pay the difference. On the other hand, the upside of the risks managed is that better than assumed outcomes with respect to capital gains, bond prices, operating costs, etc. will return the SHAs a financial surplus that can be put towards, for example, stock purchase. In other words, the SHAs have a double incentive to efficiently manage the scheme, firstly to avoid unexpected costs to themselves and, secondly, to reap a financial surplus.

Second, this approach is flexible. Individual States can determine the risks that they are prepared to assume and, accordingly, the subsidies that they are prepared to add to the Commonwealth's to extend the scheme – e.g. contributing equity where they wish to own stock in the long term. Moreover, through time each party, Commonwealth and State, can vary the terms of its involvement from transaction to transaction, remembering that each transaction is structured as a separate scheme with its own loan period. The assumptions, terms and subsidy levels of each transaction are fully visible and the outcomes readily monitored.

Third, this approach establishes a new basis for a constructive partnership between the States and the Commonwealth. The basic terms of the program can be agreed between the parties on a multilateral basis, while each transaction can be implemented bilaterally.

Finally, it must be stressed that this approach or model is one of four main ways of delivering government support in favour of the provision of affordable housing (Berry, Hall and Carter, 2001, pp. 28-42²⁸). Each approach or mechanism has a distinct set of risks for government agencies to manage. These approaches are complementary not substitutes. A sensible overall strategy is for governments to utilise a mix of approaches in order to reduce overall risks of subsidy blow-out. In other words, if government puts 'all its housing subsidy eggs in one basket' and the downside for that approach eventuates, actual subsidy costs will rise substantially. This argument also extends to dividing subsidies between different capital provision schemes, like the bond option proposed here and the current grants approach of the CSHA. Further reasons for *not* seeing the bond option as a replacement for the current CSHA model are as follows. In order to keep the required Commonwealth subsidy at a feasible level, the bond option has been tailored to house assisted tenants with annual incomes of around \$20,000. That leaves many very low income households, particularly single person and single parent households dependent on social security benefits (including rent assistance) who receive significantly less than \$400 per week, outside the scope of the scheme and dependent on conventionally provided public housing. Furthermore, the current CSHA scheme is an outcome of the long history of vertical fiscal imbalance in the Australian

²⁸ The four delivery mechanisms are: capital provision (e.g. CSHA funded public housing and the bond option proposed here); home loan schemes; shared equity schemes and; direct assistance (e.g. rent assistance).

Federal system. Unless and until that imbalance is rectified, direct transfers of funds between the Commonwealth and the States will be necessary to maintain important areas of social policy like housing. The proposed bond model is offered as a way of flexibly, efficiently and quickly supplementing the core public housing stock in order to provide a short-to-medium term solution in a period of intense unmet and growing housing need. In order to effectively manage and monitor both programs, it is best to keep them clearly segmented and the Commonwealth subsidies required in both cases, clearly identified and separated.

3.5.2 The Company Vehicle (Model 2)

This option involves the creation of a new stock exchange listed company to acquire, develop and let housing at affordable rents. Equity would be provided (shares held) by private investors (unsubordinated), and the Commonwealth, (subordinated), leveraged by company corporate borrowing. Shareholders would receive returns in two forms:

- a. the company would guarantee that the underlying assets attributable to non-subordinated shareholders equity (retail and institutional investors) will appreciate by the CPI.
- b. non-subordinated investors would be guaranteed a dividend based upon the weighted average percentage dividend provided by the 200 companies listed in the ASX 200 index, as determined each year.
- c. the Commonwealth would receive a return in the form of a bond payment structure, with the yield being struck as that applying to ten year Commonwealth Bonds at the time of listing of the public company.

Two forms of subsidy are entailed.

- the Commonwealth's equity investment will be subordinated to the guarantee outlined in (a) and if the dwelling assets backing non-subordinated shareholdings do not appreciate at CPI, then Commonwealth assets will automatically transfer to the shareholders' assets to the extent necessary to ensure the requisite asset appreciation. In other words, the Commonwealth's equity is transferred to the private equity investor to the extent that the value of the company's housing stock fails to appreciate at a fast enough rate. This is a form of capital guarantee provided by the government; the Commonwealth is assuming capital risk.
- second, the States or Commonwealth undertake to supplement net rentals (i.e. after costs and after interest payments on the borrowings) and hence, assume some of the revenue risk, with an outlay subsidy guaranteeing the private equity investor the minimum dividend outlined in (b).

The financing structure suggested in the report by Hall, Berry and Carter (2001) comprised: 20 per cent Commonwealth (subordinated) equity, 30 per cent private equity and 50 per cent borrowed funds. This structure is assumed for the purposes of the modeling analysis in chapter 4.

The dwellings in the vehicle would be valued each year and the underlying share price would reflect any move in property prices that has occurred plus the required government support. Management and Agency Agreements would need to be developed with each of the SHAs with respect to the proportion of dwellings to be acquired or developed in each State and enshrined as part of an annual Commonwealth/ State program agreement. Management protocols would also be required in order to effectively target the stock to households in stress, possibly by accessing people on public housing waiting lists and offering long leases. Headleasing arrangements with SHAs may also be appropriate.

The steps in operationalising this option are:

- a. The Commonwealth analyses the potential national gearing based upon the following criteria:
 - establishment costs for the assumed financing structure (underwriting, trust administration, legal and marketing, production) are calculated at industry norms
 - the weighted average housing cost structures applying to public housing in the six States, the A.C.T. and the Northern Territory are used to assess the housing cost base (i.e. acquisition and transaction costs, maintenance rates and administration)

- ad-hoc repayments of the company's debt principal are permitted: i.e. no reinvestment risk is calculated
 - principal repayments on the debt are provided for from realisation of the assets at the end of the transaction, say 25 years
 - shareholders are provided with a sunset clause in the share transactions whereby the payout date and the basis of calculation of the principal applying to each share is specified
 - dwelling appreciation is calculated at the CPI for the six capital cities
 - tenant income and repayments are assessed as the top of the bottom income quintile and at 25% of income, indexed to CPI
- b. The potential subsidy is calculated for each year and a present value assessed according to the interest rate applying to the corporate debt, the Commonwealth Bond Rate (for the Commonwealth's equity) and the assumed dividend rate for public shareholders.
 - c. Based upon Commonwealth and State agreed determinations regarding total subsidy costs, the Commonwealth sets the initial capital raising that will be established by way of 20% Commonwealth equity, 50% debt and 30% shareholders funds.
 - d. Each State is advised of the capital that will be applied to the purchase of dwellings in that State in accordance with the current CSHA formula and the required projected net rents that will be required for the term of the transaction (assuming an agreed projected dwelling disposal regime).
 - e. Each State enters an agreement with the Commonwealth guaranteeing to enter into a management and agency agreement with the stock exchange listed company where they will contract to:
 - provide the dwellings to be acquired in that State by the company²⁹
 - provide management and maintenance of the dwellings according to agreed standards
 - complete any requisite dwelling disposal program determined by the State; and
 - pay net rents to the company as advised by the company from time to time, being sufficient to meet shareholders dividend obligations, and interest payments on the corporate debt and Commonwealth equity
 - f. States may add their own funds to cover additional risks or a more expensive pricing structure.
 - g. As assisted tenants voluntarily vacate, private tenants are inserted in each transaction, permitting flexibility of asset disposal, and limiting the refinancing risk for the residual assisted tenants at the end of the transaction. Each year, or period, assisted tenants are simply incorporated in a new transaction.
 - h. Relevant draft documentation is prepared, being:
 - a credit support Trust Deed pledging and guaranteeing the Commonwealth equity and its return entitlements
 - Management and Agency Agreements with each of the six State Governments and the Territories specifying the State's rights and obligations to the listed public company

Establishing the Publicly Listed Company

All of the requisite requirements for listing, and the likely costs of listing are set out in Macquarie Bank's Capital Markets Group publication³⁰.

²⁹ For simplicity of modeling, it is assumed that the company acquires existing tenanted dwellings from the SHAs. This means that development risk has been borne by the State and, under existing ATO rulings, conditions exist for the company to attract the normal tax benefits (including scope for negative gearing) available to rental investors.

³⁰ MACQUARIE EQUITY CAPITAL MARKETS LIMITED, *A Guide To Listing On The Australian Stock Exchange Limited*, August 2001.

Establishment of the Publicly Listed Company would involve the following;

- preparation of an initial public offer (IPO) specification
- invitation to tender for lead manager and underwriter
- appointment of lead manager and underwriter
- preparation of legal specification
- invitation to tender for legal advisors
- preparation of accountancy tender
- invitation to tender for accountancy requirement;
- appointment of legal advisors and accountants
- determination of offer structure and finalisation of credit support and dividend guarantees; agreement on dividend yield; finalisation of offer, book build or price determined
- due diligence
- preparation of a prospectus
- lodgment with the Australian Securities and Investment Commission (ASIC)
- application for listing
- pricing
- marketing

a. Preparation of IPO Specification

It would be necessary for the Commonwealth to prepare a tender specification for the appointment of the lead manager and underwriter. This specification would contain details of the:

- purpose and structure
- proposed credit support and dividend yield guarantees
- draft Credit Support Trust Deed and Management and Agency Agreements
- dwellings to be purchased
- size of the proposed fundraising
- projected timetable for future regular issues and the projected size of future issues
- responsibilities of the lead-manager and underwriter; and
- timetable

b. Invitation to Tender for Lead Manager and Underwriter

An invitation to tender for the lead manager and underwriter's role would be provided to a shortlist of relevant merchant banks and capital management groups.

c. Legal and Accountancy Specification for Tender

Once the lead manager and underwriter have been determined they would work with the client in preparing the tenders for the legal advisors and accountants. These specifications would contain similar information to that outlined in point a., above.

d. Determination of Offer Structure and Process

The Commonwealth and the States would jointly finalise with the lead manager, the details on credit support, the guaranteed dividend yield, the transaction wind up arrangements, and the offer process, 'bookbuild or fixed price' (see point h. below for an explanation of these terms). This would also include the finalisation of the Board and senior management structure of the Company.

e. Due Diligence

The purpose of the due diligence process is to ensure that the information contained within the Prospectus is accurate and or based on reasonable assumptions. This process normally occupies six to eight weeks and is carried out by a Due Diligence Committee concurrently with the preparation of the prospectus.

f. Prospectus Preparation

Normally the Due Diligence Committee has the responsibility for drafting the Prospectus but the task is often delegated to a sub-committee of the advisers and senior management.

In the case of this company there would be no historic accounts outlined in the Prospectus but rather statistical historical information on housing markets in each of the six capital cities and Darwin.

Other information required:

- details of the offer
- details of the “housing business”, prices and locations of the proposed dwellings, a schedule of actual dwellings, rental yields, vacancy rates etc.;
- financial information including projected income/loss statements and balance sheets
- information on the board and senior management
- risk factors
- an analyst’s view of the directors’ forecasts
- additional information including disclosure items; and
- application forms and instructions on how to complete them

g. Lodgement with ASIC

After the Prospectus is lodged with ASIC there is generally a period of exposure of 7 business days during which the Prospectus must be made available to the public and during which no applications can be accepted.

h. Pricing of the Offer

This aspect of the process is particularly important in that the dividend yield to be paid will be related to the underlying value of the dwellings to be purchased based upon the anticipated stock price. To the extent that the market assumes there may be significant future share price appreciation because of real dwelling appreciation it may bid up the anticipated price. To the extent that the issue is fully underwritten at a specific or fixed price, this gain will be captured by investors and the underwriter. If, however, an open tender book-build is undertaken and the final share price is a function of the weighted average pricing of the successful tenderers, the excess gain will be captured by the Company and the credit support provider, i.e. the Commonwealth. Consequently, the choice of process could generate significant economies for government.

Listing and Special Operating Costs

There are four main areas where the cost of establishing and maintaining the equity vehicle differ from those of the debt option (option 1a/1b in chapter 3.4, above), namely:

- initial set up costs by way of listing costs
- the interest rate applying to the corporate debt component
- the dividend yield applying to non-subordinated shareholders
- company management by way of administration costs and compliance with ASX rules regarding financial and annual reporting.

a. Initial Listing Costs

There are three main costs associated with setting up a public company:

- underwriting fees
- lead manager’s fees
- other transaction costs being:
 - legal
 - accounting
 - Share Registry
 - ASX
 - prospectus printing

Table 3.1 provides examples of the range of underwriting and management fees which have applied to some recent IPOs and calculates the weighted average cost of these fees.

TABLE 3.1: Underwriting and Management Fees: Company ASX Listing

Company	Amt. Raised \$M's	Under – writing Fee %	Weighted Aver. %	Management Fee %	Weighted Aver. %	Total	Weighted Aver. %
Billabong	520	3.5	1.68	0.5	0.24	3.6	1.92
Neverfail	113	2.8	0.29	0.44	0.05	3.24	0.34
Brazin	65	2.75	0.17	1	0.06	3.75	0.23
Julia Ross	57	3	0.16	1	0.05	4	0.21
Protel	47	2.75	0.12	0.75	0.03	3.5	0.15
Great Southern Plantations	45	2.5	0.10	1.5	0.06	4	0.17
Australian Liquor Group	43	5	0.20	0.25	0.01	5.25	0.21
National 1	42	4	0.16	2	0.08	6	0.23
MYOB	35	3	0.10	0.57	0.02	3.57	0.12
Volante	30	3.5	0.10	0.8	0.02	4.4	0.12
Mobile Communications	32	2.5	0.07	0.5	0.01	3	0.09
Noni B	29	4	0.11	0.88	0.02	4.88	0.13
Powerlan	25	4	0.09	0.2	0.00	4.57	0.10
WEIGHTED AVERAGE			3.34		0.66		4.00

Source: MACQUARIE EQUITY CAPITAL MARKETS LIMITED, August 2001, *A Guide To Listing On The Australian Stock Exchange Limited*

In a larger listing such as that envisaged in the Housing Company, these Underwriting and Management Fees are likely to be between 3.75% and 4%.

Table 3.2 below sets out the smaller fixed nominal costs involved.

TABLE 3.2: Other Ancillary Fixed Establishment Costs: Company ASX Listing

Item	Cost: \$
Legal Costs	100,000-150,000
Accountant	75,000-100,000
Share Registry	15,000-30,000
ASX	30,000-50,000
Prospectus Printing	50,000-100,000
TOTAL	270,000-430,000

Source: MACQUARIE EQUITY CAPITAL MARKETS LIMITED, August 2001, *A Guide To Listing On The Australian Stock Exchange Limited*

If all these listing costs are amortised over the life of the transaction they add about 0.22% multiplied by 0.3 (i.e. 30% of the fund raising) or approximately 6.5 basis points or 0.066% to the cost.

b. Corporate Debt Component

As previously outlined, it is proposed that the company once listed would raise about 50% of the total capital base by way of Corporate Debt. Schrodgers Investment Management have advised that investment grade or AA rated corporate debt yields approximately 50 basis points or one half of one percent more than long term 10 year Commonwealth bonds. When compared to the debt option this component would add about 25 basis points or 0.25% to the cost of the transaction, by comparison to the debt option (model 1).

c. Dividend Yield for Non Subordinated Shareholders

Macquarie Bank's analysis indicates a dividend yield average of approximately 4.3% in the All Industrials component of the sharemarket, with smaller company yields averaging about 5%. Because of the high quality of the capital and income support arrangements it is likely that a successful listing could be achieved with yields around 4%. In addition this would operate similarly to a deep discount bond with the share value on which the principal is calculated being indexed to CPI. This equates with the real interest rate on the Commonwealth Bond of approximately 3.51%. When compared to the debt option this component would add 3.06% multiplied by 0.3, (i.e. 30% of the fund raising) or approximately 92 basis points or 0.92% to the cost.

d. Ongoing Company Management

The company management in this instance is essentially a reporting, record keeping and calculation function.

Essentially the company manager would be required to:

- prepare annual and financial reports
- calculate and distribute interest payments to the Commonwealth and the corporate debt provider
- calculate the net rents and therefore outlay subsidy payable by SHAs and inform them of the payment requirement
- distribute dividends to shareholders
- repurchase shares and repay debt from the proceeds of the sale of dwellings
- report valuation results and calculate if a call on Commonwealth equity is required

These functions are akin to securitised mortgage managers' functions, the fee for which is likely to be around 25 basis points or 0.25% - 0.3% per annum. In addition, a Trustee would be required to hold the funds and administer the payments ordered by the Company manager. This would cost approximately 3 basis points or 0.03%.

e. Cost Differential: Equity Option versus Debt Option

Whilst not absolutely precise the cost differential between the Equity Option and the Debt Option is therefore likely to be as summarized in Table 3.3.

TABLE 3.3: Equity Versus Debt: Cost Differentials

Cost Item	Annual Percentage Increase In Cost
Establishment	0.06
Corporate Debt	0.25
Dividend Yield	0.92
Company Manager	0.28
Trustee	0.03
TOTAL	1.54

Overall, then, if the capital risk is similar in both contexts, the equity option is likely to cost about 154 basis points or about 1.5% more p.a. than the debt option discussed in the preceding section.

3.5.2 The Non-Profit Housing Company (Model 3)

This model is currently being developed by the Queensland Department of Housing (QDoH), in cooperation with the Brisbane City Council (BCC). The steps taken to date by these agencies illustrate the implementation process required for an approach of this kind.

The proposed housing trust or company emerged as one approach to alternative methods of financing affordable housing that are under review by the Department, as canvassed in its discussion paper entitled, *Affordable Housing in Sustainable Communities*, released in November 2000. The idea for the trust originated in the *Inner City Affordable Housing Task Force*, jointly established by QDoH and BCC in 1999. As a result, a small QDoH team was formed in mid-2000 to carry out an initial feasibility study of establishing an inner city non-profit housing company. The result was the production of a draft business plan for such a vehicle and an associated financial model. A QDoH/BCC team then developed a more detailed business plan and financial model in the period between October 2000 and February 2001. The basic structure of the financial model has been checked within the Department and by State Treasury. Final checks are now being made on the assumptions and input data before decisions are taken on implementation.

Over the following two months submissions on the model and its implications were presented to state Cabinet and the Civic Cabinet of BCC. Both stakeholders agreed to support the proposal in principal and called for the development of a fully specified proposal and financial feasibility, including details of an implementation procedure. The joint QDoH/BCC team is now developing the full proposal for subsequent submission to Cabinet in February/March 2002. It is envisaged that, subject to final approval to proceed, there will be a company start-up period in the April-June 2002 period, before the vehicle becomes fully operational.

The process outlined immediately above is normal for a new policy development requiring a resource commitment by government. In this case the process has been somewhat complicated by the fact that two different levels of government are involved. Inevitably, this results in a longer developmental period, as time must be devoted to continuing information exchange, negotiation and resolution of any conflicting views that arise. The organisational timetables and accessibility of key government personnel must also be negotiated at both levels.

CHAPTER 4 EXPLORING SCENARIOS OF PRIVATE INVESTMENT IN AFFORDABLE HOUSING: THREE MODELS

In this chapter the three policy options identified in chapter 3 will be described further and analysed. In each case, the analysis will draw out the implications of the model for housing outcomes and subsidy costs.

4.1 Model 1: A Bond Option³¹

Hall (2001) ran this model for a base case and an alternative, more conservative case in which initial tenant relocation is delayed until later in the loan term. He then carried out an initial sensitivity analysis to the outcomes in both cases. The results of these cases are summarised below. A more detailed and extensive sensitivity analysis is then carried out to illustrate the impacts of changes in the economic environment and the scale of risks that must be managed by the SHAs.

4.1.1 Base Case

The key assumptions and input data for the base case are set out in Tables 4.1 and 4.2. The assumptions are common across all States. It is further assumed that assisted tenants do not begin to relocate until after the fifth year and, hence, dwelling sales do not start until that time.

Table 4.1: Base Case: Common Assumptions

Assumptions And Inputs	Number
Stamp Duty On Purchase	None
Stamp Duty On Sale	2.5%
Commencing Inflation	2.57%
Bond Type	Fixed Rate
Initial Bond Coupon	6.17%
Discount Rate	6.17%
Dwell Price Growth p.a.	CPI
Maintenance and Rates Cost Growth p.a.	CPI
Administration Cost Growth p.a.	CPI
Assisted Tenant Initial Gross Income p.a.	\$20,000
Initial % Of Assisted Tenant Income In Rent	25%
Gross Income Growth p.a.	CPI
Private Tenant Rents	Market
Tax Paying Entity	50% Super Fund – 50% Company

Source: Hall (2001, p. 20)

³¹ This section is drawn from Hall (2001). For further detailed description of the model and its structure, see that reference.

Table 4.2: Base Case: State Inputs

Variable	NSW	Vic.	Q'ld	W.A.	S.A.	Tas.	ACT	N.T.
Initial Dwel Val. 000's ¹	149.5	140.5	118.7	111.9	110.0	111.9	141.5	146.7
Opera. Cost % p.a. ²	1.5	0.7	2.0	0.5	1.9	2.0	2.1	0.6
Admin Cost % p.a. ²	0.8	0.6	0.8	0.8	0.9	1.4	0.7	0.3
Private Rent Yields ³	5.37	4.9	5.45	6.21	6.92	7.55	6.43	6.37
Vac. Rate Public % ⁴	0.31	1.06	0.65	0.91	2.59	1.60	0.68	0.38
Vac. Rate Private % ³	2.8	3.5	2.5	3.8	3.2	2.3	2.4	7.0
Public Relocation Rate %p.a. ⁴	4.41	3.40	3.38	5.43	1.95	2.71	3.04	4.09
Dwell Disposal Rate %p.a. ⁴	4.0	3.0	3.0	5.0	1.7	2.5	2.9	3.9
Term -Years ⁵	21	25	25	17	35	35	30	23

Source: Hall (2001, p.21)

The model calculates the present value of the Commonwealth outlay subsidy that would be required to support any given volume of loan-financed dwellings acquired for letting to tenants on an assisted basis, given the assumptions and inputs specified in Tables 4.1 and 4.2.

As a first step, Hall (2001, p. 22) calculates the present value of the subsidy stream – i.e. the capital injection – necessary to support loans of \$100 million raised in each State to acquire dwellings for rental to tenants assumed to be receiving \$20,000 per year income and paying 25 per cent of their incomes in rent to the SHAs. Table 4.3 presents the results.

Table 4.3: Base Case: Analysis Results

Variable	NSW	Vic.	Q'ld	W.A.	S.A.	Tas.	ACT	N.T.
Gross Results								
Gross Cap. In. \$M's	25.67	16.94	26.68	6.46	30.31	35.13	35.96	12.57
Gross Per Ter	3,413	1,663	2,205	790	1,459	2,148	3,132	1,518
Nos. of House	656	699	827	877	892	877	693	669
Term Yrs	21	25	25	17	35	35	30	23
Direct Tax Receipts								
Direct Tax Ret \$M's	12.18	14.57	14.14	11.09	18.25	15.74	14.43	12.94
Tax Per Tenant Yr.	1,620	1,430	1,169	1,355	878	962	1,257	1,563
Net (After Tax Results)								
Net Cap. Inject. \$M's	13.49	2.37	12.54	-4.62	12.06	19.40	21.53	-0.37
Net Per Tenant Yr.	1,794	233	1,036	-565	580	1,186	1,875	-45

Source: Hall (2001, p. 22)

It can be seen from the first row of Table 4.3 that the leverage ratios vary widely between the States. In the case of N.S.W., for example, a commitment of \$25.67 million is required to support borrowings of \$100 million, whereas only \$6.46 million is required to support the \$100 million of (debt financed) dwelling acquisition in Western Australia. The leverage ratios are higher for Victoria and the Northern Territory, in comparison to N.S.W. and lower for South Australia, Tasmania, ACT and Queensland. What this means is that if all the assumptions and input variables specified in Tables 4.1 and 4.2 held true, then through the term of the loans the SHAs would not have to meet any financial shortfalls (and would receive no surpluses), assuming they received the relative Commonwealth subsidies specified.

The reasons for the differences in leverage ratios across the States can be found in the second, third and seventh rows of Table 4.2. The higher the operating and administrative costs and the lower the relocation rate (and rental or sale of dwellings to private households), the lower the leverage ratio – i.e. the larger the subsidy commitment required for a given initial expansion of the affordable dwelling stock. Western Australia has the lowest reported operating costs and the highest tenant relocation rate of all SHAs, creating the very high leverage ratio noted in Table 4.3. Victoria's lower relocation ratio is more than compensated by its low operating and administrative costs, in comparison to N.S.W., in determining the relative leverage ratios between the two States. A similar picture emerges in the Northern Territory. South Australia, Tasmania and the ACT have both relatively high costs and low turnover rates, explaining their relatively low leverage ratios.

The required subsidy cost (capital injection) is also sensitive to the term of the loan. The longer the loan period, given the relative relocation rates in Table 4.2, the higher the leverage ratio. Hence, in order to limit the spread of leverage ratios, the loan periods have been varied across the States, as noted in the last line of Table 4.2. If a common loan period – e.g. 25 years – had been assumed, the variation of leverage ratios would have been even larger than that specified in Table 4.2.

The present value of the gross subsidy required can be expressed as the subsidy required per 'assisted tenant year' (the number of assisted tenants housed, multiplied by the number of years they are assisted). It can be seen from the second row of Table 4.3 that this cost varies from \$790 in W.A. to \$3,413 in N.S.W. It is this figure, rather than the gross subsidy cost, that provides an appropriate measure of relative efficiency of subsidy outcomes. The third row of the table presents the number of dwellings initially acquired in each State for \$100 million.

The capital injections (subsidies) included in Table 4.3 are calculated as a gross cost to the Commonwealth, prior to any consideration of additional tax revenues generated. In fact, bond holders will pay income tax on interest received from the States. Tax revenue will also be affected by any capital gains or losses realised on the bonds and who buys the bonds. Different classes of investor have different effective marginal income tax rates. The base case assumes that the bonds are purchased by superannuation funds and companies (see Table 4.1). Row five of Table 4.3 presents the estimated tax revenue received across the States in this case. The last two rows of Table 4.3 calculate the *net* subsidy cost to the Commonwealth, after these revenue flows are deducted from the gross costs. Thus, in the case of N.S.W., for example, the net capital cost is \$13.49 million per \$100 million of dwellings acquired, representing a net subsidy of \$1,794 per assisted tenant year. The net cost in W.A. is, in fact, negative – i.e. a surplus outcome for the Commonwealth.

Hall (2001, p. 23) goes on to present a national base case scenario, for a \$100 million loan financed capital program. The program is divided across the States on the basis of their relative housing cost results (i.e. capital injection [Commonwealth subsidy] required per \$100 million bond issue) multiplied by their current proportional entitlements under the CSHA. Thus, for example, N.S.W. which receives about a third of total CSHA funds, would receive about 38 per cent of the total capital injection (subsidy) provided by the Commonwealth to finance dwelling acquisition in that State. Table 4.4 calculates (second column) the gross subsidy or capital injection necessary to support this pattern of borrowing. The extra tax receipts generated for the Commonwealth are included in column 4. The net subsidy cost to the Commonwealth appears in column 6. Subsidy cost per assisted tenant year is calculated for each State, before (column 3) and after (column 7) tax receipts. In the final row of Table 4.4 the national costs and receipts are calculated, weighted by the current division of CSHA funding allocations to the States.

Table 4.4: Base Case: National Result

State	Gross Cap. Inject. \$M's	Gross Per Ten. Year \$	Direct Tax Receipts \$M's	Tax Per Ten. Year \$	Net Capital Inj \$M's	Net Per Tenant Year \$
NSW	8.52	1,132	4.04	537	4.47	595
Victoria	4.12	404	3.55	348	0.58	57
Queensland	4.81	398	2.55	211	2.26	187
West. Aust.	0.61	75	1.05	129	-0.44	-53
South Aust.	2.36	114	1.42	68	0.94	45
Tasmania	1.06	64	0.47	29	0.58	36
ACT	0.83	72	0.33	29	0.50	43
Northern Terri	0.22	27	0.23	28	-0.07	-0.80
Total National	22.55	2,288	13.66	1,380	8.89	908

Source: Hall (2001, p. 23)

These national results indicate the high degree of private funding leveraged into the program and the cost-effective level of subsidy required. After the extra tax revenues are accounted for, a national program that expands the affordable housing stock by an initial \$100 million can be adequately supported by a Commonwealth capital injection of \$8.89 million at a cost of \$908 per assisted tenant year. Even where gross figures are used, the outcome is efficient. Thus, for a gross cost of \$22.55 million the scheme delivers affordable housing at \$2,288 per assisted tenant year for an initial cohort of 745 assisted tenants. This outcome can be compared to the cost of the current rent assistance program, where the maximum annual RA payment is precisely the same – i.e. \$2,288 -- for single person households without dependent children and \$2679 for couples with one or two children³². The bond scheme presented here also has the advantage, in a housing policy context, of quarantining assistance to tenants deemed to be in most housing need, unlike rent assistance which is delivered as a general income support program to social security recipients. Moreover, the bond scheme is sensitive to the differences in housing markets (rent levels, house price inflation, vacancy rate) and SHA programs (operating and administrative costs, relocation rates, dwelling disposal rates) between the State jurisdictions, unlike the RA program which is implemented as a general national entitlement through the social security system.

Hall (2001, p. 24) points out that, if the base case bond scheme was scaled up at the national level (given the assumptions built into Table 4.4), a privately financed capital expansion of \$2 billion could be achieved at a net cost to the Commonwealth of \$178 million, providing initial affordable accommodation for 14,900 additional tenants. Of course, the model can be used to calculate the dwelling and cost outcomes of other divisions of the total loan funds raised – for example, the case of smaller States receiving a larger share in comparison to their current CSHA allocations.

At this point, an obvious question arises: what, if any, effect would such an increase in the stock of low rent dwellings have on the existing market? In particular, would this exert a depressive effect on rents in this segment of the housing market, to the extent of causing some current rental investors to disinvest? If significant disinvestments does occur, then the overall effect may be that, in spite of government intervention, the stock of affordable housing may not increase by anything like the number suggested immediately above. It is even possible that the stock could decline. This would be a form of 'crowding out' of existing by new investors.

However, there are strong and plausible reasons why the potential second-order effects leading to stock decline are unlikely to be significant in this case. These reasons turn on the existence of market imperfections that characterize this housing market segment and that currently create the situation of chronic excess demand outlined in chapter 2. An increase in supply, provided through policy approaches such as the one just described, will tend to relieve existing shortages of (meet part of the currently repressed demand for) affordable rental housing, without reducing already low rental yields for existing investors. Even if rental yields fell somewhat, it is not clear that all investors would react 'rationally' by disinvesting,

³² The RA rates used here are those stated by Centrelink in early 2001.

due to the dominance of small landlord-investors, accidental investors and their diverse nature and investor motivations. In any event, even if governments intervened in a one-off manner at the scale suggested immediately above – i.e. stimulating private loan investment of \$2 billion nationally – the increase in stock would be of the order of 15,000 dwellings. This number barely replaces the decline in the annual new acquisition of public housing dwellings by the SHAs since the late 1980s, suggesting that the market would be well able to absorb the new supply without significant adverse impacts on existing investors.

4.2.1 Case 1

Hall (2001, p. 24-25) also explores a second case – ‘Case 1’ – similar to the base case except that there are no tenant relocations and dwelling sales until after the first 8 (instead of 5) years. In the ninth year and thereafter, tenants relocate uniformly across the States at an annual rate of 4.6 per cent and dwelling sales occur at 4.5 per cent. At the end of the common 25 year loan period, there are 20 per cent of assisted tenants left in residence and 21 per cent of the dwellings still owned by the SHA. These dwellings are then sold to pay off the outstanding loan principal, and the remaining tenants relocated. Relocation could, of course, be to dwellings purchased under a new transaction.

The results of Case 1 are presented in Tables 4.5 and 4.6.

Table 4.5: Case 1: Analysis Results

Variable	NSW	Vic.	Q'ld	W.A.	S.A.	Tas.	ACT	N.T.
Gross Results								
Gross Cap. Inject. \$M's	35.3	19.8	31.2	8.3	28.0	36.9	40.2	16.1
Gross Per Tenant Yr.	2,913	1,536	2,040	513	1,699	2,276	3,135	1,303
No. Of Households	656	699	827	877	892	877	693	669
Term Yrs	25	25	25	25	25	25	25	25
Direct Tax Receipts								
Direct Tax Receipts \$M's	16.27	16.85	16.39	17.57	16.54	16.24	16.15	17.02
Tax Per Tenant Yr.	1,341	1,305	1,073	1,084	1,002	1,002	1,260	1,380
Net (After Tax Results)								
Net Cap. Inject.\$M's	19.07	2.98	14.78	-9.24	11.50	20.63	24.03	-0.95
Net Per Tenant Yr.	1,572	231	967	-570	698	1,273	1,875	-77

Source: Hall (2001, p. 24)

Table 4.6: Case 1: National Result

State	Gross Cap. Inject. \$M's	Gross Per Ten. Year \$	Direct Tax Receipts \$M's	Tax Per 1 Year \$	Net Capital Ir \$M's	Net Per T Year \$
NSW	11.73	966	5.40	445	6.33	521
Victoria	4.83	374	4.10	318	0.73	56
Queensland	5.63	368	2.96	193	2.67	174
West. Australia	0.79	48.9	1.67	103	-0.88	-54
South Australia	2.19	132	1.29	78	0.90	54
Tasmania	1.11	68	0.49	30	0.62	38
ACT	0.92	72	0.37	29	0.56	43
Northern Territory	0.29	23	0.30	24	-0.02	-1
Total National	27.5	2,054	16.6	1,221	10.90	832

Source: Hall (2001, p. 25)

There are several interesting contrasting outcomes with the base case:

- In general, the leverage factor falls. That is, fewer loan dollars can be supported for every dollar of Commonwealth subsidy. This follows because of the delay in selling dwellings and repaying debt; subsidies are required for a longer average period.
- However, since the average length the dwellings are owned is greater, the gross subsidy cost per tenant year is lower. In other words, by owning the dwellings for longer, SHAs realise higher capital gains on sale, reducing the required subsidy.
- The consequence of the two points above is that although the overall cost to the Commonwealth (before and after tax) of supporting any given national stock expansion is greater in case 1, by comparison to the base case, the cost per assisted tenant year is less (compare the final rows of Tables 4.3 and 4.6). This might be seen as a case of spending more to save more. If the Commonwealth is prepared to commit more funds at the expense of less private sector leverage, then more tenants (as measured by assisted tenant years) will be assisted at a lower average cost through any single transaction. The net cost for a \$2 billion capital program to initially place 14,900 tenants would be \$218 million (compared to \$178 million in the base case) – but case 1 would deliver 262,019 assisted tenant years at a net average cost of \$832, compared to 195,815 assisted tenant years and \$908, respectively (base case).
- With lower relocation and sales rates, taxation receipts to the Commonwealth increase, due to the fact that investors hold the bonds for longer and therefore pay income tax on their interest receipts over a longer period.

4.1.3 Sensitivity Analysis

The above results have been subjected to a very detailed and exhaustive sensitivity analysis. For illustrative purposes, the analysis focuses on N.S.W. Similar sensitivity outcomes can be derived for the other jurisdictions.

Changes in Annual Housing Cost and Income Variables

Annual housing cost and income variables were varied to assess the impact on both gross subsidy costs and gross costs per assisted tenant year. With the exception of purchasing and selling expenses, the Model makes annual assumptions about the rate of growth of both costs and incomes. These annual growth rates were subject to variation of 1%. Dwelling capital growth rates and annual rental yields were tested by plus and minus 1%. In this instance, 1% does not mean that the basic assumption changes by 1% but by an additional 1% above the assumption used in the Model; for example, the Model assumes long run CPI at 2.87% and dwelling capital growth rates of CPI, i.e. 2.87% p.a. In the sensitivity tests this was varied to 3.87% per annum and 1.87% per annum, a proportionate change of 35%. Similarly, the operating cost commencing assumption in the Model for NSW is 1.51%, so a 1% increase 2.51% is a proportionate increase of 66%.

The annual variables examined in the first of the sensitivity tests are:

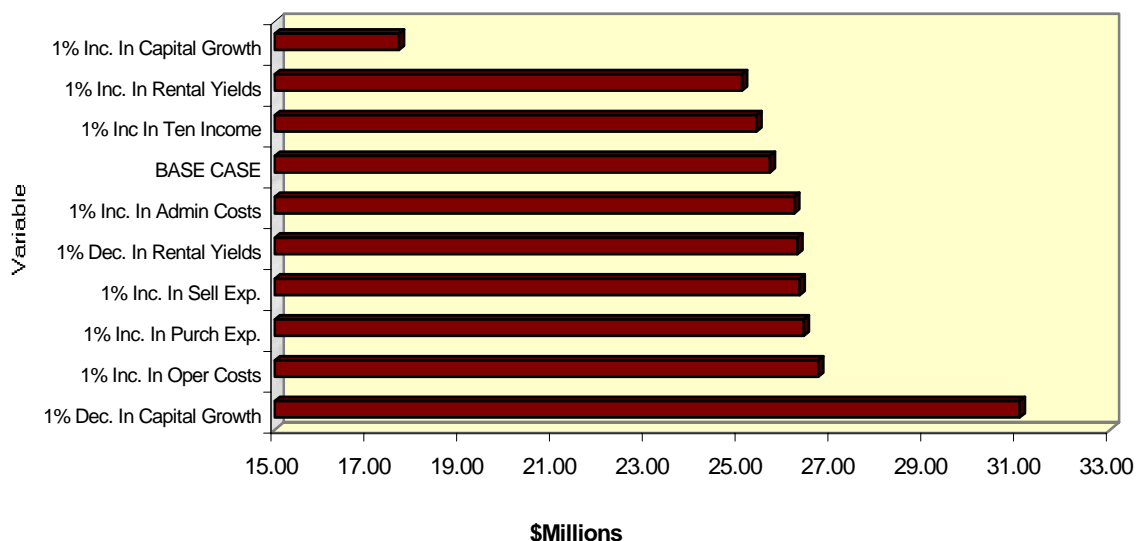
- capital growth rates
- operating costs
- purchasing expenses
- selling expenses
- private rental yields
- administration costs
- tenant income growth rates

The results of the first tests are set out in Figures 4.1 and 4.2.

The magnitude of the impact of changes in capital growth rates on both gross subsidy costs and subsidy per assisted tenant year is almost five times that of any other variable tested. A 1% decline in annual capital growth rates (33% less than the original assumption) increases subsidy costs by approximately 21%, with the next largest impact being as a result of a 1% increase in operating costs (66% more than the original assumption), which increases

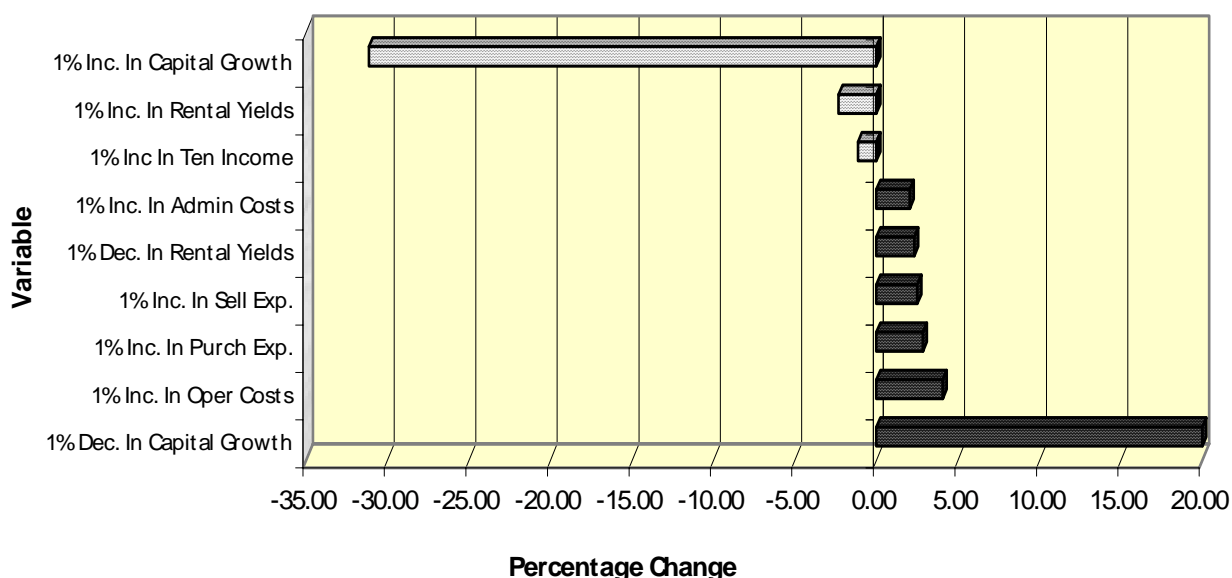
subsidy costs by approximately 4%. All other variable tests impact subsidy by less than 3%. Overall, then, a *proportionate fall* of 1% in capital growth rates (i.e. from 2.87% to 2.84%) will result in about a 0.6% increase in subsidy costs. Because of the compounding impact of annual growth rates, a 1% increase in capital growth rates has a larger impact on reducing subsidy costs with a proportionate rise of 1% reducing subsidy costs by approximately -0.9%.

FIGURE 4.1: DEBT MODEL, TOTAL HOUSING SUBSIDY COSTS: CHANGE IN REVENUE AND COST VARIABLES



Source: HALL, J. (special analysis)

FIGURE 4.2: DEBT MODEL, TOTAL SUBSIDY COST PER TENANT YEAR: CHANGE IN COST AND REVENUE VARIABLES



Source HALL, J. (special analysis)

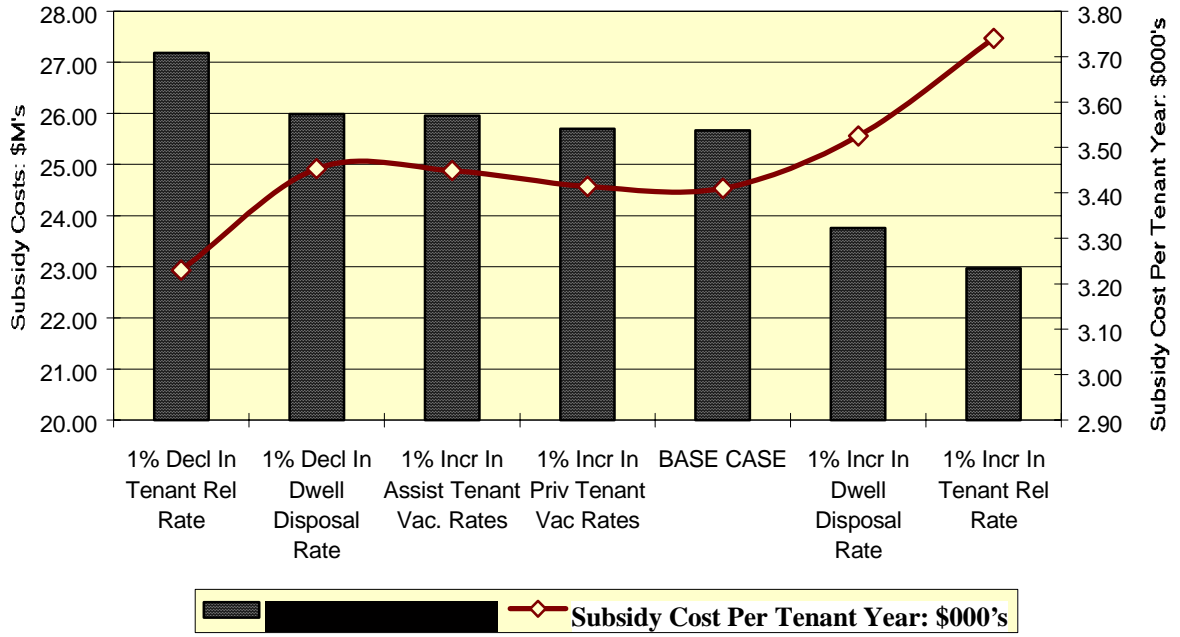
Changes in Annual Tenant and Dwelling Disposal Variables

Annual tenant and dwelling disposal variables were also varied to assess the impact on subsidy costs. The Model also incorporates annual assumptions about vacancy rates, the rate at which assisted tenants leave the housing, and the rates at which dwellings can be sold. The previous comments about 1% changes also apply. The annual variables that were tested are:

- assisted tenant vacancy rates (the proportion of total dwellings occupied by assisted tenants which are vacant at any one time)
- private tenant vacancy rates (the proportion of total dwellings occupied by private tenants which are vacant at any one time)
- assisted tenant relocation rates (the proportion of initial assisted tenants who leave the housing each year)
- dwelling disposal rates (the proportion of initial dwellings which are sold each year)

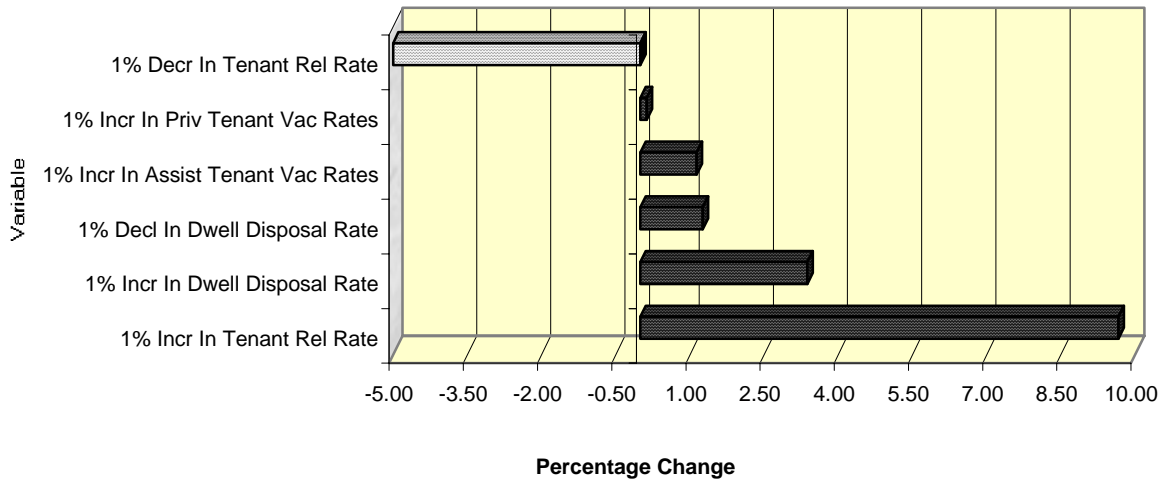
Figures 4.3 and 4.4 set out the results of the sensitivity testing.

FIGURE 4.3: DEBT MODEL: TOTAL HOUSING SUBSIDY COSTS AND SUBSIDY COSTS PER ASSISTED TENANT YEAR: CHANGE IN TENANT AND DWELLING DISPOSAL VARIABLES



Source: HALL, J. (special analysis)

FIGURE 4.4: DEBT MODEL: TOTAL SUBSIDY COST PER TENANT YEAR: PERCENTAGE CHANGE IN TENANT AND DWELLING DISPOSAL VARIABLES



Source: Hall, J. (special analysis)

As with the previous analysis one variable dominates the results. The magnitude of the impact of changes in tenant relocation rates (the rate at which assisted tenants leave or transfer), on both gross subsidy costs and subsidy per assisted tenant year, is almost twice that of any other variable tested. Figure 4.3 shows that a 1% decline in tenant relocation rates (22% less than the original assumption) increases gross subsidy costs by approximately 6% (but reduces the subsidy cost per assisted tenant year by 5%, see Figure 4.4). Conversely, a 1% *increase* in the tenant relocation rate *reduces* the gross subsidy cost by about 10% (see Figure 4.3) and *increases* the cost per tenant year by the same percentage (see Figure 4.4). Overall, a *proportionate fall* of 1% in tenant relocation rates will result in about a 0.25% increase in gross subsidy costs.

The next largest impact is as a result of a 1% increase in dwelling disposal rates (25% more than the original assumption), which increases subsidy costs per tenant year by approximately 3.2%. All other variable tests impact subsidy per tenant year by less than 1% (see Figure 4.4).

Figures 4.3 and 4.4 indicate that there is an almost inverse relationship between gross subsidy costs and the present value of the annual subsidy required to support an assisted tenant (i.e. subsidy per tenant year). This is primarily because the transaction requires initial set costs that are effectively amortized over the term. Therefore, shorter term and fewer assisted tenant year transactions must absorb the same initial costs as longer term higher assisted tenant year transactions. The result is that initial start-up costs, as a proportion of subsidy per tenant year, increase as gross subsidy and the term decline and decrease as gross subsidy and term increase. Longer term transactions (all other things being equal) demonstrate lower subsidy costs per assisted tenant year than shorter term ones.

Changes in Initial (i.e. opening or first year) Cost and Revenue Variables

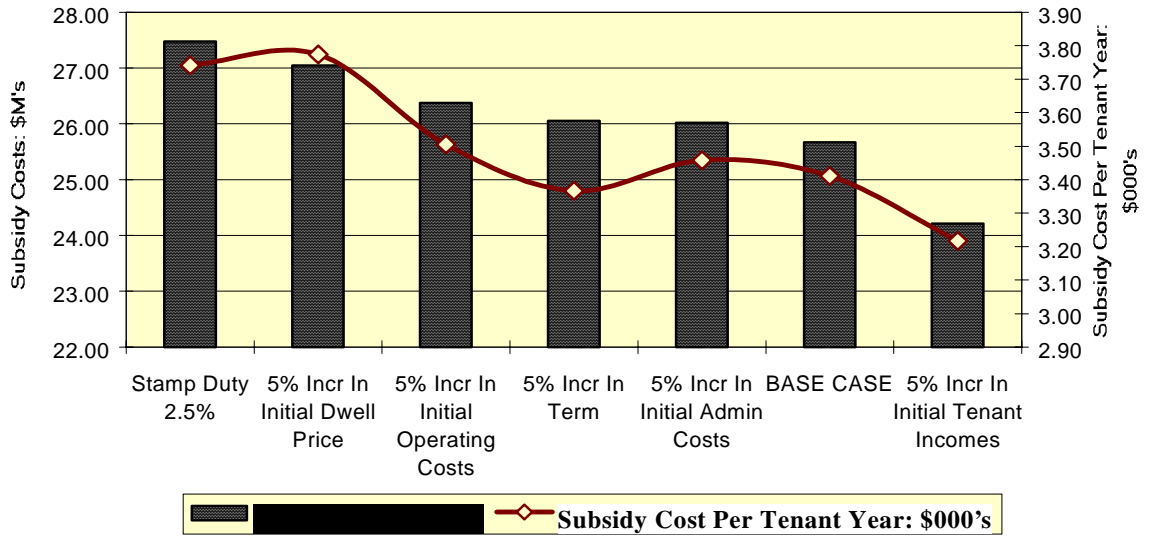
Initial dwelling costs and revenues were also varied to assess the impact on subsidy cost outcomes. The annual variables tested are:

- the imposition of stamp duty on purchase at 2.5% of the purchase price
- 5% increase in the initial dwelling price
- 5% increase in the initial operating costs
- 5% increase in the term of the transaction
- 5% increase in initial administration costs
- 5% increase in initial assisted tenant incomes

Unlike the previous analysis this analysis is proportional, i.e. the 5% increase is on an actual dwelling price, cost base or tenant income input.

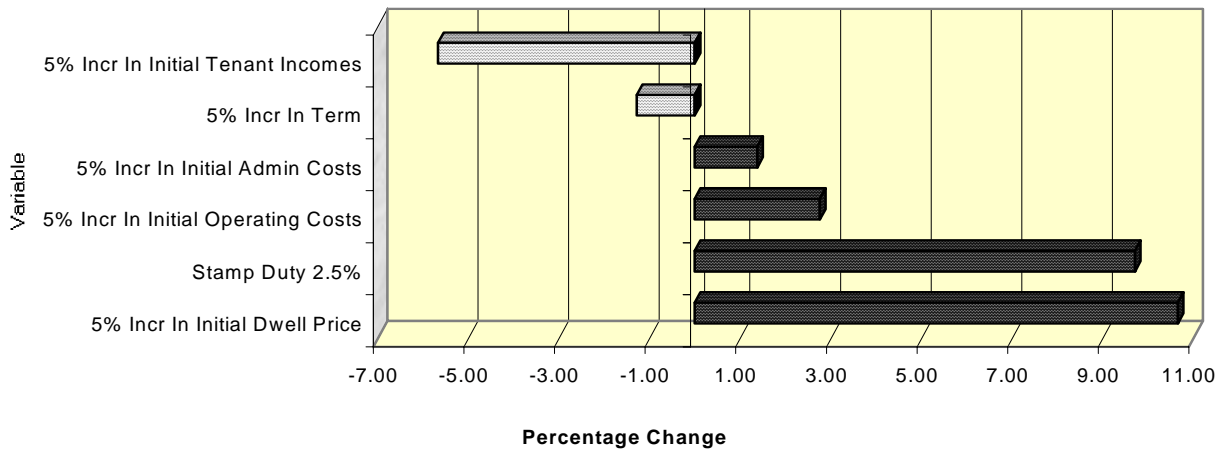
Figures 4.5 and 4.6 set out the results.

FIGURE 4.5: DEBT MODEL: TOTAL HOUSING SUBSIDY COSTS AND SUBSIDY COSTS PER ASSISTED TENANT YEAR: CHANGE IN INITIAL COSTS AND REVENUES



Source: HALL, J. Special Analysis

FIGURE 4.6: DEBT MODEL: GROSS SUBSIDY PER TENANT YEAR: PERCENTAGE CHANGE IN INITIAL COST AND REVENUE VARIABLES



Source: HALL, J. (special analysis)

In this analysis, both a 5% increase in initial dwelling prices and the imposition of stamp duty increases both gross subsidy and subsidy per assisted tenant year by between 9.5% and 10.5%. Any increase in initial dwelling prices increases the cost of the capital raising and the bond interest payment costs, and whilst approximately half this additional cost is recouped through capital appreciation there is no increment to revenues. The result is that a 1% increase in initial dwelling prices will increase subsidy costs per tenant year by approximately 2%. A similar result occurs with stamp duty. However, because all of the stamp duty costs have to be absorbed into the cost structure with no commensurate effect on dwelling appreciation, an impost of almost half the 5% increase in initial dwelling prices produces almost the same scale of impact on subsidy costs.

Within this group of variables the impact on subsidy costs of increases in initial tenant income ranks third in the scale of effects, with a 5% increase in initial tenant incomes reducing subsidy costs by approximately 5.66%. Therefore, a 1% increase in initial tenant incomes will reduce gross subsidy and gross subsidy per assisted tenant year by approximately 1.1%.

As previously reported, increases in the term of the transaction increase gross subsidy costs but reduce gross subsidy per assisted tenant year.

No other variable produces a change in subsidy outcomes of more than 3%.

Combined Changes in Assisted Tenant Years and Dwelling Disposal Rates

Some housing professionals in State Housing Authorities (SHAs) have indicated a concern that the assumptions regarding the rate at which assisted tenants might leave or transfer and the consequent rate at which dwellings could be sold might not be conservative enough. Consequently, four options are tested where the initial assumptions are reduced proportionately by 25%, 50%, 75% and the final option, where there are no sales and no assisted tenants relocating. The results of the analysis are set out in Figures 4.7 and 4.8.

FIGURE 4.7: DEBT MODEL: TOTAL HOUSING SUBSIDY COSTS AND SUBSIDY COSTS PER TENANT YEAR: STEPS OF 25% REDUCTION IN ASSISTED TENANT RELOCATION AND DWELLING SALES

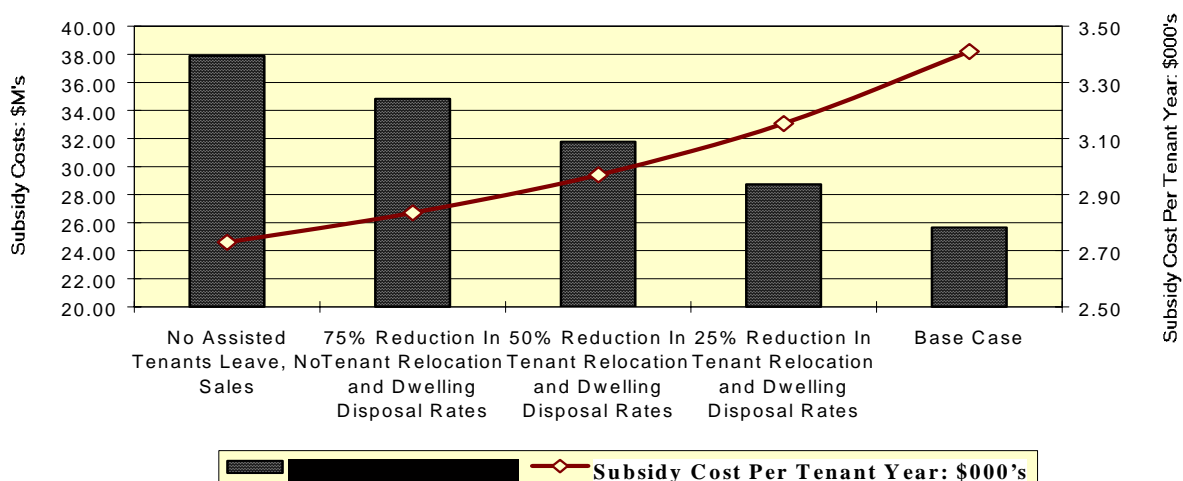
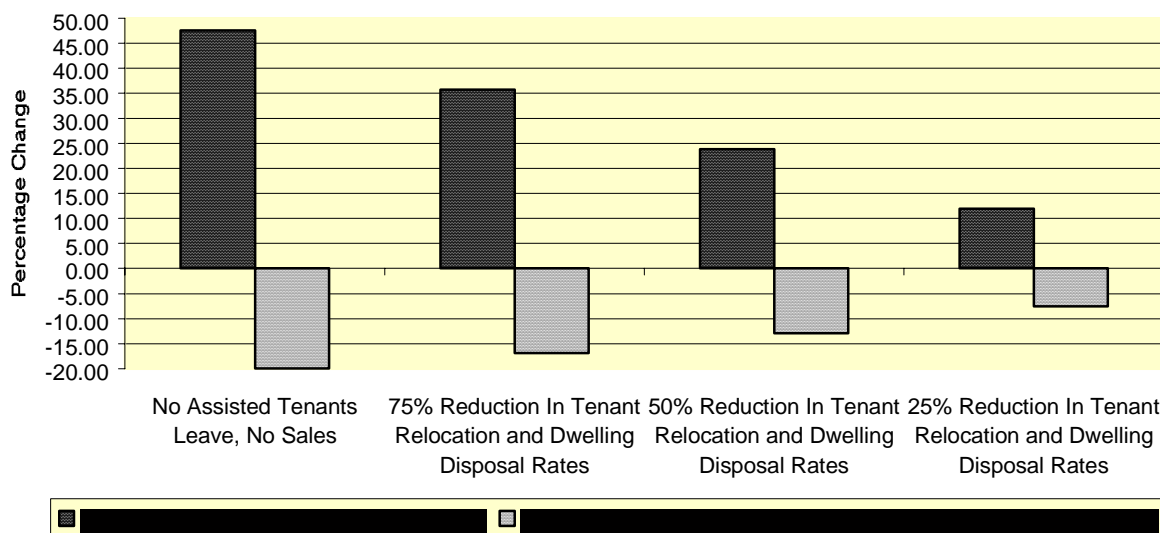


FIGURE 4.8: DEBT MODEL: PERCENTAGE CHANGE IN TOTAL HOUSING SUBSIDY COSTS AND SUBSIDY COSTS PER ASSISTED TENANT YEAR: STEPS OF 25% REDUCTION IN ASSISTED TENANTS RELOCATION AND DWELLING SALES



Source: HALL, J. (special analysis)

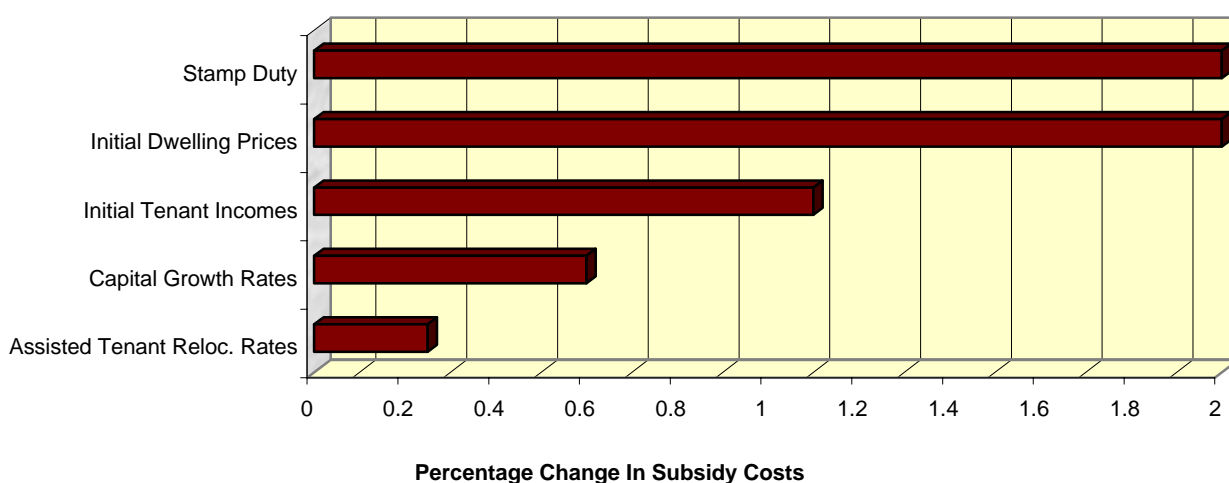
The above analysis indicates that if no dwellings are sold until the end of the term and no assisted tenants relocate, gross subsidy costs increase by 47% to \$37.9 million per \$100million capital raised. However, as has been outlined earlier, the actual cost per assisted tenant year declines in each of the cases falling from \$3,410 per assisted tenant year in the base case to \$2,730 in the no sale option, a reduction of 20%. This comes about for the reasons outlined earlier, i.e. the spreading of the fixed initial establishment costs over a greater number of assisted tenant years. Also, as would be expected, the increase in gross subsidy costs is linear, not geometric. However, because the reduction in subsidy costs per assisted tenant year is a function of an initial fixed cost, the subsidy reduction per assisted tenant year per 1% of decline in tenant relocation, and dwelling disposal rates, declines as one moves towards zero.

To conclude, every combined proportionate 1% reduction in tenant relocation and dwelling disposal rates produces approximately a 0.5% increase in gross subsidy costs. The first 25% reduction in these rates per 1% of proportionate reduction produces approximately a 0.3% reduction in subsidy per assisted tenant year, whilst, conversely, the last 10% reduction in these rates per 1% of proportionate reduction produces approximately a 0.2% reduction in subsidy per assisted tenant year.

Sensitivity Test Conclusions

To summarize, figure 4.9 sets out the five variables that have the greatest impact on subsidy costs. This figure summarises the percentage change in subsidy costs per tenant year arising from a *proportionate* 1% change in each variable being tested.

FIGURE 4.9: DEBT MODEL: VARIABLES WITH THE GREATEST IMPACT ON SUBSIDY COSTS: (Percentage Change in Subsidy Costs per Assisted Tenant Year per 1% Proportionate Change in Variable)



Source: HALL J (special analysis)

The introduction of stamp duty imposts or an increase in initial dwellings prices has the greatest impact on gross subsidy costs per assisted tenant year, with a proportionate 1% increase doubling in its impact on subsidy cost. A fall of 1% in initial assisted tenant incomes will produce the same proportionate change in subsidy costs, whilst a 1% proportionate change in annual capital growth rates produces a 0.6% increase in the subsidy cost outcome. Finally, a 1% fall in assisted tenant relocation rates will produce about a quarter of a percentage point increase in subsidy costs.

4.2 Model 2: A Company Vehicle

The analysis of the equity model has been conducted on the same basis as that applying to the Debt model, with identical assumptions other than those required to be different because of the different cost base. The definitions and assumptions for the two models are listed in Appendix 1.

To revisit, the assessment has been conducted in terms of:

- a. the gross capital injection required per \$100M raised for dwelling purchase
- b. the gross present value subsidy per assisted tenant year (the number of assisted tenants, multiplied by the number of years these tenants are assisted)
- c. the number of initial households assisted per \$100M
- d. the direct income and capital gains taxes paid by investors per \$100M (assuming 50% of investors are Companies and 50% Superannuation Funds)
- e. the gross present value of tax income per assisted tenant year accruing to the Commonwealth
- f. the net capital injection required per \$100M raised for dwelling purchase (after deducting direct tax receipts)
- g. the net present value of the Commonwealth subsidy per assisted tenant year

4.2.1 Base Case: National Outcomes

Table 4.7 summarises the outcomes of the equity base case, in relation to the debt base case.

Table 4.7: Base Case National Result: Equity Model Compared to Debt Model

Option	Gross Capital Injec \$M's	Gross Per Tenant Year \$	Direct Tax Receipts \$M's	Tax Per Te Year \$	Net Capital Inje \$M's	Net Per Tenant Year \$
Equity	34.71	3,606	22.68	2,357	12.03	1,249
Debt	22.55	2,288	13.66	1,380	8.89	908
Difference: Equity Versus Debt Models	+12.16	+1,318	+9.02	+977	+3.14	341

Source: J. Hall (special analysis)

If current conditions persist and if dwelling price increases match CPI long term in the eight capital cities, an equity, stock exchange based, program of \$100m would produce a gross cost to the Commonwealth of \$34.7 million for the total term of all State transactions. This gross cost is about 54% more than that applying to the Debt Option. It should be noted however that a significant proportion of this additional costs pertains to higher levels of tax payments and that the after tax position of the Equity Option is reduced to some 35% more than the debt outcome.

Based upon the above assumptions and analysis, an equity program of \$2Billion capital would have a net cost of \$240m and provide accommodation for 14,560 assisted tenant households. This compares with \$180m and 14,900 assisted tenant households for the Debt Option.

The Equity Option is considerably more expensive because of four major factors. These are listed in ascending order of impact, viz;

- non-recoverable continuing additional management costs of 0.31% per annum
- non-recoverable substantial establishment costs adding about 5.2% to the 30% listing component of the fundraising
- higher interest rates of 0.5% applying to the 50% corporate debt component
- 4% real dividend yield and CPI guaranteed asset values applying to the private equity listing component

The last factor is by far the most significant in subsidy cost terms. Guaranteeing shareholder assets will grow by CPI and providing a 4% dividend yield ensures the return will be equivalent to a 'deep discount' real rate bond, where both the principal outstanding and dividend payment required grows by inflation every year. Real yields for such instruments in the bond market are some 0.75% less than that applying to a 4% dividend stream.

4.2.2 Sensitivity Analysis

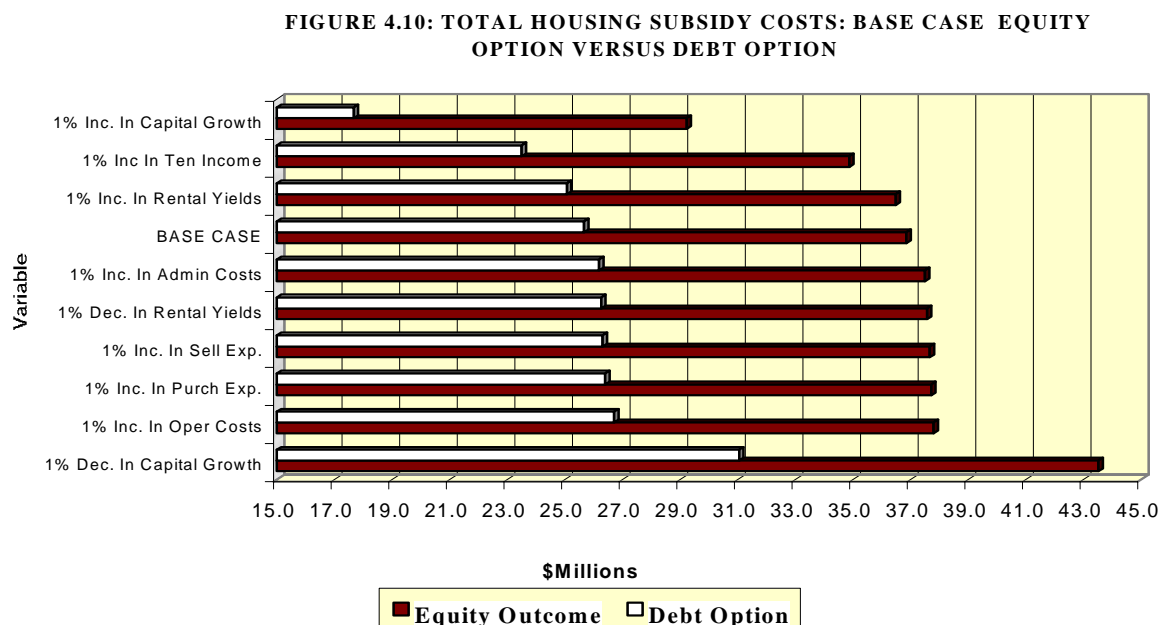
The above results have been subjected to a very detailed and exhaustive sensitivity analysis. Because of factors outlined earlier, the Equity Option is always more expensive than the Debt Option, no matter what the variable being tested. As in the case of Model 1 (chapter 4.1.3, above), the sensitivity analysis below draws on N.S.W. for illustrative purposes. The impacts on subsidy cost levels of changes in the key variables are compared for both Models.

Changes In Annual Housing Cost and Income Variables

As outlined in chapter 4.1.3, the annual variables examined in the first of the sensitivity tests are:

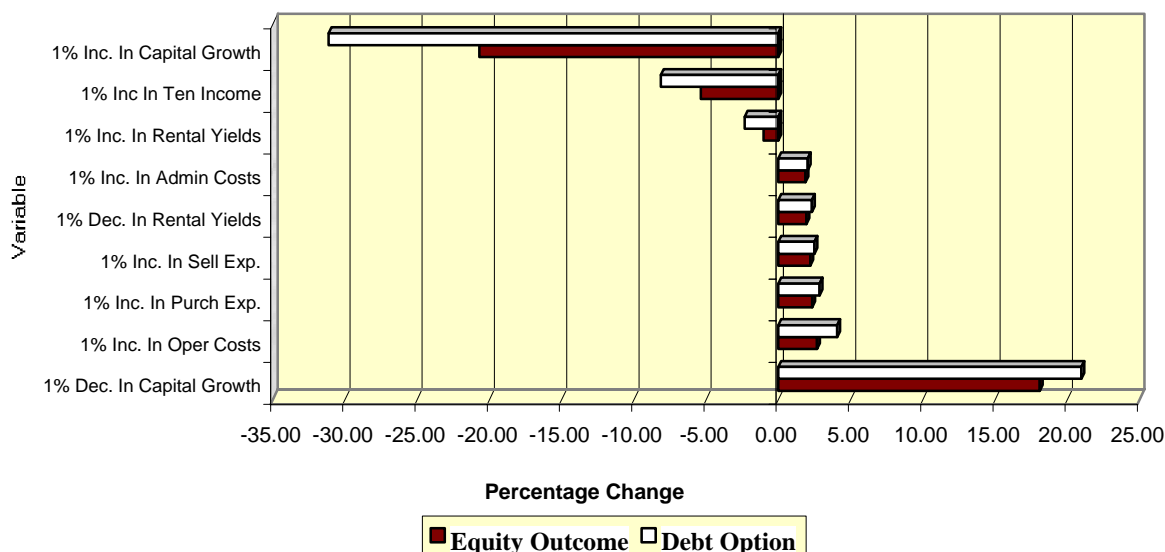
- capital growth rate
- operating costs
- purchasing expenses
- selling expenses
- private rental yields
- administration costs; and
- tenant income growth rates

The results of the first tests are set out in Figures 4.10 and 4.11.



Source: Hall, J. (special analysis)

FIGURE 4.11: TOTAL SUBSIDY PER TENANT YEAR: PERCENTAGE CHANGE DUE TO CHANGE IN INCOME AND REVENUE VARIABLES: EQUITY OPTION VERSUS DEBT OPTION



Source HALL, J (Special Analysis)

The relative impact of each of the different variables is the same with the Equity Option as with the Debt Option. However, the changes in subsidy percentages are more muted in the Equity Option because of the greater magnitude of the fixed initial unrecoverable costs.

As with the Debt Option, the magnitude of the impact of changes in capital growth rates on both gross subsidy costs and subsidy per assisted tenant year is almost five times that of any other variable tested. A 1% decline in annual capital growth rates (33% less than the original assumption) increases subsidy costs by approximately 18%, with the next largest impact being a 1% increase in operating costs (66% more than the original assumption), which increases subsidy costs by approximately 3% (1% less than in the Debt Option). Overall, then, a *proportionate fall* of 1% in capital growth rates (i.e. from 2.87% to 2.84%) will result in about a 0.5% increase in subsidy costs. Because of the fixed costs outlined earlier, a 1% increase in capital growth rates has a smaller impact on reducing subsidy costs than in the Debt Option with a *proportionate rise* of 1% *reducing* subsidy costs by approximately 0.55%.

Changes In Annual Tenant and Dwelling Disposal Variables

Annual tenant and dwelling disposal variables were also varied to assess the impact on subsidy costs. The previous comments about 1% changes also apply. As with the Debt Option, the annual variables tested are:

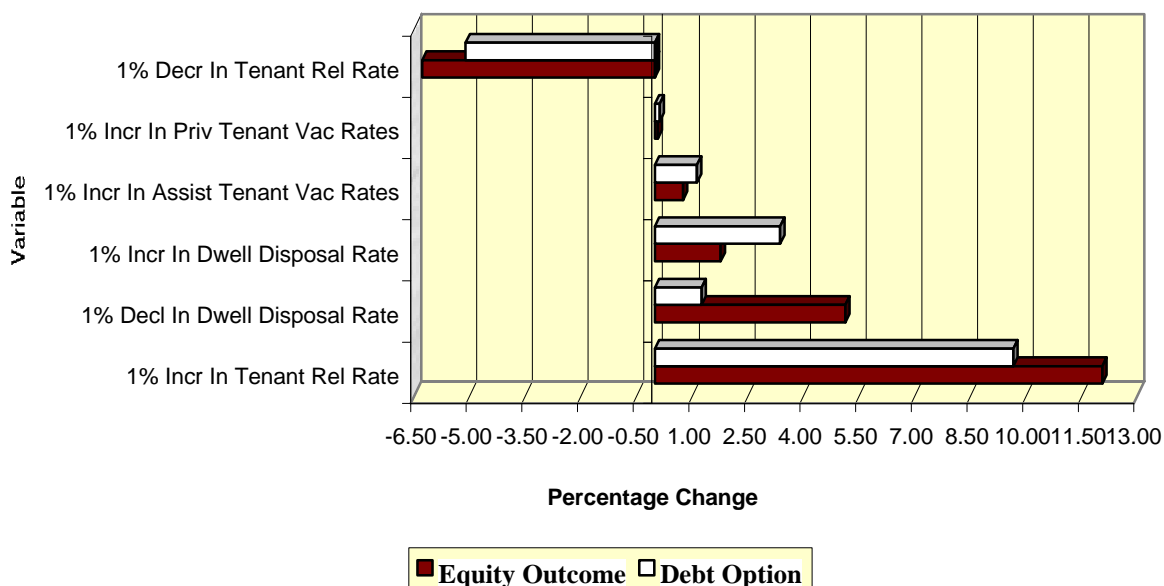
- assisted tenant vacancy rates (i.e. the proportion of total dwellings occupied by assisted tenants which are vacant at any one time)
- private tenant vacancy rates (i.e. the proportion of total dwellings occupied by private tenants which are vacant at any one time)
- assisted tenant relocation rates (i.e. the proportion of initial assisted tenants who leave the housing each year)
- dwelling disposal rate (i.e. the proportion of initial dwellings which are sold each year)

Figures 4.12 sets out the results of the sensitivity testing.

As with the debt analysis, the same variable dominates the results. The magnitude of the impact of changes in tenant relocation rates (the rate at which assisted tenants leave or transfer) on both gross subsidy costs and subsidy per assisted tenant year is almost twice that of any other variable tested. A 1% decline in tenant relocation rates (22% less than the original assumption) increases gross subsidy costs by approximately 6.3%, and reduces cost per assisted tenant year by about the same proportion (see Figure 4.12). Overall, a

proportionate fall of 1% in tenant relocation rates, will result in about a 0.5% increase in gross subsidy costs. This is almost 20% higher than in the Debt Option. The next largest impact is caused by a 1% increase in dwelling disposal rates (25% more than the original assumption), which increases gross subsidy costs by approximately 5%, while reducing cost per tenant year by a similar proportion. All other variable tests impact gross subsidy by less than 1%.

FIGURE 4.12: TOTAL SUBSIDY PER TENANT YEAR: PERCENTAGE CHANGE DUE TO CHANGES IN TENANT AND DWELLING DISPOSAL: EQUITY OPTION VERSUS DEBT OPTION



Source: HALL, J (special analysis)

As outlined in the debt analysis, initial start-up costs as a proportion of subsidy per tenant year increase as gross subsidy and term decline and decrease as gross subsidy and term increase. Longer term transactions (all other things being equal) demonstrate lower subsidy costs per assisted tenant year than shorter term ones. In the case of the equity model this is even more extreme with the same reduction in the rate of dwelling disposal reducing subsidy costs per tenant year by almost 4 times the percentage applying in the debt option.

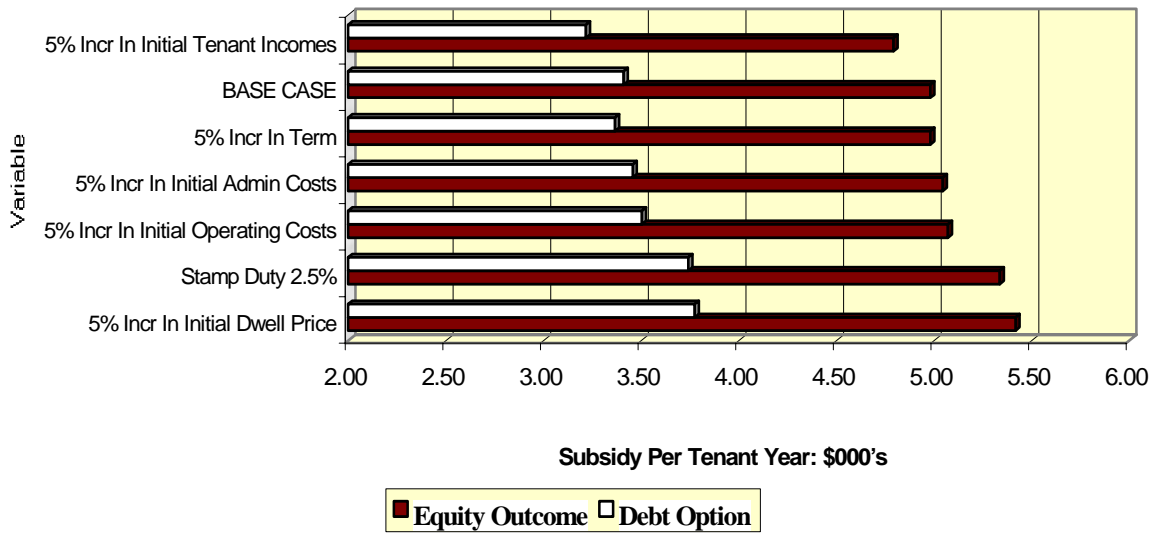
Changes In Initial (i.e. opening or first year) Cost and Revenue Variables

As with the Debt Option, initial dwelling costs and revenues were also varied to assess the impact on subsidy costs. The variables tested are:

- the imposition of stamp duty on purchase at 2.5% of the purchase price
- 5% increase in the initial dwelling price
- 5% increase in the initial operating costs
- 5% increase in the term of the transaction
- 5% increase in initial administration costs
- 5% increase in initial assisted tenant incomes

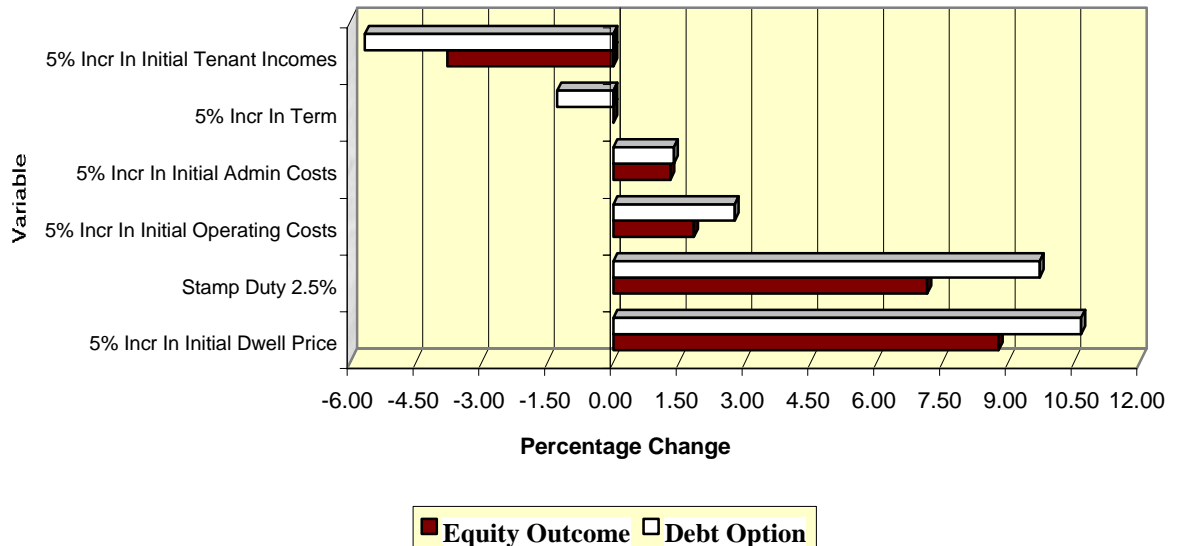
As in the case of the Debt Option, this analysis is proportional, i.e. the 5% increase is on an actual dwelling price, cost base or tenant income input. Figures 4.13 and 4.14 set out the results.

FIGURE 4.13: TOTAL SUBSIDY COST PER TENANT YEAR: CHANGE IN INITIAL COST AND REVENUE VARIABLES: EQUITY OPTION VERSUS DEBT OPTION



Source: HALL, J. (special analysis)

FIGURE 4.14: TOTAL SUBSIDY COST PER TENANT YEAR: PERCENTAGE CHANGE DUE TO CHANGE IN INITIAL COST AND REVENUE VARIABLES: EQUITY OPTION COMPARED TO DEBT OPTION



Source HALL, J. (special analysis)

In this analysis, a 5% increase in initial dwelling prices and the imposition of stamp duty increases subsidy per assisted tenant year by between 7% and 9% (see Figure 4.14). The results are similar to the debt option but a higher fixed cost component reduces the effect by about 10% in both instances. The result is that a 1% increase in initial dwelling prices will increase subsidy costs per tenant year by approximately 1.75%. A similar result occurs with stamp duty. However, because all of the stamp duty costs have to be absorbed into the cost structure with no commensurate effect on dwelling appreciation, a stamp duty impost of half the 5% increase in initial dwelling prices produces a greater impact on subsidy costs.

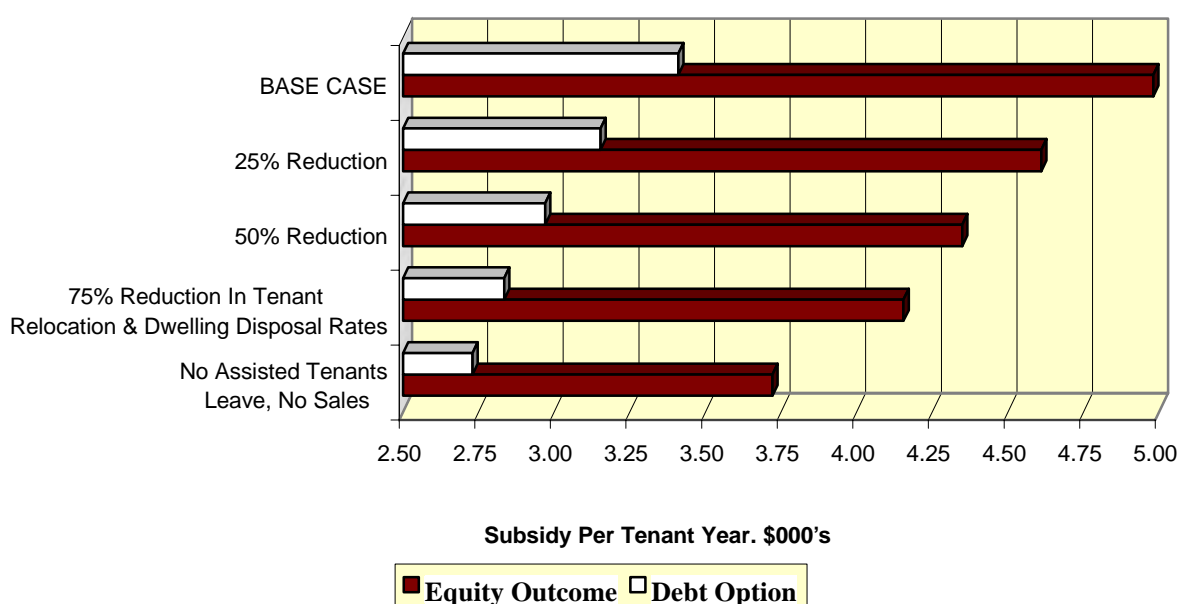
As in the Debt Option, the impact on subsidy costs of increases in initial tenant income ranks third in the scale of effects, with a 5% increase in initial tenant incomes reducing subsidy costs by approximately 3.8%, some 25% below the outcome for the debt option (see Figure 4.14). Therefore, a 1% increase in initial tenant incomes will reduce gross subsidy and gross subsidy per assisted tenant year by approximately 0.75%.

No other variable produces a change in subsidy outcomes of more than 3%.

Combined Changes in Assisted Tenant Years and Dwelling Disposal Rates

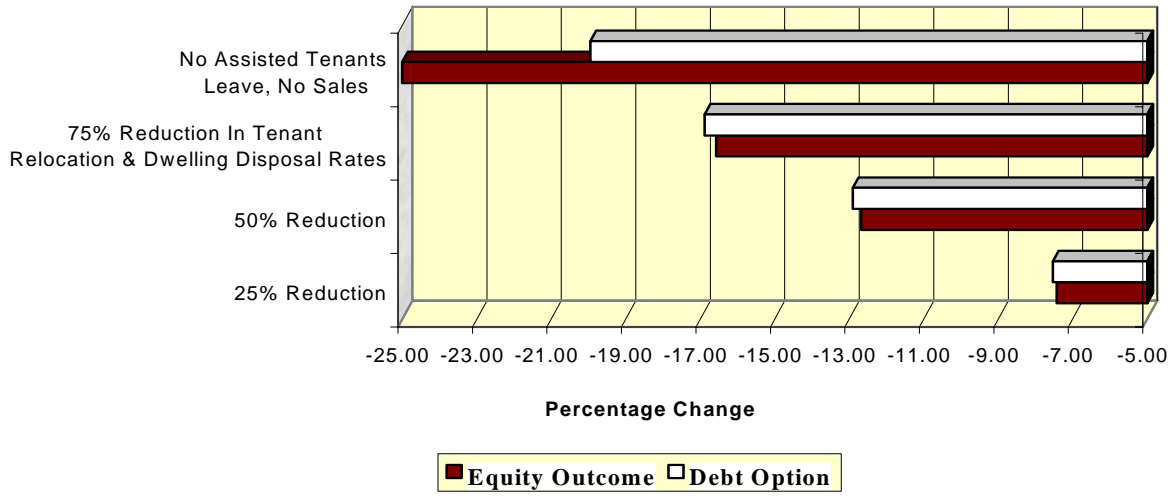
As outlined in the debt analysis, we tested four options where the initial assumptions concerning tenant relocation and dwelling disposal rates are reduced proportionately by 25%, 50%, 75% and the final option, where there are no sales and no assisted tenants relocating (until the end of the term). The results of the analysis are set out in Figures 4.15 and 4.16.

FIGURE 4.15: TOTAL SUBSIDY COST PER TENANT YEAR: STEPS OF 25% REDUCTION IN ASSISTED TENANTS RELOCATION AND DWELLING SALES: EQUITY OPTION VERSUS DEBT OPTION



Source: HALL, J. (special analysis)

**FIGURE 4.16: TOTAL SUBSIDY COST PER TENANT YEAR:
PERCENTAGE CHANGE DUE TO STEPS OF 25% REDUCTION IN
ASSISTED TENANTS LEAVING AND DWELLING SALES: EQUITY
OPTION VERSUS DEBT OPTION**



Source: HALL, J. (special analysis)

The above analysis indicates that if no dwellings are sold until the end of the term and no assisted tenants relocate, gross subsidy costs increase by 64% (47% in the Debt Option) to \$60million per \$100million capital raised (\$47 million in the Debt Option). This is considerably higher than the Debt Option because of the impact of the initial fixed costs.

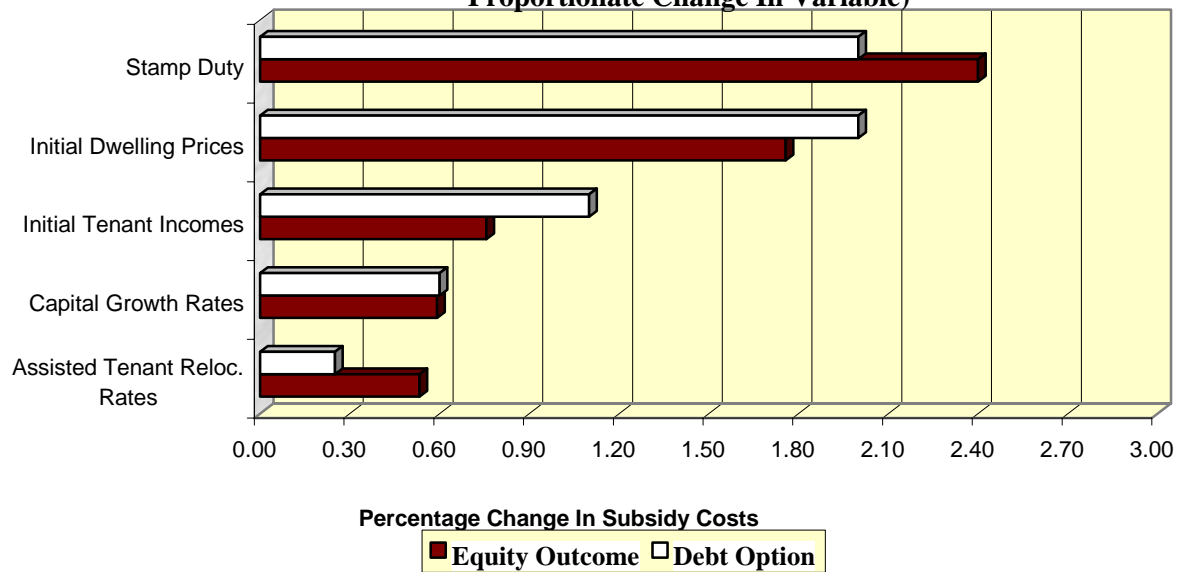
However, the actual cost per assisted tenant year declines in each of the models, falling from \$4,980 per assisted tenant year in the equity base case to \$3,720 (Figure 4.15) in the no sale option, a reduction of 25% (Figure 4.16); compared to 20% in the Debt Option. This comes about for the reasons outlined earlier, i.e. the spreading of the fixed initial establishment costs over a greater number of assisted tenant years, and because the higher the fixed costs, the greater the proportionate reduction.

To conclude, every combined proportionate 1% reduction in tenant relocation and dwelling disposal rates produces approximately a 0.6% increase in gross subsidy costs, 0.1% more than in the Debt Option. Similarly, the same 1% reduction produces a 0.25% reduction in subsidy costs per tenant year, or 0.05% more than in the Debt model.

Sensitivity Test: Conclusions

To summarize, Figure 4.17 sets out the five variables which have the greatest impact on subsidy costs where the basic premises are the same in both models, i.e. what percentage change in subsidy costs per tenant year arises from a *proportionate* 1% change in the variable being tested?

FIGURE 4.17: VARIABLES WITH THE GREATEST IMPACT ON SUBSIDY COSTS: EQUITY OPTION VERSUS DEBT OPTION
(Percentage Change In Subsidy Costs Per Assisted Tenant Year Per 1% Proportionate Change In Variable)



Source: HALL, J (special analysis)

The variables that have the greatest impact on subsidy costs are the same as those in both the Debt and Equity models, except that in the latter case, the proportionate impact is more pronounced where there are changes to fixed unrecoverable costs or where the number of tenant years is reduced (because of the lesser years to amortize the fixed costs). The introduction of stamp duty imposts or an increase in initial dwellings prices has the greatest impact on gross subsidy costs per assisted tenant year in both models, with a proportionate 1% increase increasing subsidy costs by 2.4% for stamp duty and by 1.8% for initial dwelling prices. A 1% proportionate change in annual capital growth rates produces a 0.6% increase in the subsidy cost outcome. Finally, a 1% fall in assisted tenant relocation rates will produce about a 0.5% increase in subsidy costs or almost double the change resulting in the Debt model.

4.3 Model 3: A Non-Profit Company Vehicle

Model 3 is based on the proposed Brisbane Housing Company (BHC) (see chapter 3.4 and 3.5). This model differs substantially from models 1 and 2 analysed above. Further information on the detailed assumptions and input data specifying model 3 can be accessed by contacting the Queensland Department of Housing³³. The base case presented below is defined by the key assumptions outlined in Table 4.8³⁴. They are similar to the base case assumptions in the other two models and should be seen as provisional, pending further development of the model by the Queensland Housing Department and Brisbane City Council. It is not possible at this stage neither to fully specify and test the model nor to compare it closely to the other two. Nevertheless, as the discussion below demonstrates, this model does provide an alternative approach to expanding the stock of affordable housing in a targeted and cost effective manner.

The base case assumes that the BHC will acquire 600 dwellings over the first four year period, requiring the government to inject \$15 million each year during that period; this equity injection is non-returnable and does not generate any dividends for the government. It is also assumed that charitable donations and voluntary developer contributions will be received, to the annual value of \$2 million for the first ten years of operation. A further \$16.23 million will

³³ Contact person: David Cant (david.CANT@housing.qld.gov.au) .

³⁴ This base case is devised for comparative purposes to parallel the other two models where possible. It differs somewhat from the base case developed by the QDoH.

be leveraged on this total equity base by borrowing from private investors by, for example, selling state government long term bonds. The company will directly manage some of the properties and tenancies itself, and will contract out some dwellings to be managed by other community housing providers. Tenants will be referred by the Department of Housing and other community organizations. Rents are generally set at 74.9% of market levels for each dwelling type and location, in order to qualify for GST free status. Tenants receive rent assistance at the appropriate rates, assumed to be at levels ruling in 2001.

Table 4.8: Model 3, Base Case: Key Assumptions

Basic Assumptions	Number
Commission on Sale	5.0%
Commencing Inflation	2.57%
Borrowing rate	6.17%
Discount Rate	%
Dwell Price Growth p.a.	CPI
Maintenance and Rates Cost Growth p.a.	CPI
General Administration Cost Growth p.a.	CPI
Salary costs growth p.a.	CPI+0.5%
Rent as % of market rent for each dwelling type (except for boarding houses)	74.9%
Dwelling composition after first 4 years*:	
studio apart.	48
BOARDING HOUSE ROOMS	200
1 bedroom units	216
2 bedroom units	92
3 bedroom units	48
Initial income of tenants	\$20,000 p.a.

* dwellings are to be acquired/constructed over the first four year period of operation; 25% of dwellings added in each year.

The dwellings will be acquired within 7 kilometres from the city center and will be a mix of existing and newly constructed properties, divided across dwelling types as noted above in Table 4.8. The company will be governed by a board which will appoint the chief executive officer.

The main financial outcomes of the model are summarized in Table 4.9.

The key outcome to note in Table 4.9 is that as the term of operation increases, although the total subsidy cost rises, the cost per assisted tenant year progressively falls. After 50 years of operation the subsidy cost per year is at a similar (though still slightly higher) level as that delivered by model 1 over the shorter 25 or so year period – and, it can be noted, similar to the current cost of Commonwealth rent assistance paid to private tenants. Given the assumptions of the model, this cost continues to decline with the length of operation. Over the 50 year period model 3 delivers a lower subsidy cost per tenant than the commercial corporate vehicle of model 2. The cost per tenant year in model 3 is much higher over shorter periods because of the impact on total subsidy costs of the large up-front equity contribution of the State Government (\$60 million over the first four years). The longer the company operates, the greater the number of years this fixed front-end cost is spread over. This suggests that this model is a long term venture, a cost effective approach when

Table 4.9: Brisbane Housing Company, Main Revenue and Subsidy Cost Outcomes

	10 years \$ mill.	20 years \$ mill.	25 years \$ mill.	50 years \$ mill.
<i>Annual financial surplus</i>	3.35	0.37	0.43	0.97
Total dwelling value	97.27	125.38	142.34	268.40
PV of initial govt. equity contribution	55.01	55.01	55.01	55.01
PV of rent assistance paid by Commonwealth	8.31	16.14	19.16	28.41
PV of GST revenue foregone by Commonwealth	5.97	6.86	7.19	8.20
Total cost of subsidies	69.29	78.01	81.36	91.62
Subsidy cost per assisted tenant year	\$11,500	\$6,500	\$5,424	\$3,054

government sees a need to make a commitment to ensuring the supply of affordable housing over the long term. This, in turn, places special emphasis on the need to ensure that the vehicle launched is financially viable and robust, well placed to meet its costs and withstand external shocks during the course of a long, indeed indefinite life-span. The top two rows of Table 4.9 give some confidence that the model as specified meets that requirement. If the assumptions and input data used to generate the outcomes summarised in the table turn out to be accurate, then the company will generate a small annual financial surplus each year and own a steadily appreciating asset base, both outcomes placing the company in a sound position to meet their obligations and ride out temporary downturns. The sensitivity analysis described below returns to this point.

All three models analysed in this chapter are intended as long term and cost effective approaches to increasing the supply of affordable housing by drawing, in part, on private investment. The debt model proposes an indefinite series of individual loan transactions, each cast over a 20-to-25 year period. Models 2 and 3, as company vehicles, are open-ended, with an indefinite life. The models differ in their degree of leverage and source of private funds, their management arrangements and the time pattern of costs involved. Model 3, for example, has a significantly lower degree of leverage and less direct control of operations by the SHAs than the debt model. Both models 2 and 3 operate at arms length from government. While they exist, the companies maintain the dwellings owned in the affordable housing sector. For this to occur in the case of model 1, the governments must continue to roll in new loan transactions to make up for the progressive transfer of dwellings to the private market in the case of exiting transactions.

One advantage of model 3, not available in the other two models, is that as a charitable entity it is well placed to expand its dwelling stock through continuing to receive donations and developer contributions beyond the 10 year period assumed in the base case. This would allow the company to further leverage that growing asset base through private borrowing, while still maintaining its financial viability in the long term. This, of course, assumes that the current taxation regime is maintained.

Sensitivity Analysis

This model is, with one apparent exception, relatively insensitive to changes in the key variables (see Table 4.10 and Figures 4.18 and 4.19). The exceptional factor is the discount rate – i.e. the rate at which future costs and revenues are discounted to present value terms. An increase of one per cent (100 basis points, from 6.17% to 7.17%) decreases the subsidy cost per assisted tenant year by over 3 per cent (25 years) and over 7 per cent (50 years). Likewise, a fall of 100 basis points increases subsidy costs by roughly the same amount, in each case. The longer the period, the greater the impact.

In fact, a change of 100 basis points represents a 16 per cent change in the discount rate (in proportional terms). This suggests, that as for the other variables tested, subsidy

cost changes less than proportionately than the discount rate. In short, the model appears to be robust to the extent that the required government subsidy is not overly sensitive to the changing level of any particular variable.

However, where the impact is felt is in the annual surplus or deficit (first row of Table 4.10). For example, if the dwelling appreciation rate increases from CPI to CPI+1%, the annual surplus of \$0.43 million in year 25 would change to a deficit of \$0.9 million. This follows because costs associated with dwelling maintenance, upgrades and insurance are tied to dwelling value and all increase together. The deficit grows to \$4.36 million in year 50. "The situation with respect to operating costs is less clear. In the current specification of the model operating costs are tied to CPI; hence to change the former means changing the latter, which also changes all other variables linked to dwelling value. It is therefore not possible, at this time, to extract the impact of a change in operating costs on subsidy costs, with all other variables held constant. For this reason, the figures in the "Annual Costs" section of Table 4.10(a) should be treated with caution."

What this, in the case of, say, increases in the rate or starting base of dwelling appreciation, is that the company has a more valuable asset base to meet future financial shortfalls. For example, at CPI+1% capital gain, the value of a one-bedroom dwelling acquired today for \$150,000 would be \$360,525 in 25 years time.

Hence, the sale of 3 dwellings in year 25 would easily meet the financial deficit for that year. Alternatively, the expanding value base of the company's dwellings could support short term borrowings in order to meet the deficits, to be repaid out of subsequent surpluses or reserves accumulated from earlier surpluses. Persistent annual deficits, of course, would eventually require asset sales or re-capitalisation by private or public investors – e.g. another contribution of zero dividend equity by the State government. This latter action would then increase the overall subsidy entailed.

Figure 4.18: Percentage Change in Subsidy Cost per Tenant Year Due to Changes in Key Variables, 25 Year Period

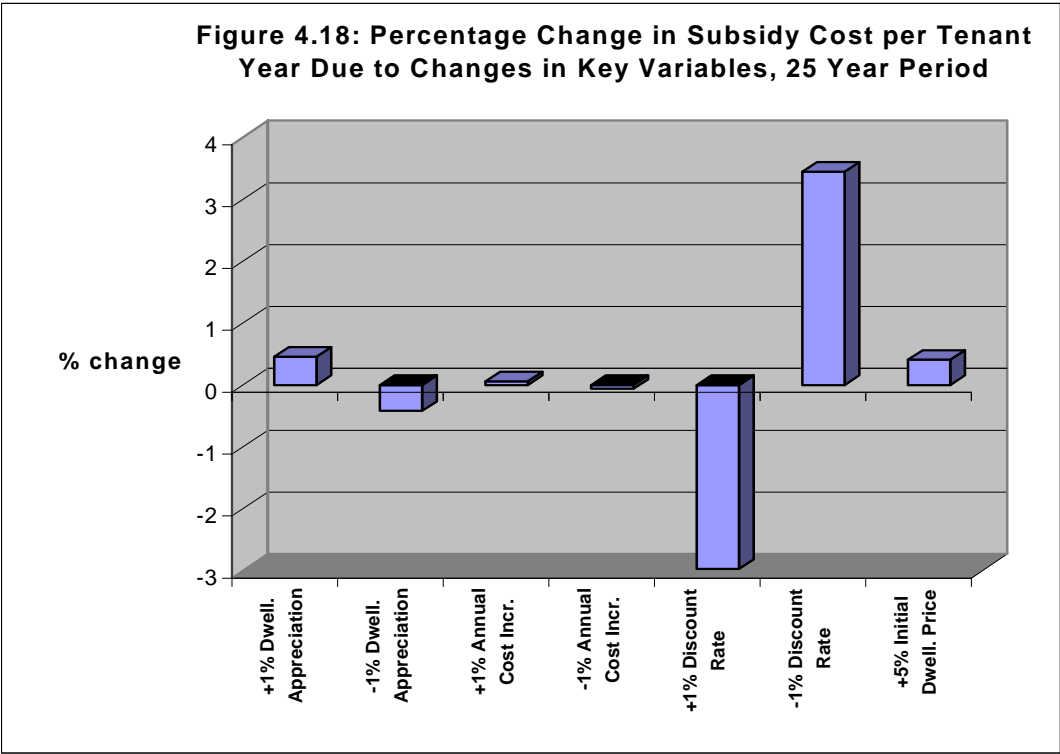


Figure 4.19: Percentage Change in Subsidy Cost per Tenant Year Due to Change in Key Variables, 50 Year Period

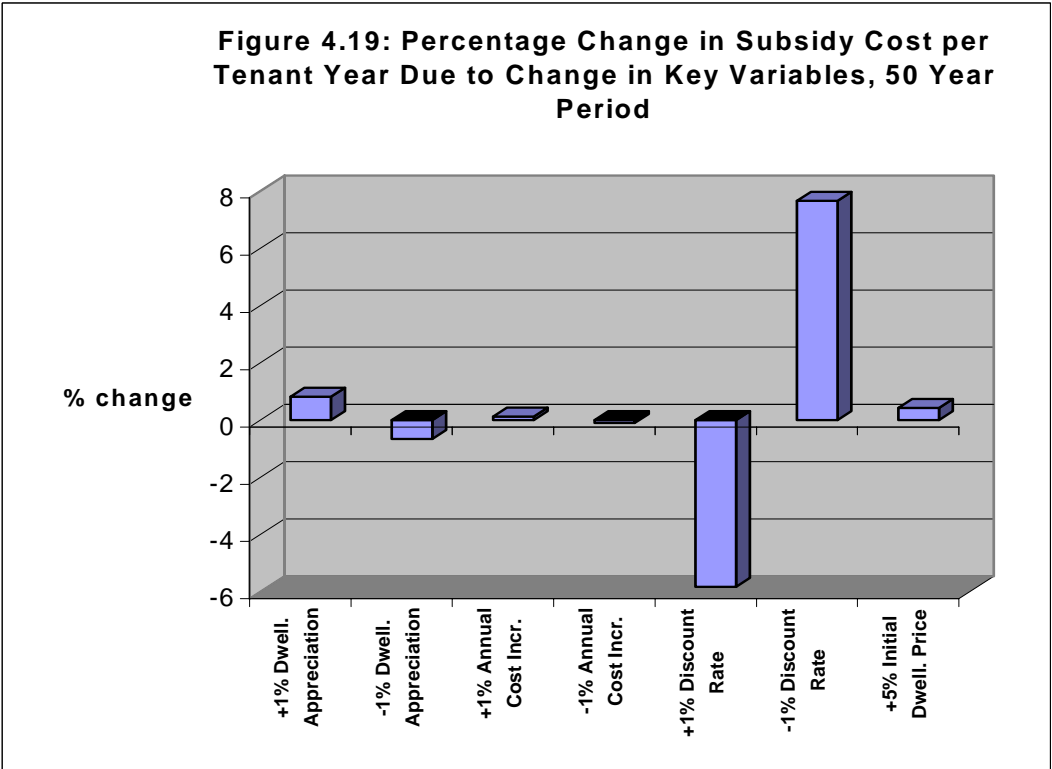


Table 4.10(a): Impact on Subsidy Cost per Tenant Year of Changes in Key Variables

	<i>Base Case \$M</i>		Dwell. App. \$M				Annual costs \$M							
	25	50	25	+1%	50	25	-1%	50	25	+1%	50	25	-1%	50
Ann. Surp.	.43	.97	-90	-4.36	1.57	5.58	1.76	7.85	-67	-2.87				
Val. stock	142.32	268.4	181.4	436.00	111.41	164.47	142.34	268.40	142.3	268.4				
PV RA	19.16	28.41	19.16	28.41	19.16	28.41	19.16	28.41	19.16	28.41				
PV GST	7.19	8.20	7.56	8.94	6.85	7.61	7.24	8.33	7.14	8.10				
Gov. eqty.	55.01	55.01	55.01	55.01	55.01	55.01	55.01	55.01	55.01	55.01				
SUM	81.36	91.62	81.73	92.36	81.02	91.03	81.41	91.75	81.31	91.52				
Cost/t.yr.	\$5424	\$3054	\$5449	\$3079	\$5401	\$3034	\$5427	\$3058	\$5421	\$3051				

Table 4.10(b): Impact on Subsidy Cost per Tenant Year of Changes in Key Variables

	<i>Base Case \$M</i>		Discount rate. \$M				Initial Dwell. price \$M				
	25	50	25	+1%	50	25	-1%	50	25	up 5%	50
Ann. Surp.	.432	.97	.43	.97	.43	.97			-.34	-.95	
Val. stock	142.32	268.4	142.3	268.4	142.3	268.4			149.40	281.80	
PV RA	19.16	28.41	17.06	23.66	21.62	34.68			19.16	28.41	
PV GST	7.19	8.20	6.88	7.61	7.53	8.96			7.52	8.58	
Gov. eqty.	55.01	55.01	55.01	55.01	55.01	55.01			55.01	55.01	
SUM	81.36	91.62	78.95	86.28	84.16	98.65			81.69	92.00	
Cost/t. yr.	\$5424	\$3054	\$5263	\$2876	\$5611	\$3288			\$5446	\$3067	

CHAPTER 5 CREATING A NEW ASSET CLASS?

5.1 Introduction

Chapter 4 presented and analysed three approaches to attracting large volumes of private investment into the provision of rental housing, each with a particular financing structure (i.e. a particular specification and mix of equity and bond instruments). As long as the level of government support provided in each case is sufficient, the resulting rents can be set at affordable levels. In other words, the 'affordable rent gap' can be closed. In the case of Models 1 and 2, once a significant volume of financial instruments have been issued, a secondary market can develop for each, increasing the liquidity of the investment and establishing a performance track record that provides a firm basis for market valuation (i.e. an accurate pricing of each instrument).

A key question here is – will financial markets evaluate these new instruments as a new (sub) class of property assets, alongside mortgage backed securities and commercial property, or will they be allocated to (classified within) the existing asset classes of equities and bonds or commercial loans? The question is important because the answer has implications for the potential volume of investment that can be attracted into the housing sector, drawing on models like those discussed in chapter 4. For example, if the bond instruments in the three models are treated as fixed interest (bond) products, rather than a new property instrument, the potential market for funds is much enhanced. The same is true for the equity instrument in model 2. By the late 1990s, Australian institutional investors held 25 per cent of their assets in bonds, 6 per cent in loans, 46 per cent in equities and only 16 per cent in all other assets, including property (see Table 5.1).

Table 5.1: Portfolio Composition of Institutional Investors in Australia, 1990-1998

Asset Type	1990 %	1994 %	1998 %
Bonds	37	37	25
Loans	11	7	6
Shares	39	46	46
Other	3	2	16
Unallocated	10	8	7

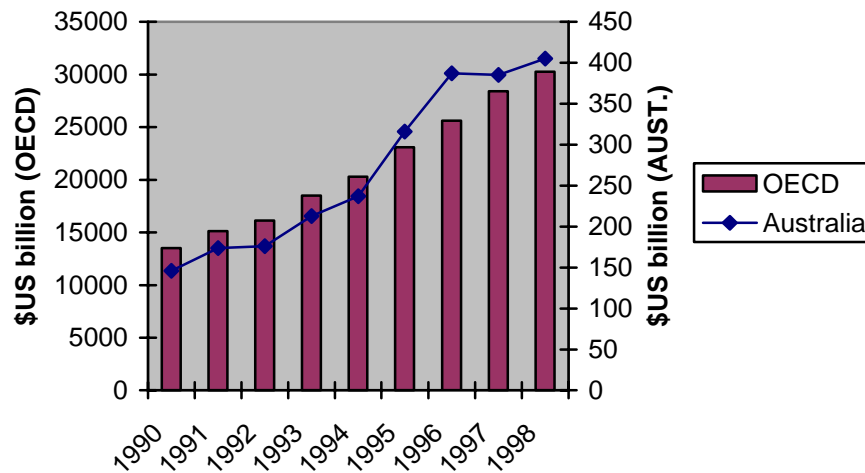
Note: incomplete data (see OECD, 2000, pp. 123-127)
Source: OECD (2000, 32)

Models 1 and 2 are therefore likely to have an advantage over model 3, in this respect, since the latter may well be classified as a specialised property investment. The instruments issued to launch models 1 and 2, on the other hand, are more likely to be regarded as mainstream products (though this would need testing). This is particularly significant in the case of model 2 which draws on equity finance. In Australia the institutions are heavily committed to equities, domestic and international. Only in Britain (65 per cent) and the United States (50 per cent) do institutional investors hold a higher proportion of their total assets in the share market. By comparison, institutions in Canada (25 per cent), Japan (17 per cent), Germany (22 per cent) and Austria (12 per cent) hold much lower proportions of their investments in equities (OECD, 2000, pp. 32-35).

5.2 The Rapid Growth of Institutional Investment on a Global Scale

Between 1990 and 1998 the total financial assets held by the 27 members of the Organisation for Economic Cooperation and Development (OECD) more than doubled to US\$30 trillion (see Figure 5.1). This represents an average annual growth rate of 12 per cent. During that period the assets of Australian institutions grew even faster, from US\$145 billion to US\$405 billion (OECD, 2000, p. 20, table s.1).

Figure 5.1: Growth of Financial Assets of Institutional Investors, 1990-1998



Source: OECD (2000)

Figure 5.2 summarises the distribution of financial assets by type of investor for the OECD as a whole. During the 1990s investment companies (including mutual funds) and pension (superannuation) funds increased their shares of total assets at the expense of insurance companies and others. Figure 5.3 presents the picture for Australia where pension funds have grown even more rapidly than in other developed economies, accounting for around 50 per cent of all assets held in 1998. The most recent data available at March 2001, estimates the total assets of superannuation funds in Australia as A\$497 billion, held by 217,000 funds on behalf of 22.8 million member accounts (www.apra.gov.au/Statistics/Superannuation-market-Statistics.cfm). This figure has been forecast to rise to around A\$2 trillion by 2010 (Clark et al., 1996).

The rapid growth of superannuation savings in Australia has been the result of deliberate policy interventions by the current and previous Federal Governments. These interventions have been the lynchpin of a concerted attempt to increase national savings and introduce a universal retirement incomes policy for an aging society. Higher savings, it is argued, will fuel higher investment and faster economic growth, further lifting savings in a virtuous circle.

Figure 5.2: Share of Total Financial Assets by Type of Institutional Investor, OECD, 1998
(Source: OECD, 2000)

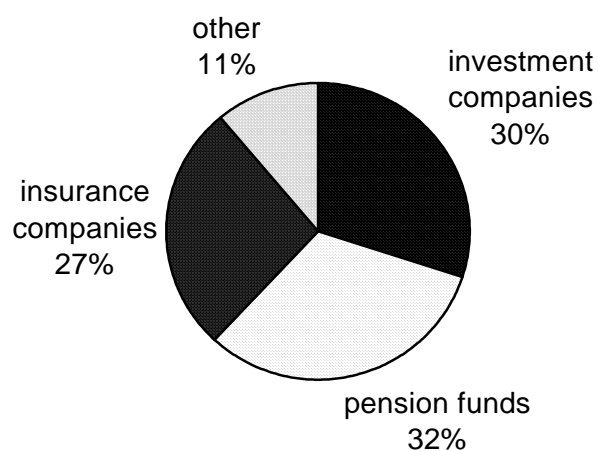
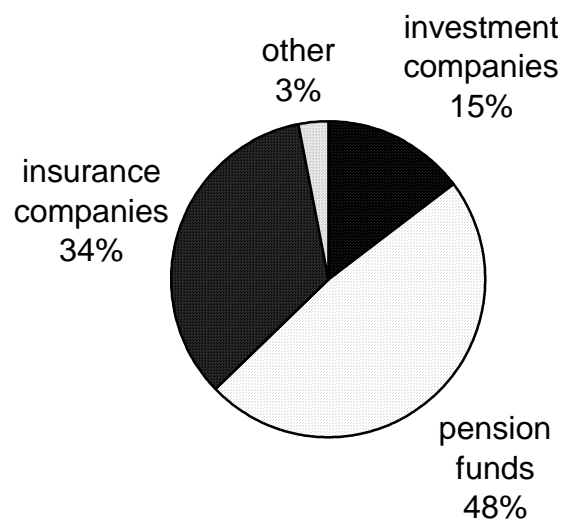


Figure 5.3: Share of Total Financial Assets by type of institutional Investor, Australia, 1998 (Source: OECD, 2000)



This, it is further argued, is necessary if the increasing proportion of the labour force beyond workforce age is to enjoy a reasonable retirement lifestyle without placing intolerable future tax burdens on the economically active section of society. This argument is even more pressing in the case of many European countries, like France and Italy, where the proportion of the non-working to working population is growing faster than in Australia (OECD, 1998).

The key developments in the creation of this growing pool of finance were:

- The decision by the trade union movement in the mid-1980s to accept a 3 per cent employer contribution to employee superannuation in lieu of an award wage rise.
- The passing of the Superannuation Guarantee (Administration) Bill in 1992 establishing a universal system in which employers' contributions would rise to 9 per cent of wages or salaries over the succeeding decade. This effectively satisfied Federal Labor's pledge during the Whitlam Government of the early 1970s to introduce a universal superannuation scheme covering all workers in Australia – one of that government's three major social policy programs, the other two being a universal system of health insurance (Medibank/Medicare), which was enacted, and a national workers' compensation scheme (which wasn't).
- The passing of the Superannuation Industry (Supervision) Bill in 1993 allowing fund members a degree of choice over where and how their savings are invested.
- Following the Fitzgerald Report on national savings and the 1995-96 Federal Budget, the decision to require minimum employee contributions of 3 per cent matched by 3 per cent from the government, the latter in lieu of promised tax cuts, a measure that has not yet been enacted.
- After the Federal Coalition's election victory in 1996 two further changes have been introduced. First, other financial institutions, notably the banks, can now compete for the growing pool of superannuation savings by offering retirement savings accounts. Second, a tax surcharge has been placed on the contributions of high income earners.

The growth of superannuation savings has important implications for the housing system. The flow of such funds into residential mortgage backed securities has allowed new mortgage lending organisations to access wholesale funds, including so called mortgage originators like Aussie Home Loans and RAMS. It has also led to a degree of 'economically targeted investment'³⁵ by some industry superannuation funds. For example, during the mid-1990s the (then) National Mutual insurance company developed an arrangement with the large ACTU-related industry superannuation funds to supply home mortgage loans to fund members at very competitive interest rates. This had some effect in shrinking the lending margins of the mainstream mortgage lenders.

However, the obvious gap in the housing system, in this context, is the *absence* of superannuation fund investment in *residential rental* -- as opposed to commercial -- property. This situation relates to all rental housing, not just at the affordable end. The current barriers to superannuation fund investment in this sector have been identified and discussed in chapter 2. At this point it is only necessary to reiterate the lacunae – and to raise the obvious policy-relevant point that *if* these barriers could be reduced or summounted, the superannuation system has the potential to fund very significant increases in housing supply across both major tenures, including the provision of affordable housing. The base line requirement, articulated in chapter 3.1, is that the investment instruments or vehicles developed must generate adequate returns for the risks borne.

5.3 The Growth of Socially Responsible Investment on a Global Scale

Investment in search of non-financial – in addition to or instead of financial – returns has characterised countries like the United States since the Eighteenth Century. In such cases, individual investors or religious communities (e.g. the Quakers) sought to avoid investing in

³⁵ Economically targeted investments refer to investments that return both appropriate risk-adjusted rates of return and collateral benefits, like employment generation for fund members or an increase in the supply of affordable housing (see Jobling, 1994 and Clark, 2000).

areas or industries that offended their deeply held moral values; e.g. weapons production and the slave trade. However, so-called 'ethical investment' only emerged in an organised, albeit marginal way during the 1970s, as retail investment funds were established to manage the savings of some church-based and other charitable organisations. In such cases, some potential financial returns were often foregone in exchange for social benefits like the provision of low-cost housing for target client groups, notably the aged. Broader concerns about social justice also sensitised some individual investors – particularly global campaigns against companies that invested in South Africa during the Apartheid regime.

During the past 30 years an alternative concept has emerged and strengthened – that of 'economically targeted investment':

Economically targeted investments (ETIs) are investments which in addition to providing competitive risk-adjusted rates of return by exploiting market inefficiencies, also provide identifiable collateral economic benefits (Jobling, 1994, p. 25).

Collateral economic benefits include, for example, job generation in particular regions or industries, affordable housing and community infrastructure provision. The key qualification here is that such investments return fully commercial rates of return *and* extra economic benefits for either or both the investors and third parties. The collateral benefits are not achieved at the cost of financial returns. There is no trade-off between financial return and external benefits characteristic of traditional forms of ethical investment.

More recently, this concept of ETIs has been extended to 'socially responsible investment', investments that, while returning commercially appropriate, risk-adjusted returns (in appropriately diversified portfolios), also deliver a range of other social, environmental and economic benefits.

Socially responsible investing (SRI) can be defined as the integration of an individual's investment objectives with his/her commitment to social concerns such as social justice, economic development, peace or a healthy environment (quoted in Allen Consulting Group, 2000, p.1).

SRI has been driven in countries like Australia and the United States by individuals concerned about how their savings are being put to use. The increase in the proportion of the population in advanced capitalist societies who directly hold shares has fuelled this growing market. The even more rapid growth of passive share ownership through pension (superannuation) funds is creating the potential for large-scale wholesale investment in SRI products, especially where fund member choice influences the investment policies of the pension funds.

According to the U.S. based non-profit organisation, the Social Investment Forum, SRI is based on three main strategies (Allen Consulting Group, 2000):

- *Screening*: the process of including or excluding securities from investment portfolios based on explicit social and/or environmental criteria
- *Shareholder advocacy*: the actions of shareholders to influence the investment policies and decisions of companies whose shares they hold. These actions can include dialogue with managers, motions at annual meetings, organisation of proxy voting blocs, etc. Pension funds and other institutional investors have strong leverage (and, arguably, strong responsibilities) here, because of their ability to acquire substantial tranches of shares in particular companies
- *Community-based investment*: directing investment funds to organisations that typically have difficulty in accessing mainstream sources of finance

Figure 5.4 provides an estimate of the scale and break-down of SRI in the United States in 1999. In all, \$US2.16 trillion was invested through one or more of the three strategies noted above. In about three-quarters of cases investments were screened in or out of share (and bond) portfolios. On these figures, SRI represents around one in every eight dollars invested in the United States (Saleeba and Proske, 2000, p.2).

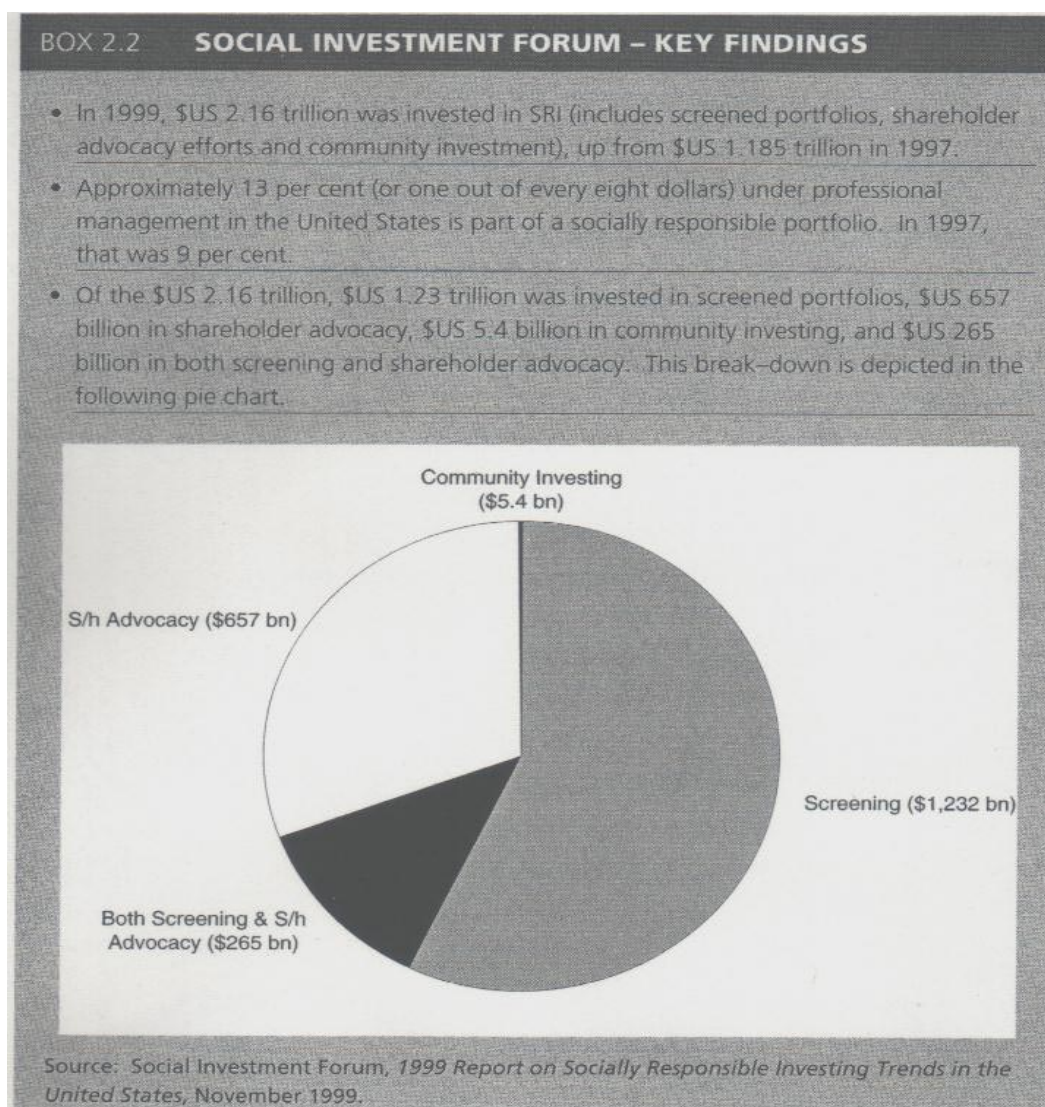
The growth in SRI has also been rapid in the United Kingdom and Canada. In the U.K. the total value of screened funds rose from 672 million pounds to 2.2 billion pounds between 1994 and 1998, or 327 per cent. By the end of 1998, screened funds in Canada had \$Can3.8 billion in net assets (Allen Consulting Group, 2000, p. 13).

As Figure 5.4 suggests, the growth of SRI has been mainly in the form of screened funds. Both negative and positive screens are utilised.

Negative screens call for the avoidance of investment in the shares and other securities of companies engaged in activities such as:

- Manufacturing or distributing tobacco and alcohol products or weapons
- Operating gaming or gambling facilities
- Logging old growth forests
- Mining uranium
- Experimenting on animals
- Operating in countries with repressive or exploitative labour relations, treatment of women or Indigenous or ethnic minorities
- Environmental pollution on a substantial scale

Figure 5.4: Forms of Socially Responsible Investment, United States, 1999



Positive screening seeks to favour investments in companies that, for example:

- Produce superior, identifiable, positive environmental outcomes, such as increased use of public transport, reduction in greenhouse gas emissions, energy conservation, etc.
- Provide greater access to the basic necessities, like improved health care, clean water, education and housing
- Model exemplary environmental management, monitoring and reporting practices
- Implement equal opportunity employment policies
- Protect and enhance basic human rights

Most screened funds will use more than one screen and target the product at those investors who market research indicates hold values congruent with one or more of the screens applied. In selecting a restricted pool of companies for its SRI product, a fund manager will normally rely on the assessments of specialist ratings agencies. These agencies will assess a large number and range of companies against specified screening criteria and provide the fund manager with a potential list of selected companies from which to select. The normal techniques of financial evaluation are then applied to this restricted set and a final pool of companies selected for investment.

The more rigorously a set of screens is applied, the smaller the pool or 'universe' of companies for final selection and the less diversified the resulting portfolio. The theory of modern finance outlined in chapter 3 would suggest that, by limiting diversification, the overall financial performance of the truncated portfolio will be adversely affected, by comparison to a fully diversified investment strategy. In other words, given the overall return of the portfolio, the level of risk (volatility) is higher than it would be in a fully diversified portfolio.

This issue is discussed more fully below. At this point, however, we can note that one popular strategy for maintaining a high degree of diversification while still screening for improved environmental or social performance is the so-called 'best-of-sector approach'. Instead of excluding any whole industry or region – e.g. mining – by negative screening, the companies that perform best on selected environmental and social criteria in every industry are selected. This is a broad-based positive screening approach. For example, those mining companies that do not mine uranium or who have reached workable agreements with Indigenous communities may be included while other mining companies are excluded. The 'Environmental Value Fund' offered by Storebrand-Scudder uses a best-of-sector approach and '...invests in companies that rank among the top third in environmental performance within their industry sector relative to their competitors' (Saleeba and Proske, 2000, p. 9).

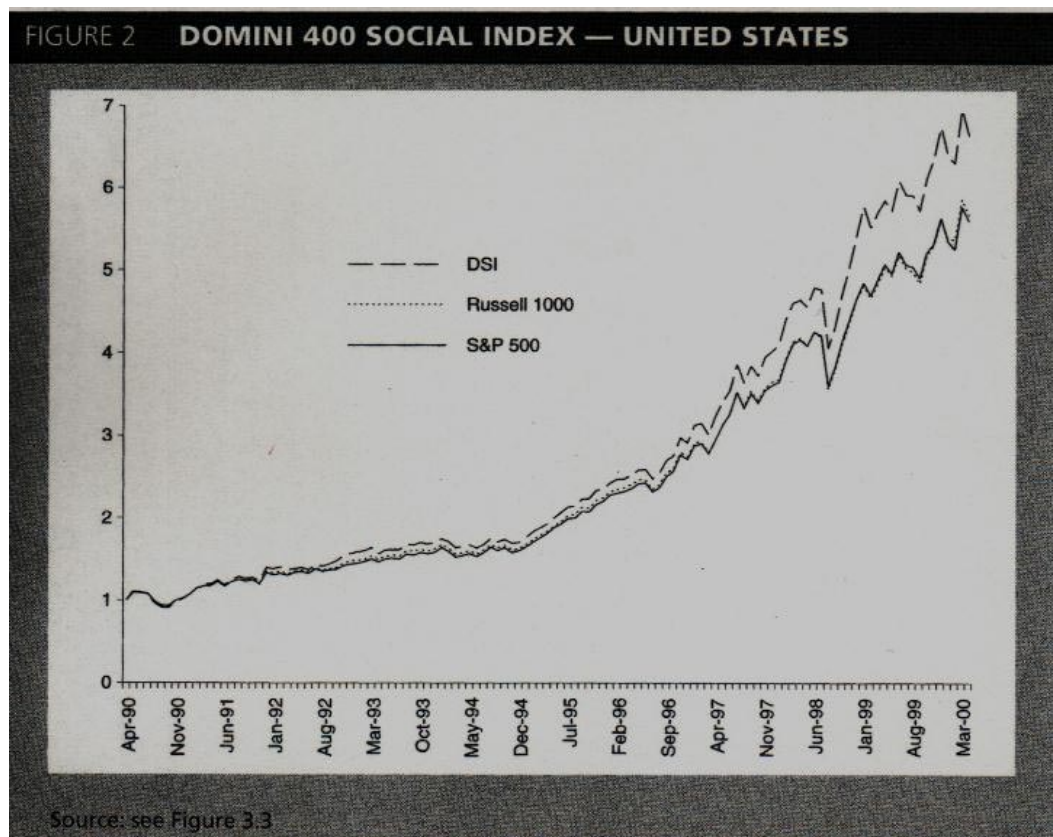
The best-of-sector approach has been criticised because it results in the inclusion of companies that, while performing better than their competitors, still engage in environmentally or socially damaging activities. The response to this criticism has typically been that investors can at least reduce the damage by following this approach. Moreover, it is argued, the average or poorly performing companies in each industry are provided with a strong market incentive to lift their game. If they don't, they will find it more difficult to access funds and their cost of finance will be higher than their environmentally and socially better performing competitors.

Considerable effort has gone into accessing the financial performance of SRI screened funds and comparing them to broader-based (unscreened) investment outcomes³⁶. The two main international SRI indices used to benchmark the performance of individual SRI funds are the Domini Social Index (DSI) and the Dow Jones Sustainability Group Indexes (DJSI).

³⁶ By 'financial performance' is commonly meant (a) the annualised rate of return, measured as the increase (decrease) in the market value of a share over a number of years divided by the value of the share at the beginning of the period selected, as an average annual compound rate and (b) the standard deviation in the annual rate of return – i.e. the average variation of the rate of return in each year in relation to the annualised rate of return for the period as a whole.

The DSI, launched in 1990, is a weighted index of movements in the common share prices of 400 U.S. companies that have survived the application of widely used negative screens and satisfy a number of positive social criteria. Figure 5.5 demonstrates that over the decade of the 1990s the DSI generally outperformed the main conventional index, the Standard and Poors 500, on a risk adjusted basis³⁷.

Figure 5.5: Relative Performance of Domini 400 and Standard & Poors 500, 1990-2000



Source: Allen Consulting Group (2000, p. 4).

The DJSI is a set or family of indices launched by Dow Jones and Sustainability Asset Management (SAM) in 1999. SAM is a Swiss-based financial asset management company which researches the 2000 largest companies included in the Dow Jones Global Index spanning 22 countries and 68 industries (Allen Consulting Group, 2000, p. 33). The DJSI selects the top 10 per cent of these 2000 companies on assessed social and environmental criteria and tracks their financial performance. The overall global index is also broken down into (a) regional indices for North America, the United States, Europe and Asia-Pacific and (b) specialised sub-indices for particular negative screens (tobacco, alcohol and gaming) for the world and each region. This gives a family of 25 indices³⁸. In general, the DJSI has outperformed conventional whole-of market indices. In this context, the Allen Consulting Group notes:

Back-testing of the performance of DJSI from January 1994 to June 1999 shows that DJSI managed a 137 per cent return compared with the Dow Jones Global Index's 96 per cent. Over the same period the U.S. [regional] sustainable (sic) index returned 290 per cent compared to 194 per cent for its mainstream equivalent.

³⁷ The S&P 500 is a weighted index of the annual movements in the share prices of the 500 largest listed U.S. companies (by market capitalisation).

³⁸ For more detail on the assessment and rating process see Dow Jones Sustainability Group Indexes (1999).

A second international set of sustainability indices was introduced in July 2001. The FTSE4GOOD is a set of eight indices, one benchmark and one tradable product for four regions: the world, the U.S., the U.K. and Europe. Investors are able to invest directly in the tradable indices. Only two Australian companies are currently included in the global index – Telstra and News Corporation. Companies are selected for inclusion on the basis of both negative screens (e.g. BHP Billiton is excluded because of involvement in uranium mining) and positive screens related to social benefits, human rights, shareholder relations and corporate governance. Company assessments are carried out through a global network of researchers. In Australia this function falls to the Centre for Australian Ethical Research (Kendall, 2001, p. 9). Live trading of the indices began on 31 July 2001.

Allen Consulting Group (2000, p. 32) reports on several American studies that, in general, find no statistically significant differences in the performance of screened and unscreened funds. These studies suggest that where performance differences do exist, they favour the screened funds³⁹.

In summary, it is clear that, over the last decade, SRI products have, at the very least, not under-performed conventional, fully diversified funds or the market as a whole. This further suggests that:

- The volume of SRI funds under management is likely to continue to grow at a significant rate in advanced capitalist societies and:-
- Institutional investors like superannuation funds that must satisfy rigorous fiduciary and other regulatory responsibilities on behalf of their members will be able to invest in SRI products without breaching those duties

The debate over the relative performance of SRI and mainstream financial products is critical because it has important implications for the duties of investment managers and trustees. Two recent examples illustrate this point. In July 2001 one of America's largest pension funds, the Florida State Board of Administration (FSBA), which manages the superannuation savings of state government officials, reversed a four-year decision to avoid investing in tobacco companies. The FSBA believed, on advice from their managers and consultants, that their fund would perform better with these companies in their portfolio and that their duty required them to maximise the financial returns to their members (Kendall, 2000a, p. 31). Conversely, the much smaller state employees pension fund in Sweden has explicitly banned (negatively screened) companies that breach United Nations and ILO conventions, while operating under legislation that explicitly requires the trustees to 'consider ethical and environmental issues without hurting the overall goal of high performance' (Wade, 2001, p. 30). Clearly the two sets of trustees (and regulators) in each country have opposing views on whether and to what extent SRI harms overall financial performance.

If performance is not harmed, then (as noted above), superannuation funds in regulatory jurisdictions like Australia will be able to invest in SRI products, within existing legal and regulatory frameworks. However, if SRIs are found to systematically reduce relative financial performance, then legislative change would be required to allow funds to invest in these products. The more radical dissenting view is put by Monks (2001), who argues that pension fund trustees already have a legal duty to fund members within the current framework to ensure that the companies in their portfolios act in environmentally and socially responsible ways, because that is necessary to sustain the long term market value of the underlying investments. Put another way, trustees could be liable in the longer term if they invest in companies that run up huge future liabilities because of poor environmental and social practices and, as a consequence, those companies fail.

³⁹ In reality, most institutional and professional investors do not diversify their portfolios to the maximum extent possible. Institutional and political rigidities across national borders ensure that funds are 'underweight' in foreign securities. Incomplete information and transaction costs effectively limit the actual investment choices of investors, causing them to miss out on some of the potential benefits of full diversification. Hence, these market imperfections (ignored by MFT) mean that mainstream investment strategies are just as likely to underperform the theoretically optimum approach as SRI strategies that depend on the application of discriminatory screens. It may also be the case – at least in the initial stages of the growth of SRIs – that such investments are underpriced, which could explain their strong recent relative performance. This situation, if it exists, can be expected to change as better market information drives the price of the underlying assets up to their fundamental values.

5.4 Socially Responsible Investment in Australia

Compared to countries like the U.S., the growth in SRI has been much less rapid and more recent in Australia. The Allen Consulting Group (2000, p. 14) put this down to the absence, until recently, of wholesale SRI funds able to attract the large scale participation of institutional investors. The total value of ethical investment in Australia in mid-2000 was estimated at around \$A1 billion (ibid., p. 14).

However, significant growth has occurred in this sector in the past year. The figure of \$A10 billion was widely quoted by participants at the Second Annual Ethical Investment Conference as the level of SRI in Australia in late 2001. Rosen (2001, p. 12) notes that, as of July 2001, there are more than 40 ethical investment/SRI managed funds in Australia, offered by 13 funds managers⁴⁰. There are now six wholesale ethical funds, three launched since 1999. It is the funds launched in recent years that have, in general, been most rigorously assessed using SRI screening procedures.

Some examples of recent and established SRI products are listed below⁴¹.

1. Westpac Eco Share/Pool. This fund was launched in February 2000 by Westpac Investment Management and the industry superannuation fund, HESTA. More recently, another superannuation fund, UniSuper, has invested in this product. In both cases, fund members are given the opportunity to direct part of their savings into a pool of about 60 companies that have been screened against selected environmental criteria by Monash University's Centre for Environmental Management⁴². This investment pool is drawn from a larger list of 160 Australian companies selected on a best-of-sector basis. The Monash centre has adapted its assessment methodology from the pioneering Norwegian Scudder-Storebrand Environmental Value Fund, launched in 1998 (Manning, 2000a, p. 11) and addresses, for each company, performance with respect to:

- *Strategy*: the extent to which the company approaches environmental management as a core strategic concern
- *Management*: the extent to which good environmental management is integrated with the company's major operations and systems
- *Operations*: the extent to which best environmental practice is implemented through product design, technological processes and product stewardship

The data for assessment comes from both the companies themselves and a range of external sources and include company reports, proprietary surveys and interviews. The continuing development and application of 'triple bottom line accounting' (see technical appendix) is providing new and relevant sources of externally audited information on individual company performance (Deni Greene Consulting Services, 2001).

In August 2000, the top ten holdings by value in the fund were: AMP, BHP, CBA, Lendlease, NAB, News Corp., Optus, Rio Tinto, Telstra and Westpac (Bailey and Manning, 2000a, p. 10)⁴³. Some controversy has followed the inclusion of BHP and Rio Tinto, given past environmental experiences like the Ok Tedi mine in Papua New Guinea. Their inclusion is defended by the fund managers and the Monash centre because these companies '...have two of the best environmental management plans in the Australian equities universe' (ibid., p. 10). The fund aims to outperform the Standard and Poors/ASX accumulation index (see technical appendix) over rolling three year periods.

⁴⁰ For a survey of these funds, see the magazine *Ethical Investor*, issue number 3, August, p. 58.

⁴¹ For further discussion of the underlying concepts and current Australian industry developments around SRI and related matters, see Deni Greene Consulting Services (2001).

⁴² This fund aims at a split of funds between Australian shares (70%) and cash (30%); total assets under management in mid-2001 stood at \$A48 million.

⁴³ This Fund operates 'a cloudy pool'. In other words, only the top ten companies invested in are publicly broadcast. The remaining companies in the Fund are not visible to the investing public.

2. Challenger Socially Responsible Investment Fund. This fund was launched in August 2000 and aims to invest worldwide in companies with ‘a strong socially responsible track record and a commitment to the values of the Fund’ (Saleeba and Proske, 2000, p. 42). The Fund operates two screens: a negative screen calling for the avoidance of investment in companies with poor records on a range of criteria (see Box 1) and a best-of-sector approach focused on ‘socially responsible leadership’. This Fund aims to outperform the Standard and Poors/ASX 300 Accumulation Index.

3. IOOF Socially Responsible Share Trust. This Fund was launched in May 2001 and invests in a pool of shares chosen by its funds manager and the specialist research organisation, Sustainable Investment Research Institute (SIRIS). SIRIS has developed ‘an innovative, quantitatively-driven approach to the challenge of positive screening’ (Manning, 2001d, p. 47).

Companies of ‘investment grade’ (see technical appendix) are selected from the Standard and Poors/ASX300 and negatively screened for tobacco, uranium, logging of old growth forests and animal testing. SIRIS then positively rates the remainder on five criteria: environmental management; corporate governance; workplace safety; regulatory compliance and; product quality and stewardship. SIRIS has evaluated all companies in the S&P/ASX300 on these grounds and aggregated the ratings to form a social index against which to benchmark individual companies. IOOF is seeking to select a portfolio that significantly outperforms this benchmark and so delivers ‘a social dividend’. ‘There is no requirement that each company [in the screened portfolio] outperforms socially. Rather the requirement is that each company either contributes to the fund’s overall social dividend or at least doesn’t drag the rest down to a point where that dividend is insignificant’ (ibid., p. 47).

Like the Westpac Eco Share fund, IOOF will invest in companies like Rio Tinto that are involved, for example in uranium mining. In both funds, inclusion or exclusion depends on relative performance across a range of areas. A negative rating on one can be offset by positive ratings on other criteria. In Rio’s case, uranium mining forms a small proportion of the company’s activities and, in SIRIS’s calculus, makes up for this in other areas.

Box 1 Challenger Socially Responsible Investment Screens

Global avoidance of:

Environment:

- Nuclear power producers
- Uranium mining companies
- Companies with a record of environmental violations

Workplace:

- Companies with mass discrimination suits pending
- History of workers’ rights violations
- Companies with poor record on workers’ health & safety

Human Rights:

- Companies employing workers in countries under oppressive governments
- Companies operating known ‘sweatshops’

Corporate Citizenship:

- Companies with record of serious community confrontation
- Companies with negative social & environmental impacts on local communities and surrounding areas
- Companies with poor corporate disclosure practices

Products:

- Companies found to engage in consumer fraud, price-fixing, misleading or unethical advertising
- Companies facing severe liabilities due to defective products
- Companies gaining >5% of their revenue from gambling, tobacco or weapons

Source: Allen Consulting Group (2000)

4. Hunter Hall Value Growth Trust. This fund was launched in 1994 and has \$A190 million invested in a portfolio heavily weighted to international equities. There is some debate as to how 'ethical' Hunter Hall's investment strategy is, with most commentators painting it 'light green' – i.e. very broad negative screens are placed to exclude companies with very poor environmental records; this suggests that many companies are included that would fail more stringent ('dark green') tests. The financial performance of Hunter Hall has been stellar. This Fund was the top performing retail fund in Australia over the past five years and headed *all* other retail and wholesale funds over the past seven years (*Ethical Investor*, Issue 1, June 2001, p. 21). Its superior results flowed from a heavy investment in overseas shares and new economy stocks in a period of rapid appreciation in those assets. The key issue in relation to future performance of the Fund is – will results remain high over the longer term given the recent and expected corrections in international share markets and hi-tech stocks in particular?

5. AM Corporation Ethically and Socially Responsible Investment Trust. This fund-of-funds, launched in September 2001, will initially invest in four wholesale ethical funds holding both Australian and international shares. Further ethical funds will be added to the pool. Fund members will not be able to influence the distribution of investment across the fund managers in the pool. AM currently operate the \$A3.5 billion 'Lifetrack' master trust with both individual and institutional clients. A number of AM's current institutional clients are in the charitable sector. This new vehicle's performance will depend on the selection and performance outcomes of the funds making up the pool.

The credibility of investment products claiming to be 'ethical' depends critically on the reliability, relevance and completeness of the rating or assessment process. Funds like Eco Share and IOOF have teamed up with specialist ratings agencies. A more general ratings system has been introduced recently in Australia by *Corporate Monitor* (the trading name of Ethical Investor Pty. Ltd., publisher of the monthly magazine, *Ethical Investor*)⁴⁴.

Corporate Monitor analyses all companies included in the S&P ASX/200 index that are domiciled in Australia (excluding listed investment and property trusts). As well as financial performance (52 week high and low share price, price-earnings ratio, market capitalisation), each company is screened for direct or indirect involvement in gaming, alcohol, tobacco, defence and uranium activities and rated on three dimensions – environment, social and corporate governance. Boxes 2 and 3 outline the ratings system. Box 4 provides a sample of company ratings, as at June 2001. Assessment depends on publicly available information, including company reports and reports by regulators and third parties.

Corporate Monitor also publishes an on-going overall rating of designated ethical investment funds, including those described above. The investment merits of each fund are evaluated using conventional financial techniques. Each fund is also assessed in terms of its investment style and ethical policy mission and how successfully that mission is being implemented, using the rating system outlined in Box 5. Box 6 presents the results for a sample of ethical funds, including their performance against the S&P/ASX300 benchmark index. Since most of these funds are very recent creations, data on financial performance is of strictly limited value at this stage. Comparisons will need to occur over the longer period before any definite conclusions can be drawn on the important issue of whether SRI products do, in fact, generate commercially viable, risk-adjusted rates of return.

With this last qualification in mind, it is nonetheless instructive to note that the financial performance of funds utilising ethical screens has, in general, been good to very good. For example, the Australian Financial Review (7-8 July 2001) published performance tables based on data supplied by the international monitoring organisation, Morningstar, in which the SRI fund Australian Ethical Investments (AEI) came out on top in three product categories:

- AEI Equities Trust had the largest annualised return over the three years to May 2001 (19.3%), first among the 85 general equities funds;
- AEI Balanced Trust returned 11.45% , first among 18 balanced funds
- AEI Large Companies Share Trust returned 19.12%, first among seven aggressively managed like funds

⁴⁴ See the web site: www.corporatemonitor.com.au

The stellar performance of Hunter Hall Value Growth Trust over a longer period has already been noted above.

**Box 2 Corporate Monitor Individual Company SRI rating
(1-5 scale)**

Companies rated on:

Environment:

- Environmental impact of products & services
- Quality of environmental reporting
- Quality of environmental management
- Receipt of penalties for environmental violations
- Receipt of awards for good environmental practices

Social:

- Community relations and philanthropy
- Human rights record
- Indigenous issues record
- Involvement in weapons and defence products
- Involvement with products associated with social problems (gambling, tobacco, alcohol)

Governance:

- Legal compliance – corporate governance, trade practices, fair trading
- Instances of shareholder activism
- Receipt of corporate governance awards

Source: *Ethical Investor Magazine*, Issue no. 1, June 2001, p. 51.

Box 3 Explanation of the *Corporate Monitor* Rating Scale

Rating	Environment	Social	Governance
*	Adverse	Adverse	Questionable
**	Developing	Disengaged	Compliant
***	Compliant	Responsive	Proactive
****	Sustainable	Engaged	
*****	Best practice	Best practice	

Source: *Ethical Investor Magazine*, Issue no. 1, June 2001, p. 51.

Box 4 *Corporate Monitor*: Sample of Company Ratings, June 2001

Company	Environment	Social	Governance
British American Tobacco Aust. Ltd.	***	*	**
ANZ Banking Gp.	***	***	*
Macquarie Bank	***	*****	**
Boral	*	***	*
Lend lease Corp.	****	*****	**
Pacific Dunlop	***	***	*
Woodside Petroleum	*****	*****	**
Westfield Holdings Ltd.	*	*****	*
Burns, Philp & Co. Ltd. *	**		*
David Jones Ltd.	*	**	*
Harvey Norman Hold. Ltd.	*	***	*
Qantas Airways Ltd.	*	****	*

Source: *Ethical Investor Magazine*, Issue no. 1, June 2001, pp. 52-55.

Box 5 Corporate Monitor Rating Scale for Ethically Managed Investment Funds

Rating	Interpretation
SRI *	A poor investment with insufficient ethical compensation
SRI**	A satisfactory investment with questions about investment and/or ethics. Hold.
SRI***	Investment grade with ethical merit
SRI****	A good investment with strong ethical merit
SRI*****	An excellent investment with excellent ethical Merit

Source: *Ethical Investor Magazine*, Issue no. 1, June 2001, p. 51.

Box 6 Corporate Monitor: Sample of Ethical Fund Ratings, June 2000

Ethical Fund	SRI rating	Av. Annual Return Since Inception (%)
Challenger SRI Fund	***^	8.46
Hunter Hall Value Growth Trust	****	21.49
AMP – Sustainable Future Australia Share Fund	***^	#
Rothschild – Ethical Conservative Trust	****	9.86
BT Aust. Charities Trust	**	##

-- only commenced in February 2001

-- no information available

Source: *Ethical Investor Magazine*, Issue no. 1, June 2001, p. 57.

5.5 Socially Responsible Investment: Key Issues and Implications

There are a number of key issues raised by the rapid recent growth and prospective future growth of SRI in Australia, in the context of the challenge of attracting significant volumes of investment into the provision of affordable housing. The issues and implications deriving from them are discussed below.

5.5.1 Legal and Regulatory Concerns

Retail SRI funds will probably continue to attract a growing flow of savings from ethically inclined and increasingly well-informed individual investors and non-profit organisations. However, wholesale funds seeking to attract investment from the burgeoning superannuation sector will need to ensure that their SRI products demonstrably deliver commercially appropriate returns, as well as other economic, social and environmental benefits. A lawyer specialising in superannuation law, Phillip Spathis (2000, p. 1) has commented⁴⁵:

Based on common law and statute, the pursuit of investment returns for members of a superannuation fund means that the financial return for a appropriate level of risk in the context of a diversified portfolio must be the dominant consideration.

It is not enough for trustees to decide to invest or divest in a company on the basis of ethical considerations alone. There needs to be evidence, based on research and information that the investment can result in an economic benefit to fund members. This is because a trustee has the overriding responsibility to ensure that the savings of beneficiaries are properly secured and invested.

The common law duty of trustees is to consider the following factors when investing on behalf of their fund members:

- Investments must fit within the terms of the trust deed of the fund
- Trustees must exercise the care and caution of an ordinary business person in managing his or her own affairs when investing for others, to take such care as an ordinary prudent business person would in investing for the benefit of other people for whom he or she 'felt morally bound to provide' – the so-called 'prudent man rule'
- Trustees are required to invest in a manner that is in the best interests of all beneficiaries of the fund as a whole, 'to the exclusion of any other interests'

This last point gives rise to a debate over what 'the best interests of fund members' means. Legal precedent in Britain has tended to interpret this imperative in a fairly narrow financial sense. The landmark case was *Cowen v. Scargill*, in which the trade union-appointed trustees on the Coal Industry Trust [superannuation] Fund vetoed an investment plan that involved investment in South Africa and in nuclear power, a competitor to the coal industry (and threat to the jobs of currently employed mine workers). The judge, Sir Robert Megarry, found that the trustees must not avoid investing in areas of high relative return for reasons of their own social or political views. In addition, since most fund members were not working in the coal industry – by definition, they had retired from it – their interests were not tied directly to the continuing economic health of that industry.

However, this decision does not rule out economically targeted investment, as the judge himself was at pains to point out:

I am not asserting that the benefit of the beneficiaries which a trustee must make his paramount concern inevitably and solely means their financial benefit even if the sole object of the trust is to provide financial benefits. Thus if the only actual or potential beneficiaries are all adults with very strict views on moral and social matters, condemning all forms of alcohol, tobacco and popular entertainment, as well as armaments, I can well understand that it might not be for the "benefit" of such beneficiaries to know that they are obtaining rather large financial returns under the trust than they would have received if the beneficiaries might well consider that it was far better to receive less than to receive money from what they consider to be evil or tainted

⁴⁵ For a detailed discussion of the legal context of superannuation investment in Anglo jurisdictions (U.S., U.K., Australia and New Zealand), see Jobling (1994).

sources. *“Benefit” is a word with a very wide meaning and there are circumstances in which arrangements which work to the financial disadvantage of a beneficiary may yet be for his benefit* (Rosen, n.d., pp. 2-3; italics added).

Sir Robert Megary later added that there may be well-founded reasons why trustees may avoid some investments on perfectly conventional investment grounds – e.g. where, as in South Africa under Apartheid, it was felt that future political instability might reduce investment returns. ‘In short, much though not by all means all may be achieved by trustees using their discretion on perfectly proper grounds without subjecting themselves to any absolute prohibitions or, indeed, any policy or preference’ (quoted in Spathis, 2000, p. 2). There have been no test cases of a similar nature in Australia but it is generally believed that any future Australian case will follow the U.K. precedent (Jobling, 1994).

In summary, from a strictly legal view, it is permissible for trustees to take broad economic, environmental and social factors into account when making their investment decisions, but only to the extent that *expected* risk-adjusted returns do not fall below market norms. Where the *actual* financial performance of SRIs falls short of required levels, then trustees must rely on the thoroughness of ‘due diligence’ (see technical appendix); in practice, this means that when making these investments, trustees must have utilised industry standard data sources, the analytical techniques of modern finance theory and the advice of specialist asset consultants and managers (Cole, 2000, p. 3). This is one important reason why the detailed data on the financial performance of ethical investment funds and the robustness and relevance of the methods to evaluate environmental and social dividends are critical to the growth of SRI as a phenomenon. If superannuation trustees wish to engage in ethical investment, they must be able to adequately assess the potential investments, given the relevant data and acceptable evaluation tools – and demonstrate that this has been done.

These requirements placed on trustees by the common law, emerging from the British tradition of trust law, are reinforced and supplemented by statute law. In Australia, the Superannuation Industry (Supervision) Act 1993 requires that the trustees establish and publish their fund’s investment objectives and policy, including the strategic ranges for the division of total investment across the established asset classes and implement a suitable strategy to achieve the objectives and carry out the policy. Hence:

Combining common law and statutory considerations for ethical investment purposes, we can say that as long as the particulars of an ethical investment option, including an analysis of costs and return profile, have been explored and comprehensively explained to members, then the legal obligation of trustees would be discharged should they pursue an ethical investment strategy (Spathis, 2000, p. 3).

5.5.2 An Increasing Role for Investor Choice

The strict legal constraints on superannuation trustees are somewhat relaxed where fund members directly exercise choice over the investment of their savings, although trustees must adequately inform members about the choices available and their possible outcomes. The Superannuation Industry (Supervision) Act 1993 provides that where fund members have an investment choice they must be offered two or more investment strategies and trustees have the responsibility of adequately explaining each strategy to members. Fund members, suitably informed, are assumed to be acting in their own best interests, however they construe them, so that trustee investment decisions based on instructions from their members must also be assumed to be in the latter’s best interests.

On 23 August 2001 the Senate passed an amendment to the *Financial Services Reform Bill, 2001* effectively requiring superannuation funds to explicitly disclose their policy on ethical investment. The legislative change applies to all providers of financial services, including superannuation funds, who must state ‘the extent to which labour standards, environmental, social or ethical considerations are taken into account in the selection, retention or realisation of the investment’ (quoted in Manning, 2001c, p. 1). The amendment also requires the Australian Securities and Investment Commission to develop and implement mandatory regulations on how the new requirement is to be complied with. Current indications are that the amendment will be accepted by the Government and become effective in late-2001 (*ibid.*, p. 1).

Growing investor choice is an increasing phenomenon worldwide; e.g. the legislative amendment just noted was based on similar legislation in the United Kingdom. Recent Australian research indicates that the prospects for even more rapid growth are strong. For example, Saleeba and Proske (2000) surveyed 3,000 members from three large superannuation funds and found that:

- 87 per cent wanted to invest some of their savings in ethically screened products
- superior environmental performance is the most favoured selection criterion; 83 per cent of members wanted to invest in an environmentally screened product
- investing in positive environmental performance was preferred to avoiding investment in activities like uranium mining or logging old growth forests
- for 86 per cent of the members wanting to invest in environmentally screened products, the primary reason was concern for the environment and/or for future generations

A second study of 500 superannuation fund members carried out by chartered accountants KPMG Consulting in July 2000 also found a very high degree of interest in SRI. The main findings were:

- 76 per cent of respondents expressed a desire to know what type of companies their fund invested in
- 88 per cent said they would be concerned if they found out that their fund invested in companies exploiting child labour and 71 per cent if investment was in companies producing tobacco products
- Human rights and environmental issues topped the list: more than 90 per cent ranked these issues as important or very important
- Between 75 and 84 per cent said that they had purchased products on the basis of social or environmental concerns over the past year
- 46 per cent said they were aware of managed funds that took social or environmental factors into account when investing; 8 per cent stated that they were already investing in those funds
- Only 19 per cent thought that ethically screened funds would perform worse than traditional investment strategies
- Women were more likely than men to opt for socially (as opposed to environmentally) screened investments and to be 'very likely' to transfer their savings to SRI products

Perhaps the most surprising outcome of this survey was that 40 per cent of respondents were prepared to transfer more than 50 per cent of their savings into SRI products or funds and a further 22 per cent were prepared to transfer between 40 and 50 per cent.

In a third survey (in early 2001), the superannuation fund LAS asked their members whether they would consider investing their savings in a SRI product (Manning, 2001b, p. 1). Three-quarters of those responding answered in the affirmative. The reasons given were: concern for the environment, 37 per cent; concern for future generations, 36 per cent; good returns, 22 per cent. In response, LAS are now offering their members a new 'sustainability' investment option, a balanced product with half the funds allocated to Australian and international shares, screened by Sustainability Asset Management (SAM), developer of the Dow Jones Sustainability Group Indexes and the other half to property and cash.

In August 2001, Vicsuper, the fund holding the retirement savings of Victorian public servants, announced that it would be offering its members the choice of investing in a socially screened investment pool managed by SAM (*Ethical Investor*, 2001, Issue 4, p. 9).

In early 2000 the Australian Institute of Superannuation Trustees surveyed their members on this issue. While only 6 per cent of trustees were offering SRI options, 63 per cent believed that there would be a trend towards SRI in the sector over the next two-to-three years (Manning, 2001b). This forecast appears to be prescient. Between September and November 2001, six superannuation funds launched new SRI member choice options (*Ethical Investor Newsletter*, 22 November, 2001).

The research findings summarised above strongly suggest that there is a large potential market for socially responsible investment by superannuation funds in Australia. Existing activities appear to be only scratching the surface. Strong competitive pressures can be expected to push funds into offering an increasing range and volume of products, especially if the early ethical funds continue to perform strongly in the market, more effort is put into informing fund members and delayed legislation mandating employers to offer their employees a choice of superannuation funds is enacted.

5.5.3 The Diversification Argument

It was noted earlier that modern finance theory implies that any investment strategy that effectively reduces or biases diversification in a portfolio necessarily impairs the overall financial performance of that portfolio, in risk-return terms. Put another way, by reducing the 'universe of investment opportunities', some potential for reducing risk, given return, is lost.

However, it was also pointed out above that this argument assumes perfect or, at least, substantially efficient financial markets free of systematic biases or 'herd behavior' by investors. It could be argued that where a high proportion of investors lean towards SRI, as evidence in the preceding section suggests, then this, in fact, introduces a permanent and growing bias in investor behavior that will be reflected in the sustained superior performance of ethically favoured products and under-performance by unfavoured products over the long term (see also, footnote 36).

Even where this form of bias is not strong it may still be the case that many SRIs perform well because future consumer preferences, court decisions on liabilities and government policies discriminate in their favour. Withdrawal of some investors from tobacco companies during the 1990s appears to be due, in part, to such considerations.

This issue will remain controversial until we have access to a much more extensive data base on the actual relative performance of SRI and other investment products over a long period of time.

5.5.4 The Way Forward.

The growth of SRI in Australia has lagged behind development in the U.S., Britain and Europe. Dr. Don Stammer (2001), recently retired Director of Investment Strategy at Deutsche Bank and currently a Director of SIRIS, has proposed three key imperatives to drive future SRI growth in Australia:

- Extensive information and education about what SRI is and how the products have performed, in order to dispel lingering beliefs among trustees, fund managers and asset consultants that SRI means impaired investment performance
- The emergence of a greater diversity of SRI products and funds to cater for the wide divergence of specific investor concerns and values. Product differentiation and niche marketing are vital to building the SRI sector
- The further development and improvement of assessment/evaluation methodologies, dependent in part on the increasing sophistication and reach of 'triple bottom line accounting' and reporting by companies

Stammer also notes that SRI funds may play a growing shareholder advocacy role in the companies in which they invest.

A growing SRI sector in the Australian capital market offers considerable opportunities for private funding of affordable housing. The investment products created must be capable of being positively screened into existing and new ethical funds. Housing as a basic human need is well placed here. There are no obvious negative environmental screens that would exclude well-constructed and located dwellings. The real challenge is to establish, in the eyes of investors, trustees and fund managers, *why* affordable and appropriate housing should be positively screened into SRI products. This requires:

- A clear demonstration of the benefits of good housing and the costs of poor housing, both to individual households and to the economy and broader community
- An equally clear demonstration of current market failure in housing provision. In other words, how are housing markets failing to provide sufficient affordable and appropriate housing and why will this social and economic problem worsen if not properly addressed?
- Financial innovation, suitably facilitated by government policy, resulting in provision of readily marketed and priced instruments for inclusion in SRI funds

With respect to this last point, instruments such as the debt and equity securities depicted in models 1 and 2 in chapter 4 will need to be issued in sufficient volumes to attract institutional investors and fuel a growing secondary market. They must be appropriately priced to meet the investment requirements of the institutions. Any listed equities will also be available on secondary markets for investment by individuals and other small investors. To reach this stage, new instruments will need to be carefully developed, as described in chapter 3.5, above. All stages of this process are important. Without careful design, development and pricing institutional investors will not be able to invest in this sector. Likewise, if existing ethical fund managers and superannuation members are not convinced as to the social and environmental (as well as financial) dividends of affordable housing, then these instruments will not be socially screened into SRI products. The key challenge for housing policy communities – builders, exchange professionals, policy officers and community organisations – is to convince sceptical financial markets of the unmet needs and potential pay-offs of SRI activity in the housing field.

CHAPTER 6 CONCLUSIONS AND POLICY IMPLICATIONS

This concluding chapter summarises the main findings of the study and draws a number of key policy implications from it.

6.1 Main Findings

Four research questions were posed in chapter 1. Significant and useful findings were derived in each case.

6.1.1 *What are the options for private sector financing of affordable housing?*

Around 95 per cent of Australia's housing stock has been financed through private debt and equity sources. Owner occupation as the dominant tenure form has developed through the commitment of personal savings to fund the purchase deposit and debt finance supplied by banks, building societies, credit unions, the legal profession and a host of small agents. Since the mid-1990s a rapidly growing secondary market in residential mortgages has attracted institutional investors into the housing sector. Just how affordable the resulting housing has been has depended on a series of factors, including interest rate levels, the rate of inflation, the stage of the property cycle, movements in average incomes and unemployment rates and the effectiveness of targeted government policies. Since the deregulation of the Australian financial system, the total volume of mortgage finance has risen sharply, due largely to re-financing (equity withdrawal) by established home owners, including private landlord-investors. In general, there are strong indications that the rapid growth of financing for owner occupation since the late 1980s has been biased towards the middle and upper end of the income distribution.

It is in the private rental sector that constraints on investment have impacted most severely on the supply of affordable housing. In the light of prevailing barriers to and policy settings influencing private investment in rental housing in Australia, the current pattern of investment is dominated by small, individual landlord-investors, owning one or two rental dwellings. The corollary of this well-established finding is the absence of large, professional investors in this sector. Rental investors therefore currently display a diverse range of motivations and investment strategies and many are relatively unresponsive to normal market pressures.

Nevertheless, there has been considerable experimentation over the last 10 years by investors, government and the non-government sectors in attracting new sources of private investment into affordable rental housing. These attempts are described in chapter 2. With a few exceptions, they are all characterised by their small scale and ad hoc nature. In each case they were dependent on a specific government subsidy commitment, some on particular taxation rules and rulings. In no case did the model or vehicle 'take-off' and support continuing investment, even though community sector organisations like the National Community Housing Forum have been and remain active in seeking to broker such arrangements and in building the infrastructure that would support growing activity in the area. Moreover, some of the one-off schemes introduced were aimed at the middle and upper ends of the rental market and did not contribute directly to expanding the supply of affordable housing. Put another way, there is no convincing evidence available that increasing supply in the upper reaches of the rental market stimulates 'filtering processes' so that supply also increases at the low cost end. Indeed, the available evidence on the declining low cost rental stock over the past 15 years suggests exactly the opposite is occurring.

In summary, it appears that the range of private rental investment options *actually* taken up in Australia is very narrow, by comparison to what is *potentially* available (see comments below on research question 3). This raises the second research question addressed in this study.

6.1.2 *What are the main barriers and inducements currently facing key players who are or could be involved in affordable housing provision?*

The concentration of institutional investment in the (secondary) mortgage market, to the exclusion of the private rental sector, is due largely to the impact of the dominant forces driving investment behavior in the capital markets of the advanced capitalist nations. Professional investors, fund managers and consultants operate with a view of the investment

world encapsulated in 'modern finance theory' (outlined in chapter 3.1). MFT provides analytical tools that value financial assets in terms of their expected returns and past volatility of returns. This provides benchmark or required rates of return in each case, leading to the construction of efficient investment portfolios. Where market imperfections exist, as they do in abundance in housing (especially rental) markets, the asset is likely to be mis-priced and therefore excluded from efficient portfolios. Thus, the *basic* barrier preventing a significant volume of institutional investment in the rental market is – inadequate returns given the myriad risks.

Rental market imperfections are deep and permanent. Hence, normal market forces are prevented from restoring rates of return (rental yields and capital gains) that would fully compensate investors for the risks they must hold. Key institutional factors that prevent the smooth operation of rental markets, especially at the bottom end include:

- The above mentioned existence of a diverse band of individual landlord-investors, many of whom are prepared to accept low rental yields and negative net returns
- The impact of government regulations like landlord-tenancy legislation and taxation settings that favour small rental holdings
- The complex nature of the housing commodity, defined by its location, type, age, size, range of services offered residents and owners, long-lived nature, flexibility of use, importance as a necessity of life

This latter point concerning the complex nature of housing inevitably faces governments with conflicting policy imperatives and trade-offs. For example, strong legislative measures protecting tenants against discrimination and improving security of tenure may further reduce the rate of return and raise the riskiness of investment in rental housing. This outcome will then act as a disincentive for some – and certainly, professional – investors to enter or stay in this sector.

The many risks that face investors in the rental market include:

- *Financial risk* associated with economy-wide movements in interest and inflation rates
- *Management and operating risks* associated with the actual operation of a rental business: maintenance costs, rental arrears and default, vacancy rates, etc.
- *Capital risk*, especially changes in the market value of the dwelling (and land) through time
- *Political risk* associated with the possible impacts (positive and negative) of future changes in government policy

Other barriers constraining investment here are:

- The *illiquidity* of housing, like all property assets, by comparison to other assets like equities that are traded minute-by-minute in the stock exchange. This means that investors will demand a premium on the required rate of return to compensate them for the risks and costs of holding less liquid assets.
- *Poor market information* on the current market value of housing and past changes in value over a lengthy period of time, again by comparison to the equity and bond markets. Inadequate and incomplete information prevents investors from accurately assessing the risk of housing as an investment and therefore from pricing the asset (i.e. determining the appropriate rate of return).
- *Absence of a track record*. The fact that investment has not flowed to this sector in the past contributes to the uncertainty surrounding its viability. Risky investments can be priced, uncertain ones can't. In order for pioneers to invest in untried and difficult to assess areas, a further premium is required. In highly uncertain areas this premium on the required rate of return may be very high, taking the investment even further away from the efficient portfolios of the institutions.

6.1.3 *What policy instruments would be necessary to reduce current barriers and/or improve current inducements to effectively attract (significantly) more private investment into affordable housing provision?*

The primary policy imperative for governments that are aiming to attract professional and institutional investors into the affordable rental housing sector is to bridge the gap between the rates of return those investors require and the returns that currently exist in the market.

This can be achieved by:

- *Raising net returns* to investors above those that exist at prevailing market rents. This will generally entail delivery of some form of subsidy to investors.
- *Lowering risks to investors*, so that the required rate of return falls towards the market rent, or further towards the affordable rent, where the latter is deemed to be lower than current market levels for target groups. This will generally entail part of the total risk being transferred from the investor to someone else, usually government and/or the achievement of market efficiencies through institutional innovation.
- *A combination of the above* – bringing about increasing net returns *and* declining risk.

The forms that government 'bridging' support can take can be categorised as follows:

- Subsidy provision in the form of cash or in-kind *outlays* made by government agencies to investors, directly or indirectly; or *revenue foregone* via taxation concessions to investors, which reduces the gross rent required while increasing the after tax return to an acceptable level.
- Risk transfer by *credit support* (e.g. government guarantee to investors on income received from and/or the capital value of the dwelling); or *increasing market efficiency* through, for example, the generation of better quality market information, reduction of transaction costs and improved liquidity.
- Regulation through *urban planning controls*: or *financial controls on investment decisions* (e.g. a prescribed assets ratio)

Measures dependent on government subsidies will *either* enable investors to achieve competitive gross rates of return through supplementing market rents by cash outlays *or* reduce the gross required rate of return while boosting after tax returns through taxation concessions. Risk transfer measures reduce the risk to investors, and therefore their required rate of return (and cost of finance), *either* through transferring some of the risk to government *or* squeezing greater efficiencies out of less than perfectly operating financial and property markets. Finally, government regulation over-rides the risk-return calculation, to some extent, by legally mandating a constrained investment environment.

These forms of government support can be delivered through several mechanisms. *Demand side assistance* provides support to low income tenants, either in the form of cash payments or housing vouchers. *Supply side assistance* provides government funding for the expansion of dwelling stock provided at less than market rates to selected residents and includes:

- *Capital provision* of dwellings managed by government or non-profit organisations; in Australia the main channel for this delivery mechanism is the Commonwealth State Housing Agreement.
- *Subsidised home loans*, through the provision by government of mortgage finance at subsidised interest rates.
- *Shared equity schemes* that split ownership of the dwelling between government and resident, where the cost of the rental or equity components (or both) are subsidised by government.

Finally, whichever delivery mechanism and support option is chosen, the program has to be financed. Private financing options fall into two broad categories – debt and equity. Debt refers to financial instruments that return the amount borrowed and interest that is fixed, floating or real. Fixed rate instruments or bonds provide an unchanging interest payment (coupon) to the lender over the term of the loan. Floating or variable rate instruments provide

a stream of interest payments, the rate on which varies with general changes in the capital market and, in particular, central bank influence on interest rates. Real rate instruments return the lender an agreed real rate of interest during the term of the loan. The inflation component of the nominal interest rate is stripped out and the principal to be repaid is indexed to inflation. Equity options can also take several forms, including direct ownership, a stock exchange listed company and a residential property trust, listed or unlisted. More complicated financing structures can be devised that draw on both equity and debt components.

A 'policy package' designed to close the market/affordability gap therefore has three components: a form of government support, a delivery mechanism through which the support is provided and a method of privately financing the operation. In doing so government needs to be clear about *the criteria* used to select a particular package or packages for implementation. The following criteria were specified and described in chapter 3.4:

- Equity
- Efficiency
- Volume of funds
- Feasibility

It is argued in this study that viable policy approaches to encouraging private investment in affordable housing should meet the four criteria just listed.

The Models

In order to demonstrate how viable policy packages can bridge the gap and deliver appropriate risk-adjusted rates of return for rental investors, against the criteria just listed, three specific models were developed and analysed in chapter 4. These models are drawn for a large number of possible packages, each characterised by a form of government support, a means or mechanism for delivering that support and a private financing structure (see Hall, Berry and Carter, 2001 for details). In each case, the models are specified to deliver appropriate risk-adjusted rates of return to the private investors engaged.

Model 1 is characterised by a Commonwealth Government outlay subsidy to the States who borrow from private investors to fund the capital provision of dwellings that are rented to target tenants at affordable rents.

The Commonwealth subsidy stream is calculated so that the expected cost to the States over the term of the loan is zero. The higher the subsidy, the lower the rents can be set to still meet all other outgoings and the lower the income required of the assisted tenants at the 25 per cent affordability benchmark. In this model the Commonwealth provides a capped subsidy and the States raise the debt finance and manage the risks.

Key outcomes of the model are:

- This model generates about \$4.50 dollars of initial private investment for every \$1 dollar of Commonwealth subsidy
- The annual cost of subsidising each tenant lies a little below current rent assistance subsidies but the tenant population to be assisted could be more widely targeted
- In the base case, a loan financed capital acquisition program of \$1 billion would require a Commonwealth subsidy of \$220 million and deliver an initial stock expansion of about 7,500 dwellings at a cost per assisted tenant year of \$2,288 before extra taxation receipts to the Commonwealth are considered and \$908 per assisted tenant year after tax
- These costs varied from a low of \$790 in Western Australia to \$3,413 in N.S.W. (before tax) and -\$565 in W.A. to \$1,794 in N.S.W. (after tax). Differences in subsidy costs between the States and Territories arise due to different relative operating cost structures and tenant relocation rates
- A sensitivity analysis carried out on the model found that total subsidy cost per assisted tenant year is highly sensitive to the actual rate of capital appreciation on the dwelling, when underlying variables are changed by one percentage point (100 basis points). Where proportional variations are made to the cost drivers, tenant income change, stamp duty level and initial dwelling price levels also exert a relatively large impact on resulting subsidy cost levels

Model 2 is a corporate equity vehicle, drawing on both private equity and debt investors. In addition, the Commonwealth contributes equity that provides (is subordinated to) a capital guarantee to the private equity investor. The States also provide a revenue subsidy so that, overall, the required (expected) rates of return of all private investors are met. The company is listed on the stock exchange to ensure liquidity and the ready calculability of asset values for investors. In terms of the policy package, this model delivers a capital provision outcome, backed by both outlay subsidy and government guarantee, financed by a mix of public and private equity and corporate debt.

The main outcomes of the modeling are:

- This model generates about \$3 dollars of initial private investment for every \$1 dollar of government subsidy
- The annual cost of subsidising each tenant is about 50% higher than in model 1 and for current rent assistance subsidies. This cost differential falls to about a third when taxation receipts to the Commonwealth are taken into account
- In the base case, a loan financed capital acquisition program of \$1 billion would require a Commonwealth subsidy of \$347 million to deliver an initial stock expansion of about 7,500 dwellings at a cost per assisted tenant year of \$3,606 before extra taxation receipts to the Commonwealth are considered and \$1,249 per assisted tenant year after tax
- A sensitivity analysis carried out on the model found that total subsidy cost per assisted tenant year is sensitive to the same key variables as model 1. However, model 2 is slightly more sensitive than model 1 to changes in stamp duty and less sensitive in the case of changes in tenant income and initial dwelling price levels; sensitivity to changes in dwelling price appreciation is similar in both models

Model 3 is a non-profit company created to acquire and manage affordable housing. The state government provides non-returnable, dividend-free equity, leveraged by modest private borrowing and voluntary developer contributions. As a charitable entity, the vehicle has GST-free status and a number of other tax advantages that help sustain lower than market rents. This model therefore delivers a capital provision outcome, backed by both Commonwealth and State government foregone revenue subsidies, financed by a mix of government equity, private debt and donations.

This model is currently being developed by Queensland Housing and Brisbane City Council. As such, its results are provisional. The main outcomes to date are:

- The model appears to be capable of delivering long term, financially viable rental options in the Brisbane case for a range of household types at 75 per cent of market rent levels
- At the scale envisaged, 600 dwellings can be provided at a subsidy cost per assisted tenant that falls with the number of years of operation. Over a 50 year period the cost is \$3,051 or about 20 per cent below that in model 2
- The model appears to be able to deliver a range of dwelling options targeted to particular regions, drawing on cooperation between State government and the relevant local government
- The required subsidy cost is relatively insensitive to changes in most key variables, with the exception of the discount rate (and, hence future interest rates) on future costs and revenues

Two further *general findings*, across the three models analysed are:

- Whatever the model and financial instrument offered, institutional investors are primarily interested in investment options that deliver relatively low risk-low return outcomes. Put another way, their portfolios are light on in relation to such investments. Large institutional investors, operating on a global scale, have plentiful opportunities to take on high risk-high return investments. What they are missing, as governments in many countries seek to reduce public debt, is the less risky end of the spectrum. The three models analysed in this study have been selected because they each exist at that end

- This study has also concluded that additional private investment in the range modeled – i.e. an initial capital expansion of the affordable housing stock of \$1 billion to \$2 billion – will not 'crowd out' private investment in other parts of the housing system, due to the heavily segmented nature of that system and, in particular, to the existence of significant excess demand (stock shortages) in the low cost rental segment

6.1.4 *In the case of institutional investment, what model or models could support the development of rental housing as a new asset class?*

This question identifies the factors and developments that would need to be addressed in order to establish rental housing as a distinct asset class or sub-class within existing classes suitable for large-scale investment by institutional investors. In either case, appropriate investment vehicles or financial instruments would need to be developed and marketed.

The three models presented and analysed in chapter 4 meet this challenge. Model 1 depends on the primary issue of conventional State government bonds for which a deep market exists. Model 2 accesses private equity capital through the stock exchange and debt through the corporate market. Model 3 is more peripheral to mainstream financial markets, with only a minor share of capital raised through private mortgage debt. In each case, the potential volume of finance required would meet the scale requirements of institutions eager to commit large tranches of investment in order to spread large transaction costs.

Financial instruments, such as those modeled in this study, are also likely to appeal to a rapidly growing new sector of the capital market – the market for socially responsible investment products. Over the past two years the Australian SRI market has begun to catch the lead established in countries like the U.S. and Britain during the 1990s. This has been driven both by the demonstrated interest of Australian savers in the collateral economic, social and environmental benefits to be gained by targeted or 'ethical' investment and by the progressive build up of superannuation savings as a result of deliberate government policy. The increasing role played by investor choice and the established legal precedents relating to superannuation funds further raise the likelihood of a continuing rapid growth in SRI. In particular, the rigorous legal and other regulatory responsibilities of superannuation trustees can be met, in the case of SRI, as long as they take appropriate investment advice and adequately inform their fund members of the choices and risks available. The competitive nature of the funds management industry can be expected to lead to further financial innovation in order to capture this expanding market segment.

Affordable housing – and, possibly, housing targeted at particular groups like the aged or disabled – is well placed to be positively screened into the investment pools of SRI funds. There are no obvious characteristics of housing that would run afoul of the main negative screens being applied by investment analysts and consultants for their mutual and superannuation fund clients.

The growth to date of SRI in countries like Australia has been underpinned by its strong financial performance against conventional financial market benchmarks, like the S&P 500. New benchmarks and assessment methodologies have been devised to track the performance of SRI products. Further growth of the sector will depend on:

- refining and improving these methodologies and establishing a detailed track record for SRI products over the longer period
- product diversity and differentiation through continuing financial innovation
- extensive investor education – and the education of trustees, investment managers and consultants -- on what SRI is (and isn't) and the potential benefits to be gained in order to dispel prevailing myths about the necessarily inferior financial performance of SRI products (and the opposite mistake of over-rosy expectations, based on a short period of relatively high returns in the 1990s)

6.2 Policy Implications

This study has focused on the fact of declining housing affordability faced by many Australians, even after a decade of strong economic growth. Housing affordability problems are climbing the income ladder. A large majority of low and moderate income tenants are experiencing housing stress, conventionally measured as a situation where more than 30 per

cent of household income is being paid in rent. The situation is reinforced by the continuing decline in the numbers of low-rent dwellings available to low income households and the current public policy settings in place. The lack of affordable housing is not confined to Sydney and Melbourne but characterises all the capital cities.

Decent and affordable housing is a vital social investment in Australia's future. Properly conceived and managed, partnerships between the public and private sectors in this sector can ensure that such investments eventuate and are socially responsible, thereby attracting the attention of the growing volume of socially responsible investment funds.

This situation therefore calls for urgent and innovative government action. There is a need for new housing assistance policies to complement existing policies. Given the current (and likely continuing) constraints on government expenditure, this strongly implies the need for greater investment in the provision of affordable rental housing by the private sector. In the current situation and with existing government taxation and assistance measures, private investment in rental housing has evolved as a 'cottage industry', dominated by small landlords, many of whom are not primarily driven by the financial motives exercising professional and institutional investors. The latter are, therefore, absent from this sector. *This is the major negative policy-relevant conclusion of the study.* The corollary is that if a significant boost to private investment in affordable housing is to be achieved, the barriers that currently repel these investors must be removed.

A policy package necessary to remove the basic barrier to institutional investment – viz. an inadequate risk-adjusted rate of return – will entail three components: a form of guaranteed subsidy stream; a mechanism for delivering the necessary subsidy and; a private financing option. Three such packages have been presented and analysed in this report. In each case, a significant degree of leverage of government funds by private, including large institutional, investors can be achieved – but only if the appropriate policies are in place. *The key implication for government* here is that a successful attack on the affordability problem requires a carefully constructed approach that entails all three components, each of which is necessary but not sufficient for the purpose. Without a significant, guaranteed subsidy flow, institutional investors will not invest in this sector. The market alone will not provide. However, that subsidy flow has to be packaged in an appropriate manner, requiring an effective delivery mechanism and the creation of marketable financial instruments or products to capture the flow of private investment funds at a significant scale.

This policy approach has a number of important implications for government.

- *First*, in the case of approaches like Model 1, it establishes a basis for a constructive partnership between the Commonwealth and States. The Commonwealth, as the currently dominant taxing power with responsibility for maintaining acceptable housing standards in all parts of the country, accepts responsibility for providing the 'bridging' support necessary to attract a significant inflow of private investment into the rental housing sector. The States, with sovereign powers and an institutional capacity to deliver affordable housing, retain the direction and management of the program (model 1), or specify its charter (model 3), in the context of the economic conditions and political priorities ruling in each jurisdiction.
- *Second*, this approach has clear benefits for government. The major subsidy required is determined up-front (i.e. capped) in each of the three models presented and promises to deliver assistance targeted to the housing cost conditions in each jurisdiction, to households in need, around or below the ruling costs of the rent assistance program. This is not to argue that the former should replace the latter since RA provides a vital income support role in the current social security environment. Rather, as stressed below, both programs should be implemented as part of an overall housing assistance and income support strategy.
- *Third*, this approach has the advantage of both control and flexibility for government. Different models divide the risks and costs differently, both between public and private actors and between the levels of government. The more risk a particular government takes on, in the overall arrangement, the lower the expected subsidy cost it bears – and vice versa. In the case of model 1, for example, the States must manage a range of risks.

The downside to all these risks means that the States may have to make up financial shortfalls in repaying bond holders during the term of the transaction. For example, if operating costs increase faster than assumed in the model, given the capped Commonwealth subsidy, then the States will need to cover the extra costs. Likewise, if dwelling values appreciate more slowly than assumed, there will not be enough revenue generated by the sale of dwellings to meet loan repayments, leaving the State to pay the difference. On the other hand, the upside of the risks managed is that better than assumed outcomes with respect to capital gains, bond prices, operating costs, etc. will return the States a financial surplus that can be put towards, for example, stock purchase. The States here have a double incentive to efficiently manage the scheme, firstly to avoid unexpected costs to themselves and, secondly, to reap a financial surplus.

Model 2, on the other hand, marginalises the States in that they do not provide direct subsidies nor hold any of the immediate risks. The broader cost, however, is loss of control over the arrangement, which operates as a private company, according to a charter and mission established by the Commonwealth. Model 3, on the other hand, is the creation of a State and local government partnership. This general approach, then, faces governments with a range of choices with respect to how much subsidy they provide, how much risk they bear and how much direct or indirect control they exercise on the outcomes.

- *Fourth and critically*, this general approach is not presented as a substitute for the two established housing assistance programs in Australia, rent assistance to social security beneficiaries in the private rental sector and capital grants provision through the CSHA for public housing. Rather, this approach is offered as a 'third way', a supplement to the established programs that has the capacity to increase the stock of affordable housing in a targeted way in the short to medium term. This point is crucial. The current affordability crisis and its 'business as usual' trajectory require urgent action by government. Capital constraints on public investment and recurrent expenditure are likely to limit the volume of resources available to achieve an immediate increase in the affordable stock. It is vital that a significant volume of private investment be leveraged into this sector in order to stretch scarce government funds and achieve stock expansion in the near future.

There are a number of specific reasons why the three ways of assisting tenants are complementary, rather than alternatives and therefore part of a broader integrated strategy for attacking the intensifying affordability crisis in Australia.

- In order to keep the size of the required Commonwealth subsidy at a reasonable level and the leverage of private funds at a maximum, the modeling for the bond-financed package assumed a minimum tenant income of \$20,000 per year. Similar assumptions are implicit in the other two models and likely to characterise most, if not all, approaches driven by private investment. This would not allow State Housing Authorities to house households receiving the lowest incomes without providing further significant subsidies (or cross subsidising by also including higher income households)⁴⁶. In other words, if government subsidy levels are to be kept at reasonable levels, the approaches that draw on private investment are most effectively targeted at the tenants in the second lowest income quintile, leaving conventional public housing provision for lower income eligible households.
- Rent assistance excludes many low income households in housing stress. Moreover, it is delivered and treated by recipients as a form of income supplement, not as a subsidy tied specifically to housing. Australian social security benefits and pensions (income support) are low by OECD standards. Removing RA, say to be replaced by a bond program, could not equitably be implemented unless base level social security payments were increased to maintain what, by relevant international comparisons, are austere income support outcomes.

⁴⁶ Households earning significantly less than \$20,000 would include the unemployed and single person and small households on benefits, as well as some people earning very low, uncertain or part-time incomes ('the working poor').

- A key rationale for the CSHA program over its entire history has been as a vehicle for addressing the problem of vertical fiscal imbalance in the Australian Federal System. For as long as this imbalance persists, appropriate financial arrangements between the States and the Commonwealth will need to be maintained, especially in important policy areas like housing. This suggests that something like the current grant arrangements under the CSHA will be necessary to maintain the public housing sector at least until the New Tax System (and, hence, the flow of GST revenues to the States) substantially removes fiscal imbalance between the two levels of government. It is not clear as to when exactly this will happen or in which States the process will lag.
- A further medium term rationale for quarantining funding committed under the CSHA is that an increasing proportion of funding is necessarily being used to maintain and upgrade a rapidly obsolescing public housing stock, rather than contributing to the expansion of that stock. In asset management terms, dealing effectively with the backlog of maintenance is a high priority, immediate task, if existing public housing tenants are to enjoy adequate housing standards and opportunities. The policy approach presented in this study provides a complementary lever for adding to the affordable housing stock while allowing State Housing Authorities to commit a rising proportion of continuing CSHA funding to maintaining and upgrading the existing stock.
- At a more basic level, *the long term permanent rationale* for maintaining the existing programs and building a ‘third way’ approach into an overall affordable housing strategy is that such a strategy enables government to introduce *a professional system of risk management* in order to reduce the overall risk of ‘subsidy blow-out’. In other words, if government puts ‘all its housing subsidy eggs in one basket’ – e.g. rent assistance -- and the downside for that approach eventuates, actual subsidy costs will rise substantially. By distributing subsidy resources across three broad programs, the risks partly cancel each other out, reducing total subsidy costs in the long term. This logic is, of course, the same as that driving professional investors in the private sector to diversify their investments widely (as outlined in chapter 3.1) – hardly surprising, since the risks being managed are substantially the same in the private and public sectors (e.g. movements in interest rates, asset prices, inflation, operating costs, future government policies).

The final implication of this study for government is that the current environment is very timely for policy innovation in this field. The Commonwealth, States and Territories are currently engaged in multilateral discussions over the future of the Commonwealth State Housing Agreement. Capital markets in OECD countries, including Australia, are increasingly dominated by the decisions and requirements of institutional investors. These investors are increasingly attracted to socially responsible investment opportunities, in response to widespread and growing interest in this investment sector by individual savers and superannuation fund members. Affordable housing is both necessary in a civilised society and under-provided in contemporary Australia. The prospects therefore exist for a substantial flow of socially responsible investment into expanding the affordable housing stock in this country – but will only eventuate if governments initiate appropriate policy packages, such as those analysed in this study.

TECHNICAL APPENDIX

Page 8: The '*Capital Market*' is the financial sector of the national economy. It is comprised of a large and growing number of financial markets, each of which has a financial instrument or product (bonds, shares, futures contracts, options, swaps, etc.), investors buying and selling the instruments, and financial intermediaries like banks, brokers, merchant banks, etc managing and mediating the large flow of transactions (for a fee). Each product therefore has a price – interest rate, share value, option premium, etc, -- which reflects the changing expectations of investors as to relative future returns. A range of government regulations are imposed on the capital market to minimise the risk of market failure – bankruptcies, fraud, disruption to the general commerce of the country. Over the last 20 years, the national capital markets of many countries, including Australia, have opened up to foreign flows of investment funds. This means that developments that impact on the financial sector in one country – e.g. movements in interest rates – influence financial outcomes in other countries.

Page 10: '*Deep market for debt investment in owner occupied dwellings*' refers to the rapid growth, since the mid-1990s – of a secondary mortgage market in Australia. Investment banks 'bundle' or pool together individual residential mortgages held by the banks and other lenders to create mortgage backed securities (MBS). These bonds are backed by the future repayments of all the individual mortgages making up the pool. Institutional investors like superannuation funds buy the bonds – in effect, they are buying a share of the future repayments of all the dwellings in the pool. The market value of those dwellings provide the security for the investors who can sell the MBS whenever they like, creating a liquid asset that is traded like other bonds or company shares.

Page 11: '*Debt and equity models*' refer to the use of investment instruments based on borrowing and ownership, respectively. Equity can be 'direct', in the sense that the investor owns the particular dwelling(s), or indirect, in which case the investor may own shares in the company or trust that owns the dwellings. Debt can be held in various forms and under various conditions. For example, the period of the loan can be long or short; repayment of the principal with interest during the term of the loan or repaid in a lump sum at the end; the interest rate can be fixed, vary with market conditions (and government monetary policy) or indexed to inflation. In general, the debt holder (lender) has a prior claim to the owner on repayment of any outstanding liabilities. This means that equity usually has a higher risk than debt, as far as the investor is concerned (the owner is at the back of the queue when things go wrong), and this will be reflected in the rate of return required by equity investors being higher than the rate demanded by lenders.

Page 24: A '*rental trust*' is a legal entity that owns and manages a stock of rental housing. Equity investors in the trust receive an income flow dependent on the net rental revenue generated by the dwelling stock and the income and capital gains taxation of that flow. For example, in the United States, REITs or real estate investment trusts pass through net profits (before tax) to investors – i.e. trust income is not taxed in the trust but in the hands of the individual investors, at their respective marginal tax rates.

Page 24: '*Indexation benefits*'. Until recently, the capital gains tax in Australia on individuals was levied on only the real gain – i.e. after inflation was taken out. This was not the case for other income sources. Thus, individuals effectively paid less tax on their capital gains than on other income. This benefit was not available to companies who paid tax on all income, including capital gains, at the standard rate of company tax. Property trusts that could pass their income straight through to the individual owners therefore delivered this benefit to their investors. Changes to the capital gains tax regime in 1999 removed this benefit.

Page 25: With respect to the NSW PEP schemes, the Department of Housing provided '*a minimum capital guarantee of the residual value*' – i.e. on final sale of the dwellings the government was required to pay AMP any deficit if the actual resale value fell below an agreed value.

Page 26: 'Securitisation' refers to the process of turning a real asset like a house into a financial asset or claim on future income flows generated by the real asset. For example, the investor doesn't own the rental dwelling but has a legally enforceable claim on a share of the future rents paid on the house. This claim can be in the form of equity (shares in a company that owns the dwelling) or debt (bonds or mortgage loan). These claims can, as noted above, be bought and sold in secondary markets.

Page 28: 'Marginal tax rate' refers to the rate of tax paid on the last dollars of income received. Some taxpayers face a stepped set of taxation rates. Personal income tax rates are progressive – i.e. after a minimum tax free rate, extra income is taxed at progressively higher rates until the maximum rate (currently 47%) is reached. Other types of taxpayer face flat rates; companies currently pay 30% tax on all income earned; superannuation funds pay tax at the rate of 15%.

Page 34 (fn. 13): 'Informationally efficient in the semi-strong sense' means that markets quickly and effectively factor in all publicly available new information that might affect the price of financial assets. The key qualification is that the information has to be widely available to investors. Markets are efficient in the 'strong sense' if prices accurately and quickly reflect all information that can be gained by careful analysis of the alternative investment opportunities and the economy, regardless of whether the information is publicly available. Markets are efficient in the 'weak sense' if current prices just reflect information on the past prices of financial assets. (See Brealey and Myers, 1988, p. 287).

Page 35: The 'capital asset pricing model' or CAPM is the standard technique for pricing risky financial assets. The three components of required return defining an efficient investment portfolio satisfy the following relationship.

$$r_r = r_f + \beta(r_m - r_f)$$

where: r_r is the required rate of return on the asset

r_f is the risk-free rate of return (e.g. return on long government bonds)

r_m is the risk of the whole market portfolio

β is the beta value for the asset – i.e. the marginal contribution of that asset to the risk of the market portfolio).

This equation can be rewritten as:

$$(r_r - r_f) = \beta(r_m - r_f)$$

The left hand side represents the premium above the risk free rate that the asset must return to the investor. The right hand side multiplies the difference between the return on a portfolio holding all assets in the market and the risk free rate, by the beta value for the asset in question. Thus, this theory concludes that there is a direct and linear relationship between the required return of any asset and its marginal contribution to the systematic risk of a widely diversified portfolio (the whole –of-market portfolio). This lies beneath the widely accepted rule of thumb -- the greater the risk, the larger the rate of return required.

Page 101: 'Triple Bottom Line Accounting' refers to the techniques of assessing the performance of organisations in relation to social and environmental outcomes, in addition to the conventional financial indicators of success. This developing methodology seeks to provide outcome measures in a range of forms that allow investors and others to compare the overall performance and impacts of organisations, over time and relative to each other. For more information, see Deni Greene Consulting Services (2001, Part 4).

Page 101: The Standard and Poors /ASX Accumulation Index is compiled to track the movement over time of the shares of the 200 (or 300) largest companies listed on the Australian Stock Exchange. It is a weighted index of the movement in the share prices of these companies, based on relative market capitalisation.

Page 103: '*Investment grade*' refers to bonds or notes issued by companies that are assessed by the professional ratings agencies as sound investments. Standard and Poors, for example, rank investment grade securities between AAA and BB. Anything ranked below BB is a 'junk bond'.

Page 108: 'Due diligence' refers to the legal responsibility placed on investment consultants, directors and trustees to adequately inform themselves and their clients or members as to the performance and prospects of potential investments.

APPENDIX 1

Definitions, Assumptions and input Data for the Debt and Equity Models

1. Debt Model

Definitions and Assumptions

“Initial Average Dwelling Price”

The median of the two values of the cost of the construction of, or private purchase of dwellings for public housing, as contained in the Productivity Commission’s Report on Government Services, 2000. This value is then indexed to the change in median dwelling prices set out in the Real Estate Institutes, Market Facts, to bring to December 2000 values.

“Other Purchasing Expenses”

The cost of legal and procurement costs, but not including stamp duty, associated with acquiring the dwellings, expressed as a percentage of purchase value. This value is based upon bulk conveyancing, fixed fee experience, and procurement by tender processes.

“Initial Maintenance and Rates Costs”

The operating cost of public housing minus interest expenses and costs of dwelling disposals, as set out in the Productivity Commission’s Report on Government Services 2000. These costs for each State are indexed to the weighted average CPI for the six capital cities and calculated as an annual percentage of the initial average dwelling price, as at December 2000.

“Initial Administration Costs”

The administration cost of public housing, as set out in the Productivity Commission’s Report on Government Services 2000. These costs for each State are indexed to the weighted average CPI for the six capital cities and calculated as an annual percentage of the initial average dwelling price, as at December 2000.

“Other Selling Expenses”

The cost of legals and other disposal costs (but not including stamp duty), expressed as a percentage of sale value. This value is based upon bulk conveyancing fixed fee experience and disposal by auction processes.

“Commencing Inflation”

The weighted average inflation rate for the six capital cities for the March quarter 2001, expressed as an annual percentage and discounted back to exclude the once off effect of the GST, as implied in the difference between the real rate bond yields and the fixed rate bond yields.

“Real Interest Rate”

The yield applying to the Benchmark 10 year Commonwealth Real Rate Bond, as at Friday the 20th July 2001 plus 0.27% or 27 basis points being the Semi-Government Bond Spread setting out the indicative differential between State and Commonwealth Swap Curves, as at Friday the 20th July 2001.

“Fixed Interest Rate”

The yield applying to the Benchmark 10 year Commonwealth Fixed Rate Bond, as at Friday the 20th July 2001 plus 0.27% or 27 basis points being the Semi-Government Bond Spread setting out the indicative differential between State and Commonwealth Swap Curves as at Friday the 20th July 2001.

“Gross Private Rental Yields”

The median weekly rents multiplied by 52 and divided by the median dwelling prices (expressed as an annual percentage) for the six State capital cities plus Darwin and Canberra and as set out in the Real Estate Institute of Australia’s *Market Facts*, December 2000.

“Assisted Tenant Vacancy Rate”

The number of vacant public housing dwellings (after deducting untenable dwellings) divided by the total public housing dwellings (minus untenable dwellings), expressed as a percentage), as set out in the Productivity Commission’s Report on Government Services, 2001

“Private Tenant Vacancy Rate”

The vacancy rate (expressed as a percentage) applying to private residential rental dwellings for the six capital cities plus Darwin and Canberra, as set out in the Real Estate Institute of Australia’s *Market Facts* for the December quarter, 2000.

“Tenant Relocation Rate”

The number of tenants transferring within the public housing system (after deducting untenable dwellings) divided by the total public housing dwellings (minus untenable dwellings), expressed as a percentage, as set out in the Productivity Commission’s Report on Government Services, 2001.

“Stamp Duty”

The percentage of either initial purchase value or final sale value assumed to be paid in stamp duty.

“Discount Rate”

The annual percentage rate assumed for the purposes of discounting the value of the direct tax receipts received by government to a present value.

“Real Dwelling Price, Maintenance and Rates and Administration Costs and Tenant Income Growth Rates”

Assumed to grow at the inflation rate (CPI), or as specified in the sensitivity analysis.

“Initial Percentage Of Income In Rent”

The assumed annual commencing proportion of the tenant’s gross income from all sources that is paid in rent.

“Initial Dwelling Disposal Rate”

The assumed percentage of original dwellings sold each year.

“Tax Paying Entity”

The assumed tax regime applying to the investor in the bonds and entities receiving interest from short term borrowings.

“Nominal Interest Rates”

The assumed short term interest rates applying in the market at any time and used as a proxy for the required bond yield at the time of dwelling sales.

INPUT DATA

The values and input data assumed for the base case are specified in Tables 4.1 and 4.2 in chapter 4 of the text. The alternative case 1 is similar to the base case, except that there are no tenant relocations and dwelling sales until after the first 8 (instead of 5) years.

2. Equity Model

The definitions and assumptions to the majority of variables are predominately the same as those applying to the Debt model. There are, however some differences and additions which are set out below.

Definitions and Assumptions

“Establishment Costs”

The costs of the listing of the Company on the Australian Stock Exchange in accordance with “*A Guide to Listing on Australian Stock Exchange Limited*” produced by Macquarie Equity Capital Markets Limited; these costs constitute Underwriting Fees, Lead Managers Fees and ancillary costs, averaging 4% of the capital raised plus \$350,000⁴⁷. ***This cost applies only to the shareholder component of the equity model.***

“Initial Administration Costs”

The administration cost of public housing, as set out in the Productivity Commission’s Report on Government Services 2000. These costs for each State are indexed to the weighted average CPI for the six capital cities and calculated as an annual percentage of the initial average dwelling price, as at December 2000. This also includes: The Company Management Fee of 0.28% and the Trustee Fee of 0.03%. ***The Company Management Fee and the Trustee Fee only apply to the equity model***

“Corporate Debt Rate”

The annual interest rate applying to the corporate debt to be raised by the Company and assumed to be investment grade AA for the purposes of the analysis. The rate is estimated by Schrodgers Investment Management as being 0.5% above the long term Commonwealth Bond Rate or, in this analysis, 6.57%. ***This cost applies only to the Corporate Debt component of the Equity Model***

“Company Dividend Yields”

The annual dividend payable to non-subordinated shareholders in the Housing Company, with the average estimated in *A Guide to Listing on Australian Stock Exchange Limited*” produced by Macquarie Equity Capital Markets Limited; estimated as approximately 4%⁴⁸. ***This cost applies only to the Shareholder Equity component of the Equity Model***

Data Inputs

The data inputs for the Equity Base Case analysis are predominately the same as those applying to the Debt model. The additions and exceptions are italicized in Table A1 below.

Base Case: Common Assumptions and Inputs

All States in Australia were subject to the analysis. The following assumptions and inputs were common to all States in the Base Case analysis.

⁴⁷ MACQUARIE EQUITY CAPITAL MARKETS LIMITED, August 2001, *A Guide To Listing On The Australian Stock Exchange Limited*

pp 31-32

⁴⁸ Ibid page25

Table A1: Base Case: Common Assumptions

Assumptions And Inputs	Number
Stamp Duty On Purchase	None
Stamp Duty On Sale	2.5%
Commencing Inflation	2.57%
Bond Type	Fixed Rate
Initial Bond Coupon	6.17% ¹
<i>Corporate Debt Rate</i>	6.57%
<i>Dividend Yield</i>	4%
Discount Rate	6.17% ¹
Dwell Price Growth p.a.	CPI
Maintenance and Rates Cost Growth p.a.	CPI
Administration Cost Growth p.a.	CPI
Assisted Tenant Initial Gross Income p.a.	\$20,000
Initial % Of Assisted Tenant Income In Rent	25%
Gross Income Growth p.a.	CPI
Private Tenant Rents	Market
Tax Paying Entity	50% Super Fund – 50% Company

1 Source: Australian Financial Review, July 20th 2001

Table A2: Base Case: State Inputs

Variable	NSW	Vic.	Q'ld	W.A.	S.A.	Tas.	ACT	N.T.	Weighted A
Initial Dwelling Value. 000's¹	149.5	140.5	118.7	111.9	110.0	111.9	141.5	146.7	133.72
Operating Cost % p.a.²	1.5	0.7	2.0	0.5	1.9	2.0	2.1	0.6	1.34
Administration Cost % p.a.²	0.8	0.6	0.8	0.8	0.9	1.4	0.7	0.3	0.77
Private Rent Yields³	5.37	4.9	5.45	6.21	6.92	7.55	6.43	6.37	5.58
Vacancy. Rate Public %⁴	0.31	1.06	0.65	0.91	2.59	1.60	0.68	0.38	0.84
Vacancy. Rate Private %³	2.8	3.5	2.5	3.8	3.2	2.3	2.4	7.0	3.09
Public Relocation Rate %p.a.	4.41	3.40	3.38	5.43	1.95	2.71	3.04	4.09	3.80
Dwelling Disposal Rate %p.a.	4.0	3.0	3.0	5.0	1.7	2.5	2.9	3.9	3.42
Term -Years⁵	21	25	25	17	35	35	30	23	24

Source: HALL J. Stage 4: 2001, *The Subsidy Costs Of The Preferred Option*, Report to the Affordable Housing National Research Consortium, Sydney.

After discussions with the Reserve Bank no bond issuance costs have been assumed, because the Bank maintains that these costs are less than 100th of 1 percent.

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